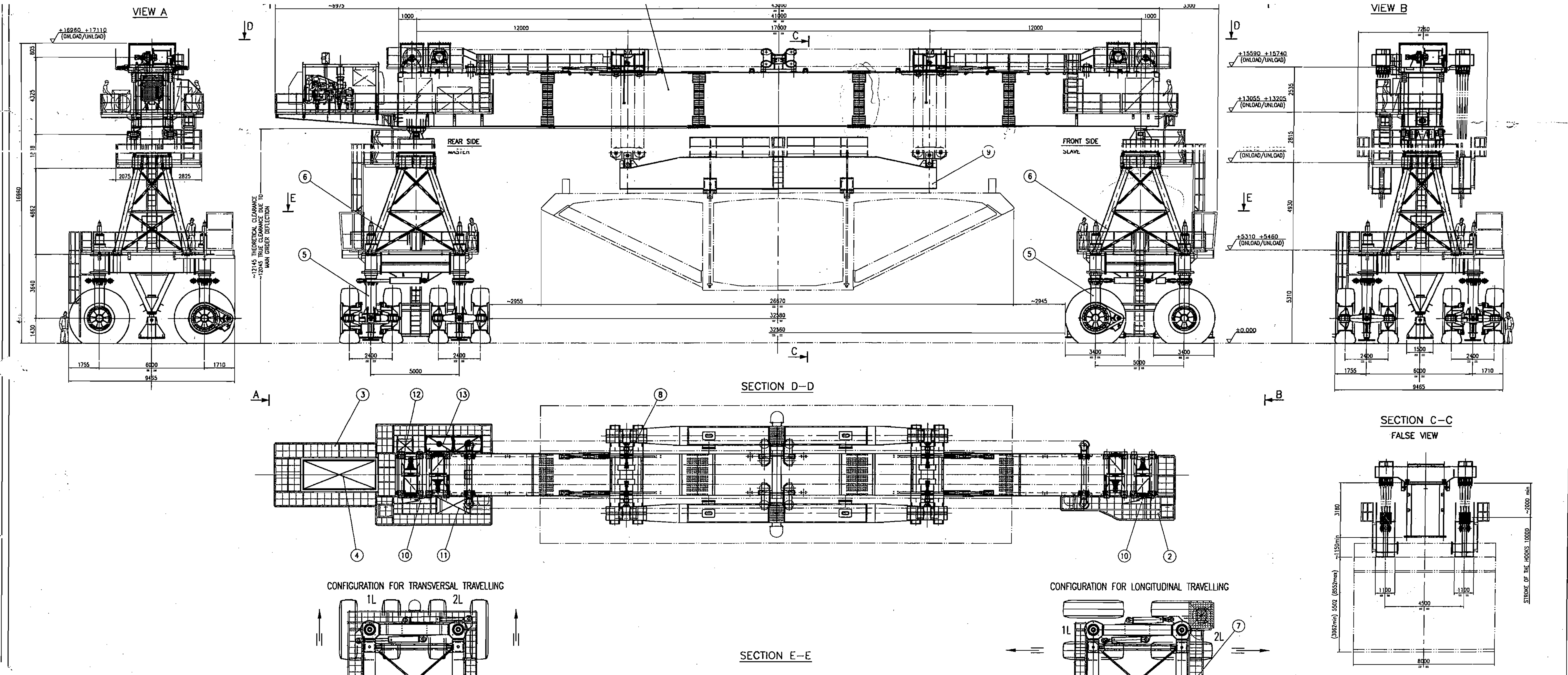
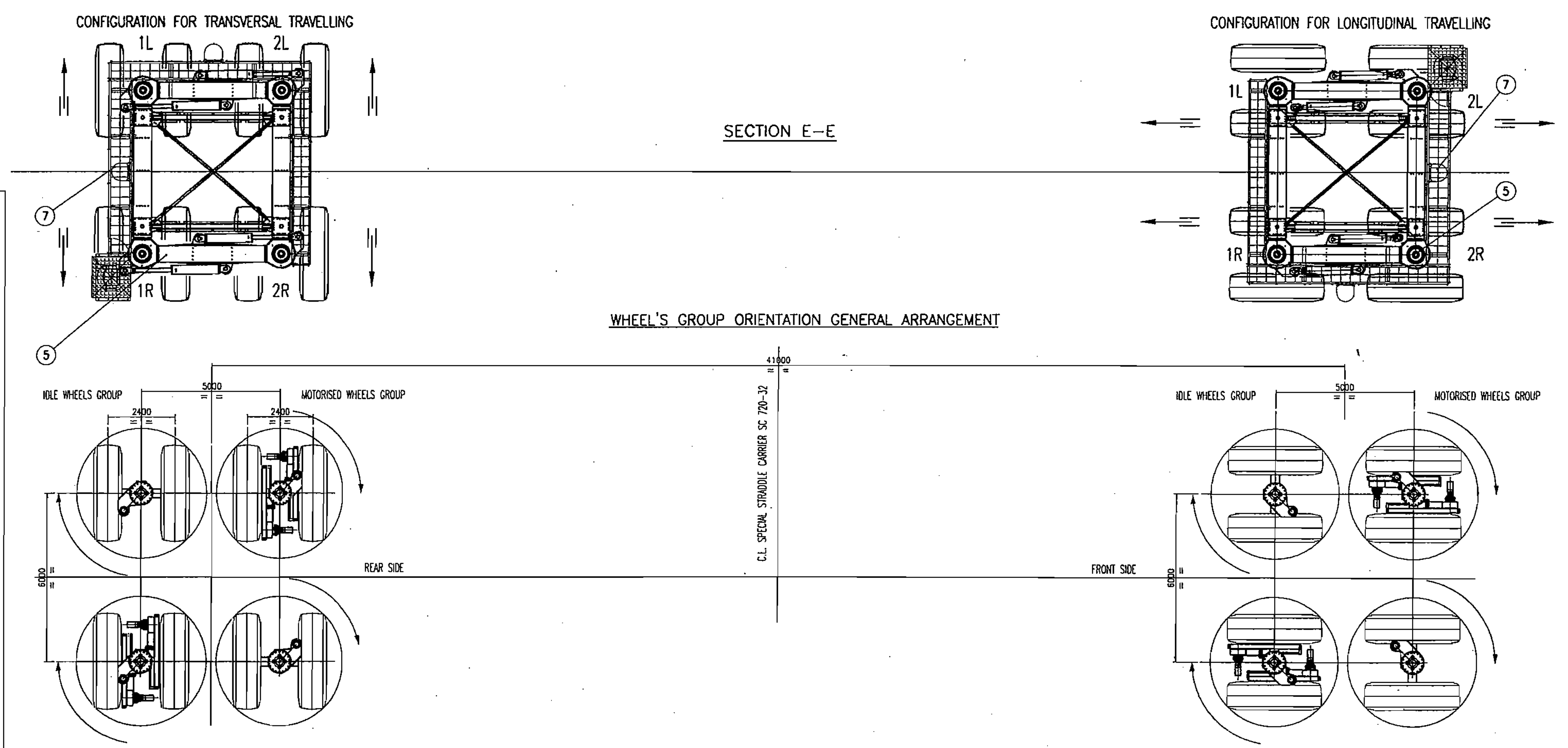




TECHNICAL CHARACTERISTICS OF THE EQUIPMENT

Load Capacity	7065 KN
Lifting Height	10000 mm
Vertical Clearance of Main Girder from the Ground – Minimum	12000 mm
Internal Clearance	32400 mm
Span – Distance from the centerlines of the Trolleys	41000 mm
Minimum radius of Curve	60 m
Lifting Speed with Hook Load (variable speed)	0,1 – 1,0 m/min
Lifting Speed without Hook Load (variable speed)	0,1 – 2,0 m/min
Longitudinal regulation of Hoisting Points	+ / – 500 mm
Transversal regulation of Hoisting Points	+ / – 200 mm
Longitudinal slope of Hoisting Points	+ / – 5 %
Cross slope of Hoisting Points	+ / – 5 %
Longitudinal Travelling Speed (variable speed) (with hook load / longitudinal slope 0 %)	0,3 – 2 km/h
Longitudinal Travelling Speed (variable speed) (with hook load / longitudinal slope 2.5 %)	0,3 – 1,3 km/h
Longitudinal Travelling Speed (variable speed) (without hook load / longitudinal slope 0 %)	0,3 – 4 km/h
Max Transversal Travelling Speed (variable speed)	0,3 km/h
Maximum Slope on Well Compacted Ground (longitudinal movement only)	2,5 %
Maximum Slope on Special Rampe (Concrete) (Transversal movement [illegible])	5 %

TOTAL WEIGHT = 494400 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
		ELECTRICAL GENERAL COMPONENS				1500	
		HYDRAULIC GENERAL COMPONENTS				5000	
13	2	FUEL TANKS			1100	2200	
12	1	HEAT EXCHANGER				300	
11	1	GENERATING SET				500	
10	2	ELECTRICAL PANELS			350	700	
9	1	LIFTING BEAM ASSEMBLY	T06 CA AD E-020			41850	
8	1	HOISTING WINCH	T06 CA AD E-001			49100	
7	1	WALKWAYS ON LOWER	T06 DM AD F-031			2100	
6	1	VERTICAL STRUCTURE	T06 DM AD F-030			18500	
5	1	TROLLEY	T06 TP AD F-001			221150	
4	1	POWER GROUP	T06 DM AD H-003			6650	
3	1	REAR SIDE WALKWAIS	T06 DM AD H-002			4150	
2	1	FRONT SIDE WALKWAIS	T06 DM AD H-001			700	
1	1	MAIN GIRDER	T06 DM AD A-001			140000	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
D	19/06/02	FIRST ISSUE	S. GERMANO	CUCCHIARO	RIBIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT:

TITLE: GENERAL ARRANGEMENT

Substitutes Doc.: ---

Scale: 1:75

Sheet: 1 Of: 1

File: T06DUAD0001.DWG

Format: A0

Job Nr.: -600311

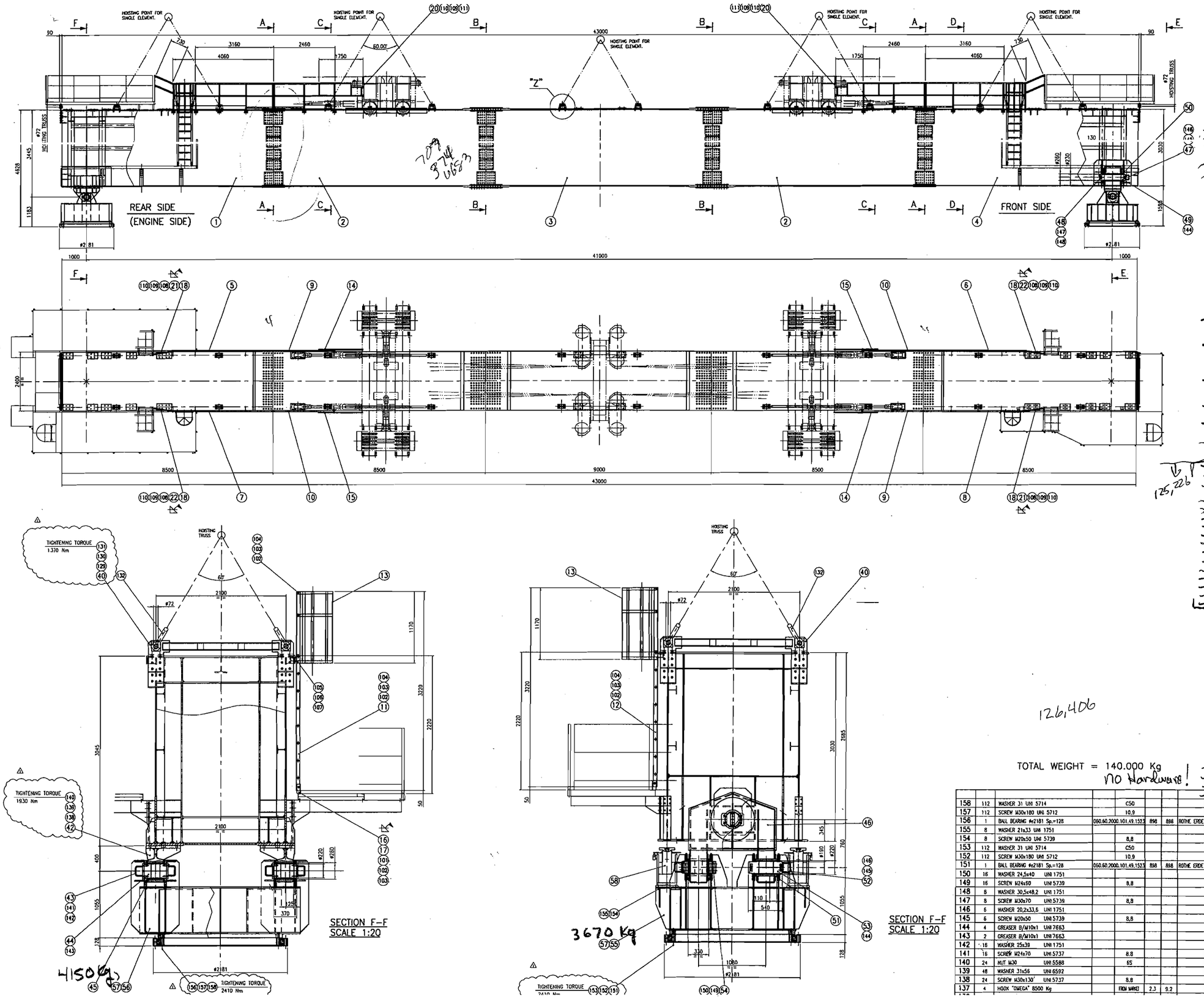
Sub.J.Nr.: -060100

Nr.: -------

Fab. Nr.: T06 | Dep.: DU | Doc. Type: AD | Part.: 0- | Nr.: 001 | Rev.: 0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
158	112	WASHER 31 UNI 5714		C50			
157	112	SCREW M30x180 UNI 5712		10.9			
156	1	BALL BEARING ø2181 Sp.=128	050.60.2000.101.49.1525	898	898	898	ROTHE ERDE
155	8	WASHER 21x33 UNI 1751					
154	8	SCREW M20x50 UNI 5739		8.8			
153	112	WASHER 31 UNI 5714		C50			
152	112	SCREW M30x180 UNI 5712		10.9			
151	1	BALL BEARING ø2181 Sp.=128	050.60.2000.101.49.1525	898	898	898	ROTHE ERDE
150	16	WASHER 24,5x40 UNI 1751					
149	16	SCREW M24x50 UNI 5739		8.8			
148	8	WASHER 30,5x48,2 UNI 1751					
147	8	SCREW M30x70 UNI 5739		8.8			
146	6	WASHER 20,2x33,6 UNI 1751					
145	6	SCREW M20x50 UNI 5739		8.8			
144	4	GREASER B/M10x1 UNI 7663					
143	2	GREASER B/M10x1 UNI 7663					
142	16	WASHER 25x39 UNI 1751					
141	16	SCREW M24x70 UNI 5737		8.8			
140	24	NUT M30 UNI 5588		6S			
139	48	WASHER 31x56 UNI 6592					
138	24	SCREW M30x130 UNI 5737		8.8			
137	4	HOOK "OMEGA" 8500 Kg		FROM MARKET	2.3	9.2	
136	4	HOOK "OMEGA" 55000Kg		FROM MARKET	37	148	
131	32	NUT M27 UNI 5588		6S			
130	64	WASHER 28x50 UNI 6592					
129	32	SCREW M27x100 UNI 5737		8.8			
128	768	WASHER 15 UNI 5714		C50			
127	384	NUT M14 UNI 5713		10			
126	128	SCREW M14x45 UNI 5712		10.9			
125	256	SCREW M14x50 UNI 5712		10.9			
124	160	WASHER 21 UNI 5714		C50			
123	80	NUT M20 UNI 5713		10			
122	32	SCREW M20x60 UNI 5712		10.9			
121	48	SCREW M20x70 UNI 5712		10.9			
120	2816	WASHER 25 UNI 5714		C50			
119	1408	NUT M24 UNI 5713		10			
118	1408	SCREW M24x100 UNI 5712		10.9			
117	3200	WASHER 34 UNI 5714		C50			
116	1600	NUT M33 UNI 5713		10			
115	640	SCREW M33x150 UNI 5712		10.9			
114	960	SCREW M33x190 UNI 5712		10.9			
113	8	WASHER 8.1 UNI 1751					
112	8	SCREW M6x15 UNI 5739		8.8			
111	8	SCREW M8x60 UNI 5739		8.8			
110	24	NUT M8 UNI 5588		6S			
109	48	WASHER 8.4 UNI 6592					
108	16	SCREW M8x50 UNI 5737		8.8			
107	12	NUT M10 UNI 5588		6S			
106	24	WASHER 10.5 UNI 6592					
105	12	SCREW M10x30 UNI 5739		8.8			
104	4	SCREW M12x55 UNI 5737		8.8			
103	96	NUT M12 UNI 5588		6S			
102	192	WASHER 13 UNI 6592					
101	92	SCREW M12x40 UNI 5739		8.8			
58	2	JACK FOR BLOCK LONGITUDINAL HINGE	T06 MC AN A-001		260	520	
57	1	ACCESSORIES FOR LIMIT SWITCHES	T06 DU CD A-009		11	11	
56	1	REARWARD HINGE BEARING'S SUPPORT	A801		4150	4150	
55	1	HINGE BEARING'S SUPPORT	A701		3670	3670	
54	8	PLATE 190x80	A609		2	16	
53	2	PIN ø190 L=540	A608		120	240	
52	2	HANDLE	A607		1.5	3	
51	4	BUSH ø220 – ø190 L=110	A606		8	32	
50	2	BUSH ø260 – ø230 L=130	A605		11.4	22.8	
49	1	PIN ø230 L=1026	A604		335	335	
48	4	PLATE 200x90	A603		2.5	10	
47	1	HANDLE	A602		2.6	2.6	
46	1	FORK 1400x780x1430	A601		1400	1400	
45	4	BUSH ø260 – ø220 L=725	A504		14	56	
44	2	PIN ø220 L=370	A503		110	220	
43	4	FLANGE ø250	A502		10	40	
42	2	SUPPORT 1050x550	A501		570	1140	
41	20	HOISTING SUPPORT	A2202		23.2	464	
40	2	HOISTING BEAM	A2201		167.2	334.4	
39	8	JUNCTION PLATE 400x80	A2117		2.8	22.4	
38	8	JUNCTION PLATE 280x160	A2116		2.6	20.8	
37	4	JUNCTION PLATE 400x200	A2115		7.1	28.4	
36	32	JUNCTION PLATE 390x50	A2114		1.1	35.2	
35	32	JUNCTION PLATE 210x90	A2113		0.8	25.6	
34	16	JUNCTION PLATE 390x135	A2112		3.1	49.6	
33	32	JUNCTION PLATE 580x385	A2111		24.8	793.6	
32	16	JUNCTION PLATE 810x580	A2110		52.3	836.8	
31	32	JUNCTION PLATE 740x500	A2109		41	1312	
30	8	JUNCTION PLATE 900x130	A2108		21.4	171.2	
29	8	JUNCTION PLATE 900x440	A2107		71.7	573.6	
28	8	JUNCTION PLATE 900x540	A2106		87.8	702.4	
27	8	JUNCTION PLATE 900x1175	A2105		192.4	1539.2	
26	8	JUNCTION PLATE 1300x130	A2104		46.2	369.6	
25	8	JUNCTION PLATE 1300x540	A2103		177	1416	
24	8	JUNCTION PLATE 1300x440	A2102		144.5	1156	
23	8	JUNCTION PLATE 1300x1175	A2101		388	3104	
22	4	SUPPORT 105x70 (LF)	A2018		0.2	0.8	
21	4	SUPPORT 105x70 (RH)	A2017		0.2	0.8	
20	16	SUPPORT 80x65	A2016		0.1	1.6	
19	4	SUPPORT 115x40	A2015		0.2	0.8	
18	8	GUARD RAIL L=730	A2014		1.8	14.4	
17	2	SUPPORT L=150 (LF)	A2013		0.7	1.4	
16	2	SUPPORT L=150 (RH)	A2012		0.7	1.4	
15	2	GUARD RAIL L=1750 (LF)	A2011		11.9	23.8	
14	2	GUARD RAIL L=1750 (RH)	A2010		11.9	23.8	
13	2	GUARD H=1170	A2009		16.4	32.8	
12	1	STAIR H=3220 (LF)	A2008		38	38	
11	1	STAIR H=3220 (RH)	A2007		38	38	
10	2	GUARD RAIL L=2460 (LF)	A2006		32	64	
9	2	GUARD RAIL L=2460 (RH)	A2005		32	64	
8	1	GUARD RAIL L=3160 (LF)	A2004		44.4	44.4	
7	1	GUARD RAIL L=3160 (RH)	A2003		44.4	44.4	
6	1	GUARD RAIL L=4060 (LF)	A2002		56.9	56.9	
5	1	GUARD RAIL L=4060 (RH)	A2001		56.9	56.9	
4	1	5' ELEMENT	A401		19360	19360	
3	1	3' ELEMENT	A301		24440	24440	
2	2	2' – 4" ELEMENT	A201		24310	48620	
1	1	1" ELEMENT	A101		20140	20140	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	22/10/02	REVISED WHERE INDICATED	S. CERNIANO	F. DEMERGAZZI	RIBIS
0	19/06/02	FIRST ISSUE	Exacttra	CUCCHIARO	RIBIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: MAIN GIRDER

TITLE: GENERAL ARRANGEMENT

Scale/reduce for: — Scale: 1:50 Sheet: 1 Of: 2

File: T06DMADA001A_1.DWG Format: A0

Job N.: -|6|0|0|3|1|1| Sub J.Nr.: -|0|6|0|2|0|0| Unit: -|-|-|-|-|-|-|

Fabr. Nr. | Dep. | Doc. Type | Prot. | Nr. | Rev.: T|0|6|D|M|A|D| A |-|-|0|0|1| 1

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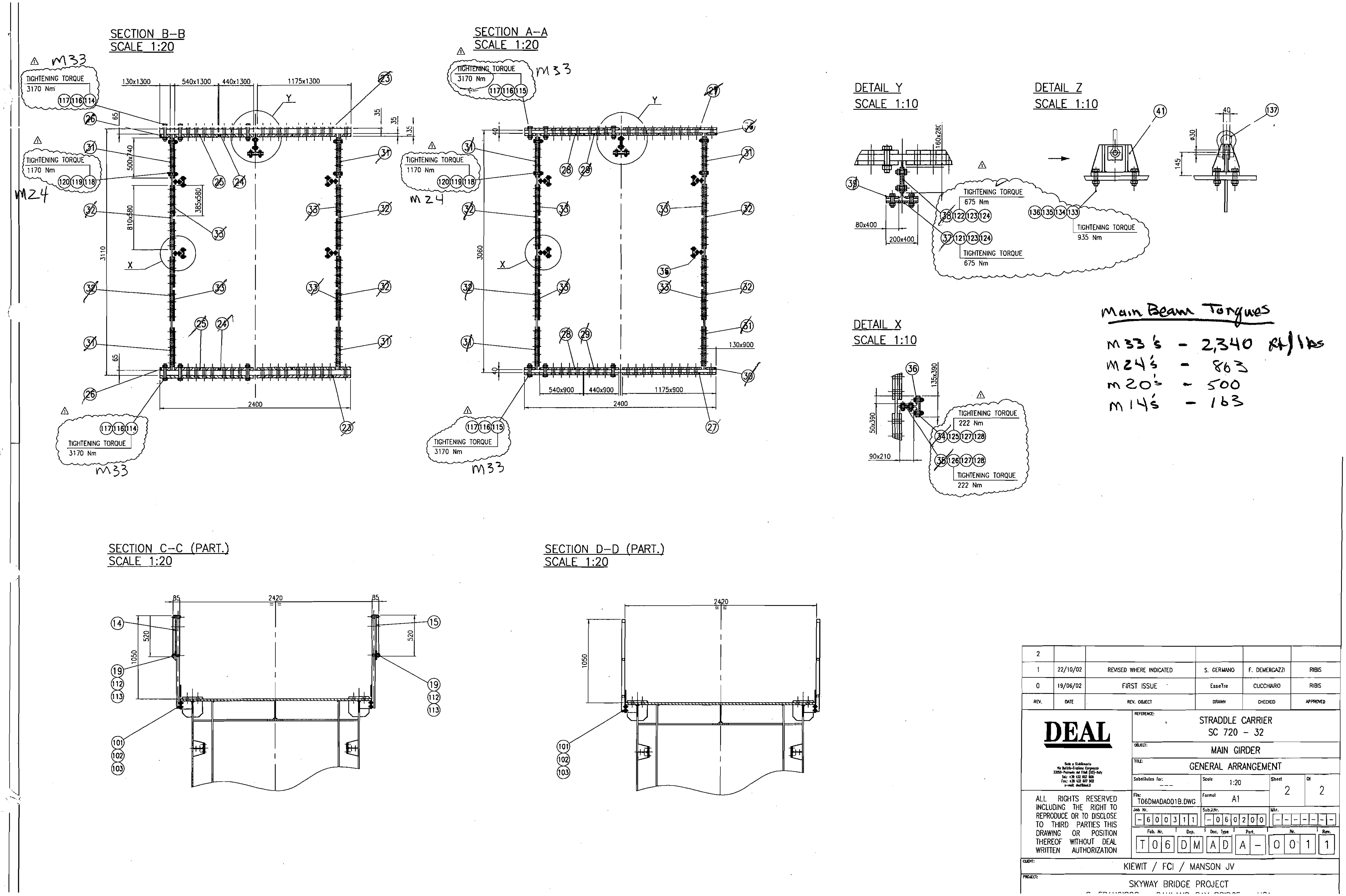
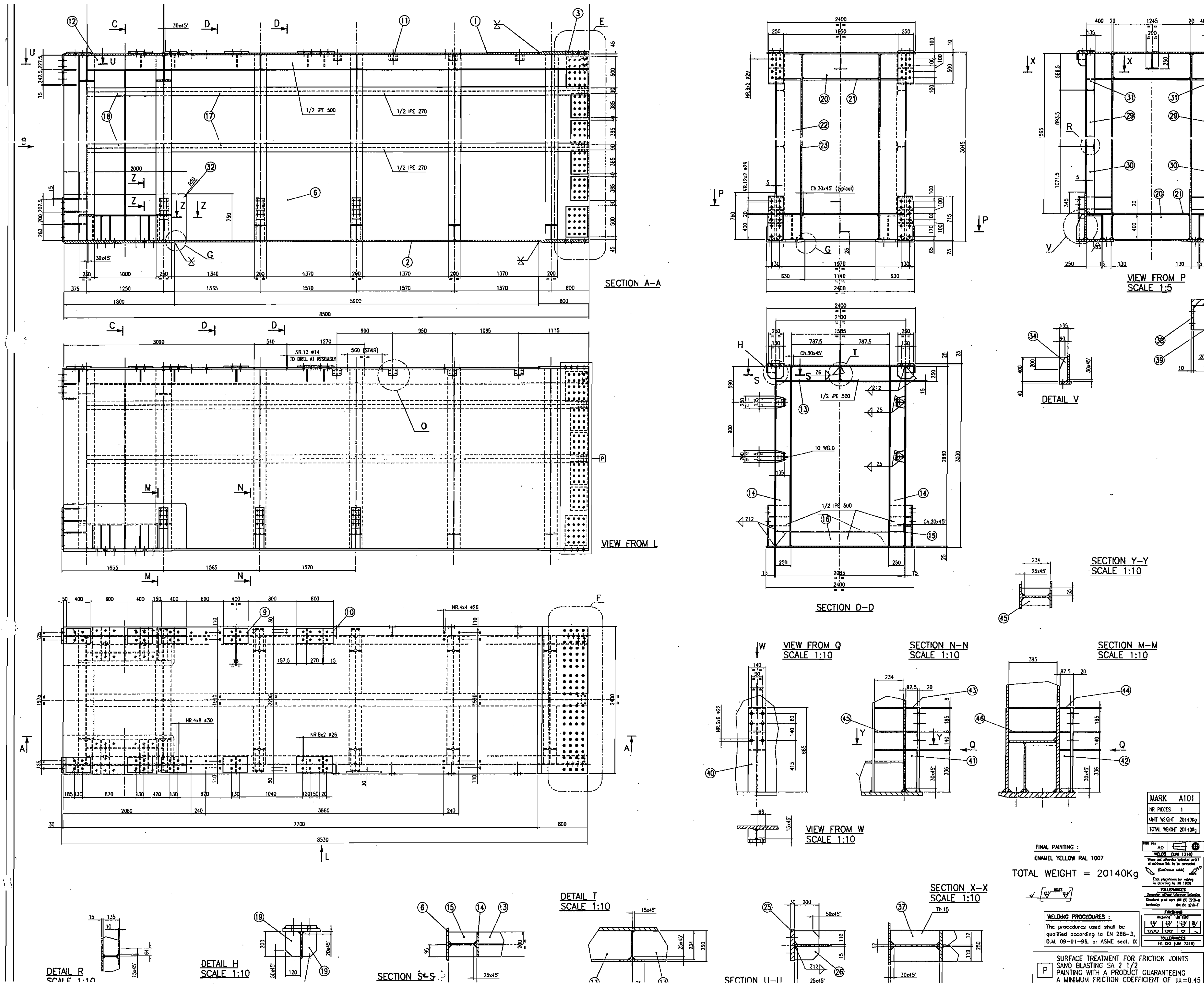
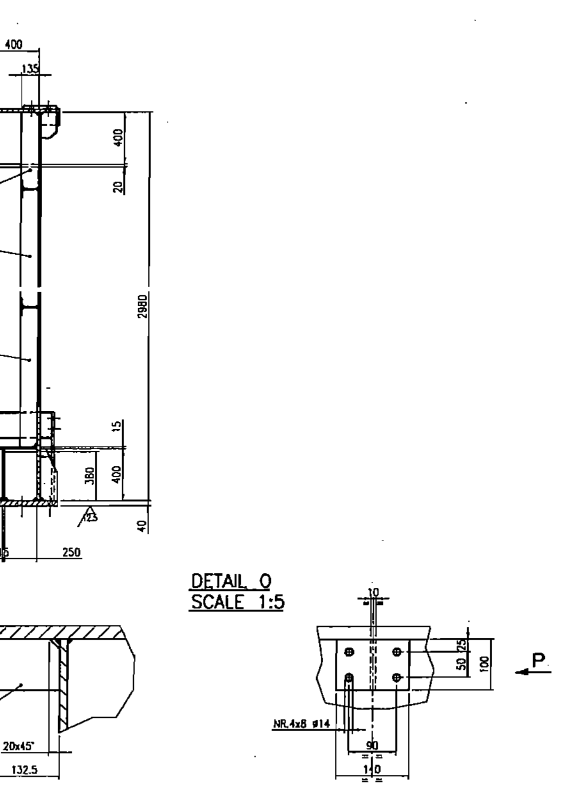
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT







POS.	QTY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
46	8	PLATE 64x8 L=395 SHAPED	•	Fe 510 C	1.5	12	
45	24	PLATE 65x8 L=234 SHAPED	•	Fe 510 C	0.9	21.6	
44	12	PLATE 66x8 L=87.5 SHAPED	•	Fe 510 C	0.4	4.8	
43	24	PLATE 66x8 L=92.5 SHAPED	•	Fe 510 C	0.4	9.6	
42	2	PLATE 87.5x8 L=685 SHAPED	•	Fe 510 C	3.7	7.4	
41	4	PLATE 92.5x8 L=685 SHAPED	•	Fe 510 C	3.9	15.6	
40	6	PLATE 140x20 L=685	•	Fe 510 C	14.7	88.2	
39	8	PLATE 100x10 L=132.5 SHAPED	•	Fe 510 C	1	8	
38	8	PLATE 100x10 L=140	•	Fe 510 C	1.1	8.8	
37	8	PLATE 119x20 L=400 SHAPED	•	Fe 510 C	7.3	58.4	
△ 36	14	PLATE 250x10 L=380	•	Fe 510 C	7.4	103.6	
△ 35	14	PLATE 130x10 L=400	•	Fe 510 C	4	56	
△ 34	14	PLATE 135x10 L=400 SHAPED	•	Fe 510 C	3.5	49	
33	2	PLATE 395x15 L=1238 SHAPED	•	Fe 510 C	57.4	114.8	
32	2	PLATE 750x25 L=2000 SHAPED	•	Fe 510 C	294	588	
△ 31	2	PLATE 135x15 L=586.5 SHAPED	•	Fe 510 C	9.2	18.4	
△ 30	2	PLATE 135x15 L=1071.5 SHAPED	•	Fe 510 C	16.8	33.6	
△ 29	2	PLATE 135x15 L=893.5 SHAPED	•	Fe 510 C	14	28	
28	2	PLATE 250x30 L=715	•	Fe 510 C	40.2	80.4	
27	12	PLATE 112.5x15 L=369 SHAPED	•	Fe 510 C	4.8	57.6	
26	8	PLATE 110x15 L=200 SHAPED	•	Fe 510 C	2.4	19.2	
25	2	PLATE 250x30 L=500	•	Fe 510 C	28.2	56.4	
24	4	PLATE 119x20 L=395 SHAPED	•	Fe 510 C	5.5	22	
23	4	PLATE 250x20 L=2980	•	Fe 510 C	117	468	
22	4	PLATE 400x12 L=2980 SHAPED	•	Fe 510 C	112.3	449.2	
21	4	PLATE 250x20 L=1245	•	Fe 510 C	48.9	195.6	
20	4	PLATE 400x12 L=1245 SHAPED	•	Fe 510 C	46.8	187.2	
19	24	PLATE 120x15 L=200 SHAPED	•	Fe 510 C	2.7	64.8	
18	4	1/2 IPE 270 L=1238 SHAPED	•	Fe 510 C	22.3	89.2	
17	4	1/2 IPE 270 L=6869 SHAPED	•	Fe 510 C	124	496	
16	4	1/2 IPE 500 L=1585 SHAPED	•	Fe 510 C	71.9	287.6	
15	32	PLATE 95x15 L=234 SHAPED	•	Fe 510 C	2.5	80	
14	8	1/2 IPE 500 L=2980 SHAPED	•	Fe 510 C	135.1	1080.8	
13	8	1/2 IPE 500 L=787.5 SHAPED	•	Fe 510 C	33.3	266.4	
12	1	1/2 IPE 500 L=1238 SHAPED	•	Fe 510 C	56.1	56.1	
11	1	1/2 IPE 500 L=6869 SHAPED	•	Fe 510 C	311.5	311.5	
10	2	PLATE 250x25 L=600	•	Fe 510 C	28.3	56.6	
9	8	PLATE 250x25 L=400	•	Fe 510 C	19	152	
8	8	PLATE 270x12 L=385	•	Fe 510 C	9	72	
7	4	PLATE 350x12 L=500	•	Fe 510 C	13	52	
6	2	PLATE 2980x15 L=8500 SHAPED	•	Fe 510 C	2788	5576	
5	2	PLATE 400x15 L=1238 SHAPED	•	Fe 510 C	58	116	
4	2	PLATE 630x40 L=1800 MACHINING	•	Fe 510 C	342	684	
3	2	PLATE 2400x40 L=800 SHAPED	•	Fe 510 C	567	1134	
2	1	PLATE 2400x25 L=7700 SHAPED	•	Fe 510 C	3174	3174	
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REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	16/05/02	REVISED WHERE INDICATED	EsseTre	S. GERMANO	C. RIBIS
0	10/05/02	FIRST ISSUE	EsseTre	S. GERMANO	C. RIBIS

MARK	A101
NR PIECES	1
UNIT WEIGHT	20140Kg
TOTAL WEIGHT	20140Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

TOTAL WEIGHT = 20140Kg

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

DWG size AO

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimum thk. to be connected (Continuous welds)
Edge preparation for welding in according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F

FINISHING
Machining UNI 1600

TOLLERANCES
Fit ISO (UNI 7218)

P — SURFACE TREATMENT FOR FRICTION JOINTS
SAND BLASTING SA 2 1/2
PAINTING WITH A PRODUCT GUARANTEEING
A MINIMUM FRICTION COEFFICIENT OF μ=0.45

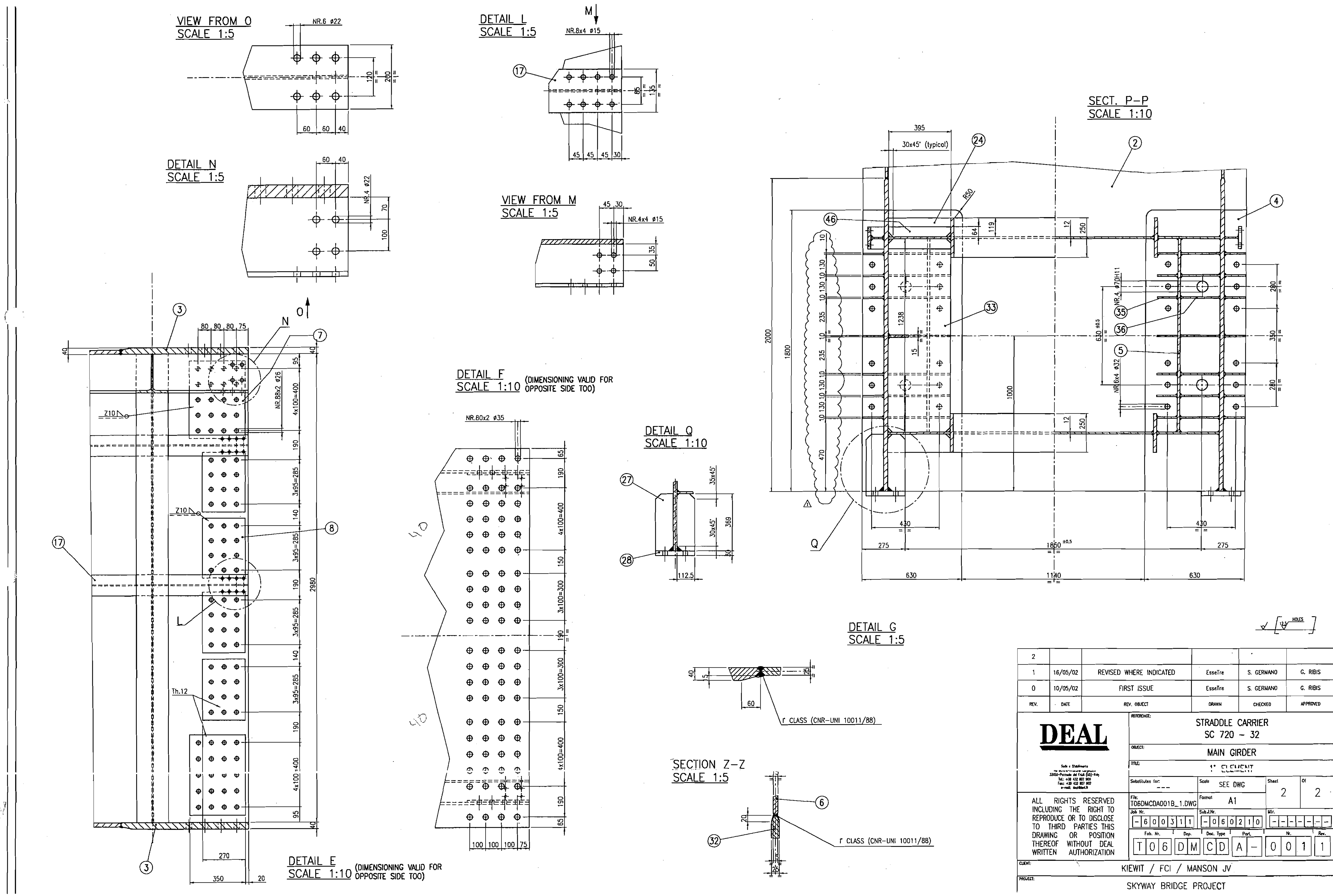
DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: MAIN GIRDER
TITLE: 1° ELEMENT

Substitution for:	Scale	Sheet	Of
---	1:20	1	2

File: T06DMCDA001A_1.DWG — Format: AO
Job Nr.: -600311 — Sub.Nr.: -060210 — Mr.: -------
Fab. Nr. T06 — Dep. DM — Doc. Type CD — Part. A- — Nr. 001 — Rev. 1

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT



REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
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1	16/05/02	REVISED WHERE INDICATED	EsseTre	S. GERMANO	G. RIBIS
0	10/05/02	FIRST ISSUE	EsseTre	S. GERMANO	G. RIBIS

DEAL

REFERENCE:	STRADDLE CARRIER SC 720 – 32
OBJECT:	MAIN GIRDER
TITLE:	1° ELEMENT
Substitutes for:	---
Scale:	SEE DWG
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Format	A1
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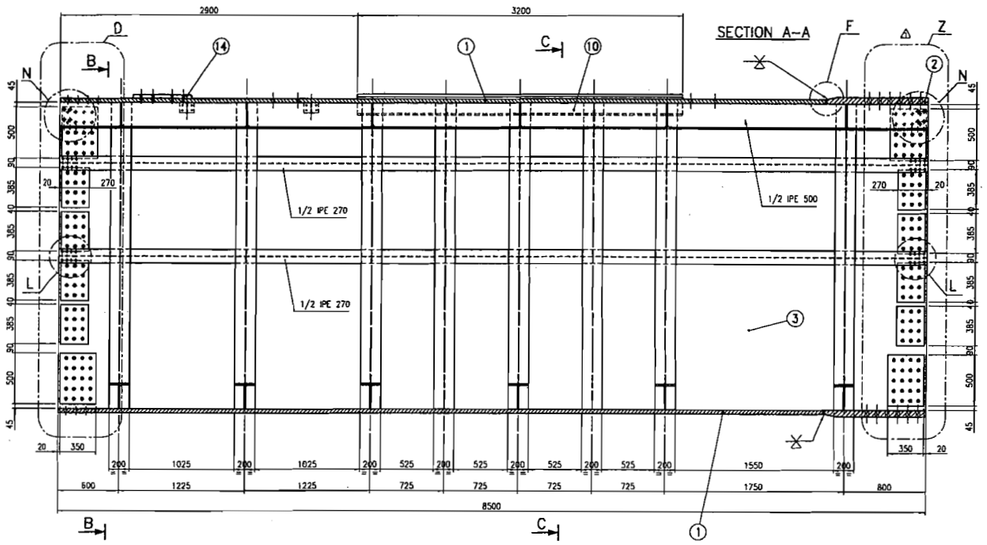
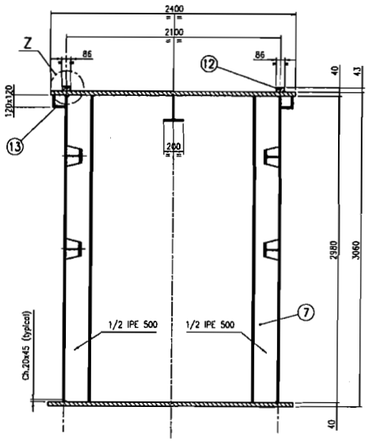
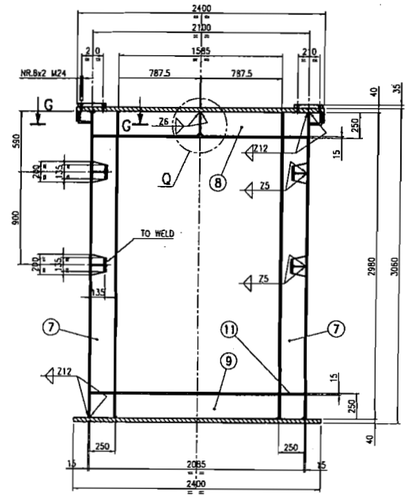
Sub.J.Nr.	- 0 6 0 2 1 0
Mtr.	- - - - - - -
Fab. Nr.	T 0 6
Dep.	D M
Doc. Type	C D
Part	A –
Nr.	0 0 1
Rev.	1
CLIENT:	KIEWIT / FCI / MANSON JV
PROJECT:	SKYWAY BRIDGE PROJECT

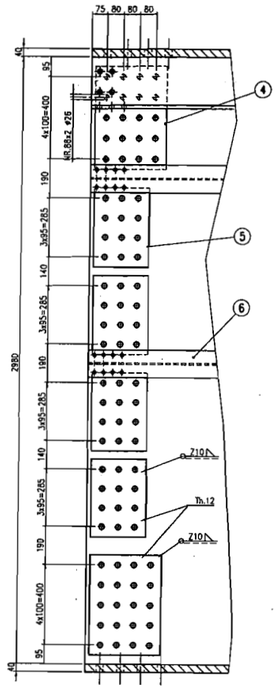


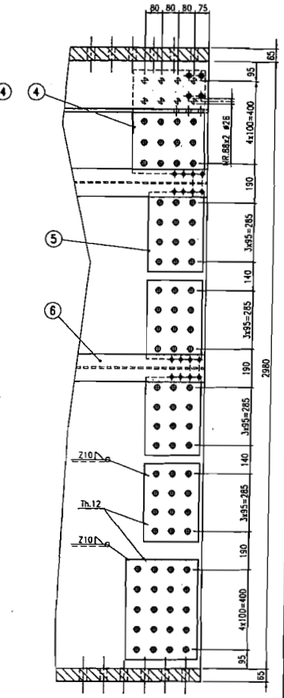


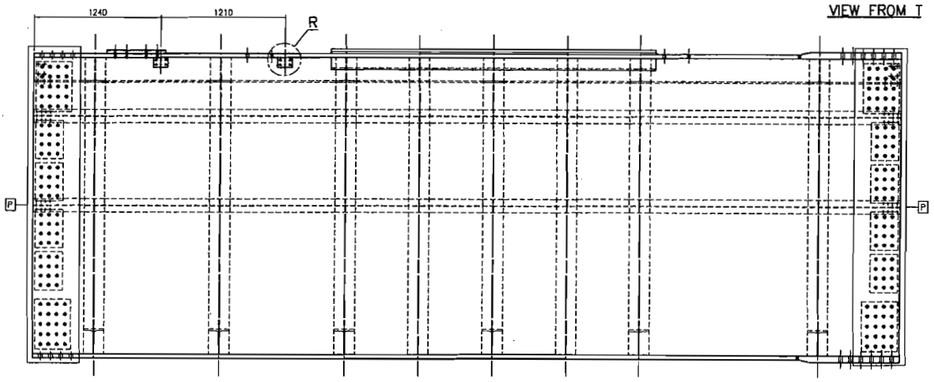
SECTION C–C

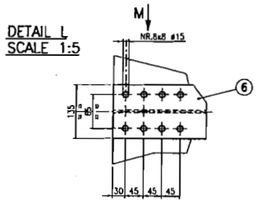


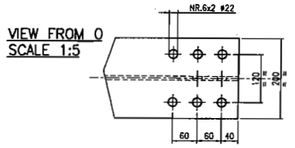
SECTION B–B

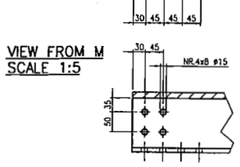


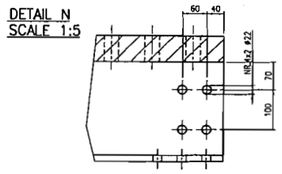


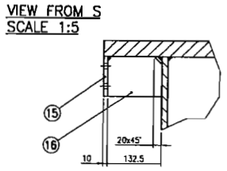


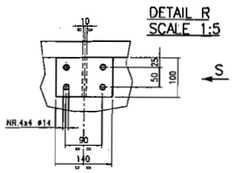


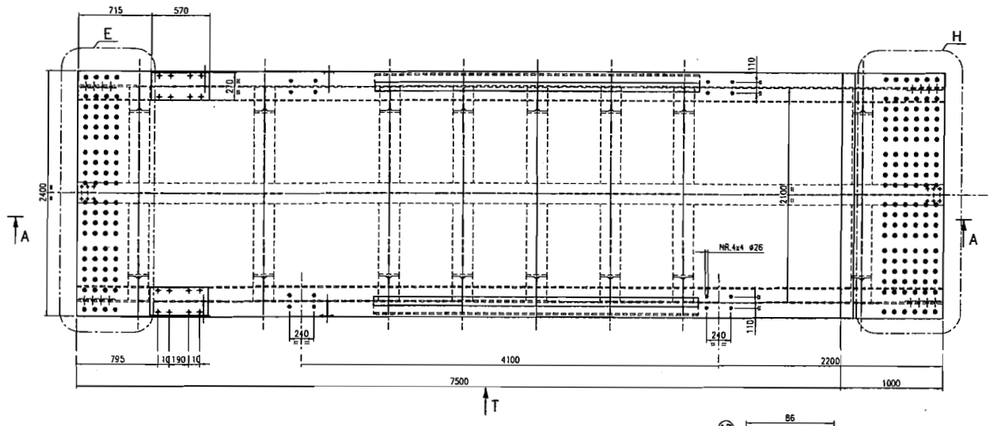


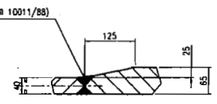


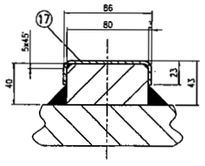


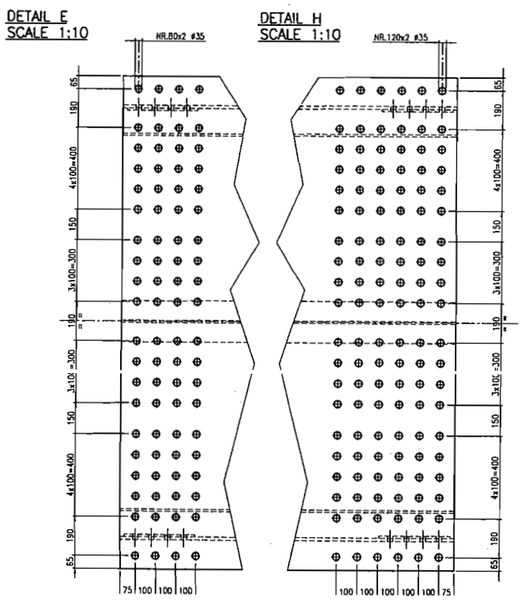


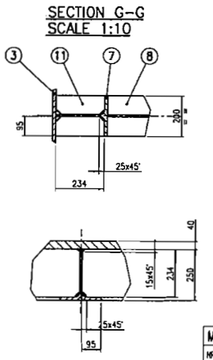












MARK	A201
NR PIECES	2
UNIT WEIGHT	24310Kg
TOTAL WEIGHT	48620Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

TOTAL WEIGHT = 48620Kg

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

SURFACE TREATMENT FOR FRICTION JOINTS
SAND BLASTING SA 2 1/2

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
17	2	BENT PLATE 120x3 L=3200	*	AISI 304	9	18	
16	4	PLATE 100x10 L=132.5 SHAPED	*	Fe 510 C	1	4	
15	4	PLATE 100x10 L=140	*	Fe 510 C	1.1	4.4	
14	2	PLATE 270x35 L=570	*	Fe 510 C	41	82	
13	2	ANGLE 120x120x15 SE L=3200	*	Fe 510 C	85.1	170.2	
12	2	PLATE 80x40 L=3200	*	Fe 510 C	80.4	160.8	
11	48	PLATE 95x15 L=234 SHAPED	*	Fe 510 C	7.5	120	
10	1	1/2 IPE 500 L=8500	*	Fe 510 C	385.4	385.4	
9	6	1/2 IPE 500 L=1585 SHAPED	*	Fe 510 C	71.9	431.4	
8	12	1/2 IPE 500 L=787.5 SHAPED	*	Fe 510 C	33.3	399.6	
7	16	1/2 IPE 500 L=2980 SHAPED	*	Fe 510 C	135.1	2161.6	
6	4	1/2 IPE 270 L=8500	*	Fe 510 C	153.4	613.6	
5	16	PLATE 270x12 L=385	*	Fe 510 C	9	144	
4	8	PLATE 350x12 L=500	*	Fe 510 C	13	104	
3	2	PLATE 2980x15 L=8500	*	Fe 510 C	2982	5964	
2	2	PLATE 1000x65 L=2400 SHAPED	*	Fe 510 C	1129	2258	
1	2	PLATE 2400x40 L=7500	*	Fe 510 C	5644	11288	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	10/05/02	REVISED WHERE INDICATED	EzioTre	S. GERMANO	C. RIBIS
0	10/05/02	FIRST ISSUE	EzioTre	S. GERMANO	C. RIBIS

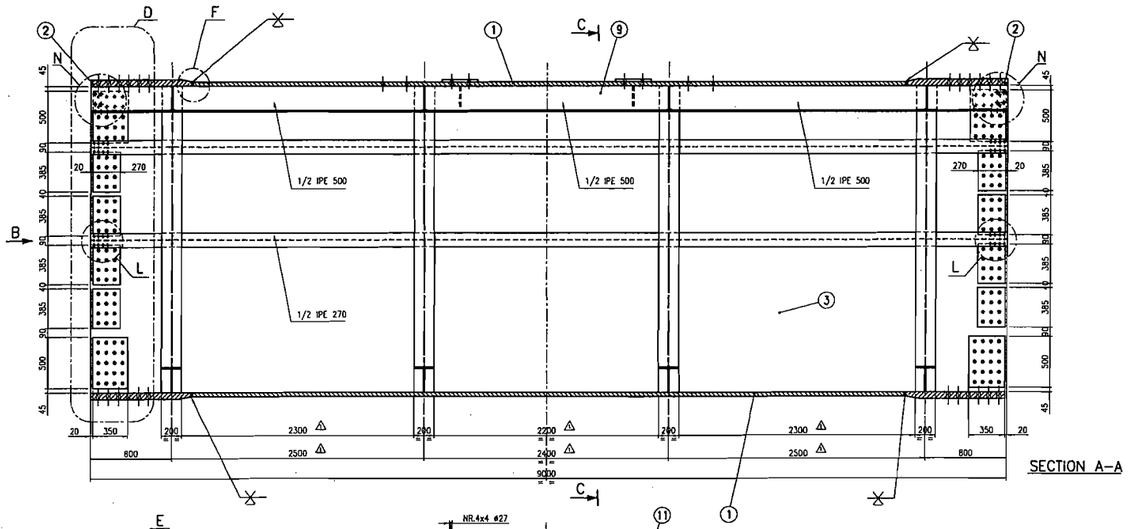
DEAL

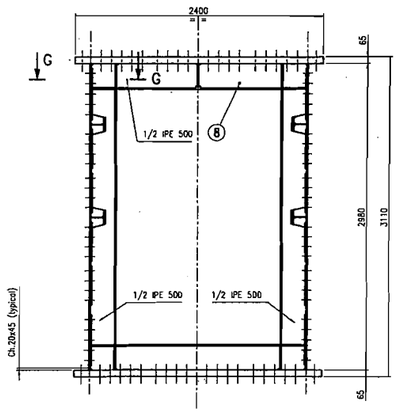
STRADDLE CARRIER
SC 720 - 32

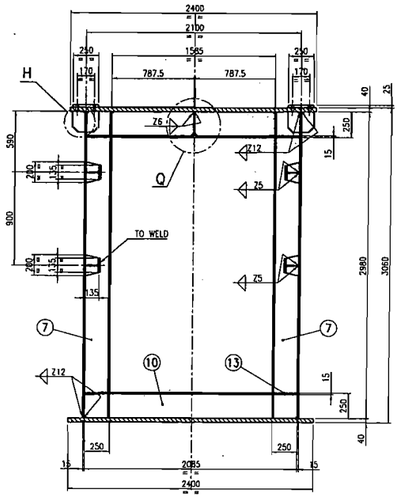
MAIN GIRDER
2'-4" ELEMENT

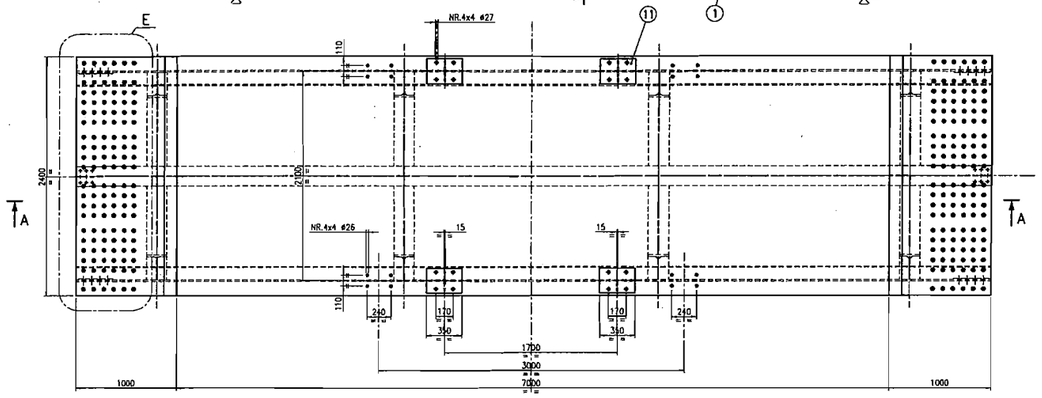
Scale: 1:20 | Sheet: 1 of 1 | Format: A0
File: T06DMCDA002_1.DWG
Job Nr.: L-60311 | Sub-Job: L-06021 0 | WO.: -------
Fab. Nr. T 0 6 | Dep. D M | Doc. Type C D | Prot. A | Nr. - 0 0 2 | Rev. 1

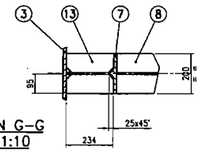
CLIENT: KIEWIT / FCI / MANSON JV

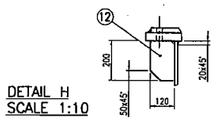


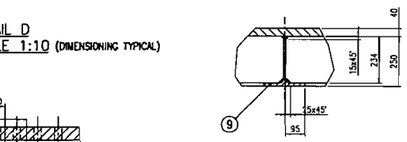


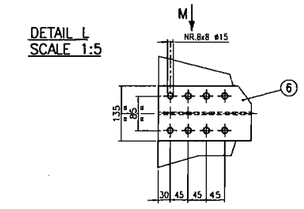


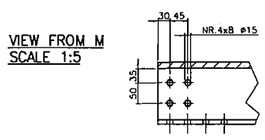


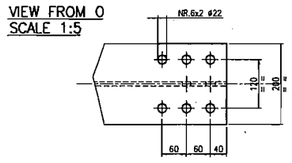


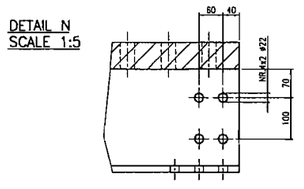


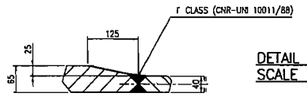


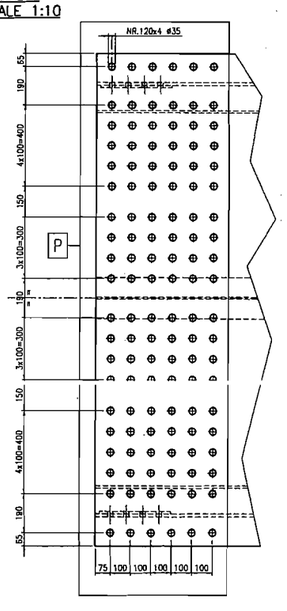


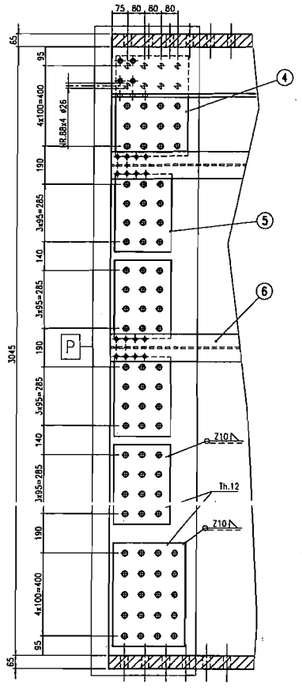












MARK	A301
NR PIECES	1
UNIT WEIGHT	24440Kg
TOTAL WEIGHT	24440Kg

FINAL PAINTING :

TOTAL WEIGHT =24440Kg

WELDING PROCEDURES :
The procedures usad shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

P SURFACE TREATMENT FOR FRICTION JOINTS SAND BLASTING SA 2 1/2 PAINTING WITH A PRODUCT GUARANTEEING A MINIMUM FRICTION COEFFICIENT OF μ=0.45

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
13	32	PLATE 95x15 L=234 SHAPED	*	Fe 510 C	2.5	80	
12	8	PLATE 120x15 L=200 SHAPED	*	Fe 510 C	2.7	21.6	
11	4	PLATE 250x25 L=350	*	Fe 510 C	16.7	66.8	
10	4	1/2 IPE 500 L=1585 SHAPED	*	Fe 510 C	71.9	287.6	
9	1	1/2 IPE 500 L=9000	*	Fe 510 C	408.2	408.2	
8	8	1/2 IPE 500 L=787.5 SHAPED	*	Fe 510 C	33.3	266.4	
7	8	1/2 IPE 500 L=2980 SHAPED	*	Fe 510 C	135.1	1080.8	
6	4	1/2 IPE 270 L=9000	*	Fe 510 C	162.5	650	
5	16	PLATE 270x12 L=385	*	Fe 510 C	9	144	
4	8	PLATE 350x12 L=500	*	Fe 510 C	13	104	
3	2	PLATE 2980x15 L=9000	*	Fe 510 C	3147	6294	
2	4	PLATE 1000x65 L=2400 SHAPED	*	Fe 510 C	1128	4516	
1	2	PLATE 2400x40 L=7000	*	Fe 510 C	5260	10520	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	16/05/02	REVISED WHERE INDICATED	ExtraTre	S. CERMANO	G. RIBIS
0	10/05/02	FIRST ISSUE	ExtraTre	S. CERMANO	G. RIBIS

DEAL

STRADDLE CARRIER SC 720 - 32

MAIN GIRDER

3° ELEMENT

Scale 1:20 | Sheet 1 | Dr 1

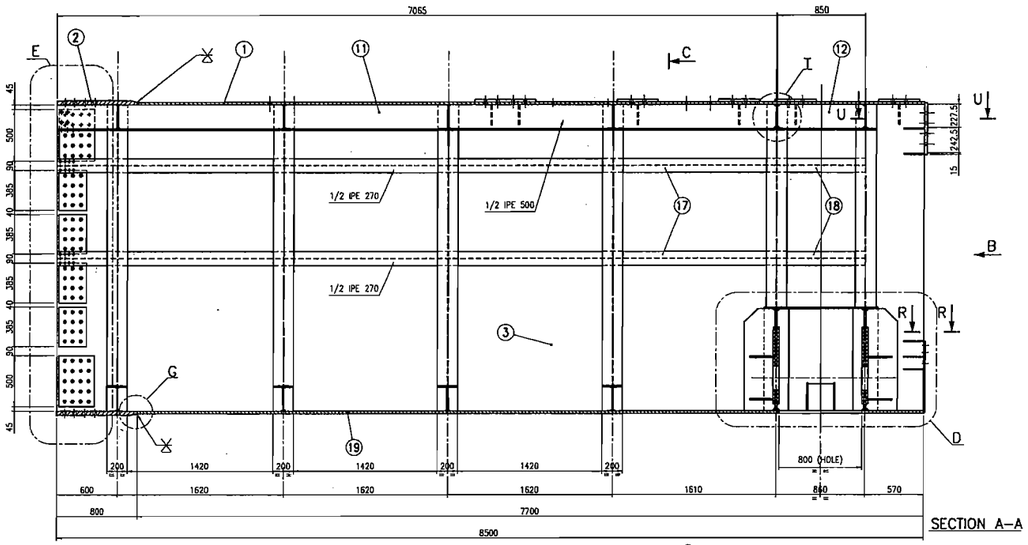
Format A0

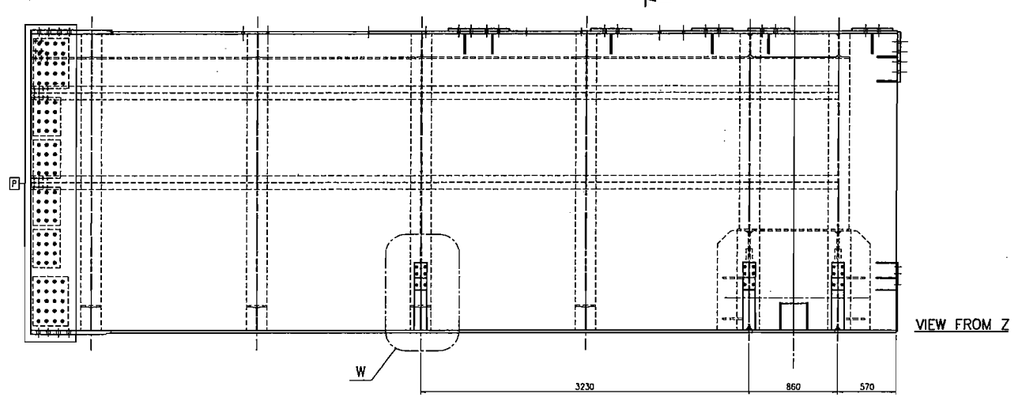
File: T06DMCDA003_1.DWG

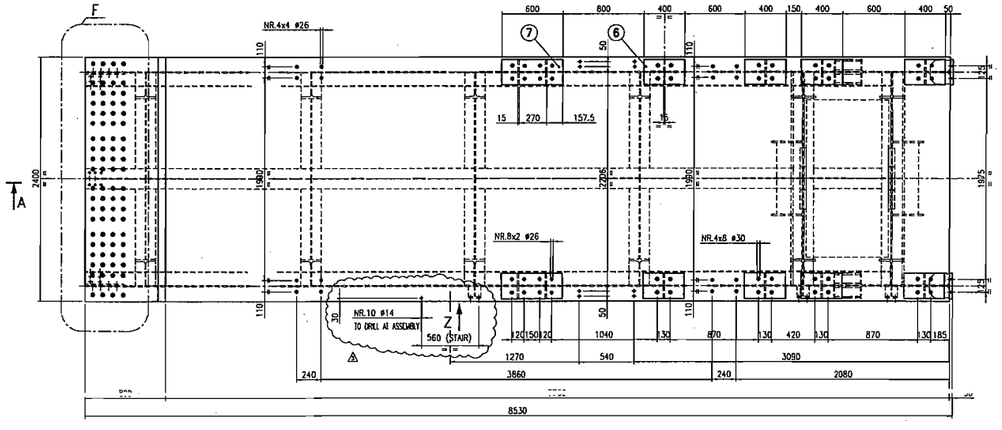
Job Nr. -|6|0|3|1|1 | Sub.Nr. -|0|6|0|2|1|0 | Mtr. -|-|-|-|-|-|-

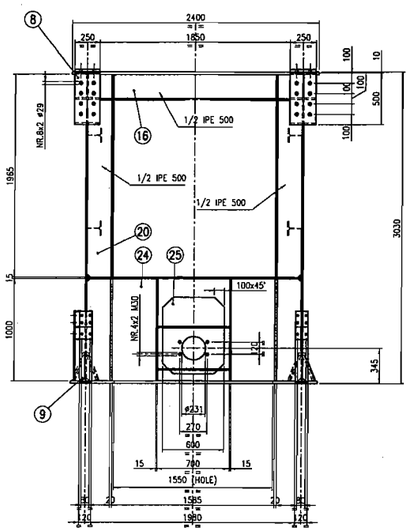
Fdn. Nr. T|0|6 | Dep. D|M | Doc. Type C|D | Port. A|- | Nr. 0|0|3 | Rev. 1

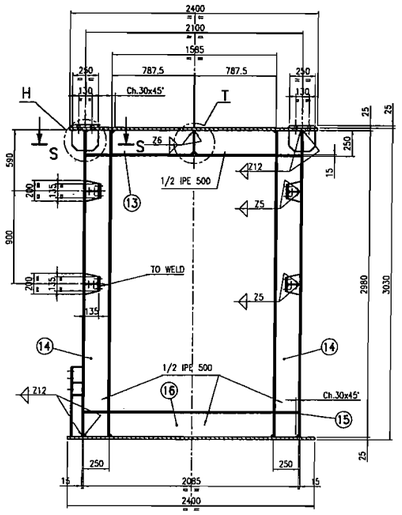
KIEWIT / FCI / MANSON JV

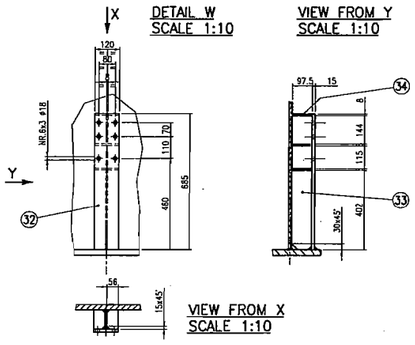


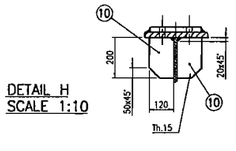


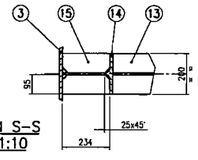


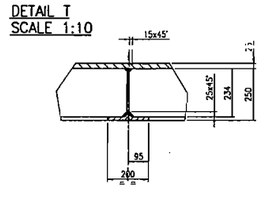


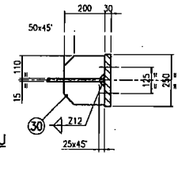












MARK	A401
NR PIECES	1
UNIT WEIGHT	19360Kg
TOTAL WEIGHT	19360Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

TOTAL WEIGHT = 19360Kg

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

P SURFACE TREATMENT FOR FRICTION JOINTS
SAND BLASTING SA 2 1/2
PAINTING WITH A PRODUCT GUARANTEEING
A MINIMUM FRICTION COEFFICIENT OF μ=0.45

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
36	4	PLATE 250x15 L=265	*	Fe 510 C	7	28	
35	8	PLATE 120x10 L=275 SHAPED	*	Fe 510 C	2	16	
34	18	PLATE 56x8 L=97.5 SHAPED	*	Fe 510 C	0.3	5.4	
33	3	PLATE 97.5x8 L=685 SHAPED	*	Fe 510 C	4.2	12.6	
32	3	PLATE 120x15 L=685	*	Fe 510 C	9.5	28.5	
31	12	PLATE 52.5x8 L=200 SHAPED	*	Fe 510 C	0.6	7.2	
30	8	PLATE 110x15 L=200 SHAPED	*	Fe 510 C	2.4	19.2	
27	8	PLATE 110x20 L=1000 SHAPED	*	Fe 510 C	17.2	137.6	
26	4	PLATE 250x15 L=700 SHAPED	*	Fe 510 C	19.2	76.8	
25	4	PLATE 600x20 L=750 SHAPED	*	Fe 510 C	60.9	243.6	
24	2	PLATE 1000x20 L=2085 SHAPED	*	Fe 510 C	320.5	641	
23	4	PLATE 300x15 L=1000 SHAPED	*	Fe 510 C	34.2	136.8	
21	1	PLATE 1100x15 L=2085	*	Fe 510 C	270	270	
20	4	1/2 IPE 500 L=1955 SHAPED	*	Fe 510 C	89.1	356.4	
19	1	PLATE 2400x25 L=7700 SHAPED	*	Fe 510 C	3380	3380	
18	4	1/2 IPE 270 L=850 SHAPED	*	Fe 510 C	15.3	61.2	
17	4	1/2 IPE 270 L=7065 SHAPED	*	Fe 510 C	127.5	510	
16	6	1/2 IPE 500 L=1585 SHAPED	*	Fe 510 C	71.9	431.4	
15	40	PLATE 95x15 L=234 SHAPED	*	Fe 510 C	2.5	100	
14	8	1/2 IPE 500 L=2980 SHAPED	*	Fe 510 C	135.1	1080.8	
13	8	1/2 IPE 500 L=787.5 SHAPED	*	Fe 510 C	33.3	266.4	
12	1	1/2 IPE 500 L=850 SHAPED	*	Fe 510 C	33.7	33.7	
11	1	1/2 IPE 500 L=7065 SHAPED	*	Fe 510 C	318	318	
10	24	PLATE 120x15 L=200 SHAPED	*	Fe 510 C	2.7	64.8	
9	2	PLATE 120x15 L=695	*	Fe 510 C	9.8	19.2	
8	2	PLATE 250x30 L=500	*	Fe 510 C	28.2	56.4	
7	2	PLATE 250x25 L=600	*	Fe 510 C	28.3	56.6	
6	8	PLATE 250x25 L=400	*	Fe 510 C	19	152	
5	8	PLATE 270x12 L=385	*	Fe 510 C	9	72	
4	4	PLATE 350x12 L=500	*	Fe 510 C	13	52	
3	2	PLATE 2980x15 L=8500	*	Fe 510 C	2383	5966	
2	2	PLATE 800x40 L=2400 SHAPED	*	Fe 510 C	568	1136	
1	1	PLATE 2400x25 L=7700 SHAPED	*	Fe 510 C	3624	3624	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
3	06/08/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	G. RIBIS
2	03/06/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	G. RIBIS
1	16/05/02	REVISED WHERE INDICATED	EsseTre	S. GERMANO	G. RIBIS
0	10/05/02	FIRST ISSUE	EsseTre	S. GERMANO	G. RIBIS

DEAL

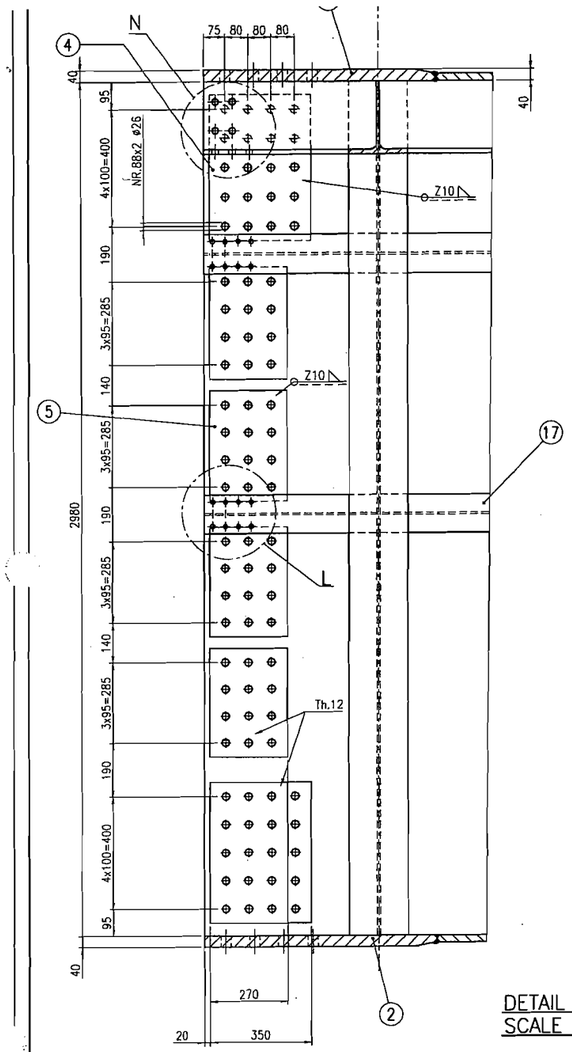
STRADDLE CARRIER
SC 720 - 32

MAIN GIRDER

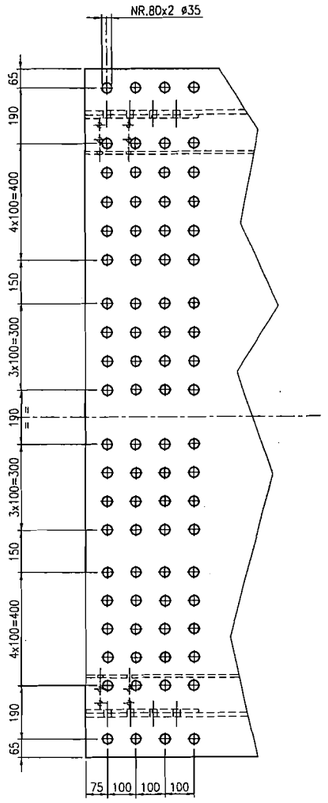
5° ELEMENT

Scale 1:20 | Sheet 1 | of 2
File T06DMCDA004A_3.DWG | Format A0
Job No. -60031T | Sub-Job. -060210 | Mfr. -----
Fab. Nr. T06DMCDA-0043

KIEWIT / FCI / MANSON JV

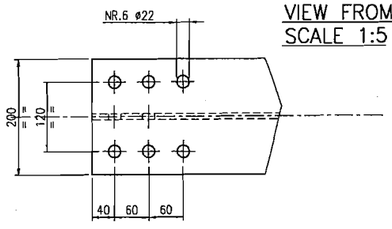


DETAIL F
SCALE 1:10 (DIMENSIONING VALID FOR OPPOSITE SIDE TOO)

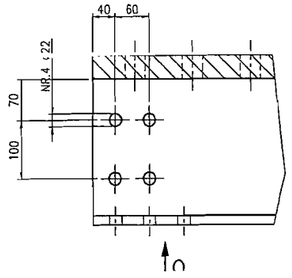


DETAIL E
SCALE 1:10 (DIMENSIONING VALID FOR OPPOSITE SIDE TOO)

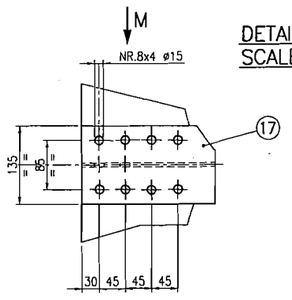
VIEW FROM O
SCALE 1:5



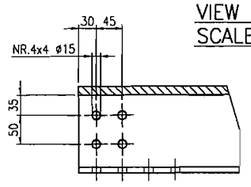
DETAIL N
SCALE 1:5



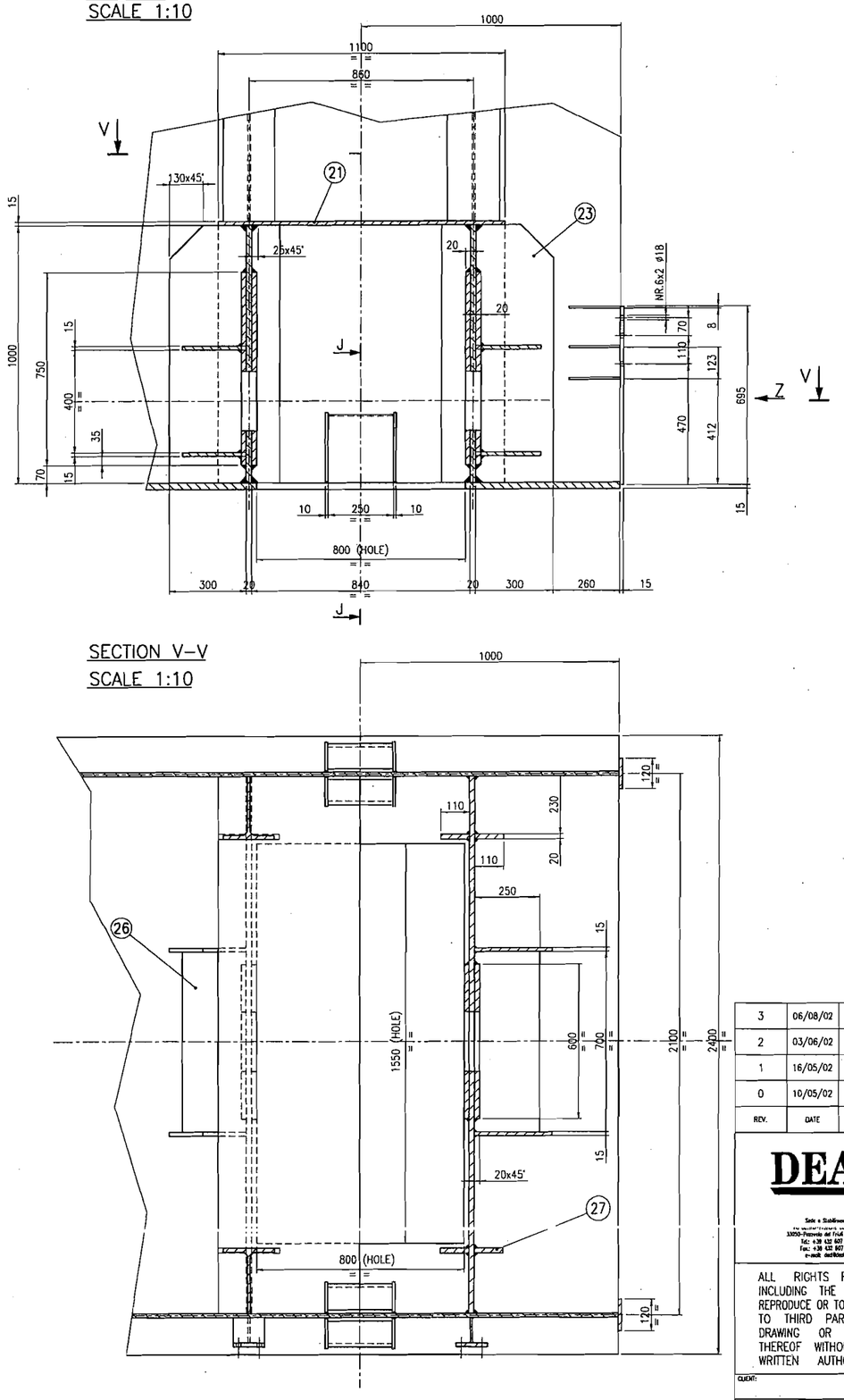
DETAIL L
SCALE 1:5



VIEW FROM M
SCALE 1:5

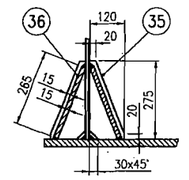


DETAIL D
SCALE 1:10

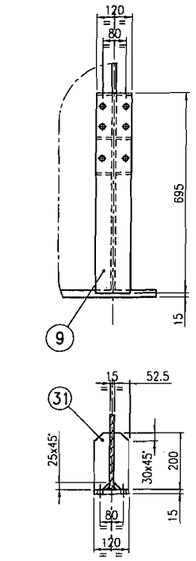


SECTION V–V
SCALE 1:10

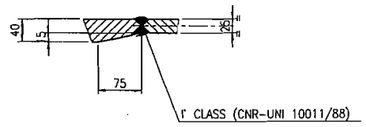
SECTION J–J
SCALE 1:10



VIEW Z
SCALE 1:10



DETAIL G
SCALE 1:5



REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
3	06/08/02	REVISED SHEET 1/2	S. GERMANO	S. GERMANO	G. RIBIS
2	03/06/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	G. RIBIS
1	16/05/02	SEE SHEET 1–2	Essetre	S. GERMANO	G. RIBIS
0	10/05/02	FIRST ISSUE	Essetre	S. GERMANO	G. RIBIS

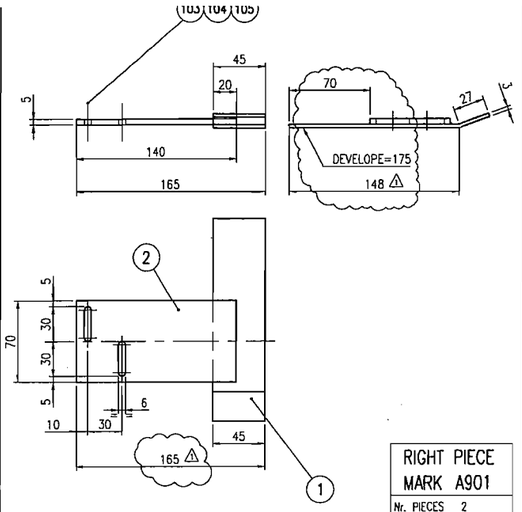
DEAL

Sede e Stabilimento
33050-Pavonis del Friuli (UD)-Italy
Tel: +39 431 607 600
Fax: +39 431 607 702
e-mail: deal@deal.it

