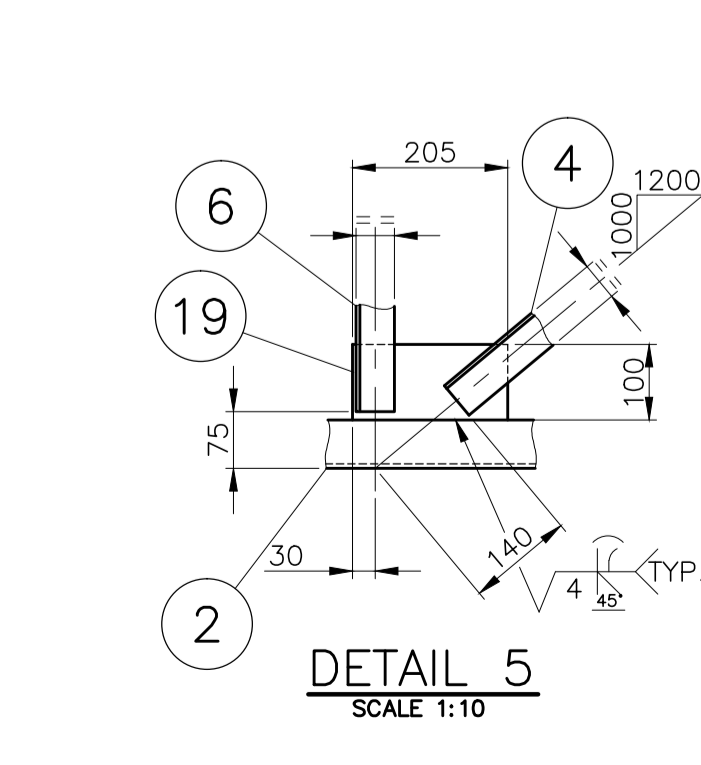
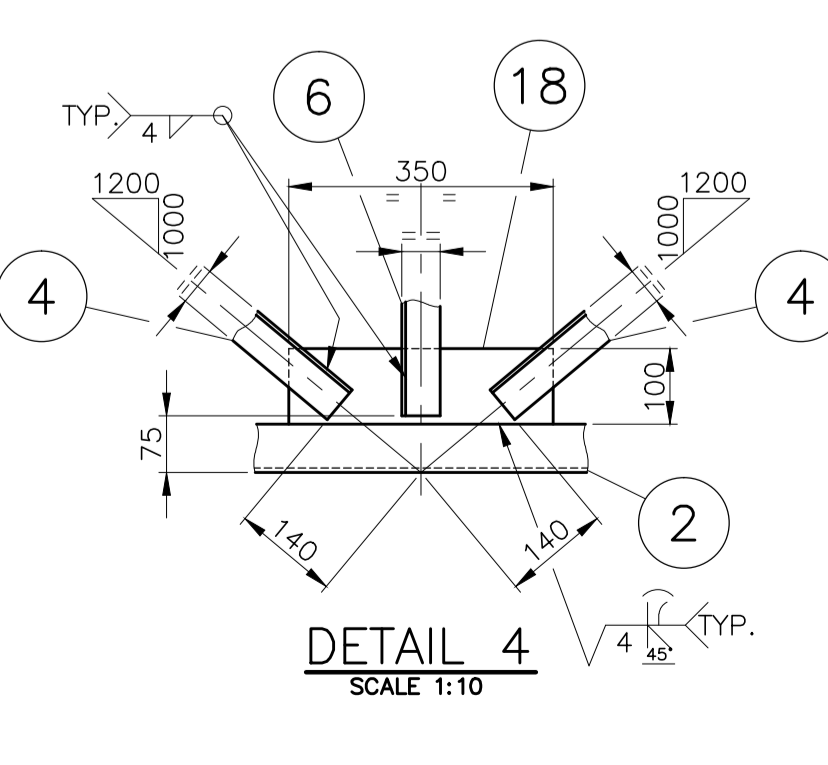
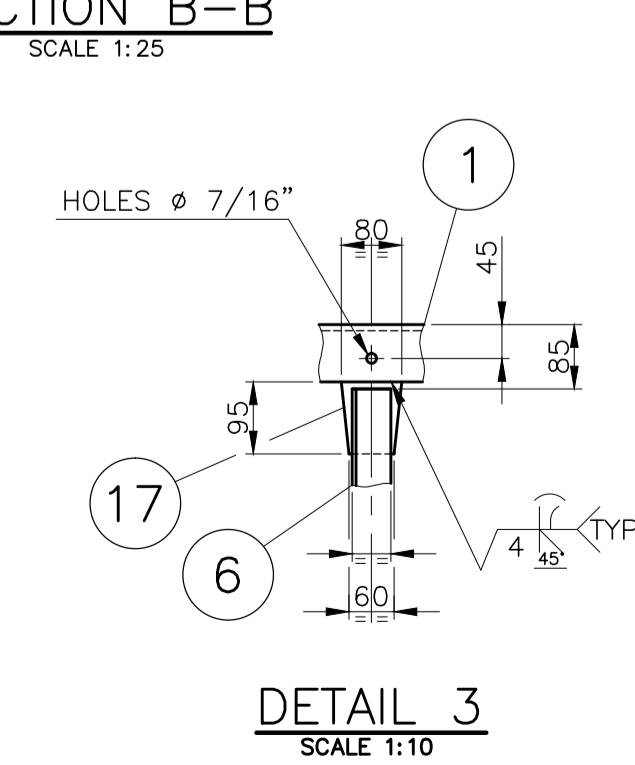
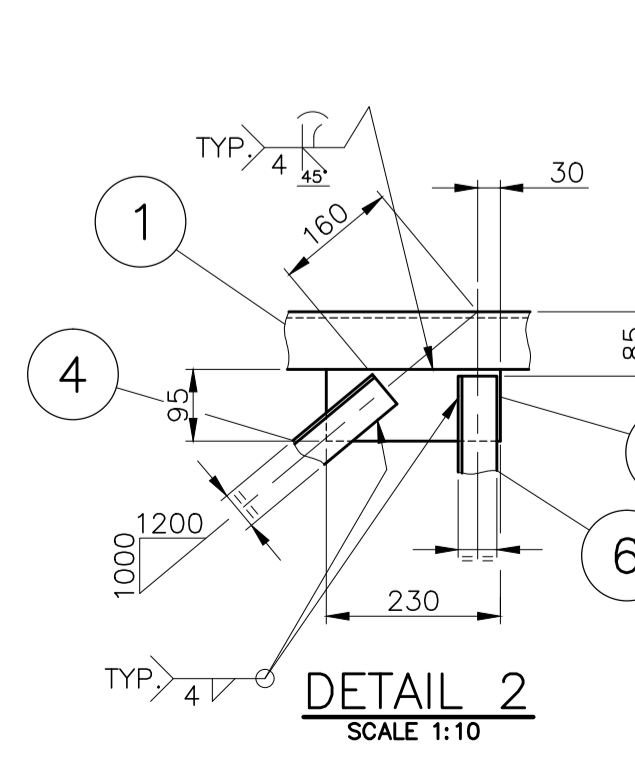
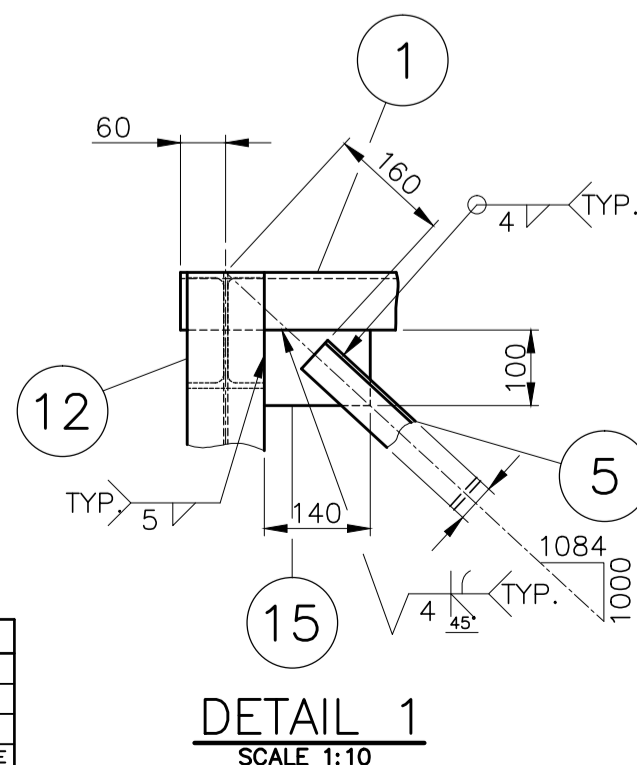
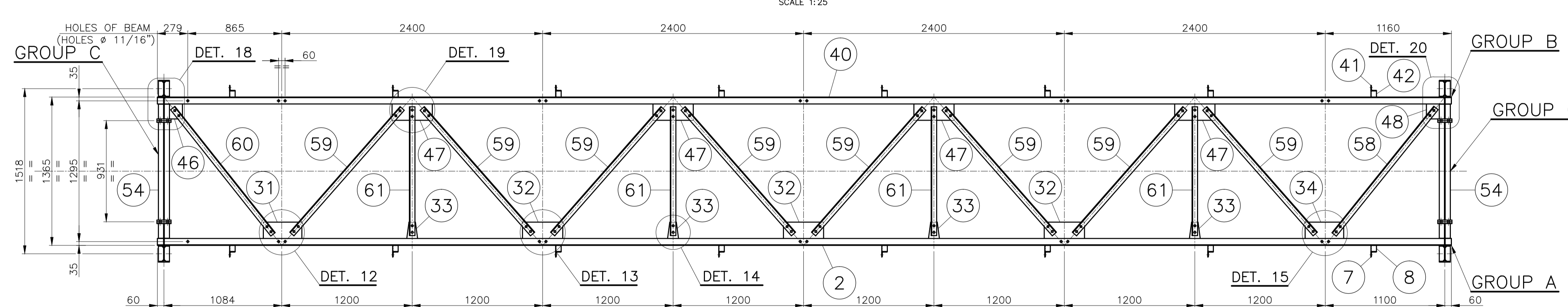
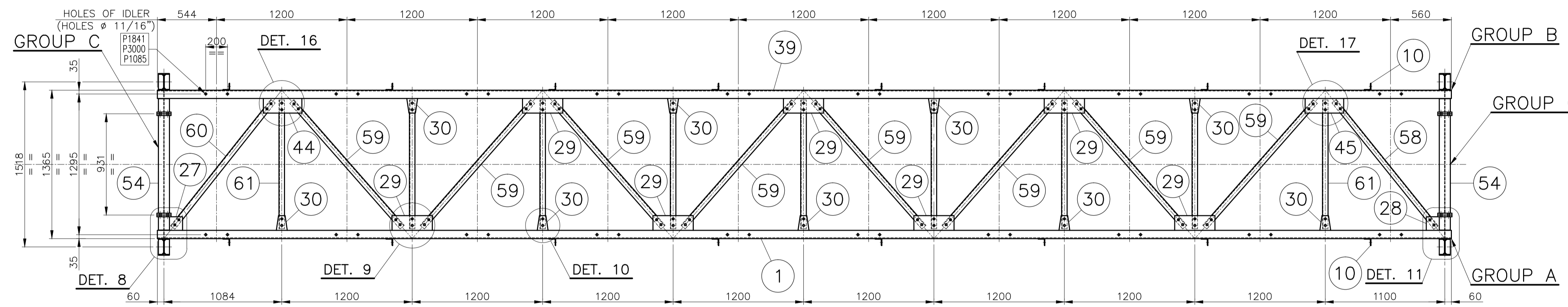
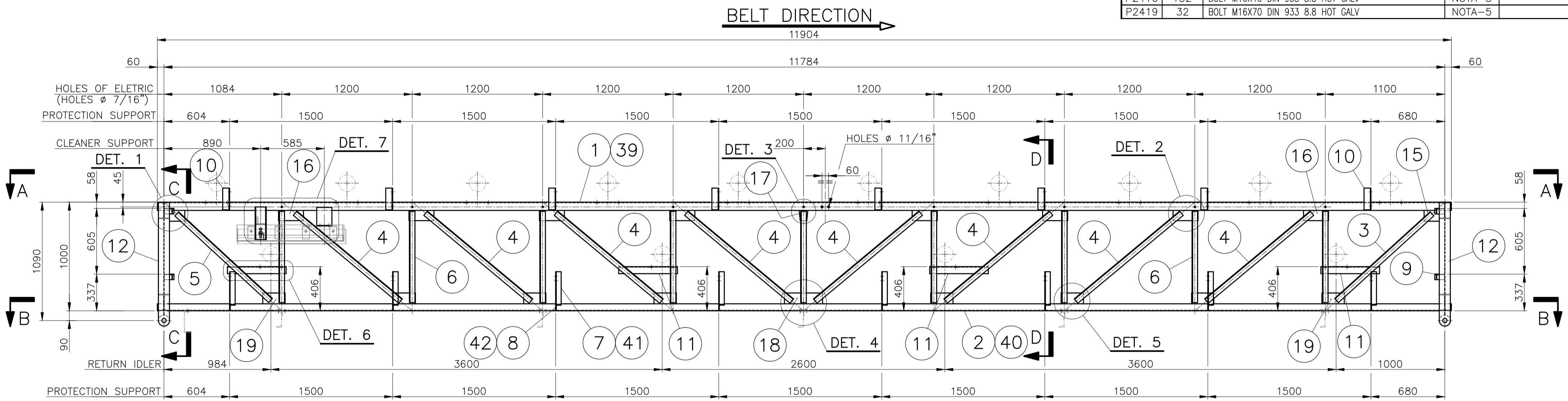


COLOR/FINISHING	CODE MUNSELL
WINE RED	5R 2/6

BILL OF MATERIAL					
ITEM	QUANT.	DESCRIPTION	OBS.	MATERIAL	WEIGHT
P3000	64	NUT M16 DIN 934 - CL 5 HOT GALV	NOTA-5	1649164	-
P1085	60	WASHER M16 DIN 125-A HOT GALV	NOTA-5	1033076	-
P3046	164	NUT M16 DIN 934 - CL 8 HOT GALV	NOTA-5	1647057	-
P1176	164	WASHER M16 DIN 6916 HOT GALV	NOTA-5	TP0009494	-
TOTAL WEIGHT = 1150 Kg					

BILL OF MATERIAL					
ITEM	QUANT.	DESCRIPTION	OBS.	MATERIAL	WEIGHT
60	2	L 2" x 1/4" x 1483		ASTM A572 GR50	14
