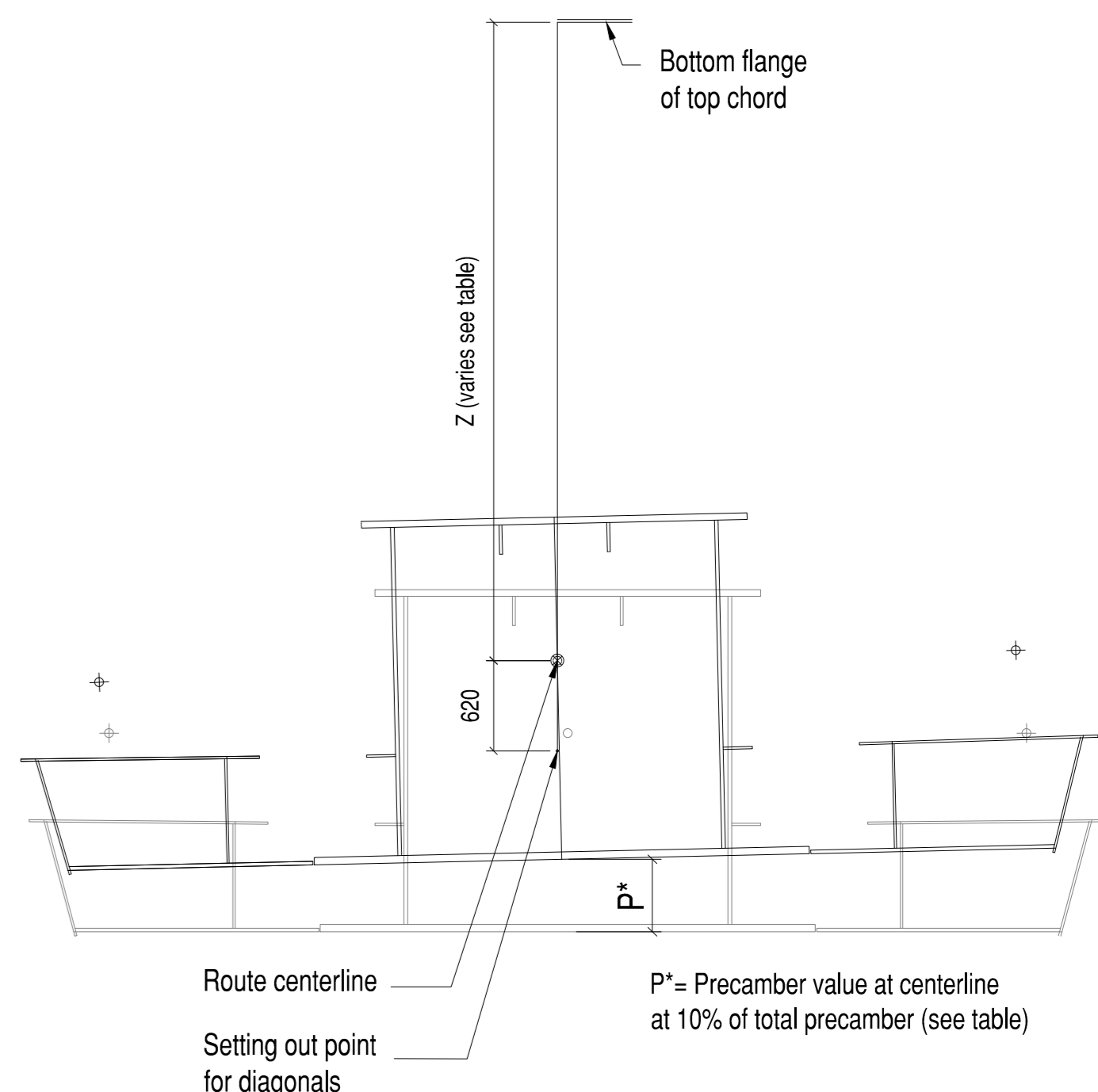


Plan - Spine Truss Steelwork  
1:100



Deck Cross Section (Camber)  
1:40

All other sections are placed radial along the centreline

#### General notes:

(unless indicated otherwise)

#### 1 - Steel quality to be weathering grade S355

All bridge spine box on deck box (grade S355 according to BS EN 10025):

- S355J0W+N : thickness ≤ 35 mm

- S355J2W+N : thickness > 35 ≤ 50 mm

- S355K2W+N : thickness > 50 ≤ 60 mm

- Through thickness Z - quality:

Z25 for gusset and spade plates of Spine Truss Diagonal B5-B9

Z35 for Spine Box top flange, web and bearing plates and trimmer beam

web and top flange.