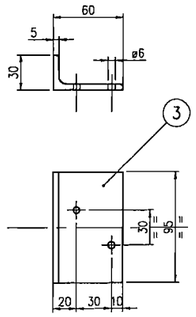
REFERENCE: STRADDLE CARRIER SC 720 – 32
OBJECT: MAIN GIRDER
TITLE: 5° ELEMENT
Substitutes for: ---
Scale: SEE DWG
Format: A1
Sheet: 2 Of: 2
File: T06DMCDA004B_3.DWG
Job Nr.: -60031 1
Sub.J.Nr.: -06021 0
Mtr.: -------
Feb. Nr. | Dep. | Doc. Type | Part. | Nr. | Rev.
T06 | DM | CD | A- | 004 | 3

CLIENT: KIEWIT / FCI / MANSON JV

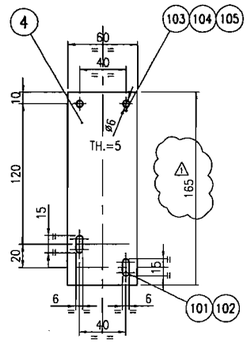
PROJECT: SKYWAY BRIDGE PROJECT



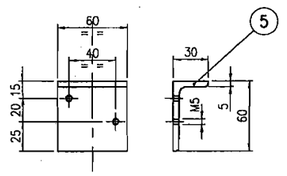
RIGHT PIECE MARK A901	
Nr. PIECES	2
LEFT PIECE MARK A902	
Nr. PIECES	2
UNIT WEIGHT	0.4 Kg
TOTAL WEIGHT	1.6 Kg



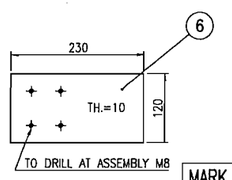
RIGHT PIECE MARK A903	
Nr. PIECES	2
LEFT PIECE MARK A904	
Nr. PIECES	2
UNIT WEIGHT	0.2 Kg
TOTAL WEIGHT	0.8 Kg



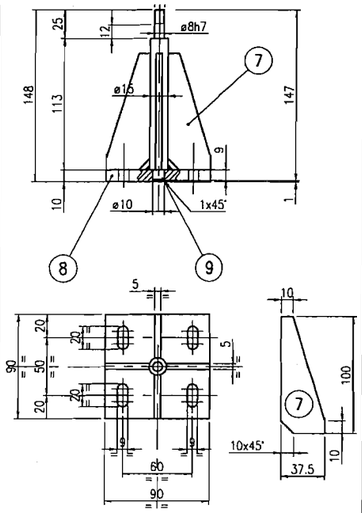
MARK A905	
NR PIECES	2
UNIT WEIGHT	0.5 Kg
TOTAL WEIGHT	1 Kg



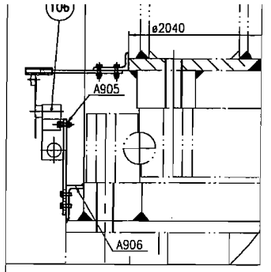
MARK A906	
NR PIECES	2
UNIT WEIGHT	0.2
TOTAL WEIGHT	0.4



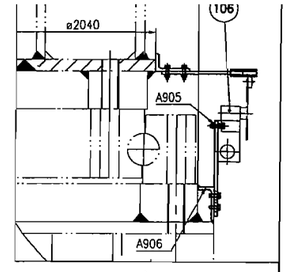
MARK A907	
NR PIECES	1
UNIT WEIGHT	2 Kg
TOTAL WEIGHT	2 Kg



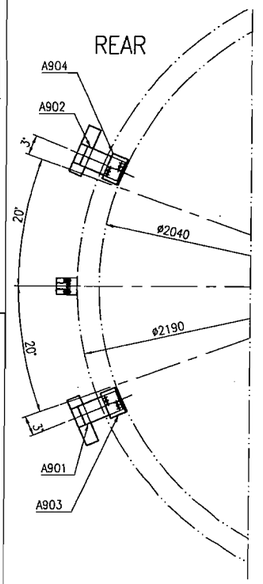
MARK A908	
NR PIECES	4
UNIT WEIGHT	1.2Kg
TOTAL WEIGHT	4.8Kg

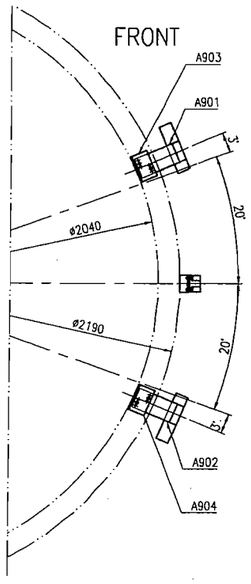


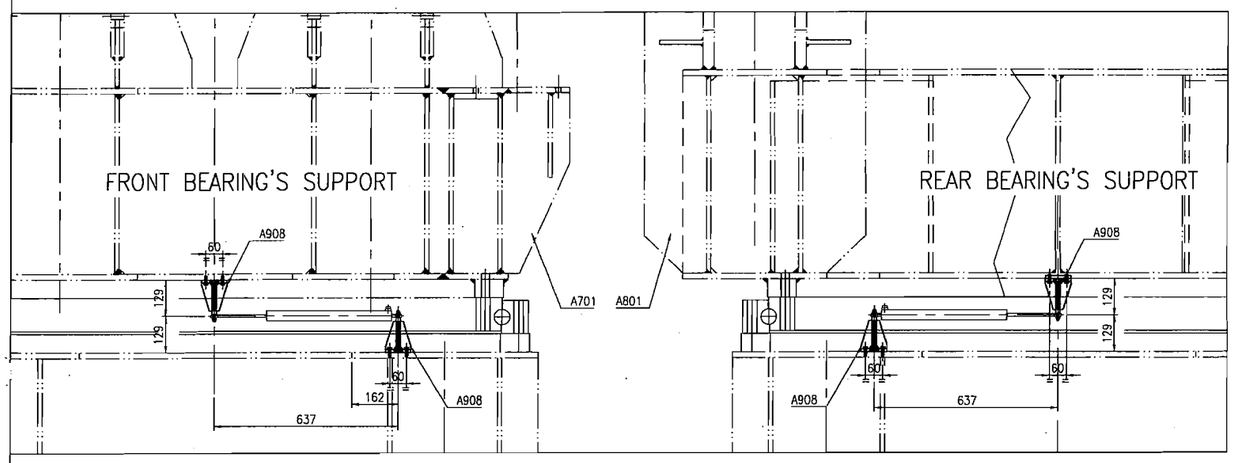
REAR BEARING'S SUPPORT

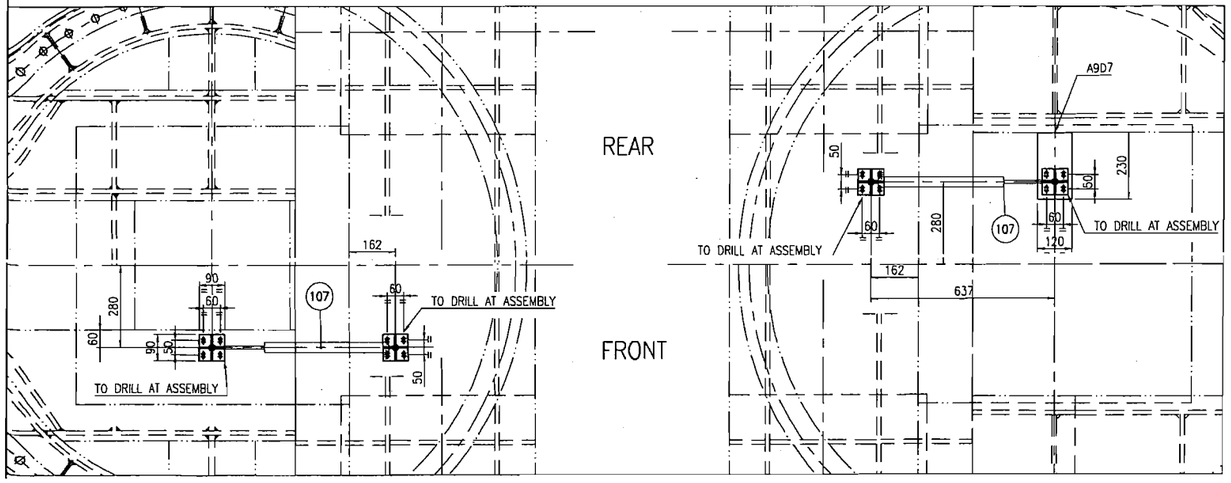


FRONT BEARING'S SUPPORT









POS.	Q.TY	DESCRIPTION		COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
9	4	ROUND Ø15	L= 147 SHAPED		Fe 430 B	0.2	0.8	
8	4	PLATE 90x10	L= 90		Fe 430 B	0.6	2.4	
7	16	PLATE 100x5	L= 37.5 SHAPED		Fe 430 B	0.1	1.6	
6	1	PLATE 120x10	L= 230		Fe 430 B	2	2	
5	2	L 60x30 x5	L= 60		Fe 430 B	0.2	0.4	
⚠ 4	2	PLATE 60x5	L= 165		Fe 430 B	0.5	1	
3	4	L 60x30x5	L= 95		Fe 430 B	0.2	0.8	
⚠ 2	4	PLATE 70x5	L= 140		Fe 430 B	0.3	1.2	
⚠ 1	4	PLATE 45x3	L= 175 BENT		Fe 430 B	0.1	0.4	

107	2	POSITION TRANSDUCER PC-300		GEFRAN			
⚠ 106	4	LIMIT-SWITCH 7834		RAVASI	0.2	0.8	
105	12	NUT M5	UNI 5588				
104	24	WASHER Ø5	UNI 6592				
103	12	SCREW M5x20	UNI 5737	8.8			
102	4	WASHER Ø5	UNI 1751				
101	4	SCREW M5x15	UNI 5739	8.8			

REMOVE SHARP CORNERS WITH R=≈2

DWG size A1

WELDS (UNI 1310)

Where not otherwise indicated a=0.7 of minimum thk. to be connected

(Continuous welds) $a^{0/2}$

Edge preparation for welding in according to UNI 11001

TOLLERANCES

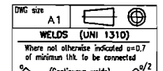
Dimension without tolerance indication

Structural steel work UNI ISO 2768-M

Mechanics UNI ISO 2768-f

FINISHING

Machining UNI 1600



TOLLERANCES

Fit ISO (UNI 7218)

FINAL PAINTING :

ENAMEL YELLOW RAL 1007

TOTAL WEIGHT = 11Kg

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

12,5 HOLES SLOTS

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	10/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	G. RIBIS
0	21/06/02	FIRST ISSUE	S. GERMANO	S. GERMANO	G. RIBIS

DEAL

Sede e Stabilimento:
33050 - Pozzuolo del Friuli (UD) - Italy
Tel.: +39 432 667 900
Fax: +39 432 667 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: MAIN GIRDER

TITLE: ACCESSORIES

Sobst.Rules for: ---

Scale 1:10

Sheet 1 Of 1

File: T06DUCDA009_1.DWG

Format A1

Job Nr. -60031 1

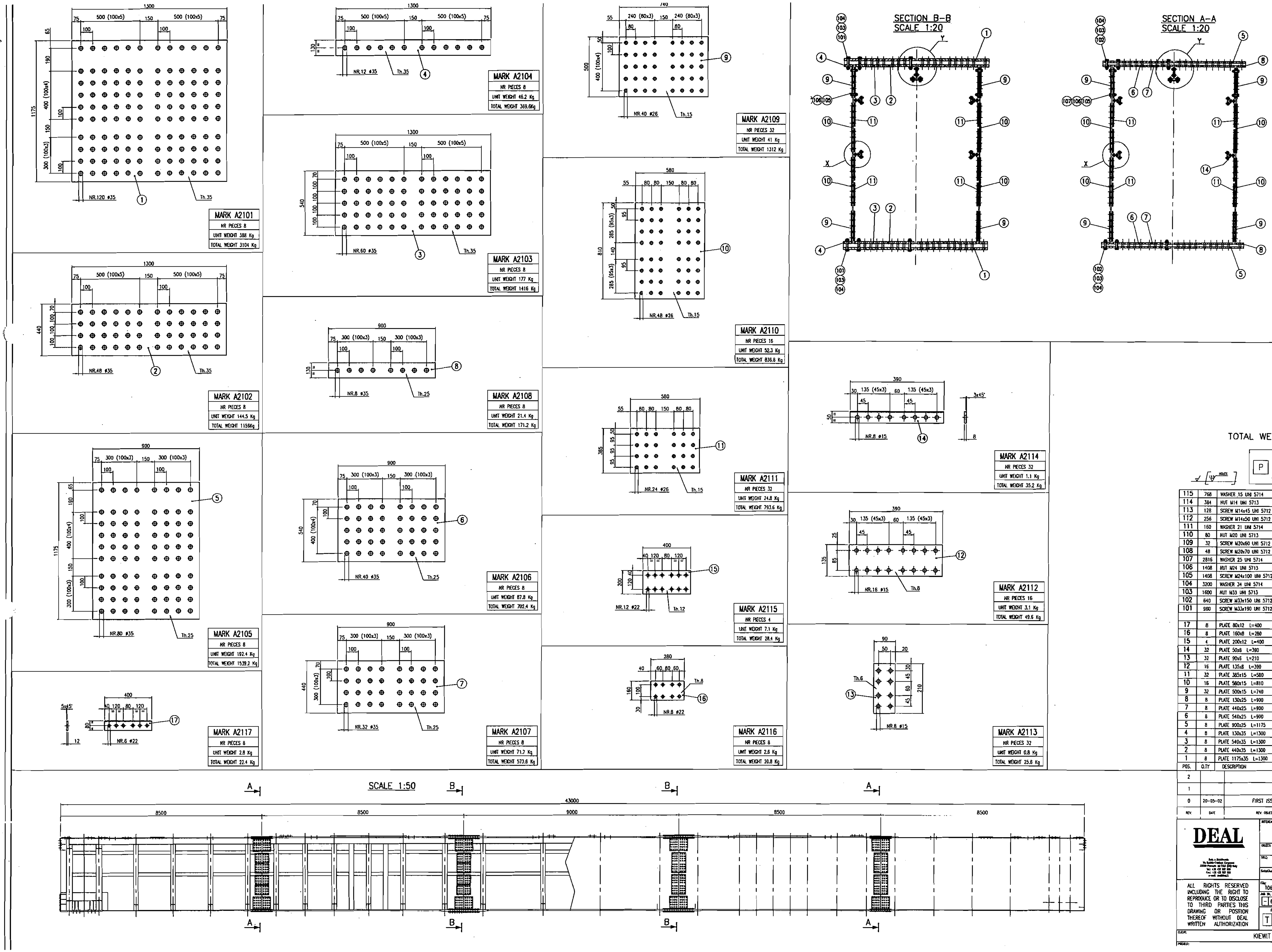
Sub.Job Nr. -06022 9

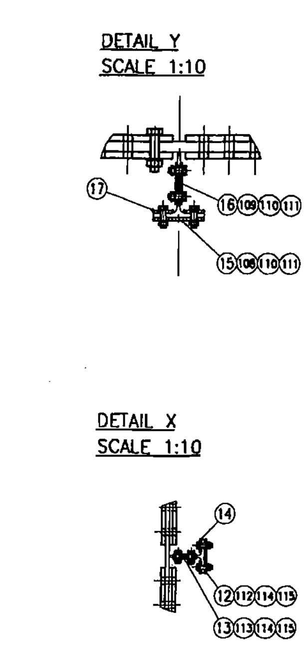
Mtr. -------

Fab. Nr. T06 | Dep. DU | Doc. Type CD | Part. A- | Nr. 009 | Rev. 1

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT





FINAL PAINTING : ENAMEL YELLOW RAL 1007

TOTAL WEIGHT = 12156Kg

TOLLERANCES FR ISO (UNI 7218)

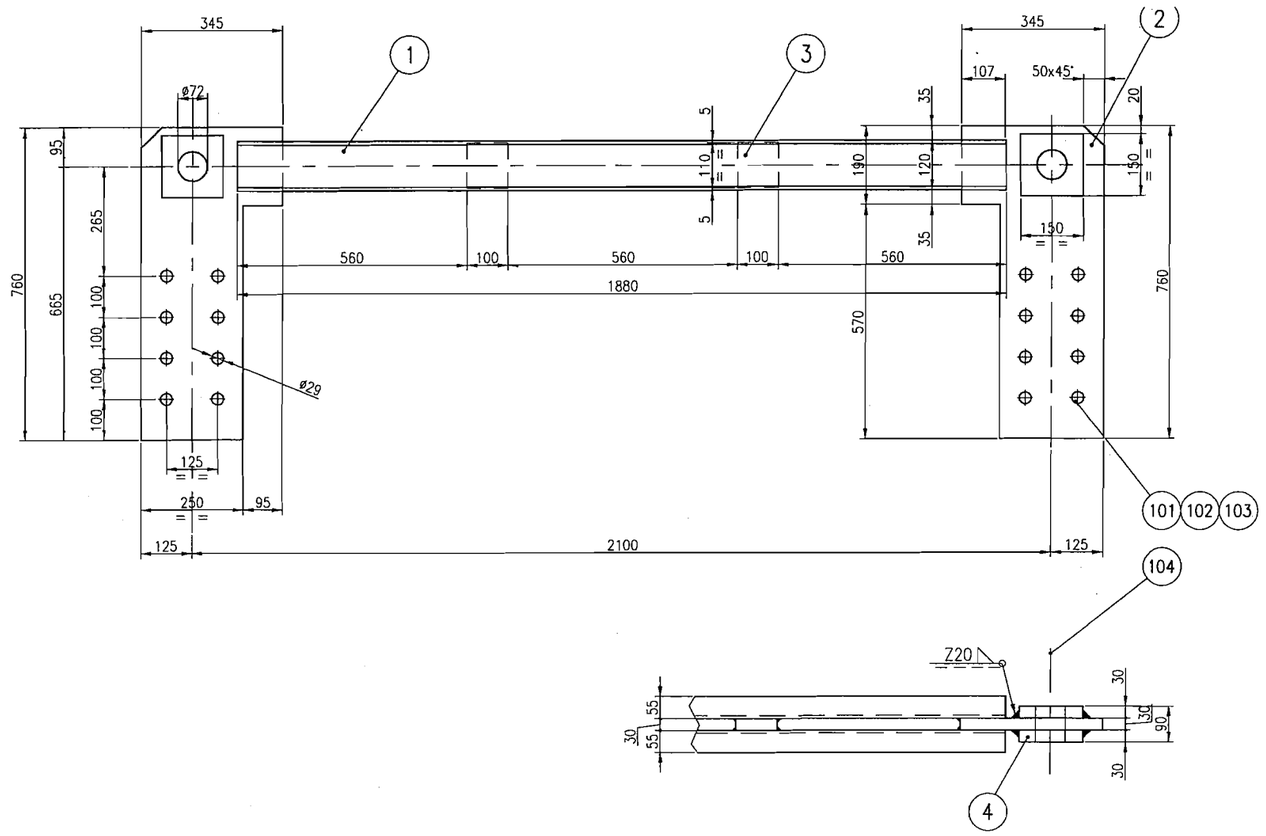
P SURFACE TREATMENT FOR FRICTION JOINTS
SAND BLASTING SA 2 1/2
PAINTING WITH A PRODUCT GUARANTEEING
A MINIMUM FRICTION COEFFICIENT OF μ=0.45

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
115	768	WASHER 15 UNI 5714	•	C50	•	•	
114	384	NUT M14 UNI 5713	•	10	•	•	
113	128	SCREW M14x45 UNI 5712	•	10.9	•	•	
112	256	SCREW M14x50 UNI 5712	•	10.9	•	•	
111	160	WASHER 21 UNI 5714	•	C50	•	•	
110	80	NUT M20 UNI 5713	•	10	•	•	
109	32	SCREW M20x60 UNI 5712	•	10.9	•	•	
108	48	SCREW M20x70 UNI 5712	•	10.9	•	•	
107	2816	WASHER 25 UNI 5714	•	C50	•	•	
106	1408	NUT M24 UNI 5713	•	10	•	•	
105	1408	SCREW M24x100 UNI 5712	•	10.9	•	•	
104	3200	WASHER 34 UNI 5714	•	C50	•	•	
103	1600	NUT M33 UNI 5713	•	10	•	•	
102	640	SCREW M33x150 UNI 5712	•	10.9	•	•	
101	960	SCREW M33x190 UNI 5712	•	10.9	•	•	
17	8	PLATE 80x12 L=400	•	Fe 510 C	2.8	22.4	
16	8	PLATE 160x8 L=280	•	Fe 510 C	2.6	20.8	
15	4	PLATE 200x12 L=400	•	Fe 510 C	7.1	28.4	
14	32	PLATE 50x8 L=390	•	Fe 510 C	1.1	35.2	
13	32	PLATE 90x6 L=210	•	Fe 510 C	0.8	25.6	
12	16	PLATE 135x8 L=390	•	Fe 510 C	3.1	49.6	
11	32	PLATE 385x15 L=580	•	Fe 510 C	24.8	793.6	
10	16	PLATE 580x15 L=810	•	Fe 510 C	52.3	836.8	
9	32	PLATE 500x15 L=740	•	Fe 510 C	41	1312	
8	8	PLATE 130x25 L=900	•	Fe 510 C	21.4	171.2	
7	8	PLATE 440x25 L=900	•	Fe 510 C	71.7	573.6	
6	8	PLATE 540x25 L=900	•	Fe 510 C	87.8	702.4	
5	8	PLATE 900x25 L=1175	•	Fe 510 C	192.4	1539.2	
4	8	PLATE 130x35 L=1300	•	Fe 510 C	46.2	369.6	
3	8	PLATE 540x35 L=1300	•	Fe 510 C	177	1416	
2	8	PLATE 440x35 L=1300	•	Fe 510 C	144.5	1156	
1	8	PLATE 1175x35 L=1300	•	Fe 510 C	388	3104	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	20-05-02	FIRST ISSUE	EsseTre	S. GERMANO	G. RIBIS

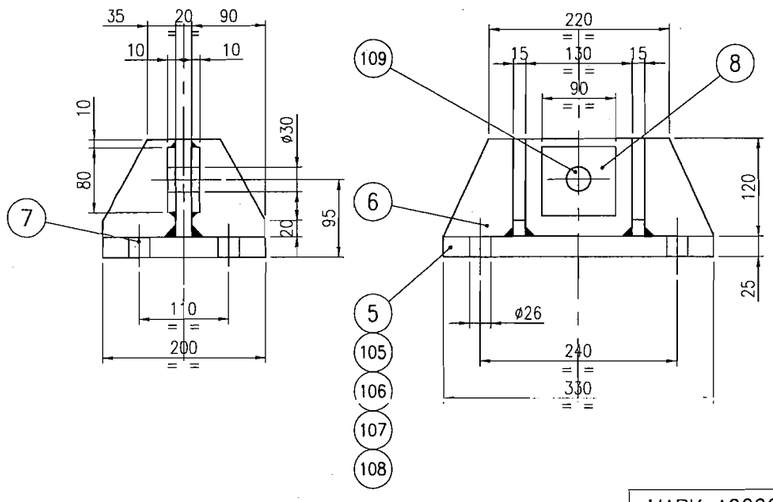
DEAL

INTERFACE:	STRADDLE CARRIER SC 720 - 32
OBJECT:	MAIN GIRDER
TITLE:	JUNCTION PLATES
Substitutes for:	---
Scale	1:10
Sheet	1 of 1
File:	T06DMCDA021.DWG
Format	A0
Job Nr.	- 6 0 0 3 1 1
Sub.Nr.	- 0 6 0 2 1 0
Nr.	- - - - - - -
Fab. Nr. / Dep. / Doc. Type / Part. / Nr. / Rev.	T 0 6 / D M / C D / A - / 0 2 1 / 0
CLIENT:	KIEWIT / FCI / MANSON JV
PROJECT:	



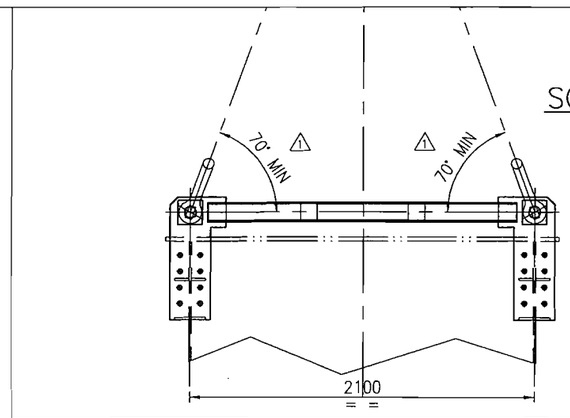
MARK A2201
NR PIECES 2
UNIT WEIGHT 167.2Kg
TOTAL WEIGHT 334.4Kg

SCALE 1:5

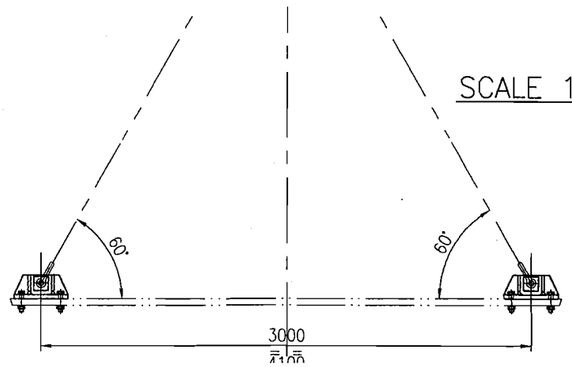


MARK A2202
NR PIECES 20
UNIT WEIGHT 23.2Kg
TOTAL WEIGHT 464Kg

SCALE 1:25



SCALE 1:25



REMOVE SHARP CORNERS WITH R~=2

DWG size A2

WELDS (UNI 1310)

Where not otherwise indicated a=0,7 of minimun thk. to be connected

(Continuous welds) a/2

Edge preparation for welding in according to UNI 11001

TOLLERANCES

Dimension without tolerance indication

Structural steel work UNI ISO 2768-M

Mechanics UNI ISO 2768-F

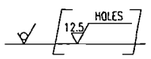
FINISHING

Machining UNI 4600

0,8 | 3,2 | 12,5 | 25

TOLLERANCES

Fit ISO (UNI 7218)



WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

TOTAL WEIGHT = 955 Kg

FINAL PAINTING :

ENAMEL YELLOW RAL 1007

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
109	4	HOOK "OMEGA" 8500 Kg		FROM MARKET	2.3	9.2	
108	48	SCREW M24x110 UNI 5737		8.8			
107	160	WASHER 25x44 UNI 6592					
106	80	NUT M24 UNI 5588		6S			
105	32	SCREW M24x90 UNI 5737		8,8			
104	4	HOOK "OMEGA" 55000Kg		FROM MARKET	37	148	
103	32	NUT M27 UNI 5588		6S			
102	64	WASHER 28x50 UNI 6592					
101	32	SCREW M27x100 UNI 5737		8,8			
8	40	PLATE 80x10 L= 90		Fe 510 C	0.5	20	
7	80	PLATE 90x15 L= 120 SHAPED		Fe 510 C	1	80	
6	20	PLATE 120x20 L= 330 SHAPED		Fe 510 C	5.2	104	
5	20	PLATE 200x25 L= 330		Fe 510 C	13	260	
4	8	PLATE 150x30 L= 150		Fe 510 C	4.3	34.4	
3	4	PLATE 100x30 L= 110		Fe 510 C	2.6	10.4	
2	4	PLATE 345x30 L= 760 SHAPED		Fe 510 C	47.4	189.6	
1	4	UPN 120 L= 1880		Fe 430 B	25	100	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	25/10/02	REVISED WHERE INDICATED	S. GERMANO	LONGOBARDI	RIBIS
0	21-05-02	FIRST ISSUE	EsseTre	S. GERMANO	G. RIBIS

DEAL

Sede e Stabilimento
Via Buttrio-Frezione Cargnacco
33050-Pozzuolo del Friuli (UD)-Italy
Tel.: +39 432 607 900
Fax.: +39 432 607 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: MAIN GIRDER

TITLE: ACCESSORIES

Substitutes for: ---

Scale 1:5 1:10 1:20

Sheet 1 Of 1

File: T06DMCDA022_1.DWG

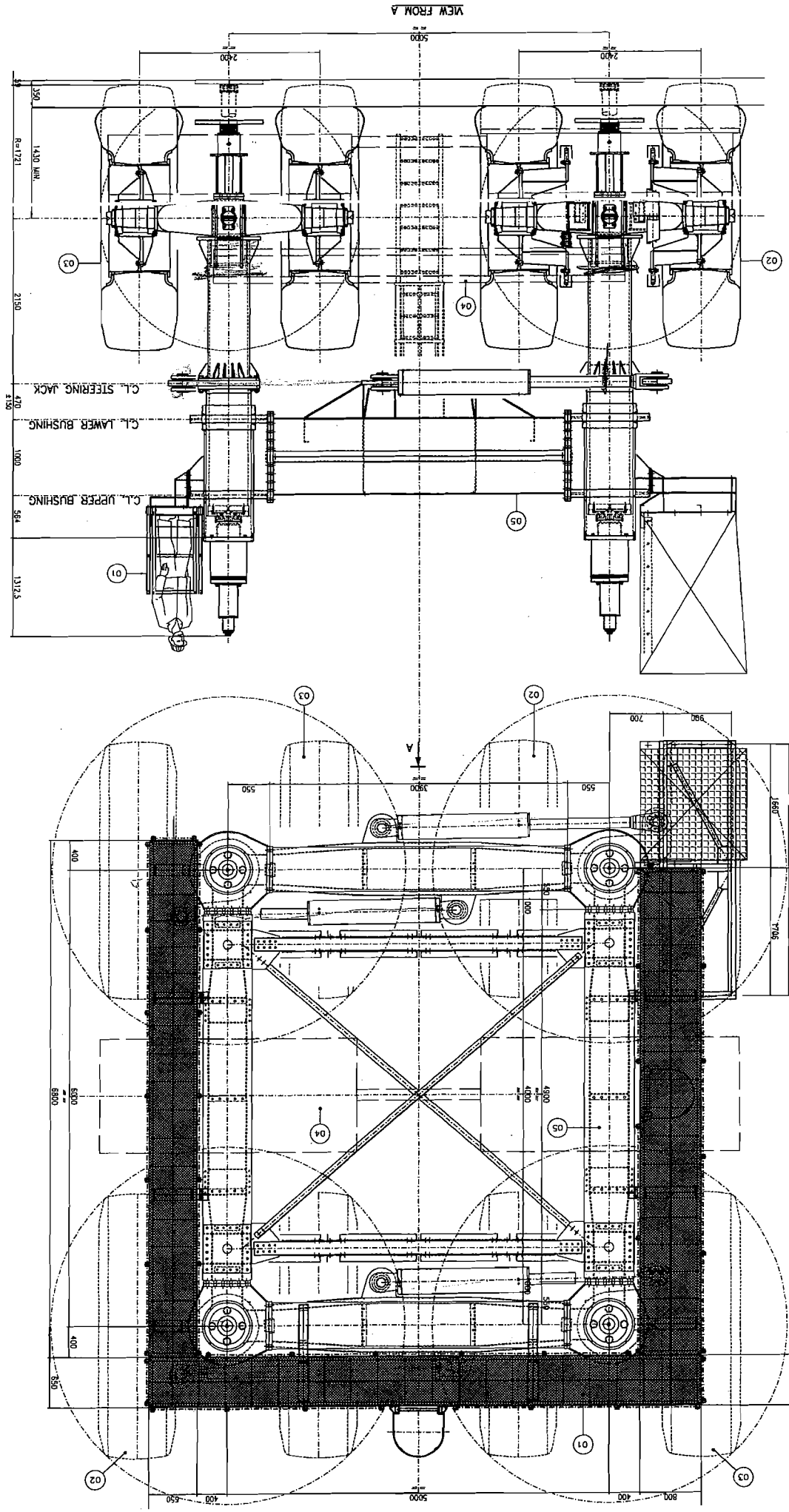
Format A2

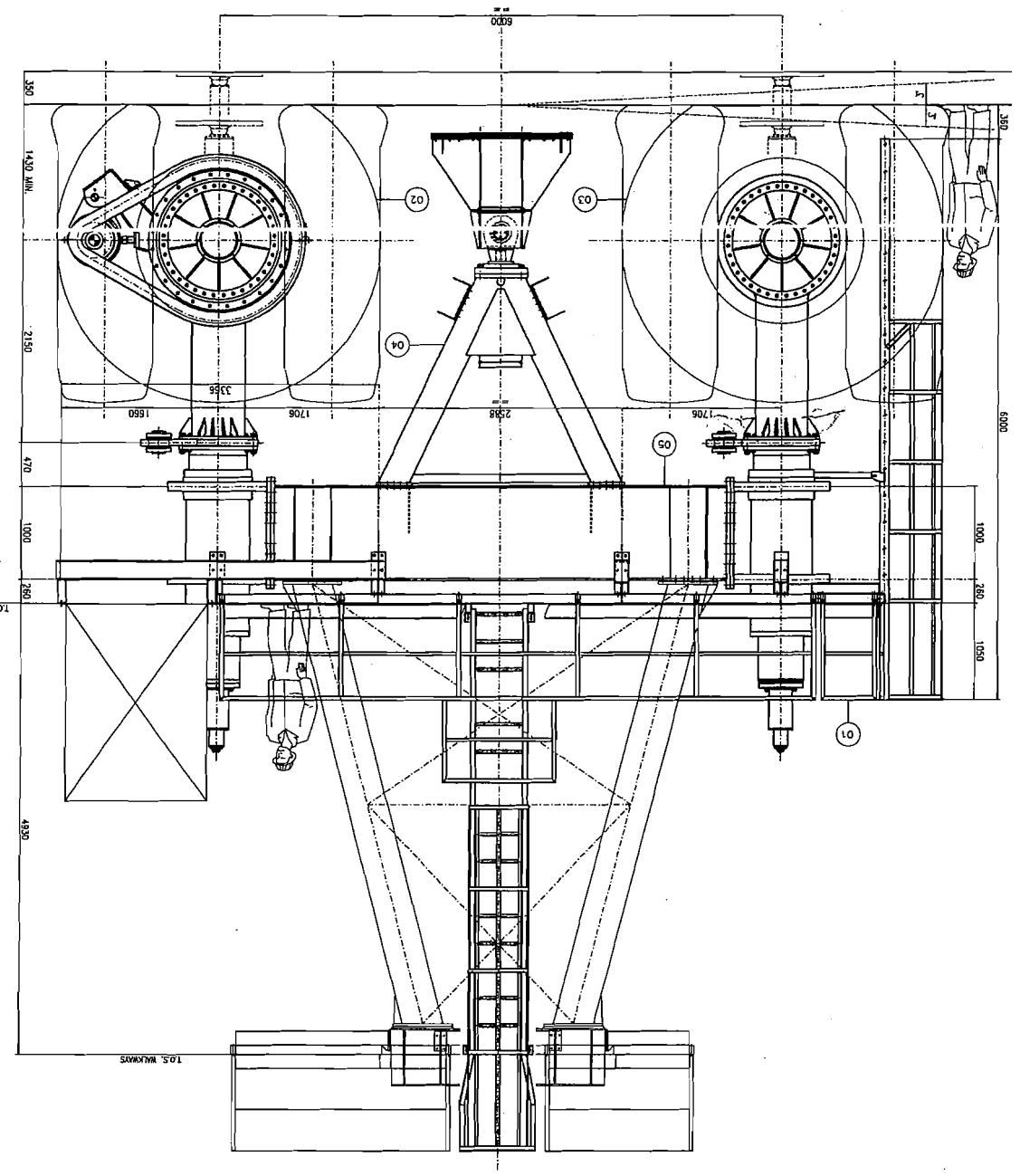
Job Nr. -60031 | Order Nr. -060229

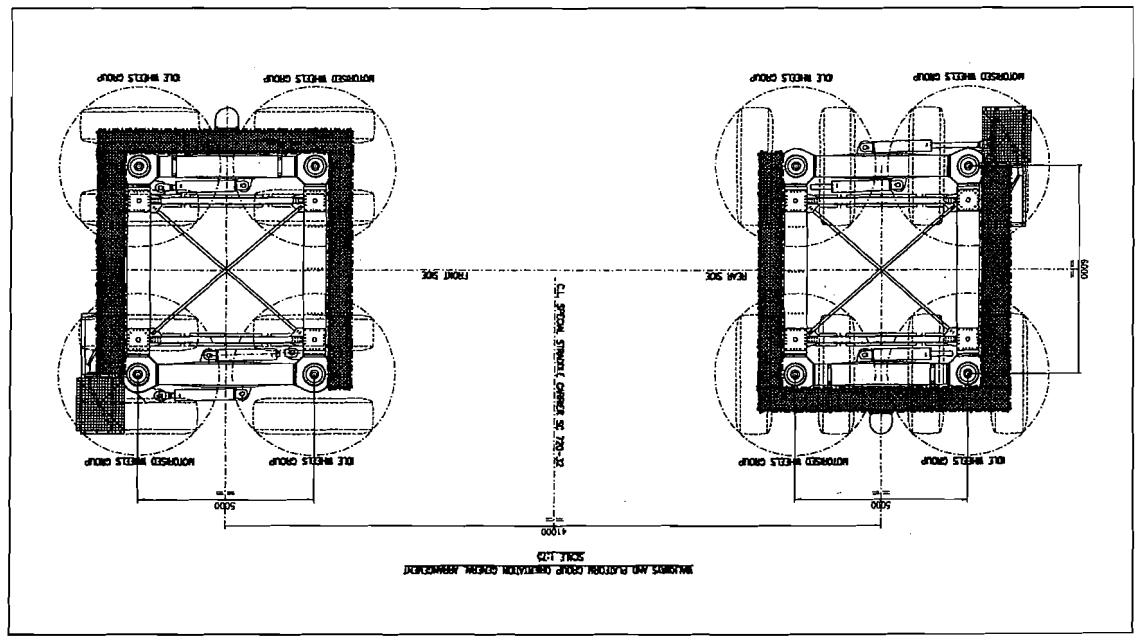
Fab. Nr.	Dep.	Doc. Type	Port.	Nr.	Rev.
T06	DM	CD	A-	022	1

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA







TOTAL WEIGHT 221150 Kg

POS	Q.TA	DESCRIPTION	REF.DREW	M.U.	M.T.	NOTE
01	1	WALKWAYS AND PLATFORM	10STPA0T003		5710	
02	1	MOTORIZED WHEELS GROUP	10STPA0T003		24440	
03	1	IDLE WHEELS GROUP	10STPA0T004		59040	
04	1	SUPPORT JACK	10STPA0T005		18920	
05	1	STEERING JACK PLATFORM	10STPA0T006		62000	

REV.	DATE	REV. REASON	DRAWN	CHECKED	APPROVED
0	02-08-02	FIRST ISSUE	TECHNOPROJECT S.r.l.	TECHNOPROJECT CUCCURANO	LOMBOBARDI
1					
2					

STRADDLE CARRIER
SC 720 - 32

DEAL

TROLLEYS AND SUPPORT

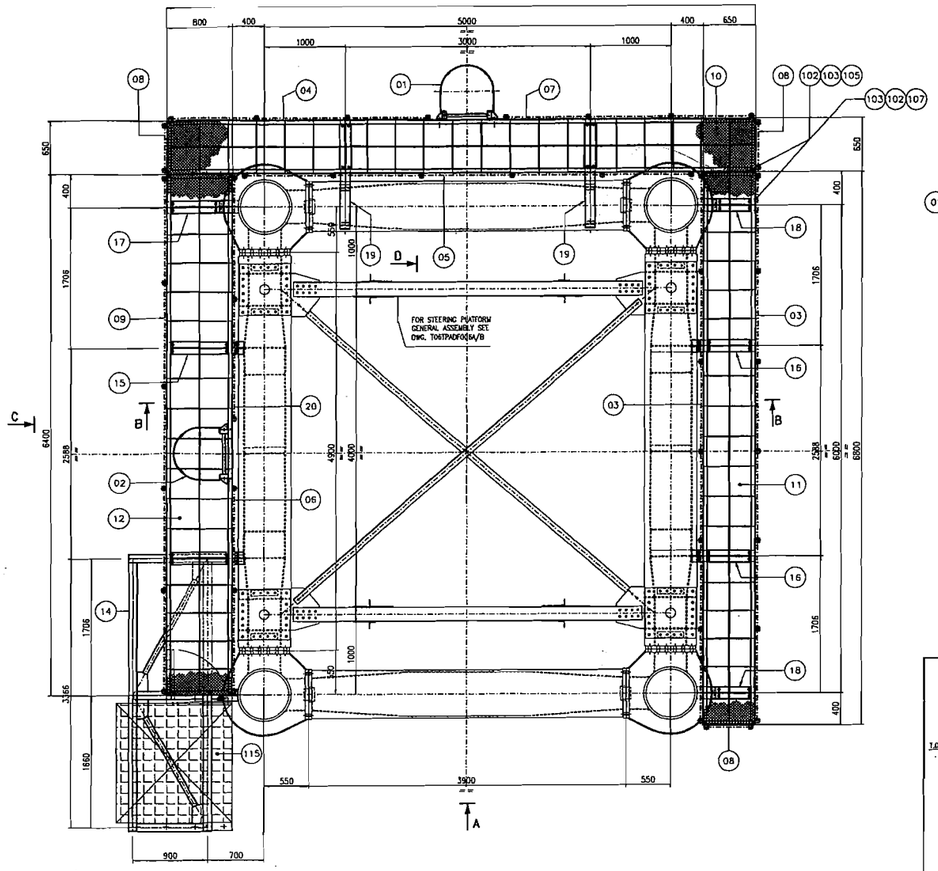
TROLLEY AND SUPPORT GENERAL ARRANGEMENT

Scale/as Size	Scale	Sheet	Of
A0	1:25 1:25	1	1

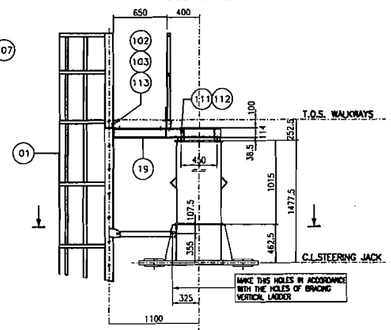
10STPA0T001.DWG

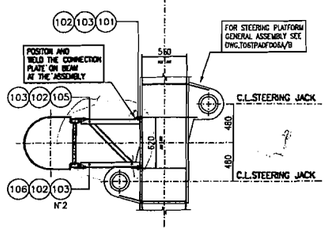
Job No.	Doc. Type	Num.	Rev.
T06TPAD	F	0010	0

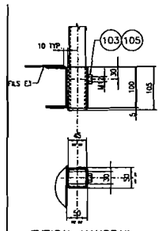
KIEWIT / FCI / MANSON JV



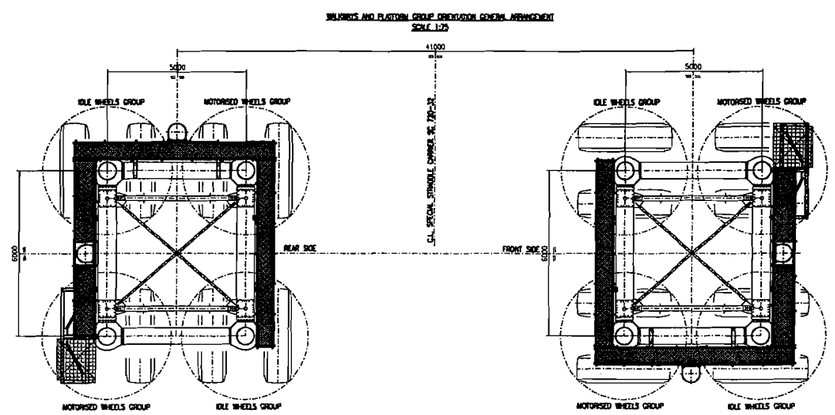
CONNECTION BETWEEN LADDER AND WALKWAYS AND LADDER AND STEERING PLATFORM
SCALE 1:25

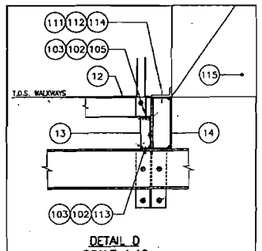


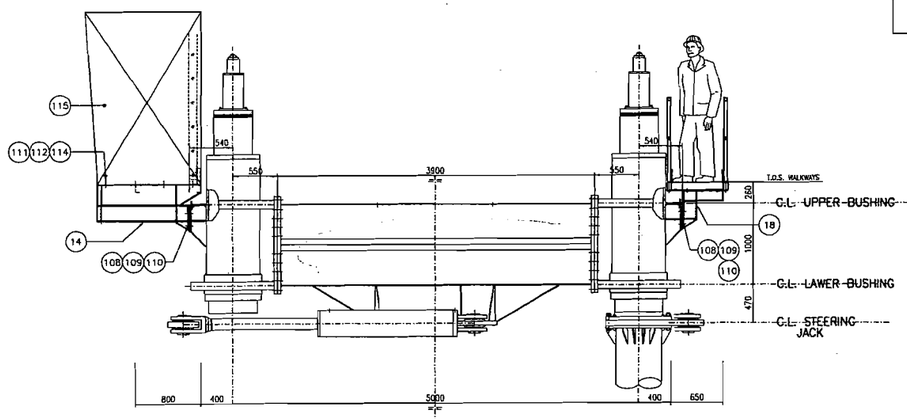




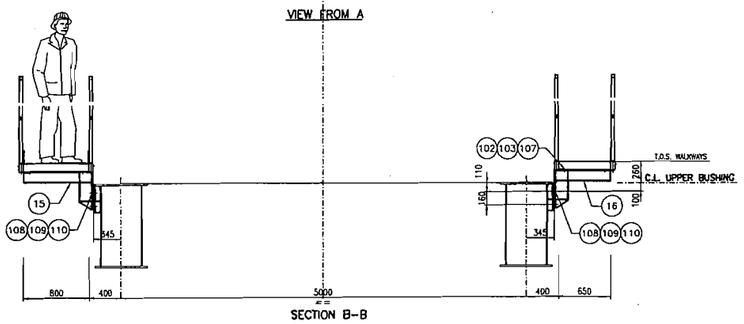
TYPICAL HANDRAIL CONNECTION
SCALE 1:5



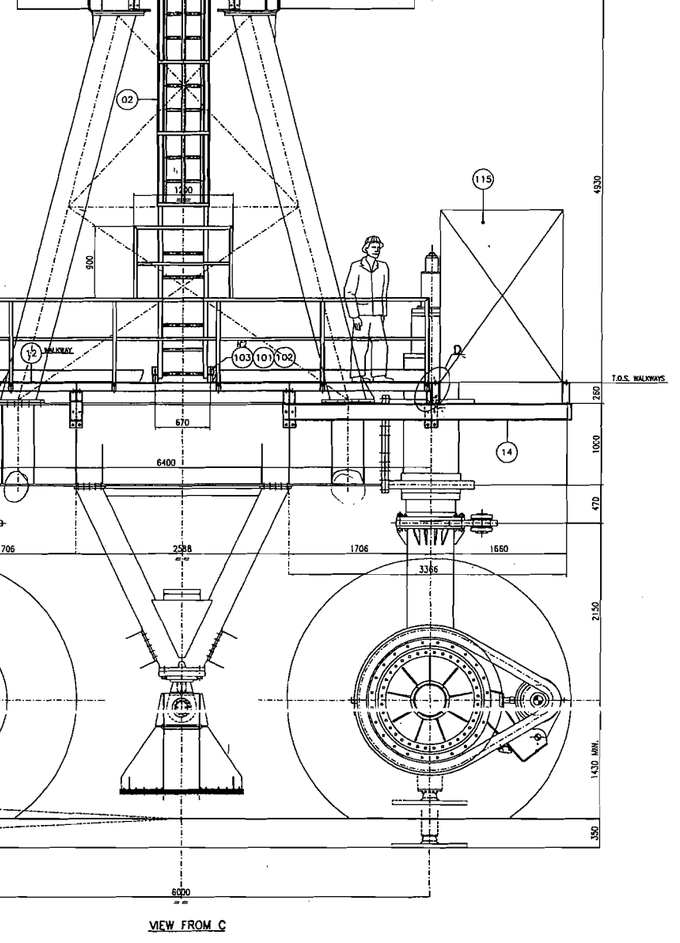




VIEW FROM A



SECTION B-B



VIEW FROM C

-NOTES-
FOR TROLLEY GENERAL ASSEMBLY SEE DWG. T06TPADF001
FOR STEERING PLATFORM WITH EQUALISING JACK GENERAL ARRANGEMENT SEE DWG. T06TPADF006A/B
FOR WALKWAY'S SUPPORTS TO WELD ON STEERING PLATFORM SEE DWG. T06TPCDF033

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
115	2	OPERATING CAB "OMB"			800	1600	DWG. 22.060.1
114	16	NUT M16 UNI 5588 6S					COMM
113	12	SCREW M12x35 UNI 5739 8.8					COMM
112	48	WASHER ø17x30 UNI 6592 R40					COMM
111	32	SCREW M16x40 UNI 5739 8.8					COMM
110	64	SCREW M20x75 UNI 5737 8.8					COMM
109	64	NUT M20 UNI 5588 6S					COMM
108	128	WASHER ø21x37 UNI 6592 R40					COMM
107	72	SCREW M12x40 UNI 5739 8.8					COMM
106	4	SCREW M12x45 UNI 5737 8.8					COMM
105	116	SCREW M12x30 UNI 5739 8.8					COMM
103	220	NUT M12 UNI 5588 6S					COMM
102	240	WASHER ø13x24 UNI 6592 R40					COMM
101	8	SCREW M12x50 UNI 5737 8.8					COMM
20	2	HANDRAILS		F2605	36	71	
19	4	WALKWAY'S SUPPORT		F2905	28	112	
18	4	WALKWAY'S SUPPORT		F2904	29	117	
17	2	WALKWAY'S SUPPORT		F2903	33	66	
16	4	WALKWAY'S SUPPORT		F2902	34	136	
15	2	WALKWAY'S SUPPORT		F2901	38	75	
14	2	PLATFORM		F2801	327	654	
13	2	SUPPORT		F2704	6	11	
12	2	WALKWAYS		F2703	246	491	
11	2	WALKWAYS		F2702	238	477	
10	2	WALKWAYS		F2701	228	458	
09	2	HANDRAILS		F2604	87	174	
08	6	HANDRAILS		F2603	12	74	
07	2	HANDRAILS		F2602	36	71	
06	2	HANDRAILS		F2601	32	64	
05	2	HANDRAILS		F2503	48	96	
04	2	HANDRAILS		F2502	24	49	
03	4	HANDRAILS		F2501	56	226	
02	2	LADDER		F2401	166	331	
01	2	LADDER		F2301	176	353	
POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE

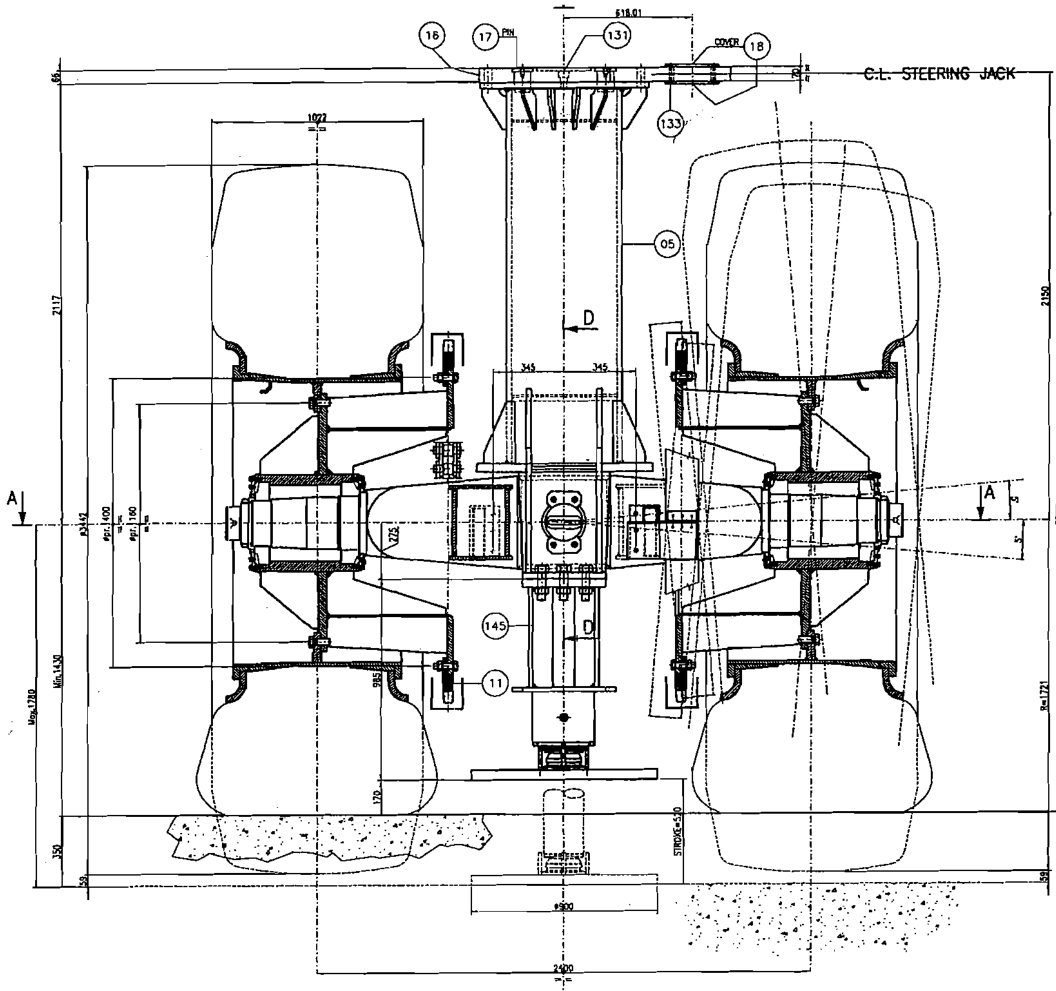
ATTENTION:
THIS MATERIALS LIST IS FOR THE CONSTRUCTION OF Nr. 2 WALKWAYS AND PLATFORM GROUP

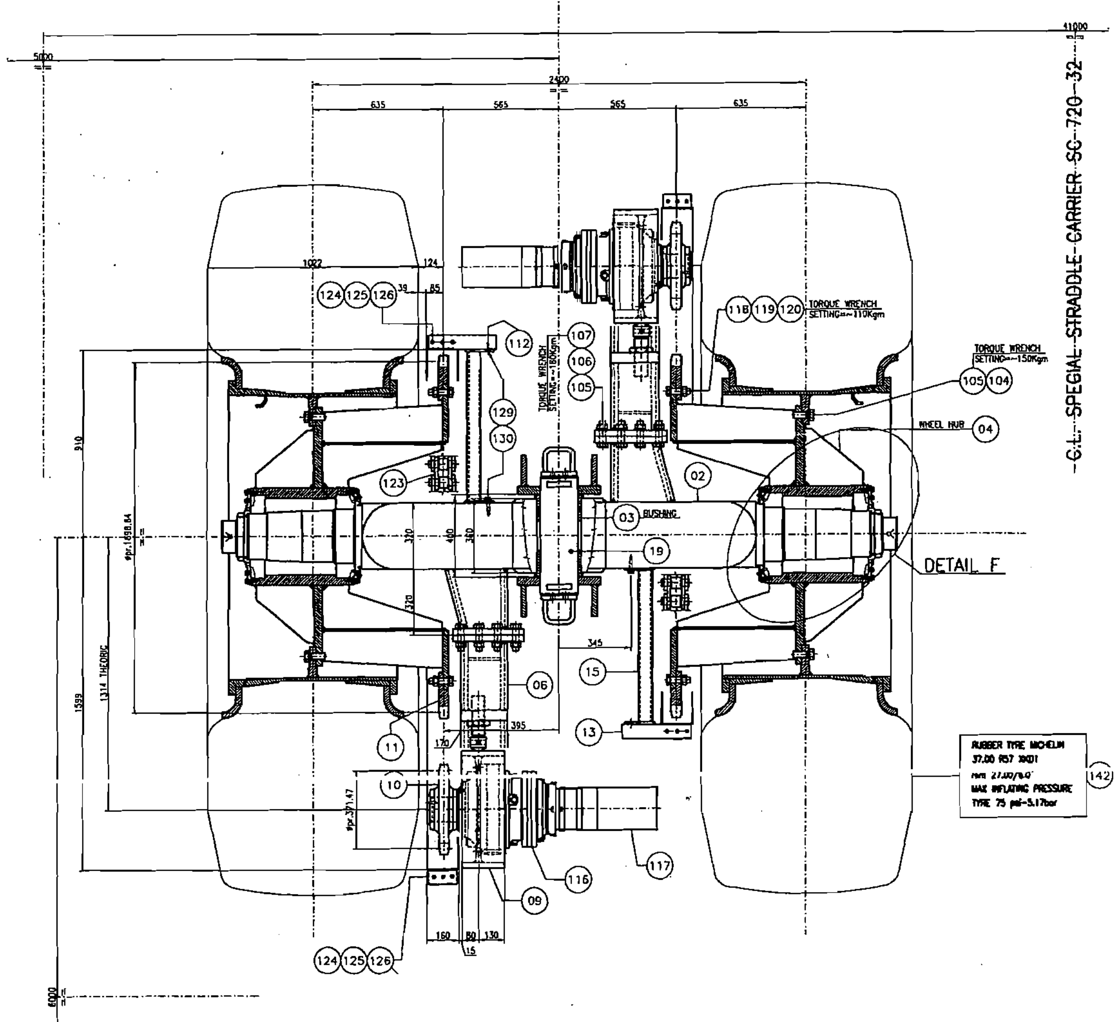
UNIT WEIGHT 2855 Kg
TOTAL WEIGHT 5710 Kg

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	02-08-02	FIRST ISSUE	TECHNOPROGET S.r.l.	TECHNOPROGET CUCCHIARO	LONGOBARDI

DEAL

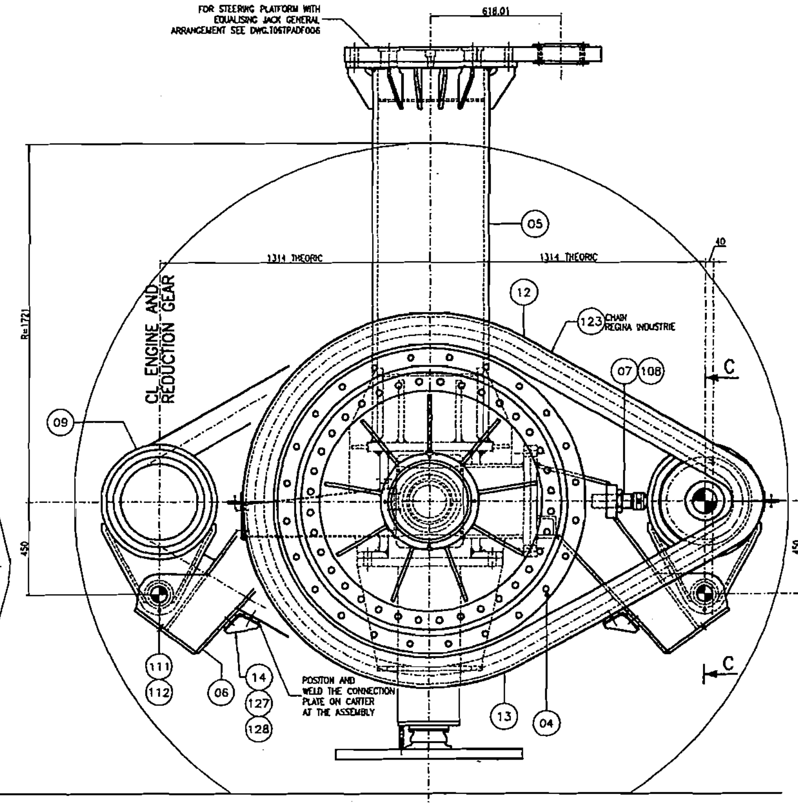
REFERENCE: STRADDLE CARRIER SC 720 – 32
OBJECT: TROLLEYS AND SUPPORT
W.G.: WALKWAYS AND PLATFORM GENERAL ARRANGEMENT
Scale/Colors Ref.: ---
Scale: 1:75 1:25 1:10 1:5
Sheet: 1 Of: 1
File: T06TPADF002.DWG
Format: A0
Job Nr.: -60031
Sub-Job Nr.: -06030
Mfr.: -----
Tab. Nr.: T06 | Dwg.: TPAD | Doc. Type: F | Part.: - | Nr.: 002 | Rev.: 0
CLIENT: KIEWIT / FCI / MANSON JV
PROJECT:

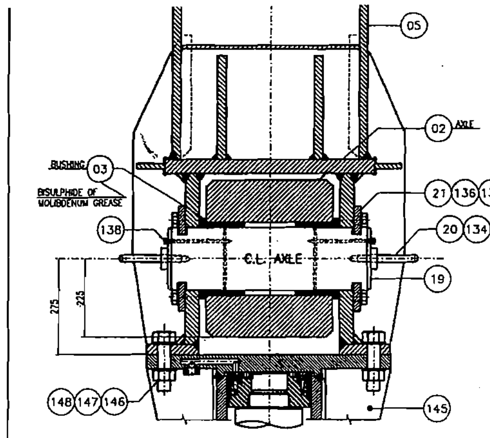




SECTION A-A

VIEW FROM B





SECTION D-D
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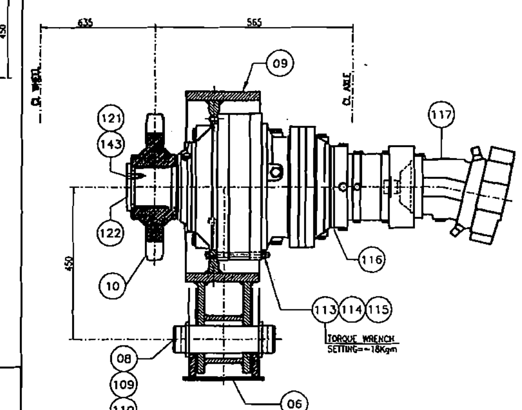
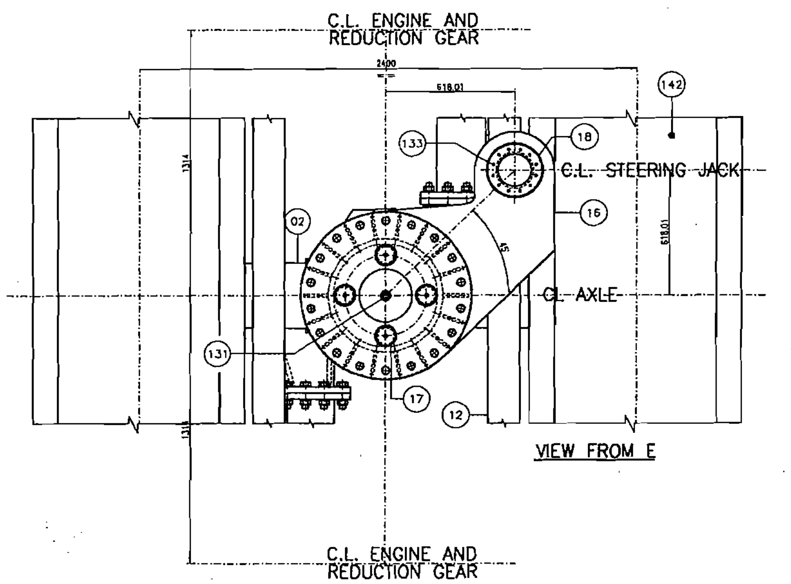


SECTION C-C
SCALE 1:7.5



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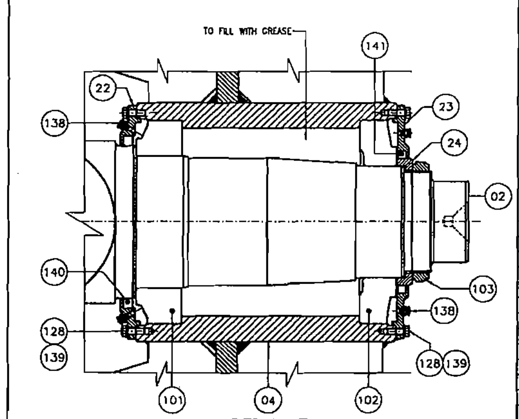
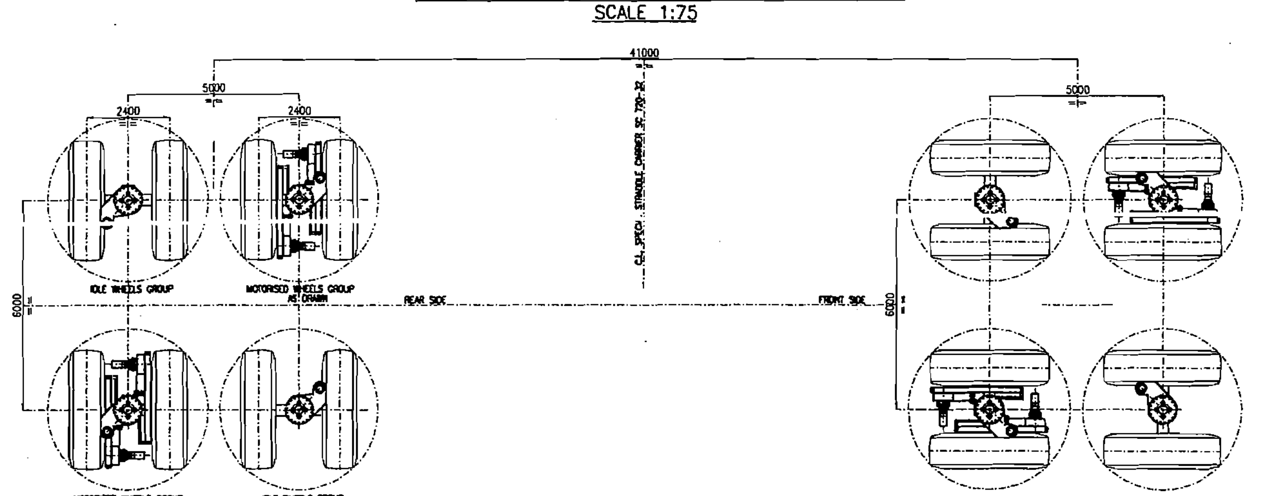


DETAIL F
SCALE 1:5

WHEEL'S GROUP ORIENTATION GENERAL ARRANGEMENT
SCALE 1:75



-NOTES-
FOR TROLLEY GENERAL ASSEMBLY SEE DWG. T06TPADF001
FOR WALKWAYS AND PLATFORM ASSEMBLY SEE DWG. T06TPADF002
FOR IDLE WHEELS GROUP ASSEMBLY SEE DWG. T06TPADF004
FOR ROTATION SUPPORT ASSEMBLY SEE DWG. T06TPADF005
FOR STEERING PLATFORM WITH EQUALISING JACK GENERAL ARRANGEMENT SEE DWG. T06TPADF006A/B

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
148	48	WASHER ø37*66 UNI 6592 R40					COMM
147	24	NUT M36 UNI 5588 6S					COMM
146	24	SCREW M36*140 UNI 5737 8.8					COMM
145	4	SUPPORT JACK FOR 90° ROTATION FRAMEN		F300	875	3500	T06MEAMF003
143	24	WASHER ø15*28 UNI 6592 R40					COMM
142	8	RUBBER TYRE MICHELIN 37.00 R57 XKD1 Rim27.00/6.0" MAX INFLATING PRESSURE TYRE 75 psi-5.17bar		F101	4100	32800	T06UCDF001
141	8	A+P 10025010A					COMM
140	8	A+P 10030010A					COMM
139	128	SCREW M12*35 UNI 5739 8.8					COMM
138	24	GREASER B/M10*1 UNI 7662					COMM
137	32	WASHER 25*44 UNI 6592 R40					COMM
136	32	SCREW M24*60 UNI 5739 8.8					COMM
135	16	WASHER ø21*37 UNI 6592 R40					COMM
134	16	SCREW M20*50 UNI 5931 8.8					COMM
133	96	SCREW M12*35 UNI 5933 10.9					COMM
							COMM
131	4	SCREW M30*80 UNI 5931 12.9					COMM
130	56	WASHER ø17*30 UNI 6592 R40					COMM
129	40	SCREW M16*40 UNI 5739 8.8					COMM
128	160	WASHER ø13*24 UNI 6592 R40					COMM
127	32	SCREW M12*20 UNI 5739 8.8					COMM
126	48	NUT M10 UNI 5588 6S					COMM
125	96	WASHER ø10.5*21 UNI 6592 R40					COMM
124	48	SCREW M10*30 UNI 5739 8.8					COMM
123	8	CHAIN REGINA INDUSTRIE ISO 56B1 Lg.6223, 70 LINKS Lg.88.9mm		F804	230	1840	COMM
122	8	BREVINI RDF 400					COMM
121	24	SCREW M14*45 UNI 5739 8.8					COMM
120	192	NUT M27 UNI 5588 6S					COMM
119	384	WASHER ø28*50 UNI 6592 R40					COMM
118	192	SCREW M27*100 UNI 5737 8.8					COMM
117	8	HYDRAULIC ENGINE "REXROTH" A6VM107HD2/63W-0340-VZB-027B			50	400	COMM
116	8	BREVINI ET3400/MN1/100 FLC 2.3.450/611360023670			257	2056	COMM
115	240	NUT M14 UNI 5713 8G					COMM
114	480	WASHER ø15*28 UNI 5714 C50					COMM
113	240	SCREW M14*170 UNI 5737 10.9					COMM
112	32	NUT M16 UNI 5588 6S					COMM
111	16	SCREW M16*50 UNI 5739 8.8					COMM
110	16	WASHER ø82*105 UNI 1749 3.6					COMM
109	16	COTTER PIN B13*100 UNI 1336 3.6					COMM
108	8	NUT M68 UNI 5589 6S					COMM
107	88	NUT M30 UNI 5588 6S					COMM
106	88	SCREW M30*110 UNI 5737 8.8					COMM
105	464	WASHER ø31*56 UNI 6592 R40					COMM
104	288	SCREW M30*80 UNI 5737 8.8					COMM
103	8	RING NUT SKF KMT 40					COMM
102	8	SKF-30244 220/400/72			40	320	COMM
101	8	SKF-32052X 260/400/87			40	320	COMM

ATTENTION:
THIS MATERIALS LIST IS FOR THE CONSTRUCTION OF Nr. 4 MOTORISED WHEELS GROUP

UNIT WEIGHT 18610 Kg
TOTAL WEIGHT 74440 Kg

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
24	8	SPACER		F1203	3.3	26.4	
23	8	COVER		F1202	12.96	103.7	
22	8	COVER		F1201	12	96	
21	16	PLATE		F1103	1.9	30	
20	8	HANDLE		F1102	2.3	18	
19	4	PIN		F1101	113.6	454.5	
18	8	COVER		F1003	3.15	25.23	
17	16	PIN		F1002	4.7	75.2	
16	4	STEERING ARM		F1001	421.12	1684.5	
15	8	SUPPORT		F904	18.4	147	
14	8	SUPPORT		F903	3.7	29.6	
13	8	CHAIN'S CARTER		F902	28.3	226	
12	8	CHAIN'S CARTER		F901	24.1	193	
11	8	CROWN GEAR		F803	300	2400	
10	8	SPROCKET		F802	52	416	
09	8	SUPPORT OF REDUCTION GEAR		F801	128.2	1025	
08	8	PIN		F703	11.2	90	
07	8	PIN		F702	7.6	61	
06	8	MOTORIZATION ARM		F701	213.8	1710	
05	4	AXLE'S TURNABLE STANDARD		F601	1274.6	5098.5	
04	8	MOTORISED WHEEL HUB		F401	1135.4	9083	
03	8	BUSHING		F202	9.6	76.8	
02	4	MOTORISED AXLE		F201	2534	10136	

REV	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	25-07-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

STRADDLE CARRIER
SC 720 - 32

TROLLEYS AND SUPPORT

MOTORISED WHEELS GROUP-GENERAL ARRANGEMENT

Substitutes for: ---
Scale: 1:75 1:12.5 1:7.5 1:5
Sheet 1 of 1
File: T06TPADF003.DWG
Format: A0
Job Nr.: -600311
Sub.J.Nr.: -060306
Mfc.: -------
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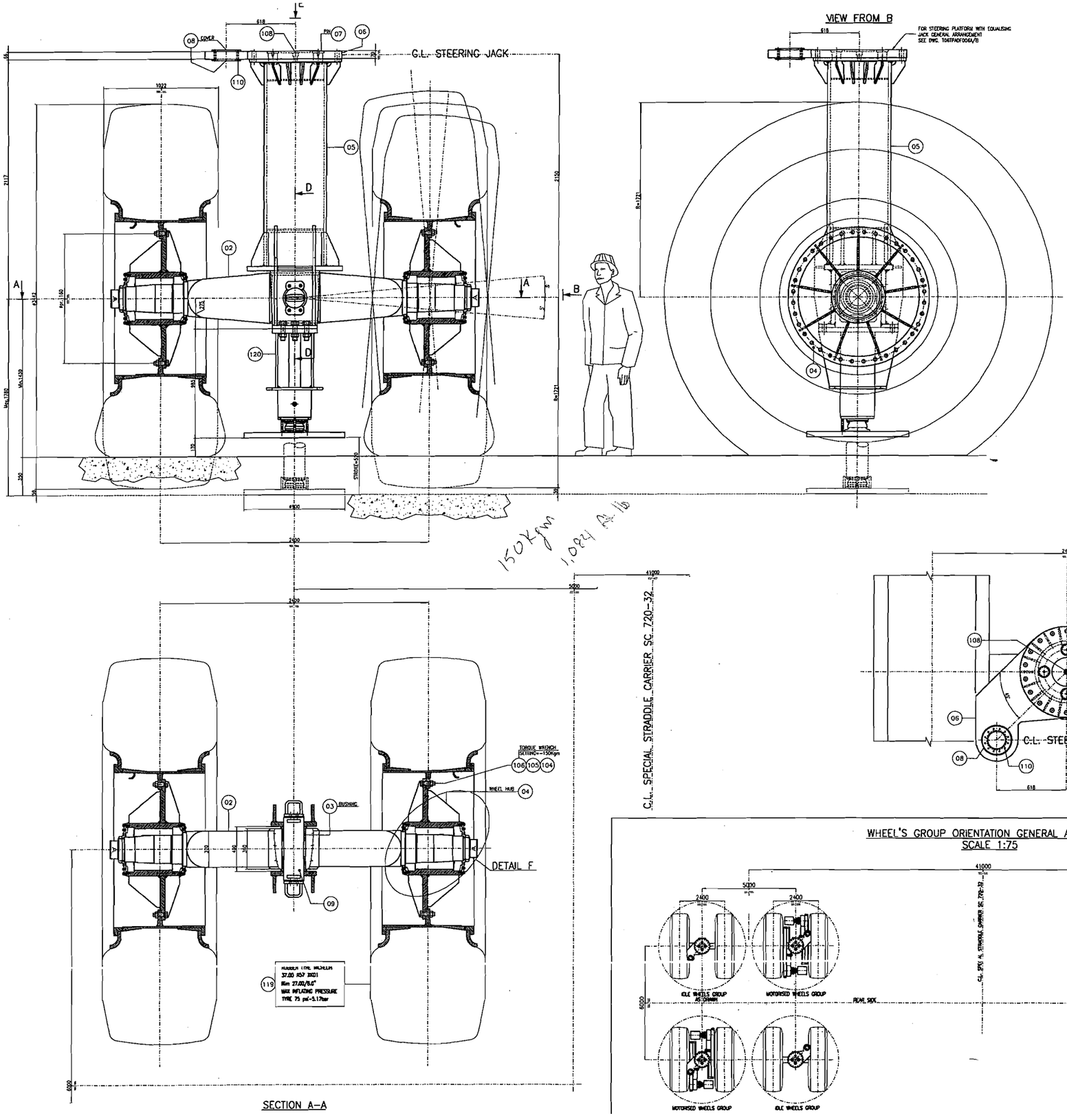
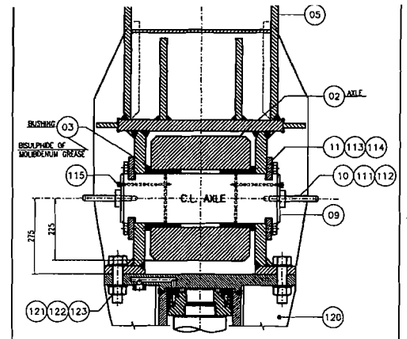
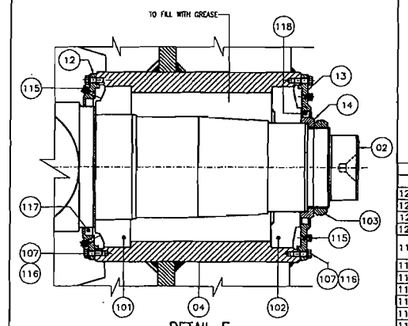
Client: KIEWIT / FCI / MANSON JV

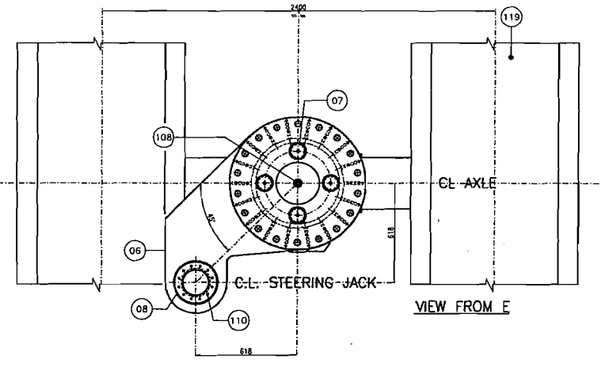




SECTION D-D
SCALE 1:7.5



DETAIL F
SCALE 1:5



VIEW FROM E

WHEEL'S GROUP ORIENTATION GENERAL ARRANGEMENT
SCALE 1:75

-NOTES-

FOR TROLLEY GENERAL ASSEMBLY SEE DWG. T06TPADF001
FOR WALKWAYS AND PLATFORM ASSEMBLY SEE DWG. T06TPADF002
FOR MOTORISED WHEELS GROUP ASSEMBLY SEE DWG. T06TPADF003
FOR ROTATION SUPPORT ASSEMBLY SEE DWG. T06TPADF005
FOR STEERING PLATFORM WITH EQUALISING JACK GENERAL ARRANGEMENT SEE DWG. T06TPADF006A/B

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
123	48	WASHER ø37*66 UNI 6592 R40					COMM
122	24	NUT M36 UNI 5588 6S					COMM
121	24	SCREW M36*140 UNI 5737 8.8					COMM
120	4	SUPPORT JACK FOR 90° ROTATION FRAMEN	F300	875	3500		T06MDMF003
119	8	RUBBER TYRE MICHELIN 37.00 R57 XKD1 Rim27.00/6.0" MAX INFLATING PRESSURE TYRE 75 psi-5.17bar	F101	4100	32800		T06DUCF001
118	8	A+P 10025010A					COMM
117	8	A+P 10030010A					COMM
116	128	SCREW M12*35 UNI 5739 8.8					COMM
115	24	GREASER B/M10*1 UNI 7662					COMM
114	32	WASHER 25*44 UNI 6592 R40					COMM
113	32	SCREW M24*60 UNI 5739 8.8					COMM
112	16	WASHER ø21*37 UNI 6592 R40					COMM
111	16	SCREW M20*50 UNI 5931 8.8					COMM
110	96	SCREW M12*35 UNI 5933 10.9					COMM
108	4	SCREW M30*80 UNI 5931 12.9					COMM
107	128	WASHER ø13*24 UNI 6592 R40					COMM
106	288	NUT M30 UNI 5588 6S					COMM
105	288	SCREW M30*110 UNI 5737 8.8					COMM
104	576	WASHER ø31*56 UNI 6592 R40					COMM
103	8	RING NUT SKF KMT 40					COMM
102	8	SKF-30244 220/400/72		40	320		COMM
101	8	SKF-32052X 260/400/87		40	320		COMM

ATTENTION:
THIS MATERIALS LIST IS FOR THE CONSTRUCTION OF Nr. 4 IDLE WHEELS GROUP

UNIT WEIGHT 14760 Kg
TOTAL WEIGHT 59040 Kg

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
14	8	SPACER	F1203	3.3	28.4		
13	8	COVER	F1202	12.96	103.7		
12	8	COVER	F1201	12	96		
11	16	PLATE	F1103	1.9	30		
10	8	HANDLE	F1102	2.3	18		
09	4	PIN	F1101	113.6	454.5		
08	8	COVER	F1003	3.15	25.23		
07	16	PIN	F1002	4.7	75.2		
06	4	STEERING ARM	F1001	421.2	1684.5		
05	4	AXLE'S TURNABLE STANDARD	F601	1274.6	5096.5		
04	8	IDLE WHEEL HUB	F501	623.1	4985		
03	8	BUSHING	F202	9.6	76.8		
02	4	IDLE AXLE	F301	2346.9	9388		

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	26-07-02	FIRST ISSUE	TECNOPRODET S.r.l.	TECNOPRODET CUCCHIARO	LONGOBARDI