61	13	L 2" x 3/16" x 1185		ASTM A572 GR50	56
FIELD BOLT					
P1841	56	BOLT M16X50 DIN 933 5.8 HOT GALV	NOTA-5		-
P1842	4	BOLT M16X60 DIN 933 5.8 HOT GALV	NOTA-5		-
P1844	2	BOLT M16X80 DIN 933 5.8 HOT GALV	NOTA-5		-
P2416	132	BOLT M16X40 DIN 933 8.8 HOT GALV	NOTA-5		-
P2419	32	BOLT M16X70 DIN 933 8.8 HOT GALV	NOTA-5		-

BILL OF MATERIAL					
ITEM	QUANT.	DESCRIPTION	OBS.	MATERIAL	WEIGHT
1	1	(GROUP A) LATERAL (AS SHOWN)			434
1	1	L 3" x 5/16" x 11904	(RIGHT)	ASTM A572 GR50	108
2	1	L 2 1/2" x 1/4" x 11904	(RIGHT)	ASTM A572 GR50	73
3	1	L 2" x 3/16" x 1187		ASTM A572 GR50	4
4	8	L 2" x 3/16" x 1262		ASTM A572 GR50	37
5	1	L 2" x 3/16" x 1175		ASTM A572 GR50	4
6	9	L 2" x 3/16" x 840		ASTM A572 GR50	27
7	8	L 2" x 3/16" x 355	(RIGHT)	ASTM A-36	10
8	8	L 2" x 3/16" x 107	(RIGHT)	ASTM A-36	3
9	4	L 2" x 3/16" x 90		ASTM A-36	3
10	8	L 2 1/2" x 3/16" x 200		ASTM A-36	7