All Top Chord and Vertical struts. Lifting lug or temporary fixing cleats

that remain permanent (grade S355 according to BS EN 10025-2):

- S355J0+N : thickness ≤ 35 mm

- S355J2+N : thickness > 35 ≤ 50 mm

- S355K2+N : thickness > 50 ≤ 60 mm

- Through thickness Z - quality:

Z25 for gusset and spade plates of Top Chord Nodes ST6-ST10

All Diagonal bracings to be grade S355/2H to BS EN 10210

#### 2 - Shear studs :

- Type SD1 S235J2+C450, Ø19mm x 175mm according to BS EN 13918

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#### 3 - Welds

- All welds are to be continuous and form a continuous seal

- All welds are indicated. Seams not to be welded are stated explicitly

- When no specific detail is to be used, welds are indicated by throat size (a = ...)

- Grinding direction: see grinding drawing C12768-VTB-SBR-GB-DR-W-3003

- See welding catalogues C12768-VTB-SBR-GB-DR-W-3004/3005

- Welded splices to be ground flush to provide uniform finish surface.

- Weld surface may need roughening to provide adequate key to protective

coating to adhere properly.

- All visible welds along bottom flanges and inclined webs to be ground flush

and provide uniform finish surface

#### 4 - Bolted assemblies :

10.9 Bolts according to BS EN 14399-10 and BS EN 1090 (TCB)

weathering grade s10t in accordance to following specification:

HRC Bolt according to BS EN 14399-10

HRD Nut according to BS EN 14399-10

Washer according to BS EN 14399-6

Bolts to be tightened with HRC method

#### 5 - Execution class :

EXC 3 for entire steelconstruction of Gateway Bridge , with additionnal requirements

as specified by Series 1800

#### 6 - Annotations :

- Measures are in mm

#### 7 - C.O.G.:

- Center of gravity

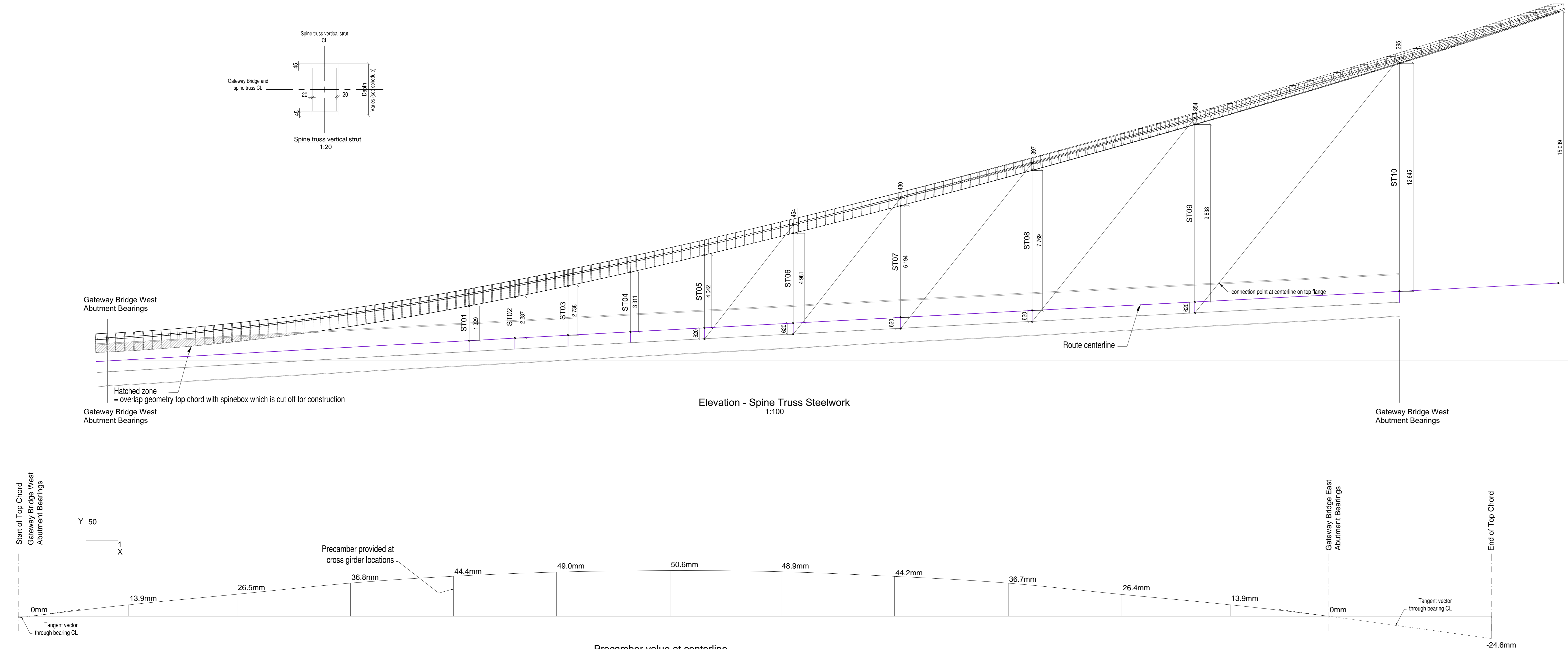
- Weight is indicated for each assembled girder