DEAL

STRADDLE CARRIER SC 720 - 32

TROLLEYS AND SUPPORT

IDLE WHEELS GROUP GENERAL ARRANGEMENT

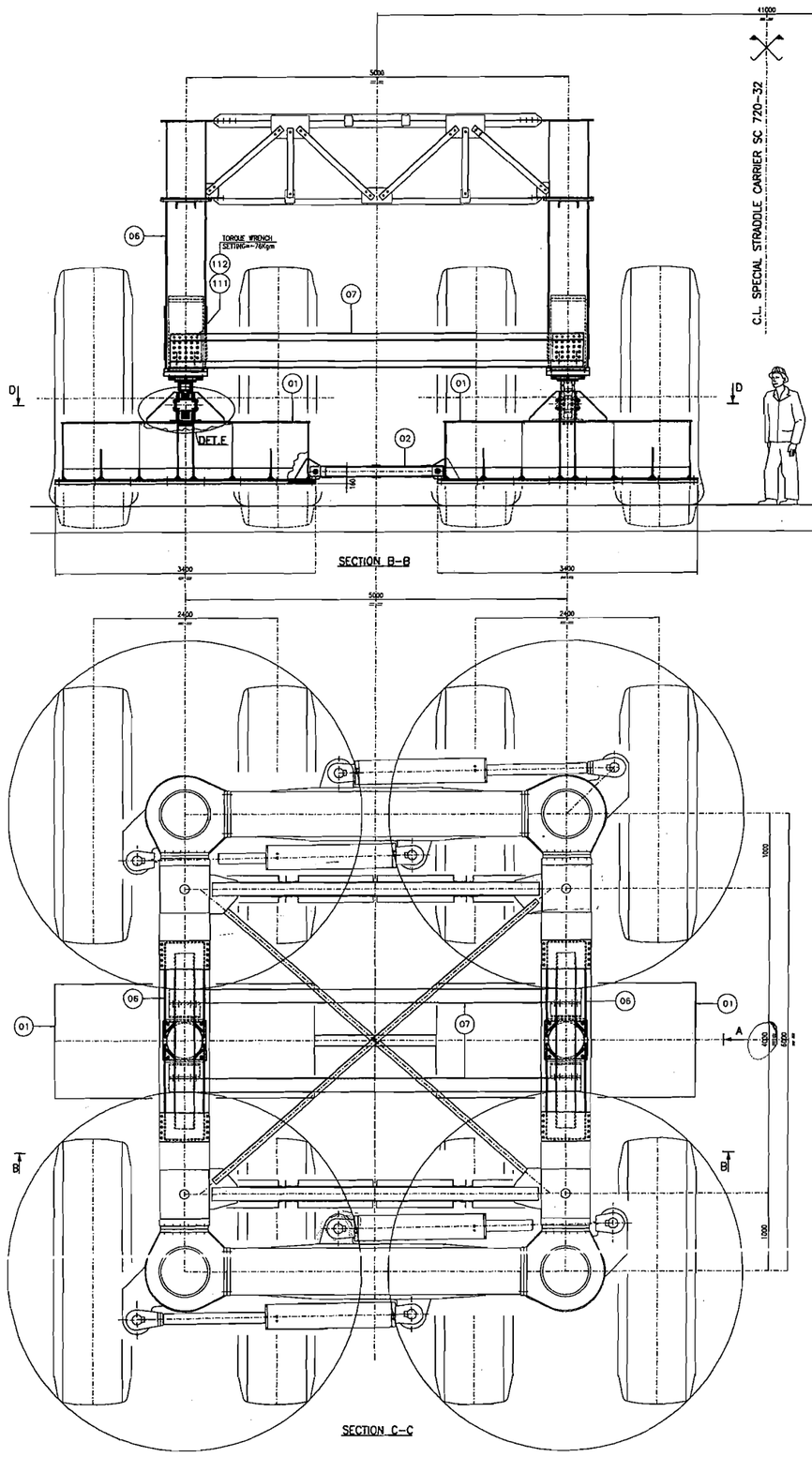
Scale 1:12.5 1:75 1:5 | Sheet 1 | Of 1

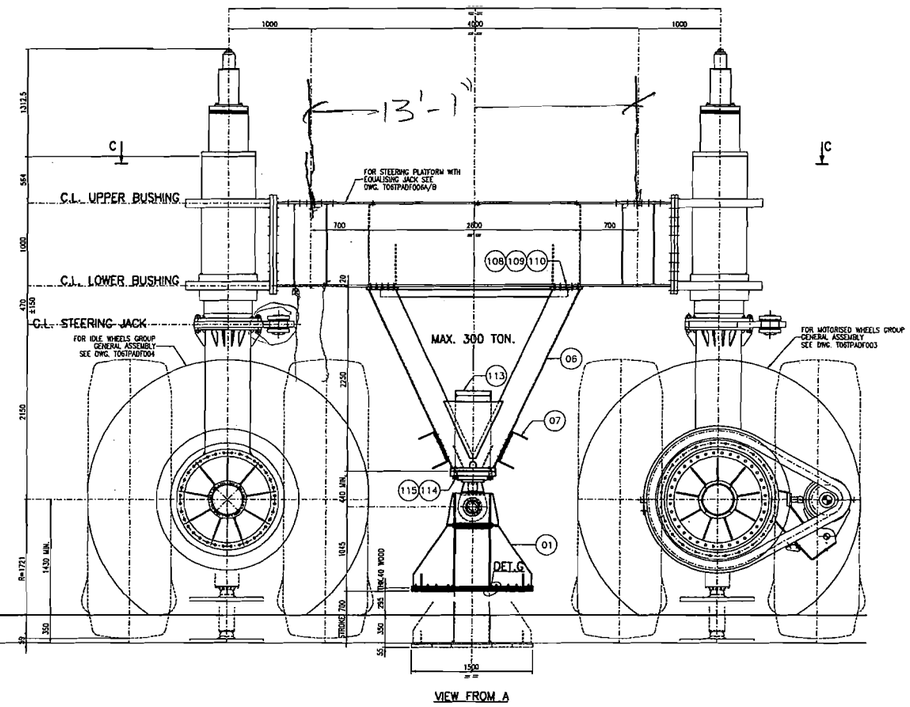
File: T06TPADF004.DWG | Format A0

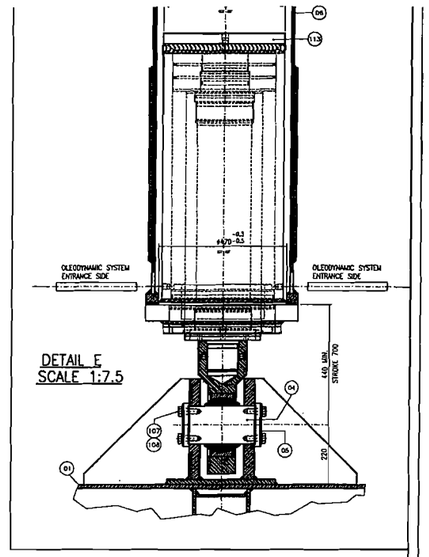
Job Nr. -60031 | Sub Job. -06030 | Mr. ------

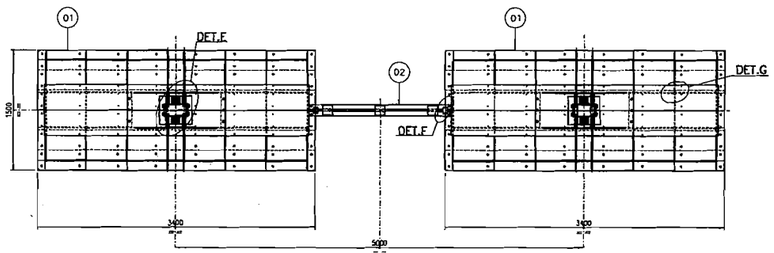
Fab. Nr. T06 | Dep. TP | Doc. Type AD | Part. F | Sub. - | Mr. 004 | Rev. D

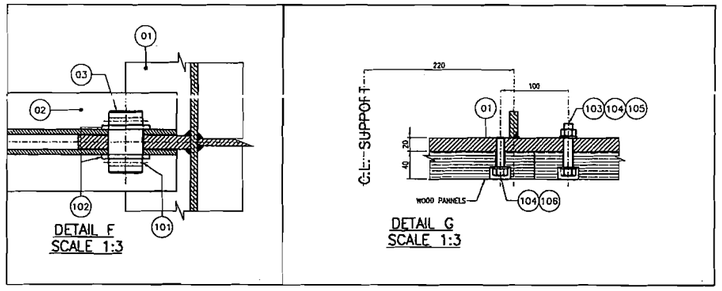
CUSTOMER: KIEWIT / FCI / MANSON JV











-NOTES-

FOR TROLLEY GENERAL ASSEMBLY SEE DWG. T06TPADF001
FOR MOTORISED WHEELS GRUOP ASSEMBLY SEE DWG. T06TPADF003
FOR IDLE WHEELS GROUP ASSEMBLY SEE DWG. T06TPADF004
FOR STEERING PLATFORM WITH EQUALISING JACK GENERAL ARRANGEMENT SEE DWG. T06TPADF006A/B

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
115	16	WASHER ø37*65 UNI 6592 R40					COMM
114	16	SCREW M36*110 UNI 5739 8.8					COMM
113	4	HYDRAULIC JACK ø=380/ø280/STROKE 700			1200	4800	
112	200	WASHER ø25x44 UNI 6592 R40					COMM
111	200	SCREW M24*50 UNI 5739 8.8					COMM
110	80	NUT M20 UNI 5588 6S					COMM
109	80	SCREW M20*90 UNI 5737 8.8					COMM
108	192	WASHER ø21x37 UNI 6592 R40					COMM
107	32	SCREW M20*60 UNI 5737 8.8					COMM
106	96	SCREW M12x45 UNI 5931 8.8					COMM
105	288	NUT M12 UNI 5588 6S					COMM
104	672	WASHER ø13x24 UNI 6592 R40					COMM
103	288	SCREW M12x65 UNI 5931 8.8					COMM
102	8	WASHER ø52x70 UNI 1749 R40					COMM
101	8	SP.PIN B10x70 UNI 1336 3.6					COMM

UNIT WEIGHT 9960 Kg
TOTAL WEIGHT 19920 Kg

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
07	4	CONNECTION BEAM	F2202	198.4	794		
06	4	JACK SUPPORT	F2201	937.7	3751		
05	8	COVER	F1902	3	24		
04	4	PIN	F1901	29.4	118		
03	4	PIN	F1703	1.4	6		
02	2	CONNECTION FOR HOISTING TRAVERSE	F1702	62.8	126		
01	4	HOISTING TROLLEY'S TRAVERSE	F1701	2575	10300		

REV.	DATE		
2			
1			
0	26-07-02	FIRST ISSUE	TECHNOPROGET S.r.l. / TECHNOPROGET CUCCHIARO / LOMGOBARDI

DEAL

STRADDLE CARRIER SC 720 - 32

TROLLEYS AND SUPPORT

SUPPORT JACK-GENERAL ARRANGEMENT

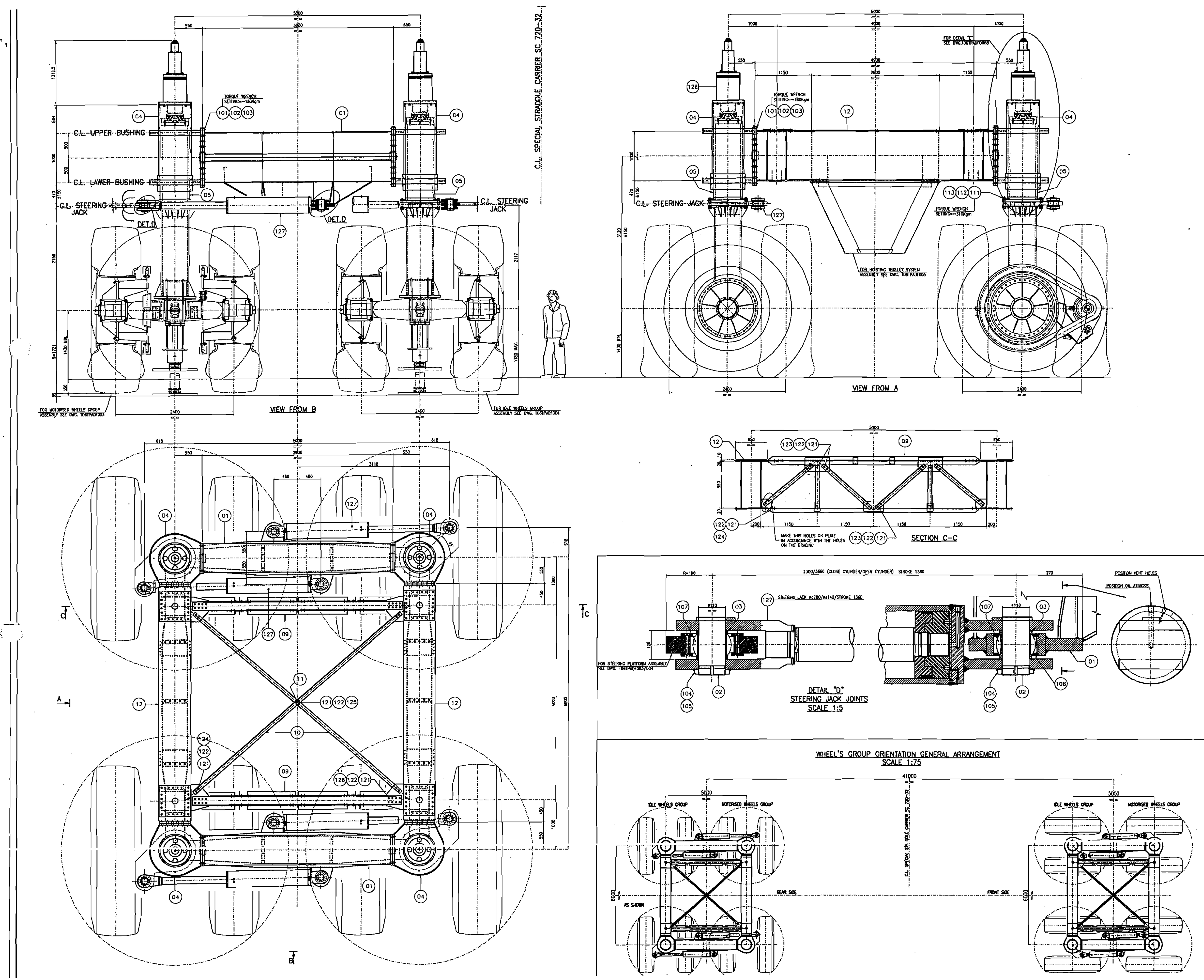
Scale 1:25 1:7.5 1:3 | Sheet 1 | of 1

File: T06TPADF005.DWG | Format: AD

Job N. -6031 1 | Sub Job N. -0603 06 | Mod. -----

T06 TP AD F - 0050

KIEWIT / FCI / MANSON JV



374
6683

-NOTES-

FOR DETAIL "E" SEE DWG. T06TPADF006B
FOR TROLLEY GENERAL ASSEMBLY SEE DWG. T06TPADF001
FOR WALKWAYS AND PLATFORM ASSEMBLY SEE DWG. T06TPADF002
FOR MOTORISED WHEELS GRUOP ASSEMBLY SEE DWG. T06TPADF003
FOR IDLE WHEELS GROUP ASSEMBLY SEE DWG. T06TPADF004
FOR ROTATION SUPPORT ASSEMBLY SEE DWG. T06TPADF005

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
130	288	WASHER ø17x27.4 DIN 7980-16					COMM
129	288	SCREW M16*80 UNI 5931 8.8					COMM
128	8	EQUALISING JACKø400/ø280+ø220/ø150 STROKE ±150			925	7400	[illegible]
127	8	STEERING JACK øo280/øs140/STROKE 1360			725	5800	[illegible]
126	64	SCREW M24*65 UNI 5712 10.9					COMM
125	2	SCREW M24*60 UNI 5712 10.9					COMM
124	48	SCREW M24*55 UNI 5712 10.9					COMM
123	160	SCREW M24*50 UNI 5712 10.9					COMM
122	274	NUT M24 UNI 5713 8G					COMM
121	548	WASHER M24 UNI 5714 C50					COMM
118	8	DOWTY OR 622					COMM
117	8	DOWTY OR 381					COMM
116	8	SKF 29430 E 150/300/90			28	224	COMM
115	64	SCREW M10*30 UNI 5931 8.8					COMM
114	64	SCREW M20*60 UNI 5931 8.8					COMM
113	144	NUT M36 UNI 5713 8G					COMM
112	288	WASHER M36 UNI 5714 C50					COMM
111	144	SCREW M36*190 UNI 5737 10.9					COMM
110	16	POLYPAC 1/GR6000 PROF. B					COMM
109	16	POLYPAC WTF6000 PROF. A					COMM
108	96	GREASER 8/M10x1 UNI 7662					COMM
107	16	ELGES GE 120-UK 2RS					COMM
106	16	SEEGER 180 UNI 7437					COMM
105	16	RING NUT SKF MK22					COMM
104	16	WASHER SKF MB22					COMM
103	448	NUT M33 UNI 5588 6S					COMM
102	896	WASHER ø34*60 UNI 6592 R40					COMM
101	448	SCREW M33x125 UNI 5737 8.8					COMM

UNIT WEIGHT 31000 Kg
TOTAL WEIGHT 62000 Kg

POS	Q.TA'	DESCRIPTION	MATER.	COD.	W.U.	W.T.	NOTE
12	4	TRANSVERSAL CROSS MEMBER		F2101	2980.8	11923	
11	2	PLATE		F2003	0.7	1.4	
10	4	BRACING		F2002	41	164	
09	4	CONNECTION BEAM FOR TRANSV. CROSS MEMBER		F2001	413	1652	
08	8	PLATE		F1803	2.74	21.92	
07	8	COMPENSATION JACK'S THRUST BEARING		F1802	12.1	96.8	
06	8	COMPENSATION JACK'S THRUST BEARING		F1801	66.5	532	
05	8	UPPER STANDARD		F1601	1296.9	10376	
04	8	BODY SUPPORT STRUCTURE FOR UPPER STANDARD		F1501	1582.5	12660	
03	32	SPACER		F1402	1.1	34	
02	16	PIN		F1401	18.2	291	
01	4	LONGITUDINAL CROSS MEMBER WITH JACK'S CONNEC.		F1301	2699.6	10798	

REV	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	26-07-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

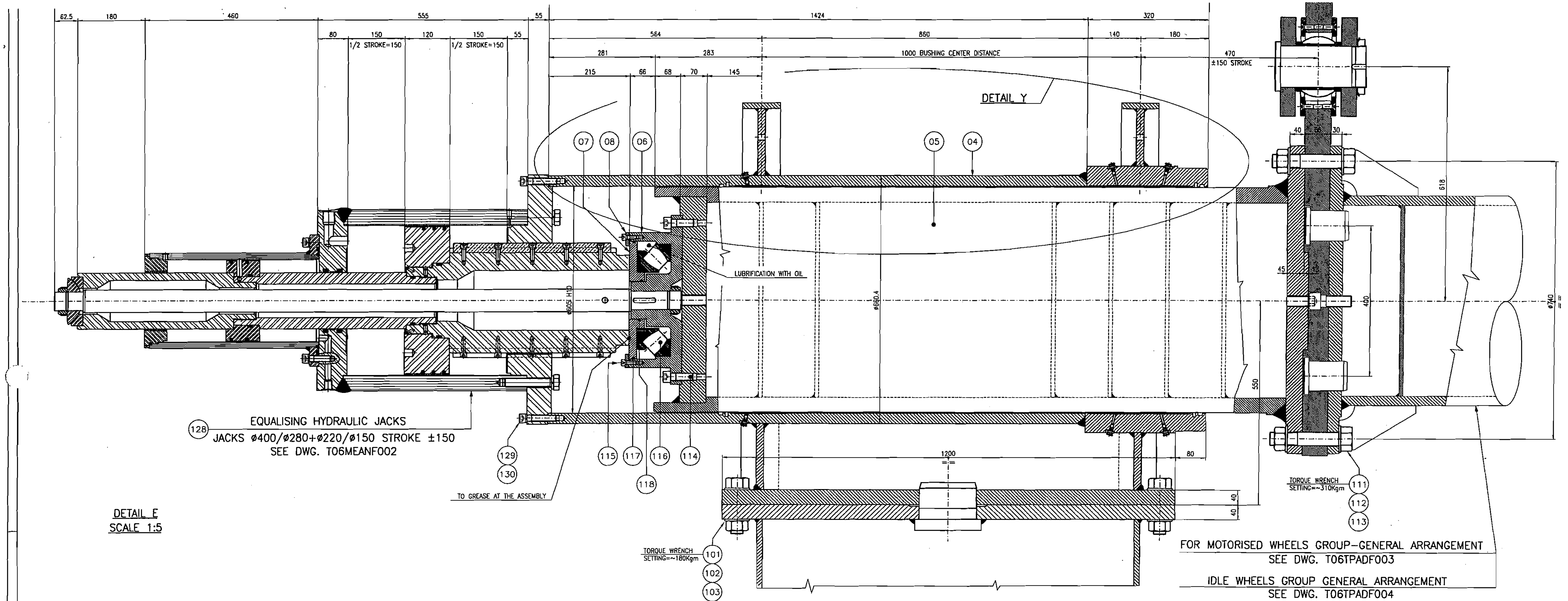
REFERENCE: STRADDLE CARRIER SC 720 - 32

GROUP: TROLLEYS AND SUPPORT

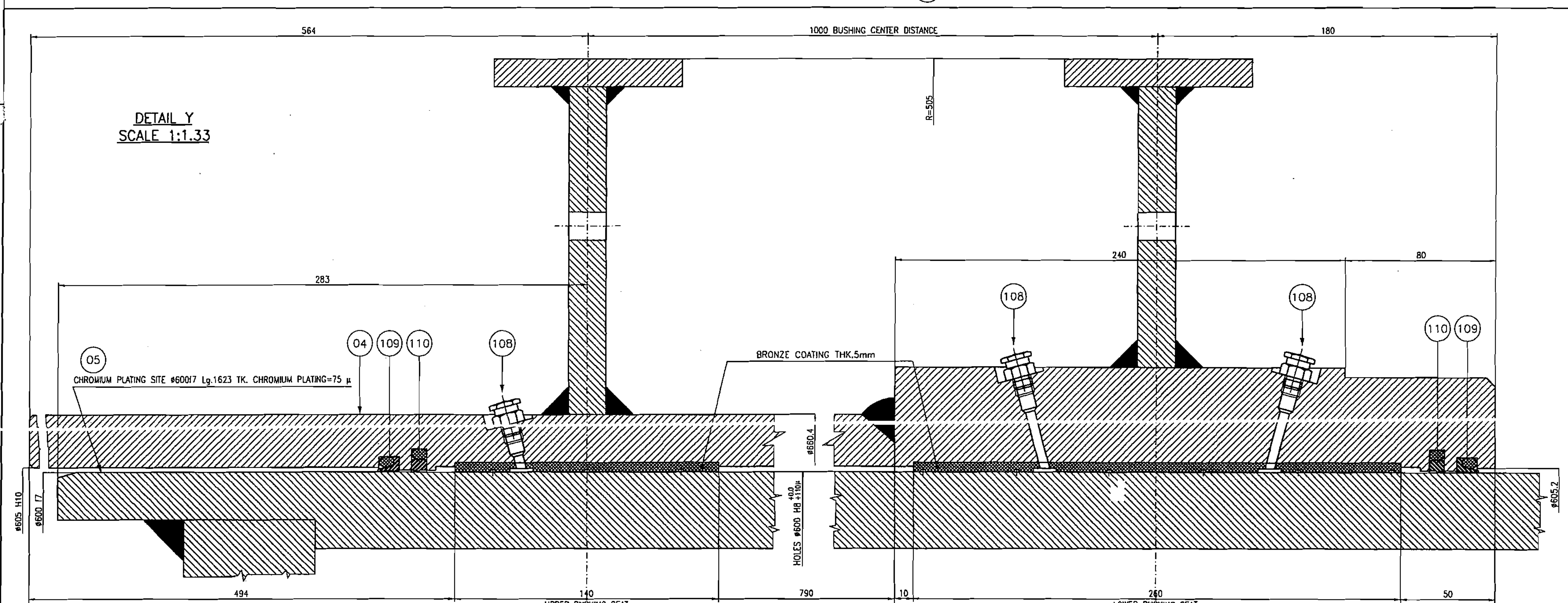
TITLE: STEERING PLATFORM WITH EQUALISING JACK GENERAL ARRANGEMENT

Substitutes for: ---
Scale: 1:75 1:25 1:5
Sheet: 1 Of: 2
File: T06TPADF006A.DWG
Format: A0
Job Nr.: -600311
Sub.J.Nr.: -060306
Itr.: -------
Fab. Nr. / Dep. / Doc. Type / Part / Nr. / Rev.: T06 TP AD F- 006 0

CLIENT: KIEWIT / FCI / MANSON JV



DETAIL E
SCALE 1:5



DETAIL Y
SCALE 1:1.33

-NOTES-

FOR ASSEMBLY STEERING PLATFORM AND LIST OF MATERIAL SEE DWG. T06TPADF006A

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	26-07-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: TROLLEYS AND SUPPORT

TITLE: CONNECTION EQUALISING JACK - DETAILS

Substitutes for: --- Scale: 1:5 1:1.33 Sheet: 2 Of: 2

File: T06TPADF006B.DWG Format: A1

Job Nr.: -60031 1 Sub.J.Nr.: -060306

T06 TP AD F - 0060

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT

778 ft/lbs for All M24's

VIEW FROM A

REAR SIDE

3344

(ONLOAD/UNLOAD) 12230/12380

(ONLOAD/UNLOAD) 9932/10082

(ONLOAD/UNLOAD) 5070/5220

(ONLOAD/UNLOAD) 1430/1580

TIGHTENING TORQUE 1055 Nm
TO BRUSH THE CONTACT SURFACES
(REMOVE PAINTING)

778 ft/lbs

SECTION B-B

SECTION F-F
SCALE 1:1

SECTION E-E
SCALE 1:50

TIGHTENING TORQUE 1545 Nm

1,140 ft/lbs

SCALE 1:5

VIEW FROM C

SECTION D-D

1,140 ft/lbs

TIGHTENING TORQUE
1545 Nm

SCALE 1:5

TOTAL WEIGHT = 18500 Kg

111	768	WASHER 25 UNI 5714		C50		
110	384	NUT M24 UNI 5713		10		
109	384	SCREW M24x80 UNI 5712		10.9		
⚠ 108	192	WASHER 25 UNI 5714		C50		
⚠ 107	96	NUT M24 UNI 5713		10		
⚠ 106	96	SCREW M24x50 UNI 5712		10.9		
105	96	SCREW M27x100 UNI 5712		10.9		
104	128	SCREW M27x80 UNI 5737		10.9		
103	512	WASHER 28 UNI 5714		C50		
102	192	NUT M27 UNI 5713		8G		
101	96	SCREW M27x105 UNI 5712		10.9		

17	8	TIE ROD	F3214		40	320
16	8	TIE ROD	F3213		65	520
15	8	TIE ROD	F3212		42	336
14	8	TIE ROD	F3211		55	440
13	16	TIE ROD	F3210		9.7	155.2
12	16	TIE ROD	F3209		16.3	260.8
11	16	TIE ROD	F3208		11.1	177.6
10	16	TIE ROD	F3207		10.7	171.2
9	16	TIE ROD	F3206		13.4	214.4
8	16	TIE ROD	F3205		5.4	86.4
7	16	TIE ROD	F3204		9.3	148.8
6	16	TIE ROD	F3203		5.3	84.8
5	4	TIE ROD	F3202		91	364
4	4	TIE ROD	F3201		75	300
3	4	COLUMN	F3102		1025	4100
2	4	COLUMN	F3101		1025	4100
1						

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	02.10.02	ADDED NOTES ON DIAGONALS	CUCCHIARO	CUCCHIARO	PIRRS
1	03.09.02	ADDED TIGHTENING TORQUES	CUCCHIARO	CUCCHIARO	PIRRS
0	11.07.02	FIRST ISSUE	EnneTre	CUCCHIARO	PIRRS

DEAL

STRADDLE CARRIER
SC 720 - 32

VERTICAL STRUCTURE

ASSEMBLY

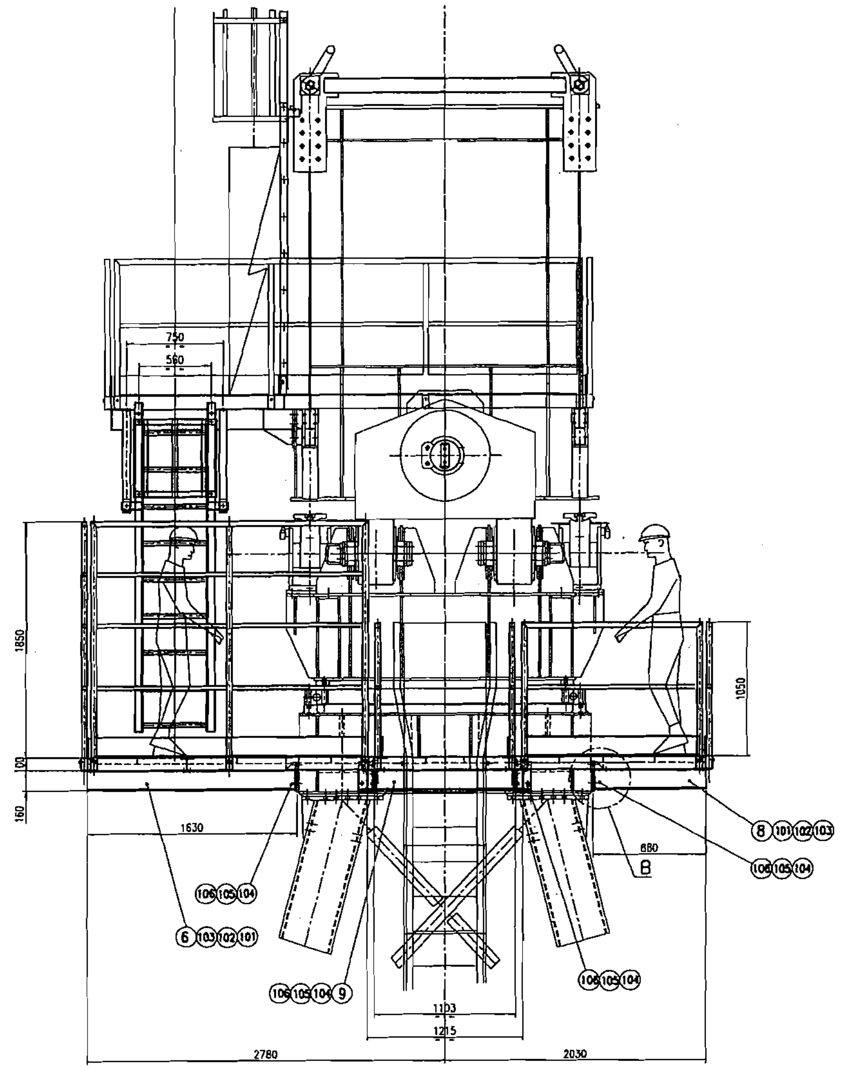
Scale 1:25 – 1:50 | Sheet 1 | Of 1

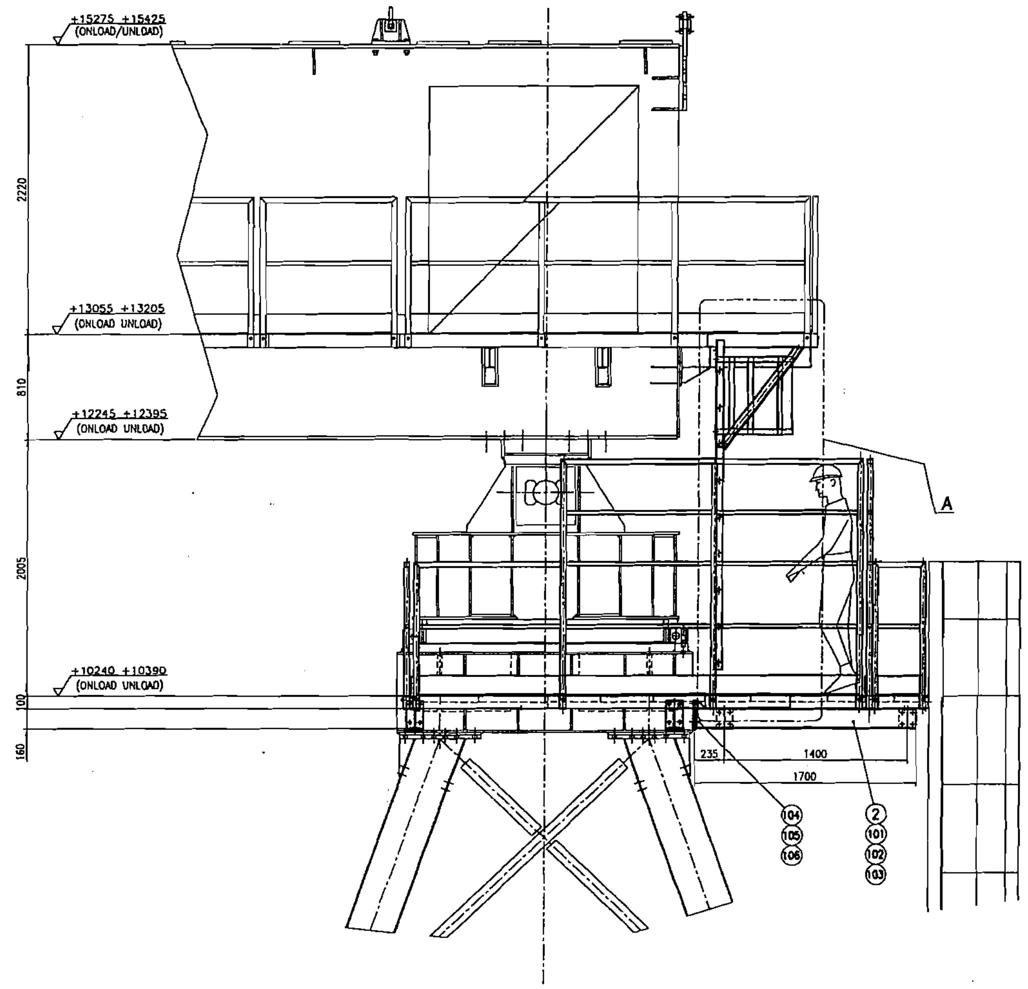
File: T06DMADF030_2.DWG | Format A0

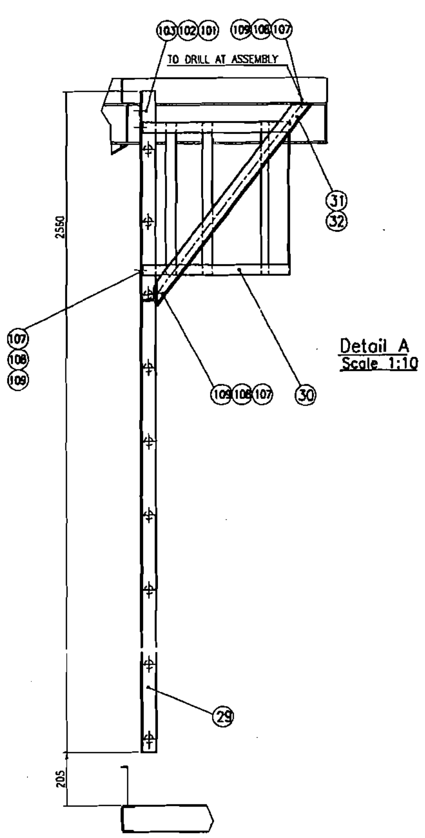
Job Nr. -60031 | Sub.Job. -060300

Fab. Nr. T06 | Dep. DMA | Doc. Type D | Part. F- | Sh. 030 | Rev. 2

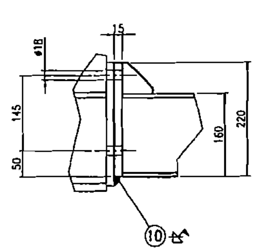
KIEWIT / FCI / MANSON JV



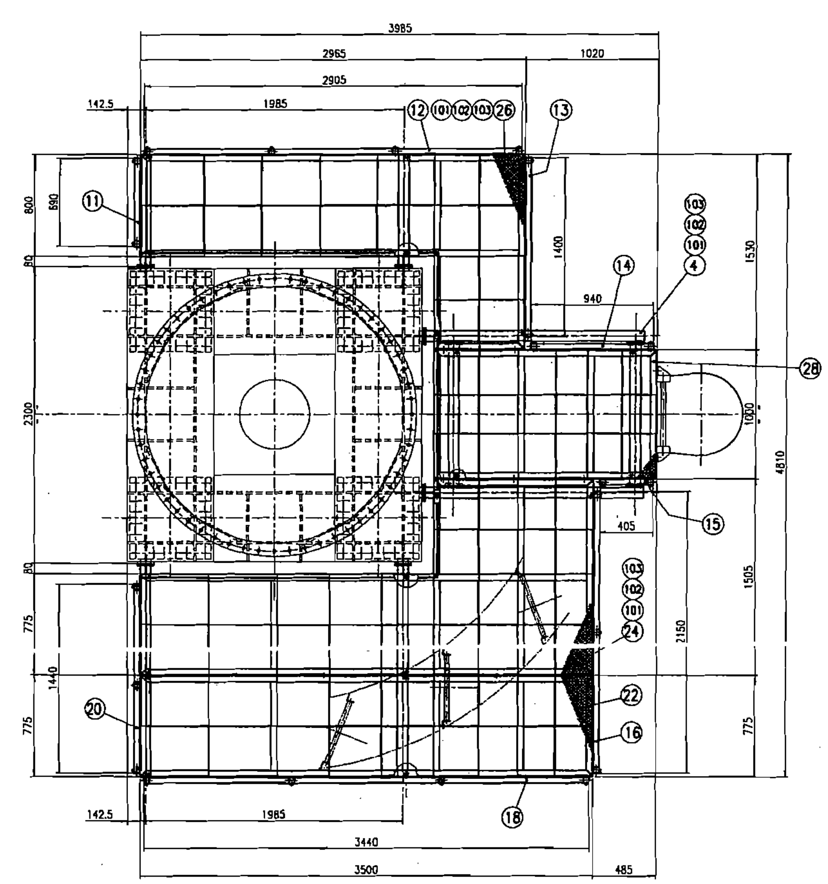




Detail A
Scale 1:10



Detail B (typical)
Scale 1:5



TOTAL WEIGHT = 2100 Kg

FRONT SIDE

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
109	16	WASHER 10.5 UNI 6592		•			
108	16	NUT M10 UNI 5588		6S			
107	16	SCREW M10x30 UNI 5739		8.8			
106	80	WASHER 17 UNI 6592		•			
105	80	NUT M16 UNI 5588		6S			
104	80	SCREW M16x60 UNI 5739		8.8			
103	66	WASHER 13 UNI 6592		•			
102	110	NUT M12 UNI 5588		6S			
101	110	SCREW M12x30 UNI 5739		8.8			
32	2	BEAM 60x60x992	F3804		6	12	
31	2	BEAM 60x60x992	F3803		6	12	
30	2	CAGE 600x580x648	F3802		8.9	17.8	
29	2	LADDER 620x2560	F3801		37.5	75	
28	1	WALKWAY 1720x1000	F3708		84.5	84.5	
27	1	WALKWAY 1720x1000	F3707		84.5	84.5	
26	1	WALKWAY 2965x1530	F3706		130	130	
25	1	WALKWAY 2965x1530	F3705		130	130	
24	1	WALKWAY 3500x1505	F3704		163	163	
23	1	WALKWAY 3500x1505	F3703		163	163	
22	1	WALKWAY 3500x775	F3702		118.5	118.5	
21	1	WALKWAY 3500x775	F3701		118.5	118.5	
20	1	GUARD RAIL 1150x1440	F3610		29	29	
19	1	GUARD RAIL 1150x1440	F3609		29	29	
18	1	GUARD RAIL 1150x3440	F3608		74.5	74.5	
17	1	GUARD RAIL 1150x3440	F3607		74.5	74.5	
16	2	GUARD RAIL 1150x2150	F3606		56.6	113.2	
15	2	GUARD RAIL 1150x405	F3605		13.6	27.2	
14	2	GUARD RAIL 1150x940	F3604		18.5	37	
13	2	GUARD RAIL 1150x1400	F3603		23.2	46.4	
12	2	GUARD RAIL 1150x2905	F3602		47.5	95	
11	2	GUARD RAIL 1150x690	F3601		16.1	32.2	
10	12	SMALL BLOCK 10x10x130	F3510		0.1	1.2	
9	4	BEAM 160x1103	F3509		21.8	87.2	
8	2	BEAM 160x880	F3508		17.2	34.4	
7	2	BEAM 160x880	F3507		17.2	34.4	
6	2	BEAM 160x1630	F3506		29	58	
5	2	BEAM 160x1630	F3505		29	58	
4	1	BEAM 160x1700	F3504		35	35	
3	1	BEAM 160x1700	F3503		35	35	
2	1	BEAM 160x1700	F3502		35	35	
1	1	BEAM 160x1700	F3501		35	35	

REV	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	08-08-02	FIRST ISSUE	EsseTre	GERMANO	RIBIS

DEAL

STRADDLE CARRIER
SC 720 - 32

VERTICAL STRUCTURE

WALKWAYS ON LOWER BEARING SUPPORT

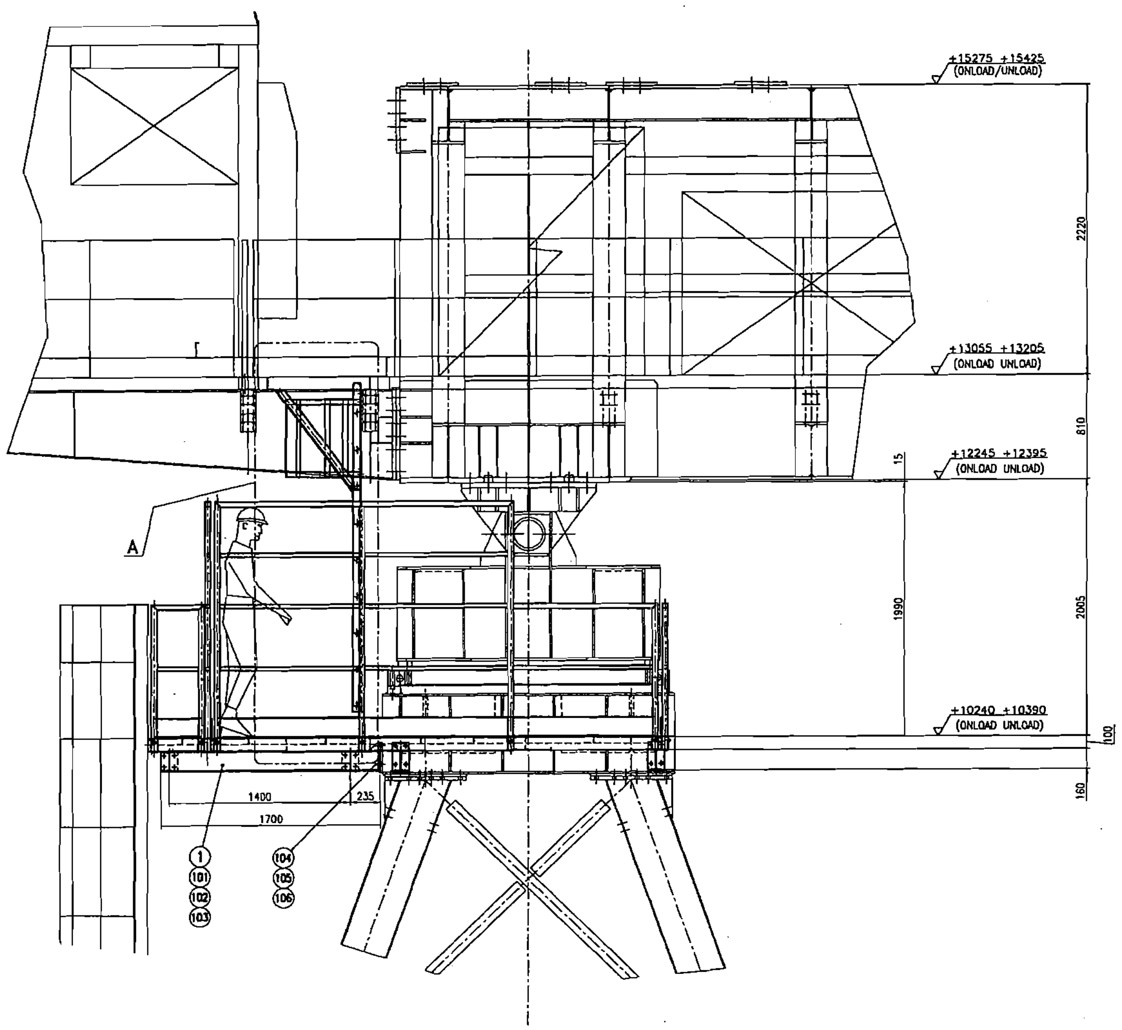
Scale 1:20 — Sheet 1 of 2 — Format A0

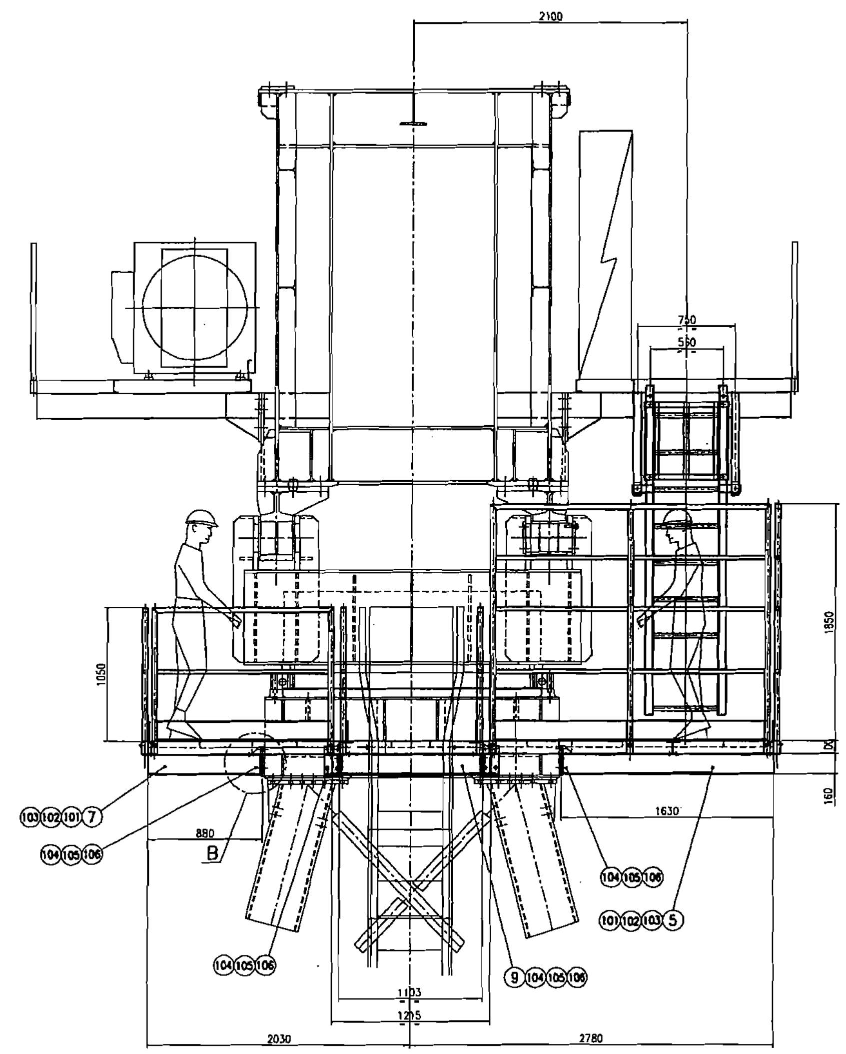
File: T06DMADF031A.DWG

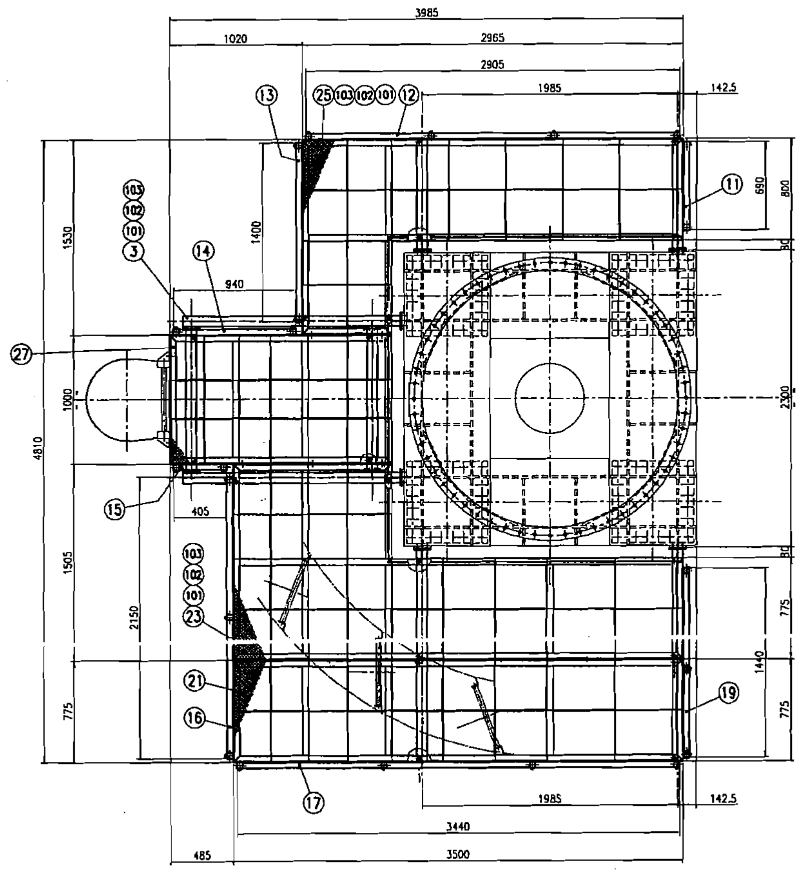
Job Nr. -600311 — Sub.J.Nr. -060306 — Var. -------

T06 DM AD F- 0310 0

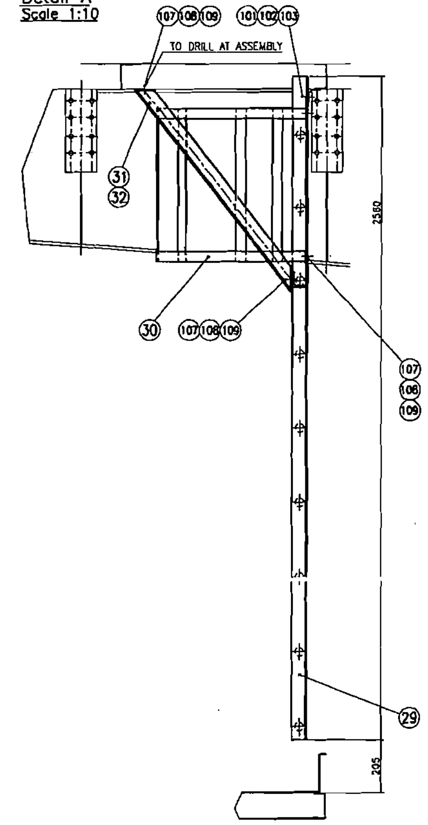
KIEWIT / FCI / MANSON JV



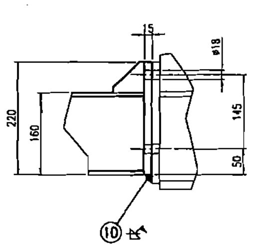




Detail A
Scale 1:10



Detail B (typical)
Scale 1:5



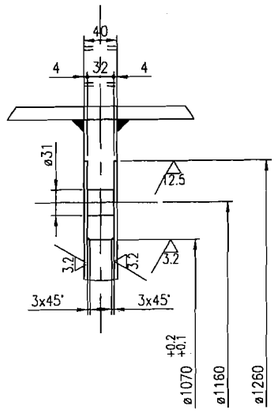
REAR SIDE

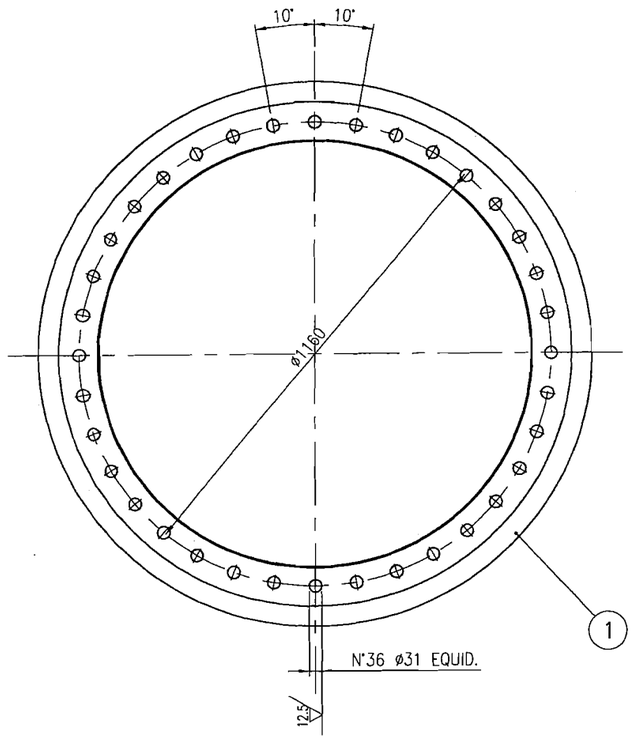
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	08-08-02	FIRST ISSUE	EsseTre	GERMANO	RIBIS

DEAL

Reference:	STRADDLE CARRIER SC 720 - 32
Object:	VERTICAL STRUCTURE
Title:	WALKWAYS ON LOWER BEARING SUPPORT
Substitutes for:	---
Scale	1:20
Sheet	2
Of	2
File:	T06DMADF031B.DWG
Format	A0
Job Nr.	- 6 0 0 3 1 1
Sub.J.Nr.	- 6 0 3 0 6
Fab. Nr. / Dep. / Doc. Type / Part. / Nr. / Rev.	T 0 6 / D M / A D / F - / 0 3 1 / 0
Client:	KIEWIT / FCI / MANSON JV

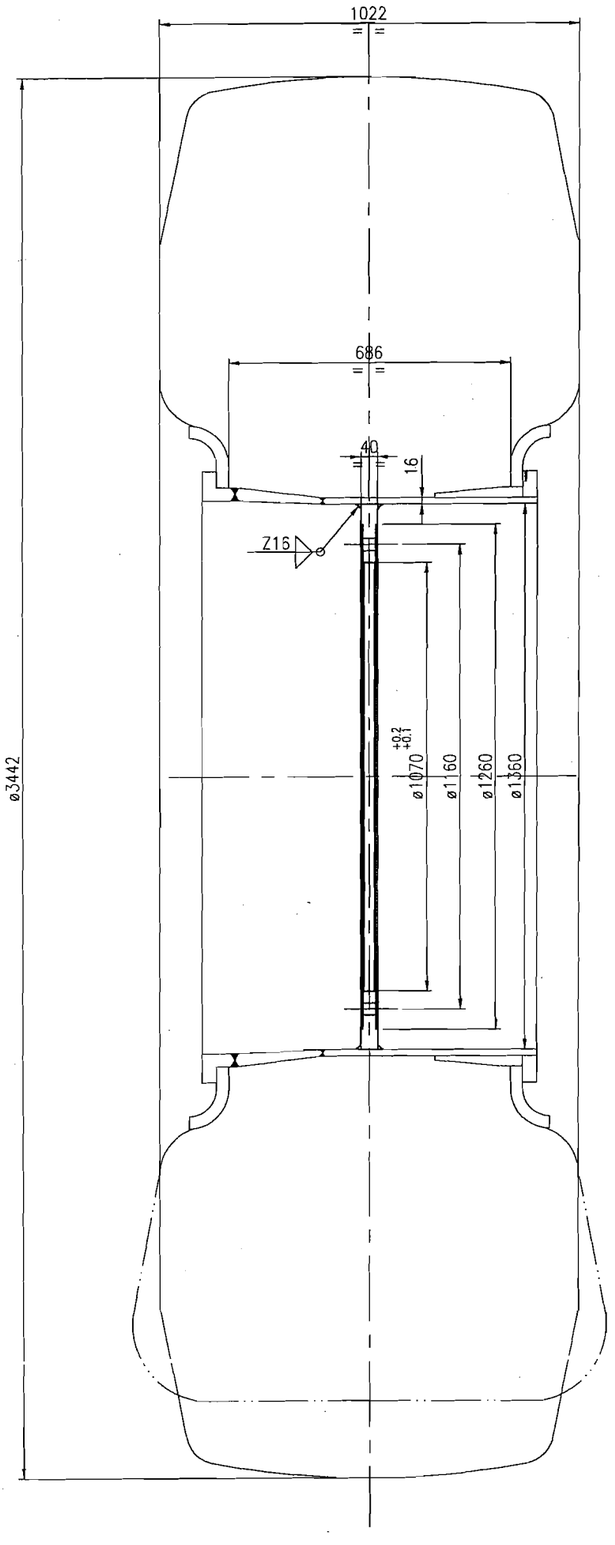
DETAIL "X"
SCALE 1:5





RUBBER TYRE MICHELIN
37.00 R57 XKD1
Rim 27.00/6.0"
MAX INFLATING PRESSURE
TYRE 75 psi–5.17bar

MARK	F101
NR PIECES	16
UNIT WEIGHT	4100Kg
TOTAL WEIGHT	65600Kg

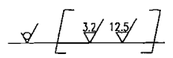


WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

9,038lbs ea

FINAL PAINTING :
ENAMEL BLUE RAL 5017

TOTAL WEIGHT = 65600Kg



REMOVE SHARP CORNERS WITH R~=2

DWG size A2

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimun thk. to be connected
(Continuous welds) a/2
Edge preparation for welding in according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F

FINISHING
Machining UNI 4600
0.8 | 3.2 | 12.5 | 25

TOLLERANCES
Fit ISO (UNI 7218)

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
2							
1	16	PLATE ø1360 Th.=40 SHAPED	*	Fe 510 C	/	/	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	31/07/02	REVISED ADD WEIGHT	S.G.	G. BONASSI	G. BONASSI
0	02/05/02	FIRST ISSUE	S.G.	G. BONASSI	G. BONASSI

DEAL

Sede e Stabilimento
Via Buttrio–Frazione Corgnacco
33050–Pozzuolo del Friuli (UD)–Italy
Tel.: +39 432 607 900
Fax.: +39 432 607 902
e–mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: DRIVING AND STEERING WHEEL GROUP

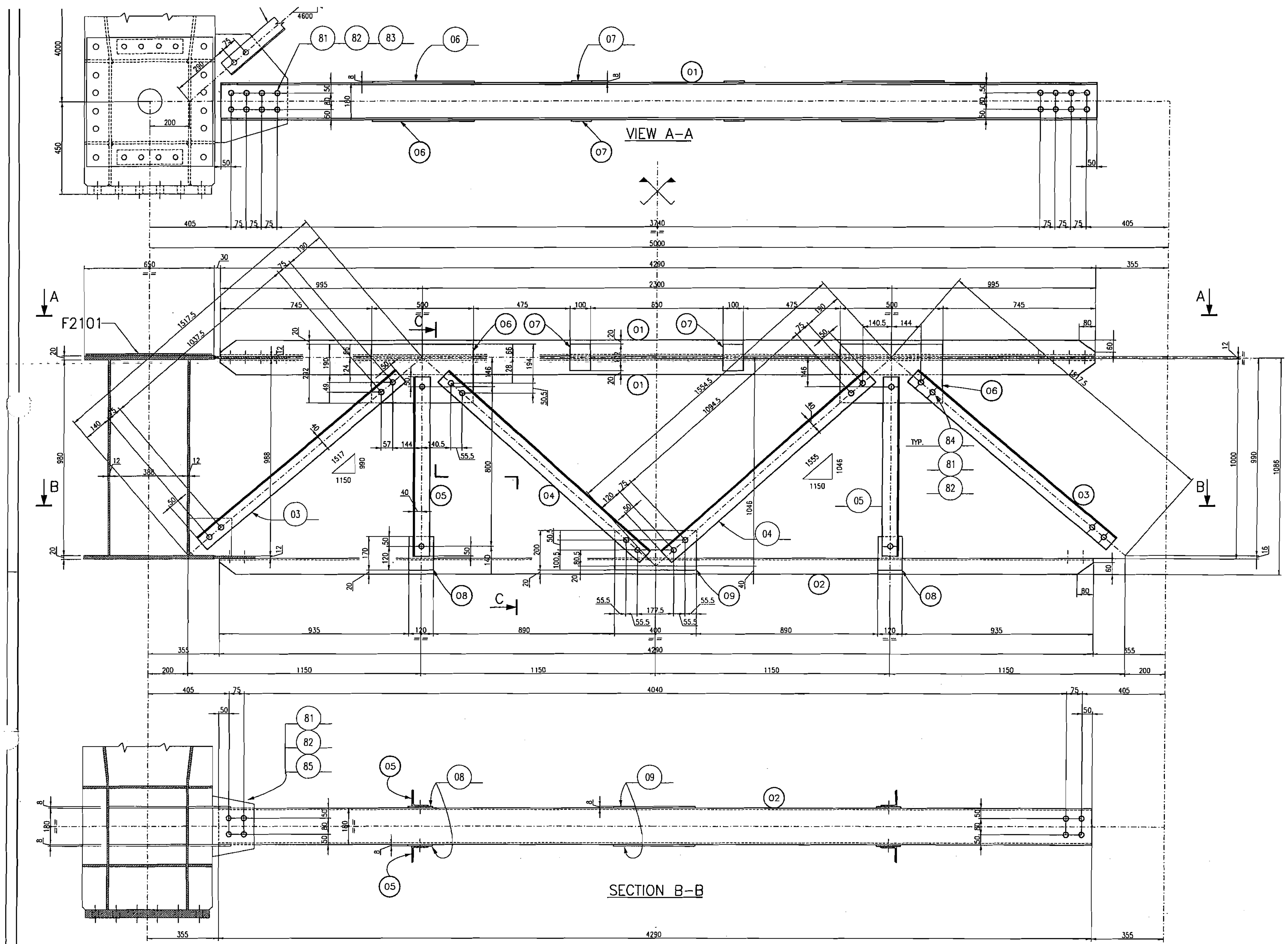
TITLE: WHEEL DETAIL

Substitutes for: ---
Scale 1:20
Sheet 1
Of 1
File: T06DUCDF001_1.DWG
Format A2

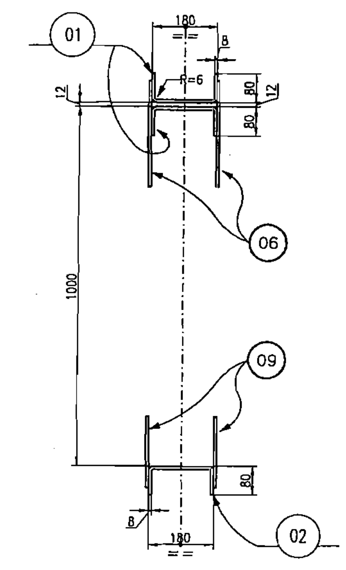
Fab. Nr.	Dep.	Doc. Type	Port.	Nr.	Rev.
T06DU	CD	F–	0011		

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA



N. PEZZI	PROFILO	LARGH.	LUNGH.	MARCHE POS.	Peso in kg. Unit.	Peso in kg. Totale	Codice	Qualita' materiale	NOTE
8	LAM. 8	315	4290	01	84.9	679		FE510C	
4	LAM. 8	315	4290	02	84.9	339		FE510C	
16	L80x6		1288	03	9.4	150		FE510C	
16	L80x6		1345	04	9.8	157		FE510C	
16	L80x6		900	05	6.6	105		FE510C	
16	LAM. 8	292	500	06	9.2	147		FE510C	
16	LAM. 8	100	132	07	0.8	13		FE510C	
16	LAM. 8	120	170	08	1.3	20		FE510C	
8	LAM. 8	200	400	09	5.0	40		FE510C	
4	L80x6		5616	10	41.0	164		FE510C	
2	ROD 100		12	11	0.7	1		FE510C	
548	WASHER M24 UNI 5714			81				C50	
274	NUT M24 UNI 5713			82				8G	
64	SCREW M24X65 UNI5712			83				10.9	
160	SCREW M24X50 UNI5712			84				10.9	
48	SCREW M24X55 UNI5712			85				10.9	
2	SCREW M24X60 UNI5712			86				10.9	
						1817			



MARK F2001
NR PIECES 4
UNIT WEIGHT 413 Kg
TOTAL WEIGHT 1652 Kg

REMOVE SHARP CORNERS WITH R=~2

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

-NOTES-

-ALL HOLES ARE ø26 FOR BOLTS M24 10.9

FINAL PAINTING :

ENAMEL BLUE RAL 5017

DWG size A0

WELDS (UNI 1310)

TOLLERANCES

FINISHING UNI 4600

TOLLERANCES Fit ISO (UNI 7218)

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	08-07-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET R.V.	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: TROLLEYS AND SUPPORT

TITLE: CONNECTION BEAM FOR TRANSVERSAL CROSS MEMBER

Scale 1:10 — Sheet 1 of 1

File: T06TPCDF020.DWG — Format A1

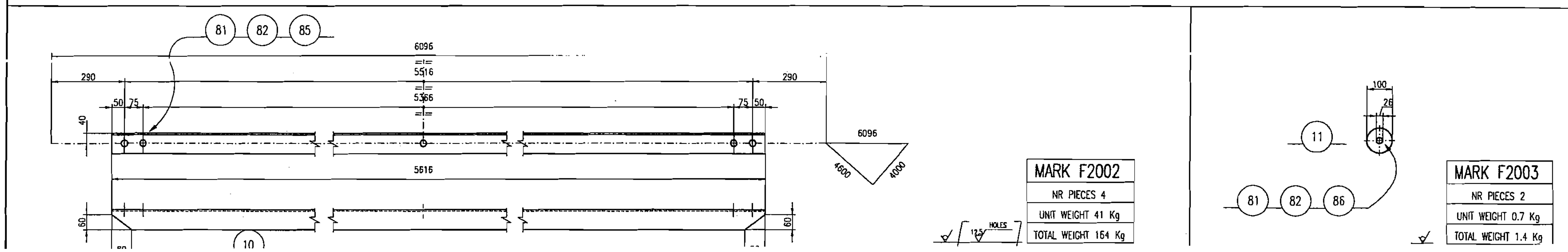
Job Nr. 600311 — Sub.J.Nr. 060310

T06 TP CD F - 020 0

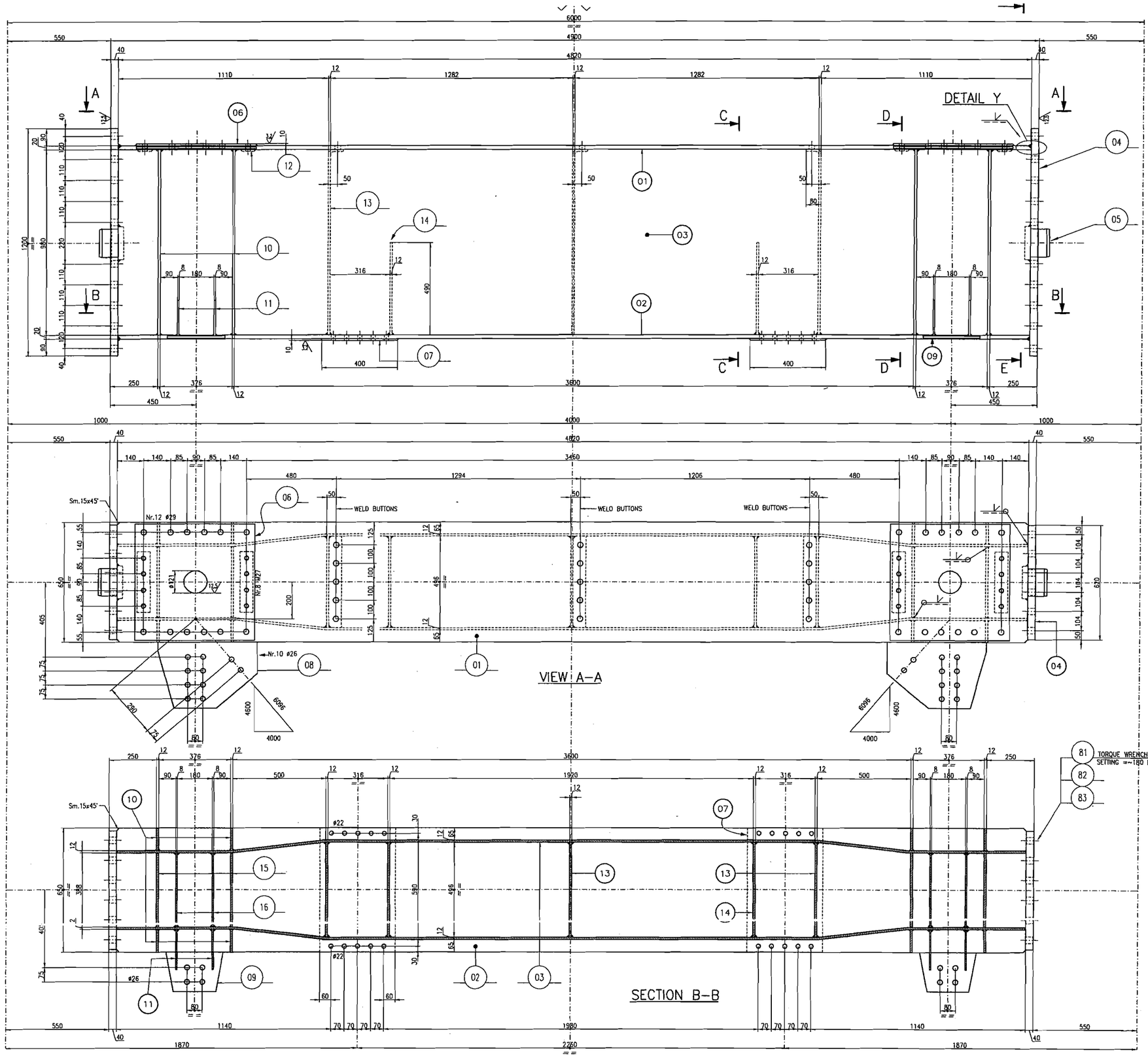
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT

MARK F2002
NR PIECES 4
UNIT WEIGHT 41 Kg
TOTAL WEIGHT 164 Kg



MARK F2003
NR PIECES 2
UNIT WEIGHT 0.7 Kg
TOTAL WEIGHT 1.4 Kg



nr. PIEC.	PROFILE	WIDTH	LENGTH	MARK POS.	Weigth kg. Unit.	Weigth kg. Total	Code	Qual. material	NOTES
4	PL 20	650	4820	01	491.9	1968		FE510C	
4	PL 20	650	4820	02	491.9	1968		FE510C	
8	PL 12	980	4830	03	445.9	3567		FE510C	
8	PL 40	620	1200	04	233.4	1867		FE510C	
8	RQD175		130	05	19.2	154		39NiCrMo3	
8	PL 10	630	630	06	31.2	249		FE510C	
8	PL 10	400	650	07	20.4	163		FE510C	
8	PL 12	355	524	08	14.4	115		FE510C	
8	PL 12	205	300	09	5.0	40		FE510C	
32	PL 12	119	980	10	11.0	352		FE510C	
16	PL 8	190	210	11	2.5	40		FE510C	
16	PL 10	70	330	12	1.8	29		FE510C	
12	PL 12	496	1040	13	48.6	583		FE510C	
8	PL 12	490	496	14	22.9	183		FE510C	
16	PL 12	388	980	15	35.8	573		FE510C	
16	PL 8	186	388	16	4.5	73		FE510C	
224	SCREW M33X125 UNI5737			81				8.8	
448	WASHER 34X60 UNI 6592			82				R40	
224	NUT M33 UNI 5588			83				6S	
						11923			

SCALE 1:10

MARK F2101
NR PIECES 4
UNIT WEIGHT 2980.8 Kg
TOTAL WEIGHT 11923 Kg

12.5/ 12.5/ HOLES

REMOVE SHARP CORNERS WITH R≈=2

DWG size A0

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimum thk. to be connected
(Continuous welds)
Edge preparation for welding in according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F

FINISHING
Machining UNI 4600
0.8/ 3.2/ 12.5/ 25/

TOLLERANCES
Fit ISO (UNI 7218)

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

-NOTE-
FOR SECTION C-C, D-D, E-E AND DETAIL SEE DWG. T06TPCDF021B

FINAL PAINTING :
ENAMEL BLUE RAL 5017

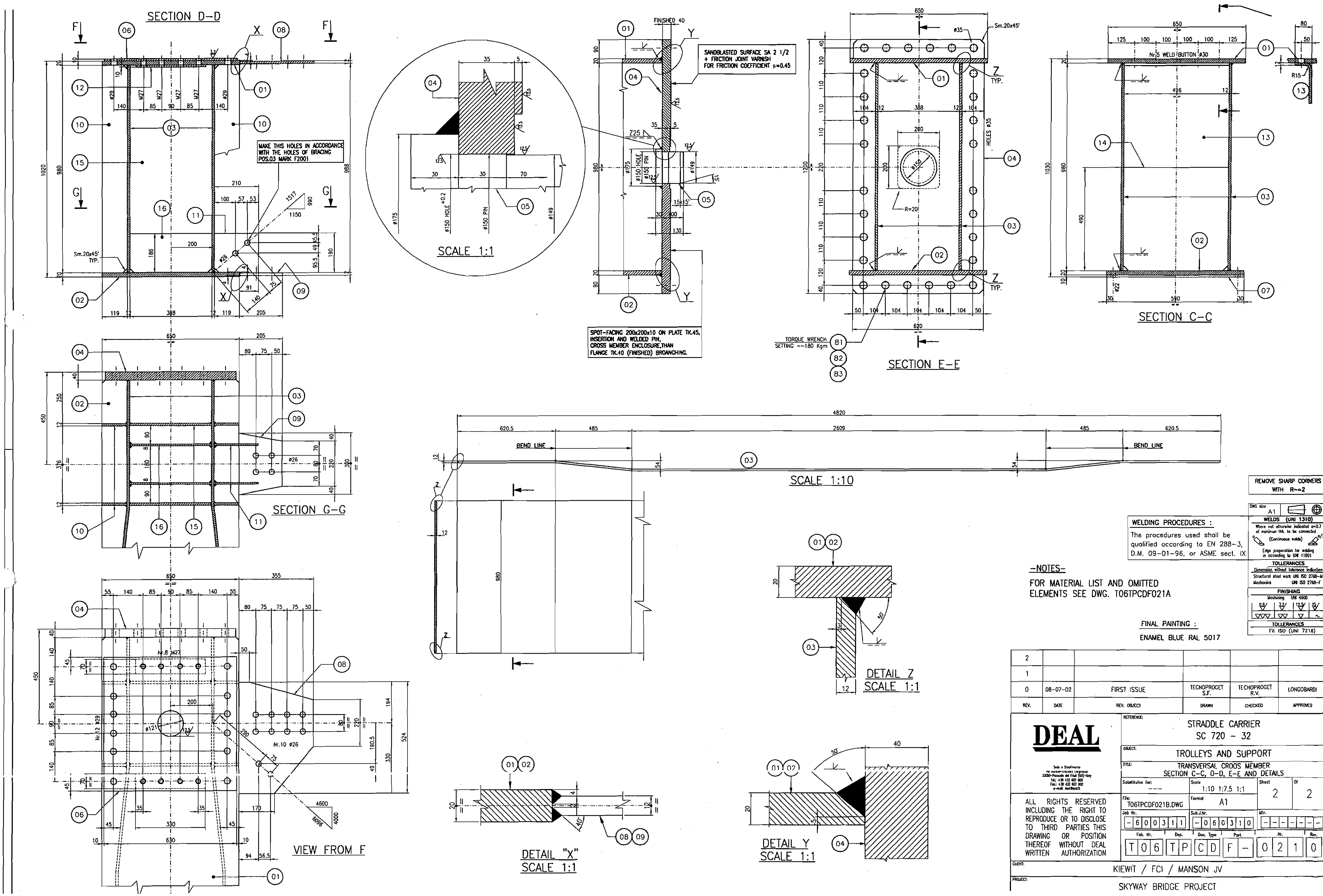
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	08-07-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET R.V.	LONGOBARDI

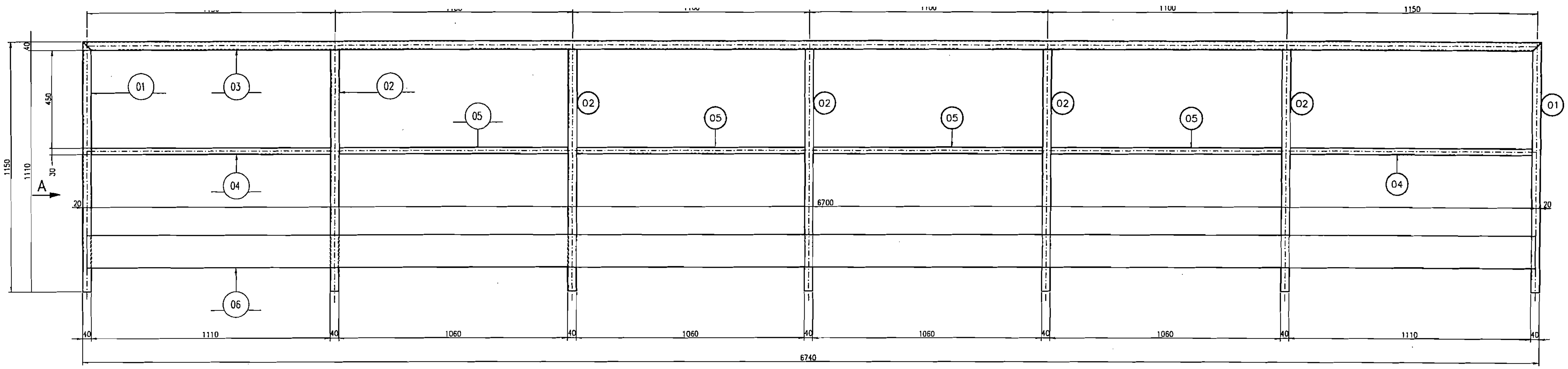
DEAL

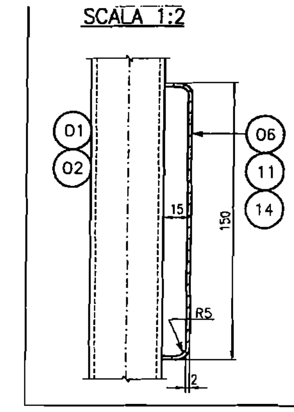
Sede e Stabilimento
via [illegible]
33050 - Pozzuolo del Friuli (UD) - Italy
tel.: +39 432 607 000
fax: +39 432 607 502
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: TROLLEYS AND SUPPORT
TITLE: TRANSVERSAL CROSS MEMBER
Substitutes for: ---
Scale 1:10
Sheet 1
Of 2
File: T06TPCDF021A.DWG
Format A1
Job Nr. -60031 1
Sub.Nr. -06031 0
Mtr. -------
Fab. Nr. T06
Dep. TP
Doc. Type CD
Part. F-
Nr. 0210
Rev.