11	4	L 2 1/2" x 1/4" x 540	(RIGHT/LEFT)	ASTM A-36	13
12	2	W 150 x 18,0 kg/m x 1141		ASTM A572 GR50	41
13	2	W 150 x 18,0 kg/m x 201		ASTM A572 GR50	7
14	2	W 150 x 18,0 kg/m x 201		ASTM A572 GR50	7
15	2	PL. 1/4" x 100 x 140		ASTM A-36	1
16	8	PL. 1/4" x 95 x 230		ASTM A-36	9
17	1	PL. 1/4" x 80 x 95		ASTM A-36	1
18	1	PL. 1/4" x 100 x 350		ASTM A-36	2
19	8	PL. 1/4" x 100 x 205		ASTM A-36	8
20	16	PL. 1/4" x 48 x 139		ASTM A-36	5
21	4	PL. 5/8" x 130 x 160		ASTM A-36	10
22	2	ROUND BAR DIM. 102 x 139 (LAMINATED)		SAE-1020	17
23	4	PL. #11 x 20 x 30		SAE 1008/1010	-
24	4	PL. 1/4" x 140 x 228		ASTM A-36	2
25	1	U 4" x 8,0 Kg/m x 300		ASTM A-36	2
26	1	L 2" x 1/4" x 150	(RIGHT)	ASTM A-36	1
27	1	PL. 1/4" x 120 x 125		ASTM A-36	1
28	1	PL. 1/4" x 120 x 125		ASTM A-36	1
29	4	PL. 1/4" x 135 x 370		ASTM A-36	10