#### 8 - Corrosion protection :

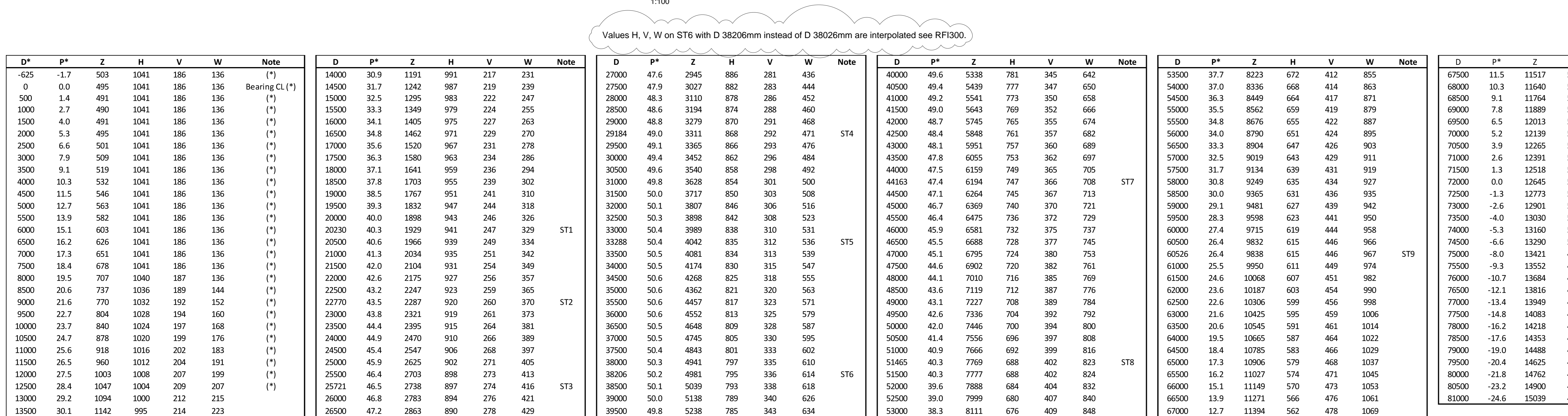
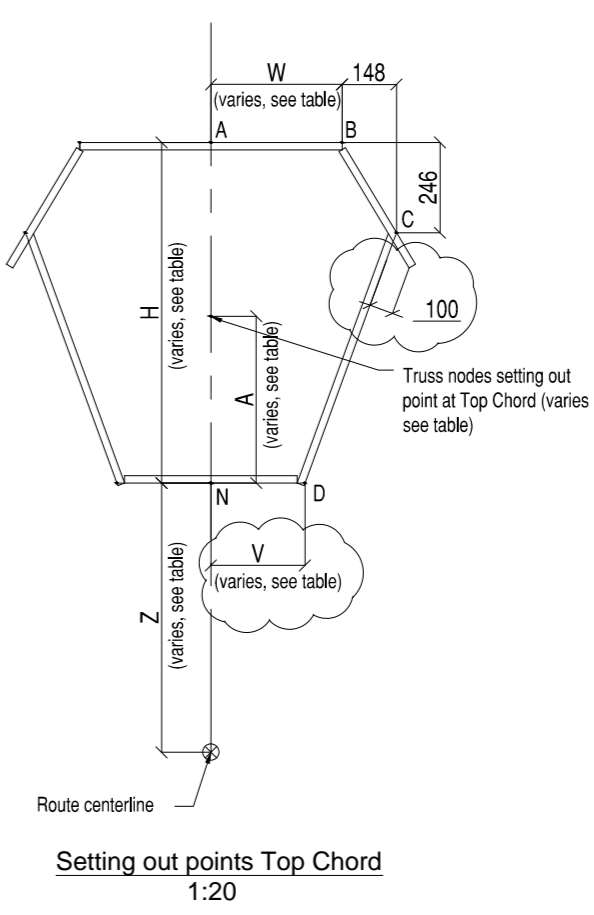
- See drawing C12768-VTB-SBR-GB-DR-W-3002