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT



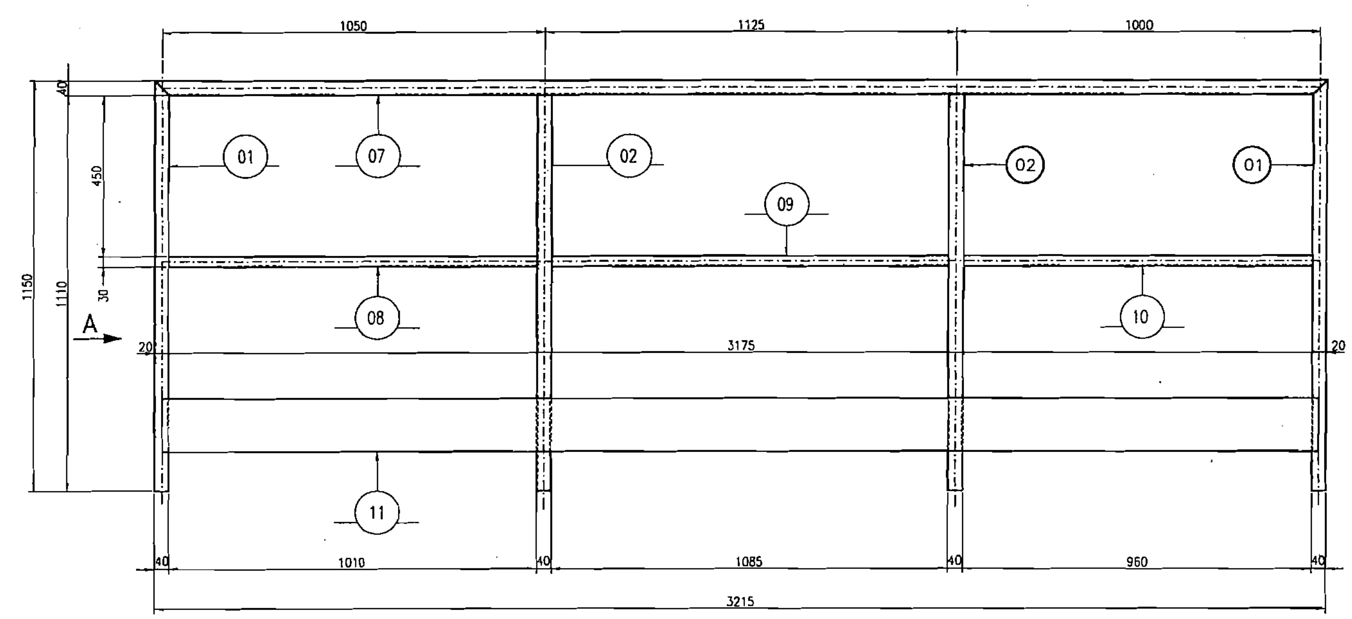




SCALA 1:2

SCALE 1:10

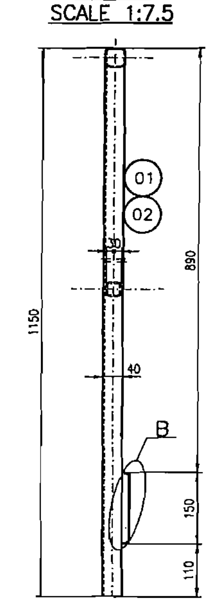
MARK F2501
NR PIECES 4
UNIT WEIGHT 56.3 Kg
TOTAL WEIGHT 226 Kg



SCALE 1:10

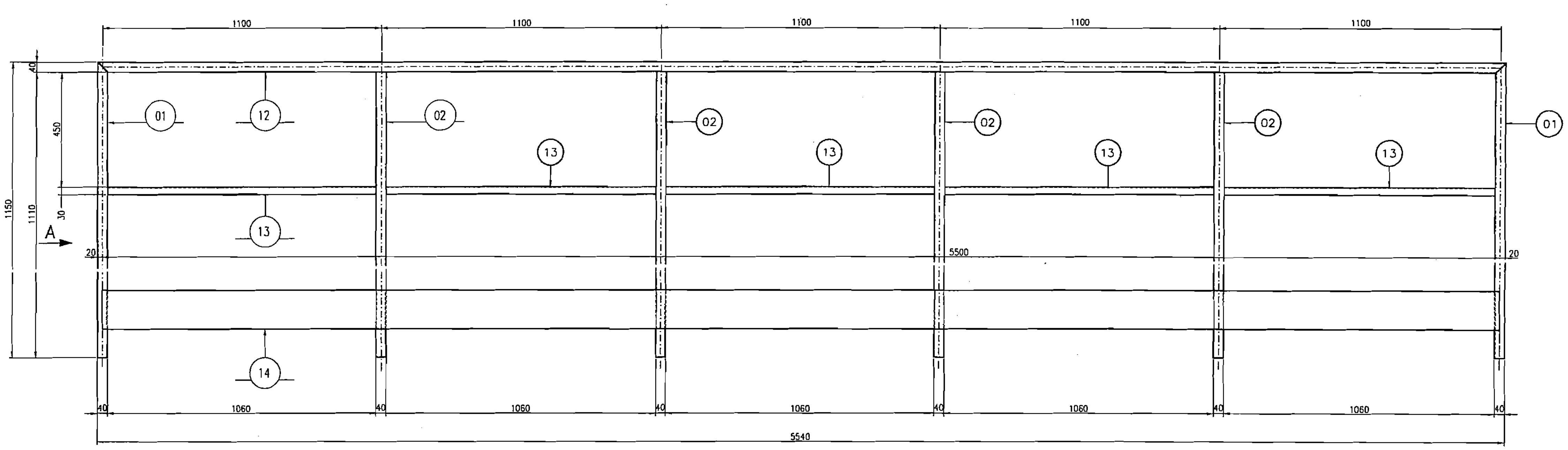
MARK F2502
NR PIECES 2
UNIT WEIGHT 24.3 Kg
TOTAL WEIGHT 49 Kg

VIEW FROM A TYPICAL SCALE 1:7.5



SCALE 1:10

MARK F2503
NR PIECES 2
UNIT WEIGHT 47.8 Kg
TOTAL WEIGHT 96 Kg



LIST OF MATERIAL

N. PIEC.	PROFILE	WIDTH	LENGTH	MARK POS.	Weigth kg. Unit.	Weigth kg. Total	Code	Qual. material	NOTES
16	PIPE 40x40x3		1150	01	4.0	63		FE360B	
32	PIPE 40x40x3		1110	02	4.0	127		FE360B	
4	PIPE 40x40x3		6740	03	2.3	9		FE360B	
8	PIPE 30x30x3		1110	04	1.5	12		FE360B	
16	PIPE 30x30x3		1060	05	1.5	23		FE360B	
4	PL 2	167	6700	06	17.6	70		FE360B	
2	PIPE 40x40x3		3215	07	2.3	5		FE360B	
2	PIPE 30x30x3		1010	08	1.5	3		FE360B	
2	PIPE 30x30x3		1085	09	1.5	3		FE360B	
2	PIPE 30x30x3		960	10	1.5	3		FE360B	
2	PL 2	167	3175	11	1.7	3		FE360B	
2	PIPE 40x40x3		5540	12	2.3	5		FE360B	
10	PIPE 30x30x3		1060	13	1.5	15		FE360B	
2	PL 2	167	5500	14	14.4	29		FE360B	
						369			

REMOVE SHARP CORNERS WITH R~=2

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL BLUE RAL 5017

DWG size A1

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimum thk. to be connected (Continuous welds)
Edge preparation for welding in according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F

FINISHING
Machining UNI 4600
0.8 3.2 12.5 25

TOLLERANCES
Fit ISO (UNI 7218)

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	01-08-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

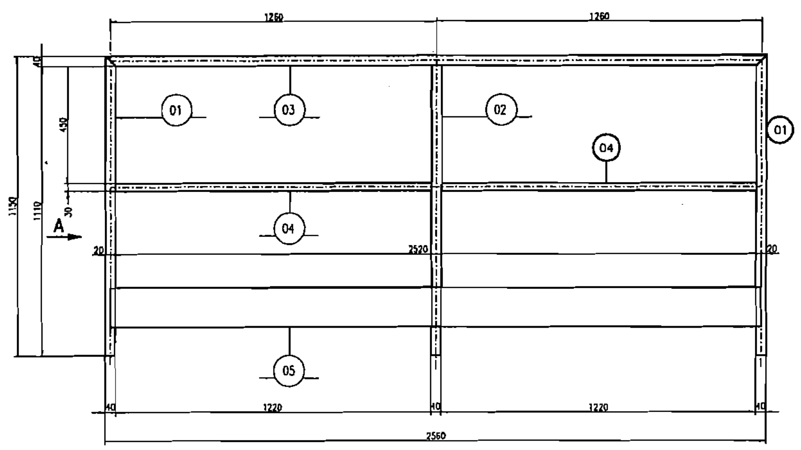
OBJECT: TROLLEYS AND SUPPORT

TITLE: HANDRAILS

Substitutes for: ---
Scale: 1:10 1:7.5 1:2
Sheet 1 Of 1
File: T06TPCDF025.DWG
Format: A1
Job Nr.: - 6 0 0 3 1 1
Sub.J.Nr.: - 0 6 0 3 1 0
Mfr.: - - - - - - -
Fab. Nr.: T 0 6 | Dep.: T P | Doc. Type: C D | Part.: F - | Nr.: 0 2 5 | Rev.: 0

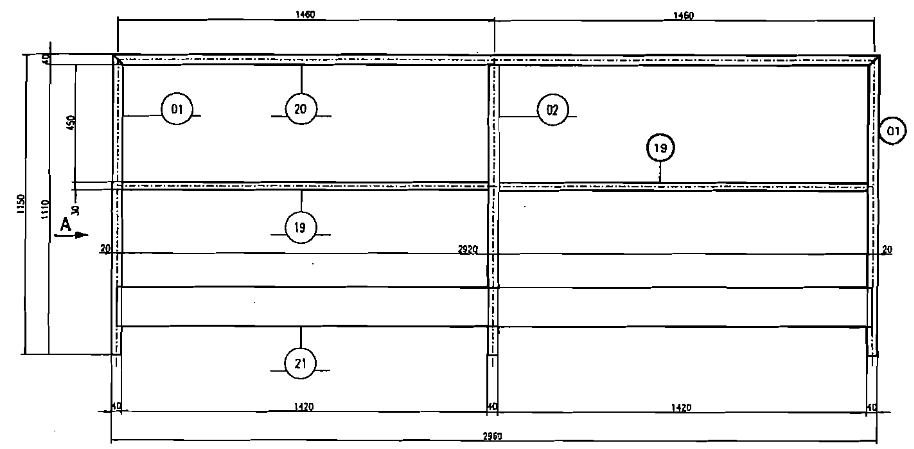
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



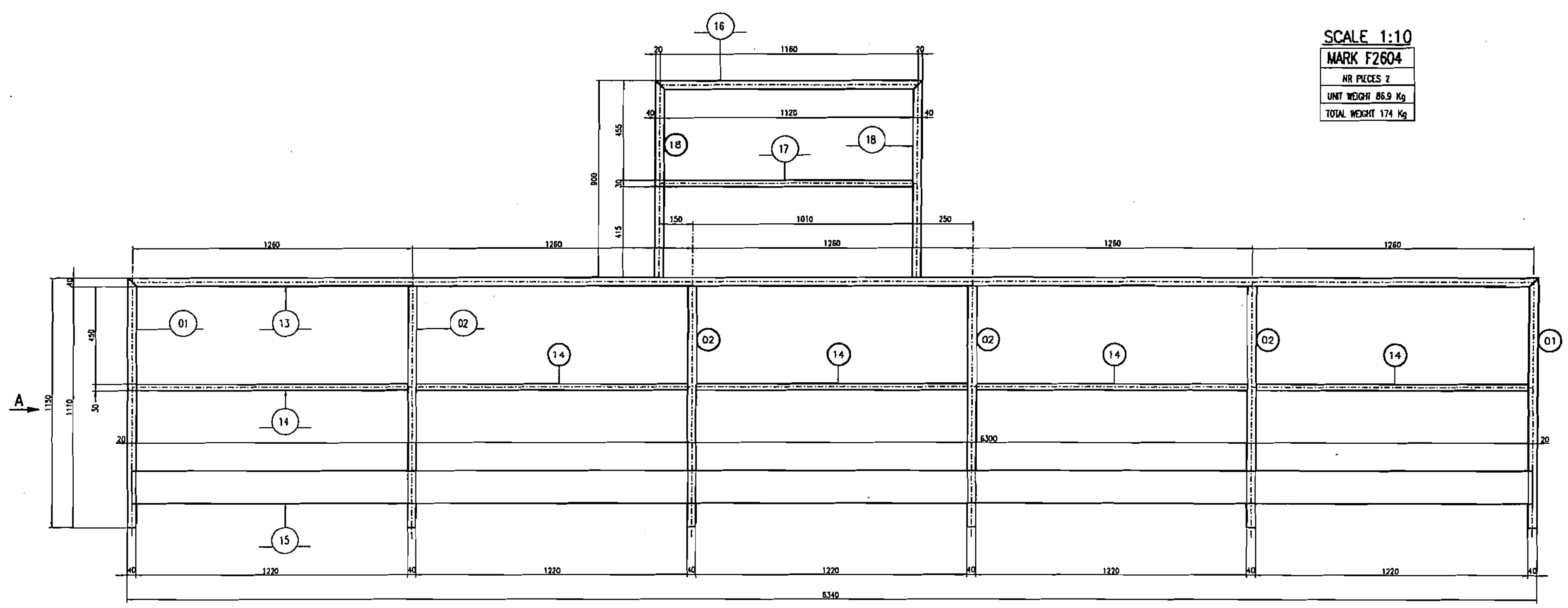
SCALE 1:10

MARK F2601
NR PIECES 2
UNIT WEIGHT 32 Kg
TOTAL WEIGHT 64 Kg



SCALE 1:10

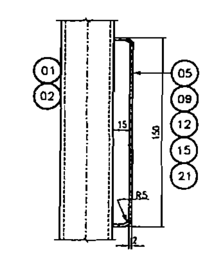
MARK F2605
NR PIECES 2
UNIT WEIGHT 35.6 Kg
TOTAL WEIGHT 71 Kg



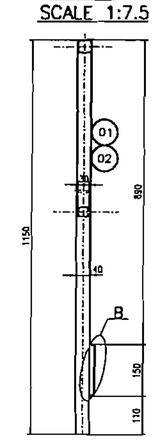
SCALE 1:10

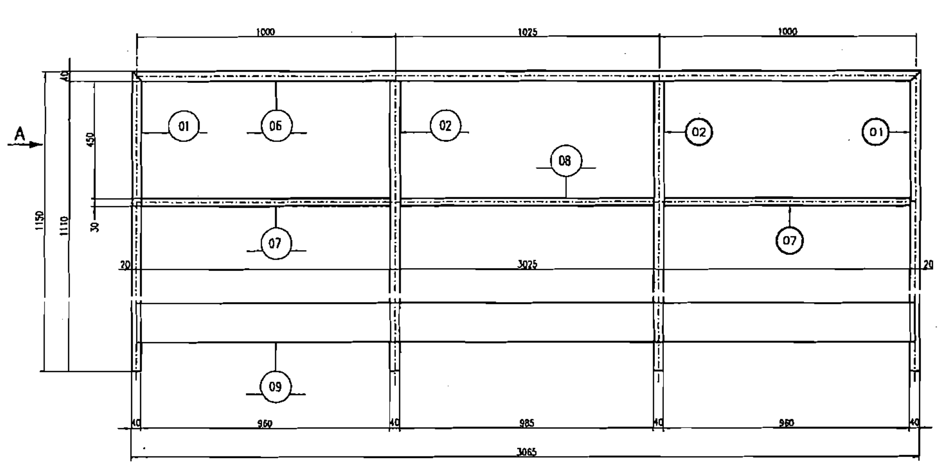
MARK F2604
NR PIECES 2
UNIT WEIGHT 86.9 Kg
TOTAL WEIGHT 174 Kg

DETAIL B
SCALA 1:2



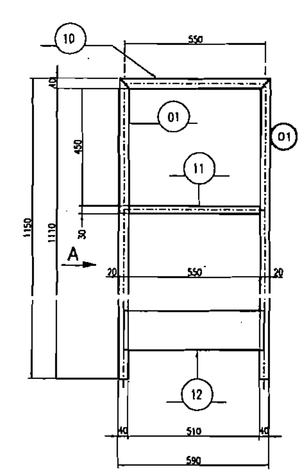
VIEW FROM A
TYPICAL
SCALE 1:7.5





SCALE 1:10

MARK F2602
NR PIECES 2
UNIT WEIGHT 40 Kg
TOTAL WEIGHT 80 Kg



SCALE 1:10

MARK F2603
NR PIECES 6
UNIT WEIGHT 12.3 Kg
TOTAL WEIGHT 74 Kg

28	PIPE 40x40x3			1150	01	4.0	111		FE360B	
16	PIPE 40x40x3			1110	02	3.8	61		FE360B	
2	PIPE 40x40x3			2560	03	8.9	18		FE360B	
4	PIPE 30x30x3			1220	04	2.4	10		FE360B	
2	PL 2		167	2520	05	6.6	13		FE360B	
2	PIPE 40x40x3			3065	06	10.7	21		FE360B	
4	PIPE 30x30x3			960	07	1.9	8		FE360B	
2	PIPE 30x30x3			985	08	2.0	4		FE360B	
2	PL 2		167	3025	09	7.9	16		FE360B	
6	PIPE 40x40x3			590	10	2.0	12		FE360B	
6	PIPE 30x30x3			510	11	1.0	6		FE360B	
6	PL 2		167	550	12	1.4	8		FE360B	
2	PIPE 40x40x3			6340	13	22.2	44		FE360B	
10	PIPE 30x30x3			1220	14	2.4	24		FE360B	
2	PL 2		167	6300	15	16.5	33		FE360B	
2	PIPE 40x40x3			1200	16	4.2	8		FE360B	
2	PIPE 30x30x3			1120	17	2.2	4		FE360B	
4	PIPE 40x40x3			900	18	3.2	13		FE360B	
4	PIPE 30x30x3			1420	19	2.9	12		FE360B	
2	PIPE 40x40x3			2960	20	10.4	21		FE360B	
2	PL 2		167	2920	21	7.7	15		FE360B	
							463			

REMOVE SHARP CORNERS WITH R=2

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL BLUE RAL 5017

DWG size A1

WELDS (UNI 1310)

TOLLERANCES: Structural steel work UNI ISO 2768-M; Mechanics UNI ISO 2768-F

FINISHING

TOLLERANCES: Fit ISO (UNI 7218)

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	01-08-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

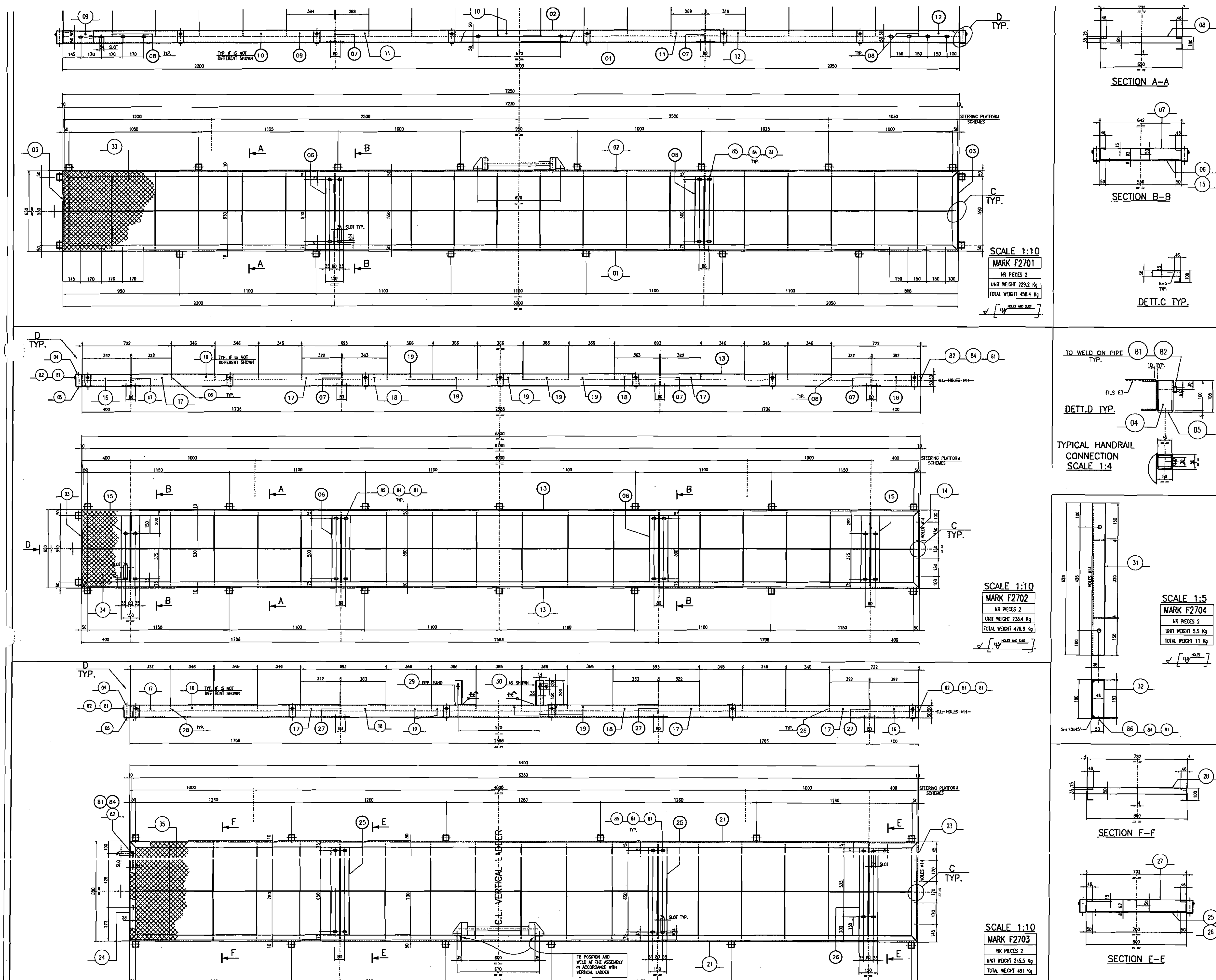
STRADDLE CARRIER
SC 720 - 32

TROLLEYS AND SUPPORT

HANDRAILS

Substitutes for: ---
Scale: 1:10 1:7.5 1:2
Sheet 1 of 1
File: T06TPCDF026.DWG
Format: A0
Job Nr.: -600311
Sub.Nr.: -060310
Fab. Nr. / Grp. / Doc. Type / Part / Nr. / Rev.: T06 TP CD F- 026 0

CLIENT: KIEWIT / FCI / MANSON JV



PIEC.				POS.	Unit.	Total		material	
2	[100X50X4		7250	01	31.8	64		FE360B	
2	[100X50X4		7250	02	31.8	64		FE360B	
6	[100X50X4		650	03	31.8	191		FE360B	
92	PIPE 50x50x4		100	04	0.5	46		FE360B	
92	PL 5	30	45	05	0.1	5		FE360B	
8	PL 8	150	550	06	5.2	41		FE360B	
12	PL 8	92	642	07	3.7	45		FE360B	
64	PL 4	50	642	08	1.0	62		FE360B	
4	PL 4	50	394	09	0.6	2		FE360B	
54	PL 4	50	346	10	0.5	29		FE360B	
4	PL 4	50	269	11	0.4	2		FE360B	
4	PL 4	50	319	12	0.5	2		FE360B	
4	[100X50X4		6800	13	31.8	127		FE360B	
2	[100X50X4		650	14	31.8	64		FE360B	
4	PL 8	150	550	15	5.2	21		FE360B	
6	PL 4	50	392	16	0.6	4		FE360B	
16	PL 4	50	322	17	0.5	8		FE360B	
8	PL 4	50	363	18	0.6	5		FE360B	
20	PL 4	50	366	19	0.6	12		FE360B	
4	[100X50X4		6400	21	31.8	127		FE360B	
2	[100X50X4		800	23	31.8	64		FE360B	
2	[100X50X4		800	24	31.8	64		FE360B	
4	PL 8	150	700	25	6.6	26		FE360B	
2	PL 8	150	700	26	6.6	13		FE360B	
6	PL 8	92	792	27	4.5	27		FE360B	
28	PL 4	50	792	28	1.2	34		FE360B	
2	L60x40x6		200	29	0.9	2		FE360B	
2	L60x40x6		200	30	0.9	2		FE360B	
2	[160X50X4		628	31	5.1	10		FE360B	
4	PL 4	46	152	32	0.2	1		FE360B	
2	FILS E3 TK 3	630	7230	33	45.6	91		FE360B	
2	FILS E3 TK 3	630	6780	34	42.8	86		FE360B	
2	FILS E3 TK 3	780	6380	35	49.9	100		FE360B	
188	NUT M12 UNI 5588			81				6S	
112	SCREW M12x30 UNI 5739			82				8.8	
192	WASHER 13X24 UNI6592			84				R40	
72	SCREW M12X40 UNI5737			85				8.8	
4	SCREW M12X35UNI5737			86				8.8	
						1437			

REMOVE SHARP CORNERS WITH R=2

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

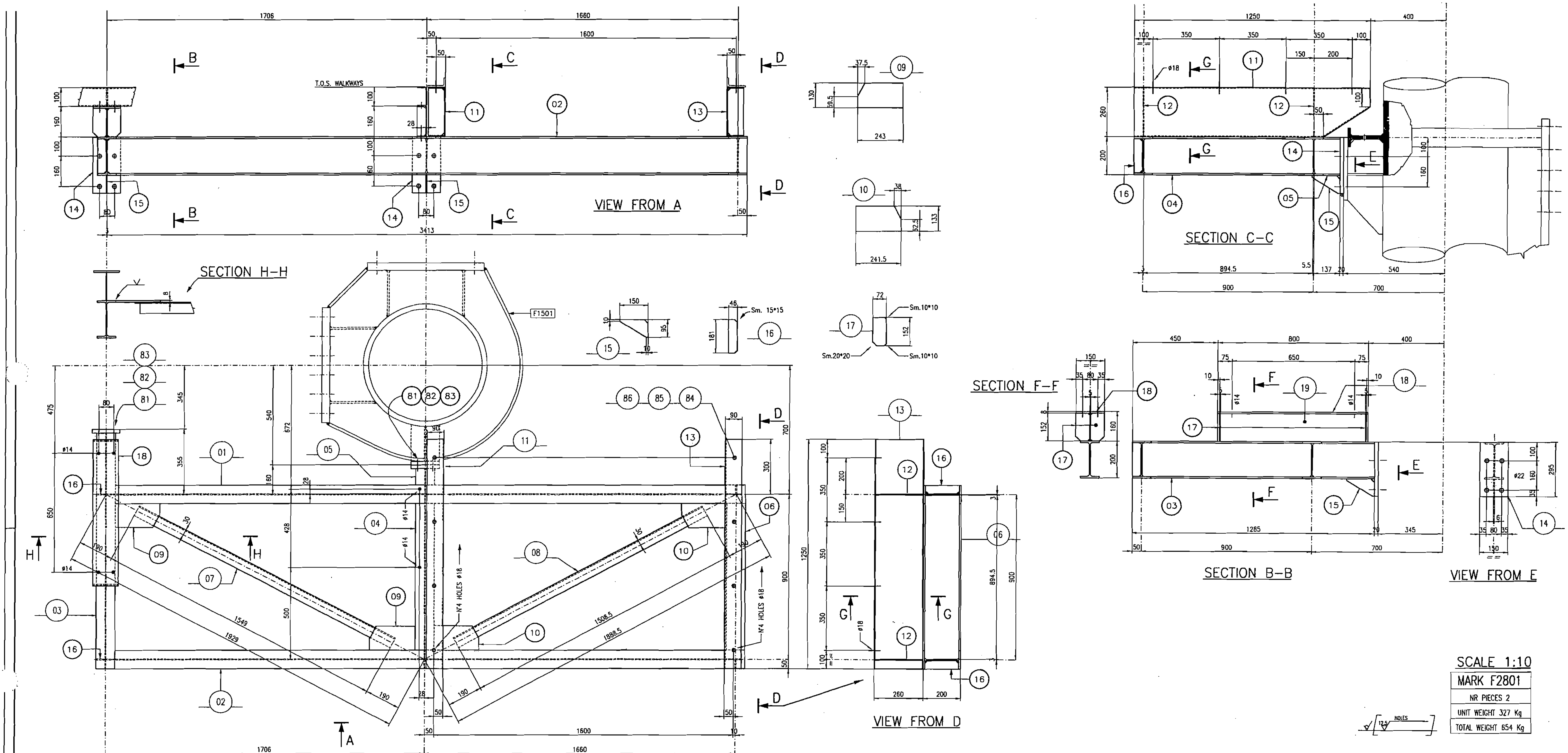
TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F
FINISHING
Machining UNI 4400
TOLLERANCES
Fit ISO (UNI 7218)

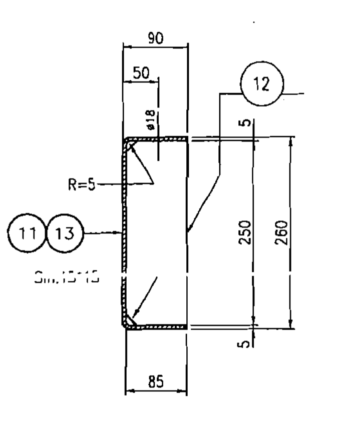
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	01-08-02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: TROLLEYS AND SUPPORT
TITLE: WALKWAYS
Substitutes for: ---
Scale: 1:10 1:4
Sheet 1 Of 1
File: T06TPCDF027.DWG
Format: A0
Job Nr.: -600311
Sub.Nr.: -060310
Nr.: -------
Fab. Nr. T06 | Dep. TP | Doc. Type CD | Part. F- | Nr. 027 | Rev. 0

CLIENT: KIEWIT / FCI / MANSON JV





SECTION G–G
SCALE 1:5

LIST OF MATERIAL									
N. PIEC.	PROFILE	WIDTH	LENGTH	MARK POS.	Weigth kg. Unit.	Total	Code	Qual. material	NOTES
2	IPE200		3413	01	76.5	153		FE430B	
2	IPE200		3413	02	76.5	153		FE430B	
2	IPE200		1285	03	28.8	58		FE430B	
2	IPE200		894	04	20.0	40		FE430B	
2	IPE200		137	05	3.1	6		FE430B	
2	IPE200		894	06	20.0	40		FE430B	
2	L60×6		1549	07	8.4	17		FE430B	
2	L60×6		1508	08	8.1	16		FE430B	
4	PL 8	130	243	09	2.0	8		FE360B	
4	PL 8	133	242	10	2.0	8		FE360B	
2	PL 5	440	1250	11	21.6	43		FE360B	
[illegible]	PL [illegible]	[illegible]	[illegible]	12	[illegible]	7		FE360B	
2	PL 5	440	1250	13	21.6	43		FE360B	
4	PL 20	150	295	14	6.9	28		FE360B	
4	PL 6	95	150	15	0.6	2		FE360B	
10	PL 6	46	181	16	0.4	4		FE360B	
8	PL 5	72	152	17	0.4	3		FE360B	
2	PL 8	150	800	18	7.5	15		FE360B	
2	PL 5	152	800	19	4.8	10		FE360B	
16	SCREW M20X75 UNI5737			81				8.8	
32	WASHER 21X37 UNI6592			82				R40	
16	NUT M20 UNI5588			83				6S	
16	SCREW M16X40 UNI5737			84				8.8	
32	WASHER 17X30 UNI6592			85				R40	
16	NUT M16 UNI5588			86				6S	

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288–3 D.M. 09–01–96, or ASME sect. IX

FINAL PAINTING :

ENAMEL BLUE RAL 5017

REMOVE SHARP CORNERS WITH R=~2

DWG size A1

WELDS (UNI 1310)

TOLLERANCES

FINISHING

TOLLERANCES Fit ISO (UNI 7218)

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	01–08–02	FIRST ISSUE	TECNOPROGET S.F.	TECNOPROGET CUCCHIARO	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: TROLLEYS AND SUPPORT

TITLE: OPERATING CAB–PLATFORM SUPPORT

Substitutes for: ––– | Scale 1:10 1:5 | Sheet 1 | Of 1

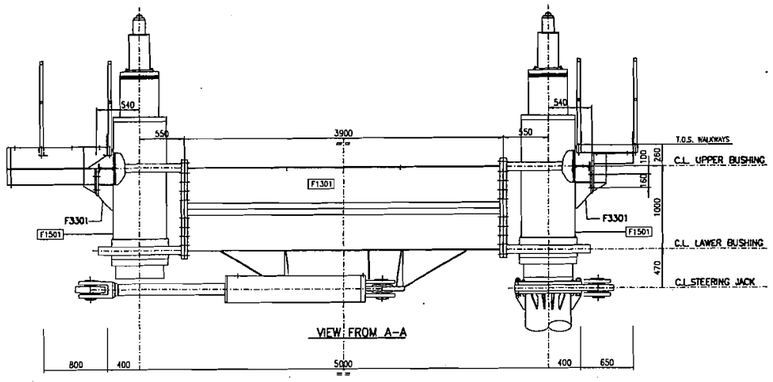
File: T06TPCDF028.DWG | Format A1

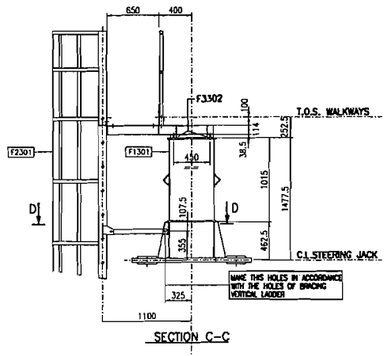
Job Nr. –600311 | Sub.J.Nr. –060310 | Mtr. –––––––

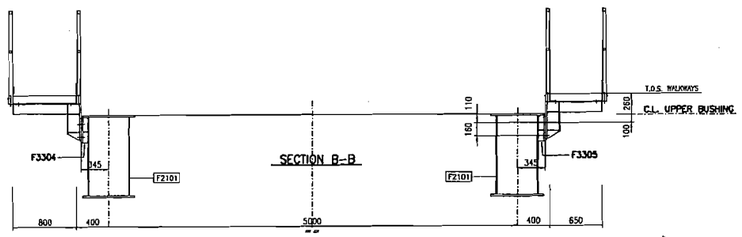
Fab. Nr. T06 | Dep. TP | Doc. Type CD | Part. F– | Nr. 028 | Rev. 0

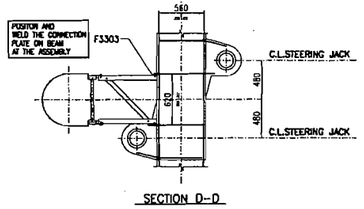
CLIENT: KIEWIT / FCI / MANSON JV

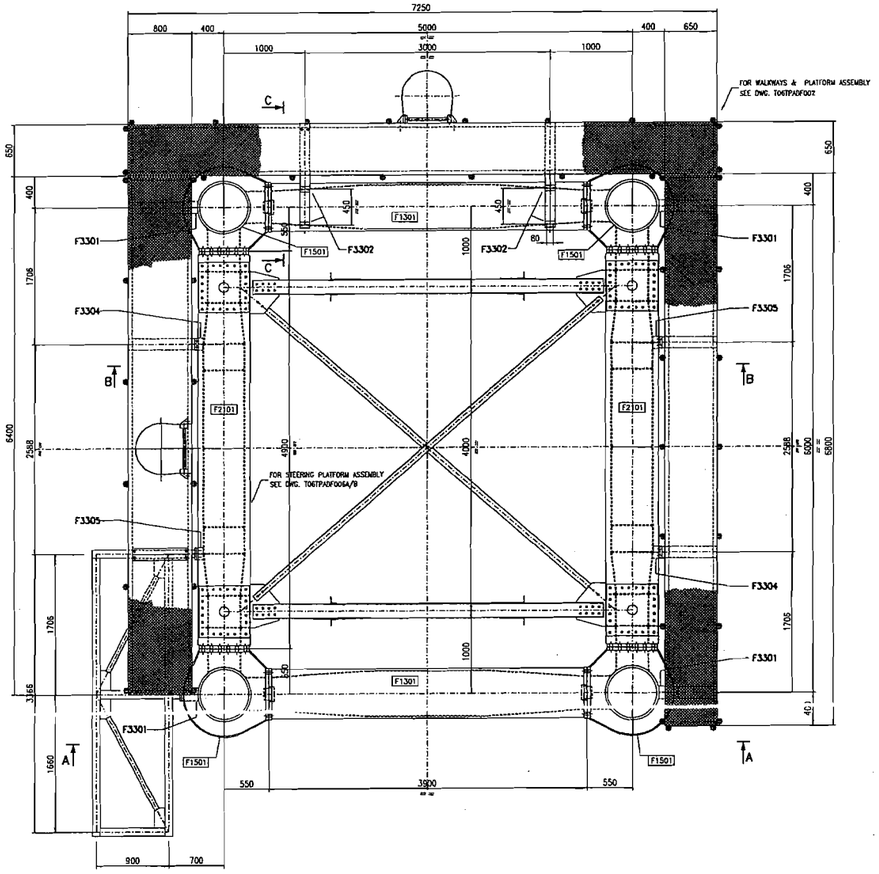
PROJECT: SKYWAY BRIDGE PROJECT





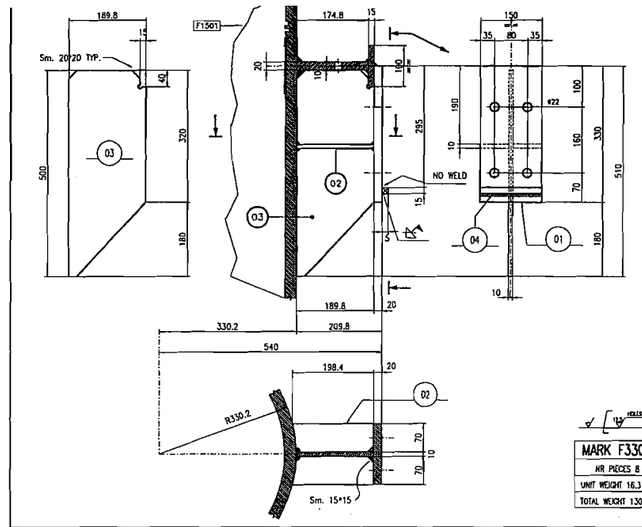




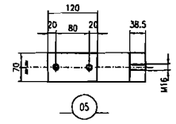


WALKWAY'S SUPPORT TO WELD
ON STEERING PLATFORM ASSEMBLY

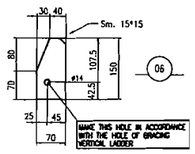
- F1501 MARK STEERING PLATFORM STRUCTURE
- F3305 MARK WALKWAY'S SUPPORT TO WELD ON STEERING PLATFORM



MARK F3301
NR PIECES 8
UNIT WEIGHT 16.3 Kg
TOTAL WEIGHT 130 Kg



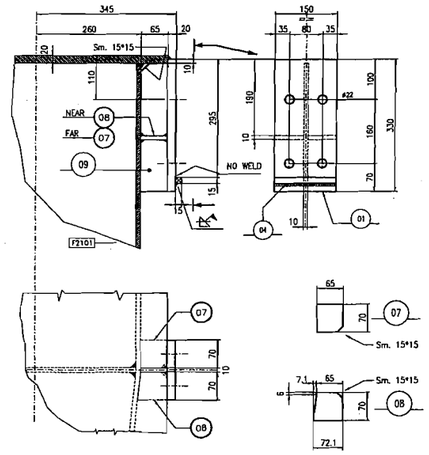
MARK F3302
NR PIECES 8
UNIT WEIGHT 2.6 Kg
TOTAL WEIGHT 21 Kg



MARK F3303
NR PIECES 2
UNIT WEIGHT 0.7 Kg
TOTAL WEIGHT 1.4 Kg

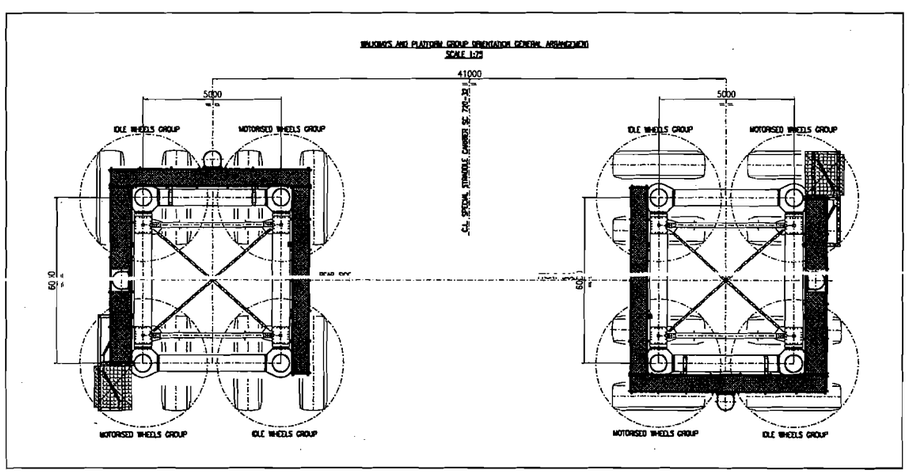
LIST OF MATERIAL WALKWAY'S SUPPORT TO WELD ON STEERING PLATFORM

N. PIEC.	PROFILE	WIDTH	LENGTH	MARK POS.	Weigth kg. Unit.	Weigth kg. Total	Code	Qual. material	NOTES
16	PL 20	150	330	01	7.8	124		FE510C	
16	PL 10	70	190	02	1.1	17		FE510C	
8	PL 10	190	500	03	6.2	49		FE510C	
16	PL 15	15	150	04	0.3	4		FE510C	
8	PL 20	70	180	05	2.6	21		FE510C	
2	PL 10	70	190	06	0.7	1		FE510C	
8	PL 10	65	70	07	0.4	3		FE510C	
8	PL 10	70	72	08	0.4	3		FE510C	
8	PL 10	65	320	09	1.6	13		FE510C	
						236			



MARK F3304
NR PIECES 4
UNIT WEIGHT 10.4 Kg
TOTAL WEIGHT 42 Kg
AS SHOWN

MARK F3305
NR PIECES 4
UNIT WEIGHT 10.4 Kg
TOTAL WEIGHT 42 Kg
OPP.HAND



REMOVE SHARP CORNERS WITH R=+2

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL BLUE RAL 5017

REV.	DATE	REV. OBJECT	DESIGN	CHECKED	APPROVED
2					
1					
0	02-08-01	FIRST ISSUE	TECHNOPROJET S.r.l.	TECHNOPROJET CUCCHIARO	LONGOBARDI

DEAL

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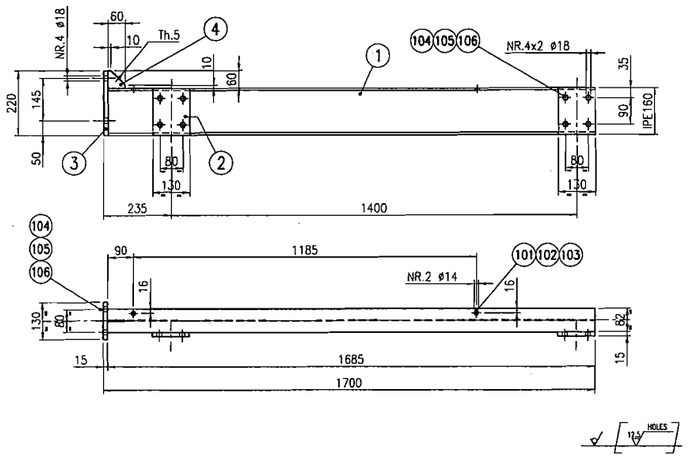
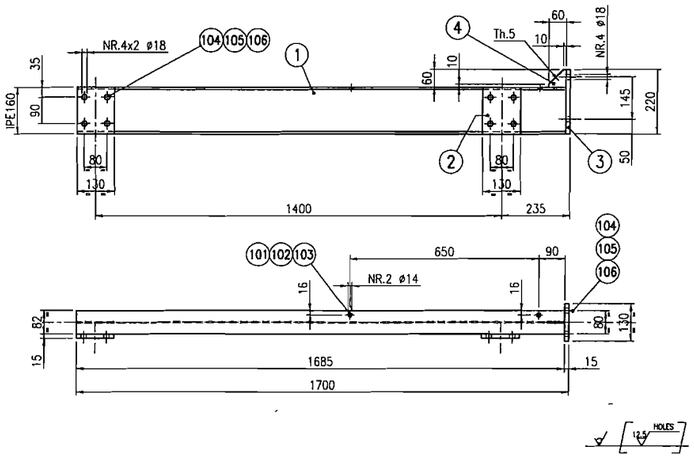
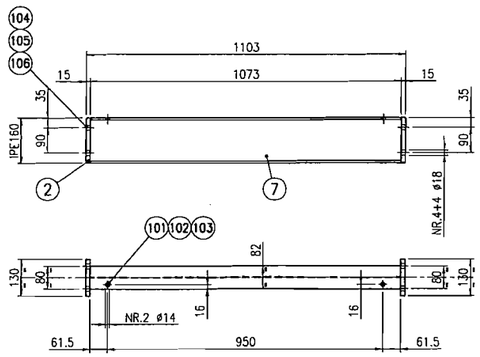
REFERENCE: STRADDLE CARRIER SC 720 - 32
GRADE: TROLLEYS AND SUPPORT
TITLE: WALKWAY'S SUPPORTS TO WELD ON STEERING PLATFORM
Substitutes for: —
Scale: 1:75 1:25 1:5
Sheet: 1 Of 1
File: T06TPCDF033.DWG
Format: A0
Job N.: -60031 1
Sub.Job.: -06031 0
Rev.: ------
Fab. Nr. | Dep. | Doc. Type | Part. | Nr. | Rev.
T06 | TP | CD | F | - | 033 | 0
CLIENT: KIEWIT / FCI / MANSON JV



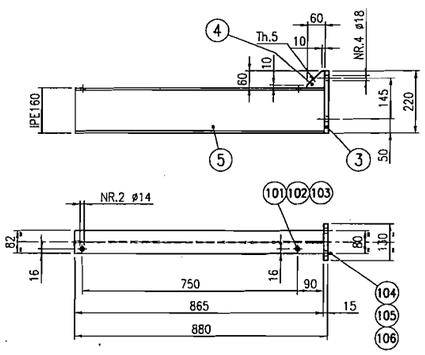
RIGHT PIECE MARK F3501
Nr. PIECES 1
LEFT PIECE MARK F3502
Nr. PIECES 1
UNIT WEIGHT 35 Kg
TOTAL WEIGHT 70 Kg



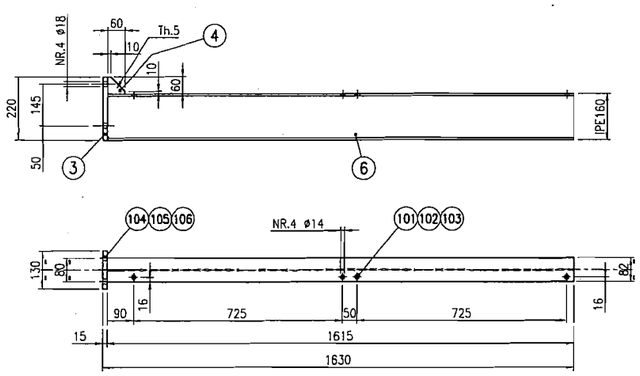
RIGHT PIECE MARK F3503
Nr. PIECES 1
LEFT PIECE MARK F3504
Nr. PIECES 1
UNIT WEIGHT 35 Kg
TOTAL WEIGHT 70 Kg



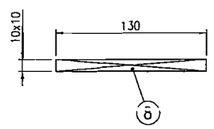
MARK F3509
NR PIECES 4
UNIT WEIGHT 21.8Kg
TOTAL WEIGHT 87.2Kg



RIGHT PIECE MARK F3507
Nr. PIECES 2
LEFT PIECE MARK F3508
Nr. PIECES 2
UNIT WEIGHT 17.2 Kg
TOTAL WEIGHT 68.8 Kg



RIGHT PIECE MARK F3505
Nr. PIECES 2
LEFT PIECE MARK F3506
Nr. PIECES 2
UNIT WEIGHT 29 Kg



MARK F3510
NR PIECES 12
UNIT WEIGHT 0.1Kg

TOTAL WEIGHT =415 Kg

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :

ENAMEL BLUE RAL 5017

A1

WELDS (UNI 1310)

Where not otherwise indicated a=0.7 of minimum thk. to be connected

(Continuous welds)

Edge preparation for welding in according to UNI 11001

TOLLERANCES

Dimension without tolerance indication

Structural steel work UNI ISO 2768-M

Mechanics UNI ISO 2768-f

FINISHING

Machining UNI 4600

6.3	12.5	25

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
106	80	WASHER 17 UNI 6592					
105	80	NUT M16 UNI 5588		6S			
104	80	SCREW M16x60 UNI 5739		8.8			
103	40	WASHER 13 UNI 6592					
102	40	NUT M12 UNI 5588		6S			
101	40	SCREW M12x30 UNI 5739		8.8			
8	12	SQUARE 10x130		Fe 360 B	0.1	1.2	
7	4	BEAM IPE 160 L=1073		Fe 430 B	17	68	
6	4	BEAM IPE 160 L=1615		Fe 430 B	25.5	102	
5	4	BEAM IPE 160 L=865		Fe 430 B	13.7	54.8	
4	12	PLATE 60x5 L=60 SHAPED		Fe 360 B	0.1	1.2	
3	12	PLATE 130x15 L=220		Fe 360 B	3.4	40.8	
2	16	PLATE 130x15 L=160		Fe 360 B	2.4	38.4	
1	4	BEAM IPE 160 L=1685		Fe 430 B	26.6	106.4	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	06-08-02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBIS

DEAL
Sede e Stabilimento
33050-Pavonis dal Friuli (UD)-Italy
Tel.: +39 432 668 001
Fax: +39 432 667 802
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: VERTICAL STRUCTURE

TITLE: INTERMEDIATE BRACKET DETAILS

Substitutes for: ---

Scale 1:10 | Sheet 1 | Of 1

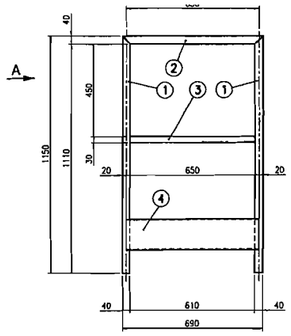
File: T06DMCDF035.DWG | Format A1

Job Nr. -60031 1 | Sub.Job Nr. -06031 0 | Mkr. -------

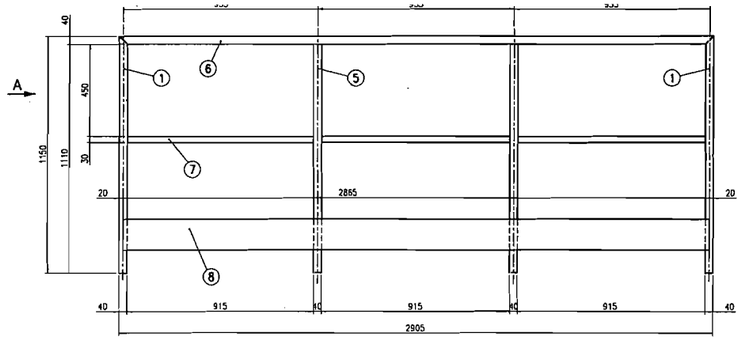
Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DM	CD	F-	035	0

CLIENT: KIEWIT / FCI / MANSON JV

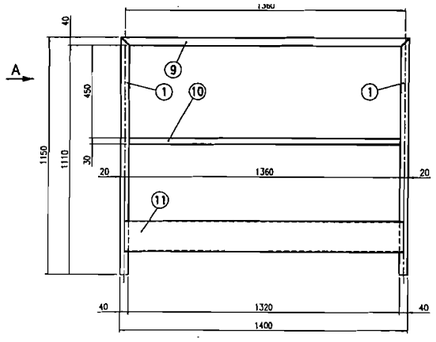
PROJECT: SKYWAY BRIDGE PROJECT



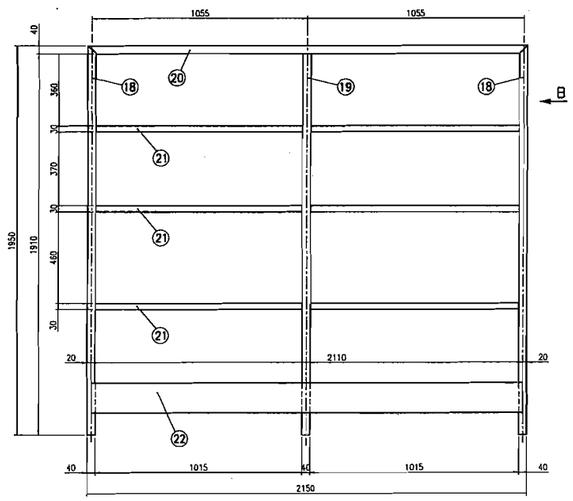
MARK F3601
NR PIECES 2
UNIT WEIGHT 16.1Kg
TOTAL WEIGHT 32.2Kg



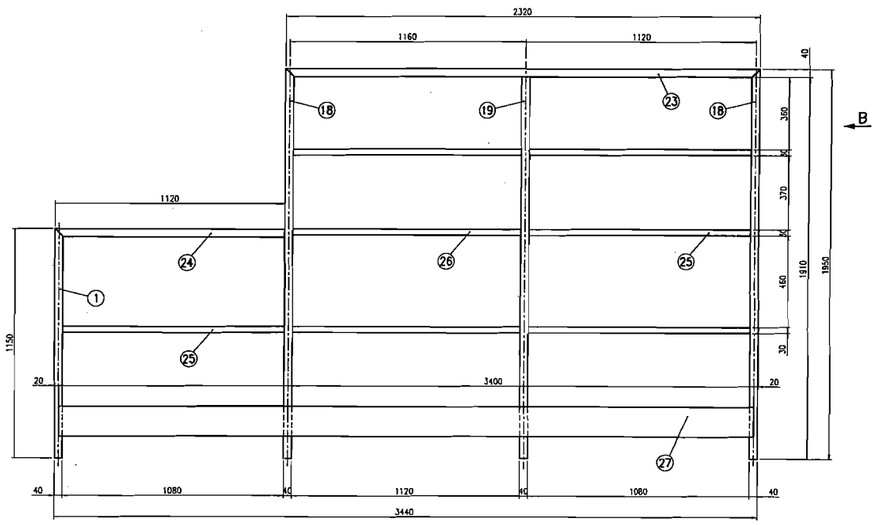
MARK F3602
NR PIECES 2
UNIT WEIGHT 47.5Kg
TOTAL WEIGHT 95Kg



MARK F3603
NR PIECES 2
UNIT WEIGHT 23.2Kg
TOTAL WEIGHT 46.4Kg



MARK F3606
NR PIECES 2
UNIT WEIGHT 56.6Kg
TOTAL WEIGHT 113.2Kg



RIGHT PIECE
MARK F3607
Nr. PIECES 1

LEFT PIECE
MARK F3608
Nr. PIECES 1
UNIT WEIGHT 74.5 Kg
TOTAL WEIGHT 149 Kg

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL BLUE RAL 5017

TOTAL WEIGHT = 560 Kg

POS.	QTY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
30	2	PLATE 167x2 L=1400 BENT	*	Fe 360B	3.7	7.4	
29	4	SQUARE PIPE 30x3 L=710	*	Fe 360B	1.8	7.2	
28	2	SQUARE PIPE 40x3 L=1440 SHAPED	*	Fe 360B	6.3	12.6	
27	2	PLATE 167x2 L=3400 BENT	*	Fe 360B	8.9	17.8	
26	6	SQUARE PIPE 30x3 L=1120	*	Fe 360B	2.8	16.8	
25	8	SQUARE PIPE 30x3 L=1080	*	Fe 360B	2.7	21.6	
24	2	SQUARE PIPE 40x3 L=1120 SHAPED	*	Fe 360B	5	10	
23	2	SQUARE PIPE 40x3 L=2320 SHAPED	*	Fe 360B	10.3	20.6	
22	2	PLATE 167x2 L=2110 BENT	*	Fe 360B	5.5	11	
21	12	SQUARE PIPE 30x3 L=1015	*	Fe 360B	2.6	31.2	
20	2	SQUARE PIPE 40x3 L=2150 SHAPED	*	Fe 360B	9.5	19	
19	4	SQUARE PIPE 40x3 L=1910	*	Fe 360B	8.6	34.4	
18	8	SQUARE PIPE 40x3 L=1950 SHAPED	*	Fe 360B	8.7	69.6	
17	2	PLATE 167x2 L=365 BENT	*	Fe 360B	1	2	
16	2	SQUARE PIPE 30x3 L=325	*	Fe 360B	0.8	1.6	
15	2	SQUARE PIPE 40x3 L=405 SHAPED	*	Fe 360B	1.6	3.2	
14	2	PLATE 167x2 L=900 BENT	*	Fe 360B	2.3	4.6	
13	2	SQUARE PIPE 30x3 L=860	*	Fe 360B	2.2	4.4	
12	2	SQUARE PIPE 40x3 L=940 SHAPED	*	Fe 360B	4	8	
11	2	PLATE 167x2 L=1380 BENT	*	Fe 360B	3.6	7.2	
10	2	SQUARE PIPE 30x3 L=1320	*	Fe 360B	3.3	6.6	
9	2	SQUARE PIPE 40x3 L=1400 SHAPED	*	Fe 360B	6.1	12.2	
8	2	PLATE 167x2 L=2885 BENT	*	Fe 360B	7.5	15	
7	6	SQUARE PIPE 30x3 L=915	*	Fe 360B	2.3	13.8	
6	2	SQUARE PIPE 40x3 L=2905 SHAPED	*	Fe 360B	12.9	25.8	
5	6	SQUARE PIPE 40x3 L=1110	*	Fe 360B	5	30	
4	2	PLATE 167x2 L=650 BENT	*	Fe 360B	1.7	3.4	
3	2	SQUARE PIPE 30x3 L=610	*	Fe 360B	1.5	3	
2	2	SQUARE PIPE 40x3 L=850 SHAPED	*	Fe 360B	2.7	5.4	
1	26	SQUARE PIPE 40x3 L=1150 SHAPED	*	Fe 360B	5.1	132.6	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2 ✓					
1					
0	06-08-02	FIRST ISSUE	EsseTre	GERMANO	RIBBI

DEAL

STRADDLE CARRIER
SC 720 - 32

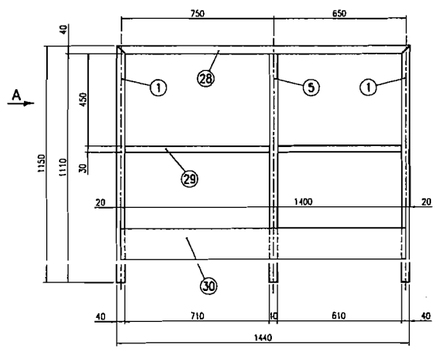
VERTICAL STRUCTURE

INTERMEDIATE HANDRAILS DETAILS

Scale 1:10 | Sheet 1 of 1
File: T06DMCDF036.DWG | Format A0
Job Nr. -60031 | Sub.Lib. -06031 | Rev. -----
Tab. Nr. T | Dep. 06 | Doc. Type DM | Part. CD | Prog. F | Nr. 036 | Rev. 0

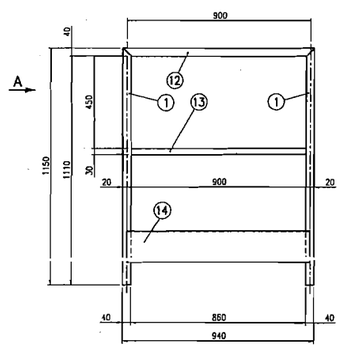
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

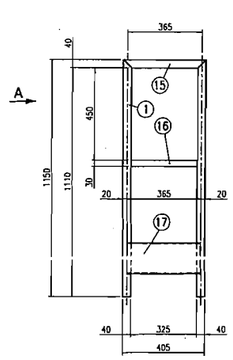


RIGHT PIECE
MARK F3609
Nr. PIECES 1

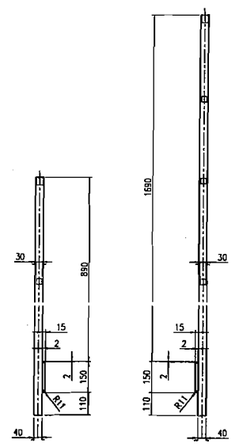
LEFT PIECE
MARK F3610
Nr. PIECES 1
UNIT WEIGHT 29 Kg



MARK F3604
NR PIECES 2
UNIT WEIGHT 18.5Kg

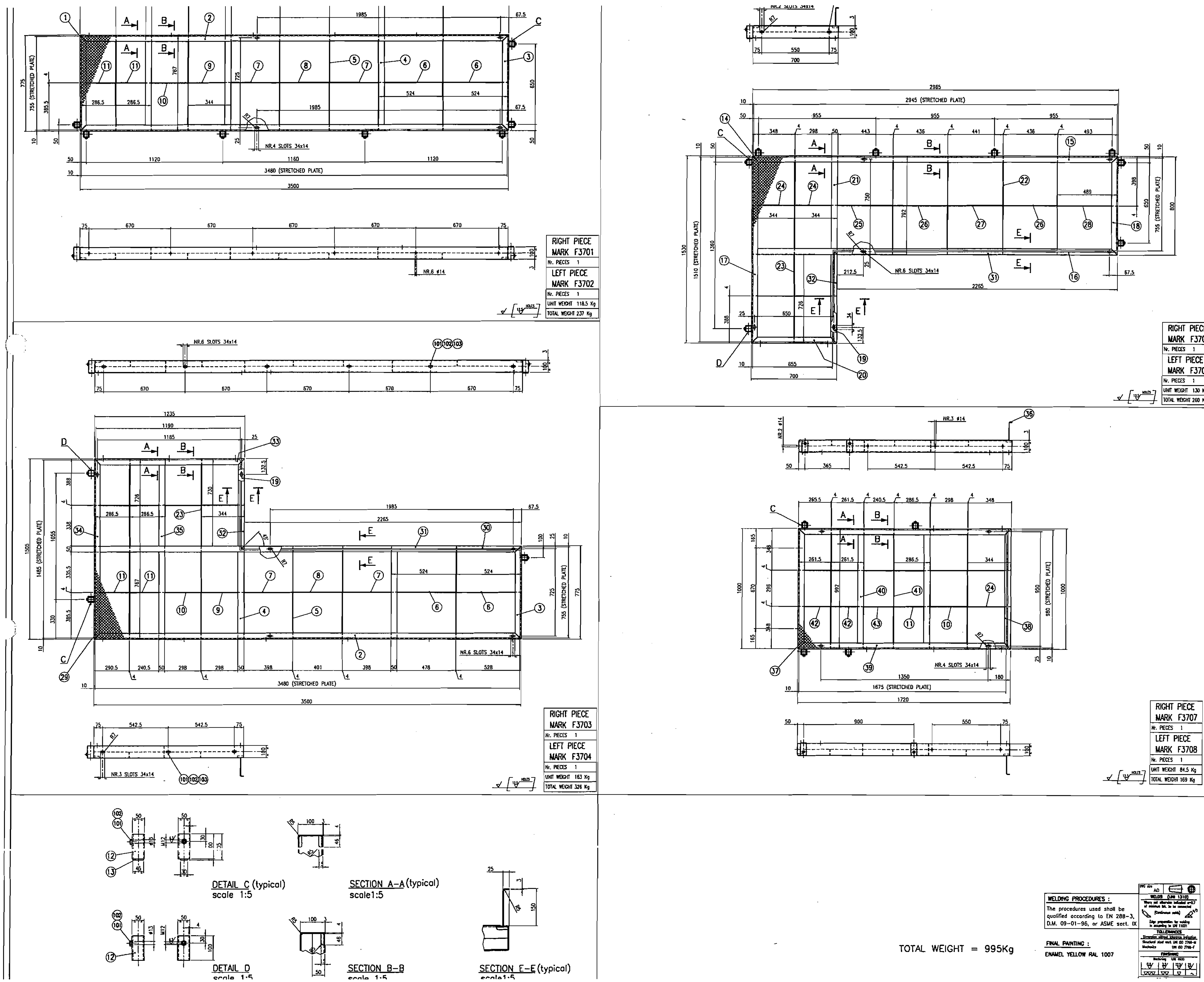


MARK F3605
NR PIECES 2
UNIT WEIGHT 13.6Kg



VIEW FROM A
TYPICAL

VIEW FROM B
TYPICAL



POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
103	22	WASHER 13 UNI 6592					
102	66	NUT M12 UNI 5588		6S			
101	66	SCREW M12x30 UNI 5739		8.8			
43	4	PLATE 50x4 L=240.5 SHAPED		Fe 360 B	0.4	1.6	
42	8	PLATE 50x4 L=261.5 SHAPED		Fe 360 B	0.4	3.2	
41	6	PLATE 50x4 L=992 SHAPED		Fe 360 B	1.6	9.6	
40	4	PLATE 186x4 L=992 SHAPED BENT		Fe 360 B	5.8	23.2	
39	4	PLATE 186x4 L=1720 SHAPED BENT		Fe 360 B	10	40	
38	4	PLATE 186x4 L=1000 SHAPED BENT		Fe 360 B	5.8	23.2	
37	2	STRET.PLATE FILS E3 Th.3 1675x980 SHAP.		Fe 360 B	24.6	49.2	
36	2	PLATE 170x3 L=1000 BENT		Fe 360 B	4	8	
35	2	PLATE 186x4 L=726 SHAPED BENT		Fe 360 B	4.2	8.4	
34	2	PLATE 186x4 L=1505 SHAPED BENT		Fe 360 B	8.8	17.6	
33	2	PLATE 186x4 L=1235 SHAPED BENT		Fe 360 B	7.2	14.4	
32	4	PLATE 170x3 L=755 SHAPED BENT		Fe 360 B	3.1	12.4	
31	4	PLATE 170x3 L=2290 SHAPED BENT		Fe 360 B	6.9	27.6	
30	2	PLATE 186x4 L=3496 SHAPED BENT		Fe 360 B	20.4	40.8	
29	2	STRET.PLATE FILS E3 Th.3 3480x1485 SHAP.		Fe 360 B	52.4	104.8	
28	2	PLATE 50x4 L=489 SHAPED		Fe 360 B	0.8	1.6	
27	2	PLATE 50x4 L=441		Fe 360 B	0.7	1.4	
26	4	PLATE 50x4 L=436		Fe 360 B	0.7	2.8	
25	2	PLATE 50x4 L=443		Fe 360 B	0.7	1.4	
24	12	PLATE 50x4 L=344 SHAPED		Fe 360 B	0.5	6	
23	6	PLATE 50x4 L=726 SHAPED		Fe 360 B	1.1	6.6	
22	10	PLATE 50x4 L=792 SHAPED		Fe 360 B	1.2	12	
21	2	PLATE 186x4 L=792 SHAPED BENT		Fe 360 B	4.6	9.2	
20	2	PLATE 186x4 L=700 SHAPED BENT		Fe 360 B	4.1	8.2	
19	4	PLATE 186x4 L=730 SHAPED BENT		Fe 360 B	4.3	17.2	
18	2	PLATE 186x4 L=800 SHAPED BENT		Fe 360 B	4.7	9.4	
17	2	PLATE 186x4 L=1530 SHAPED BENT		Fe 360 B	8.9	17.8	
16	2	PLATE 186x4 L=2961 SHAPED BENT		Fe 360 B	17.3	34.6	
15	2	PLATE 186x4 L=2965 SHAPED BENT		Fe 360 B	17.3	34.6	
14	2	STRET.PLATE FILS E3 Th.3 2945x1510 SHAP.		Fe 360 B	40.7	81.4	
13	40	PLATE 30x5 L=45		Fe 360 B	0.05	2	
12	44	SQUARE PIPE 50x4 L=100		Fe 360 B	0.6	26.4	
11	16	PLATE 50x4 L=286.5 SHAPED		Fe 360 B	0.4	6.4	
10	10	PLATE 50x4 L=298		Fe 360 B	0.5	5	
9	4	PLATE 50x4 L=344 SHAPED		Fe 360 B	0.5	2	
8	4	PLATE 50x4 L=401		Fe 360 B	0.6	2.4	
7	8	PLATE 50x4 L=398		Fe 360 B	0.6	4.8	
6	8	PLATE 50x4 L=524 SHAPED		Fe 360 B	0.8	6.4	
5	20	PLATE 50x4 L=767 SHAPED		Fe 360 B	1.2	24	
4	12	PLATE 186x4 L=767 SHAPED BENT		Fe 360 B	4.5	54	
3	6	PLATE 186x4 L=775 SHAPED BENT		Fe 360 B	4.5	27	
2	6	PLATE 186x4 L=3500 SHAPED BENT		Fe 360 B	20.4	122.4	
1	2	STRET.PLATE FILS E3 Th.3 3480x755		Fe 360 B	39.5	79	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	06-08-02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: VERTICAL STRUCTURE

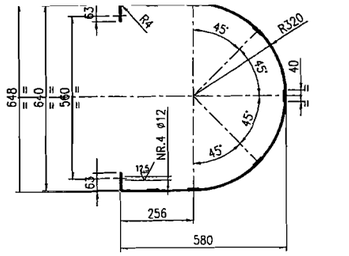
TITLE: INTERMEDIATE WALKWAY DETAILS

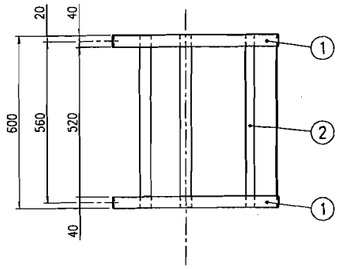
Substitutes for: ---
Scale 1:10
Sheet 1 Of 1
File: T06DMCDF037.DWG
Format A0
Job Nr. -600311
Sub.Job Nr. -060310
Nr. -------

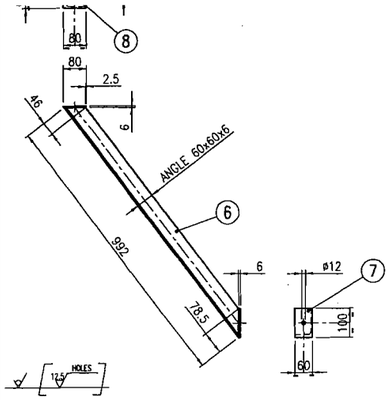
Fab. Nr. T06 | Dep. DM | Doc. Type CD | Part. F– | Nr. 037 | Rev. 0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

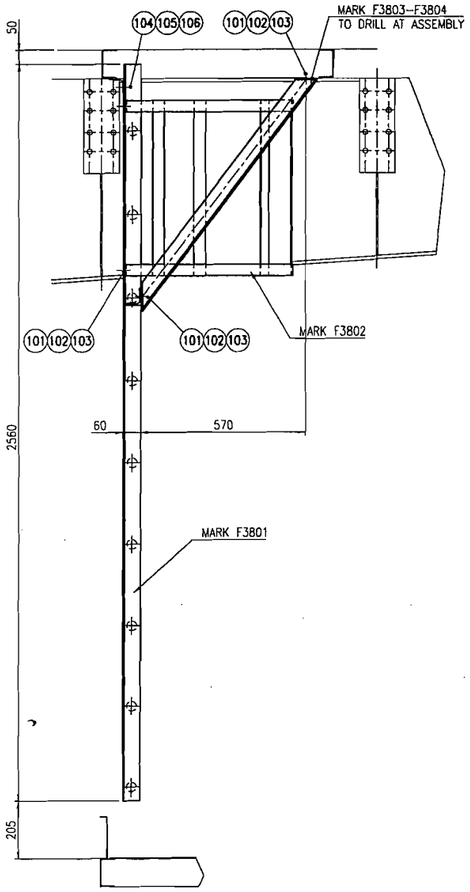




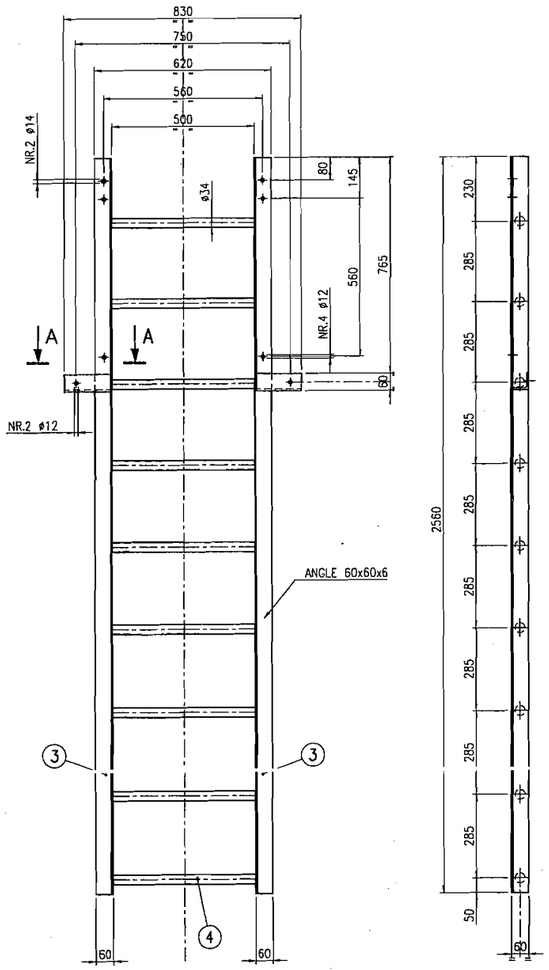


MARK F3802
NR PIECES 2
UNIT WEIGHT 8.9Kg
TOTAL WEIGHT 17.8Kg

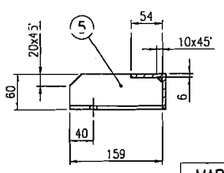
RIGHT PIECE MARK F3803
Nr. PIECES 2
LEFT PIECE MARK F3804
Nr. PIECES 2
UNIT WEIGHT 6 Kg
TOTAL WEIGHT 24 Kg



LADDER ASSEMBLY DETAIL



SECTION A–A
scale 1:5



MARK F3801
NR PIECES 2
UNIT WEIGHT 37.5Kg
TOTAL WEIGHT 75Kg

TOTAL WEIGHT = 120 Kg

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

FINAL PAINTING :

ENAMEL BLUE RAL 5017

DWG size A1

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimum thk. to be connected
(Continuous welds)
Edge preparation for welding in according to UNI 11001

TOLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-f

FINISHING
Machining UNI 4600
0.8 3.2 12.5 25

TOLERANCES
Fit ISO (UNI 7218)

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
106	4	WASHER 13 UNI 6592					
105	4	NUT M12 UNI 5588		6S			
104	4	SCREW M12x30 UNI 5739		8.8			
103	16	WASHER 10.5 UNI 6592					
102	16	NUT M10 UNI 5588		6S			
101	16	SCREW M10x30 UNI 5739		8.8			
8	4	PLATE 60x6 L=80		Fe 360 B	0.2	0.8	
7	4	PLATE 60x6 L=100		Fe 360 B	0.3	1.2	
6	4	ANGLE 60x60x6 L=992 SHAPED		Fe 360 B	5.4	21.6	
5	4	ANGLE 60x60x6 L=159 SHAPED		Fe 360 B	0.8	3.2	
4	18	PIPE ø34x2.3 L=500		Fe 360 B	0.9	16.2	
3	4	ANGLE 60x60x6 L=2560		Fe 360 B	13.9	55.6	
2	14	PLATE 40x4 L=600		Fe 360 B	0.7	9.8	
1	4	PLATE 40x4 L=1637 BENT		Fe 360 B	2	8	
2							
1							

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
0	06-08-02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBIS

DEAL
Sede e Stabilimento
Tel.: +39 432 997 902
Fax: +39 432 997 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: VERTICAL STRUCTURE

TITLE: INTERMEDIATE STAIR DETAILS

Substitutes for: ---

Scale 1:10

Sheet 1 Of 1

File: T06DMCDF038.DWG

Format A1

Job Nr. -600311

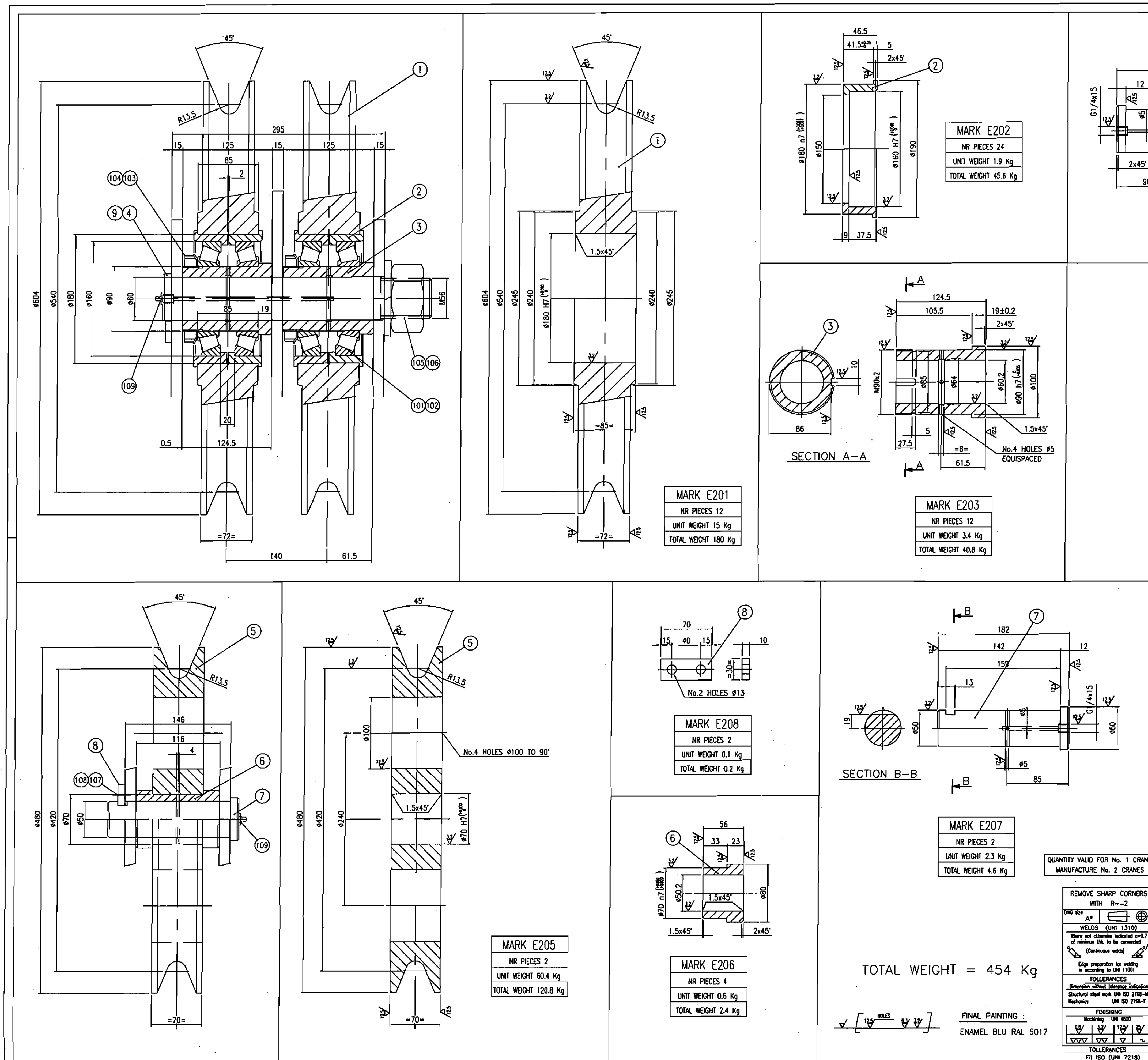
Sub.Jdr. -060310

Mtr. -------

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DM	CD	F	038	0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
109	1	LUBRICATOR G1/4 FORME A UNI 7663	•				
108	2	WASHER ø13x24x2.5 UNI 6592	•				
107	2	SCREW M12x25 UNI 5739	•				
106	1	WASHER ø58x105x9 UNI 6592	•				
105	1	NUT M56 UNI 5588	•				
104	1	LOCK WASHER SKF MB 18	•				
103	1	LOCK RING NUT SKF KM18 M90x2	•				
102	2	NILOS SKF 3018 AV	•				
101	2	BEARING SKF 30218 (90x60x32.5)	•		2.55	5.1	
9	1	ROUND ø70 L=233	•	C40	5.2	5.2	
8	1	PLATE 10x30 L=70	•	Fe 510C	0.1	0.1	
7	1	ROUND ø60 L=182	•	C40	2.3	2.3	
6	1	ROUND ø80 L=56	•	G-CuSn12 UNI7013	0.6	0.6	
5	1	PLATE ø480 TH.70	•	Fe 510C	60.4	60.4	
4	1	ROUND ø70 L=372	•	C40	8.2	8.2	
3	1	STEEL PIPE ø101.6x25 L=125	•	Fe 510C	3.4	3.4	
2	1	STEEL PIPE ø193.7x25 L=47	•	Fe 510C	1.9	1.9	
1	1	PULLEY POLYPENCO MOD.345	•	•	15	15	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
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1					
0	12/06/02	FIRST ISSUE	P.M.B.	P.M.B.	DEAL

TOTAL WEIGHT = 454 Kg

QUANTITY VALID FOR No. 1 CRANE
MANUFACTURE No. 2 CRANES

REMOVE SHARP CORNERS WITH R~=2

WELDS (UNI 1310)

TOLLERANCES

FINISHING UNI 4600

TOLLERANCES FIT ISO (UNI 7218)

FINAL PAINTING :
ENAMEL BLU RAL 5017

DEAL

REFERENCE: GANTRY CRANE GC 75+75 – 32

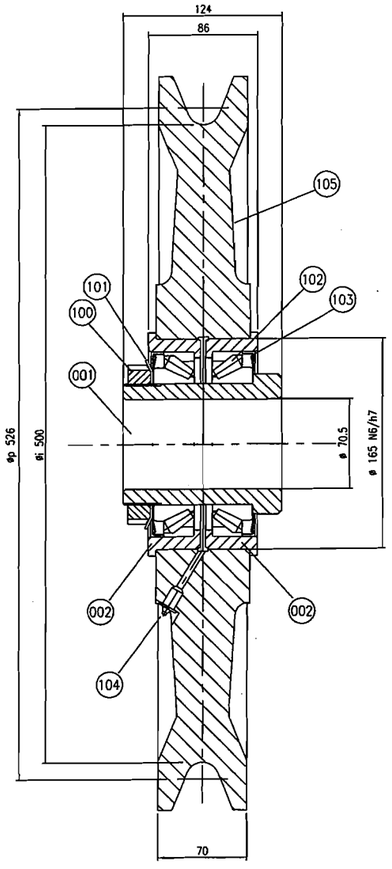
OBJECT: LIFTING WINCHES GROUP

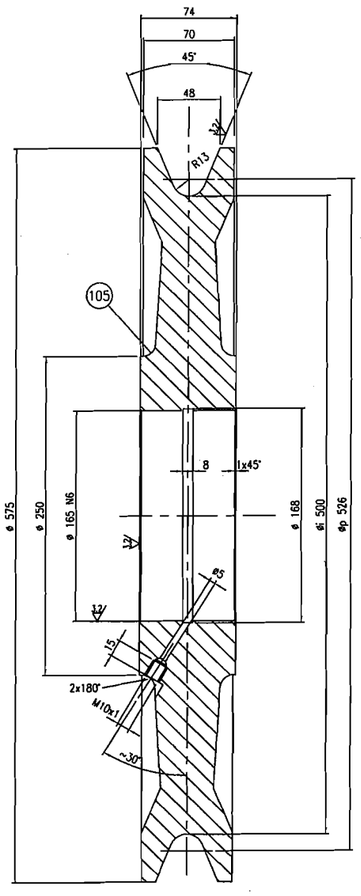
TITLE: PULLEY AND ACCESSORIES

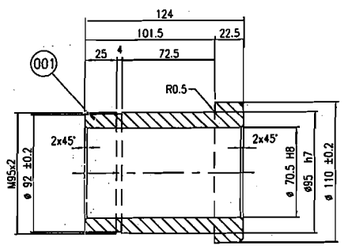
Substitutes for: ---
Scale: 1:2.5
Sheet: 1 Of 1
File: G10PBCDE002_.DWG
Format: A1
Job Nr.: -600312
Sub.J.Nr.: -......
Mtr.: -------
Fab. Nr.: G10 | Dep.: PB | Doc. Type: CD | Part: E– | Nr.: 002 | Rev.: 0

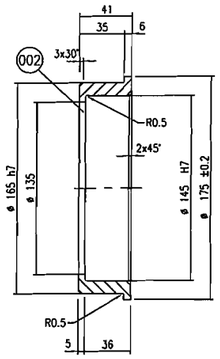
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA









MARK E501
NR PIECES 80
UNIT WEIGHT 15 Kg
TOTAL WEIGHT 1200 Kg

MARK E502
NR PIECES 80
UNIT WEIGHT 3.5 Kg
TOTAL WEIGHT 280 Kg

MARK E503
NR PIECES 160
UNIT WEIGHT 1.5 Kg
TOTAL WEIGHT 240 Kg

TOTAL WEIGHT 2100 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
105	80	PULLEY POLYPENCO TP. 428-2			15	1200	
104	160	GREASE NIPPLE M10x1					
103	160	NILOS FOR 32019X - TP. 32019 AV					
102	160	BEARING TP. 32019 X - 95x145x32			2	320	
101	80	TAB WASHER FOR RING NUT ϕ95 TP. MB19			0.2	16	
100	80	RING NUT M95x2 TP. KM19			0.5	40	
2	160	ROUND ϕ 175 L=41		Fe510C	1.5	240	
1	80	ROUND ϕ110 L=124		Fe510C	3.5	280	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	16.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RISIS

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R=≈2

DRG SIZE A°

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimum thk. to be connected
(Continuous welds) a=0.5/2
Edge preparation for welding is according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structural steel work UNI ISO 3768-M
Mechanics UNI ISO 3768-F

FINISHING
Machining UNI 4600

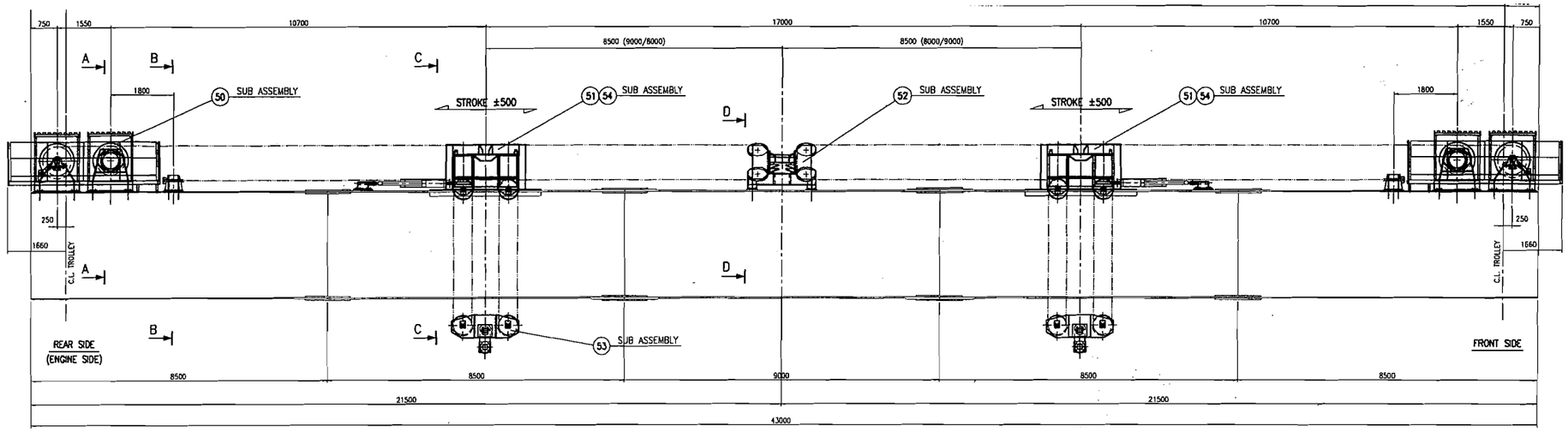
TOLLERANCES
Fit ISO (UNI 7218)

