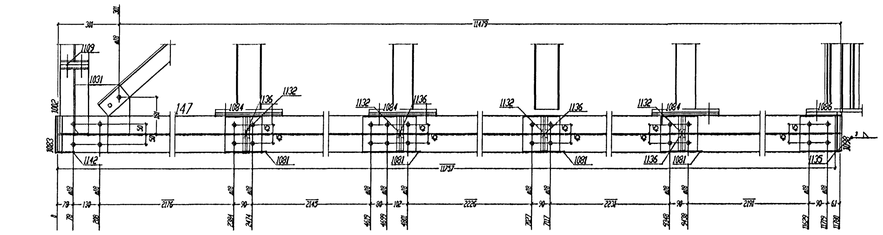
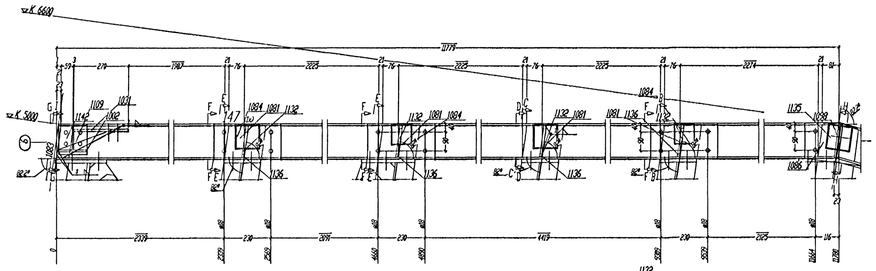
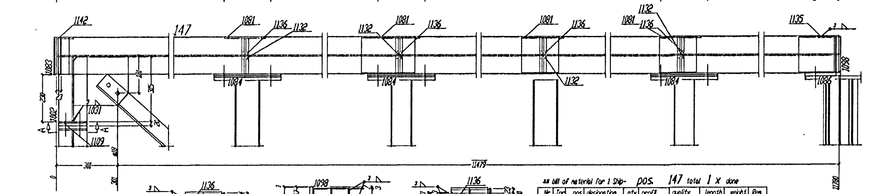
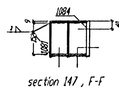
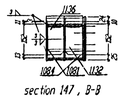
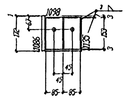