30	5	PL. 1/4" x 100 x 135		ASTM A-36	3
31	1	PL. 1/4" x 150 x 355		ASTM A-36	3
32	3	PL. 1/4" x 150 x 370		ASTM A-36	8
33	4	PL. 1/4" x 100 x 150		ASTM A-36	3
34	1	PL. 1/4" x 150 x 355		ASTM A-36	3
1	1	(GROUP B) LATERAL (OPPOSITE)			429
COMPOUND TO POS. 3 A 6, 9 A 25					
39	1	L 3" x 5/16" x 11904	(LEFT)	ASTM A572 GR50	108
40	1	L 2 1/2" x 1/4" x 11904	(LEFT)	ASTM A572 GR50	73
41	8	L 2" x 3/16" x 355	(LEFT)	ASTM A-36	10
42	8	L 2" x 3/16" x 107	(LEFT)	ASTM A-36	27
43	1	L 2" x 1/4" x 150	(LEFT)	ASTM A-36	1
44	1	PL. 1/4" x 135 x 355		ASTM A-36	2
45	1	PL. 1/4" x 135 x 355		ASTM A-36	2
46	1	PL. 1/4" x 120 x 137		ASTM A-36	1
47	4	PL. 1/4" x 150 x 370		ASTM A-36	11
48	1	PL. 1/4" x 120 x 137		ASTM A-36	1
29	3	PL. 1/4" x 135 x 370		ASTM A-36	8
30	4	PL. 1/4" x 100 x 135		ASTM A-36	2
4	1	(GROUP C) BRACING			86
54	4	W 150 x 18,0 kg/m x 899		ASTM A572 GR50	65