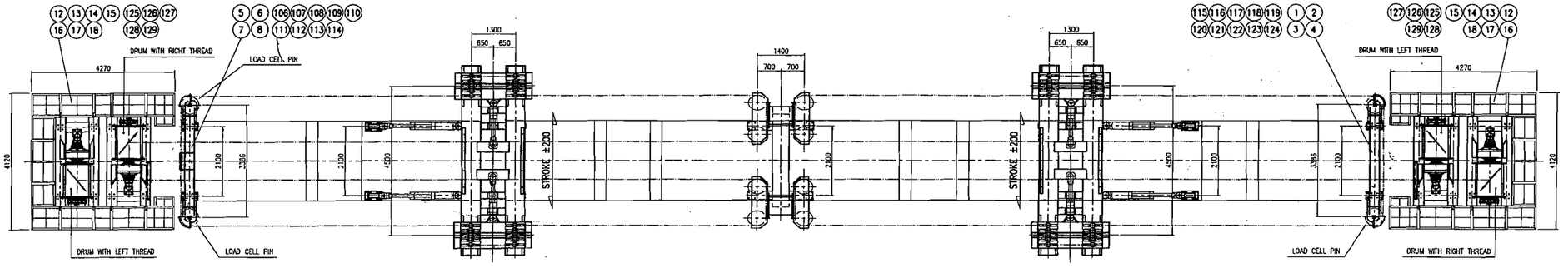
DEAL

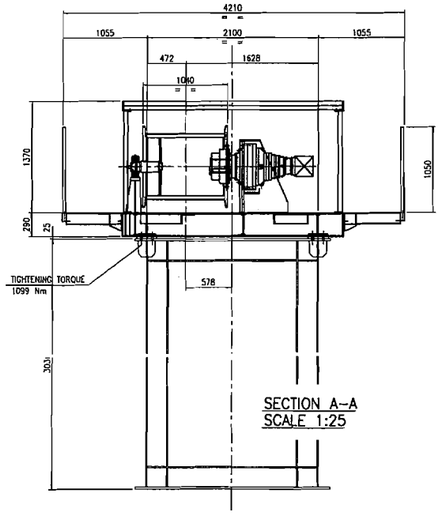
REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: HOISTING WINCH
TITLE: HOISTING PULLEY
Substitutes for: ----
Scale: -
Sheet: 1 Of: 1
File: T06CACDE005.DWG
Format: A1
Job Nr.: -60031 1
Sub.Job.: -06054 1
Mkr.: -------
Fab. Nr. T06 | Dep. CA | Doc. Type CD | Part. E- | Nr. 005 | Rev. 0

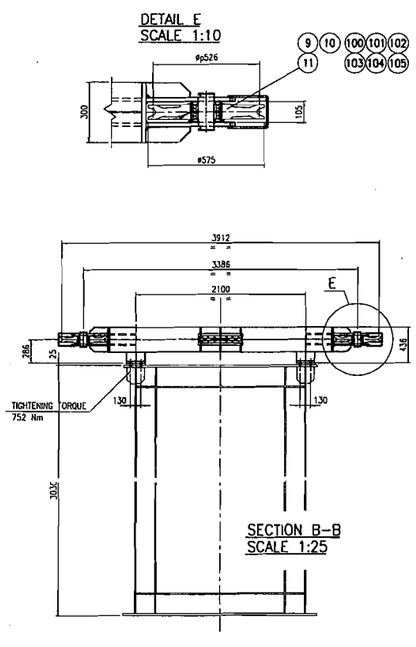
CLIENT: KIEWIT / FCI / MANSON JV

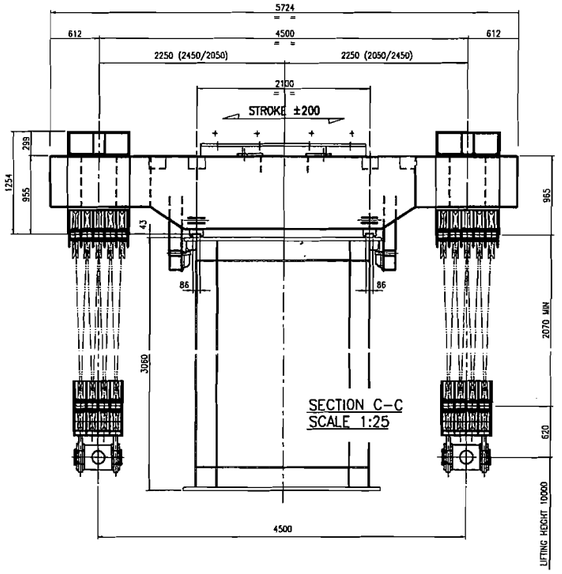
PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA

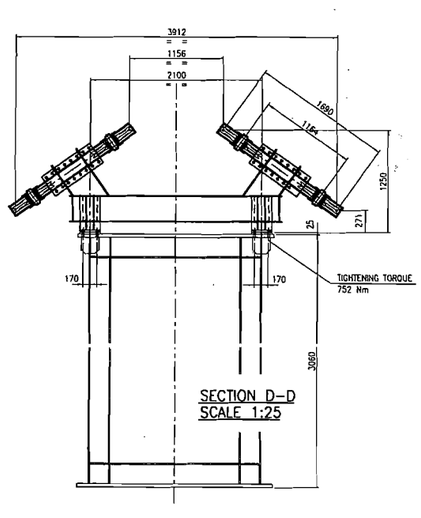










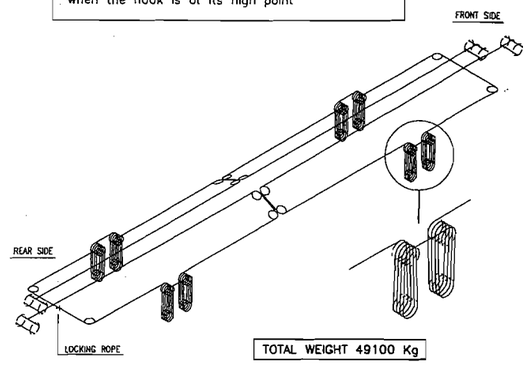


20,000 kg
44,100 lbs C 53' CI
20'R

HOISTING ROPES ON DRUMS

1) When the hooks is in its extreme low position, not less than three wraps of hoisting rope shall remain on the anchorage of the drum

2) Never exceed the second layer of rope when the hook is at its high point



TOTAL WEIGHT 49100 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
129	136	NUT M12 6S UNI 5588					
128	272	PLAN WASHER 13 UNI 5714					
127	136	SCREW M12x40 UNI 5739 CL8.8					
126	42	NUT M12 6S UNI 5588					
125	42	SCREW M12x30 CL8.8 UNI 5739					
124	2	PLATE 20x20x230					
123	16	NUT M24 CL.6S UNI 5588					
122	32	PLAN WASHER ø25 UNI 5714					
121	16	SCREW M24x120 UNI5739 CL.8.8					
120	30	PLAN WASHER 17 UNI 5714					
119	4	PLAN WASHER 13 UNI 5714					
118	14	SCREW M16x40 UNI5739 CL.8.8					
117	16	SCREW M16x30 UNI5739 CL.8.8					
116	4	SCREW M12x30 UNI5739 CL.8.8					
115	1	LOAD CELL PIN ø80x185			7	7	
114	2	PLATE 20x20x230					
113	16	NUT M24 CL.6S UNI 5588					
112	32	PLAN WASHER ø25 UNI 5714					
111	16	SCREW M24x120 UNI5739 CL.8.8					
110	16	PLAN WASHER 17 UNI 5714					
109	4	PLAN WASHER 13 UNI 5714					
108	16	SCREW M16x30 UNI5739 CL.8.8					
107	4	SCREW M12x25 UNI5739 CL.8.8					
106	2	LOAD CELL PIN ø80x185			7	14	
105	8	GREASE NIPPLE M10x1					
104	8	BEARING 22216E 80x140x33			2.1	16.8	
103	8	SNAP RING 140 UNI 7437-75					
102	4	SNAP RING 165 UNI 7435-75					
101	4	PULLEY POLYPENCO TP.428-2	E601		15	60	
100	8	NILOS 22216 AV					
54	1	LIMIT SWITCHES FOR HOISTING BEAM	T06DUCDE-017		5	5	
53	4	SUB ASSEMBLY - MOBILE HOOK BLOCK	T06CAADE-005		1940	7760	
52	1	SUB ASSEMBLY - CENTRAL PULLEY SUPPORT	T06CAADE-004		2440	2440	✓
51	2	SUB ASSEMBLY - HOISTING BEAM	T06CAADE-003		9875	19750	
50	4	SUB ASSEMBLY - DRUM AND FRAME	T06CAADE-002		4150	16600	✓
18	4	HANDRAIL	E1407		14	56	✓
17	4	HANDRAIL	E1406		16	64	✓
16	2	HANDRAIL	E1405		35	70	✓
15	4	HANDRAIL	E1404		56	224	✓
14	2	GANGWAY FRAME	E1403		143	286	✓
13	2	GANGWAY FRAME	E1402		143	286	✓
12	2	GANGWAY FRAME	E1401		78	156	✓
11	4	SPACER	E604		0.04	0.16	
10	8	SPACER	E603		0.2	1.6	
9	4	BUSH	E602		5	20	
8	1	STOP PLATE ROPE	E804		7	7	✓
7	4	STOP PLATE	E803		0.25	1	✓
6	2	PULLEY PROTECTION	E802		18.8	37.6	✓
5	1	REWARD BEAM	E801		584	584	✓
4	1	PULLEY AXLE	E704		7	7	✓
3	4	STOP PLATE	E703		0.25	1	✓
2	2	PULLEY PROTECTION	E702		18.8	37.6	✓
1	1	FORWARD BEAM	E701		552	552	✓

REV	DATE				
2					
1					
0	30.05.02	FIRST ISSUE	CANDOTH	CUCCHIARO	RIBS

DEAL

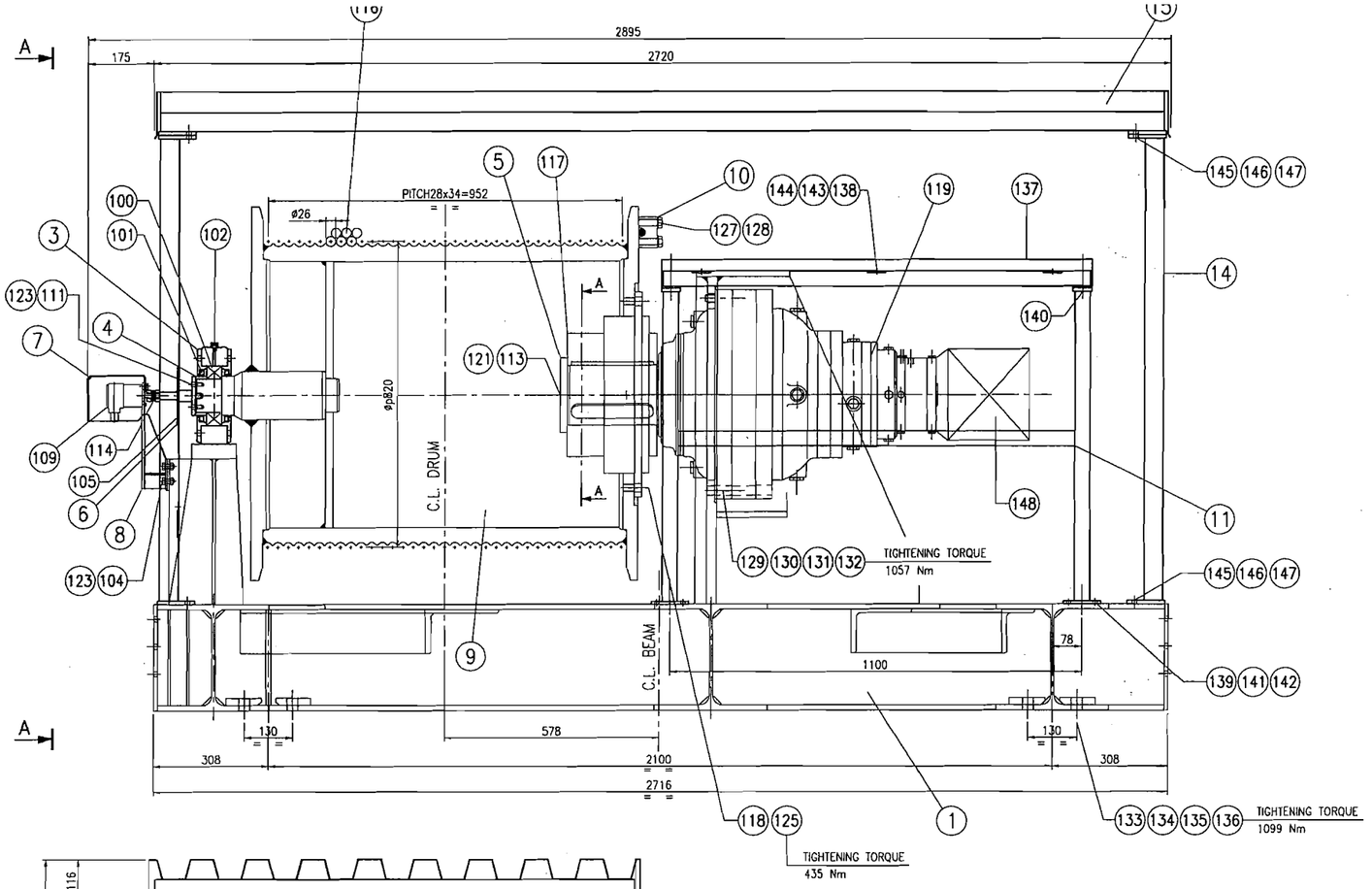
STRADDLE CARRIER
SC 720 - 32

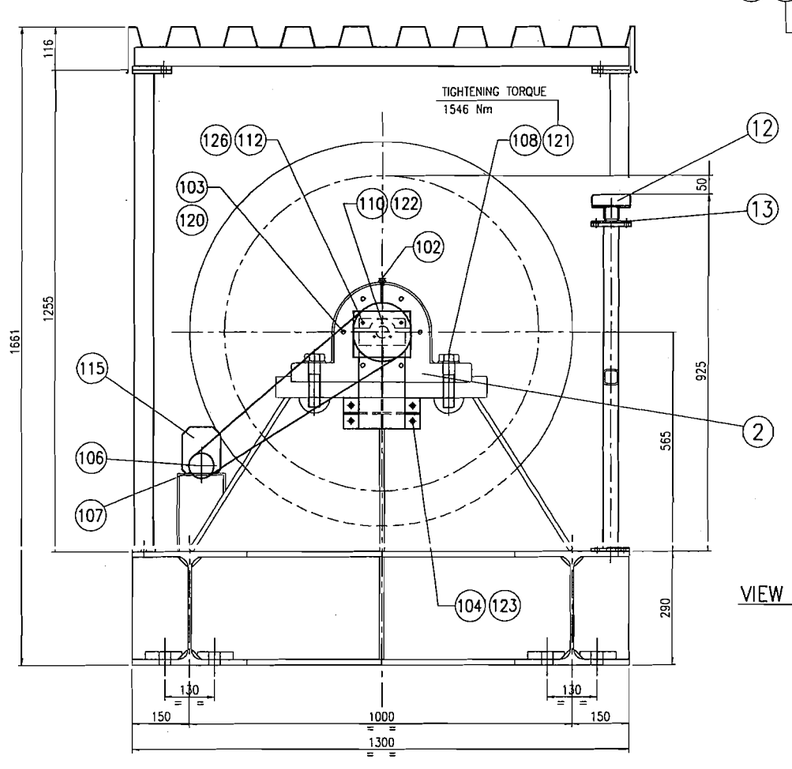
HOISTING WINCH

GENERAL ASSEMBLY

Scale 1:50 1:25 1:10 | Sheet 1 | of 1
File T06CAADE001.DWG | Format A0
Job Nr. -6003115 | Sub.Nr. -06A500 | Mr. -------
Feb. Nr. T | Dep. 06 | Doc. Type CA | Part. AD | Nr. E-001 | Rev. 0

KIEWIT / FCI / MANSON JV





132	12	PINS ø20 m6 x 40					
131	144	WASHER ø25 UNI 5714					
130	72	NUT M24 CL.6S UNI 5588					
129	72	SCREW M24x220 UNI 5931 CL.10.9					
128	32	WASHER ø17 UNI 5714					
127	32	SCREW M16x75 UNI 5739 8.8					
126	8	PLAN WASHER ø8.5 UNI 5714					
125	24	PLAN WASHER ø21 UNI 5714					
124	8	PLAN WASHER ø13 UNI 5714					
123	32	PLAN WASHER ø10.5 UNI 5714					
122	12	PLAN WASHER ø5.3 UNI 5714					
121	12	PLAN WASHER ø31 UNI 5714					
120	48	PLAN WASHER ø13 UNI 5714					
119	4	REDUCTION GEAR "BREVINI" + BRAKE TY.ET3605/MN1/154/FL750/00			415	1660	
118	24	SCREW M20x70 UNI 5739 CL.8.8					
117	4	JOINT FOR DRUM TY. MAINA GTS 42			223	892	
116	2	ROPE ø 26 L = 550 m			1672	3344	
115	4	CHAIN 8x3 ISO 05-B1 L=~1500 mm			0.25	1	
114	4	FLEXIBLE COUPLING AMKN 30-L34 "RODOFLEX"					
113	4	SCREW M30x100 UNI 5739 CL.8.8					
112	8	SCREW M8x30 UNI 5739 CL.8.8					
111	16	SCREW M10x30 UNI 5739 CL.8.8					
110	12	SCREW M5x40 UNI 5931 CL.8.8					
109	4	ENCODER "AROEA"			0.5	2	
108	8	SCREW M30x120 UNI 5739 CL.8.8					
107	4	PINION GEAR Z=25 FOR CHAIN 8x3 ISO 05-B1			0.25	1	
106	4	LIMIT SWITCH "RAVASI" i=150			0.5	2	
105	4	CROWN GEAR Z=50 FOR CHAIN 8x3 ISO 05-B1			0.25	1	
104	16	SCREW M10x40 UNI 5931 CL.8.8					
103	48	SCREW M12x40 UNI 5739 CL.8.8					
102	4	GREASE NIPPLE M10x1					
101	8	RETAINIG RING 140x12x105					
100	4	ROLLER BEARING TP. 22218 E			3.5	14	
15	4	WINCH COVERING	E1603		72	288	
14	16	WINCH COVERING SUPPORT LEG	E1601/E1602		8	128	
13	2	NYLON BAR SUPPORT	E403		4.7	9.4	
12	2	NYLON BAR	E402		4	8	
11	2	ROPE GUIDE SUPPORT	E401		13.5	27	
10	8	ROPE STOP PLATE	E103		0.5	4	
9	4	DRUM	E101/E102		1250	5000	
8	4	ENCODER SUPPORT	E207		1.25	5	
7	4	GUARD	E206		1.25	5	
6	4	ENCODER SHAFT	E205		0.25	1	
5	4	WASHER	E204		5	20	
4	4	SPACER	E203		0.25	1	
3	8	FLANGE	E202		1	8	
2	4	BEARING SUPPORT	E201		28	112	
1	4	WINCH FRAME	E301		1202	4808	
POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES

UNIT WEIGHT 4150 Kg
TOTAL WEIGHT 16600 Kg

TO BUILT NR. 4 PIECES

148	4	HYDR. MOTOR "REXROTH" TYPE A6VM107HD1D/63W-0500-VZB370B			50	200	
147	64	NUT M16 UNI 5588 CL.6S					
146	128	PLAN WASHER 17 UNI 5714					
145	64	SCREW M16x40 CL.8.8 UNI5739					
144	12	NUT M8 UNI 5588 CL.6S					
143	12	PLAN WASHER ø8.4 UNI 6592					
142	24	NUT M10 UNI 5588 CL.6S					
141	24	PLAN WASHER ø10.5 UNI 6592					
140	16	SCREW M10x60 UNI 5739 CL.8.8					
139	8	SCREW M10x40 UNI 5739 CL.8.8					
138	12	SCREW M8x30 UNI 5931 CL.8.8					
137	2	NYLON BAR 100x30 L=1150			4	8	
136	8	SQUARE 20x20 L=230					
135	128	WASHER ø28 UNI 5714					
134	64	NUT M27 CL.6S UNI 5588					
133	64	SCREW M27x120 UNI 5937 CL.8.8					

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	30.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

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REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: HOISTING WINCH

TITLE: SUB ASSEMBLY - DRUM AND FRAME

Substitutes for: ---

Scale: 1:7.5

Sheet: 1 Of 1

File: T06CAADE002.DWG

Format: A1

Job Nr.: -60031 1

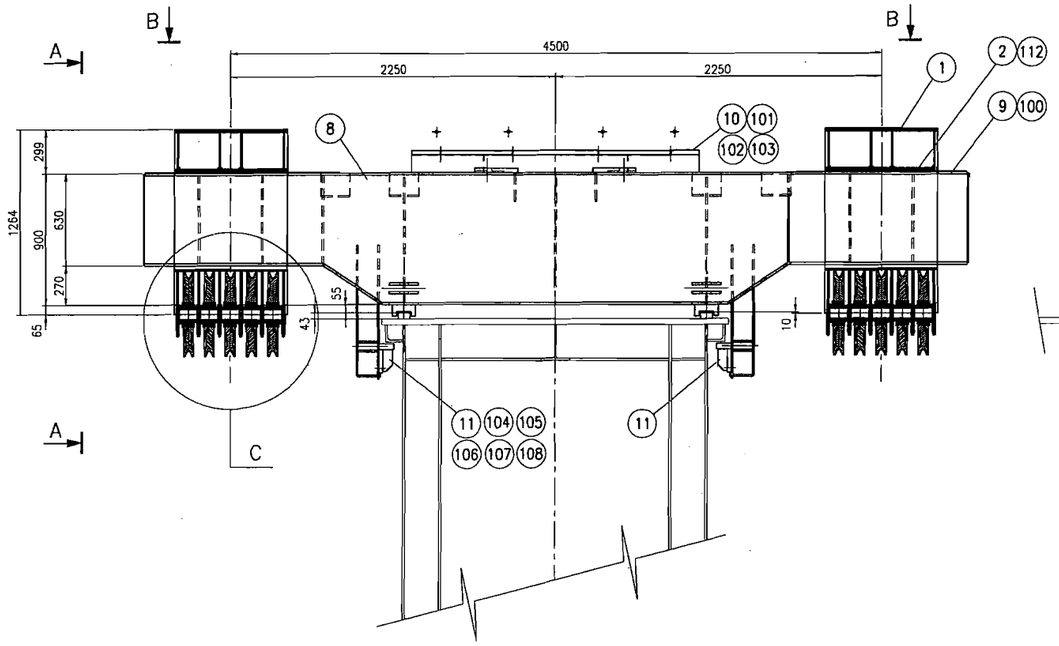
Sub.Nr.: -06050 0

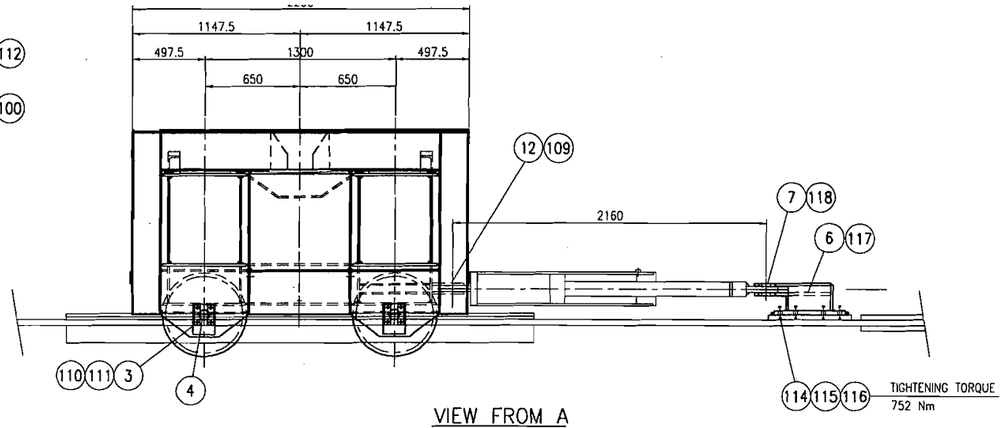
Mtr.: -------

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	CA	AD	E-	002	0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT





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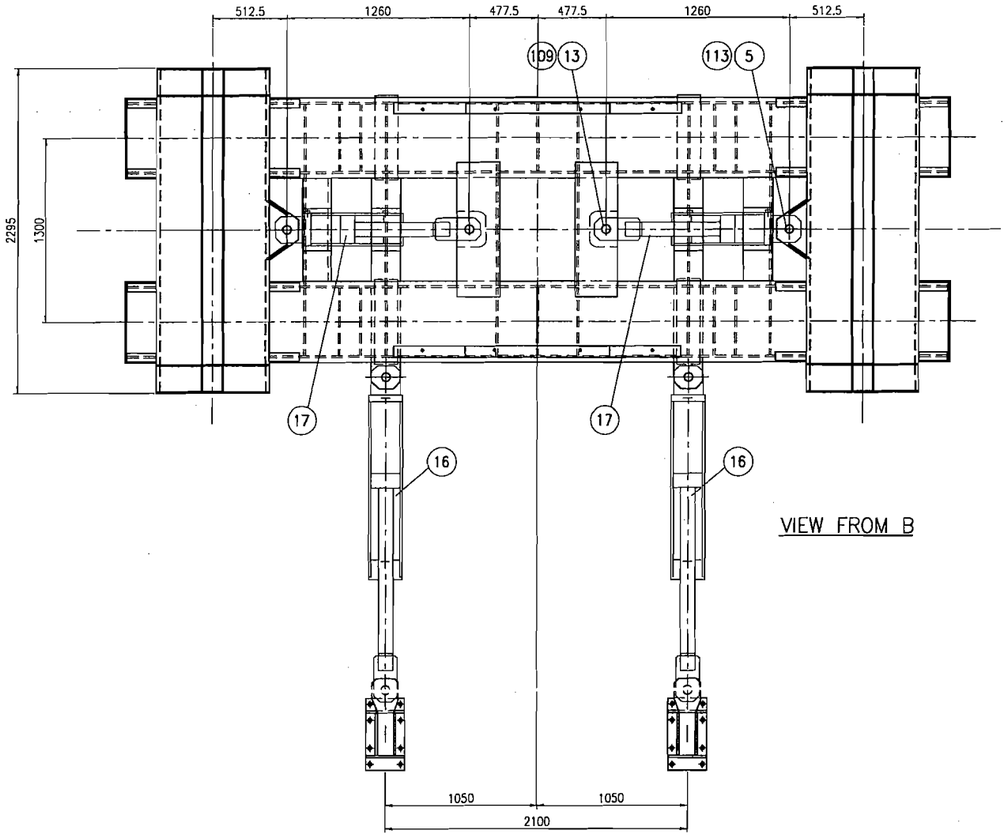

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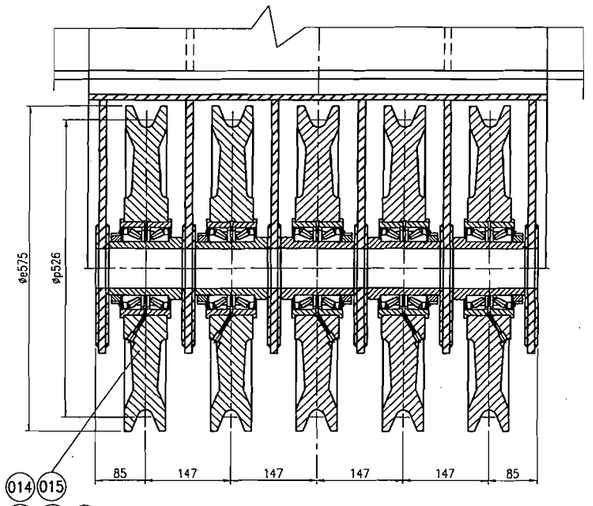

DETAIL C

UNIT WEIGHT 9875 Kg
TOTAL WEIGHT 19750 Kg

TO BUILT NR. 2 PIECES

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
112	64	SCREW 5x25 CL.8.8 UNI 5933					
111	128	PLAN WASHER 17 UNI 5714					
110	64	SCREW M16x30 CL.8.8 UNI 5739					
109	8	SPLIT PIN ø10x100 UNI 1336					
108	16	NUT M20 CL.6S UNI 5588					
107	32	WASHER ø21 UNI 5714					
106	16	SCREW M20x80 CL.8.8 UNI 5737					
105	40	WASHER ø28 UNI 5714					
104	40	SCREW M27x200 CL.8.8 UNI 5737					
103	16	WASHER ø8.5 UNI 5714					
102	16	NUT M8 CL.6S UNI 5588					
101	16	SCREW M8x50 UNI 5931					
100	24	SCREW 5x25 CL.8.8 UNI 5933					
17	4	HYDRAULIC JACK ø200/ø100 STROKE ±200	T06DUANE-002		185	740	
16	4	HYDRAULIC JACK ø200/ø100 STROKE ±500	T06DUANE-001		270	1080	
15	80	BUSH ø165/145	E503		1.5	120	
14	40	BUSH ø95/70	E502		3.5	140	
13	4	PIN	E1206		3.6	14.4	
12	4	PIN	E1205		3.6	14.4	
11	8	ANTI ROLLOVER	E1204		41	336	
10	4	NYLON PLATE	E1203		15	60	
9	8	FERROZEL PLATE	E1202		3.5	28	
8	2	BEAM	E1201		5235	10470	
7	4	PINS	E1502		4	16	
6	4	JACK HANGER	E1501		83	332	
5	4	PIN	E1105		3.6	14.4	
4	8	AXLE	E1104		24.5	196	
3	32	STOP PLATE	E1103		0.5	16	
2	16	FERROZEL PLATE	E1102		2	32	
1	4	HOISTING PULLEY SUPPORT	E1101		1338	5352	
124	40	PULLEY POLYPENCO TP. 428-2	E501		15	600	
123	80	GREASE NIPPLE M10A1					
122	80	NILOS FOR 32019X - TP. 32019 AV					
121	80	BEARING TP. 32019 X - 95x145x32			2	160	
120	40	TAB WASHER FOR RING NUT ø95 TP. MB19			0.2	8	
119	40	RING NUT M95x2 TP. KM19			0.5	20	
118	4	SPLIT PIN ø10x100 UNI 1336					
117	8	SQUARE 20x20x270					
116	32	NUT M24 6S UNI 5588					
115	64	PLAN WASHER 25 UNI 5714					
114	32	SCREW M24x120 CL.8.8 UNI 5739					
113	4	SPLIT PIN ø10x100 UNI 1336					

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	30.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

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REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: HOISTING WINCH

TITLE: SUB ASSEMBLY HOISTING BEAM

Substitutes for: ---

Scale 1:20 1:5

Sheet 1 Of 1

File: T06CAADE003.DWG

Format A1

Job Nr. -60031 1

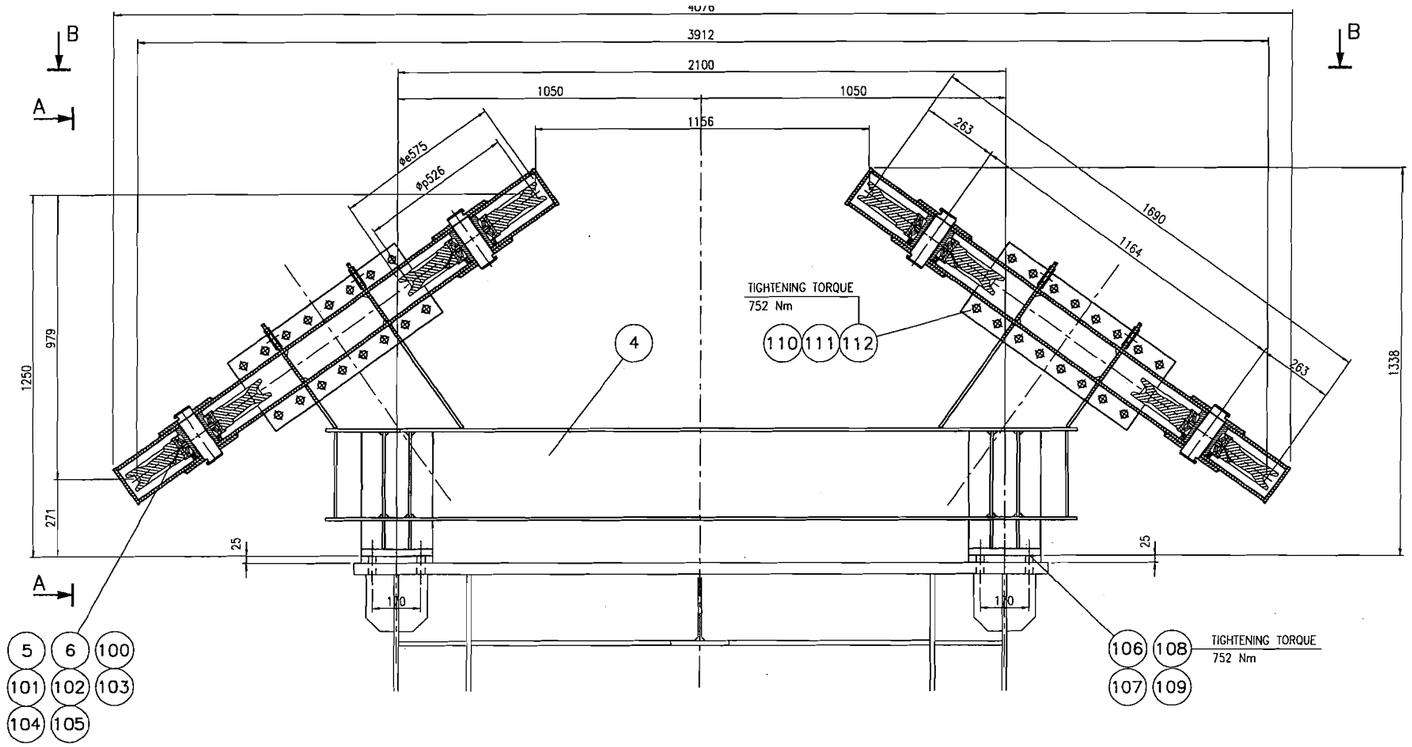
Sub.Nr. -06050 0

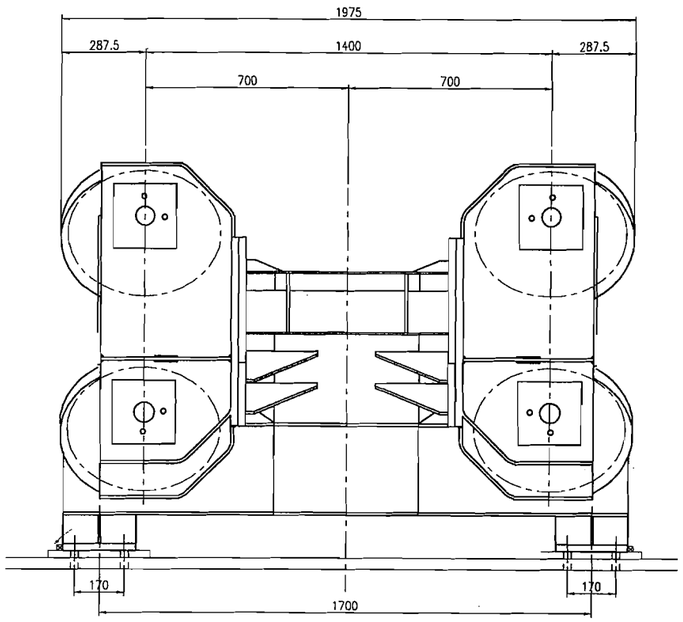
Mtr. -------

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	CA	AD	E-	0030	

CLIENT: KIEWIT / FCI / MANSON JV

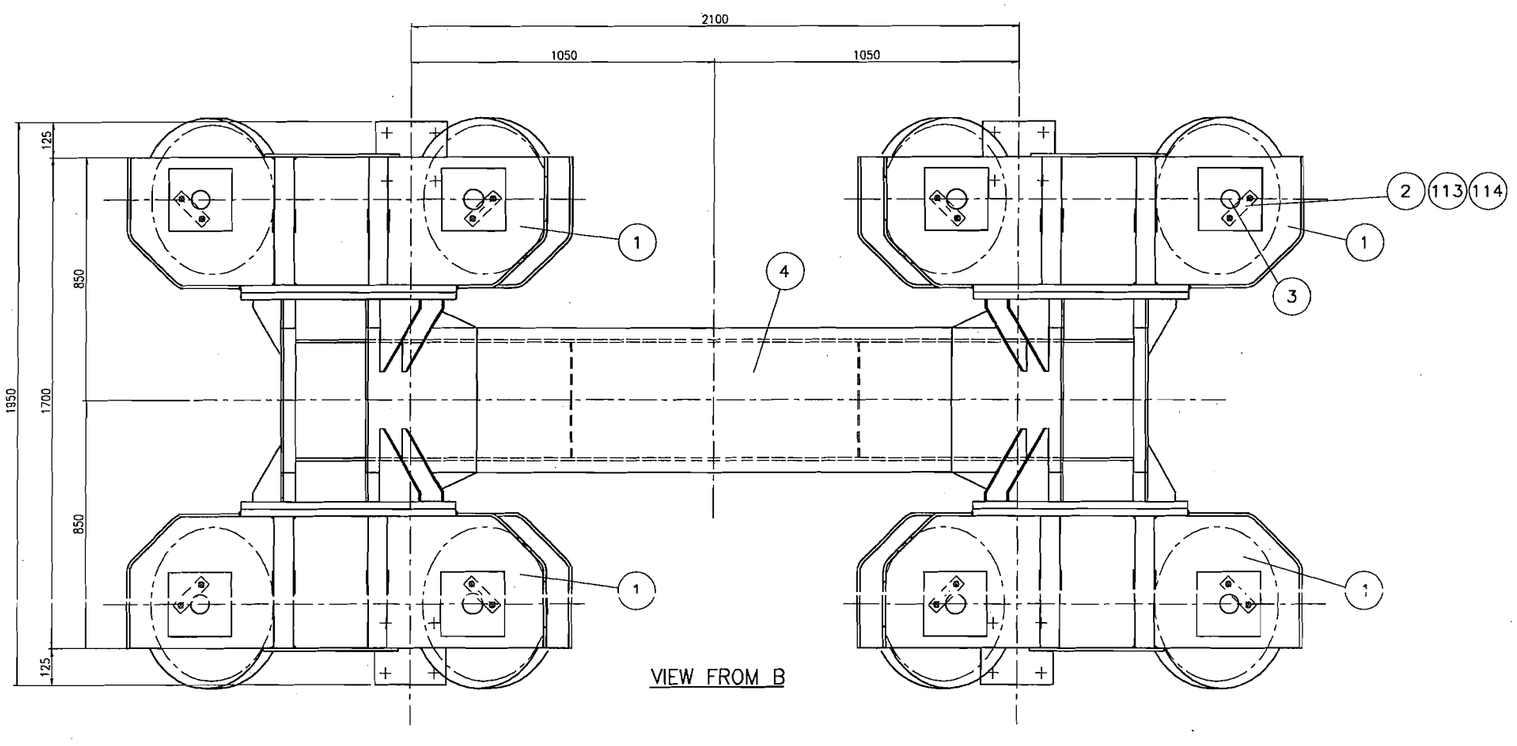
PROJECT: SKYWAY BRIDGE PROJECT





VIEW FROM A

UNIT WEIGHT 2440 Kg



VIEW FROM B

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
114	64	PLAN WASHER 17 UNI 5714					
113	32	SCREW M16x30 UNI 5739 CL.8.8					
112	64	NUT M24 6S UNI 5588					
111	128	PLAN WASHER 25 UNI 5714					
110	64	SCREW M24x100 UNI 5739 CL.8.8					
109	4	PLATE 20x20x250					
108	16	NUT M24 6S UNI 5588					
107	16	PLAN WASHER 25 UNI 5714					
106	16	SCREW M24x140 CL.8.8					
105	8	PULLEY POLYPENCO TP. 428-2	E501		15	120	
104	16	GREASE NIPPLE M10x1					
103	16	NILOS FOR 32019X - TP. 32019 AV					
102	16	BEARING TP. 32019 X - 95x145x32			2	32	
101	8	TAB WASHER FOR RING NUT ø95 TP. MB19			0.2	1.6	
100	8	RING NUT M95x2 TP. KM19			0.5	4	
6	16	BUSH ø165/145	E503		1.5	24	
5	8	BUSH ø95/70	E502		3.5	28	
4	1	CENTRAL PULLEY SUPPORT	E1001		1215	1215	
3	8	PULLEY AXLE	E903		5.4	43.2	
2	16	STOP PLATE	E902		0.4	6.4	
1	4	PULLEY SUPPORT	E901		239	956	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	30.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

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REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: HOISTING WINCH

TITLE: SUB ASSEMBLY - CENTRAL PULLEY SUPPORT

Substitutes for: ---

Scale: 1:10

Sheet: 1 Of: 1

File: T06CAADE004.DWG

Format: A1

Job Nr.: -600311

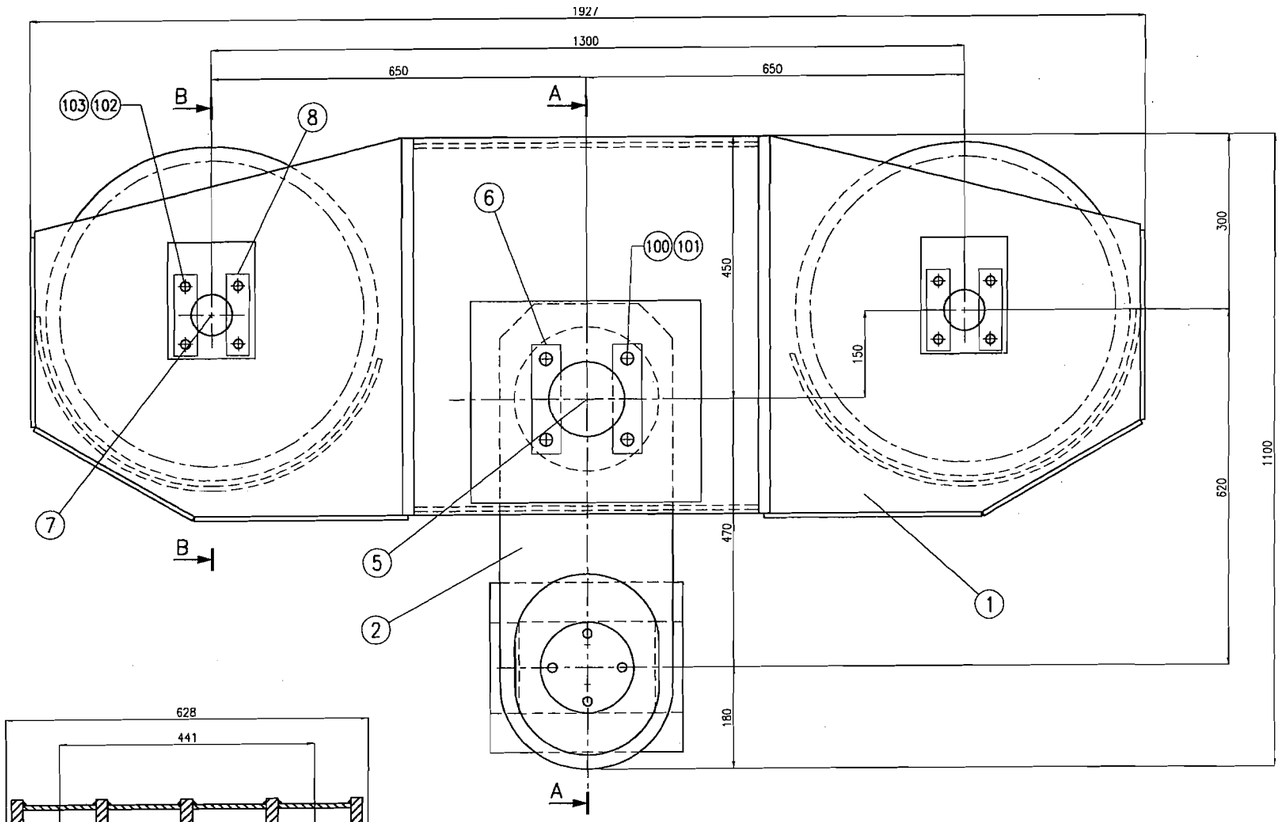
Sub Job Nr.: -060500

Mtr.: -------

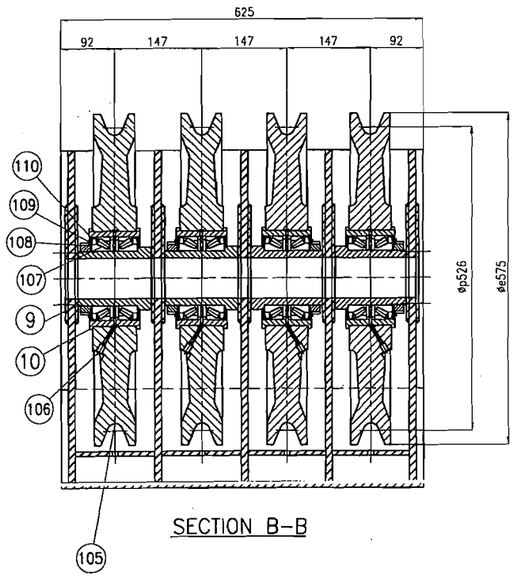
Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	CA	AD	E-	004	0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



SECTION A–A



SECTION B–B

UNIT WEIGHT 1940 Kg
TOTAL WEIGHT 7760 Kg

TO BUILT NR.4 PIECES

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
110	64	NILOS FOR 32019X – TP. 32019 AV					
109	32	TAB WASHER FOR RING NUT ø95 TP. MB19			0.2	6.4	
108	32	RING NUT M95x2 TP. KM19			0.5	16	
107	64	BEARING TP. 32019 X – 95x145x32			2	128	
106	64	GREASE NIPPLE M10x1					
105	32	PULLEY POLYPENCO TP. 428–2	E501		15	480	
104	32	SCREW M16x50 CL.8.8 UNI 5739					
103	96	PLAN WASHER 17 UNI 5714					
102	64	SCREW M16x35 CL.8.8 UNI 5739					
101	32	PLAN WASHER 21 UNI 5714					
100	32	SCREW M20x50 CL.8.8 UNI 5739					
10	64	BUSH ø165/145	E503		1.5	96	
9	32	BUSH ø95/70	E502		3.5	112	
8	32	STOP PLATE AXLE	E1308		0.4	12.8	
7	8	PULLEY AXLE3	E1307		19.8	158.4	
6	16	AXLE STOP PLATE	E1306		1.1	17.6	
5	4	CONNECTION HOOK AXLE	E1305		72	288	
4	8	STOP PLATE FOR JOINT	E1304		4.5	36	
3	4	ARTICULATED JOINT	E1303		240	960	
2	8	CONNECTION HOOK	E1302		107	856	
1	4	ROPE BLOCK STRUCTURE	E1301		1147	4588	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	30.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

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REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: HOISTING WINCH

TITLE: SUB ASSEMBLY – MOBILE HOOK BLOCK

Substitutes for: ---

Scale: 1:5

Sheet: 1 Of: 1

File: T06CAADE005.DWG

Format: A1

Job Nr.: -60031 1

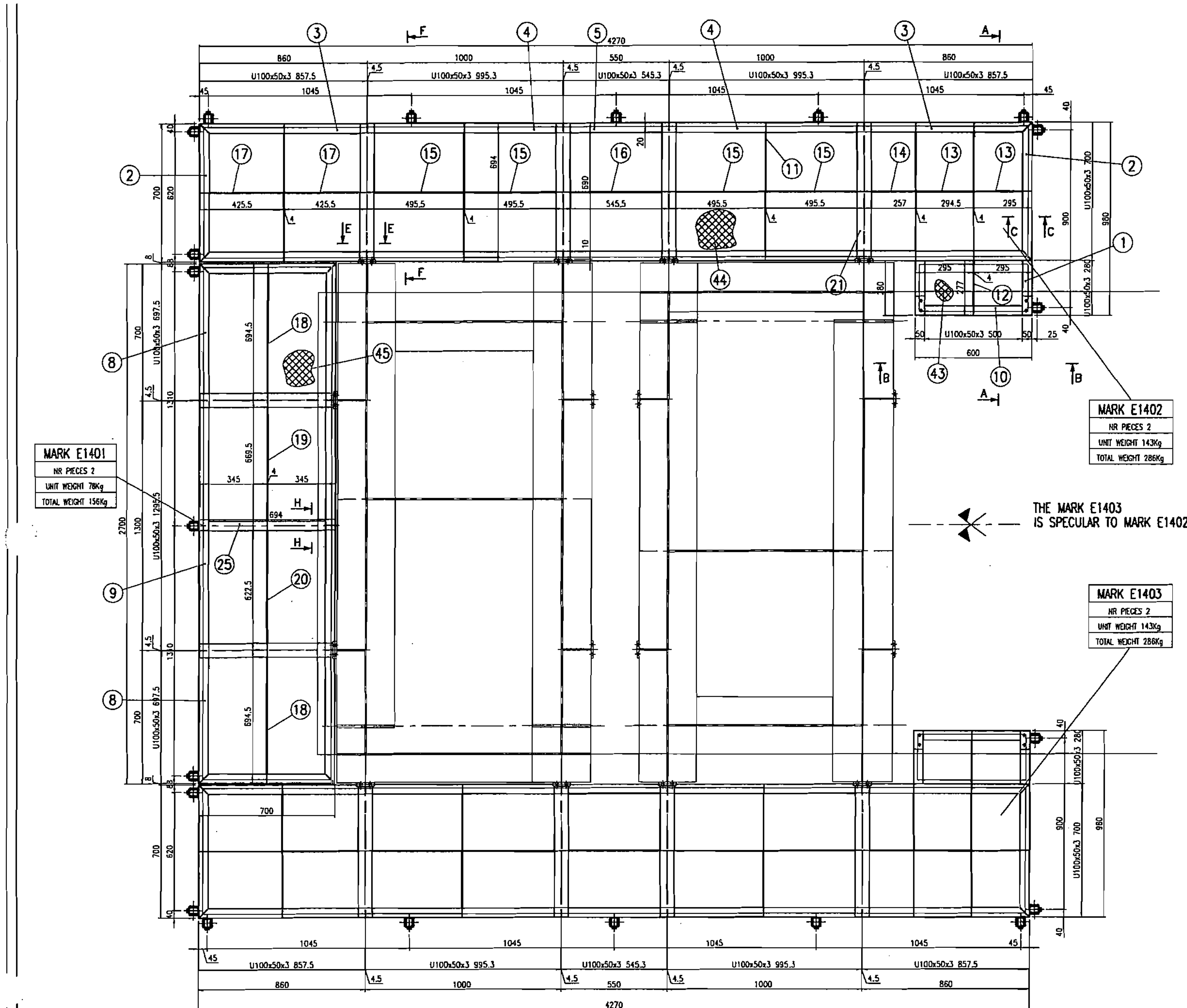
Sub.J.Nr.: -060500

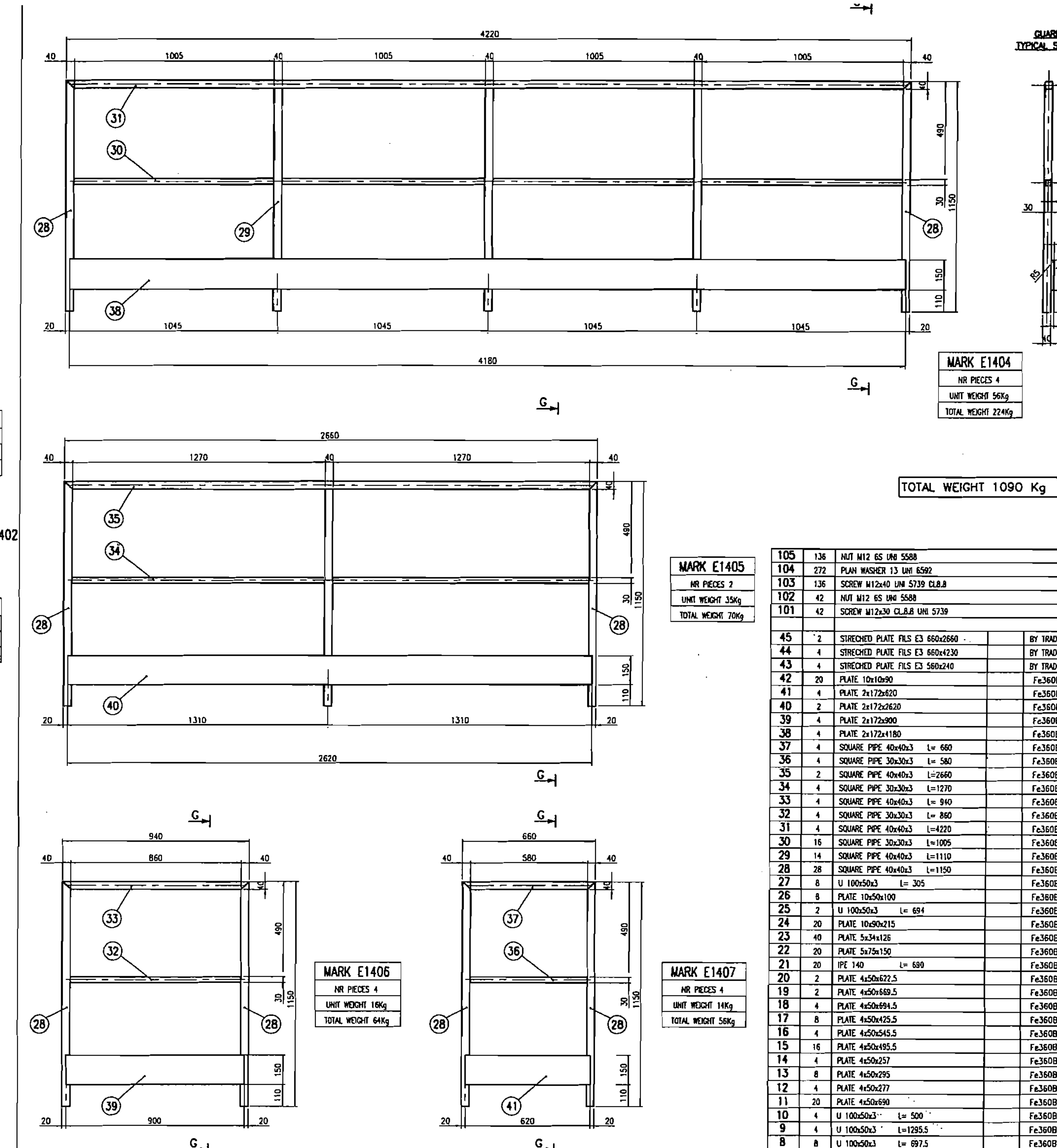
Mtr.: -------

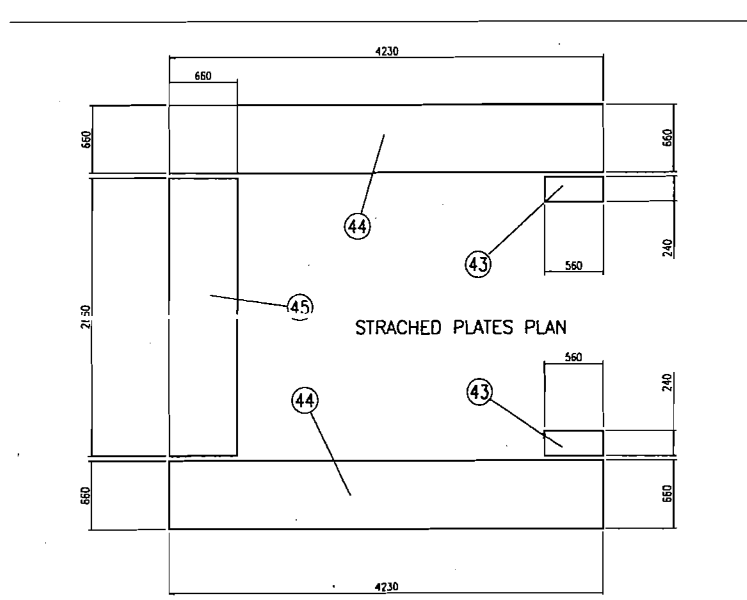
Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	CA	AD	E –	005	0

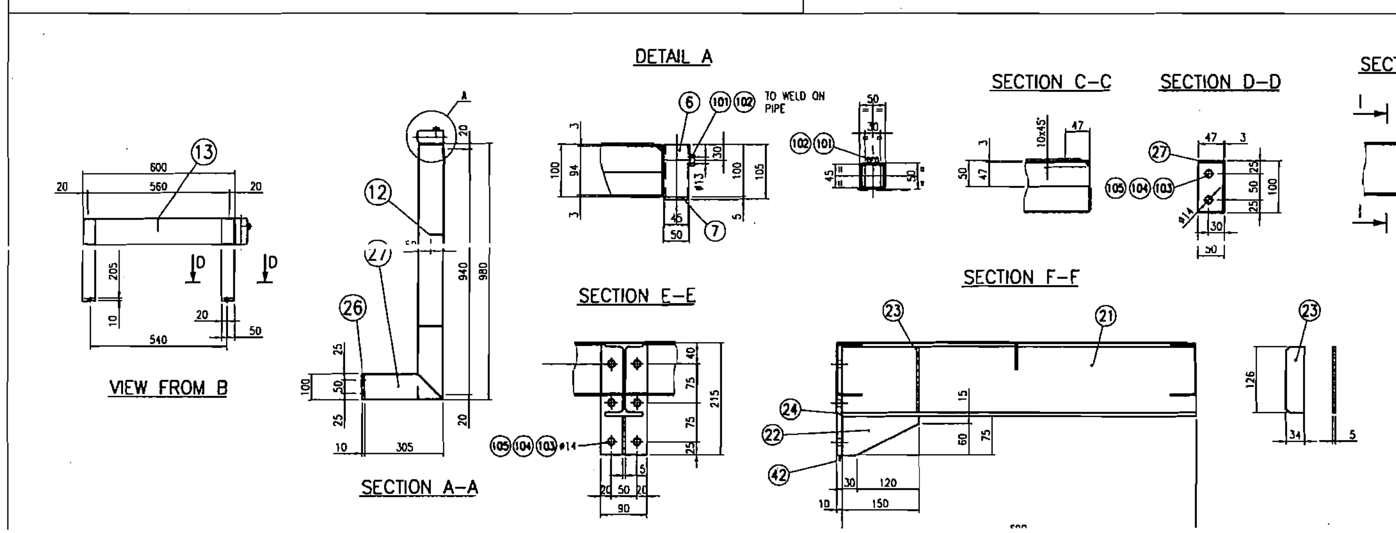
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT









WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R=2

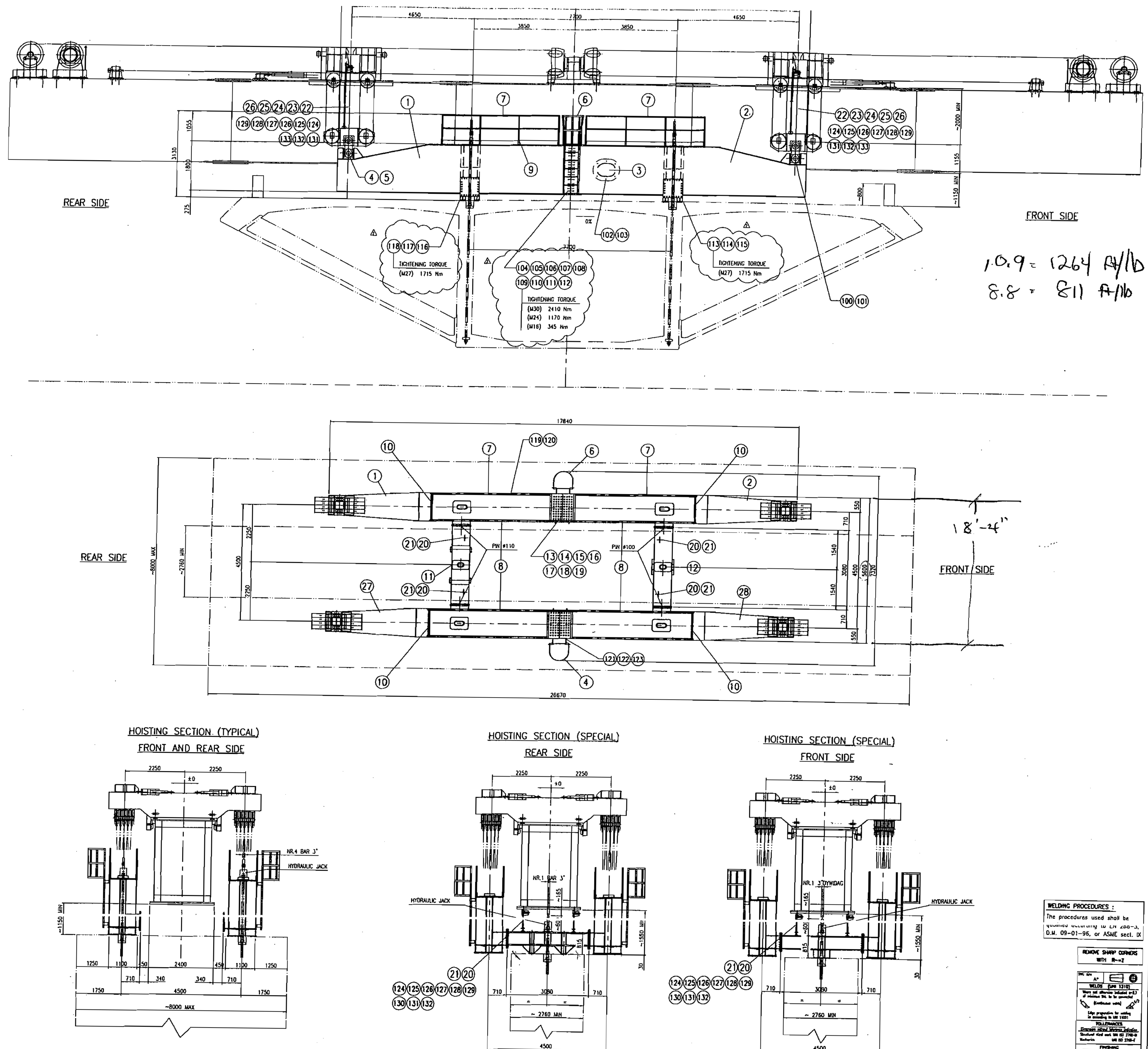
FINAL PAINTING :
WALKWAY
ENAMEL YELLOW RAL 1007
HANDRAIL
ENAMEL BLUE RAL 5017

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
105	136	NUT M12 6S UNI 5588					
104	272	PLAN WASHER 13 UNI 6592					
103	136	SCREW M12x40 UNI 5739 CL8.8					
102	42	NUT M12 6S UNI 5588					
101	42	SCREW M12x30 CL8.8 UNI 5739					
45	2	STRECHED PLATE FILS E3 660x2660		BY TRADE	15.3	30.6	
44	4	STRECHED PLATE FILS E3 660x4230		BY TRADE	23.6	94.4	
43	4	STRECHED PLATE FILS E3 560x240		BY TRADE	1.3	5.2	
42	20	PLATE 10x10x90		Fe360B	0.1	2.0	
41	4	PLATE 2x172x620		Fe360B	1.7	6.8	
40	2	PLATE 2x172x2620		Fe360B	7.0	14.0	
39	4	PLATE 2x172x900		Fe360B	2.4	9.6	
38	4	PLATE 2x172x4180		Fe360B	11.2	44.8	
37	4	SQUARE PIPE 40x40x3 L= 660		Fe360B	2.3	9.2	
36	4	SQUARE PIPE 30x30x3 L= 580		Fe360B	1.5	6.0	
35	2	SQUARE PIPE 40x40x3 L=2660		Fe360B	9.3	18.6	
34	4	SQUARE PIPE 30x30x3 L=1270		Fe360B	3.2	12.8	
33	4	SQUARE PIPE 40x40x3 L= 940		Fe360B	3.3	13.2	
32	4	SQUARE PIPE 30x30x3 L= 860		Fe360B	2.2	8.8	
31	4	SQUARE PIPE 40x40x3 L=4220		Fe360B	14.7	58.8	
30	16	SQUARE PIPE 30x30x3 L=1005		Fe360B	2.6	41.6	
29	14	SQUARE PIPE 40x40x3 L=1110		Fe360B	3.9	54.6	
28	28	SQUARE PIPE 40x40x3 L=1150		Fe360B	4.0	112	
27	8	U 100x50x3 L= 305		Fe360B	1.4	11.2	
26	8	PLATE 10x50x100		Fe360B	0.4	3.2	
25	2	U 100x50x3 L= 694		Fe360B	3.1	6.2	
24	20	PLATE 10x90x215		Fe360B	1.5	30.0	
23	40	PLATE 5x34x126		Fe360B	0.2	8.0	
22	20	PLATE 5x75x150		Fe360B	0.4	8.0	
21	20	IPE 140 L= 690		Fe360B	8.9	178	
20	2	PLATE 4x50x622.5		Fe360B	1.0	2.0	
19	2	PLATE 4x50x669.5		Fe360B	1.1	2.2	
18	4	PLATE 4x50x694.5		Fe360B	1.1	4.4	
17	8	PLATE 4x50x425.5		Fe360B	0.7	5.6	
16	4	PLATE 4x50x545.5		Fe360B	0.9	3.6	
15	16	PLATE 4x50x495.5		Fe360B	0.8	12.8	
14	4	PLATE 4x50x257		Fe360B	0.4	1.6	
13	8	PLATE 4x50x295		Fe360B	0.5	4.0	
12	4	PLATE 4x50x277		Fe360B	0.4	1.6	
11	20	PLATE 4x50x690		Fe360B	1.1	22	
10	4	U 100x50x3 L= 500		Fe360B	2.2	8.8	
9	4	U 100x50x3 L=1295.5		Fe360B	5.8	23.2	
8	8	U 100x50x3 L= 697.5		Fe360B	3.1	24.8	
7	42	PLATE 5x45x45		Fe360B	0.1	1.7	
6	42	SQUARE PIPE 50x50x4 L=100		Fe360B	0.6	12.1	
5	8	U 100x50x3 L= 545.3		Fe360B	2.4	19.2	
4	16	U 100x50x3 L= 995.5		Fe360B	4.5	72	
3	8	U 100x50x3 L= 857.5		Fe360B	3.8	30.4	
2	12	U 100x50x3 L= 700		Fe360B	3.1	37.2	
1	8	U 100x50x3 L= 280		Fe360B	1.3	10.4	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	22.05.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIGIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: HOISTING WINCH
TITLE: WALKWAYS
Substitutes for: ---
Scale:
Sheet 1 of 1
File: T06CACDED14.DWC
Format: A0
Job Nr.: -600311
Sub.Job: -060510
Mt.: -------
Fab. Nr. / Dep. / Doc. Type / Part. / Nr. / Rev.: T06 CA CD E- 014 0
CLIENT: KIEWIT / FCI / MANSON JV
PROJECT:



92,263 lbs

TOTAL WEIGHT 41850 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
133	4	SCREW M8x40 CL.8.8 UNI5739					
132	8	CHAIN 2x11 L=238					
131	16	GALVANIZED SPRING CATCH UNI1947 TYPE A					
130	8	NUT M24 6S UNI5588					
129	36	NUT M8 6S UNI5588					
128	72	PLAN WASHER Ø8.4 UNI5714					
127	32	SCREW M8x30 CL.8.8 UNI5739					
126	32	PLAN WASHER Ø17 UNI5714					
125	16	SCREW M16x40 CL.8.8 UNI5739					
124	8	LIMIT SWITCH TZ067-20y			3.5	28	
123	32	WASHER Ø17 UNI 5714					
122	16	NUT M16 6s UNI 5588					
121	16	SCREW M16x30 cl.8.8 UNI 5739					
120	40	NUT M12 6s UNI 5588					
119	40	SCREW M12x30 cl.8.8 UNI 5739					
118	52	NUT M27 8G UNI 5713					
117	104	PLAN WASHER 27 UNI 5714					
116	52	SCREW M27x120 CL.10.9 UNI 5712					
115	104	NUT M27 8G UNI 5713					
114	208	PLAN WASHER 27 UNI 5714					
113	104	SCREW M27x120 CL.10.9 UNI 5712					
112	48	NUT M16 8G UNI 5713					
111	96	PLAN WASHER 16 UNI 5714					
110	48	SCREW M16x50 CL.10.9 UNI 5712					
109	272	NUT M24 8G UNI 5713					
108	544	PLAN WASHER 24 UNI 5714					
107	272	SCREW M24x70 CL.10.9 UNI 5712					
106	320	NUT M30 8G UNI 5713					
105	640	PLAN WASHER 30 UNI 5714					
104	320	SCREW M30x145 CL.10.9 UNI 5712					
103	12	PLAN WASHER 13 UNI 5714					
102	12	SCREW M10x35 CL.8.8 UNI 5739					
101	32	PLAN WASHER 17 UNI 5714					
100	32	SCREW M16x50 CL.8.8 UNI 5739					
28	1	GIRDER	E2702		8425	8425	
27	1	GIRDER	E2701		8425	8425	
26	4	LIMIT SWITCH HOISTING PLATE	E2605		4.4	17.6	
25	4	LIMIT SWITCH FIXING STRUCTURE TUBE	E2604		2.4	9.6	
24	4	LIMIT SWITCH FIXING ANGLE BAR	E2603		3.0	12	
23	4	LIMIT SWITCH BALANCE WEIGHT	E2602		0.9	3.6	
22	4	LIMIT SWITCH SUPPORT STRUCTURE	E2601		9.5	38	
21	4	LIMIT SWITCH BALANCE WEIGHT	E2502		3	12.0	
20	4	LIMIT SWITCH SUPPORT STRUCTURE	E2501		6.5	26.0	
19	16	GIRDERS JOINT PLATE	E2107		6.9	111.5	
18	8	GIRDERS JOINT PLATE	E2106		15.5	123.6	
17	8	GIRDERS JOINT PLATE	E2105		0.8	6.4	
16	4	GIRDERS JOINT PLATE	E2104		1.1	4.3	
15	4	GIRDERS JOINT PLATE	E2103		1.3	5.4	
14	4	GIRDERS JOINT PLATE	E2102		150	600	
13	4	GIRDERS JOINT PLATE	E2101		168.4	673.5	
12	1	STRINGER	E2201		2100	2100	
11	1	STRINGER	E2301		2740	2740	
10	4	HANDRAIL	E2404		13.9	55.6	
9	40	HANDRAIL SUPPORT	E2405		1.1	44	
8	4	HANDRAIL	E2402		35.8	143.2	
7	4	HANDRAIL	E2403		41.9	167.6	
6	4	GIRDER RUNG LADDER	E2401		407.2	814.4	
5	8	GIRDER AXLE STOP PLATE	E2005		4.5	36	
4	4	GIRDER AXLE	E2004		75.4	301.6	
3	2	OPENING COVER	E2003		36.5	73	
2	1	GIRDER	E2002		8425	8425	
1	1	GIRDER	E2001		8425	8425	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	27/10/02	REVISED WHERE INDICATED	S. GERMANO	F. DEMERGAZZI	RIBIS
1	03.09.02	ADDED TIGHTENING TORQUES	CUCCHIARO	CUCCHIARO	RIBIS
0	01.07.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R=2

DEAL

STRADDLE CARRIER
SC 720 - 32

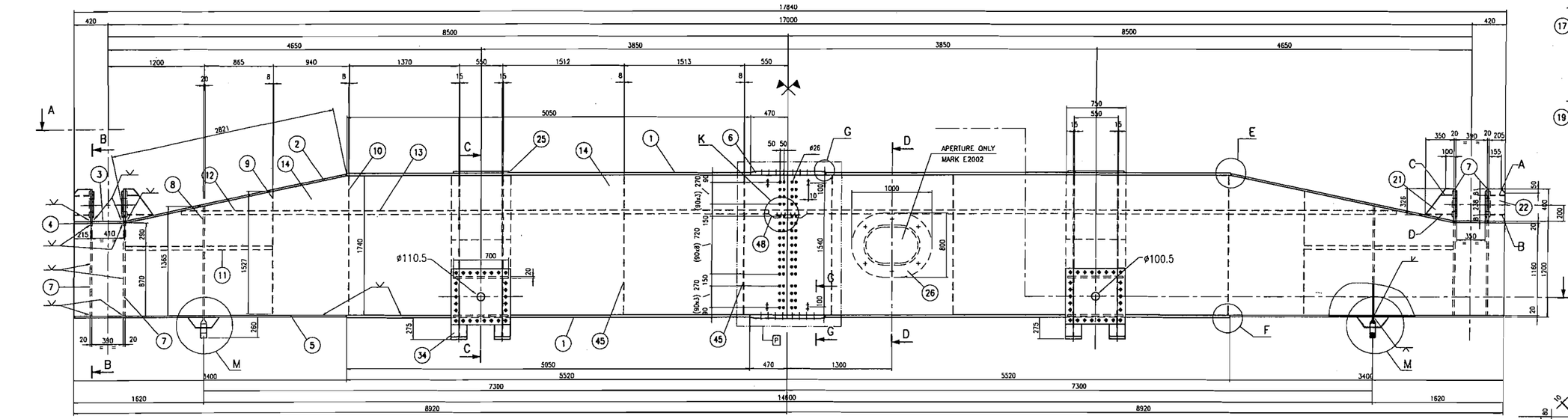
OBJECT: HOISTING WINCH

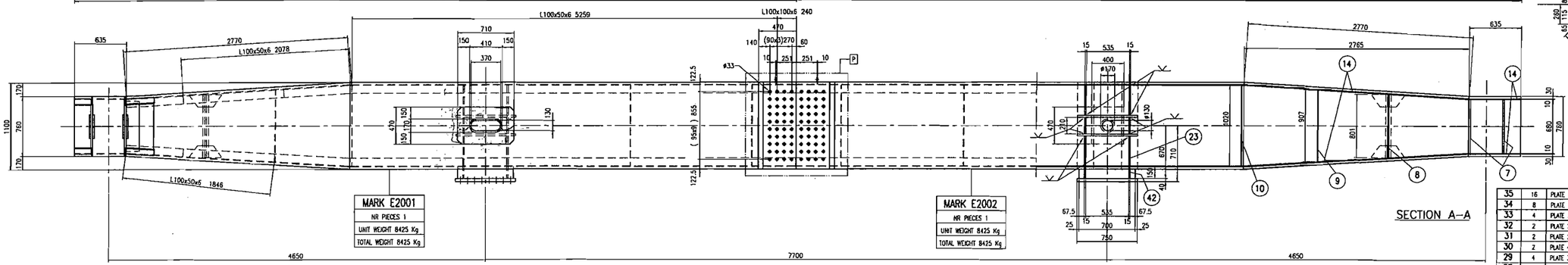
TITLE: LIFTING BEAM ASSEMBLY

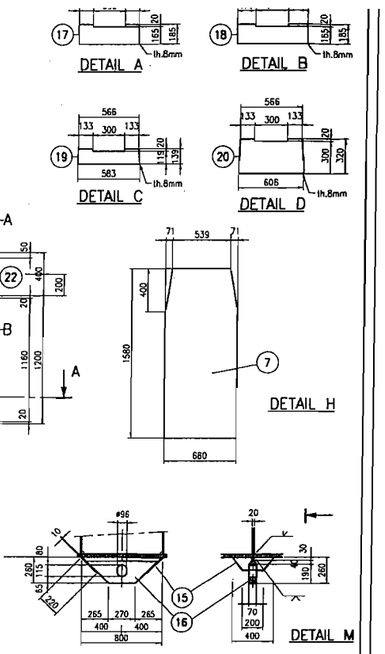
Substitutes for: ---
Scale: 1:50
Sheet 1 of 1
File: T06CAADE020_2.DWG
Format: A0
Job Nr.: -600311
Sub.J.Nr.: -060600
T06 CA AD E- 020 2

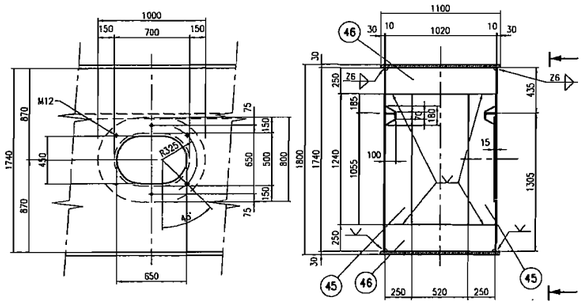
CLIENT: KIEWIT / FCI / MANSON JV

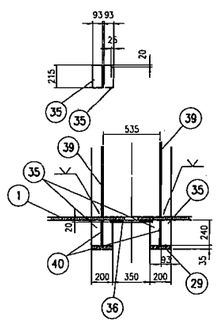
PROJECT: SKYWAY BRIDGE PROJECT

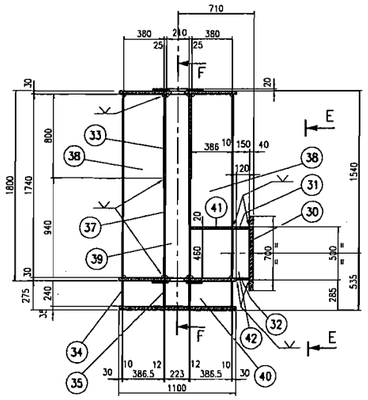


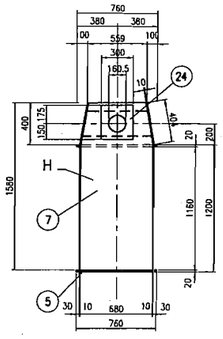


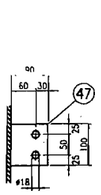


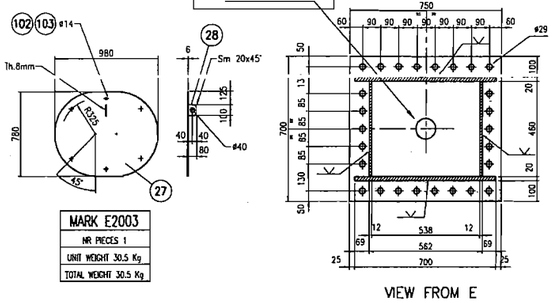


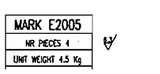


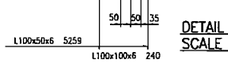


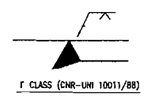


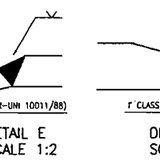


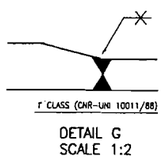












SURFACE TREATMENT FOR FRICTION JOINTS
SAND BLASTING SA 2 1/2
PAINTING WITH A PRODUCT GUARANTEEING
A MINIMUM FRICTION COEFFICIENT OF μ=0.45

TOTAL WEIGHT 17050 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
103	6	PLAN WASHER 13 UNI 6592					
102	6	SCREW M10x35 CL8.8 UNI 5739					
101	16	PLAN WASHER 17 UNI 6592					
100	16	SCREW M16x50 CL8.8 UNI 5739					
48	4	L100x100x6 L=240		Fe510C	2.2	8.8	
47	4	PLATE 10x80x100		Fe510C	0.7	2.8	
46	8	PLATE 8x250x1020		Fe510C	16.1	128.8	
45	8	PLATE 8x250x1240		Fe510C	19.5	156	
44	4	ROUND ø190x20		Fe510C	4.5	18	
43	2	ROUND ø101 L=478		39NiCrMo3	75.5	151	
42	4	PLATE 15x150x460		Fe510C	8.1	32.4	
41	2	PLATE 20x385x535		Fe510C	32.5	65	
40	4	PLATE 15x210x1040		Fe510C	29.3	117.2	
39	4	PLATE 15x233x1740		Fe510C	45.7	182.8	
38	8	PLATE 15x386x1740		Fe510C	77.9	623.2	
37	4	PLATE 12x750x940		Fe510C	66.4	132.8	
36	2	PLATE 20x400x470		Fe510C	29.5	59	
35	16	PLATE 12x93x240		Fe510C	2.0	32.0	
34	8	PLATE 10x200x240		Fe510C	4.2	33.6	
33	4	PLATE 25x750x800		Fe510C	117.8	471.2	
32	2	PLATE 20x120x700		Fe510C	13.2	26.4	
31	2	PLATE 20x150x700		Fe510C	16.5	33	
30	2	PLATE 40x700x750		Fe510C	164.8	329.6	
29	4	PLATE 35x200x1100		Fe510C	60.4	241.6	
28	1	PLATE 8x80x100		Fe510C	0.5	0.5	
27	1	PLATE 6x780x980 SHAPED		Fe510C	30	30	
26	1	PLATE 15x800x1000 SHAPED		Fe510C	45	45	
25	2	PLATE 20x470x710		Fe510C	52.3	104.6	
24	8	PLATE 20x300x325		Fe510C	15.3	122.4	
22	4	PLATE 10x494x215		Fe510C	6.5	26	
21	4	PLATE 10x404x350 SHAPED		Fe510C	7	28	
20	2	PLATE 8x320x566		Fe510C	11.4	22.8	
19	2	PLATE 8x139x566		Fe510C	4.8	9.8	
18	2	PLATE 8x185x650		Fe510C	7.5	15	
17	2	PLATE 8x185x566		Fe510C	6.6	13.2	
16	2	PLATE 70x260x800		Fe510C	64.1	128.2	
15	4	PLATE 10x220x400		Fe510C	5.2	20.8	
14	4	PLATE 10x1740x8925 SHAPED BENT		Fe510C	1127	4508	
13	4	L100x50x6 L=5259		Fe510C	36.1	144.4	
12	4	L100x50x6 L=2078		Fe510C	14.2	56.8	
11	4	L100x50x6 L=1846		Fe510C	12.6	50.4	
10	2	PLATE 8x1020x1740		Fe510C	111.5	223	
9	2	PLATE 8x907x1527		Fe510C	86.9	173.8	
8	2	PLATE 20x801x1365		Fe510C	171.6	343.2	
7	4	PLATE 20x680x1580 SHAPED		Fe510C	164	656	
6	4	PLATE 45x470x1100		Fe510C	182.6	730.4	
5	2	PLATE 20x1100x3400 SHAPED		Fe510C	479	958	
4	2	PLATE 20x215x760 SHAPED		Fe510C	25.6	51.2	
3	2	PLATE 20x410x760 SHAPED		Fe510C	48.9	97.8	
2	2	PLATE 20x1100x2821 SHAPED		Fe510C	412	412	
1	4	PLATE 30x1100x5050		Fe510C	1308	5232	

FINAL PAINTING :
ENAMEL BLUE RAL 5017

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	04.07.02	GENERAL REVISION	CANDOTTI	CUCCHIARO	RIBIS
0	13.06.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

STRADDLE CARRIER
SC 720 – 32

LIFTING BEAM

GIRDERS

106CADE020_1.DWG

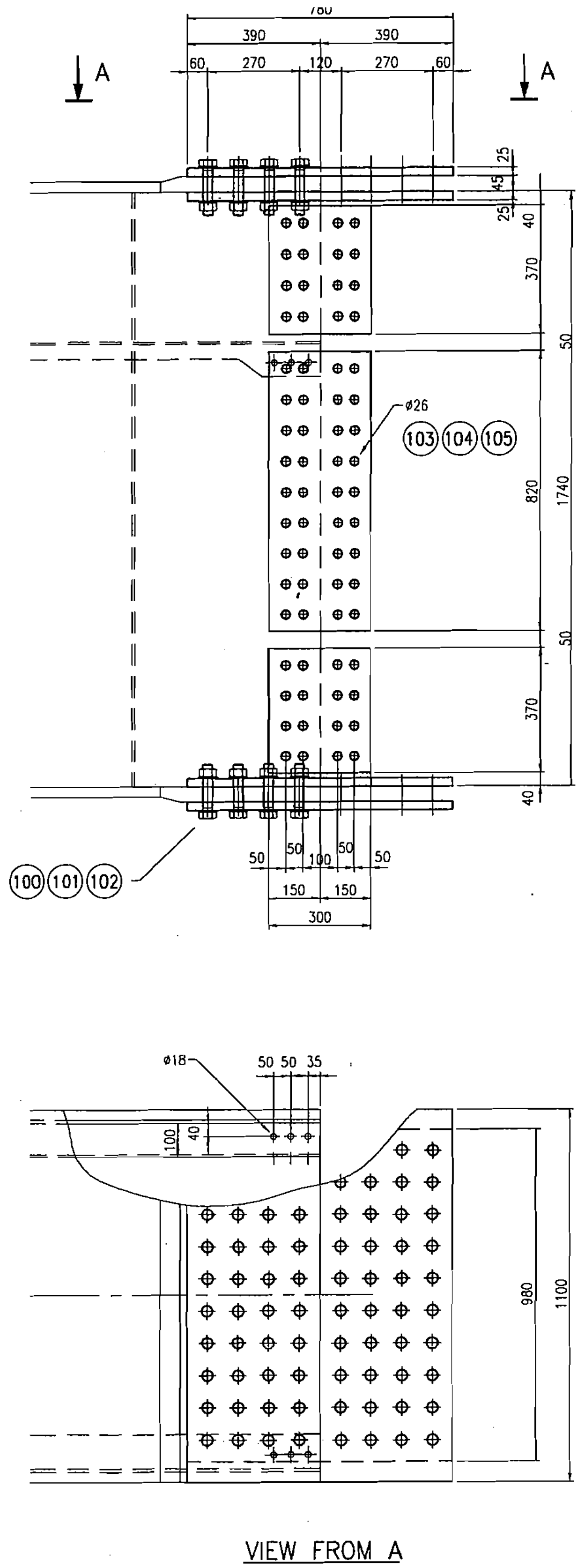
Scale 1:20 1:10 | Sheet 1 | Of 1 | Format A0