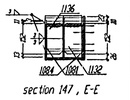


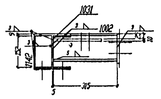


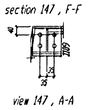


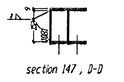


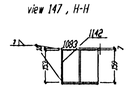


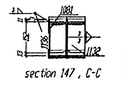






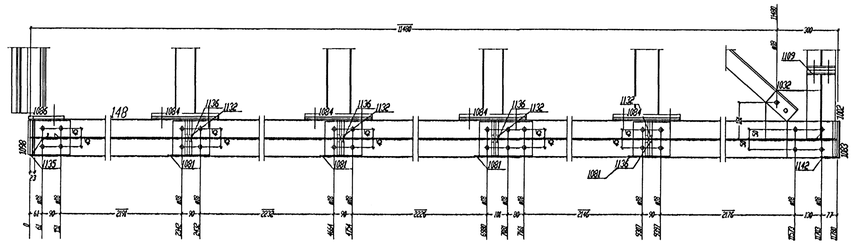


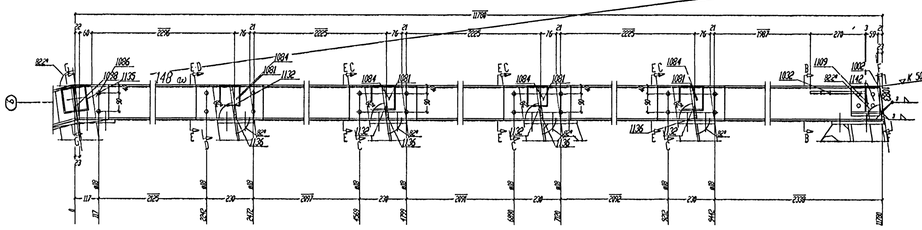


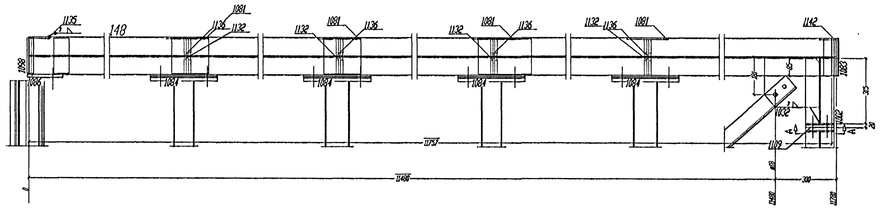


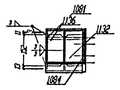
Nr.	Tnr	pos.	designation	qty	profil	quality	length	weight	Rem.
1	1	147		1	HEA618	S235JRG2	11788	408,29	
2	1	1082		1	HEA148	S235JRG2	315	7,79	
3	1	1033		1	BL10x278	S235JRG2	229	5,65	
4	1	1088		4	BL6x108	S235JRG2	178	6,24	
5	1	1083		1	BL8x108	S235JRG2	159	2,69	
6	1	1084		3	BL15x171	S235JRG2	338	19,38	
7	1	1086		1	BL15x173	S235JRG2	175	3,51	
8	1	1098		1	BL10x178	S235JRG2	179	2,12	
9	1	1109	PLATTE	1	FL14x408	S235JRG2	145	3,19	
10	1	1132	RIPPE	4	BL12x147	S235JRG2	152	4,18	
11	1	1135		1	BL6x148	S235JRG2	164	1,52	
12	1	1136	RIPPE	4	BL12x148	S235JRG2	152	4,18	
13	1	1142		1	BL6x68	S235JRG2	162	1,46	
total weight (kg)								479,19	
Shipping dimensions (H x B x L): 171 x 418 x 11818									

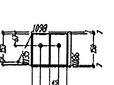
as bill of material for 1 Ship- pos. 147 total 1 x done