#### 9 - Overlength :

- See drawing C12768-VTB-SBR-GB-DR-W-3001



Elevation - Spine Truss Steelwork  
1:100



Precamber value at centerline  
1:100

Values H, V, W on ST6 with D 38206mm instead of D 38026mm are interpolated see RFI300.

D*	P*	Z	H	V	W	Note
-625	-1.7	503	1041	186	136	(*)
0	0.0	495	1041	186	136	Bearing CL (*)
500	1.4	491	1041	186	136	(*)
1000	2.7	490	1041	186	136	(*)
1500	4.0	491	1041	186	136	(*)
2000	5.3	495	1041	186	136	(*)
2500	6.6	501	1041	186	136	(*)
3000	7.9	509	1041	186	136	(*)
3500	9.1	519	1041	186	136	(*)
4000	10.3	532	1041	186	136	(*)
4500	11.5	546	1041	186	136	(*)
5000	12.7	563	1041	186	136	(*)
5500	13.9	582	1041	186	136	(*)
6000	15.1	603	1041	186	136	(*)
6500	16.2	626	1041	186	136	(*)
7000	17.3	651	1041	186	136	(*)
7500	18.4	678	1041	186	136	(*)
8000	19.5	707	1040	187	136	(*)
8500	20.6	737	1036	189	144	(*)
9000	21.6	770	1032	192	152	(*)
9500	22.7	804	1028	194	160	(*)
10000	23.7	840	1024	197	168	(*)
10500	24.7	878	1020	199	176	(*)
11000	25.6	918	1016	202	183	(*)
11500	26.5	960	1012	204	191	(*)
12000	27.5	1003	1008	207	199	(*)
12500	28.4	1047	1004	209	207	(*)
13000	29.2	1094	1000	212	215	
13500	30.1	1142	995	214	223	

D	P*	Z	H	V	W	Note
14000	30.9	1191	991	217	231	
14500	31.7	1242	987	219	239	
15000	32.5	1295	983	222	247	
15500	33.3	1349	979	224	255	
16000	34.1	1405	975	227	263	
16500	34.8	1462	971	229	270	
17000	35.6	1520	967	231	278	
17500	36.3	1580	963	234	286	
18000	37.1	1641	959	236	294	
18500	37.8	1703	955	239	302	
19000	38.5	1767	951	241	310	
19500	39.3	1832	947	244	318	
20000	40.0	1898	943	246	326	
20230	40.3	1929	941	247	329	ST1
20500	40.6	1966	939	249	334	
21000	41.3	2034	935	251	342	
21500	42.0	2104	931	254	349	
22000	42.6	2175	927	256	357	
22500	43.2	2247	923	259	365	
22770	43.5	2287	920	260	370	ST2
23000	43.8	2321	919	261	373	
23500	44.4	2395	915	264	381	
24000	44.9	2470	910	266	389	
24500	45.4	2547	906	268	397	
25000	45.9	2625	902	271	405	
25500	46.4	2703	898	273	413	
25721	46.5	2738	897	274	416	ST3
26000	46.8	2783	894	276	421	
26500	47.2	2853	890	278	429	