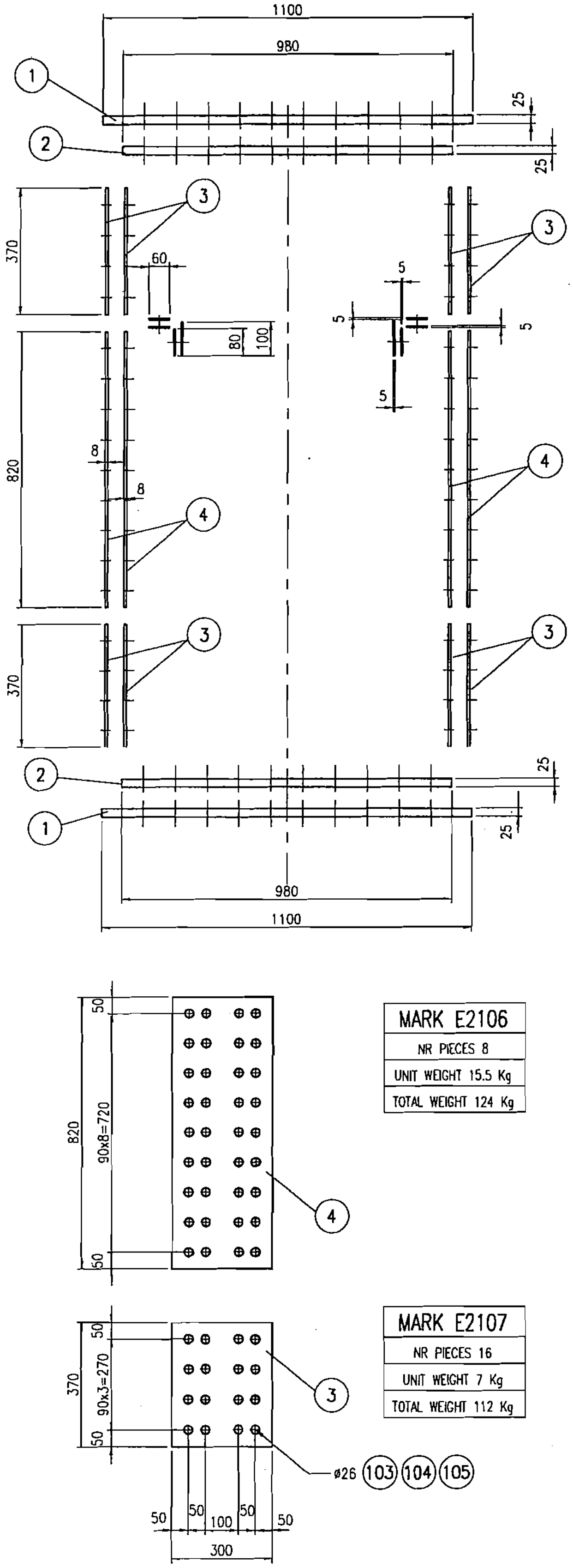
Job No. -60031 1 | Sub Job No. -0606 10

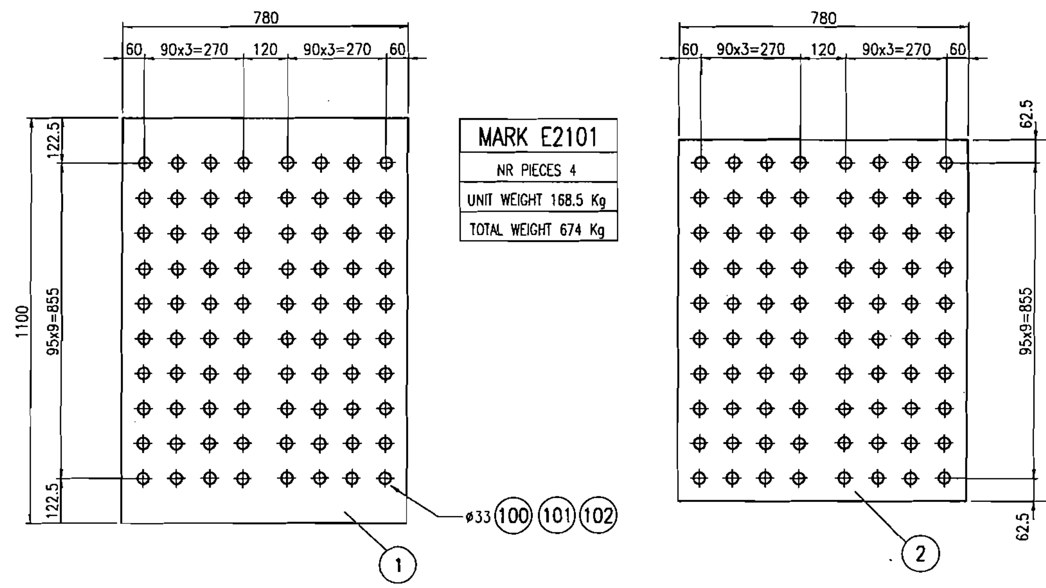
T06CADE-0201

KIEWIT / FCI / MANSON JV

SKYWAY BRIDGE PROJECT

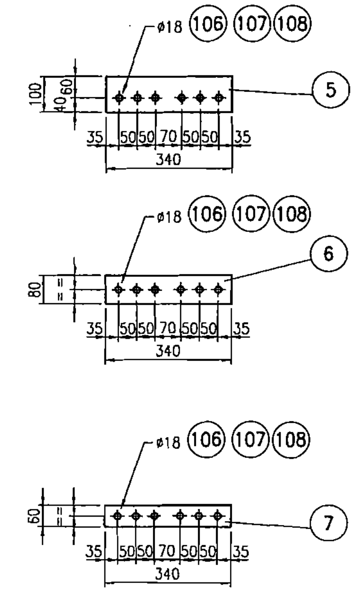






MARK E2101
NR PIECES 4
UNIT WEIGHT 168.5 Kg
TOTAL WEIGHT 674 Kg

MARK E2102
NR PIECES 4
UNIT WEIGHT 150 Kg
TOTAL WEIGHT 600 Kg



MARK E2103
NR PIECES 4
UNIT WEIGHT 1.3 Kg
TOTAL WEIGHT 5.2 Kg

MARK E2104
NR PIECES 4
UNIT WEIGHT 1.1 Kg
TOTAL WEIGHT 4.4 Kg

MARK E2105
NR PIECES 8
UNIT WEIGHT 0.8 Kg
TOTAL WEIGHT 6.4 Kg

MARK E2106
NR PIECES 8
UNIT WEIGHT 15.5 Kg
TOTAL WEIGHT 124 Kg

MARK E2107
NR PIECES 16
UNIT WEIGHT 7 Kg
TOTAL WEIGHT 112 Kg

TOTAL WEIGHT 1530 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
108	48	NUT M16 8G UNI 5713					
107	96	PLAN WASHER 17 UNI 5714					
106	48	SCREW M16x45 CL.10.9 UNI 5712					
105	272	NUT M24 8G UNI 5713					
104	544	PLAN WASHER 25 UNI 5714					
103	272	SCREW M24x65 CL.10.9 UNI 5712					
102	320	NUT M30 8G UNI 5713					
101	640	PLAN WASHER 31 UNI 5714					
100	320	SCREW M30x140 CL.10.9 UNI 5712					
7	8	PLATE 5x60x340		Fe510C	0.8	6.4	
6	4	PLATE 5x80x340		Fe510C	1.1	4.4	
5	4	PLATE 5x100x340		Fe510C	1.3	5.2	
4	8	PLATE 8x300x820		Fe510C	15.5	124	
3	16	PLATE 8x300x370		Fe510C	7	112	
2	4	PLATE 25x780x980		Fe510C	150	600.	
1	4	PLATE 25x780x1100		Fe510C	168.5	674	

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R≃2

FINAL PAINTING :
ENAMEL BLUE RAL 5017

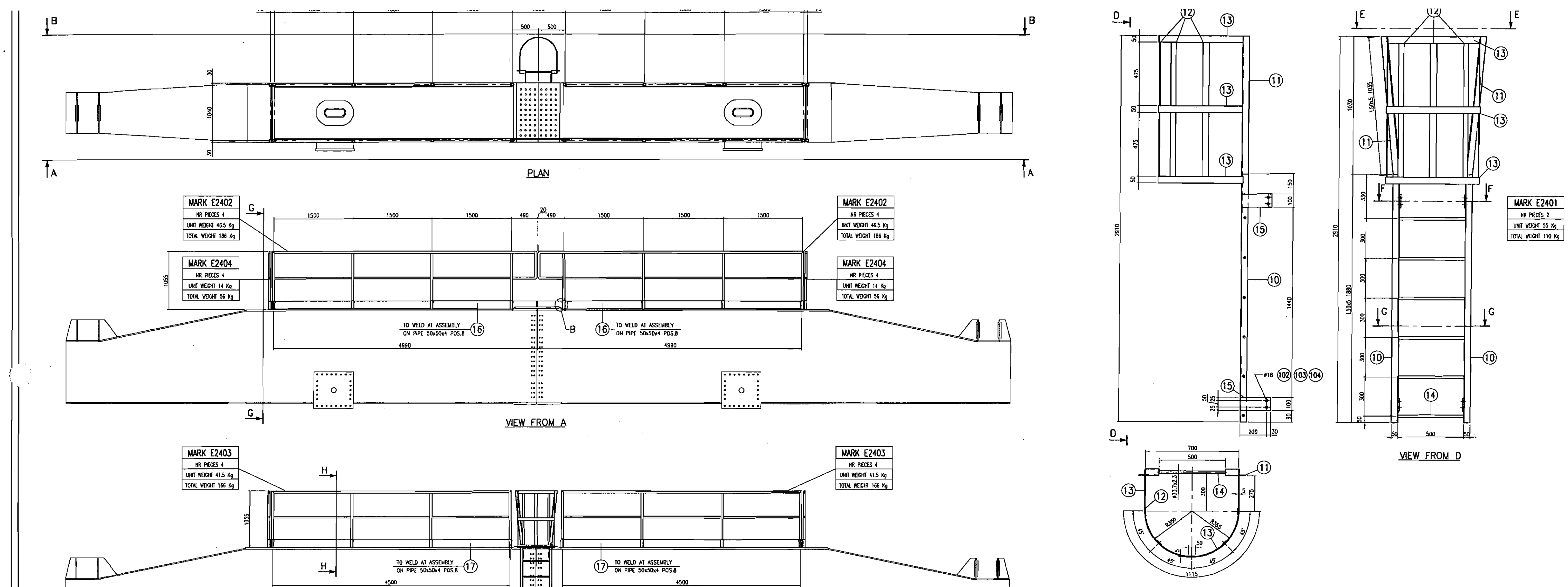
P — SURFACE TREATMENT FOR FRICTION JOINTS SAND BLASTING SA 2 1/2 PAINTING WITH A PRODUCT GUARANTEEING A MINIMUM FRICTION COEFFICIENT OF μ=0.45

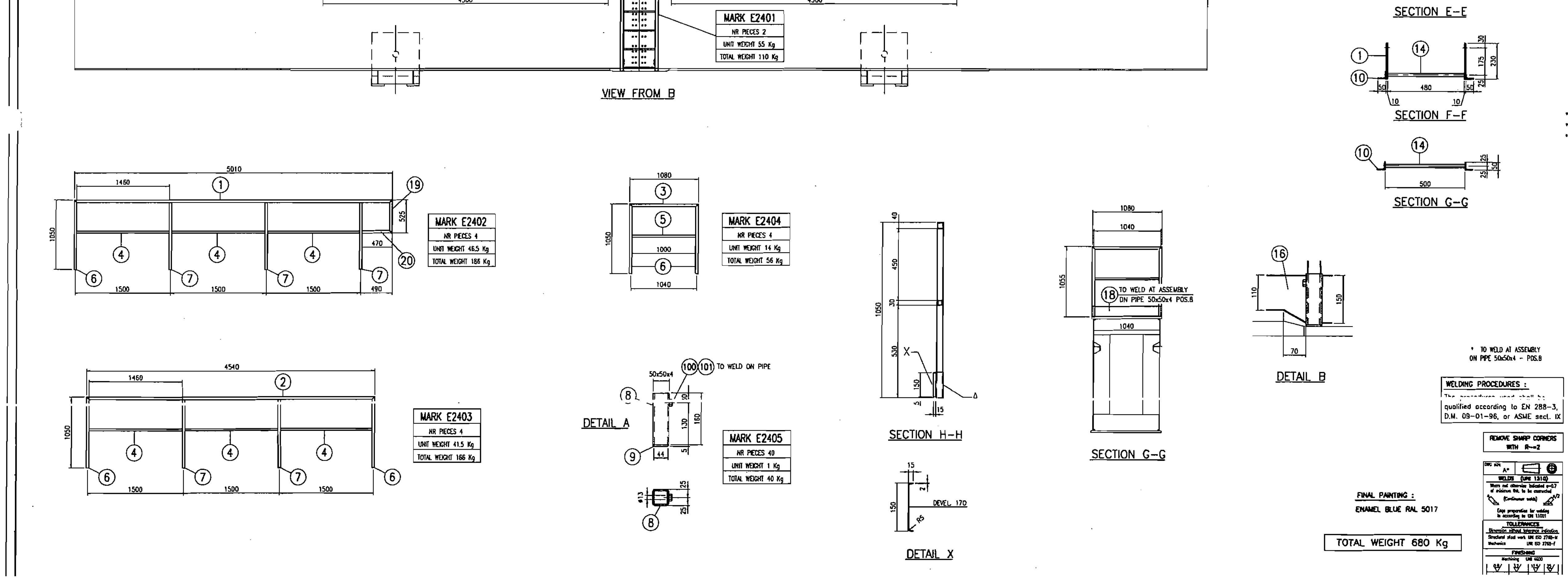
DWG size A1
WELDS (UNI 1310)
TOLLERANCES
FINISHING

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	13.06.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32
OBJECT: LIFTING BEAM
TITLE: JUNCTION PLATES
Substitutes for: ---
Scale 1:10
Sheet 1 Of 1
File: T06CACDE021.DWG
Format A1
Job Nr. -600311
Sub.J.Nr. -060610
Mtr. -------
Fab. Nr. T06 | Dep. CA | Doc. Type CD | Part. E- | Nr. 0210 | Rev. 0
CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT





POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
104	16	WASHER ø17 UNI 6592					
103	16	NUT M16 6s UNI 5588					
102	16	SCREW M16x45 CL.8.8 UNI 5739					
101	40	NUT M12 6s UNI 5588					
100	40	SCREW M12x30 CL.8.8 UNI 5739					
20	4	SQUARE PIPE 40x40x3 L=470		Fe360B	1.6	6.4	
19	4	SQUARE PIPE 40x40x3 L=525		Fe360B	1.8	7.2	
• 18	4	PLATE 2x170x1040		Fe360B	3	12	
• 17	4	PLATE 2x170x4500		Fe360B	12	48	
• 16	4	PLATE 2x170x4990		Fe360B	13.5	54	
15	8	PLATE 10x100x230		Fe360B	1.8	14.4	
14	12	PIPE ø33.7x2.3 L=500		Fe360B	0.9	10.8	
13	6	PLATE 5x50x1650		Fe360B	3.2	19.2	
12	10	PLATE 5x50x1100		Fe360B	2.2	22	
11	4	L50x50x5 L=1035		Fe360B	3.9	15.6	
10	4	L50x50x5 L=1880		Fe360B	7.1	28.4	
9	40	PLATE 5x44x44		Fe360B	0.1	4	
8	40	SQUARE PIPE 50x50x4 L=160		Fe360B	0.9	36	
7	20	SQUARE PIPE 40x40x3 L=1010		Fe360B	3.5	70	
6	20	SQUARE PIPE 40x40x3 L=1050		Fe360B	3.7	74	
5	4	SQUARE PIPE 30x30x3 L=1000		Fe360B	2.5	10	
4	24	SQUARE PIPE 30x30x3 L=1460		Fe360B	3.7	88.8	
3	4	SQUARE PIPE 40x40x3 L=1080		Fe360B	3.8	15.2	
2	4	SQUARE PIPE 40x40x3 L=4540		Fe360B	15.8	63.2	
1	4	SQUARE PIPE 40x40x3 L=5010		Fe360B	17.5	70	

• TO WELD AT ASSEMBLY ON PIPE 50x50x4 – POS.8

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	13.06.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

WELDING PROCEDURES : The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R=2

FINAL PAINTING : ENAMEL BLUE RAL 5017

TOTAL WEIGHT 680 Kg

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: LIFTING BEAM

TITLE: HAND RAILS

Substitutes for: ---

Scale: 1:25 1:10 1:5

Sheet 1 Of 1

File: T06CACDE024.DWG

Format: A0

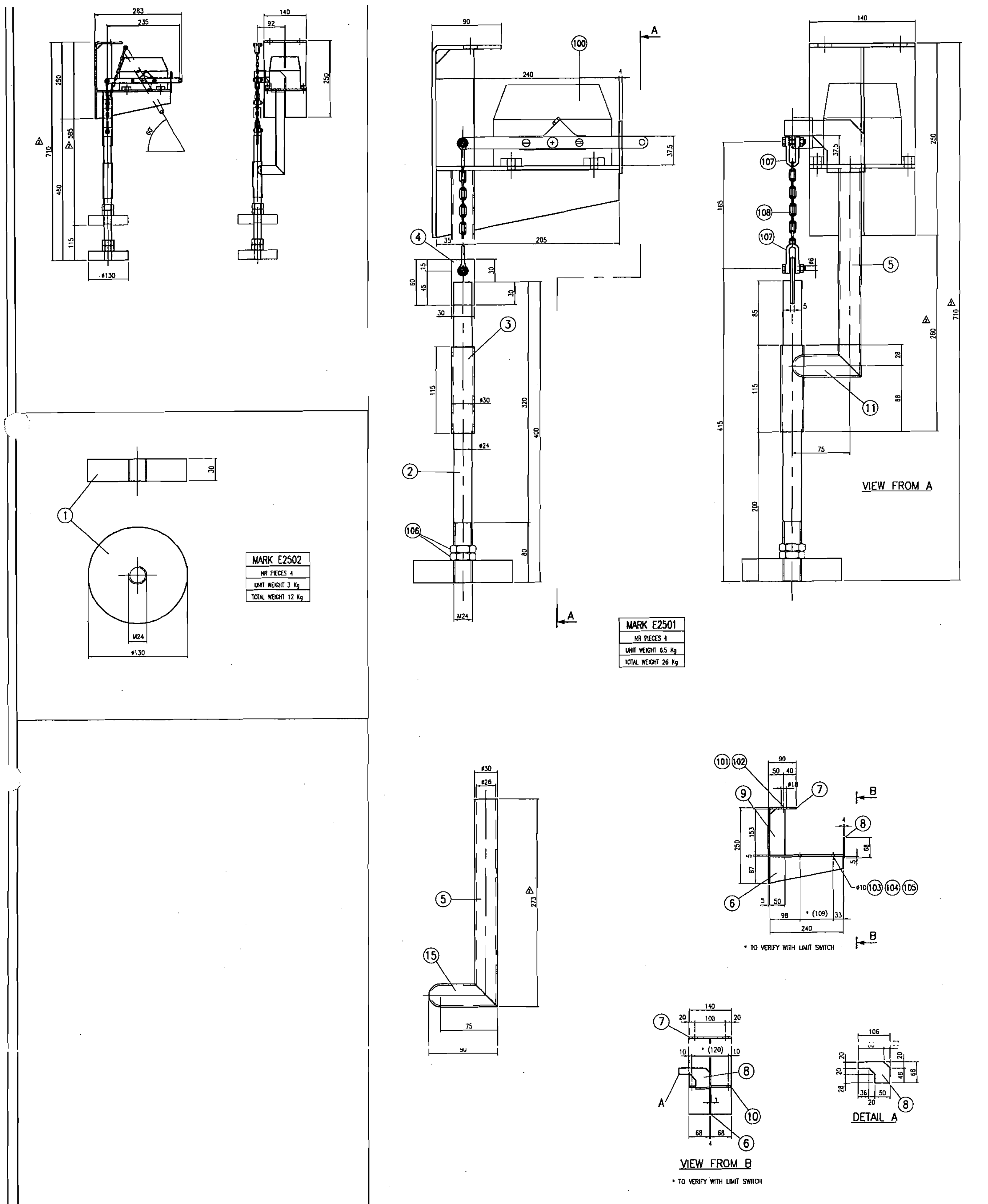
Job Nr.: -600311

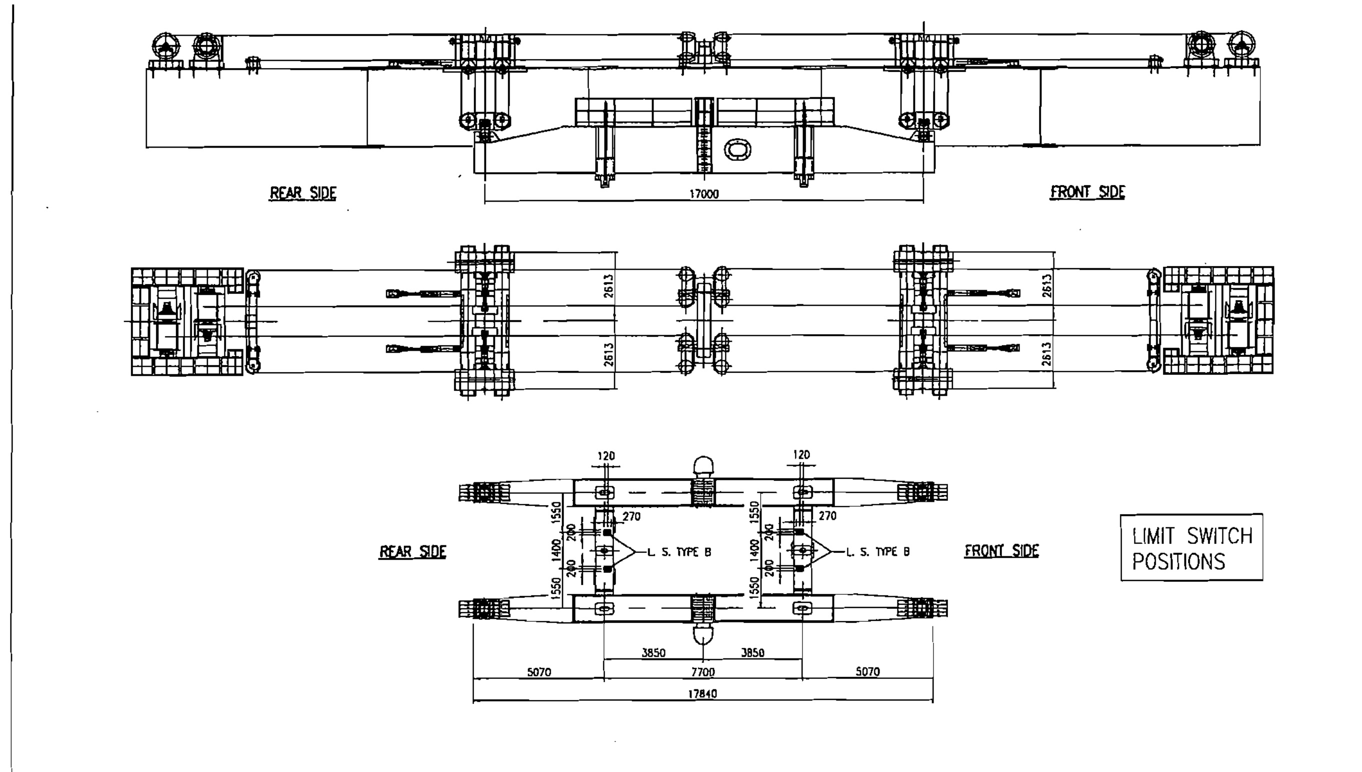
Sub.Nr.: -060610

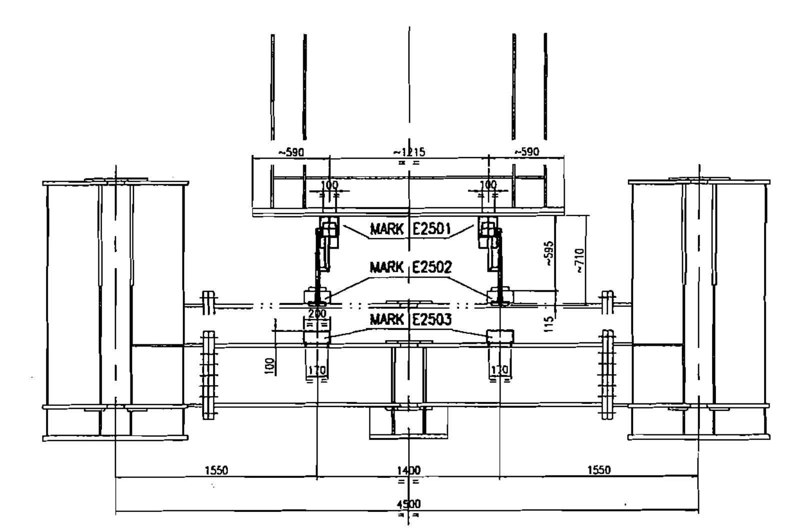
Nr.: -------

Fab. Nr. / Dep. / Doc. Type / Part / Nr. / Rev.: T06 CA CD E- 024 0

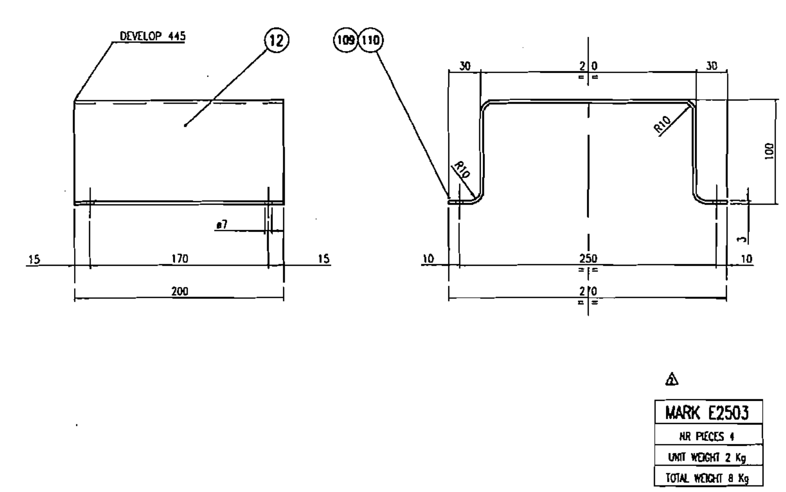
CLIENT: KIEWIT / FCI / MANSON JV







LIMIT SWITCH TYPE B



REMOVE SHARP CORNERS WITH R~=2

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

FINAL PAINTING :
ENAMEL BLUE RAL 5017

TOTAL WEIGHT 60 Kg

	POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
△2	110	8	PLAN WASHER ø6.4 UNI6592					
△2	109	8	SCREW M6x16 CL.8.8 UNI5739					
△2	108	4	CHAIN 2x11 L~=125					
	107	8	GALVANIZED SPRING CATCH UNI1947 TYPE A					
	106	8	NUT M24 6S UNI5588					
	105	16	NUT M8 6S UNI5588					
	104	32	PLAN WASHER ø8.4 UNI6592					
	103	16	SCREW M8x30 CL.8.8 UNI5739					
	102	16	PLAN WASHER ø17 UNI6592					
	101	8	SCREW M16x40 CL.8.8 UNI5739					
	100	4	LIMIT SWITCH T2067-20y			3.5	14	
△2	12	4	PLATE 200x3 l=445 BENT		Fe360B	2	8	
	11	4	TUBE ø30 Th.2 L=90		Fe360B	0.1	0.4	
	10	4	PLATE 5x140x240		Fe360B	1.3	5.2	
	9	4	PLATE 4x50x153		Fe360B	0.2	0.8	
	8	4	PLATE 4x68x106		Fe360B	0.2	0.8	
	7	4	PLATE 5x140x330 BENT		Fe360B	1.8	7.2	
	6	4	PLATE 4x87x240		Fe360B	0.6	2.4	
△2	5	4	TUBE ø30 Th.2 L=273		Fe360B	0.5	2	
	4	4	PLATE 5x30x60		Fe360B	0.1	0.4	
	3	4	TUBE ø30 Th.2 L=115		Fe360B	0.2	0.8	
	2	4	ROUND ø24 L=400		Fe360B	1.4	5.6	
	1	4	ROUND ø130 L=30		Fe360B	3	12	

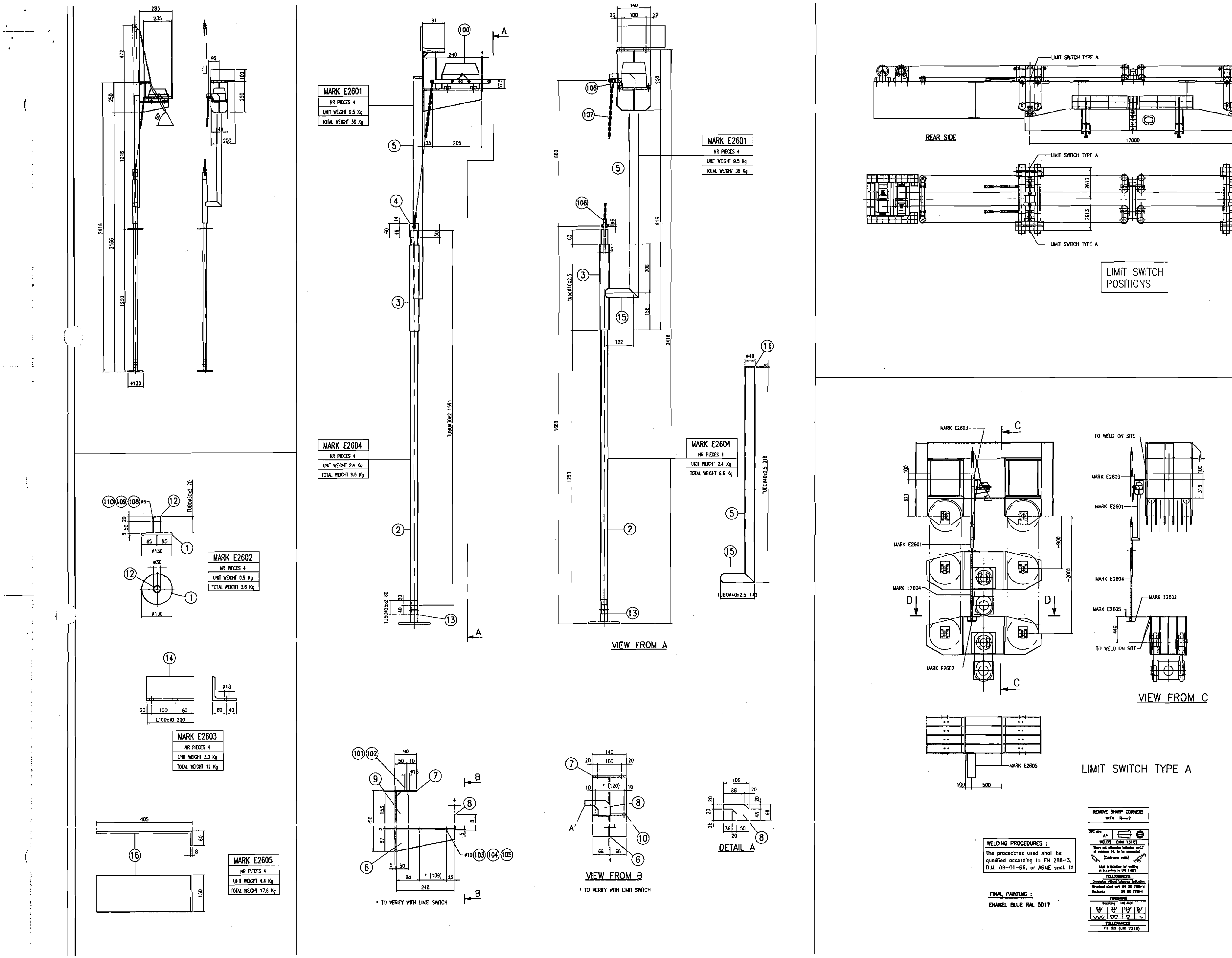
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	23/10/02	REVISED WHERE INDICATED ADD MARK E2503	S. GERMANO	F. DEMERGAZZI	RIBIS
1	04.07.02	GENERAL REVISION	CANDOTTI	CUCCHIARO	RIBIS
0	13.06.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32
OBJECT: LIFTING BEAM
TITLE: LIMIT SWITCHES

Scale: / — Sheet: 1 — Of: 1
File: T06CACDE025_2.DWG — Format: A0
Job Nr.: -600311 — Sub.Nr.: -060610
T06 CA CD E– 025 2

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT



TOTAL WEIGHT 95 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
110	4	NUT M8 6S UNI 5588					
109	8	PLAN WASHER ø8.4 UNI 6592					
108	4	SCREW M8x40 CL8.8 UNI 5739					
107	4	CHAIN 2x11 L~=250					
106	8	GALVANIZED SPRING CATCH UNI1947 TYPE A					
105	16	NUT M8 6S UNI5588					
104	32	PLAN WASHER ø8.4 UNI6592					
103	16	SCREW M8x30 CL8.8 UNI5739					
102	16	PLAN WASHER ø17 UNI6592					
101	8	SCREW M16x40 CL8.8 UNI5739					
100	4	LIMIT SWITCH TZ067-20y			3.5	14	
16	4	PLATE 8x150x470		Fe360B	4.4	17.6	
15	4	TUBE ø40 Th.2.5 L=142		Fe360B	0.3	1.2	
14	4	L100x10 L=200		Fe360B	3.0	12	
13	4	TUBE ø25 Th.2 L=60		Fe360B	0.06	0.2	
12	4	TUBE ø30 Th.2 L=70		Fe360B	0.1	0.4	
11	4	PLATE ø40x5		Fe360B	0.05	0.2	
10	4	PLATE 5x140x240		Fe360B	1.3	10.4	
9	4	PLATE 4x50x153		Fe360B	0.2	0.8	
8	4	PLATE 4x68x106		Fe360B	0.2	0.8	
7	4	PLATE 5x140x330 BENT		Fe360B	1.8	7.2	
6	4	PLATE 4x87x240		Fe360B	0.6	2.4	
5	4	TUBE ø40 Th.2.5 L=918		Fe360B	2.1	8.4	
4	4	PLATE 5x30x60		Fe360B	0.1	0.4	
3	4	TUBE ø40 Th.2.5 L=362		Fe360B	0.8	3.2	
2	4	TUBE ø30 Th.2 L=1591		Fe360B	2.2	8.8	
1	4	ROUND ø130 L=8		Fe360B	0.8	3.2	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	04.07.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	RIBIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: LIFTING BEAM

TITLE: LIMIT SWITCHES

Substitutes for: --- Scale: / Sheet: 1 Of: 1

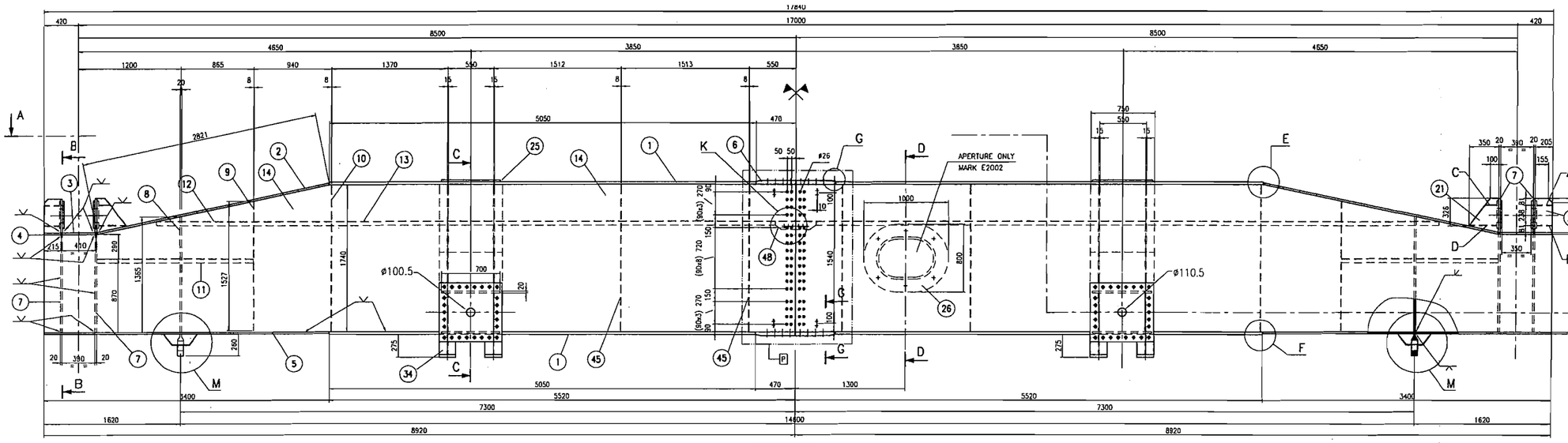
File: T06CACDE026.DWG Format: A0

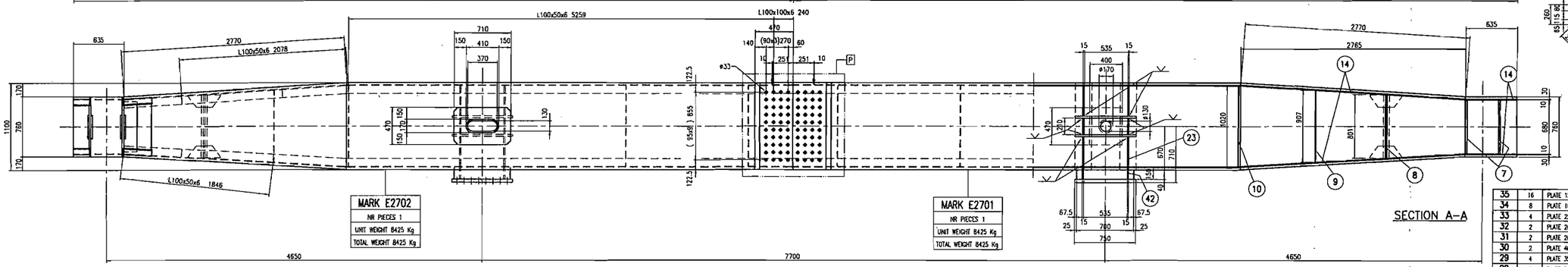
Job Nr.: -600311 Sub.J.Nr.: -060610 Rev.: -------

T06 CA CD E- 0260

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

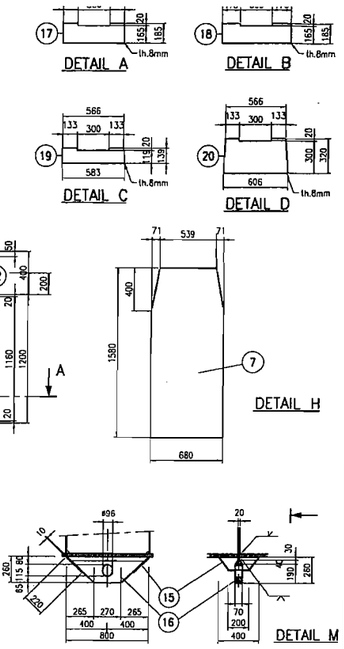




MARK E2702
NR PIECES 1
UNIT WEIGHT 8425 Kg
TOTAL WEIGHT 8425 Kg

MARK E2701
NR PIECES 1
UNIT WEIGHT 8425 Kg
TOTAL WEIGHT 8425 Kg

SECTION A–A

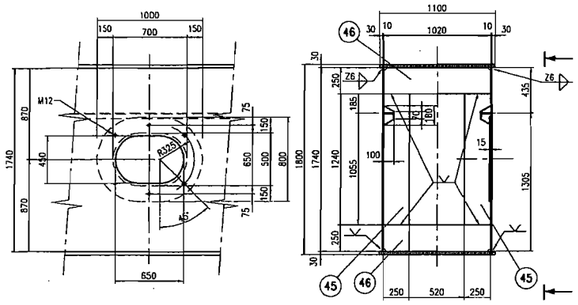


POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. VOL.	NOTES
35	16	PLATE 12x93x240		Fe510C	2.0	32.0	
34	8	PLATE 10x200x240		Fe510C	4.7	33.6	
33	4	PLATE 25x750x800		Fe510C	117.8	471.2	
32	2	PLATE 20x120x700		Fe510C	13.2	26.4	
31	2	PLATE 20x150x700		Fe510C	16.5	33	
30	2	PLATE 40x700x750		Fe510C	164.8	329.6	
29	4	PLATE 35x200x1100		Fe510C	60.4	241.6	
28	1	PLATE 8x80x100		Fe510C	0.5	0.5	
27	1	PLATE 6x780x980 SHAPED		Fe510C	30	30	
26	1	PLATE 15x800x1000 SHAPED		Fe510C	45	45	
25	2	PLATE 20x470x710		Fe510C	52.3	104.6	
24	8	PLATE 20x300x325		Fe510C	15.3	122.4	
22	4	PLATE 10x404x215		Fe510C	6.5	26	
21	4	PLATE 10x404x350 SHAPED		Fe510C	7	28	
20	2	PLATE 8x320x566		Fe510C	11.4	22.8	
19	2	PLATE 8x139x566		Fe510C	4.9	9.8	
18	2	PLATE 8x185x650		Fe510C	7.5	15	
17	2	PLATE 8x185x566		Fe510C	6.6	13.2	
16	2	PLATE 70x260x800		Fe510C	64.1	128.2	
15	4	PLATE 10x220x400		Fe510C	5.2	20.8	
14	4	PLATE 10x1740x8925 SHAPED BENT		Fe510C	1127	4508	
13	4	L100x50x6 L=5259		Fe510C	36.1	144.4	
12	4	L100x50x6 L=2078		Fe510C	14.2	56.8	
11	4	L100x50x6 L=1846		Fe510C	12.6	50.4	
10	2	PLATE 8x1020x1740		Fe510C	111.5	223	
9	2	PLATE 8x907x1527		Fe510C	86.9	173.8	
8	2	PLATE 20x801x1365		Fe510C	171.6	343.2	
7	4	PLATE 20x680x1580 SHAPED		Fe510C	164	656	
6	4	PLATE 45x470x1100		Fe510C	182.6	730.4	
5	2	PLATE 20x1100x3400 SHAPED		Fe510C	479	958	
4	2	PLATE 20x215x760 SHAPED		Fe510C	25.6	51.2	
3	2	PLATE 20x410x760 SHAPED		Fe510C	48.9	97.8	
2	2	PLATE 20X1100x2821 SHAPED		Fe510C	412	412	
1	4	PLATE 30x1100x5050		Fe510C	1308	5232	

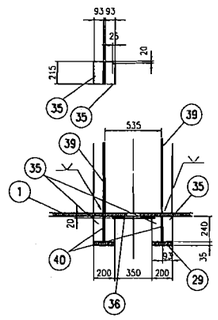
POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. VOL.	NOTES
103	6	PLAN WASHER 13 UNI 6592					
102	6	SCREW M10x35 CL8.8 UNI 5739					
101	16	PLAN WASHER 17 UNI 6592					
100	16	SCREW M16x50 CL8.8 UNI 5739					
48	4	L100x100x6 L=240		Fe510C	2.2	8.8	
47	4	PLATE 10x90x100		Fe510C	0.7	2.8	
46	8	PLATE 8x250x1020		Fe510C	16.1	128.8	
45	8	PLATE 8x250x1240		Fe510C	19.5	156	
44	4	ROUND ø190x20		Fe510C	4.5	18	
43	2	ROUND ø160 L=478		39NiCrMo3	25.5	151	
42	4	PLATE 15x150x460		Fe510C	8.1	32.4	
41	2	PLATE 20x386x535		Fe510C	32.5	65	
40	4	PLATE 15x240x1040		Fe510C	29.3	117.2	
39	4	PLATE 15x223x1740		Fe510C	45.7	182.8	
38	8	PLATE 15x386x1740		Fe510C	77.9	623.2	
37	4	PLATE 12x750x840		Fe510C	56.4	132.8	
36	2	PLATE 20x400x470		Fe510C	29.5	59	

SURFACE TREATMENT FOR FRICTION JOINTS
P SAND BLASTING SA 2 1/2
PAINTING WITH A PRODUCT GUARANTEEING
A MINIMUM FRICTION COEFFICIENT OF μ=0.45

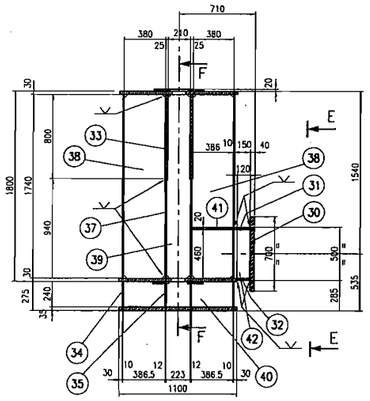
TOTAL WEIGHT 17050 Kg



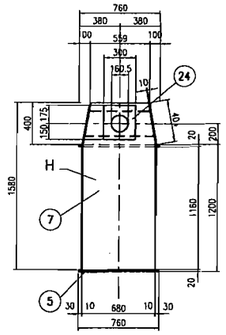
SECTION D–D



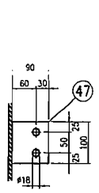
SECTION F–F



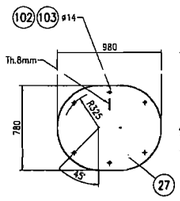
SECTION C–C



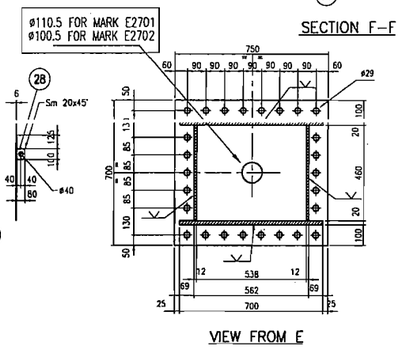
SECTION B–B



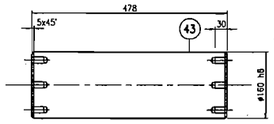
SECTION G–G



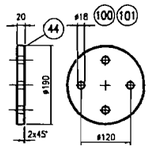
MARK E2703
NR PIECES 1
UNIT WEIGHT 30.5 Kg
TOTAL WEIGHT 30.5 Kg



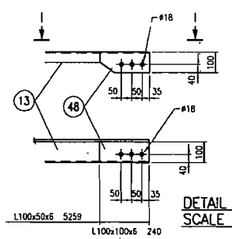
VIEW FROM E



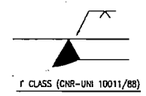
MARK E2704
NR PIECES 2
UNIT WEIGHT 75.5 Kg



MARK E2705
NR PIECES 4
UNIT WEIGHT 4.5 Kg

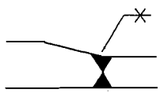


DETAIL K
SCALE 1:10



DETAIL F
SCALE 1:2

DETAIL E
SCALE 1:2



DETAIL G
SCALE 1:2

FINAL PAINTING :
ENAMEL BLUE RAL 5017

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	04.07.02	FIRST ISSUE	CANDOTTI	CUCCHIARO	FABIS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

GROUP: LIFTING BEAM

TITLE: GIRDERS

Scale 1:20 1:10 | Sheet 1 | of 1

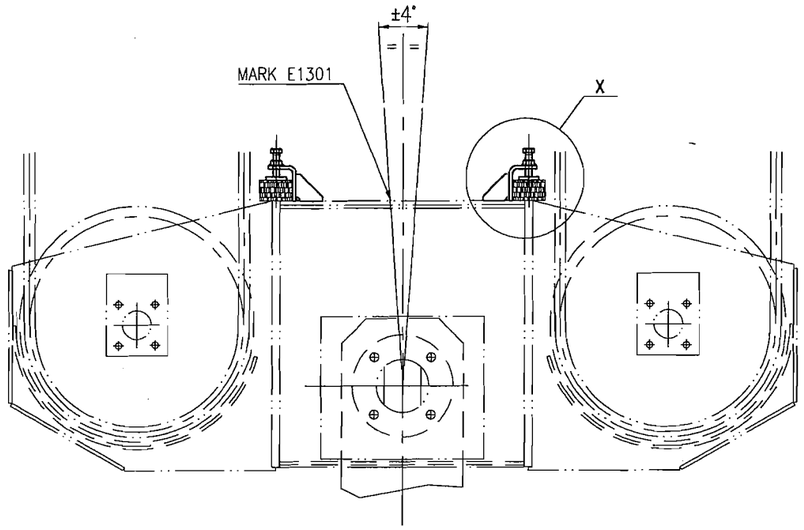
File: T06CACDE027.DWG | Format A0

Job No. -60603111 | Sub./Nr. -0606510

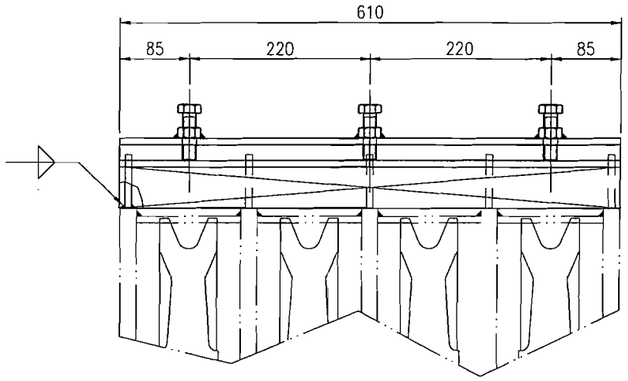
Fab. no. T06CACDE-0270

CLIENT: KIEWIT / FCI / MANSON JV

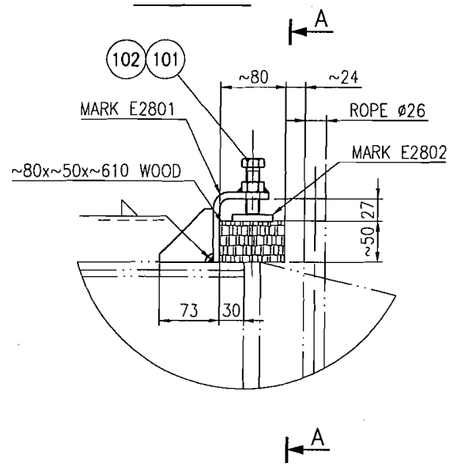
PROJECT: FLORIDA BRIDGE PROJECT



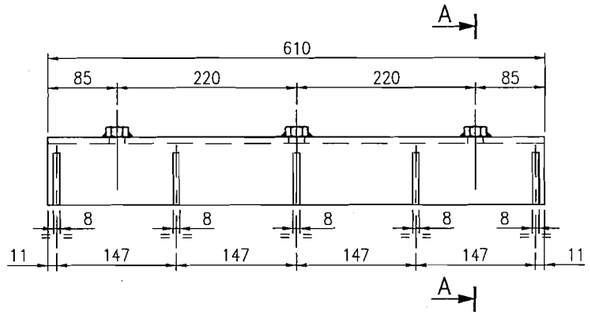
SECTION A–A

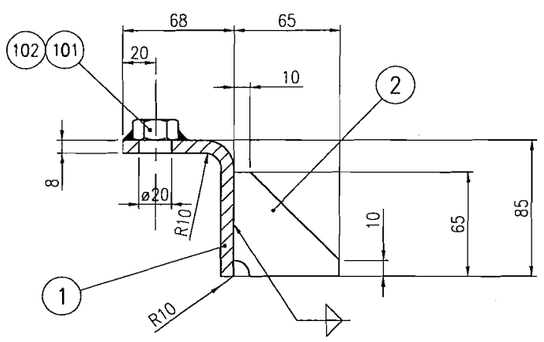


DETAIL "X"

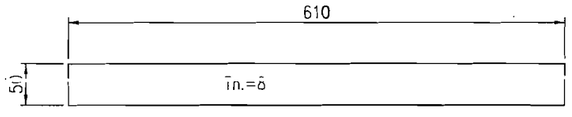


SECTION A–A
SCALE 1:2.5

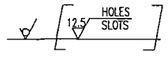




MARK E2801
NR PIECES 8
UNIT WEIGHT 5Kg
TOTAL WEIGHT 40Kg



MARK E2802
NR PIECES 8
UNIT WEIGHT 1.5Kg
TOTAL WEIGHT 12Kg



FINAL PAINTING :

ENAMEL BLUE RAL 5017

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288–3,

REMOVE SHARP CORNERS WITH R~=2

DWG size A1

WELDS (UNI 1310)

Where not otherwise indicated a=0.7 of minimun thk. to be connected

(Continuous welds)

Edge preparation for welding in according to UNI 11001

TOLLERANCES

Dimension without tolerance indication

Structural steel work UNI ISO 2768-M

Mechanics UNI ISO 2768-F

FINISHING

Machining UNI 4600

0.8 3.2 12.5 25

TOLLERANCES

TOTAL WEIGHT = 52 Kg

POS.	Q.TY	DESCRIPTION		COD.	MATERIAL	UNIT. WEIGHT	TOT.	NOTES
102	24	NUT M16	UNI 5588		6S			GALVANIZED
101	24	SCREW M16x50	UNI 5739		8.8			GALVANIZED
3	8	PLATE 50x8	L= 610		Fe 510 C	1.5	12	
2	40	PLATE 65x8	L= 65 SHAPED		Fe 510 C	0.1	4	
1	8	PLATE 140x8	L= 610 BENT		Fe 510 C	4.5	36	
2								
1								
0	31.07.02	FIRST ISSUE		S. GERMANO	CUCCHIARO			RIBIS
REV.	DATE	REV. OBJECT		DRAWN	CHECKED			APPROVED

DEAL
Sede e Stabilimento
Via Battisti-Frazione Carpanzano
33050-Pozzuolo del Friuli (UD)-Italy
Tel.: +39 432 607 900
Fax.: +39 432 607 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: HOISTING WINCH

TITLE: ACCESSORIES

Substitutes for: ---

Scale 1:2.5 1:5 1:10

Sheet 1 Of 1

File: T06DUCDE028.DWG

Format A2

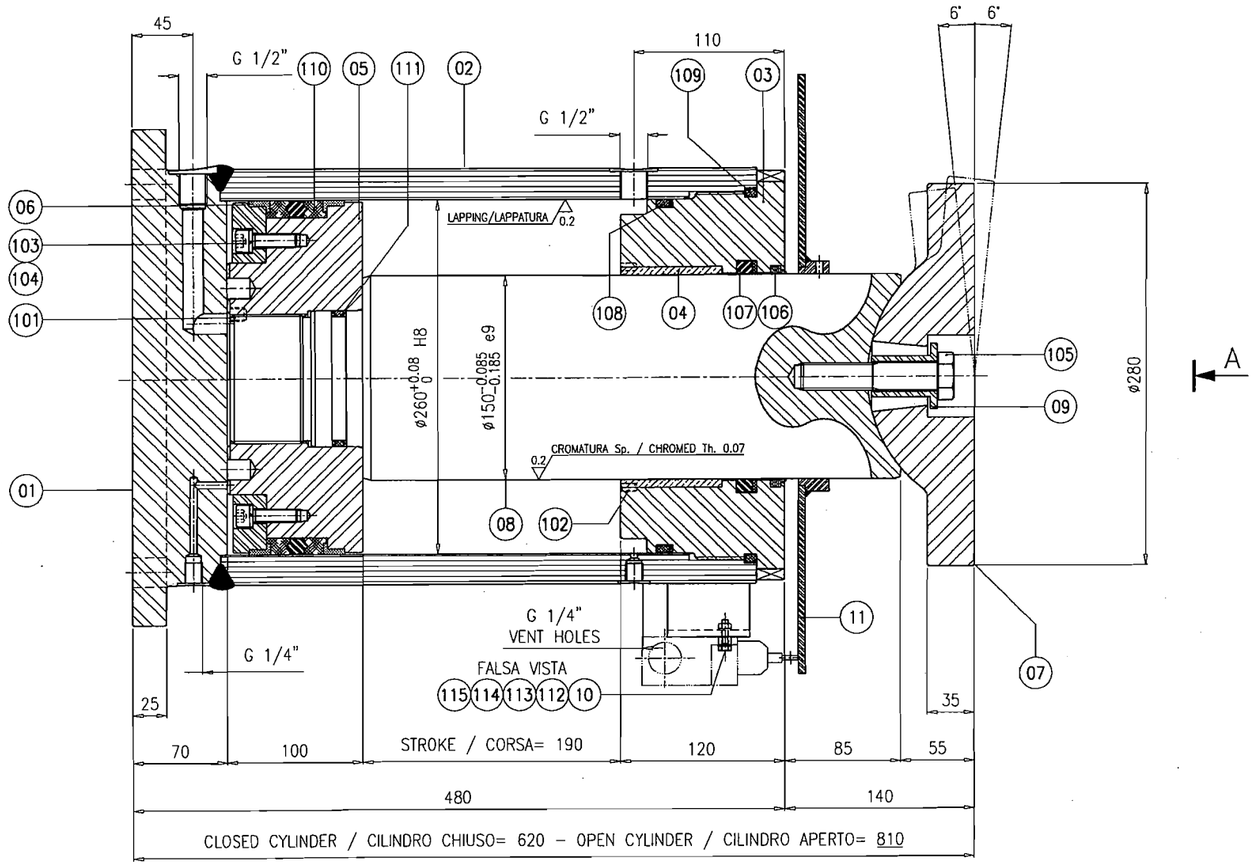
Job Nr. -60031 1

Sub Nr. -06052 9

Fob. Nr.	Dep.	Doc. Type	Port.	Nr.	Rev.
T06	DU	CD	E-	0280	

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA



TOTAL WEIGHT = 523.3 Kg

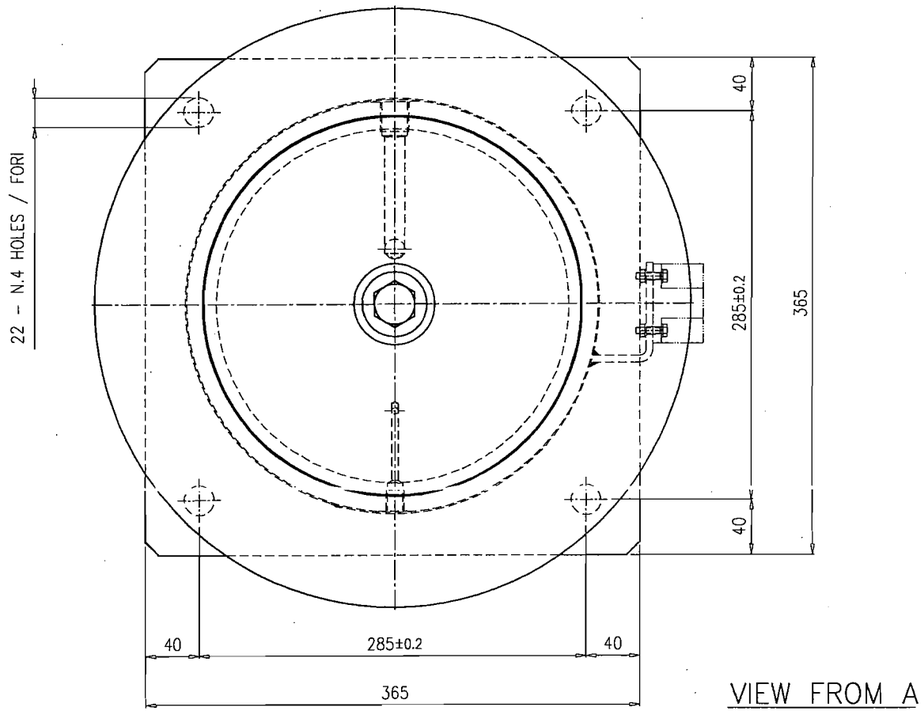
FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
115	2	LIMIT-SWITCH 7722		RAVASI	0.2	0.4	
114	8	WASHER \ RONDELLA 5.3x10 UNI 6592		.			COMM.
113	4	NUT \ DADO M6 UNI 5588		.			COMM.
112	4	SCREW \ VITE TE M8x20 UNI 5739		8.8			COMM.
111	2	PISTON O-RING \ O-RING PER PISTONE		OR 621+2BR			POLYPAC
110	2	PISTON SEAL \ GUARNIZIONE PISTONE		DSM-1024925/1A			POLYPAC
109	2	EXTREMITY O-RING \ O-RING PER TESTATA		OR 682			POLYPAC
108	2	EXTREMITY O-RING \ O-RING D'ESTREMITA'		OR 680+BK			POLYPAC
107	2	ROD SEAL \ GUARNIZIONE STELO		B-669590/1			POLYPAC
106	2	WIPER SEAL \ RASCHIATORE		WRM-590637			POLYPAC
105	2	SCREW \ VITE TE M20x100 UNI 5737		8.8			COMM.
104	16	WASHER \ RONDELLA DIN 7980 – 10					COMM.
103	16	SCREW \ VITE TCEI M10x35 UNI 5931		8.8			COMM.
102	4	SCREW \ GRANO STEI M6x12 UNI 5923		8.8			COMM.
101	2	SCREW \ GRANO STEI M10x12 UNI 5923		8.8			COMM.
11	2	DISK \ DISCO PER MICRO		Fe 510	5.9	11.8	T06MEANA001
10	2	SUPPORT \ SUPPORTO MICRO		Fe 360	0.25	0.5	T06MEANA001
09	2	BUSH \ BOCCOLA		Fe 410	0.2	0.4	T06MEANA001
08	2	CHROMED ROD \ STELO CROMATO		C40 Chrom.	58.8	117.6	T06MEANA001
07	2	OSCILLATING SUPPORT \PIATTELLO OSCILLANTE		Fe 490	20	40	T06MEANA001
06	2	RING PISTON \ ANELLO PISTONE		C40	5.2	10.4	T06MEANA001
05	2	PISTON \ PISTONE		C40	25	50	T06MEANA001
04	2	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO		Br. B14 Centr.	1.9	3.8	T06MEANA001
03	2	FRONT EXTREMITY \ ESTREMITA' ANTERIORE		C40	33	66	T06MEANA001
02	2	CYLINDER BODY \ TUBO CAMICIA		Fe 510 C	61.4	122.8	T06MEANA001
01	2	REAR CLOSING FLANGE \ FONDELLO	.	Fe 490	50	100	T06MEANA001

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	11/09/02	REVISION POS. 10,11,105,112,113,114	MENGHINI	S. GERMANO	RIBIS
0	22/06/02	FIRST ISSUED	MENGHINI	CUCCHIARO	RIBIS

MARK A100
NR. PIECES 2
UNIT WEIGHT 260 Kg
TOTAL WEIGHT 520 Kg

Technical Data \ Dati Tecnici
Pushing Force: 1400 KN
Reentering Force: 940 KN
Transversal Force on the Oscillating Support: 150 KN
Main Bore: ø260 mm H8
Rod: ø150 mm e9
Stroke: 190 mm
Working pressure: 26.4 MPa
Test pressure: 35 MPa
Pushing Section: 530.66 cm²
Reentering Section: 354.03 cm²
Ratio PS / RS: 1 : 1.498



VIEW FROM A

DEAL

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Tel.: +39 432 656 911
Fax: +39 432 675 216
E-Mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: HYDRAULIC JACKS FOR BLOCK LONGITUDINAL HINGE

TITLE: HYDRAULIC JACKS ø260/ø150/STROKE 190

Substitutes for:	Scale	Sheet	Of
---	1:3	1	1

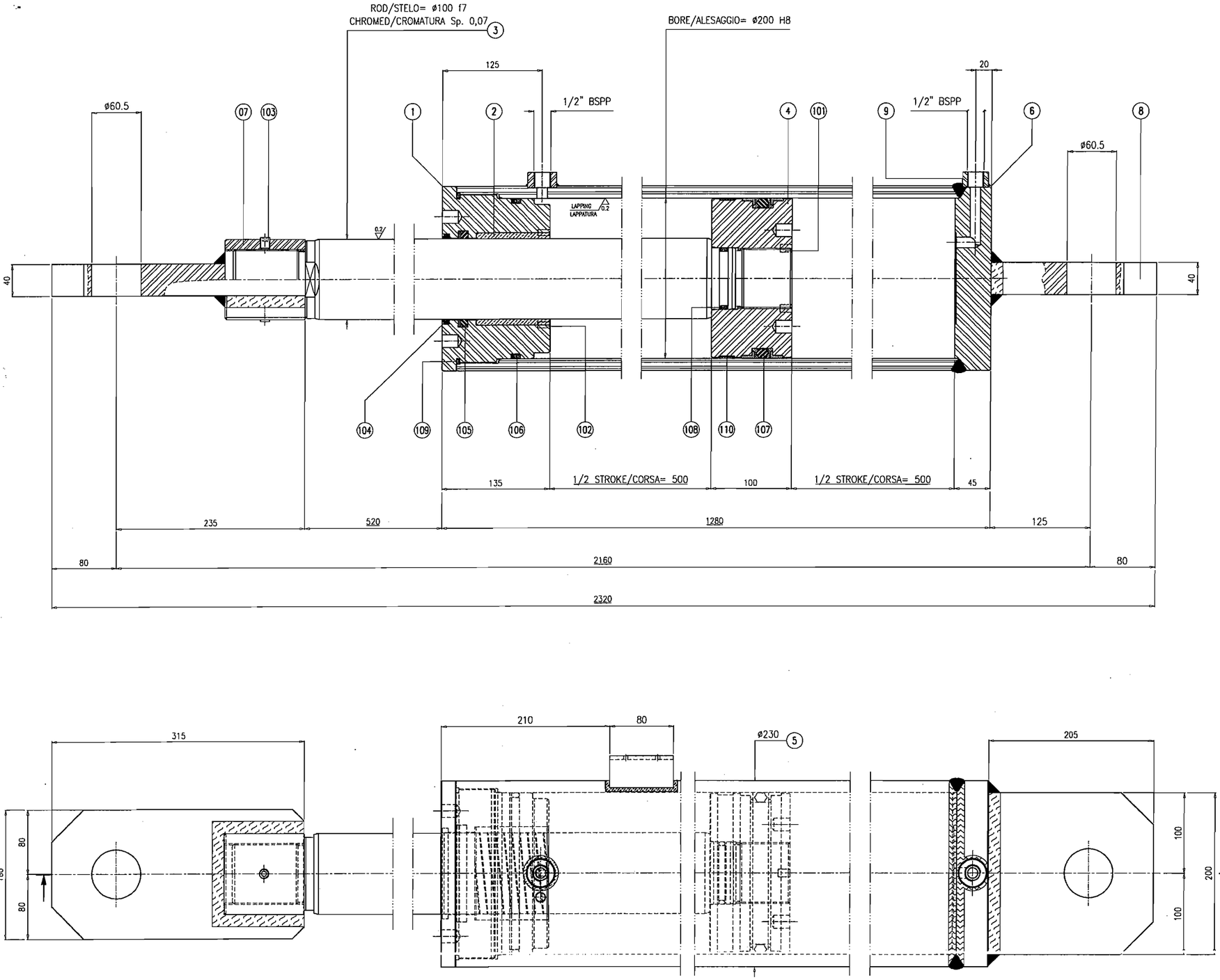
File: T06MEANA001_1.dwg
Format: A2

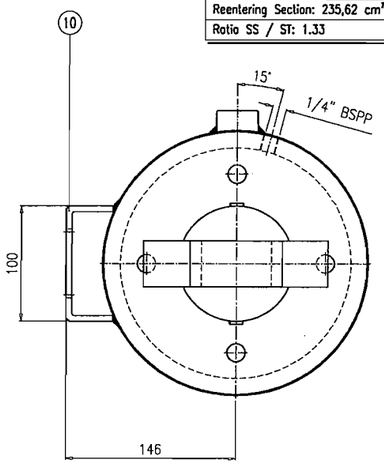
Job Nr: -60031 1
Sub.Job Nr: -06025 2
Mkr.: - - - - - -

Fab. Nr.	Dep.	Doc. Type	Port.	Nr.	Rev.
T06	ME	AN	A-	001	1

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA





MARK E100
NR. PIECES 4
UNIT WEIGHT 270 Kg
TOTAL WEIGHT 1080 Kg

Technical Data \ Dati Tecnici
Reentering force: 600 KN
Main Bore: ø200 mm H8
Stela: ø100 mm f7
Stroke: 1000 mm (±500)
Working pressure: 200 bar
Test pressure: 300 bar
Pushing Section: 314,16 cm²
Reentering Section: 235,62 cm²
Ratio SS / ST: 1.33

TOTAL WEIGHT = 1082 Kg

FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT.	NOTES
110	4	PISTON GUIDE ELEMENT\ANELLO DI GUIDA PISTONE		E/DWR 200			POLYPAC
109	4	EXTREMITY O-RING\O-RING PER TESTATA		OR 369			POLYPAC
108	4	PISTON O-RING\O-RING PER PISTONE		OR 334+2BR			POLYPAC
107	4	PISTON SEAL \ GUARNIZIONE PISTONE		DBM-787688			POLYPAC
106	4	EXTREMITY O-RING\O-RING D'ESTREMITA'		OR 882+BR			POLYPAC
105	4	ROD SEAL \ GUARNIZIONE STELO		B-472393/1			POLYPAC
104	4	WIPER SEAL \ RASCHIATORE		WRM-393440			POLYPAC
103	8	SCREW\GRANO STEI M12x15 UNI 5923		8.8			COMM.
102	8	SCREW\GRANO STEI M8x15 UNI 5923		8.8			COMM.
101	8	SCREW\ GRANO STEI M10x15 UNI 5923		8.8			COMM.
10	4	SUPPORT \ SUPPORTO MICRO	E109	Fe 410	0.5	2	
9	8	OIL PORT \ ATTACCO OLIO	E109	Fe 510 C	0.1	0.8	
8	4	REAR ATTACK \ ATTACCO POSTERIORE	E108	Fe 510 C	11.5	46	
7	4	ROD ATTACK \ ATTACCO PER STELO	E107	Fe 510 C	21.5	86	
6	4	REAR CLOSING FLANGE \ FONDELLO	E106	Fe 510 C	14	56	
5	4	CYLINDER BODY \ TUBO CAMICIA	E105	Fe 510 C	97	388	
4	4	PISTON \ PISTONE	E104	C40	20	80	
3	4	CHROMED ROD \ STELO CROMATO	E103	C43 Crom.	77	308	
2	4	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO	E102	Br. B14 Centr.	2	8	
1	4	FRONT EXTREMITY \ ESTREMITA' ANTERIORE	E101	C40	24	96	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	12/09/02	REVISION POS. 5,6,10	S. GERMANO	G. CUCCHIARO	G. RIBIS
0	23/05/02	FIRST ISSUE	S. GERMANO	G. CUCCHIARO	G. RIBIS

DEAL
Sede e Stabilimento
33050-Pradamano (UD)-Italy
Tel.: +39 432 607 911
Fax: +39 432 607 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: WINCHES GROUP-LONGITUDINAL REGULATION JACKS

TITLE: HYDRULIC JACKS ø200/ø100/ STROKE 1000 (±500)

Substitutes for: ---- | Scale: 1:2.5 | Sheet: 1 | Of: 1

File: T06DUANE001_1.dwg | Format: A1

Job Nr.: -600311 | Sub.J.Nr.: -060552 | Mtr.: -------

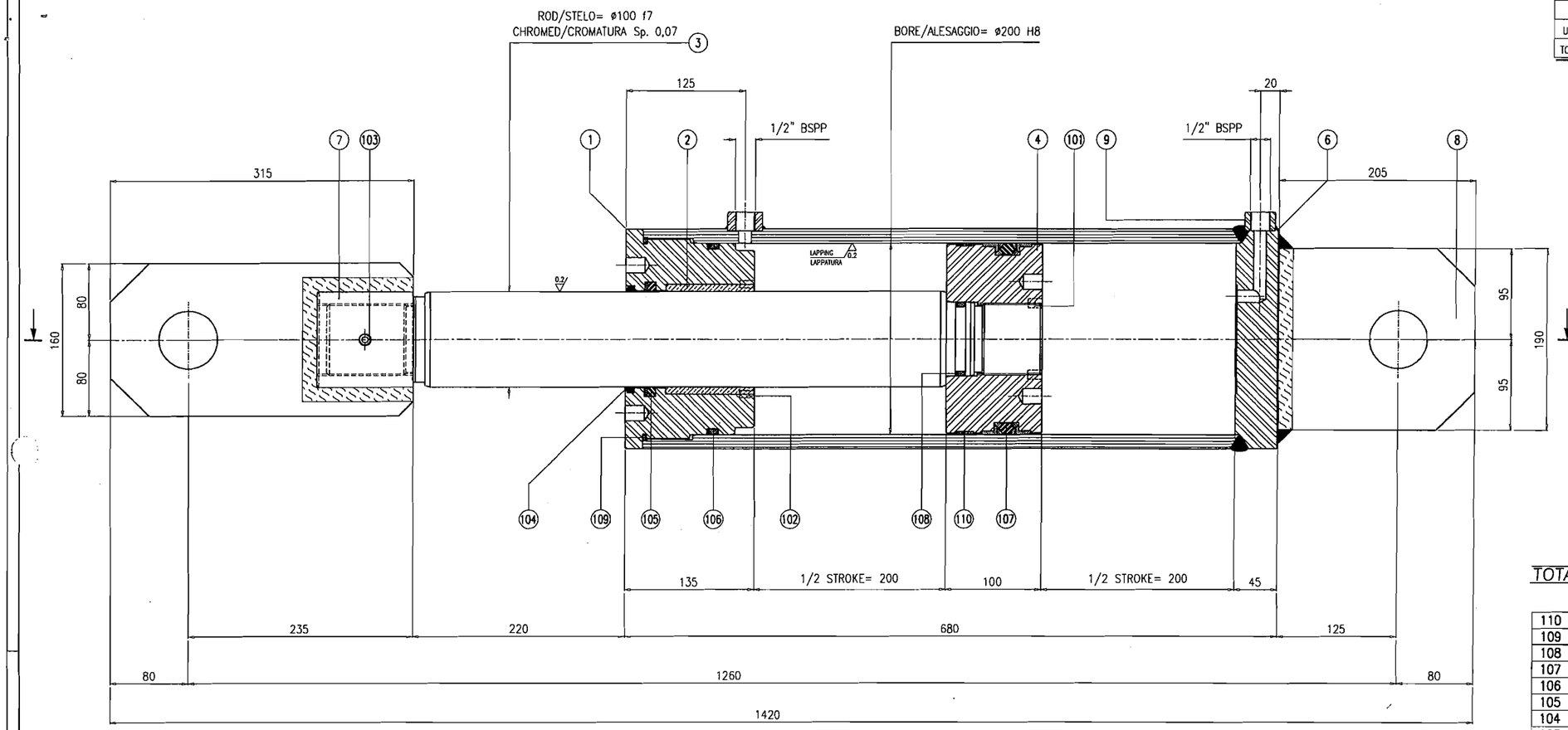
Fab. Nr.: -06 | Dep.: DU | Doc. Type: AN | Part.: E- | Nr.: 001 | Rev.: 1

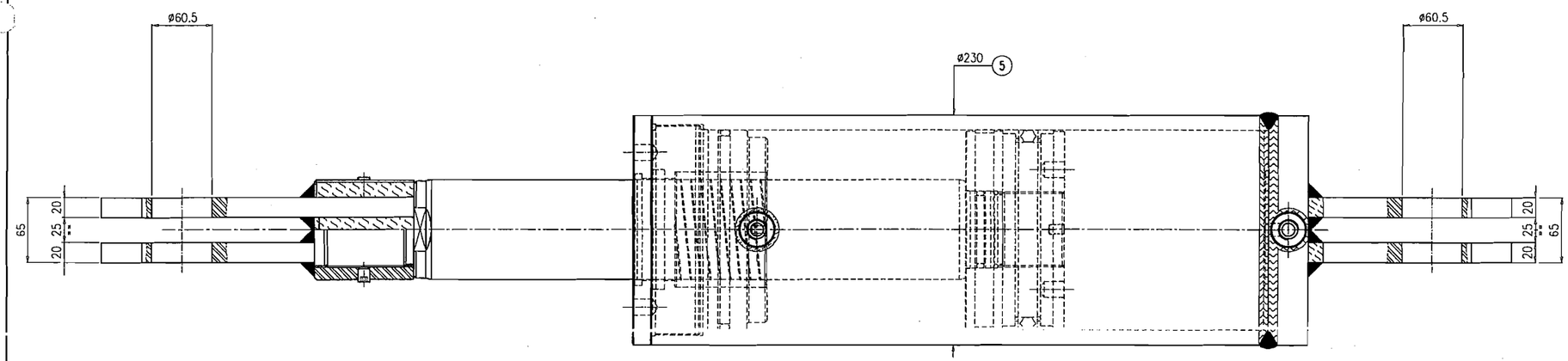
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT

MARK E200
NR. PIECES 4
UNIT WEIGHT 185 Kg
TOTAL WEIGHT 740 Kg

Technical Data \ Dati Tecnici
Reentering force: 600 KN
Main Bore: ø200 mm H8
Stelo: ø100 mm f7
Stroke: 400 mm (±200)
Working pressure: 200 bar
Test pressure: 300 bar
Pushing Section: 314,16 cm²
Reentering Section: 235,62 cm²
Ratio SS / ST: 1.33





TOTAL WEIGHT = 740 Kg

FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
110	4	PISTON GUIDE ELEMENT\ANELLO DI GUIDA PISTONE		E/DWR 200			POLYPAC
109	4	EXTREMITY O-RING\O-RING PER TESTATA		OR 369			POLYPAC
108	4	PISTON O-RING\O-RING PER PISTONE		OR 334+2BR			POLYPAC
107	4	PISTON SEAL \ GUARNIZIONE PISTONE		DBM-787688			POLYPAC
106	4	EXTREMITY O-RING\O-RING D'ESTREMITA'		OR 882+BR			POLYPAC
105	4	ROD SEAL \ GUARNIZIONE STELO		B-472393/1			POLYPAC
104	4	WIPER SEAL \ RASCHIATORE		WRM-393440			POLYPAC
103	8	SCREW\GRANO STEI M12x15 UNI 5923		8.8			COMM.
102	8	SCREW\GRANO STEI M8x15 UNI 5923		8.8			COMM.
101	8	SCREW\ GRANO STEI M10x15 UNI 5923		8.8			COMM.
09	8	OIL PORT \ ATTACCO OLIO	E209	Fe 510 C	0.1	0.8	
08	8	REAR ATTACK \ ATTACCO POSTERIORE	E208	Fe 510 C	5.5	44	
07	4	ROD ATTACK \ ATTACCO PER STELO	E207	Fe 510 C	21.5	86	
06	4	REAR CLOSING FLANGE \ FONDELLO	E206	Fe 510 C	14	56	
05	4	CYLINDER BODY \ TUBO CAMICIA	E205	Fe 510 C	50	200	
04	4	PISTON \ PISTONE	E204	C40	20	80	
03	4	CHROMED ROD \ STELO CROMATO	E203	C43 Crom.	40	160	
02	4	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO	E202	Br. B14 Cenlr.	2	8	
01	4	FRONT EXTREMITY \ ESTREMITA' ANTERIORE	E201	C40	24	96	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	24/05/02	FIRST ISSUE	S. GERMANO	G. CUCCHIARO	G. RIBIS

DEAL

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REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: WINCHES GROUP-TRANSVERSAL REGULATION JACKS

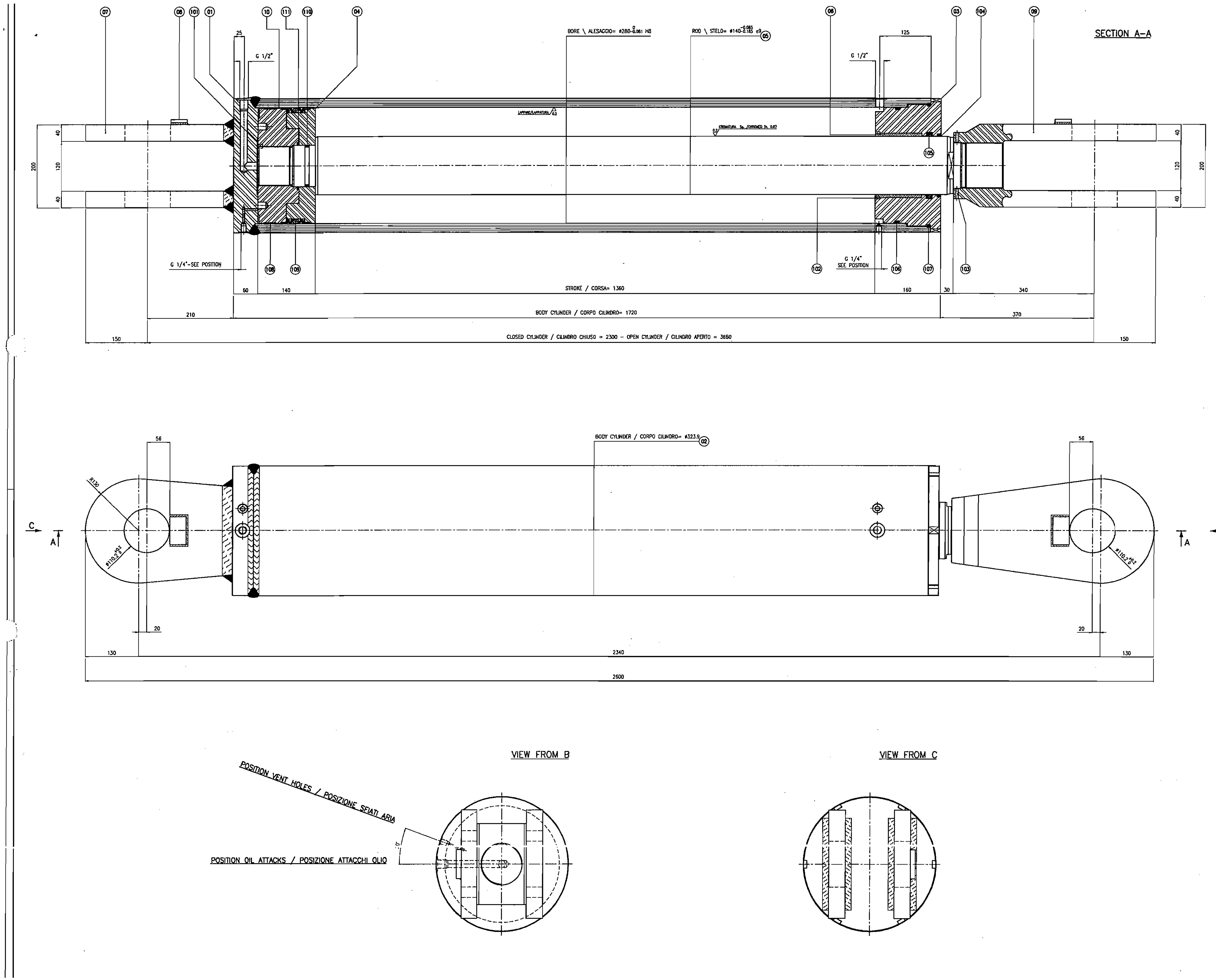
TITLE: HYDRULIC JACKS ø200/ø100/ STROKE 400 (±200)