21	8	PL. 5/8" x 130 x 160		ASTM A-36	21
INDIVIDUAL PARTS					
58	2	L 2" x 1/4" x 1493		ASTM A572 GR50	14
59	16	L 2" x 1/4" x 1537		ASTM A572 GR50	117



REFERENCE DRAWINGS	
GENERAL ARRANGEMENT	NOTES
	1 - ALL THE DIMENSIONS ARE IN MILLIMETERS, EXCEPT OTHERWISE INDICATED.
	2 - WELDING ELECTRODES, MANUFACTURING AND PAINTING ACCORDING TO

Rev.	I.T.	Date	Draw	Rev.	Approv	DETAIL

DETAILED DESIGN  
BARGE PIER  
BELT CONVEYOR  
BOX TRUSS



TOLERANCES, EXCEPT OTHERWISE INDICATED	
DIMENSIONS mm	0 to 300 ± 0.20 300 to 1200 ± 0.30 Above 1200 ± 0.40
GENERAL TOLERANCE mm	± 1 ± 2 ± 3
MACHINED SURFACES mm	± 0.125 ± 0.250 ± 0.400
ECCENTRICITY mm	0.15 FOR MACHINED SURFACES ON THE SAME CENTER LINE
ANGULARITY	± ONE DEGREE
ASSEMBLY TOLERANCES	
ROLLERS: LEVELING AND ALIGNMENT	± 1 mm
STEEL STRUCTURE: LEVELING AND ALIGNMENT	± 3 mm