D	P*	Z	H	V	W	Note
27000	47.6	2945	886	281	436	
27500	47.9	3027	882	283	444	
28000	48.3	3110	878	286	452	
28500	48.6	3194	874	288	460	
29000	48.8	3279	870	291	468	
29184	49.0	3311	868	292	471	ST4
29500	49.1	3365	866	293	476	
30000	49.4	3452	862	296	484	
30500	49.6	3540	858	298	492	
31000	49.8	3628	854	301	500	
31500	50.0	3717	850	303	508	
32000	50.1	3807	846	306	516	
32500	50.3	3898	842	308	523	
33000	50.4	3989	838	310	531	
33288	50.4	4042	835	312	536	ST5
33500	50.5	4081	834	313	539	
34000	50.5	4174	830	315	547	
34500	50.6	4268	825	318	555	
35000	50.6	4362	821	320	563	
35500	50.6	4457	817	323	571	
36000	50.6	4552	813	325	579	
36500	50.5	4648	809	328	587	
37000	50.5	4745	805	330	595	
37500	50.4	4843	801	333	602	
38000	50.4	4941	797	335	610	
38206	50.2	4981	795	336	614	ST6
38500	50.1	5039	793	338	618	
39000	50.0	5138	789	340	626	
39500	49.8	5238	785	343	634	

D	P*	Z	H	V	W	Note
40000	49.6	5338	781	345	642	
40500	49.4	5439	777	347	650	
41000	49.2	5541	773	350	658	
41500	49.0	5643	769	352	666	
42000	48.7	5745	765	355	674	
42500	48.4	5848	761	357	682	
43000	48.1	5951	757	360	689	
43500	47.8	6055	753	362	697	
44000	47.5	6159	749	365	705	
44163	47.4	6194	747	366	708	ST7
44500	47.1	6264	745	367	713	
45000	46.7	6369	740	370	721	
45500	46.4	6475	736	372	729	
46000	45.9	6581	732	375	737	
46500	45.5	6688	728	377	745	
47000	45.1	6795	724	380	753	
47500	44.6	6902	720	382	761	
48000	44.1	7010	716	385	769	
48500	43.6	7119	712	387	776	
49000	43.1	7227	708	389	784	
49500	42.6	7336	704	392	792	
50000	42.0	7446	700	394	800	
50500	41.4	7556	696	397	808	
51000	40.9	7666	692	399	816	
51465	40.3	7769	688	402	823	ST8
51500	40.3	7777	688	402	824	
52000	39.6	7888	684	404	832	
52500	39.0	7999	680	407	840	
53000	38.3	8111	676	409	848	

D	P*	Z	H	V	W	Note
53500	37.7	8223	672	412	855	
54000	37.0	8336	668	414	863	
54500	36.3	8449	664	417	871	
55000	35.5	8562	659	419	879	
55500	34.8	8676	655	422	887	
56000	34.0	8790	651	424	895	
56500	33.3	8904	647	426	903	
57000	32.5	9019	643	429	911	
57500	31.7	9134	639	431	919	
58000	30.8	9249	635	434	927	
58500	30.0	9365	631	436	935	
59000	29.1	9481	627	439	942	
59500	28.3	9598	623	441	950	
60000	27.4	9715	619	444	958	
60500	26.4	9832	615	446	966	
60526	26.4	9838	615	446	967	ST9
61000	25.5	9950	611	449	974	
61500	24.6	10068	607	451	982	
62000	23.6	10187	603	454	990	
62500	22.6	10306	599	456	998	
63000	21.6	10425	595	459	1006	
63500	20.6	10545	591	461	1014	
64000	19.5	10665	587	464	1022	
64500	18.4	10785	583	466	1029	
65000	17.3	10906	579	468	1037	
65500	16.2	11027	574	471	1045	
66000	15.1	11149	570	473	1053	
66500	13.9	11271	566	476	1061	
67000	12.7	11394	562	478	1069	

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