Sobstitutes for:	Scale: 1:2.5	Sheet: 1	Of: 1
File: T06DUANE002.dwg	Format: A1		
Job Nr.: -600311	Sub.J.Nr.: -060552	Mtr.: -------	

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DU	AN	E-	002	0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



Technical Data \ Dati Tecnici
Pushing / Reentering force: 1200 KN
Main Bore: ø280 mm H8
Rod: ø140 mm e9
Stroke: 1360 mm
Working pressure: 26 MPa
Test pressure: 35 MPa
Pushing Section: 615.44 cm^2
Reentering Section: 461.58 cm^2
Ratio PS / RS: 1 : 1.33

MARK F100
NR. PIECES 8
UNIT WEIGHT 725 Kg
TOTAL WEIGHT 5800 Kg

TOTAL WEIGHT = 5643.6 Kg

FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
111	8	ROD O-RING \ O-RING PER STELO		OR 346			POLYPAC
110	8	PISTON O-RING \ O-RING PER PISTONE		OR 621+2BR			POLYPAC
109	8	PISTON SEAL \ GUARNIZIONE PISTONE		DSM-11021004/IA			POLYPAC
108	8	RING GUIDE PISTON \FASCIA GUIDA PISTONE	/30x3x810	PTFE			POLYPAC
107	8	EXTREMITY O-RING \ O-RING PER TESTATA		OR 686			POLYPAC
106	8	EXTREMITY O-RING \ O-RING D'ESTREMITA'		OR 450+BR			POLYPAC
105	8	ROD SEAL \ GUARNIZIONE STELO		B-629551/1			POLYPAC
104	8	WIPER SEAL \ RASCHIATORE		WRM-551598			POLYPAC
103	16	SCREW \ GRANO STEI M8x25 UNI 5923		8.8			COMM.
102	16	SCREW \ GRANO STEI M8x12 UNI 5923		8.8			COMM.
101	8	SCREW \ GRANO STEI M10x12 UNI 5923		8.8			COMM.
10	8	PISTON \ PISTONE		C40	32.6	260.8	T06MECNF001
09	8	ANTERIOR CYLINDER ATTACK\ATTACCO ANTERIORE		Fe 510 B	69	552	T06MECNF001
08	16	LOCK PLATE \ PIATTO DI FERMO		Fe 410	0.25	2	T06MECNF001
07	16	REAR CYLINDER ATTACK\ATTACCO POSTERIORE		Fe 510	11.4	91.2	T06MECNF001
06	8	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO		Br. B14 Centr.	3.5	28	T06MECNF001
05	8	CHROMED ROD \ STELO CROMATO		C40 Chrom.	205.3	1642.4	T06MECNF001
04	8	RING PISTON \ ANELLO PISTONE		C40	21.2	169.6	T06MECNF001
03	8	FRONT EXTREMITY \ ESTREMITA' ANTERIORE		C40	58.7	469.6	T06MECNF001
02	8	CYLINDER BODY \ TUBO CAMICIA		Fe 510 C	267.6	2140.8	T06MECNF001
01	8	REAR CLOSING FLANGE \ FONDELLO		Fe 490	35.9	287.2	T06MECNF001

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	20/06/02	FIRST ISSUED	MENGHINI	BASSO	LONGOBARDI

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: STEERING JACKS

TITLE: HYDRAULIC JACKS øa280/øs140/STROKE 1360

Substitutes for:	Scale	Sheet	Of
---	1:3	1	1

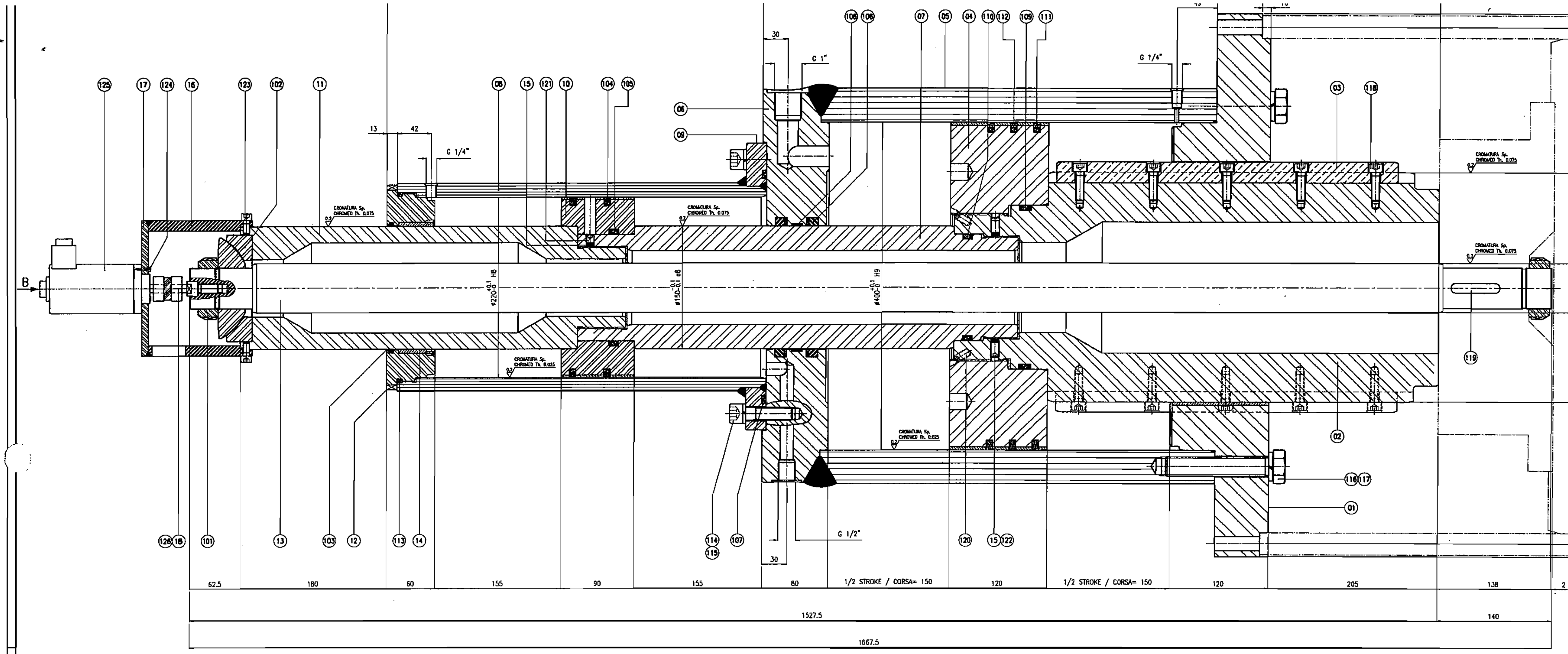
File	Format
T06MEANF001.dwg	A0

Job Nr.	Sub.J.Nr.	Mr.
-600311	-060352	-------

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	ME	AN	F-	001	0

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

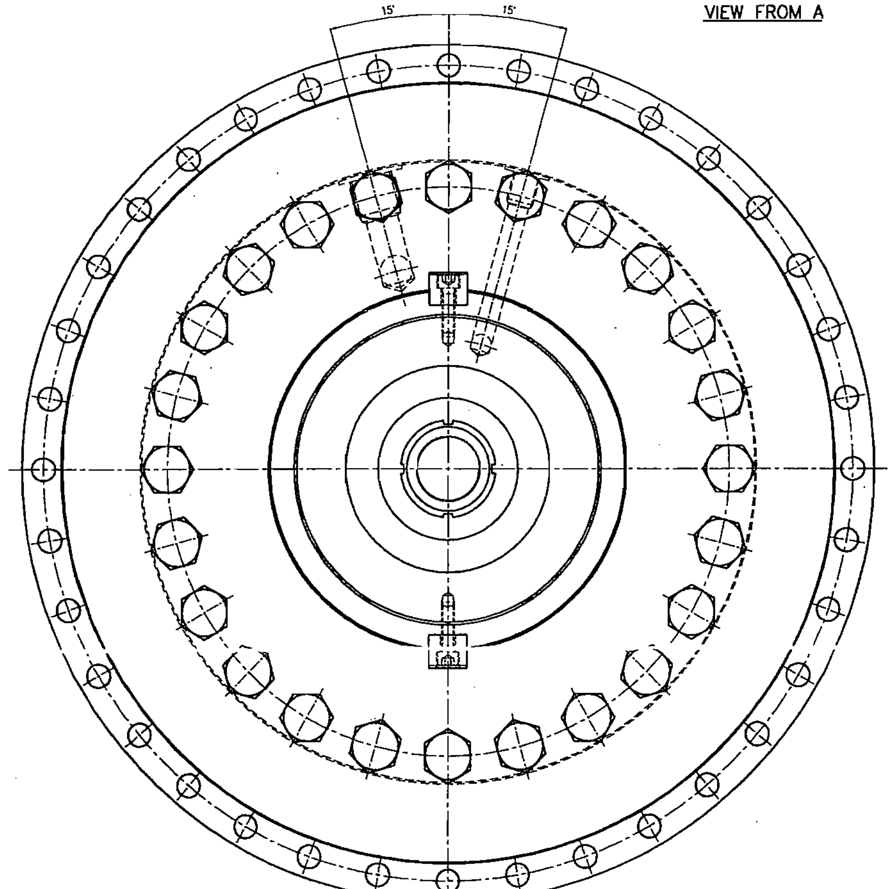


Technical Data \ Dati Tecnici
First Bore: ø400 mm H9
Mechanical Rod: ø280 mm e8
Mechanical Stroke: ±150 mm
Second Bore: ø220 mm H8
Hydraulic Rod: ø150 mm e8
Hydraulic Stroke: ±155 mm
Pushing Force: 3000 KN
Pushing Section: 1079.37 cm^2
Reentering Section: 203.31 cm^2
Ratio PS / RS: 1 : 5.3
Max Pressure: 28 MPa
Test Pressure in push: 35 MPa
Test pressure in return: 20 MPa

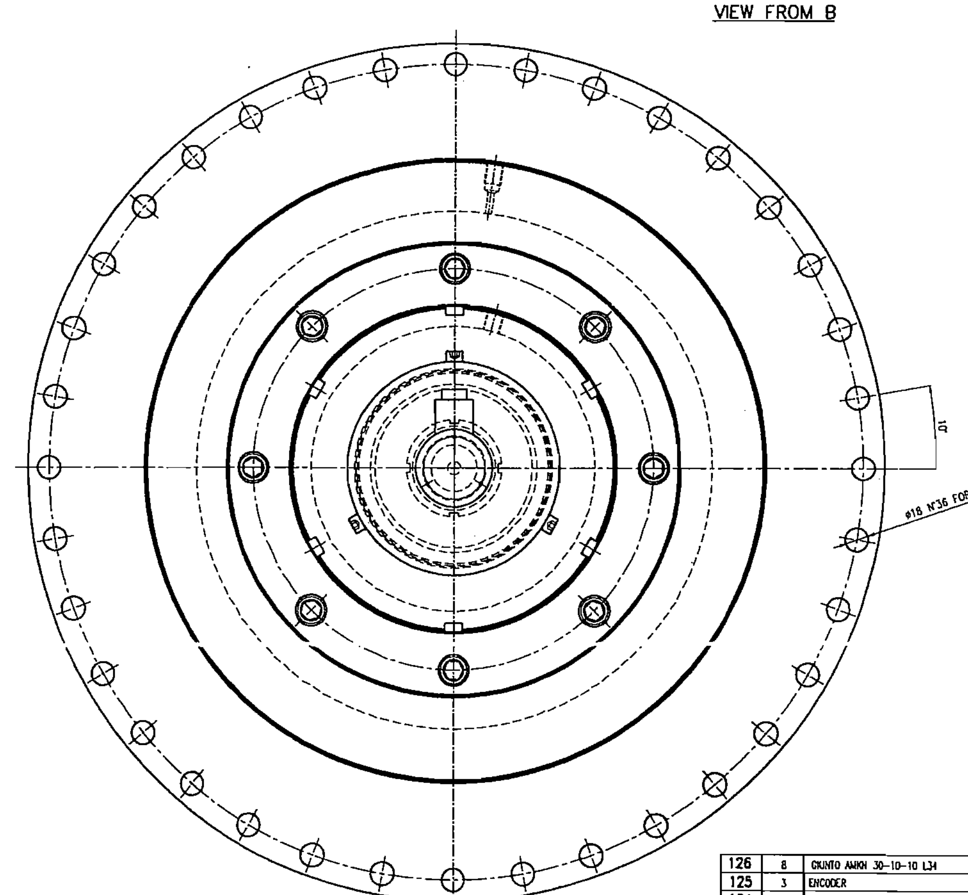
MARK F200
NR. PIECES 8
UNIT WEIGHT 950 Kg
TOTAL WEIGHT 7600 Kg

TOTAL WEIGHT = 7344 Kg

VIEW FROM A



VIEW FROM B



126	8	GIUNTO AMKN 30-10-10 L34			0.1	0.8	RODOFLEX
125	3	ENCODER					ARDEA
124	24	SCREW \ VITE M3x12 UNI 5931		8.8			COMM.
123	24	SCREW \ VITE TCEI M8x16 UNI 5931		8.8			COMM.

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
121	8	SCREW \ GRANO STEI M10x12 UNI 5923		8.8			COMM.
120	16	SCREW \ GRANO STEI M10x15 UNI 5923		8.8			COMM.
119	8	TAP \ LINGUETTA A-12x8X60 UNI 6604		COMM.			
118	80	SCREW \ VITE TCEI M10x35 UNI 5931		8.8			COMM.
117	192	WASHER \RONDELLA ELASTICA-DIN 7980-24		COMM.			
116	192	SCREW \ VITE TE M24x130 UNI 5739		10.9			COMM.
115	64	WASHER \RONDELLA ELASTICA-DIN 7980-16		COMM.			
114	64	SCREW \ VITE TCEI M16x60 UNI 5931		8.8			COMM.
113	8	EXTREMITY O-RING \ O-RING PER TESTATA		OR 372			POLYPAC
112	8	ANTERIOR PISTON SEAL\GUARNIZIONE PISTONE ANTERIORE		E/GR-4000 A			POLYPAC
111	16	ANTERIOR PISTON SEAL\GUARNIZIONE PISTONE ANTERIORE		E/GR-4000 B			POLYPAC
110	8	INTERMEDIATE ROD O-RING\O-RING STELO INTERMEDIO		OR 426+BR			POLYPAC
109	8	ANTERIOR PISTON O-RING\O-RING PISTONE ANTERIORE		OR 882+2BR			POLYPAC
108	8	RING GUIDE \ FASCIA DI GUIDA		I/DWR-150			POLYPAC
107	8	FLANGE O-RING \ O-RING PER FLANGIA		OR 450			POLYPAC
106	16	INTERMEDIATE FLANGE SEAL\GUARNIZIONE FONDELLO		B-669590/1			POLYPAC
105	8	POSTERIOR PISTON O-RING\O-RING PISTONE POSTERIORE		OR 430+BR			POLYPAC
104	16	POSTERIOR PISTON SEAL\GUARNIZIONE PISTONE POSTERIORE		E/GR-2200 B			POLYPAC
103	8	WIPER SEAL \ RASCHIATORE		WTF-1500			POLYPAC
102	8	AXIAL SPHERICAL BEARING\SNODO SFERICO ASSIALE		GE-50-AW			ELGES
101	16	LOCK NUT \GHIERA DI BLOCCAGGIO M50x1.5		KMT 10			SKF
18	8	PIVOT \ PERNO ø18x59		Fe 510	0.06	0.48	
17	8	COVER \ COPERCHIO ø165 Sp.8		Fe 510	1.2	9.6	
16	8	PIPE \ TUBO ø168.3/140x128		Fe 510	5.7	45.6	
15	24	COPPER LOZENGE \ PASTIGLIA ø7.5 H=3		RAME			
14	8	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO		Br. B14 Centr.	1	8	T06MECNF002
13	8	INTERNAL SHAFT \ ASTA INTERNA		C43 Chrom.	37.2	297.6	T06MECNF002
12	8	POSTERIOR CYLINDER EXTREMITY\ESTREMITA' CILINDRO POSTERIORE		C40	10	80	T06MECNF002
11	8	POSTERIOR CHROMED ROD\STELO CROMATO POSTERIORE		C43 Chrom.	33.1	264.8	T06MECNF002
10	8	POSTERIOR PISTON \ PISTONE POSTERIORE		Fe 510+B14	15.7	125.6	T06MECNF002
09	8	FLANGE \ FLANGIA		Fe 510	9	72	T06MECNF003
08	8	POSTERIOR CYLINDER BODY\TUBO CAMICIA POSTERIORE		Fe 510 C	44	352	T06MECNF003
07	8	INTERMEDIATE CHROMED ROD\STELO CROMATO INTERMEDIO		Fe 510 C Chrom.	41.6	332.8	T06MECNF002
06	8	INTERMEDIATE FLANGE\FONDELLO INTERMEDIO		Fe 510	88.4	707.2	T06MECNF003
05	8	ANTERIOR CYLINDER BODY\TUBO CAMICIA ANTERIORE		Fe 510 C	214.5	1716	T06MECNF003
04	8	ANTERIOR PISTON \ PISTONE ANTERIORE		Fe 510+B14	89.7	717.6	T06MECNF002
03	16	BRONZE TAP \ LINGUETTA		BRONZO AL SILICIO	2.7	43.2	T06MECNF002
02	8	ANTERIOR CHROMED ROD\STELO CROMATO ANTERIORE		C40 Chrom.	164.4	1315.2	T06MECNF002
01	8	FRONT FLANGE \ FLANGIA ANTERIORE		Fe 510+B14	157	1256	T06MECNF002

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	10/09/02	GENERAL REVISION-POS. 2,13,16,17,18	MENGHINI	GERMANO	BONASSI
1	03/07/02	GENERAL REVISION-POS. 108, 116	MENGHINI	CUCCHIARO	BONASSI
0	27/06/02	FIRST ISSUED	MENGHINI	CUCCHIARO	BONASSI

DEAL

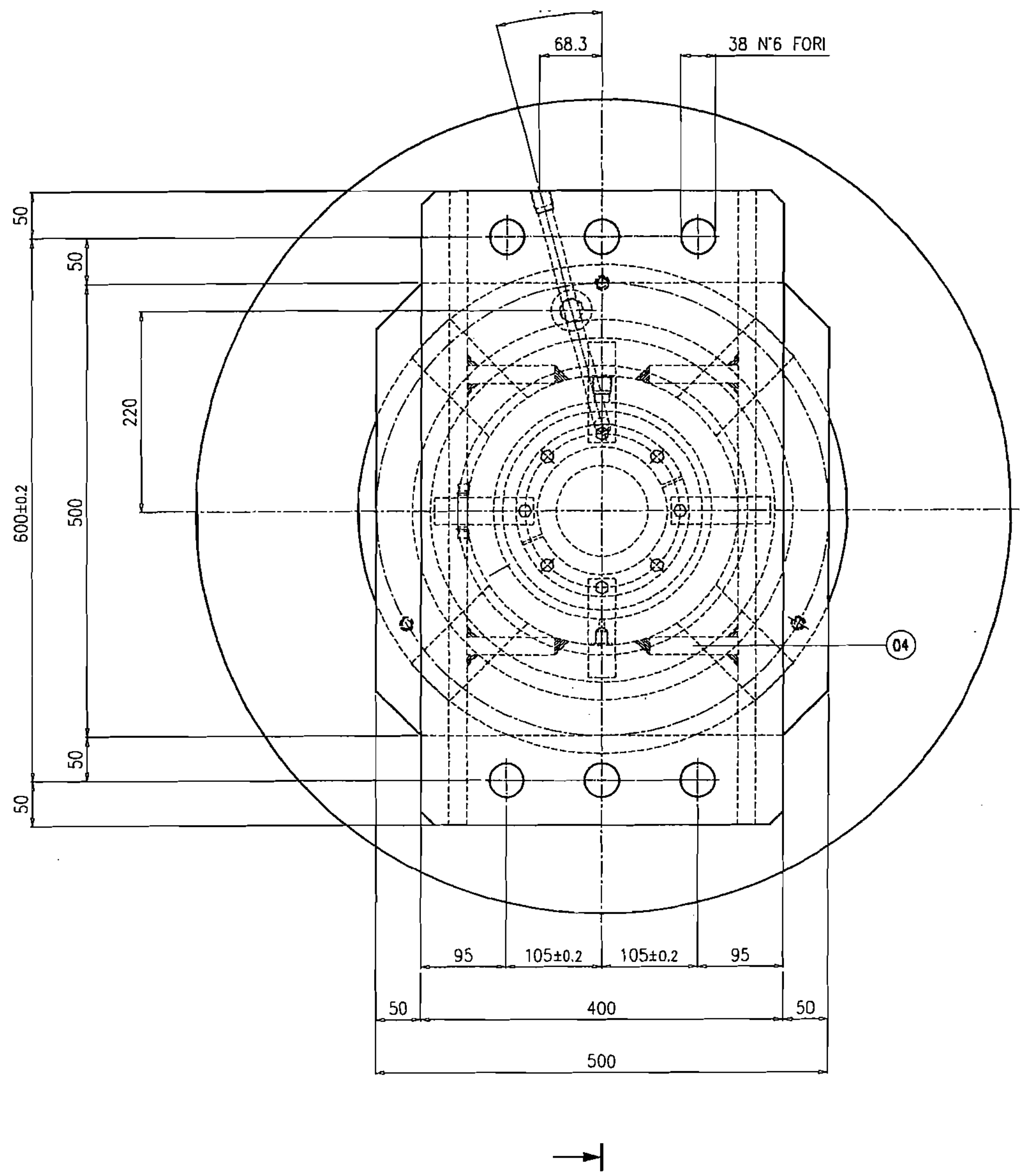
Reference: STRADDLE CARRIER SC 720 - 32

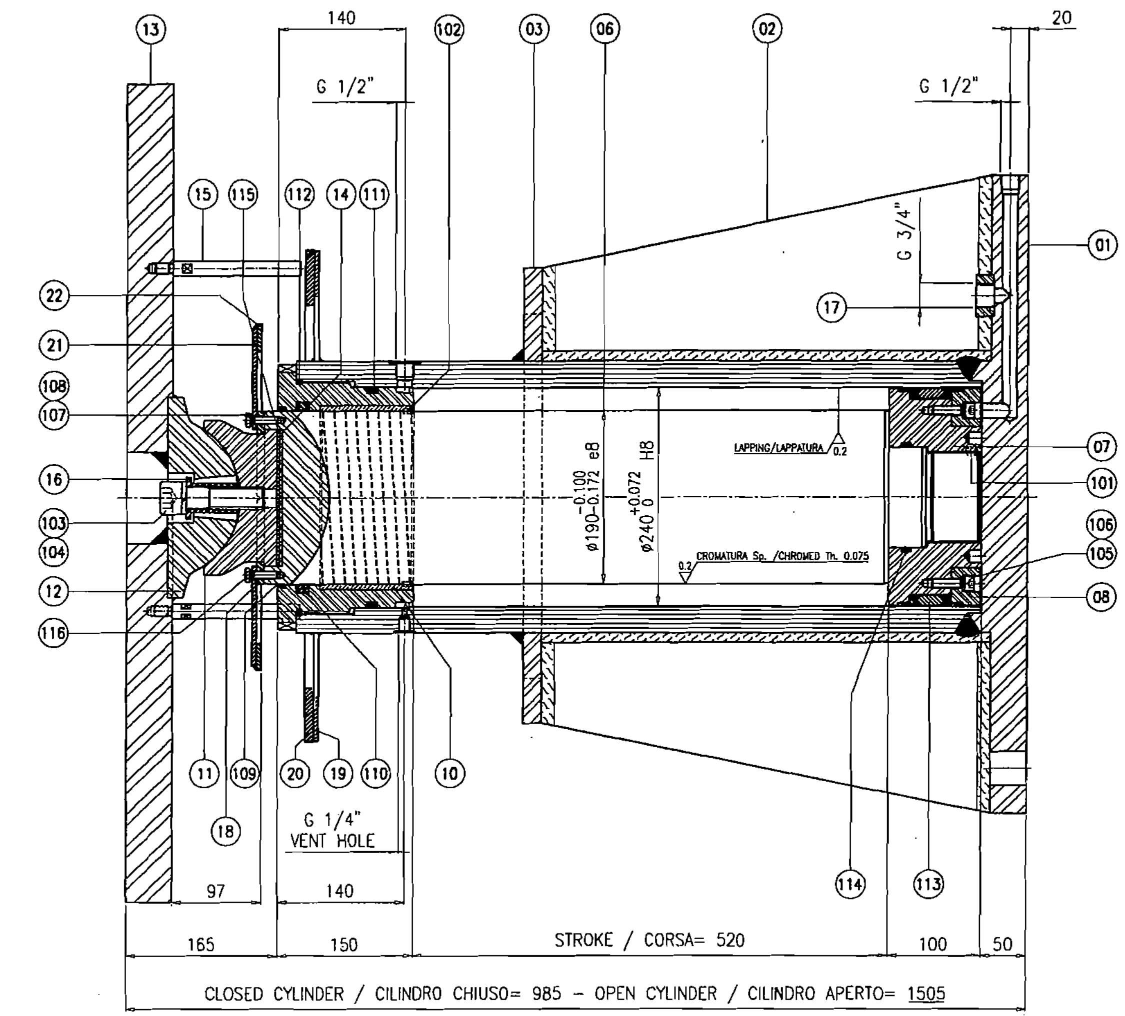
Object: EQUALISING HYDRAULIC JACKS

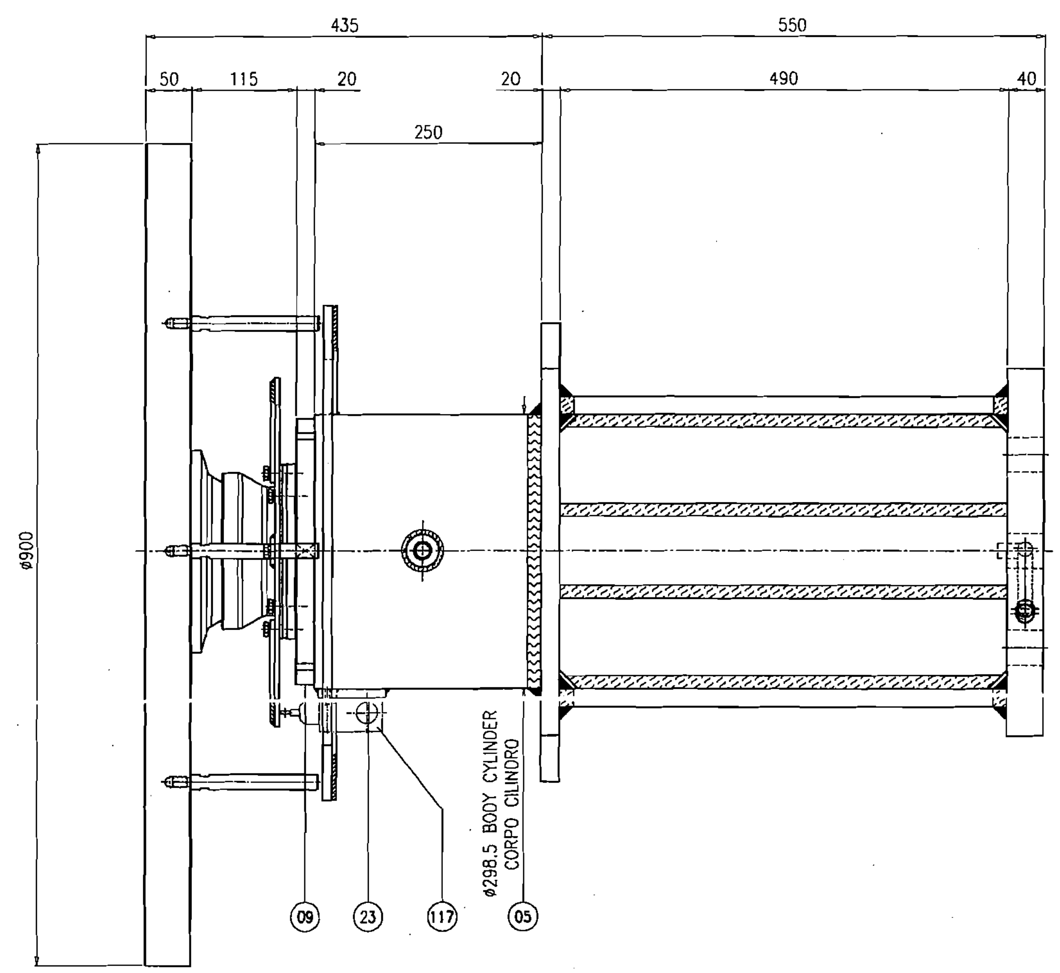
Title: JACKS ø400/ø280+ø220/ø150 STROKE ±150

Substitutes for: ---
Scale: 1:2
Sheet: 1 of 1
File: T06MEANF002_2.dwg
Format: A0
Job Nr.: -600311
Sub.Nr.: -060352
Mtr.: -------
Fab. Nr. / Grp. / Doc. Type / Part / Nr. / Rev.: T06 ME AN F- 002 2

Client: KIEWIT / FCI / MANSON JV







MARK F300
NR. PIECES 8
UNIT WEIGHT 875 Kg
TOTAL WEIGHT 7000 Kg

Technical Data \ Dati Tecnici
Pushing force: 1200 KN
Main Bore: ø240 mm H8
Rod: ø190 mm e8
Stroke: 520 mm
Working pressure: 26.5 MPa
Test pressure: 35 MPa
Pushing Section: 452.16 cm^2
Reentering Section: 168.77 cm^2
Ratio PS / RS: 1 : 2.67

TOTAL WEIGHT = 6947 Kg

FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
117	8	LIMIT-SWITCH 7722		RAVASI	0.2	1.6	
116	32	SCREW \ VITE TE M8x30 UNI 5739		8.8			COMM.
115	8	ROTATION DISK\DISCO DI ROTAZIONE ø150 f8 Sp.3		GLYCODUR			COMM.
114	8	PISTON O-RING \ O-RING PER PISTONE		OR 623+2BR			POLYPAC
113	8	PISTON SEAL \ GUARNIZIONE PISTONE		DSM-944846/1A			POLYPAC
112	8	EXTREMITY O-RING \ O-RING PER TESTATA		OR 376			POLYPAC
111	8	EXTREMITY O-RING \ O-RING D'ESTREMITA'		OR 447+BK			POLYPAC
110	8	ROD SEAL \ GUARNIZIONE STELO		B-826748			POLYPAC
109	8	WIPER SEAL \ RASCHIATORE		WTF-1900			POLYPAC
108	64	WASHER \ RONDELLA ELASTICA-DIN 7980-8		COMM.			COMM.
107	32	SCREW \ VITE TE M8x25 UNI 5739		8.8			COMM.
106	64	WASHER \ RONDELLA ELASTICA-DIN 7980-10		COMM.			COMM.
105	64	SCREW \ VITE TCEI M10x35 UNI 5931		8.8			COMM.
104	8	WASHER \ RONDELLA ELASTICA-DIN 7980-24		COMM.			COMM.
103	8	SCREW \ VITE TCEI M24x90 UNI 5931		10.9			COMM.
102	16	SCREW \ GRANO STEI M6x12 UNI 5923		8.8			COMM.
101	8	SCREW \ GRANO STEI M8x12 UNI 5923		8.8			COMM.
23	8	SUPPORT \ SUPPORTO MICRO		Fe 410	0.35	2.8	T06MECNF003
22	8	DISK \ DISCO PER FINECORSA		Fe 410	1.3	10.4	T06MECNF003
21	32	DISK SUPPORT \ SUPPORTO DISCO		Fe 410	0.13	4.16	T06MECNF003
20	8	DISK \ DISCO PER FINECORSA		Fe 410	7.1	56.8	T06MECNF003
19	32	DISK SUPPORT \ SUPPORTO DISCO		Fe 410	0.29	9.28	T06MECNF003
18	8	FLANGE IN TWO HALVES\FLANGIA IN DUE META'		Fe 410	0.8	6.4	T06MECNF003
17	8	OIL PORT \ ATTACCO OLIO		Fe 410	0.1	0.8	T06MECNF003
16	8	BUSH \ BOCCOLA		Fe 410	0.15	1.2	T06MECNF003
15	24	MULLION \ COLONETTE		Fe 410	0.2	4.8	T06MECNF003
14	8	STAINLESS DISK \ DISCO IN Acc. INOX		AISI 304	0.5	4	T06MECNF003
13	8	SUPPORT PLATE \ PIATTELLO D'APPOGGIO		Fe 510	246	1968	T06MECNF003
12	8	SPHERICAL SUPPORT\APPOGGIO SFERICO PIATTELLO		Fe 510	10.8	86.4	T06MECNF003
11	8	TIP FOR ROD \ PUNTALE PER STELO		39NiCrMo3	8.7	69.6	T06MECNF003
10	8	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO		Br. B14	3.4	27.2	T06MECNF003
09	8	FRONT EXTREMITY \ ESTREMITA' ANTERIORE		C40	21.1	168.8	T06MECNF003
08	8	PISTON RING \ ANELLO PISTONE		C40	5.6	44.8	T06MECNF003
07	8	PISTON \ PISTONE		C40	18.5	148	T06MECNF003
06	8	CHROMED ROD \ STELO CROMATO		C43 CHROMED	156.5	1252	T06MECNF003
05	8	CYLINDER BODY \ TUBO CAMICIA		Fe 510 C	142.5	1140	T06MECNF003
04	32	CENTRAL PLATE \ COSTOLA CENTRALE		Fe 510	7.5	240	T06MECNF003
03	8	INTERMEDIATE PLATE \ PIASTRA INTERMEDIA		Fe 510	27.6	220.8	T06MECNF003
02	16	LATERAL PLATE \ LAMIERA LATERALE		Fe 510	46.3	740.8	T06MECNF003
01	8	BOTTOM PLATE \ PIASTRA DI FONDO		Fe 510	92.5	740	T06MECNF003

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	10/09/02	REVISION POS.15,18,19,20,21,107,116	MENGHINI	GERMANO	RIBIS
0	25/06/02	FIRST ISSUED	MENGHINI	CUCCHIARO	RIBIS

DEAL

Sede e Stabilimento ... 33050-Pozzuolo del Friuli (UD)-Italy Tel: +39 432 521 836 Tel: +39 432 607 201 Fax: +39 432 607 202
Ufficio Commerciale e Tecnico ... 33050-Pavia di Udine (UD)-Italy Tel: +39 432 656 911 Fax: +39 432 675 716

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: SUPPORT JACKS FOR 90° ROTATION FRAMEN

TITLE: HYDRAULIC JACKS ø240/ø190/ STROKE 520

Substitutes for:	Scale	Sheet	Of
---	1:4	1	1

File:	Format	Job Nr.	Sub.J.Nr.	Mtr.
T06MEANF003_1.dwg	A1	-600311	-060352	-------

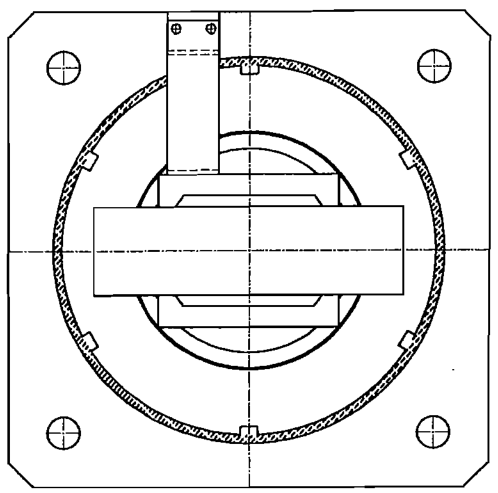
Fab. Nr.	Dep.	Doc. Type	Port.	Nr.	Rev.
T06	ME	AN	F-	003	1

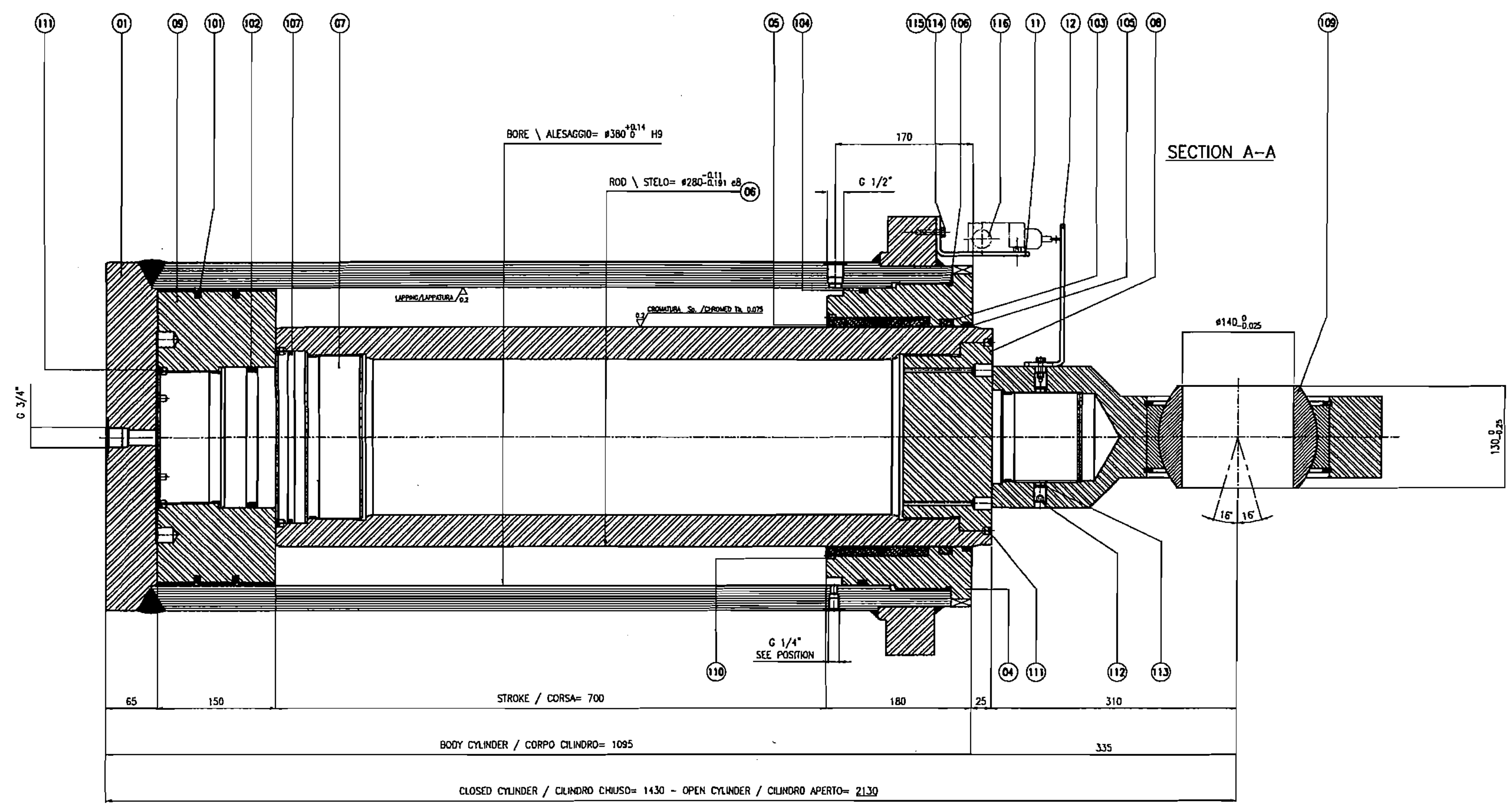
CLIENT: KIEWIT / FCI / MANSON JV

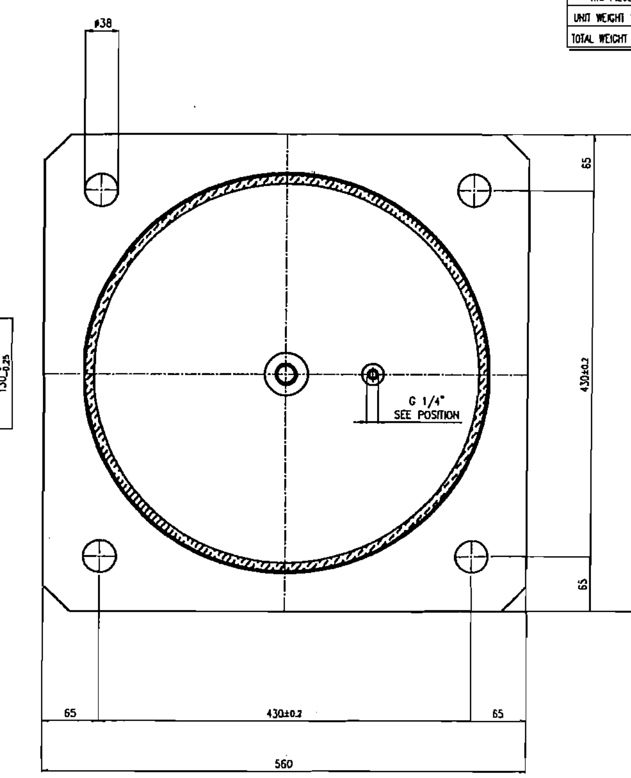
PROJECT: SKYWAY BRIDGE PROJECT

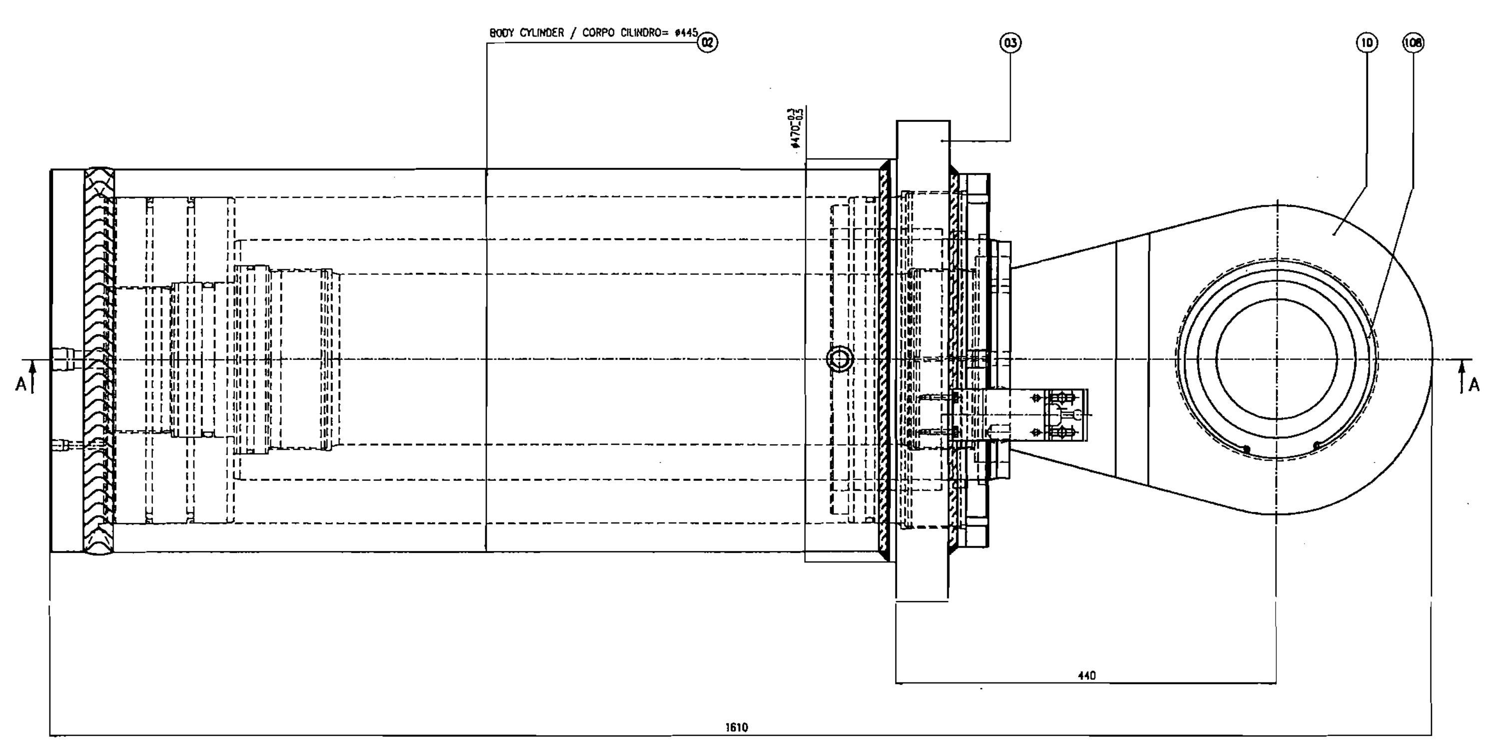
Technical Data \ Dati Tecnici
Pushing / Reentering force: 3000 KN
Main Bore: ø380 mm H9
Rod: ø280 mm e8
Stroke: 700 mm
Working pressure: 26.5 MPa
Test pressure: 30 MPa
Pushing Section: 1133.54 cm^2
Reentering Section: 518.36 cm^2
Ratio PS / RS: 1 : 2.18

MARK F400
NR. PIECES 4
UNIT WEIGHT 1200 Kg
TOTAL WEIGHT 4800 Kg









TOTAL WEIGHT = 4554.2 Kg

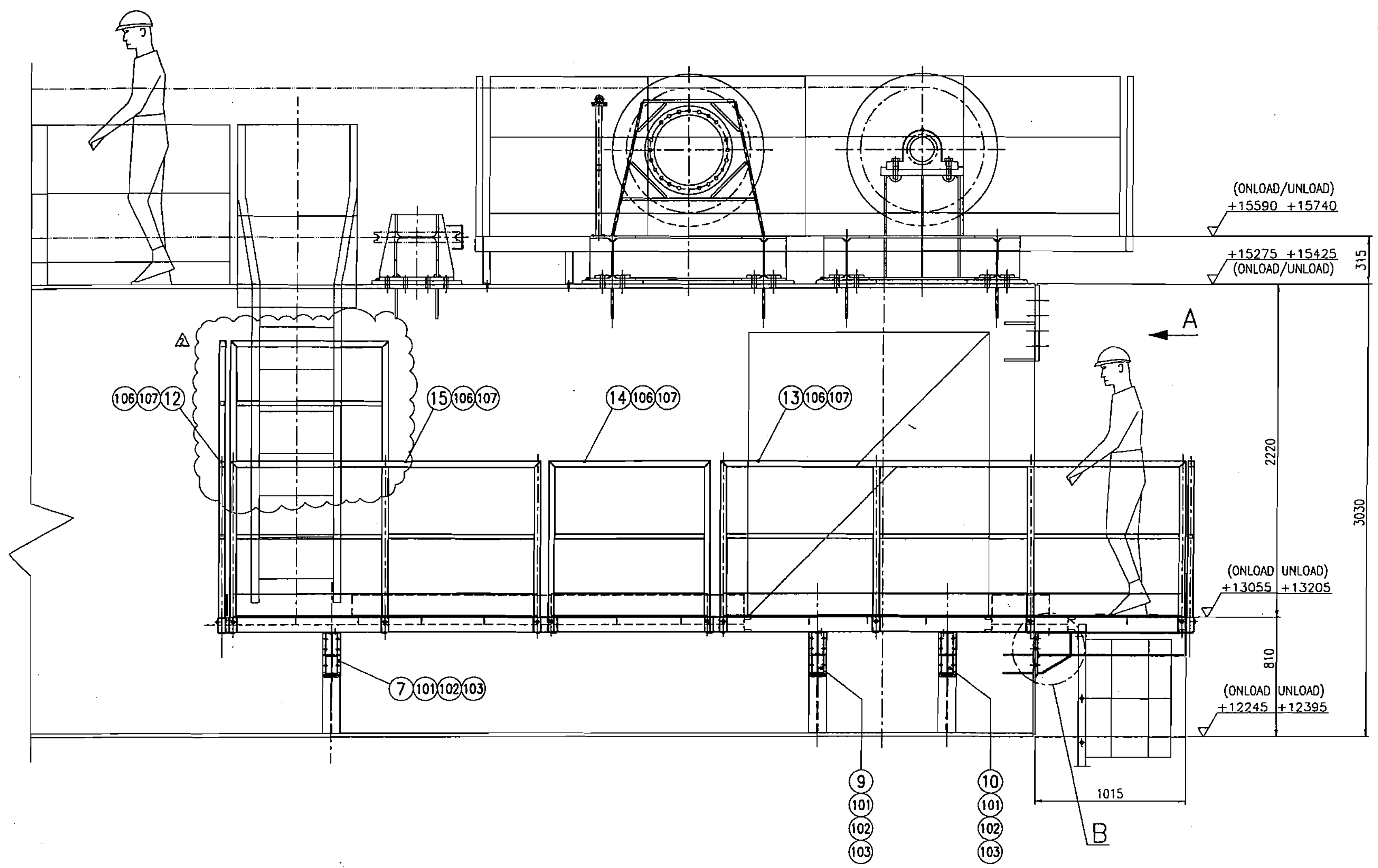
FINAL PAINTING :
ENAMEL RED RAL 3000

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
116	4	LIMIT-SWITCH 7722		RAVASI	0.2	0.8	
115	16	WASHER \ RONDELLA 6.4x12.5 UNI 6592		-			COMM.
114	16	SCREW \ VITE TE M6x20 UNI 5939		8.8			COMM.
113	20	PASTIGLIA ø12x4		RAME			COMM.
112	8	SCREW \ GRANO STEI M16x20 UNI 5923		8.8			COMM.
111	24	SCREW \ GRANO STEI M10x12 UNI 5923		8.8			COMM.
110	12	SCREW \ GRANO STEI M8x12 UNI 5923		8.8			COMM.
109	4	SPHERICAL BEARING \ SNODO SFERICO		GE-140-FO-2RS			ELGES
108	8	SEEGER RING \ ANELLO SEEGER		UNI 7437-230			COMM.
107	4	TAMPON O-RING \ O-RING PER TAMPONE		OR 370+BK			POLYPAC
106	4	EXTREMITY O-RING \ O-RING PER TESTATA		OR 364			POLYPAC
105	4	WIPER SEAL \ RASCHIATORE		WTF-2800			POLYPAC
104	4	EXTREMITY O-RING \ O-RING D'ESTREMITA'		OR 458+BK			POLYPAC
103	4	ROD SEAL \ GUARNIZIONE STELO		CSC-300280			MIROS
102	4	PISTON O-RING \ O-RING PER PISTONE		OR 628+2BR			POLYPAC
101	8	PISTON SEAL \ GUARNIZIONE PISTONE		E/GR 3800 B			POLYPAC
12	4	ANGULAR \ ANGOLARE		Fe 360	0.5	2	T06MECNF004
11	4	ANGULAR OF SUPPORT \ ANGOLARE DI SUPPORTO		Fe 360	0.35	1.4	T06MECNF004
10	4	ANTERIOR CYLINDER ATTACK\ATTACCO ANTERIORE		Fe 510	92.2	368.8	T06MECNF004
09	4	PISTON \ PISTONE		Fe 510 B	103.7	414.8	T06MECNF004
08	4	FRONT TAMPON \ TAMPONE ANTERIORE		C40	41.8	167.2	T06MECNF004
07	4	TAMPON SUPPORT PISTON \ TAMPONE PORTA PISTONE		C40	58.3	233.2	T06MECNF004
06	4	CHROMED ROD \ STELO CROMATO		Fe 510	206.2	824.8	T06MECNF004
05	4	BRONZE RING GUIDE ROD\BRONZINA GUIDA STELO		Br. 814 Centr.	12.7	50.8	T06MECNF004
04	4	FRONT EXTREMITY \ ESTREMITA' ANTERIORE		Fe 510	68	272	T06MECNF004
03	4	FRONT FLANGE \ FLANGIA ANTERIORE		Fe 510	159	636	T06MECNF004
02	4	CYLINDER BODY \ TUBO CAMICIA		Fe 510 C	323	1292	T06MECNF004
01	4	REAR CLOSING FLANGE \ FONDELLO	.	Fe 510	72.8	291.2	T06MECNF004

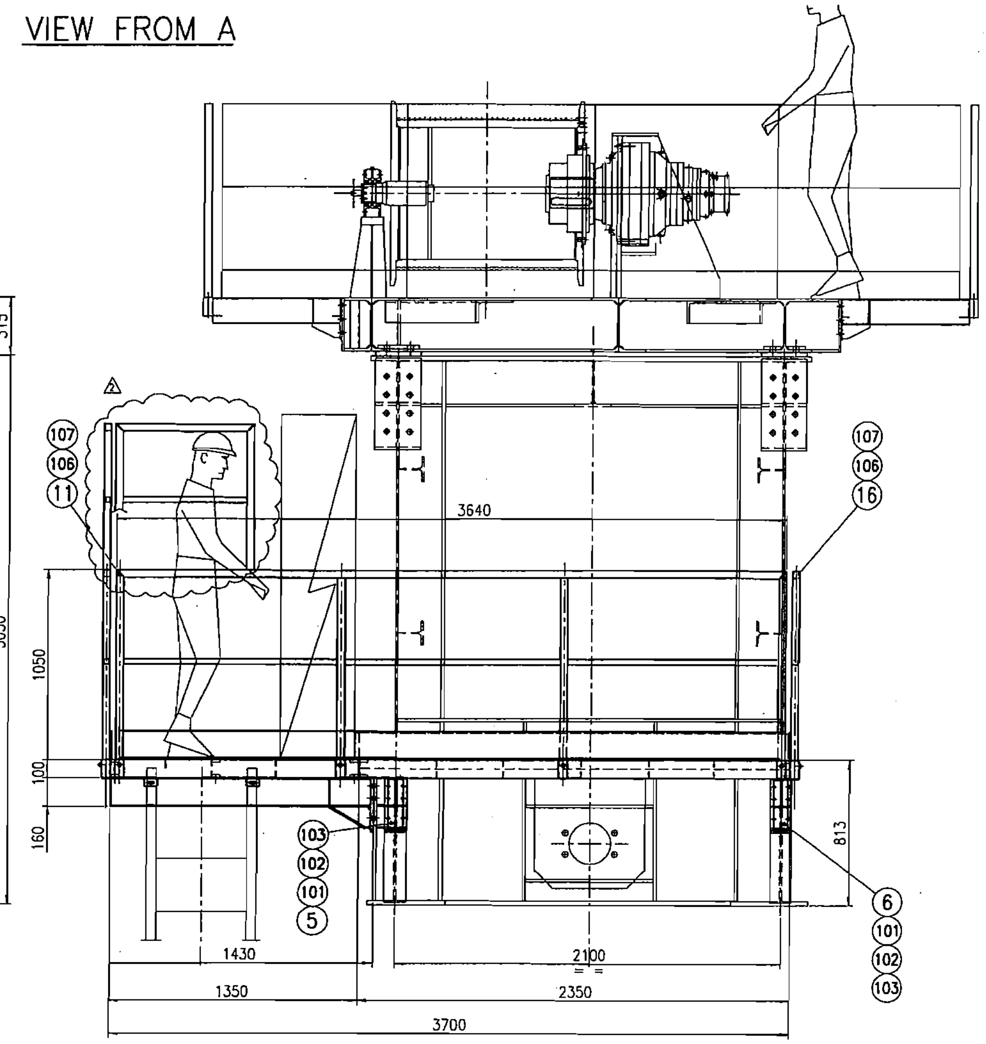
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	26/06/02	FIRST ISSUED	MENGHINI	S. GERMANO	RIBIS

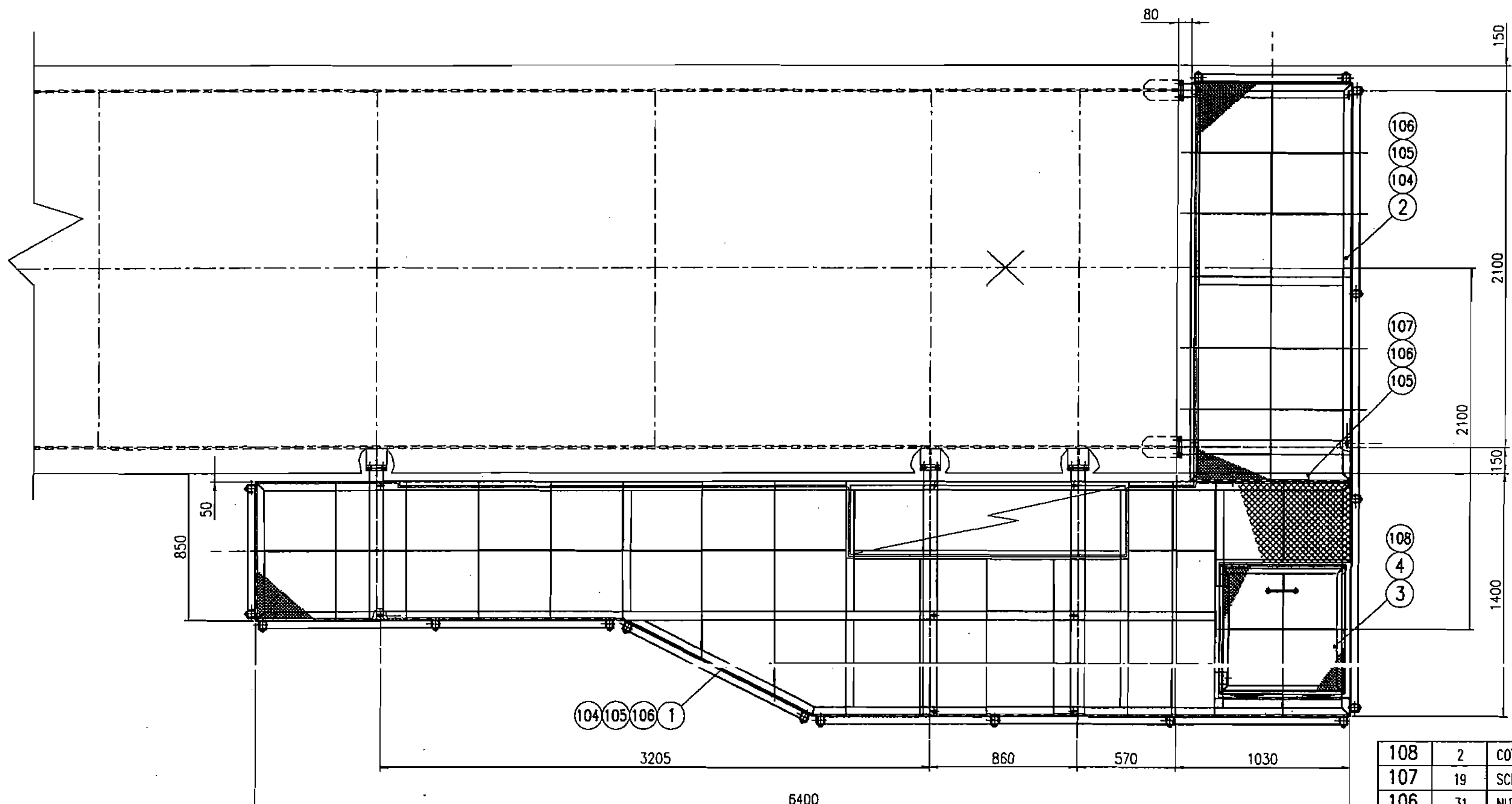
DEAL

REFERENCE:	STRADDLE CARRIER SC 720 - 32
OBJECT:	SUPPORT JACKS FOR WHEELS GROUP
TITLE:	HYDRAULIC JACKS øa380/øs280/STROKE 700
Substitutes Nr:	---
Scale	1:3
Sheet	1
Of	1
File:	T06MEANF004.dwg
Format	A0
Job Nr.	- 6 0 0 3 1 1
Sub.Lfr.	- 0 6 0 3 5 2
Mt.	- - - - - - -
Fab. Nr. / Dep. / Doc. Type / Part. / Nr. / Rev.	T06 ME AN F- 004 0
CLIENT:	KIEWIT / FCI / MANSON JV
PROJECT:	



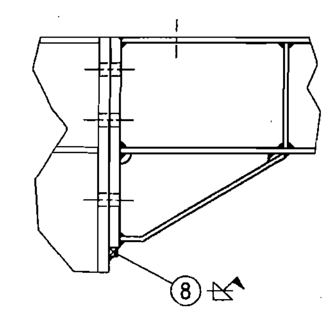
VIEW FROM A





DETAIL B (Typical)

scale 1:5



TOTAL WEIGHT = 720 Kg

108	2	COTTER PIN ø3.2x20 UNI 1336	*	*	*	*	
107	19	SCREW M12x30 UNI 5739	*	8.8	*	*	
106	31	NUT M12 UNI 5588	*	6S	*	*	
105	14	WASHER 13 UNI 6592	*	*	*	*	
104	12	SCREW M12x35 UNI 5739	*	8.8	*	*	
103	30	NUT M16 UNI 5588	*	6S	*	*	
102	30	WASHER 17 UNI 6592	*	*	*	*	
101	30	SCREW M16x50 UNI 5739	*	8.8	*	*	

POS.	Q.TY	DESCRIPTION	MARK	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
16	1	GUARD RAIL 910x1150	H206	*	15.5	15.5	
15	1	GUARD RAIL 2070x1950	H205	*	41.4	41.4	
14	1	GUARD RAIL 1190x1150	H204	*	18	18	
13	1	GUARD RAIL 3100x1150	H203	*	42.5	42.5	
12	1	GUARD RAIL 760x1950	H202	*	24.4	24.4	
11	1	GUARD RAIL 3640x1150	H201	*	47	47	
10	1	BRACKET L=1430 IPE 160 LEFT PIECE	H110	*	29	29	
9	1	BRACKET L=1430 . IPE 160 RIGHT PIECE	H109	*	29	29	
8	5	SMALL BLOCK 12x12x120	H108	*	0.14	0.7	
7	1	BRACKET L=880 IPE 160	H107	*	20.5	20.5	
6	1	BRACKET L=1015 IPE 160 LEFT PIECE	H106	*	22.5	22.5	
5	1	BRACKET L=1015 IPE 160 RIGHT PIECE	H105	*	22.5	22.5	
4	2	PIN ø10 L=132	H104	*	0.2	0.4	
3	1	TRAP DOOR 740x740	H103	*	21	21	
2	1	WALKWAY 2350x950	H102	*	97	97	
1	1	WALKWAY 6400x1350	H101	*	286	286	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	27/08/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
1	29/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
0	05-07-02	FIRST ISSUE	EsseTre	G.Cucchiaro	G.Ribis

DEAL

Sede e Stabilimento
33050-Pozzuolo del Friuli (UD)-Italy
Tel.: +39 432 607 900
Fax: +39 432 607 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: MAIN GIRDER

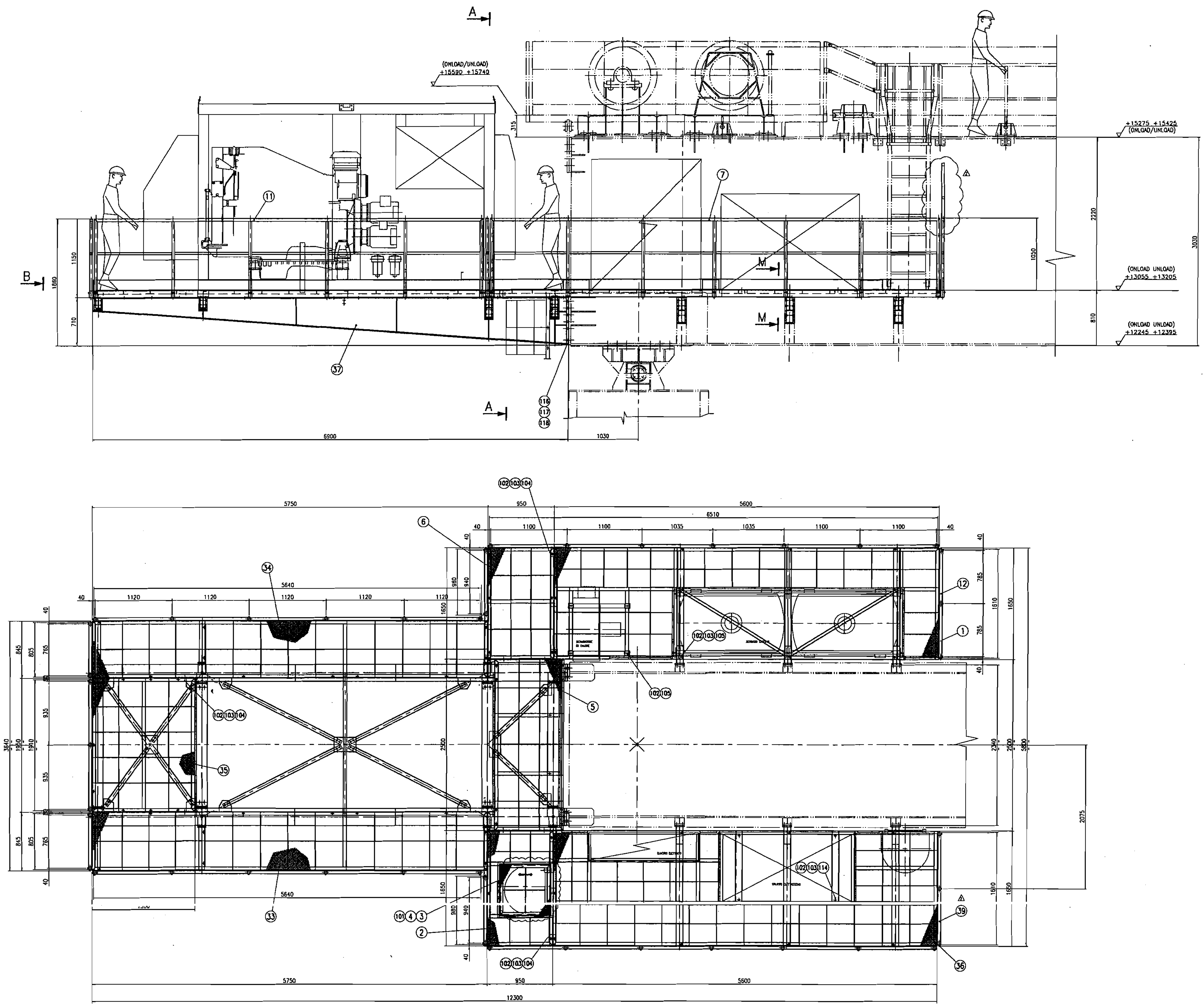
TITLE: FRONT SIDE WALKWAYS GENERAL ASSEMBLY

Substitutes for:	Scale	Sheet	Of
---	1:20	1	1
File: T06DMADH001_2.DWG	Format A1		
Job Nr. -600311	Sub.J.Nr. -060787	Mtr. -------	

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DM	AD	H-	001	2

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT



TOTAL WEIGHT = 4170 Kg

POS.	Q.TY	DESCRIPTION		MARK	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
118	48	WASHER 28 UNI 5714			C50			
117	24	NUT M27 UNI 5588			6S			
116	24	SCREW M27x110 UNI 5737			8.8			
115	104	SCREW M16x50 UNI 5737			8.8			
114	4	SCREW M12x80 UNI 5737			8.8			
113	12	UPN PLATE ø13 UNI 5716			C50			
112	12	SCREW M12x35 UNI 5739			8.8			
111	36	WASHER 21 UNI 6592						
110	36	NUT M20 UNI 5588			6S			
109	36	SCREW M20x70 UNI 5737			8.8			
108	112	WASHER 17 UNI 6592						
107	112	NUT M16 UNI 5588			6S			
106	8	SCREW M16x40 UNI 5737			8.8			
105	12	SCREW M12x60 UNI 5739			8.8			
104	178	SCREW M12x30 UNI 5739			8.8			
103	206	NUT M12 UNI 5588			6S			
102	163	WASHER 13 UNI 6592						
101	2	COTTER PIN ø3.2x20 UNI 1336						
39	1	GUARD RAIL	1610x1950	H407		45	45	
38	1	BRACKET	L=6900 LEFT PIECE	H802		650	650	
37	1	BRACKET	L=6900 RIGHT PIECE	H801		650	650	
36	1	WALKWAY	5600x1650	H604		376	376	
35	1	WALKWAY	1950x1500	H603		113	113	
34	1	WALKWAY	5750x845 LEFT PIECE	H602		186.5	186.5	
33	1	WALKWAY	5750x845 RIGHT PIECE	H601		186.5	186.5	
32	6	SMALL BLOCK	12x12x140	H520		0.15	0.9	
31	8	SMALL BLOCK	12x12x160	H519		0.2	1.6	
30	8	SMALL BLOCK	12x12x120	H518		0.13	1	
29	1	BRACKET	L=630 LEFT PIECE	H517		12	12	
28	1	BRACKET	L=630 RIGHT PIECE	H516		12	12	
27	2	BRACKET	L=1710	H515		34.1	68.2	
26	1	BRACKET	L=630 LEFT PIECE	H514		12	12	
25	1	BRACKET	L=630 RIGHT PIECE	H513		12	12	
24	1	BRACKET	L=1820	H512		60.8	60.8	
23	3	BRACKET	L=1730 LEFT PIECE	H511		50.6	151.8	
22	3	BRACKET	L=1730 RIGHT PIECE	H510		50.6	151.8	
21	1	BRACKET	L=1820	H509		72.8	72.8	
20	1	BRACKET	L=1820	H508		76.8	76.8	
19	1	BRACKET	L=1710 LEFT PIECE	H507		34.1	34.1	
18	1	BRACKET	L=1710 RIGHT PIECE	H506		34.1	34.1	
17	1	BRACKET	L=1820	H505		77.8	77.8	
16	1	BENT SHAPED	100x50x4 L=2000	H504		15.5	15.5	
15	4	EQ. ANGLE	60x5 L=1920	H503		8.8	35.2	
14	4	EQ. ANGLE	60x5 L=1035	H502		4.7	18.8	
13	1	EQ. ANGLE	60x5 L=2182	H501		13.7	13.7	
12	1	GUARD RAIL	1610x1150	H406		26.2	26.2	
11	2	GUARD RAIL	5640x1150	H405		72.7	145.4	
10	1	GUARD RAIL	1910x1150	H404		14.2	14.2	
9	2	GUARD RAIL	980x1150	H403		16.4	32.8	
8	2	GUARD RAIL	805x1150	H402		14.8	29.6	
7	2	GUARD RAIL	6510x1150	H401		84.2	168.4	
6	1	WALKWAY	950x1650	H306		69	69	
5	1	WALKWAY	100x2500	H305		117	117	
4	2	PIN	ø10x132	H304		0.2	0.4	
3	1	TRAP DOOR	740x740	H303		21	21	
2	1	WALKWAY	950x1650	H302		66	66	
1	1	WALKWAY	5600x1650	H301		374	374	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	28/08/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
1	29/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
0	23-07-02	FIRST ISSUE	EsseTre	G.Cucchiaro	G.Ribis

DEAL

REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: MAIN GIRDER

TITLE: REAR SIDE POWER WALKWAYS GENERAL ASSEMBLY

Substitutes for: ---

Scale: 1:20

Sheet 1 Of 2

File: T06DMADH002A_2.DWG

Format: A0

Job Nr.: -600311

Sub.Nr.: -060787

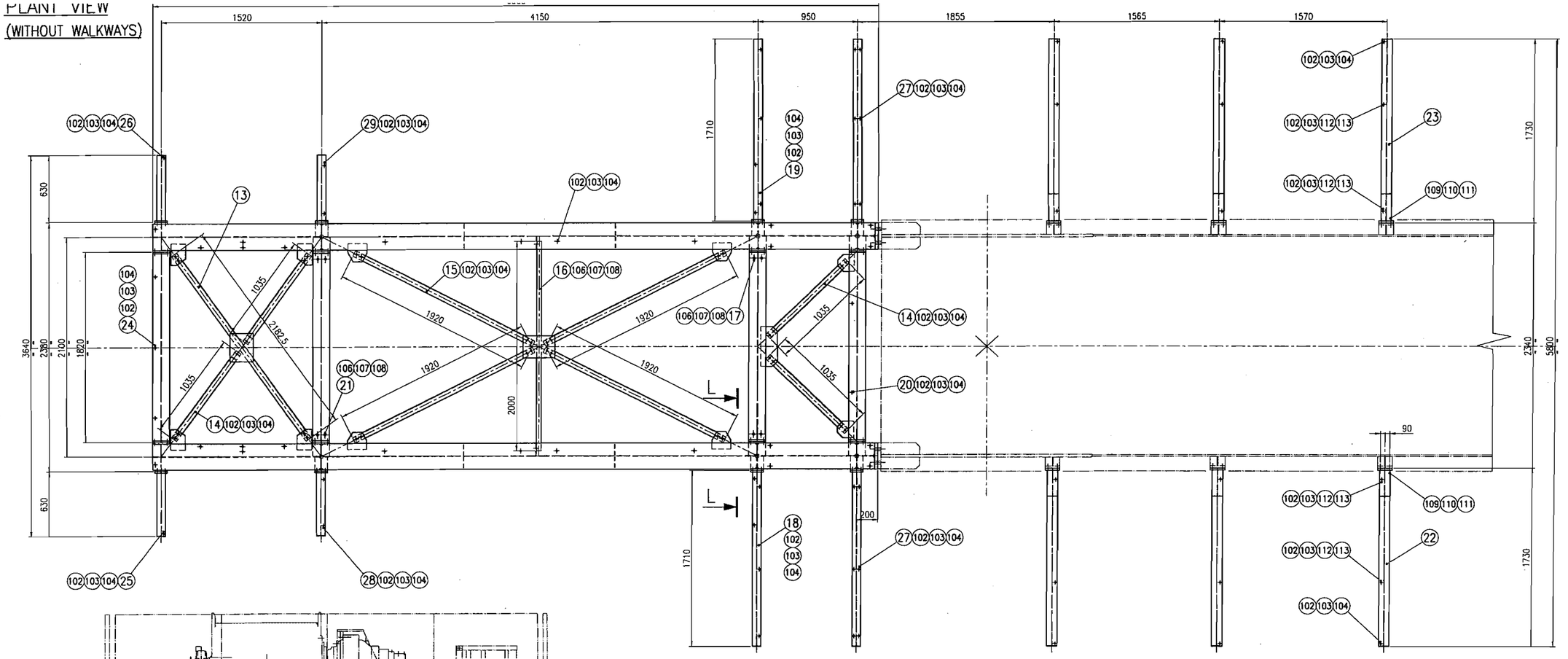
Nr.: -------

Fab. Nr.: T06 | Dep.: DM | Doc. Type: AD | Part.: H- | Nr.: 002 | Rev.: 2

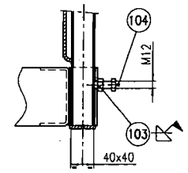
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

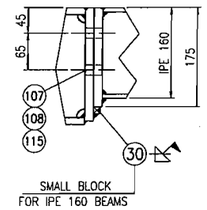
PLANT VIEW
(WITHOUT WALKWAYS)



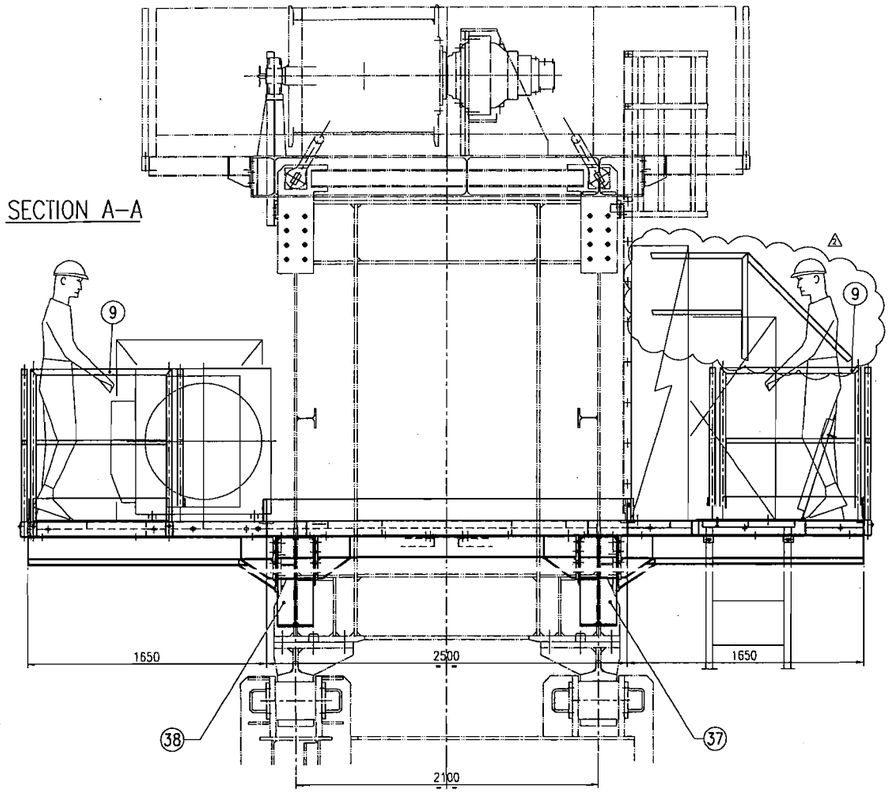
DET. "G"-TYPICAL
SC. 1:5



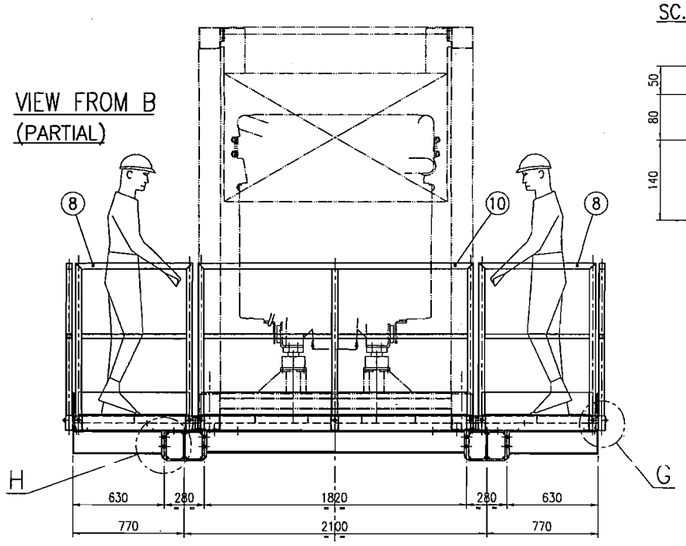
DET."H"-TYPICAL
SC. 1:5



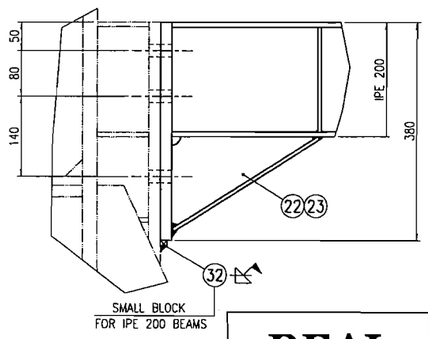
SECTION A–A



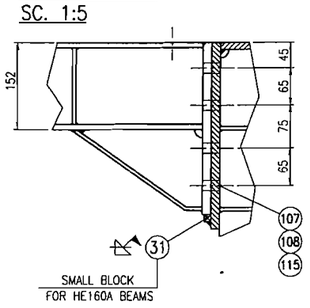
VIEW FROM B
(PARTIAL)



SECTION M–M(PARTIAL)
SC. 1:5



SECTION L–L (PARTIAL)
TURNED OF 90°
SC. 1:5



2	28/08/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
1	29/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RIBIS
0	23-07-02	FIRST ISSUE	EsseTre	G.Cucchiaro	G.Ribis

DEAL

Sede e Stabilimento
33050-Pavimde del Friuli (Ud)-Italy
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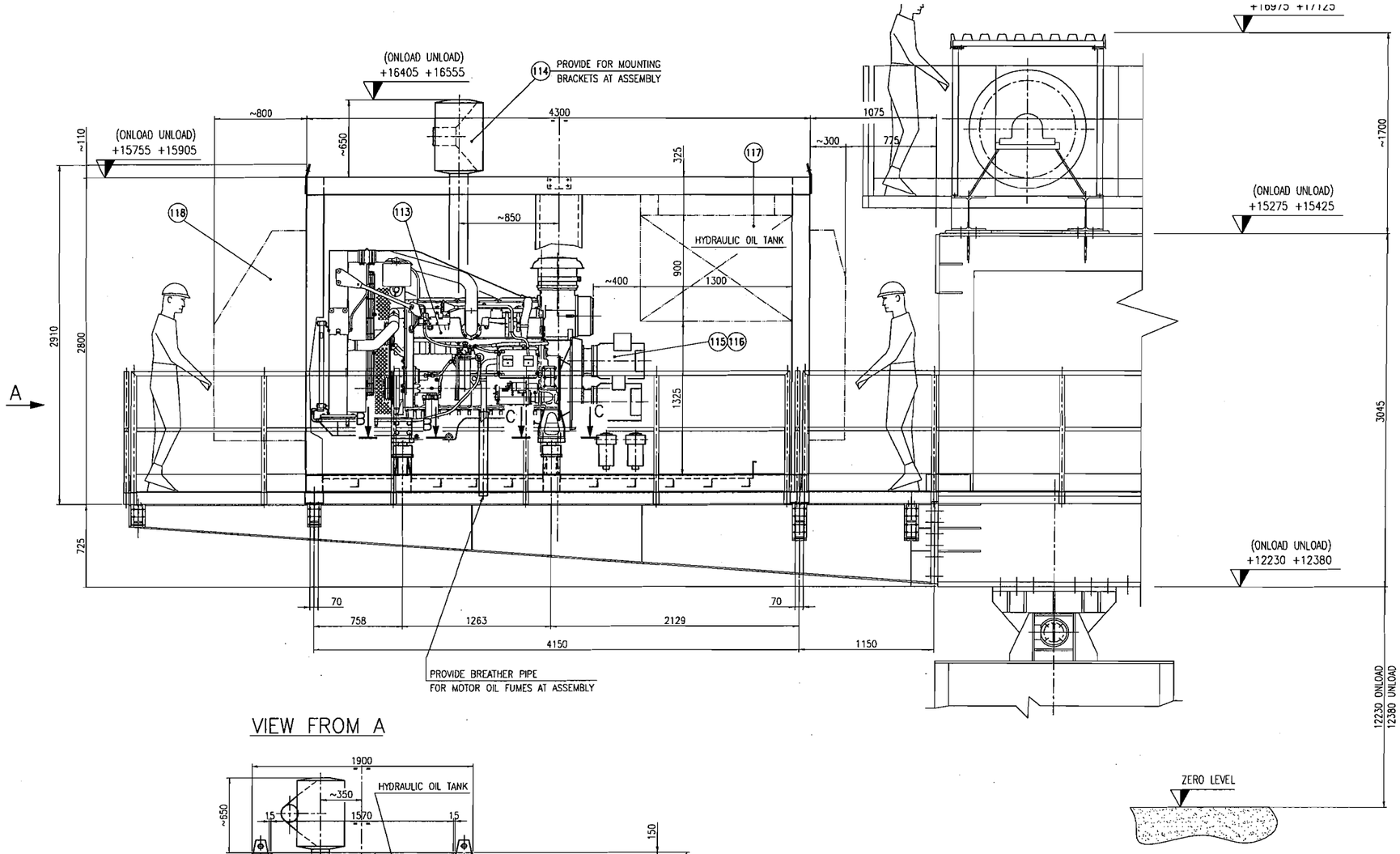
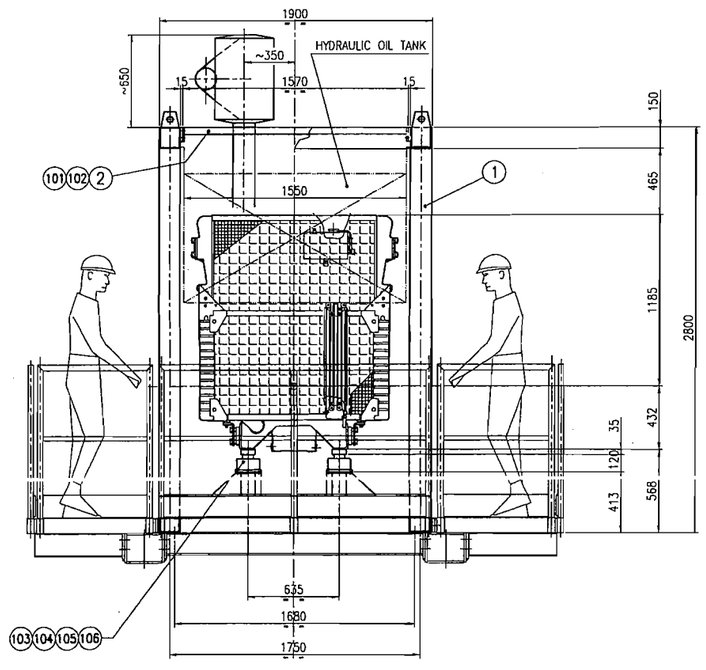
fax: +39 432 927 902
e-mail: deal@deal.it