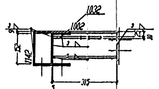


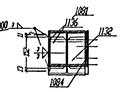


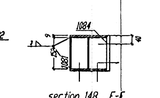


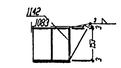


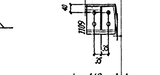






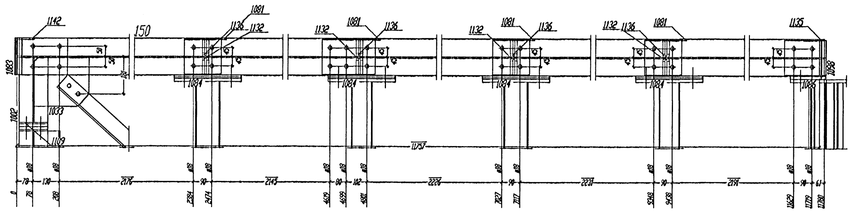


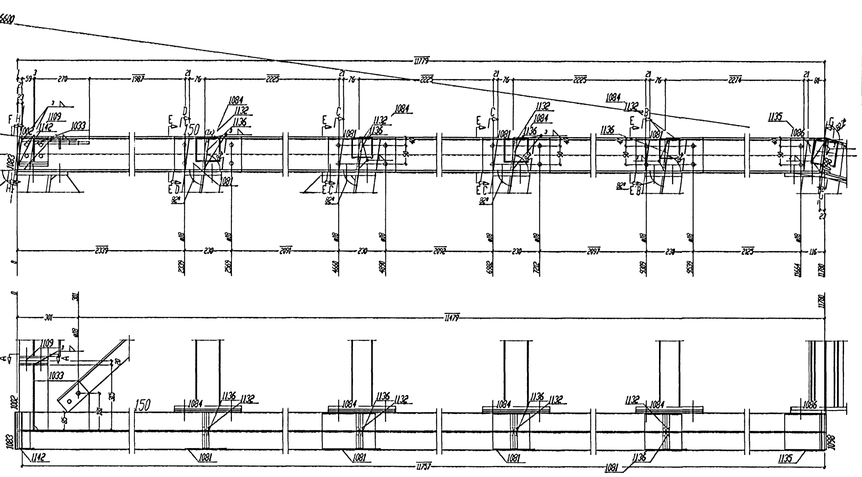


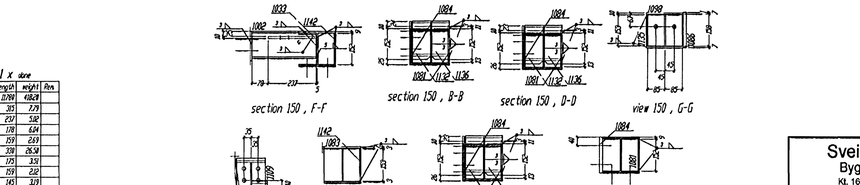


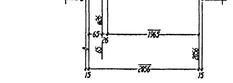
Nr.	Tnr	pos.	designation	qty	profil	quality	length	weight	Rem.
1	1	148		1	HEA618	S235JRG2	11788	408,29	
2	1	1082		1	HEA148	S235JRG2	315	7,79	
3	1	1033		1	BL10x278	S235JRG2	229	5,65	
4	1	1088		4	BL6x108	S235JRG2	178	6,24	
5	1	1083		1	BL8x108	S235JRG2	159	2,69	
6	1	1084		3	BL15x171	S235JRG2	338	19,38	
7	1	1086		1	BL15x173	S235JRG2	175	3,51	
8	1	1098		1	BL10x178	S235JRG2	179	2,12	
9	1	1109	PLATTE	1	FL14x408	S235JRG2	145	3,19	
10	1	1132	RIPPE	4	BL12x147	S235JRG2	152	4,18	
11	1	1135		1	BL6x148	S235JRG2	164	1,52	
12	1	1136	RIPPE	4	BL12x148	S235JRG2	152	4,18	
13	1	1142		1	BL6x68	S235JRG2	162	1,46	
total weight (kg)								469,71	
Shipping dimensions (H x B x L): 171 x 418 x 11818									

as bill of material for 1 Ship- pos. 148 total 1 x done



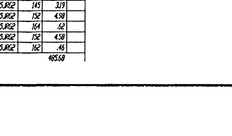


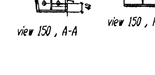


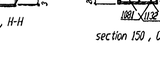


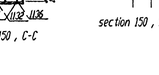
Nr.	Tnr	pos.	designation	qty	profil	quality	length	weight	Rem.
1	1	146		1	HEB318	S235JRG2	2896	1052,71	
2	1	1094		2	BL15x170	S235JRG2	198	7,69	
total weight (kg)								1142,95	
Shipping dimensions (H x B x L): 208 x 318 x 2986									

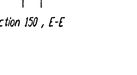
as bill of material for 1 Ship- pos. 146 total 1 x done

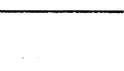






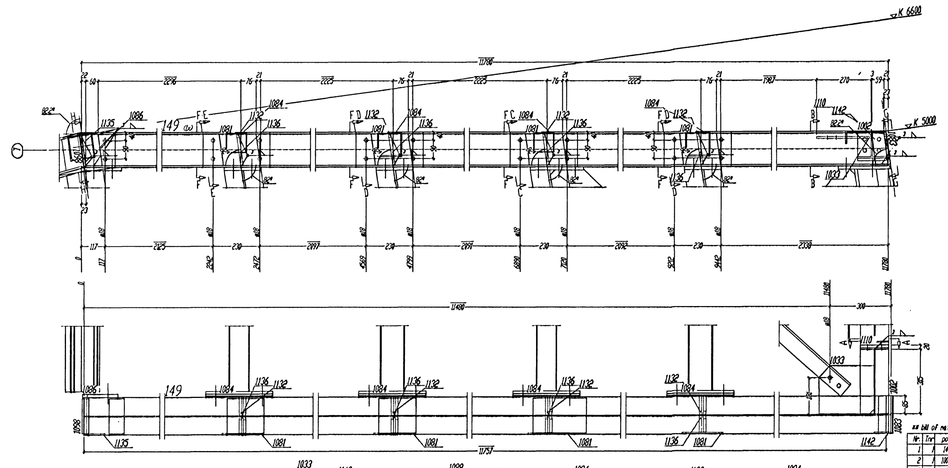


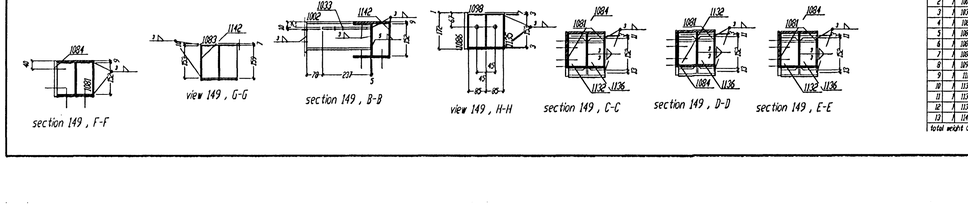




Nr.	Tnr	pos.	designation	qty	profil	quality	length	weight	Rem.
1	1	150		1	HEA618	S235JRG2	11788	408,29	
2	1	1082		1	HEA148	S235JRG2	315	7,79	
3	1	1033		1	BL10x278	S235JRG2	229	5,65	
4	1	1088		4	BL6x108	S235JRG2	178	6,24	
5	1	1083		1	BL8x108	S235JRG2	159	2,69	
6	1	1084		3	BL15x171	S235JRG2	338	19,38	
7	1	1086		1	BL15x173	S235JRG2	175	3,51	
8	1	1098		1	BL10x178	S235JRG2	179	2,12	
9	1	1109	PLATTE	1	FL14x408	S235JRG2	145	3,19	
10	1	1132	RIPPE	4	BL12x147	S235JRG2	152	4,18	
11	1	1135		1	BL6x148	S235JRG2	164	1,52	
12	1	1136	RIPPE	4	BL12x148	S235JRG2	152	4,18	
13	1	1142		1	BL6x68	S235JRG2	162	1,46	
total weight (kg)								469,58	
Shipping dimensions (H x B x L): 171 x 418 x 11818									

as bill of material for 1 Ship- pos. 150 total 1 x done





Nr.	Tnr	pos.	designation	qty	profil	quality	length	weight	Rem.
1	1	149		1	HEA618	S235JRG2	11788	408,29	
2	1	1082		1	HEA148	S235JRG2	315	7,79	
3	1	1033		1	BL10x278	S235JRG2	229	5,65	
4	1	1088		4	BL6x108	S235JRG2	178	6,24	
5	1	1083		1	BL8x108	S235JRG2	159	2,69	
6	1	1084		3	BL15x171	S235JRG2	338	19,38	
7	1	1086		1	BL15x173	S235JRG2	175	3,51	
8	1	1098		1	BL10x178	S235JRG2	179	2,12	
9	1	1109	PLATTE	1	FL14x408	S235JRG2	145	3,19	
10	1	1132	RIPPE	4	BL12x147	S235JRG2	152	4,18	
11	1	1135		1	BL6x148	S235JRG2	164	1,52	
12	1	1136	RIPPE	4	BL12x148	S235JRG2	152	4,18	
13	1	1142		1	BL6x68	S235JRG2	162	1,46	
total weight (kg)								469,58	
Shipping dimensions (H x B x L): 171 x 418 x 11818									

as bill of material for 1 Ship- pos. 149 total 1 x done

Tolerance for welded constructions
According to DIN 8570, Pt.1+3/IHF,1987

Welding (W P S) according to DIN-EN 288 - 2

All unmarked welds to be fillet continuous a=4mm thick, not greater than 0.7 d of the thinner element

The material for cap plates 30 mm thick to be examined for laminations

Required torques-prestressing forces and force tension angles according to DIN 18800 Pt. 7, 11.83

Bolts	Required clamping force F_v	Preloading of HV bolts Class 8.8 according to DIN-EN 14399-4 HR or HV						Required tightening torque M_A	Grip length	α_A	α_K
		Hexagon bolt and nut DIN EN 14399-4		Hexagon bolt with round washer DIN EN 14399-4		Countersunk bolt with countersunk washer DIN EN 14399-4					
		Required grip length for a nominal washer thickness		Required grip length for a nominal washer thickness		Required grip length for a nominal washer thickness					
		up to	up to	up to	up to	up to	up to				
	kN	mm	mm	mm	mm	mm	mm	Nm	mm	°	°
M12	59	16	24	17	25	16	24	100	8 - 9	30	15
M16	110	20	28	21	29	20	28	250	9 - 13	30	15
M20	172	24	32	25	33	24	32	490	13 - 17	30	15
M22	212	26	34	27	35	26	34	670	15 - 19	30	15
M24	247	28	36	29	37	28	36	850	17 - 21	30	15
M27	321	32	40	33	41	32	40	1250	21 - 25	30	15
M30	393	36	44	37	45	36	44	1700	25 - 29	30	15
M36	572	44	52	45	53	44	52	2950	33 - 37	30	15

1) Due to the great dependence of the bolt value on the type of thread lubricant adhere to the bolt manufacturer's recommendations.
2) Independently on the lubricant of the threads and surfaces of bolts and nuts, CAUTION! For hot galvanized HV bolts can values from column 3

Byggingarfulltrúi Akraness kaupstaðar
Samþ. 2015

BIURÓ INŻYNIERSKIE

Samþ. Teikn.

Sveinbjörn Hinriksson Byggingatæknifræðingur Kt. 160851-2629 Brekkugötu 8 Hafnarfirði Sími: 555-4008, 861-9851 Netfang: svennih@internet.is	Staður: Rauðhella 13 Hafnarfirði		
	Skýring: Stálvirki		
Hannað / Teiknað	Kvarði: 1:15	Dagsetning: 31.10.05	Verknr.: 12-05	Teiknr.nr.: 1-12