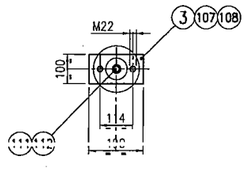
REFERENCE: STRADDLE CARRIER SC 720 – 32
OBJECT: MAIN GIRDER
TITLE: REAR SIDE POWER WALKWAYS GENERAL ASSEMBLY
Sostituisce for: ---
Scale: 1:20
Format: A1
Sheet: 2 Of: 2
File: T06DMADH002B_2.DWG
Job Nr.: -60031 1
Sub.J.Nr.: -06078 7
Mtr.: ------
Fab. Nr.: T06 Dep.: DM Doc. Type: AD Part.: H- Nr.: 002 Rev.: 2
CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT



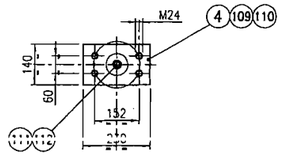
VIEW FROM A



SECTION B–B
scale 1:10



SECTION C–C
scale 1:10



TOTAL WEIGHT = 6650 Kg

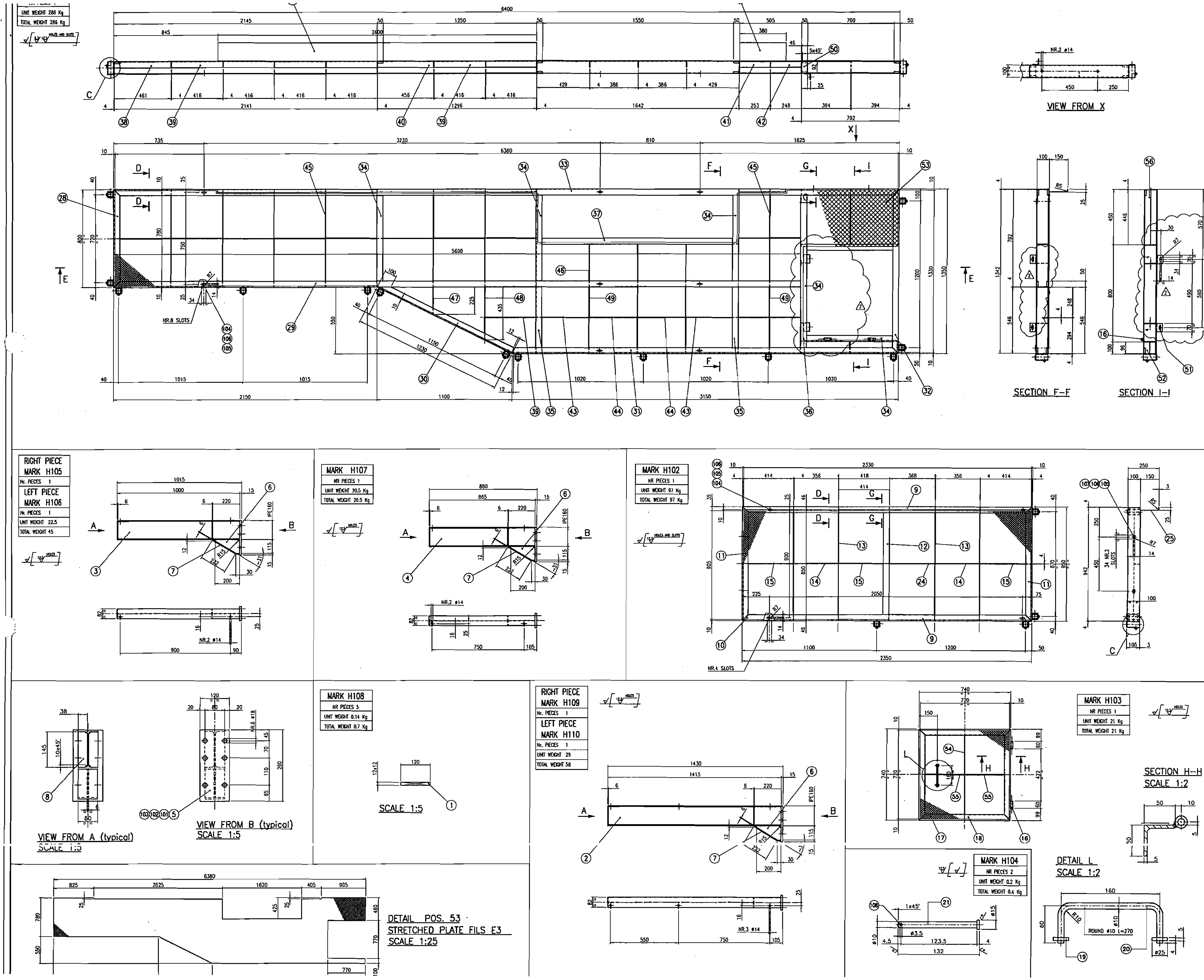
POS.	Q.TY	DESCRIPTION	MARK	MATERIAL	UNIT WEIGHT	TOT.	NOTES
118	1	SOUNDPROOF PANELS CABIN			500	500	
117	1	HYDRAULIC OIL TANK			2000	2000	
116	3	HYDRAULIC PUMPS			100	300	
115	1	PUMP DRIVERS "BREVINI" TYPE BZ3-470			200	200	
114	1	EXHAUST SILENCER "COWL" TYPE TS60PR			45	45	
113	1	DIESEL MOTOR "CATERPILLAR" TYPE C-15 ATAAC			2250	2250	
112	4	WASHER 19 "SCHNORR"					
111	4	SCREW TC M18x50 UNI 5931		8.8			
110	8	WASHER 25 UNI 6592					
109	8	SCREW M24x50 UNI 5739		8.8			
108	4	WASHER 23 UNI 6592					
107	4	SCREW M22x50 UNI 5739		8.8			
106	16	NUT M14 UNI 5588		6S			
105	32	WASHER 15 UNI 6592					
104	16	SCREW M14x50 UNI 5737		8.8			
103	4	PUFFER "VIBROSTOP" TYPE AA/800/N			10	40	
102	8	WASHER 13 UNI 6592					
101	8	SCREW M12x25 UNI 5739		8.8			
4	2	PLATE 230x140x35	H704		8.8	17.6	
3	2	PLATE 190x100x35	H703		5.2	10.4	
2	1	BEAM 1570x100x50	H702		17.5	17.5	
1	1	FRAME 4300x1900x2800	H701		1255	1255	

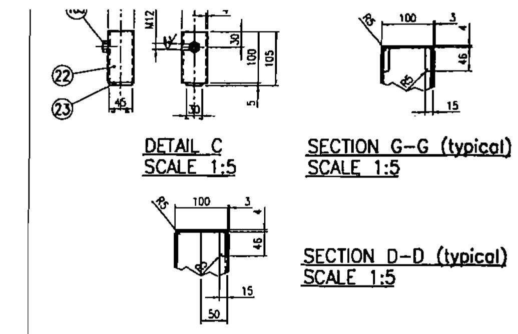
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	23-07-02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBIS

DEAL
Sede e Stabilimento
Via Provinciale del Prete (UD)-Italy
Tel.: +39 432 897 900
Fax.: +39 432 897 901
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: MAIN GIRDER
TITLE: POWER GROUP - GENERAL ASSEMBLY
Substitutes for: ---
Scale: 1:20
Sheet: 1 Of: 1
File: T06DMADH003.DWG
Format: A1
Job Nr.: -60031 1
Sub.J.Nr.: -06078 7
Mtr.: -------
Fab. Nr.: T06 | Dep.: DM | Doc. Type: AD | Part.: H- | Nr.: 003 | Rev.: 0

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT





TOTAL WEIGHT = 540 Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

Dwg size A0

WELDS (UNI 1310) — Where not otherwise indicated a=0.7 of minimum thk. to be connected (Continuous welds). Edge preparation for welding in according to UNI 11001

TOLLERANCES — Dimension without tolerance indication: Structural steel work UNI ISO 2768-M; Mechanics UNI ISO 2768-f
FINISHING — Machining UNI 1600
TOLLERANCES — FR ISO (UNI 7218)

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
108	2	COTTER PIN ø3.2x20 UNI 1336					
107	19	SCREW M12x30 UNI 5739		8.8			
106	31	NUT M12 UNI 5588		6S			
105	14	WASHER 13 UNI 6592					
104	12	SCREW M12x35 UNI 5739		8.8			
103	30	NUT M16 UNI 5588		6S			
102	30	WASHER 17 UNI 6592					
101	30	SCREW M16x50 UNI 5739		8.8			
56	1	PLATE 50x4 L=446 SHAPED		Fe 360-B	0.6	0.6	
55	2	PLATE 50x4 L=318		Fe 360-B	0.5	1	
54	1	PLATE 50x4 L=640		Fe 360-B	1	1	
53	1	STRET. PLATE FILS E3 Th.3 6380x1330 SHAP.		Fe 360-B	85	85	
52	1	PLATE 50x4 L=96 SHAPED		Fe 360-B	0.15	0.15	
51	2	ANGLE 50x50x5 L=70		Fe 360-B	0.26	0.52	
50	2	PLATE 46x4 L=92 SHAPED		Fe 360-B	0.1	0.2	
49	4	PLATE 50x4 L=546 SHAPED		Fe 360-B	0.85	3.4	
48	1	PLATE 50x4 L=435 SHAPED		Fe 360-B	0.7	0.7	
47	1	PLATE 50x4 L=225 SHAPED		Fe 360-B	0.4	0.4	
46	3	PLATE 50x4 L=346 SHAPED		Fe 360-B	0.5	1.5	
45	7	PLATE 50x4 L=792 SHAPED		Fe 360-B	1.2	8.4	
44	2	PLATE 50x4 L=386		Fe 360-B	0.6	1.2	
43	2	PLATE 50x4 L=429 SHAPED		Fe 360-B	0.7	1.4	
42	2	PLATE 50x4 L=248		Fe 360-B	0.4	0.8	
41	2	PLATE 50x4 L=253		Fe 360-B	0.4	0.8	
40	1	PLATE 50x4 L=456 SHAPED		Fe 360-B	0.7	0.7	
39	7	PLATE 50x4 L=416		Fe 360-B	0.65	4.6	
38	1	PLATE 50x4 L=461 SHAPED		Fe 360-B	0.7	0.7	
37	1	PLATE 186x4 L=1642 SHAPED BENT		Fe 360-B	9.5	9.5	
36	1	PLATE 186x4 L=1342 SHAPED BENT		Fe 360-B	7.8	7.8	
35	2	PLATE 186x4 L=546 SHAPED BENT		Fe 360-B	3	6	
34	5	PLATE 186x4 L=792 SHAPED BENT		Fe 360-B	4.6	23	
33	1	PLATE 186x4 L=6400 SHAPED BENT		Fe 360-B	37	37	
32	1	PLATE 186x4 L=1350 SHAPED BENT		Fe 360-B	8	8	
31	1	PLATE 186x4 L=3150 SHAPED BENT		Fe 360-B	18.3	18.3	
30	1	PLATE 186x4 L=1230 SHAPED BENT		Fe 360-B	7	7	
29	1	PLATE 186x4 L=5600 SHAPED BENT		Fe 360-B	32.4	32.4	
28	1	PLATE 186x4 L=800 SHAPED BENT		Fe 360-B	4.6	4.6	
27	1	PLATE 170x3 L=380 SHAPED BENT		Fe 360-B	1.5	1.5	
26	1	PLATE 170x3 L=2600 SHAPED BENT		Fe 360-B	10.4	10.4	
25	1	PLATE 170x3 L=2350 SHAPED BENT		Fe 360-B	9.4	9.4	
24	1	PLATE 50x4 L=368 SHAPED		Fe 360-B	0.6	0.6	
23	17	PLATE 30x5 L=45		Fe 360-B	0.05	0.85	
22	17	SQUARE PIPE 50x4 L=100		Fe 360-B	0.6	10.2	
21	2	ROUND ø15 L=132		Fe 360-B	0.2	0.4	
20	1	ROUND ø10 L=270 BENT		Fe 360-B	0.2	0.2	
19	2	ROUND ø25 L=4		Fe 360-B	0.1	0.2	
18	4	ANGLE 50x50x5 L=740 SHAPED		Fe 360-B	2.6	10.4	
17	1	STRETCHED PLATE FILS E3 Th.3 720x720		Fe 360-B	8.1	16.2	
16	4	PIPE ø20x4.5 L=60		Fe 360-B	0.1	0.4	
15	3	PLATE 50x4 L=414 SHAPED		Fe 360-B	0.7	2.1	
14	2	PLATE 50x4 L=356		Fe 360-B	0.6	1.2	
13	4	PLATE 50x4 L=942 SHAPED		Fe 360-B	1.5	6	
12	1	PLATE 186x4 L=942 SHAPED BENT		Fe 360-B	5.5	5.5	
11	2	PLATE 186x4 L=950 SHAPED BENT		Fe 360-B	5.5	11	
10	1	STRETCHED PLATE FILS E3 Th.3 2330x905		Fe 360-B	31.6	31.6	
9	2	PLATE 186x4 L=2350 SHAPED BENT		Fe 360-B	13.6	27.2	
8	20	PLATE 145x6 L=38.5 SHAPED		Fe 360-B	0.3	9.6	
7	5	PLATE 80x6 L=250 BENT		Fe 360-B	0.9	4.5	
6	5	PLATE 115x6 L=200 SHAPED		Fe 360-B	0.6	3	
5	5	PLATE 120x15 L=290		Fe 360-B	4.1	20.5	
4	1	BEAM IPE 160 L=865		Fe 430-B	13.7	13.7	
3	2	BEAM IPE 160 L=1000		Fe 430-B	15.8	31.6	
2	2	BEAM IPE 160 L=1415		Fe 430-B	22.4	44.8	
1	5	SQUARE 12 L=120		Fe 360-B	0.14	0.7	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2	29/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RBS
1	11.07.02	REVISED WHERE INDICATED	EsseTre	S. GERMANO	RBS
0	16.05.02	FIRST ISSUE	EsseTre	CUCCHIARO	RBS

DEAL

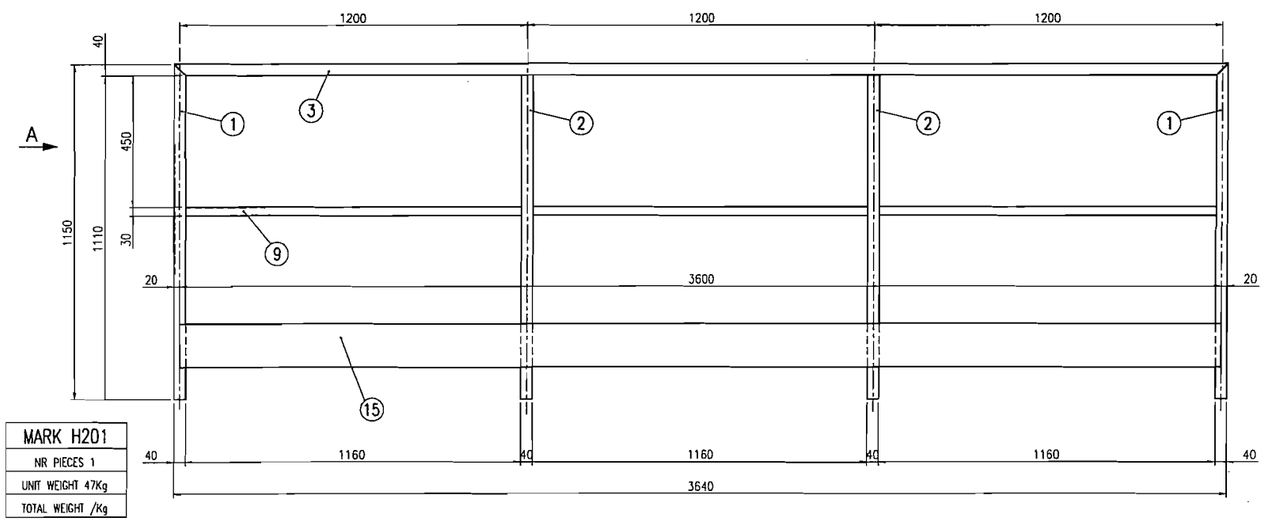
REFERENCE: STRADDLE CARRIER SC 720 - 32

OBJECT: MAIN GIRDER

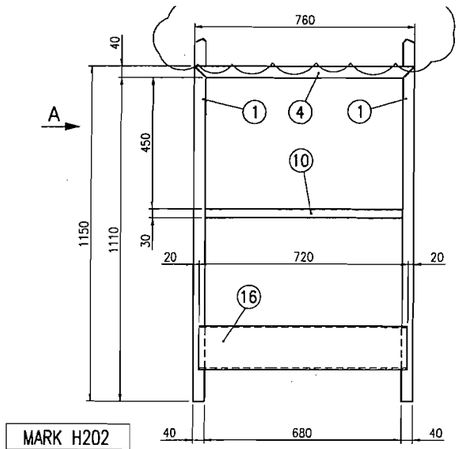
TITLE: FRONT SIDE WALKWAYS - DETAILS

Substitutes for: ---
SCALE 1:10
Sheet 1 of 1
File: T06DMCDH001_2.DWG
Format A0
Job Nr. -600311
Sub.Job Nr. -060787
Mfr. -------
T06 DM CD H- 001 2

CLIENT: KIEWIT / FCI / MANSON JV



MARK H201
NR PIECES 1
UNIT WEIGHT 47Kg
TOTAL WEIGHT /Kg



MARK H202
NR PIECES 1
UNIT WEIGHT 24.4Kg
TOTAL WEIGHT /Kg

WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

DWG size A1

WELDS (UNI 1310)

Where not otherwise indicated a=0.7 of minimun thk. to be connected

(Continuous welds)

Edge preparation for welding in according to UNI 11001

TOLERANCES

Dimension without tolerance indication

Structural steel work UNI ISO 2768-M

Mechanics UNI ISO 2768-f

FINISHING

Machining UNI 4600

0,8 3,2 12,5 25

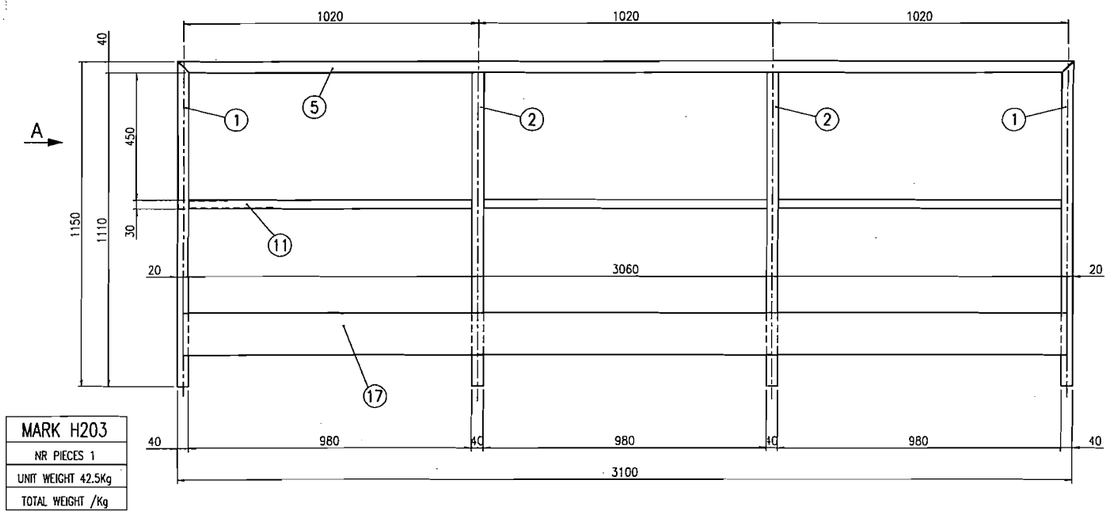
TOLERANCES

Fit ISO (UNI 7218)

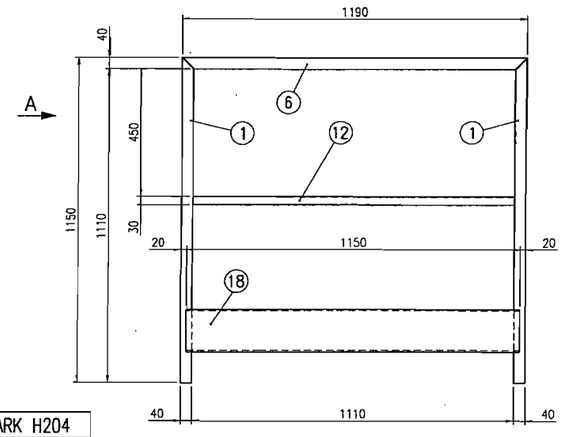
TOTAL WEIGHT = 190Kg ⚠

FINAL PAINTING : ✓

ENAMEL BLUE RAL 5017



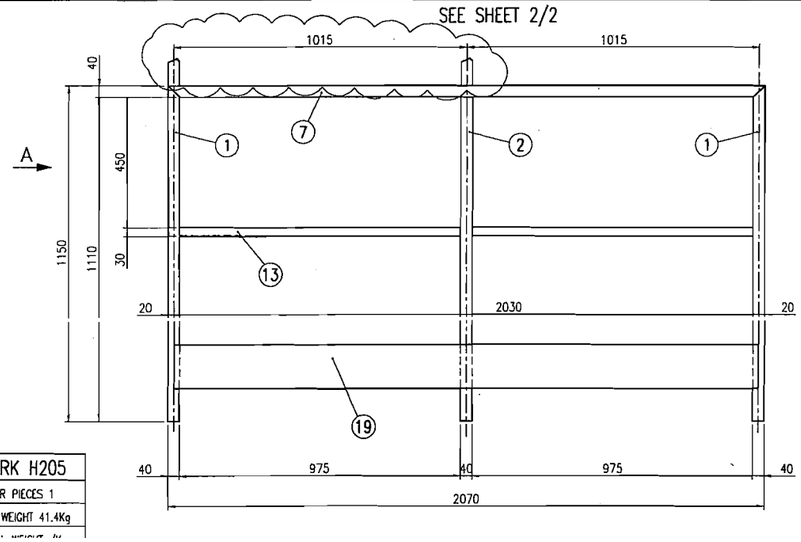
MARK H203
NR PIECES 1
UNIT WEIGHT 42.5Kg
TOTAL WEIGHT /Kg



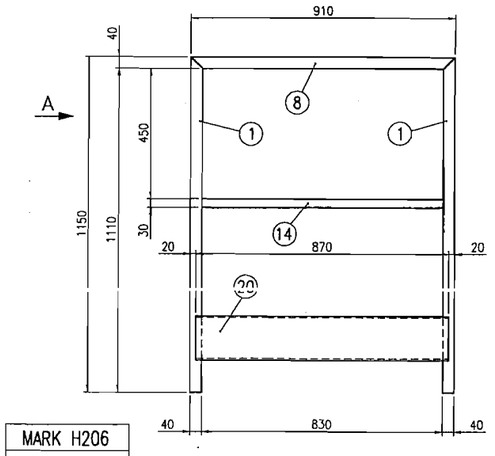
MARK H204
NR PIECES 1
UNIT WEIGHT 18Kg
TOTAL WEIGHT /Kg

	POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
⚠	22	1	SQUARE PIPE 40x3 L=1055 SHAPED		Fe 360-B	3.8		
⚠	21	4	SQUARE PIPE 40x3 L=800 SHAPED		Fe 360-B	2.8	11.2	
	20	1	PLATE 167x2 L=870 BENT		Fe 360-B	2.2		
	19	1	PLATE 167x2 L=2030 BENT		Fe 360-B	5.2		
	18	1	PLATE 167x2 L=1150 BENT		Fe 360-B	2.9		
	17	1	PLATE 167x2 L=3060 BENT		Fe 360-B	8		
	16	1	PLATE 167x2 L=720 BENT		Fe 360-B	1.9		
	15	1	PLATE 167x2 L=3600 BENT		Fe 360-B	9.4		
	14	1	SQUARE PIPE 30x3 L=830		Fe 360-B	2		
⚠	13	3	SQUARE PIPE 30x3 L=975		Fe 360-B	2.5	7.5	
	12	1	SQUARE PIPE 30x3 L=1110		Fe 360-B	2.7		
	11	3	SQUARE PIPE 30x3 L=980		Fe 360-B	2.5	7.5	
⚠	10	2	SQUARE PIPE 30x3 L=680		Fe 360-B	1.7	3.4	
	9	3	SQUARE PIPE 30x3 L=1160		Fe 360-B	2.9	8.7	
	8	1	SQUARE PIPE 40x3 L=910 SHAPED		Fe 360-B	2.9		
	7	1	SQUARE PIPE 40x3 L=2070 SHAPED		Fe 360-B	7.1		
	6	1	SQUARE PIPE 40x3 L=1190 SHAPED		Fe 360-B	3.9		
	5	1	SQUARE PIPE 40x3 L=3100 SHAPED		Fe 360-B	10.6		
⚠	4	2	SQUARE PIPE 40x3 L=760 SHAPED		Fe 360-B	2.6	5.2	
	3	1	SQUARE PIPE 40x3 L=3640 SHAPED		Fe 360-B	12.4		
	2	5	SQUARE PIPE 40x3 L=1110		Fe 360-B	4	20	
	1	12	SQUARE PIPE 40x3 L=1150 SHAPED		Fe 360-B	4.1	49.2	

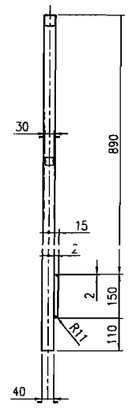
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	28/08/02	ADD SHEET 2/2	S. GERMANO	CUCCHIARO	RIBIS
0	24.05.02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBIS



MARK H205
NR PIECES 1
UNIT WEIGHT 41.4Kg
TOTAL WEIGHT /Kg



MARK H206
NR PIECES 1
UNIT WEIGHT 15.5Kg
TOTAL WEIGHT /Kg



VIEW FROM A
TYPICAL

DEAL

Sede e Stabilimento
Via Nuova Trasversale snc
33050 Pozzuolo del Friuli (UD) - Italy
Tel.: +39 432 607 800
Fax: +39 432 607 900
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 - 32

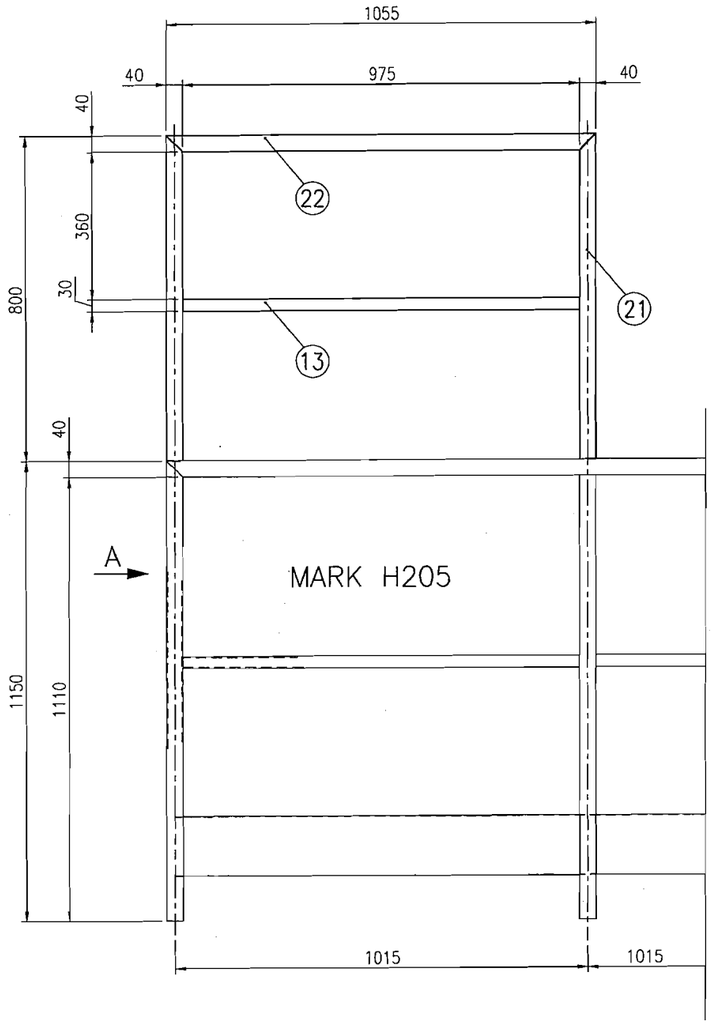
OBJECT: MAIN GIRDER

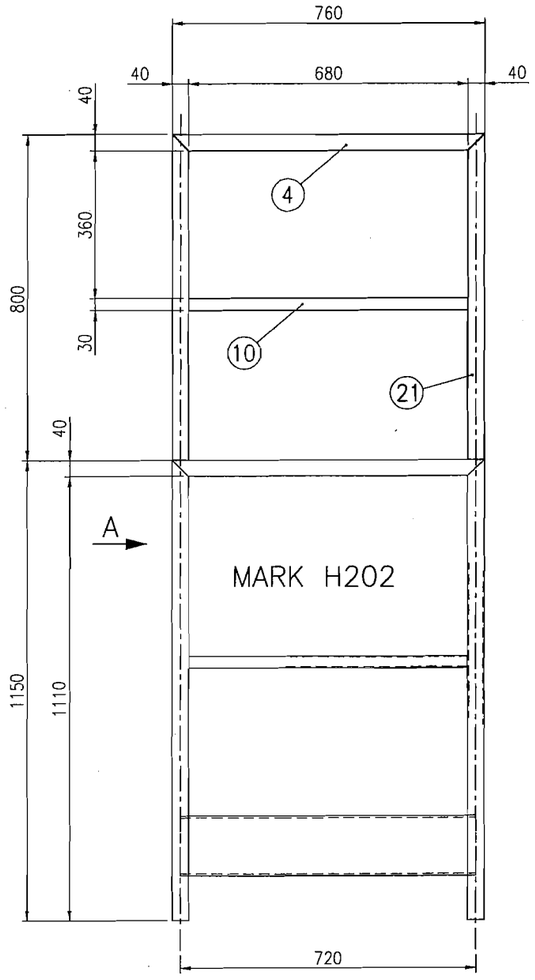
TITLE: FRONT SIDE WALKWAYS - DETAILS

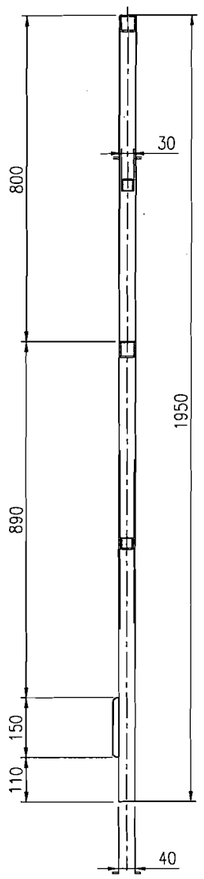
Substitutes for:	Scale	Sheet	Of
---	1:10	1	2
File: T06DMCDH002A_1.DWG	Format A1		
Job Nr. -6003111	Sub.Job Nr. -060787	Mfr. -------	
Feb. Nr. T06	Dep. DM	Doc. Type CD	Part. H-
Nr. 002	Rev. 1		

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT







VIEW FROM A
TYPICAL

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	28/08/02	REVISED MARK H202 – H205	S. GERMANO	CUCCHIARO	RIBIS
0	24.05.02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBIS

DEAL

Sede e Stabilimento
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33050-Pozzuolo del Friuli (UD)-Italy
Tel.: +39 432 607 900
Fax.: +39 432 607 902
e-mail: deal@deal.it

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: MAIN GIRDER

TITLE: FRONT SIDE WALKWAYS – DETAILS

Substitutes for: – – –

Scale 1:10

Sheet 2 Of 2

File: T06DMCDH002B_1.DWG

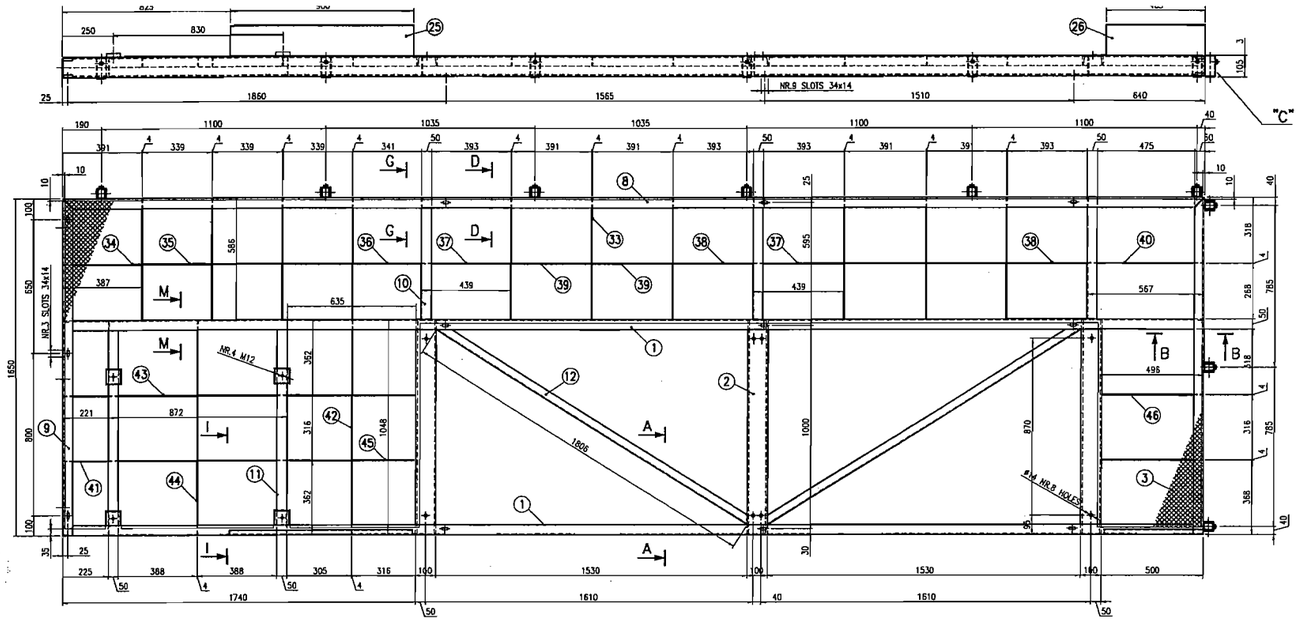
Format A2

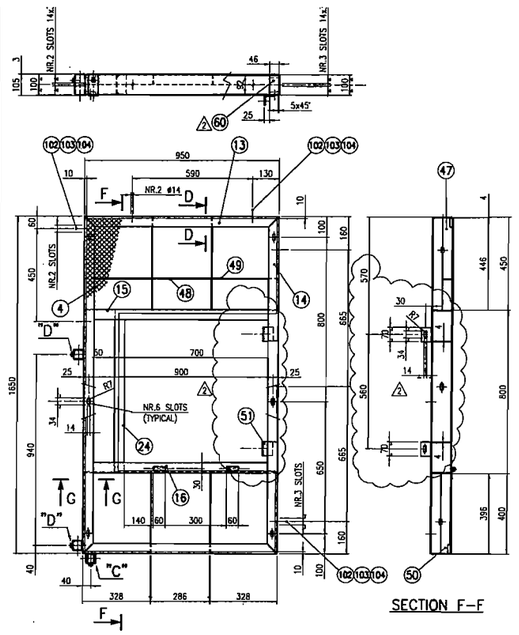
Job Nr.	Sub.J.Nr	Mtr.
-60031	-06078	------

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DM	CD	H-	002	1

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA





SECTION F–F

TOTAL WEIGHT = 650 Kg

REMOVE SHARP CORNERS WITH R=2

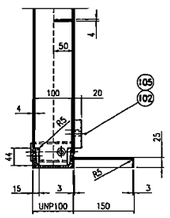
FINAL PAINTING :

ENAMEL YELLOW RAL 1007

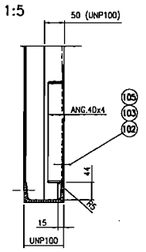
WELDING PROCEDURES :

The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

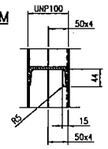
SECT. I–I
SC. 1:5



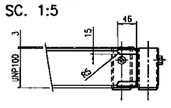
SECT. A–A
SC. 1:5

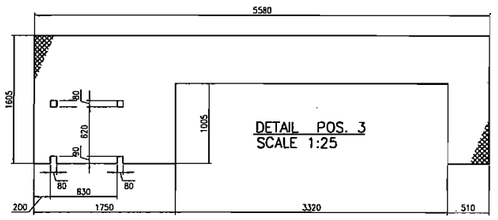


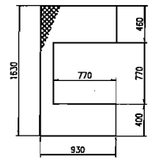
SECT. M–M
SC. 1:5



SECT. B–B
SC. 1:5







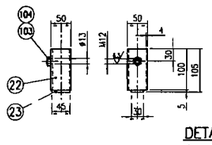
MARK H301
NR PIECES 1
UNIT WEIGHT 374 Kg
TOTAL WEIGHT 374 Kg

MARK H302
NR PIECES 1
UNIT WEIGHT 66 Kg
TOTAL WEIGHT 66 Kg

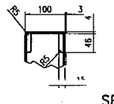
105	12	SCREW M12x60 UNI 5739		8.8		
104	29	SCREW M12x30 UNI 5739		8.8		
103	41	NUT M12 UNI 5588		8S		
102	26	WASHER 13 UNI 6592				
101	2	COTTER PIN ø3.2x20 UNI 1336				
60	2	PLATE 45x4 L=92 SHAPED		Fe 360 B	0.15	0.3
59	2	PLATE 50x4 L=821 SHAPED		Fe 360 B	1.3	2.6
58	2	PLATE 50x4 L=817 SHAPED		Fe 360 B	1.3	2.6
57	3	PLATE 50x4 L=296		Fe 360 B	0.45	1.35
56	6	PLATE 50x4 L=344 SHAPED		Fe 360 B	0.55	3.3
55	2	PLATE 50x4 L=318		Fe 360 B	0.5	1
54	1	PLATE 50x4 L=640		Fe 360 B	1	1
53	2	PLATE 50x4 L=892 SHAPED		Fe 360 B	1.4	2.8
52	4	PLATE 50x4 L=796 SHAPED		Fe 360 B	1.2	4.8
51	2	ANGLE 50x50x5 L=70		Fe 360 B	0.26	0.52
50	2	PLATE 50x4 L=396 SHAPED		Fe 360 B	0.3	0.6
49	6	PLATE 50x4 L=324 SHAPED		Fe 360 B	0.5	3
48	3	PLATE 50x4 L=286		Fe 360 B	0.45	1.35
47	2	PLATE 50x4 L=446 SHAPED		Fe 360 B	0.65	1.3
46	3	PLATE 50x4 L=496 SHAPED		Fe 360 B	0.75	2.25
45	2	PLATE 50x4 L=635		Fe 360 B	1	2
44	4	PLATE 50x4 L=362		Fe 360 B	0.5	2
43	2	PLATE 50x4 L=872 SHAPED		Fe 360 B	1.4	2.8
42	2	PLATE 50x4 L=316 SHAPED		Fe 360 B	0.5	1
41	2	PLATE 50x4 L=221 SHAPED		Fe 360 B	0.35	0.7
40	1	PLATE 50x4 L=567 SHAPED		Fe 360 B	0.9	0.9
39	4	PLATE 50x4 L=391		Fe 360 B	0.6	2.4
38	2	PLATE 50x4 L=393		Fe 360 B	0.6	1.2
37	2	PLATE 50x4 L=439 SHAPED		Fe 360 B	0.7	1.4
36	1	PLATE 50x4 L=341		Fe 360 B	0.53	0.53
35	3	PLATE 50x4 L=339		Fe 360 B	0.53	1.6
34	1	PLATE 50x4 L=387 SHAPED		Fe 360 B	0.6	0.6
33	10	PLATE 50x4 L=586 SHAPED		Fe 360 B	0.9	9
32	4	PLATE 186x4 L=100 SHAPED BENT		Fe 360 B	0.8	2.4
31	2	PLATE 186x4 L=275 SHAPED BENT		Fe 360 B	1.6	3.2
30	2	PLATE 186x4 L=992 SHAPED BENT		Fe 360 B	5.8	11.6
29	2	PLATE 186x4 L=2500 SHAPED BENT		Fe 360 B	14.6	29.2
28	2	PLATE 186x4 L=1000 SHAPED BENT		Fe 360 B	5.9	11.8
27	1	PLATE 170x3 L=2500 SHAPED BENT		Fe 360 B	10	10
26	1	PLATE 170x3 L=485 SHAPED BENT		Fe 360 B	2	2
25	1	PLATE 170x3 L=900 SHAPED BENT		Fe 360 B	3.6	3.6
24	1	PLATE 186x4 L=792 SHAPED BENT		Fe 360 B	4.6	4.6
23	11	PLATE 30x5 L=45		Fe 360 B	0.05	0.55
22	15	SQUARE PIPE 50x4 L=100		Fe 360 B	0.6	9
21	2	ROUND ø15 L=132		Fe 360 B	0.2	0.4
20	1	ROUND ø10 L=270 BENT		Fe 360 B	0.2	0.2
19	2	ROUND ø25 L=4		Fe 360 B	0.1	0.2
18	4	ANGLE 50x50x5 L=740 SHAPED		Fe 360 B	2.6	10.4
17	1	STRETCHED PLATE FILS E3 Th.3 720x720		Fe 360 B	8.1	8.1
16	4	PIPE ø20x4.5 L=60		Fe 360 B	0.1	0.4
15	3	PLATE 186x4 L=942 SHAPED BENT		Fe 360 B	5.5	16.5
14	4	PLATE 186x4 L=1650 SHAPED BENT		Fe 360 B	9.6	38.4
13	4	PLATE 186x4 L=950 SHAPED BENT		Fe 360 B	5.5	22
12	2	EQUAL ANGLE 40x4 L=1805 SHAPED		Fe 360 B	10.5	21
11	2	PLATE 186x4 L=1048 SHAPED BENT		Fe 360 B	6.1	12.2
10	3	PLATE 186x4 L=586 SHAPED BENT		Fe 360 B	3.4	10.2
9	2	PLATE 186x4 L=1650 SHAPED BENT		Fe 360 B	9.6	19.2
8	1	PLATE 186x4 L=5600 SHAPED BENT		Fe 360 B	32.7	32.7
7	4	PLATE 70x20 L=70		Fe 360 B	0.75	3
6	1	STRETCHED PLATE FILS E3 Th.3 930x1630		Fe 360 B	22.8	22.8
5	1	STRETCHED PLATE FILS E3 Th.3 1055x2480 SHAPED		Fe 360 B	36.2	36.2
4	1	STRETCHED PLATE FILS E3 Th.3 930x1630 SHAPED		Fe 360 B	13.8	13.8
3	1	STRETCHED PLATE FILS E3 Th.3 1605x5580 SHAPED		Fe 360 B	84	84
2	3	UPH 100 L=1048 SHAPED		Fe 360 B	11.1	33.3
1	2	UPH 100 L=5592 SHAPED		Fe 360 B	59.3	118.6

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
2	29/07/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO			RIBS
1	11.07.02	REVISED WHERE INDICATED	Esseffe	S. GERMANO			RIBS
0	29.05.02	FIRST ISSUE	Esseffe	CUCCHIARO			RIBS
REV.	DATE	REV. OBJECT	DRAWN	CHECKED			APPROVED

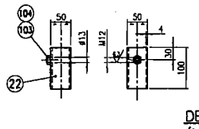
DETAIL C
(typical)



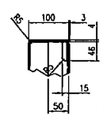
SECTION G–G
(typical)



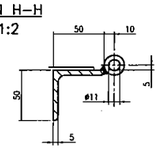
DETAIL D
(typical)



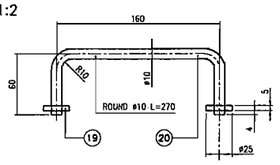
SECTION D–D
(typical)

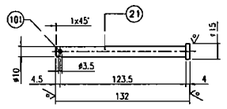


SECTION H–H
SCALE 1:2



DETAIL L
SCALE 1:2

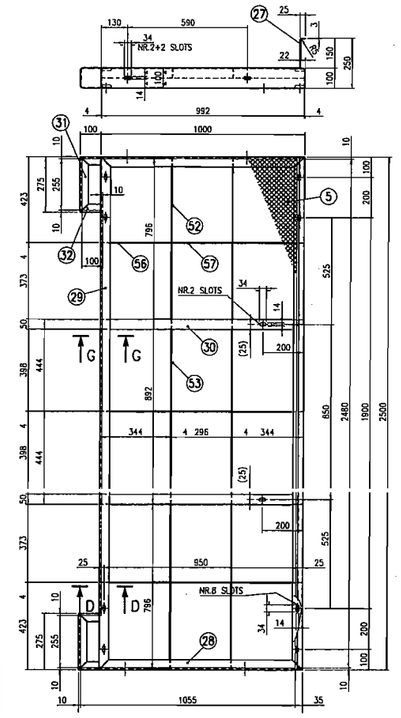




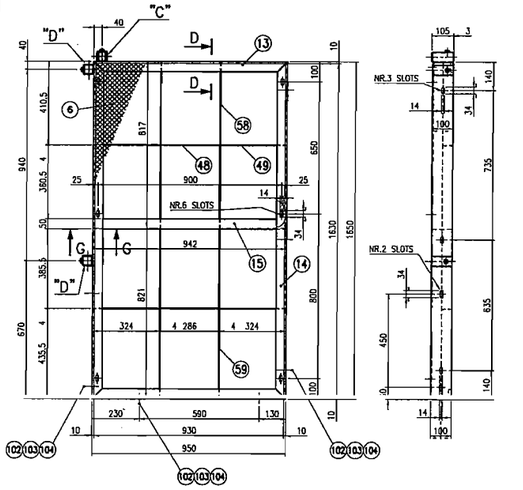
MARK H303
NR PIECES 1
UNIT WEIGHT 21 Kg
TOTAL WEIGHT 21 Kg

MARK H304
NR PIECES 2
UNIT WEIGHT 0.2 Kg

MARK H305
NR PIECES 1
UNIT WEIGHT 117 Kg



MARK H306
NR PIECES 1
UNIT WEIGHT 69 Kg



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DEAL

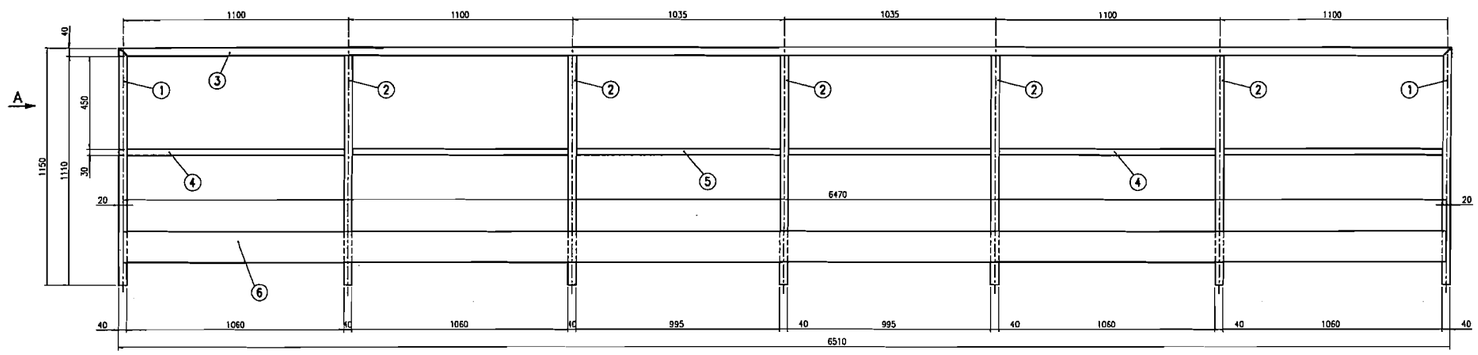
STRADDLE CARRIER
SC 720 – 32

MAIN GIRDER

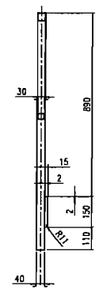
REAR SIDE POWER WALKWAYS – DETAILS

Scale: 1:10 | Sheet 1 | Of 1
File: T06DMCDH003_2.DWG | Format: A0
Job Nr. -600311 | Sub.Job. -060787
Feb. Nr. T06 | Dep. DM | Doc. Type CD | Part. H | Nr. 0032 | Rev. 2

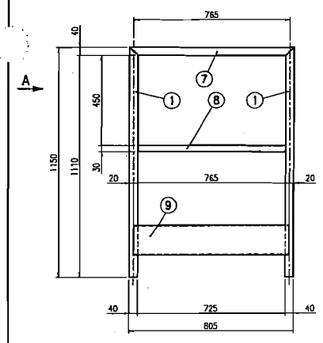
CLIENT: KIEWIT / FCI / MANSON JV
PROJECT:



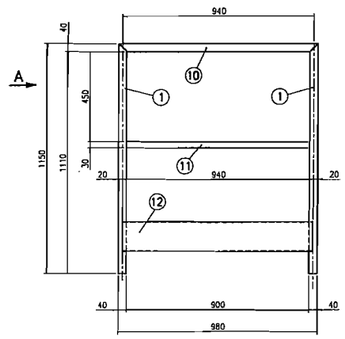
MARK H401
NR PIECES 2
UNIT WEIGHT 84.2 Kg
TOTAL WEIGHT 168.4 Kg



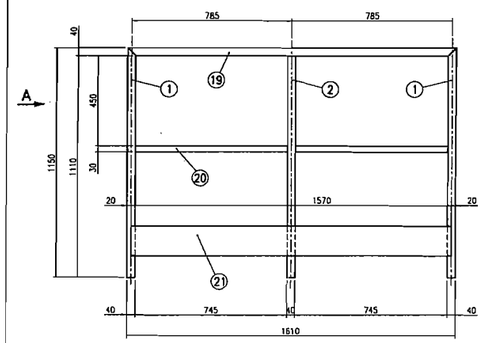
VIEW FROM A
TYPICAL



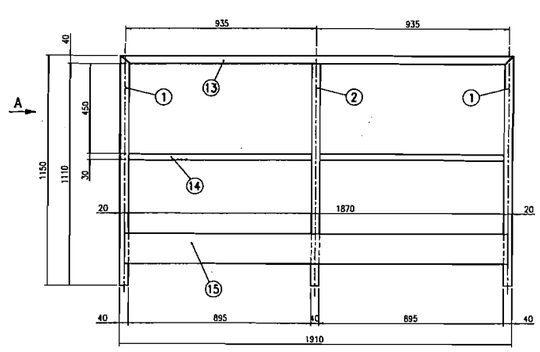
MARK H402
NR PIECES 2
UNIT WEIGHT 14.8 Kg
TOTAL WEIGHT 29.6 Kg



MARK H403
NR PIECES 2
UNIT WEIGHT 16.4 Kg
TOTAL WEIGHT 32.8 Kg



△
MARK H406
NR PIECES 1
UNIT WEIGHT 26.2 Kg
TOTAL WEIGHT 26.2 Kg

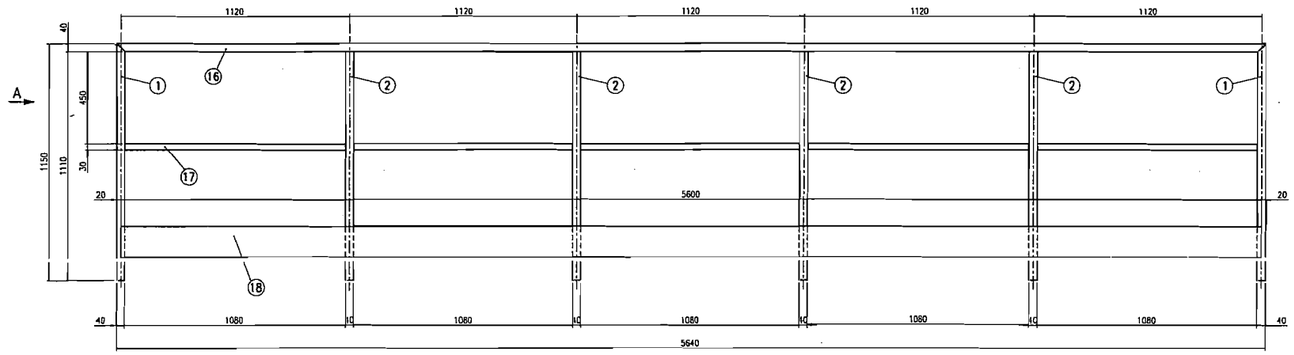


MARK H404
NR PIECES 1
UNIT WEIGHT 14.2 Kg
TOTAL WEIGHT 14.2 Kg

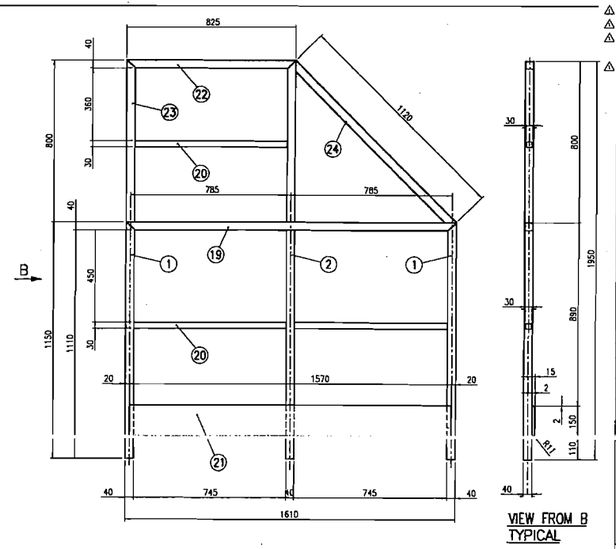
WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-95, or ASME sect. IX

TOTAL WEIGHT = 480 Kg △

FINAL PAINTING : √
ENAMEL BLUE RAL 5017



MARK H405
NR PIECES 2
UNIT WEIGHT 72.7 Kg



VIEW FROM B
TYPICAL

△
MARK H407
NR PIECES 1
UNIT WEIGHT 45 Kg

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT. WEIGHT	NOTES
△ 24	1	SQUARE PIPE 40x3 L=1120		Fe 360 B	4	4	
△ 23	2	SQUARE PIPE 40x3 L=800		Fe 360 B	3	5	
△ 22	1	SQUARE PIPE 40x3 L=825		Fe 360 B	3.2	3.2	
21	2	PLATE 167x2 L=1570 BENT		Fe 360 B	4	8	
20	5	SQUARE PIPE 30x3 L=745		Fe 360 B	2	10	
19	2	SQUARE PIPE 40x3 L=1610 SHAPED		Fe 360 B	6	12	
18	2	PLATE 167x2 L=5600 BENT		Fe 360 B	15	30	
17	10	SQUARE PIPE 30x3 L=1080		Fe 360 B	2.7	27	
16	2	SQUARE PIPE 40x3 L=5640 SHAPED		Fe 360 B	20	40	
15	1	PLATE 167x2 L=1870 BENT		Fe 360 B	4.9	4.9	
14	2	SQUARE PIPE 30x3 L=895		Fe 360 B	2.3	4.6	
13	1	SQUARE PIPE 40x3 L=1910 SHAPED		Fe 360 B	6.7	6.7	
12	2	PLATE 167x2 L=940 BENT		Fe 360 B	2.5	5	
11	2	SQUARE PIPE 30x3 L=900		Fe 360 B	2.3	4.6	
10	2	SQUARE PIPE 40x3 L=980 SHAPED		Fe 360 B	3.4	6.8	
9	2	PLATE 167x2 L=765 BENT		Fe 360 B	2	4	
8	2	SQUARE PIPE 30x3 L=725		Fe 360 B	1.8	3.7	
7	2	SQUARE PIPE 40x3 L=805 SHAPED		Fe 360 B	2.8	5.6	
6	2	PLATE 167x2 L=6470 BENT		Fe 360 B	17	34	
5	4	SQUARE PIPE 30x3 L=995		Fe 360 B	2.5	10	
4	8	SQUARE PIPE 30x3 L=1060		Fe 360 B	2.7	22	
3	2	SQUARE PIPE 40x3 L=6510 SHAPED		Fe 360 B	23	46	
2	21	SQUARE PIPE 40x3 L=1110		Fe 360 B	4	84	
1	22	SQUARE PIPE 40x3 L=1150 SHAPED		Fe 360 B	4.1	90.2	

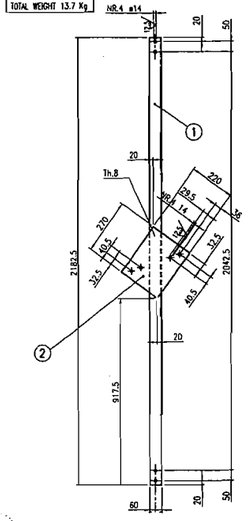
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	28/08/02	REVISED WHERE INDICATED	S. GERMANO	S. GERMANO	RBS
0	31.05.02	FIRST ISSUE	EssaTre	CUCCHIARO	RBS

DEAL

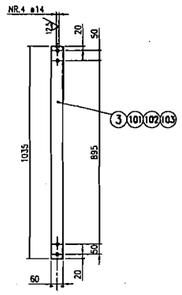
REFERENCE: STRADDLE CARRIER SC 720 - 32
GROUP: MAIN GIRDER
TITLE: REAR SIDE POWER WALKWAYS - DETAILS
Substituted for: ---
Scale 1:10
Sheet 1 of 1
File: T06DMCDH004_1.DWG
Format A0
Job nr. -60031 1
Sub.Job. -080787
Rev. ------
Feb. nr. T06 | Grp. DM | Doc. Type CD | Part. H- | Nr. 0041 | Rev.

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT:

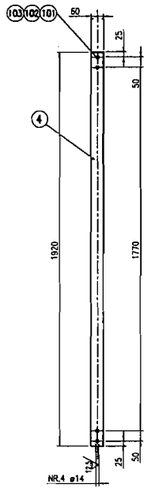
NR PIECES 1
UNIT WEIGHT 13.7 Kg
TOTAL WEIGHT 13.7 Kg



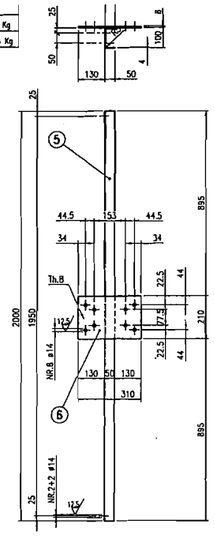
NR PIECES 4
UNIT WEIGHT 4.7 Kg
TOTAL WEIGHT 18.8 Kg



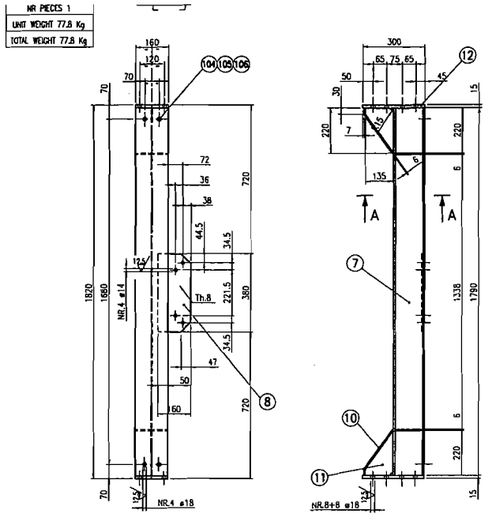
NR PIECES 4
UNIT WEIGHT 8.8 Kg
TOTAL WEIGHT 35.2 Kg



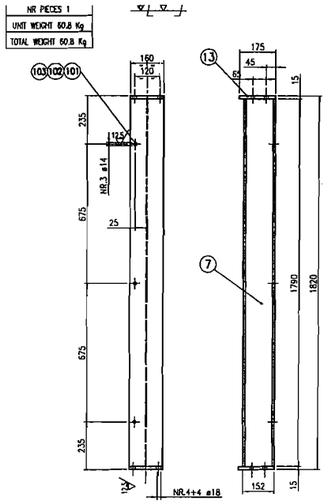
NR PIECES 1
UNIT WEIGHT 15.5 Kg
TOTAL WEIGHT 15.5 Kg

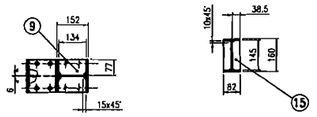


NR PIECES 1
UNIT WEIGHT 77.8 Kg
TOTAL WEIGHT 77.8 Kg



NR PIECES 1
UNIT WEIGHT 60.8 Kg
TOTAL WEIGHT 60.8 Kg



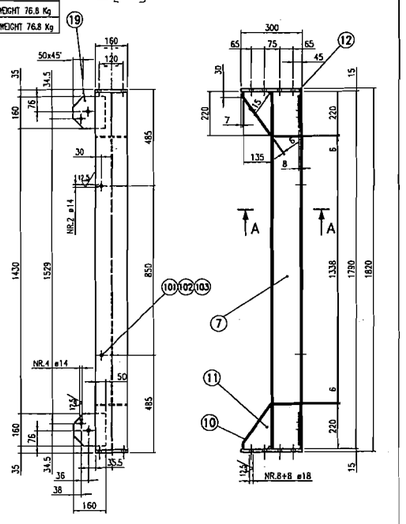


WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

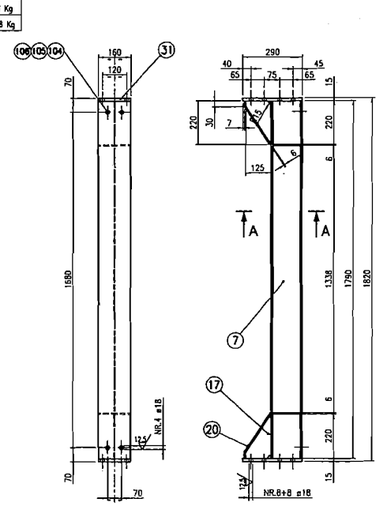
TOTAL WEIGHT = 875 Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

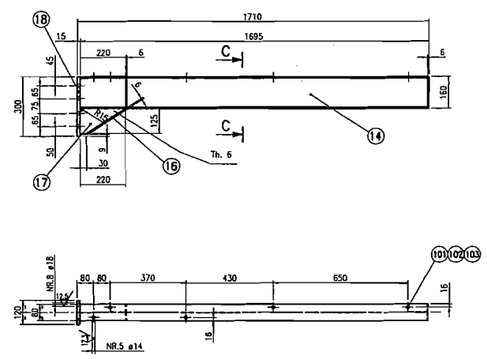
MARK H508
NR PIECES 1
UNIT WEIGHT 76.8 Kg
TOTAL WEIGHT 76.8 Kg



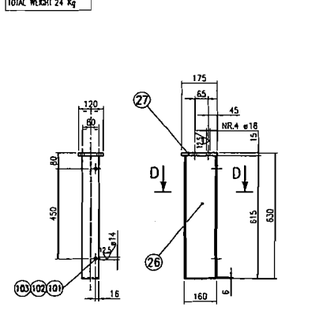
MARK H509
NR PIECES 1
UNIT WEIGHT 72.8 Kg
TOTAL WEIGHT 72.8 Kg



RIGHT PIECE
MARK H506
Nr. PIECES 1
LEFT PIECE
MARK H507
Nr. PIECES 1
UNIT WEIGHT 34.1 Kg
TOTAL WEIGHT 68.2 Kg



RIGHT PIECE
MARK H516
Nr. PIECES 1
LEFT PIECE
MARK H517
Nr. PIECES 1
UNIT WEIGHT 12 Kg
TOTAL WEIGHT 24 Kg



POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT WEIGHT	TOT.	NOTES
111	12	UPN PLATE ø13 UNI 5716		C50			
110	12	SCREW M12x35 UNI 5739		8.8			
109	36	WASHER 21 UNI 6592					
108	36	NUT M20 UNI 5588		6S			
107	36	SCREW M20x70 UNI 5737		8.8			
106	8	WASHER 17 UNI 6592					
105	8	NUT M16 UNI 5588		6S			
104	8	SCREW M16x40 UNI 5737		8.8			
103	83	WASHER 13 UNI 6592					
102	83	NUT M12 UNI 5588		6S			
101	71	SCREW M12x30 UNI 5739		8.8			
31	2	PLATE 160x15 L=290		Fe 430 B	5.5	11	
30	6	SQUARE 12 L=140		Fe 430 B	0.15	0.9	
29	8	SQUARE 12 L=160		Fe 430 B	0.2	1.6	
28	8	SQUARE 12 L=120		Fe 430 B	0.13	1	
27	4	PLATE 120x15 L=175		Fe 430 B	2.5	10	
26	4	BEAM IPE 160 L=615		Fe 430 B	9.5	38	
25	24	PLATE 47x6 L=183		Fe 430 B	0.4	9.6	
24	6	PLATE 100x6 L=297		Fe 430 B	1.4	8.4	
23	6	PLATE 160x6 L=250 SHAPED		Fe 430 B	0.9	5.4	
22	6	PLATE 140x20 L=380		Fe 430 B	8.4	50.4	
21	6	BEAM IPE 200 L=1710		Fe 430 B	38.3	229.8	
20	2	PLATE 160x6 L=-261		Fe 430 B	2	4	
19	2	PLATE 160x8 L=160 SHAPED		Fe 430 B	1.4	2.8	
18	4	PLATE 120x15 L=300		Fe 430 B	4.2	16.8	
17	6	PLATE 125x6 L=220 SHAPED		Fe 430 B	0.7	4.2	
16	4	PLATE 62x6 L=-261 SHAPED		Fe 430 B	1	4	
15	24	PLATE 38.5x6 L=145 SHAPED		Fe 430 B	0.3	7.2	
14	4	BEAM IPE 160 L=1695		Fe 430 B	27	108	
13	2	PLATE 160x15 L=175		Fe 430 B	3.2	6.4	
12	4	PLATE 150x15 L=300		Fe 430 B	6	20	
11	4	PLATE 135x6 L=220 SHAPED		Fe 430 B	0.8	3.2	
10	4	PLATE 160x6 L=-266		Fe 430 B	2	8	
9	12	PLATE 77x6 L=134 SHAPED		Fe 430 B	0.5	6	
8	1	PLATE 160x8 L=380 SHAPED		Fe 430 B	3.8	3.8	
7	4	BEAM HE 160 A L=1790		Fe 430 B	54.4	217.6	
6	1	PLATE 210x8 L=310		Fe 430 B	4	4	
5	1	PLATE 186x4 L=2000 SHAPED BENT		Fe 430 B	11.5	11.5	
4	4	ANGLE 60x60x5 L=1920		Fe 430 B	8.8	35.2	
3	4	ANGLE 60x60x5 L=1035		Fe 430 B	4.7	18.8	
2	1	PLATE 220x8 L=270		Fe 430 B	3.7	3.7	
1	1	ANGLE 60x60x5 L=2182.5		Fe 430 B	10	10	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	24.07.02	WEIGHT REVISED WHERE INDICATED	CasaTra	CUCCHIARO	RIBS
0	05.06.02	FIRST ISSUE	CasaTra	CUCCHIARO	RIBS

DEAL

STRADDLE CARRIER
SC 720 - 32

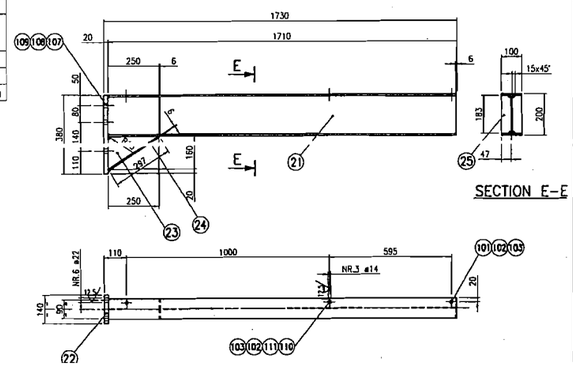
MAIN GIRDER

REAR SIDE POWER WALKWAYS - DETAILS

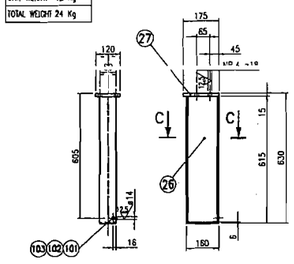
Scale: 1:10 | Sheet: 1 of 1
Format: A0
File: T06DMCDH005_1.DWG
Job No.: -60031 | Sub-Job: -06078
Fab. No. | Dwg. | Doc. Type | Part. | No. | Rev.
T06 | DM | CD | H- | 005 | 1

KIEWIT / FCI / MANSON JV

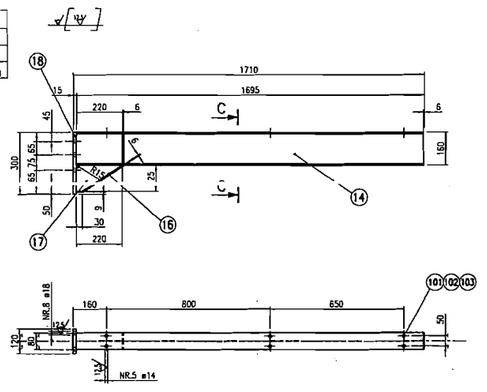
RIGHT PIECE
MARK H510
Nr. PIECES 3
LEFT PIECE
MARK H511
Nr. PIECES 3
UNIT WEIGHT 50.6 Kg
TOTAL WEIGHT 303.6 Kg



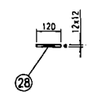
RIGHT PIECE
MARK H513
Nr. PIECES 1
LEFT PIECE
MARK H514
Nr. PIECES 1
UNIT WEIGHT 12 Kg
TOTAL WEIGHT 24 Kg



MARK H515
NR PIECES 2
UNIT WEIGHT 34.1 Kg
TOTAL WEIGHT 68.2 Kg

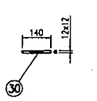


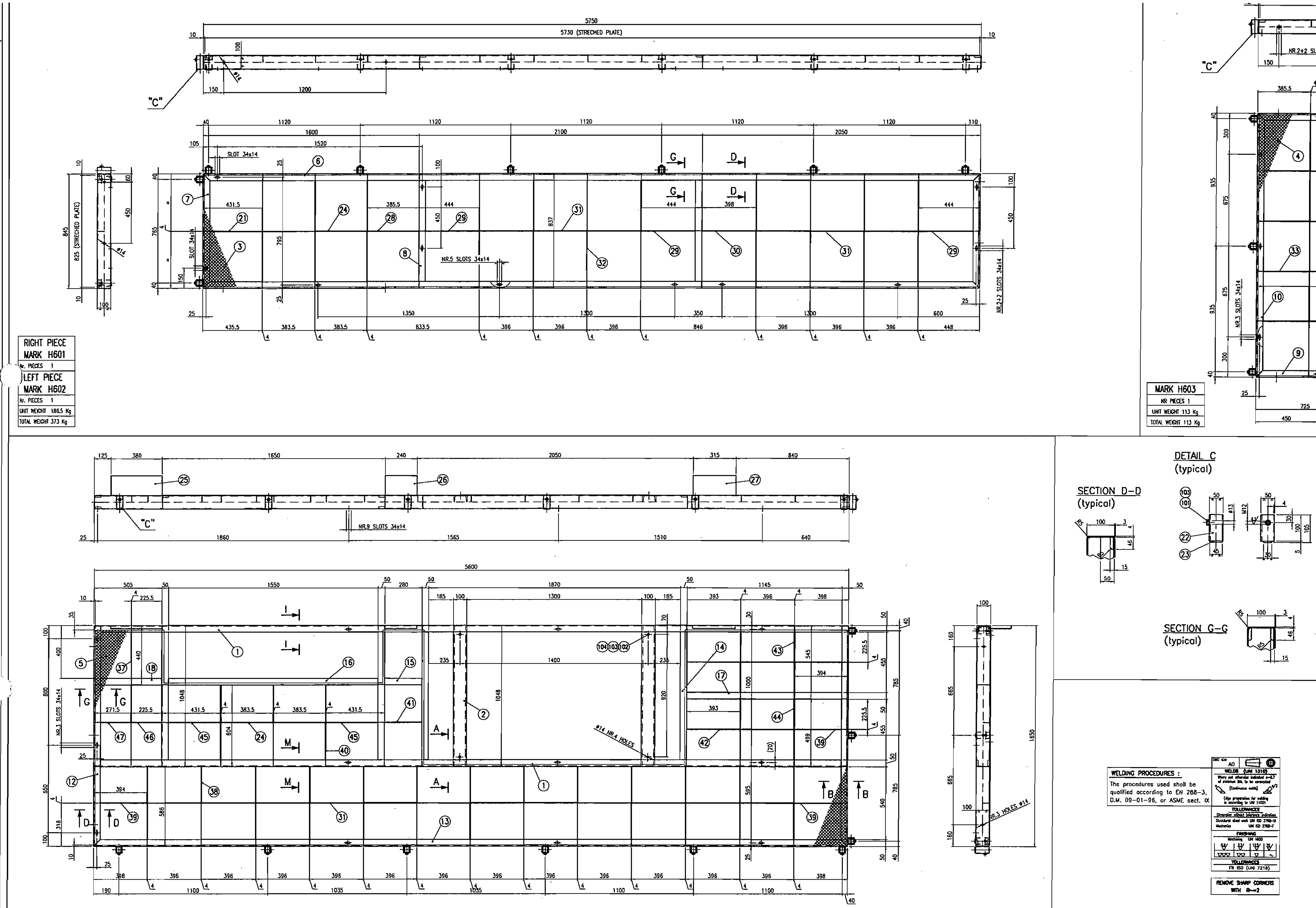
MARK H518
NR PIECES 8
UNIT WEIGHT 0.13 Kg
TOTAL WEIGHT 1 Kg

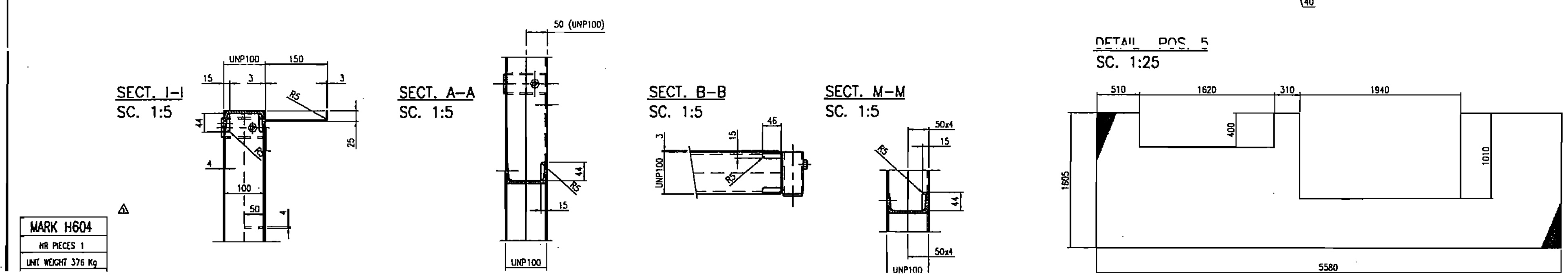


MARK H519
NR PIECES 8
UNIT WEIGHT 0.2 Kg
TOTAL WEIGHT 1.6 Kg

MARK H520
NR PIECES 6
UNIT WEIGHT 0.15 Kg
TOTAL WEIGHT 0.9 Kg







TOTAL WEIGHT – 870 Kg

FINAL PAINTING :
ENAMEL YELLOW RAL 1007

104	4	SCREW M12x80 UNI 5737		8.8			
103	36	NUT M12 UNI 5588		6S			
102	8	WASHER 13 UNI 6592					
101	32	SCREW M12x30 UNI 5739		8.8			

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	UNIT. WEIGHT	TOT. WEIGHT	NOTES
46	1	PLATE 50x4 L=225		Fe 360 B	0.35	0.35	
45	2	PLATE 50x4 L=431 SHAPED		Fe 360 B	0.67	1.35	
44	2	PLATE 50x4 L=499 SHAPED		Fe 360 B	0.78	1.56	
43	2	PLATE 50x4 L=545 SHAPED		Fe 360 B	0.85	1.7	
42	2	PLATE 50x4 L=393		Fe 360 B	0.61	1.2	
41	1	PLATE 50x4 L=280		Fe 360 B	0.45	0.45	
40	4	PLATE 50x4 L=604 SHAPED		Fe 360 B	0.95	3.8	
39	4	PLATE 50x4 L=394 SHAPED		Fe 360 B	0.6	2.4	
38	13	PLATE 50x4 L=586 SHAPED		Fe 360 B	0.9	11.7	
37	1	PLATE 50x4 L=440 SHAPED		Fe 360 B	0.69	0.69	
36	4	PLATE 50x4 L=414 SHAPED		Fe 360 B	0.65	2.6	
35	6	PLATE 50x4 L=366		Fe 360 B	0.57	3.4	
34	4	PLATE 50x4 L=721 SHAPED		Fe 360 B	1.15	4.6	
33	4	PLATE 50x4 L=761 SHAPED		Fe 360 B	1.2	4.8	
32	22	PLATE 50x4 L=837 SHAPED		Fe 360 B	1.3	28.6	
31	26	PLATE 50x4 L=396		Fe 360 B	0.61	15.9	
30	2	PLATE 50x4 L=398		Fe 360 B	0.62	1.24	
29	6	PLATE 50x4 L=444 SHAPED		Fe 360 B	0.7	4.2	
28	2	PLATE 50x4 L=385		Fe 360 B	0.6	1.2	
27	1	PLATE 170x3 L=315 SHAPED BENT		Fe 360 B	1.3	1.3	
26	1	PLATE 170x3 L=240 SHAPED BENT		Fe 360 B	1	1	
25	1	PLATE 170x3 L=380 SHAPED BENT		Fe 360 B	1.5	1.5	
24	6	PLATE 50x4 L=383		Fe 360 B	0.6	3.6	
23	28	PLATE 30x5 L=45		Fe 360 B	0.05	1.4	
22	28	SQUARE PIPE 50x4 L=100		Fe 360 B	0.6	16.8	
21	2	PLATE 50x4 L=431 SHAPED		Fe 360 B	0.65	1.3	
20							
19							
18	1	PLATE 186x4 L=501 SHAPED BENT		Fe 360 B	2.9	2.9	
17	1	PLATE 186x4 L=1191 SHAPED BENT		Fe 360 B	6.9	6.9	
16	1	PLATE 186x4 L=1642 SHAPED BENT		Fe 360 B	9.5	9.5	
15	1	PLATE 186x4 L=280 SHAPED BENT		Fe 360 B	1.6	1.6	
14	4	PLATE 186x4 L=1048 SHAPED BENT		Fe 360 B	6.1	24.4	
13	1	PLATE 186x4 L=5600 SHAPED BENT		Fe 360 B	32.7	32.7	
12	2	PLATE 186x4 L=1650 SHAPED BENT		Fe 360 B	9.6	19.2	
11	1	PLATE 186x4 L=1942 SHAPED BENT		Fe 360 B	11.3	11.3	
10	2	PLATE 186x4 L=1950 SHAPED BENT		Fe 360 B	11.4	22.8	
9	2	PLATE 186x4 L=1500 SHAPED BENT		Fe 360 B	8.76	17.5	
8	4	PLATE 186x4 L=837 SHAPED BENT		Fe 360 B	4.9	19.6	
7	4	PLATE 186x4 L=845 SHAPED BENT		Fe 360 B	5	20	
6	4	PLATE 186x4 L=5750 SHAPED BENT		Fe 360 B	33.5	134	
5	1	STRETCHED PLATE FILS E3 Th.3 1605x5580 SHAPED		Fe 360 B	93.5	93.5	
4	1	STRETCHED PLATE FILS E3 Th.3 1480x1930		Fe 360 B	43.1	43.1	
3	2	STRETCHED PLATE FILS E3 Th.3 825x5730		Fe 360 B	70.9	141.8	
2	2	UPN 100 L=1048 SHAPED		Fe 360 B	11.1	22.2	
1	2	UPN 100 L=5592 SHAPED		Fe 360 B	59.3	118.6	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	27.06.02	REVISED WHERE INDICATED	EsseTre	CUCCHIARO	RIBS
0	10.06.02	FIRST ISSUE	EsseTre	CUCCHIARO	RIBS

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: MAIN GIRDER

TITLE: REAR SIDE POWER WALKWAYS – DETAILS

Substitutes for: ---	SCALE 1:10	Sheet 1	Of 1
File: T06DMCDH006_1.DWG	Format A0		
Job Nr. -600311	Sub.Nr. -060787	Nr. -------	

Fab. Nr.	Dep.	Doc. Type	Part.	Nr.	Rev.
T06	DM	CD	H–	006	1

CLIENT: KIEWIT / FCI / MANSON JV

PROJECT:

Q01
MASTER SWITCHBOARD

Q02
SLAVE SWITCHBOARD

MASTER CONTROL CABIN
- DIESEL ENGINE CONTROL SWITCHBOARD
- CONSOLLE SCREEN WITH TERMINAL
- CONTROL PULPIT LEFT SIDE
- CONTROL PULPIT RIGHT SIDE
- INTERPHONE
- CONDITIONER (CUSTOMER SUPPLY)

SLAVE CONTROL CABIN
- CONSOLLE SCREEN WITH TERMINAL
- CONTROL PULPIT LEFT SIDE
- CONTROL PULPIT RIGHT SIDE
- INTERPHONE
- CONDITIONER (CUSTOMER SUPPLY)

ELECTRICAL SYMBOLS

LEVEL SWITCH	(LS)	PRESSURE SWITCH	(PS)
HORN	(HO)	THERMIC SWITCH	(TS)
PROPORTIONAL SOLENOID VALVE	(PSV)	PENDANT PUSH BUTTON OR JOY STICK	(PB)
SOLENOID VALVE	(SV)	ROTATING LIGHT	(RL)
THREE-PHASE A.C. MOTOR	(M)	RADIO CONTROL	(RAC)
THREE-PHASE A.C. GENERATOR	(G)	BRAKE	(BR)
MECHANICAL LIMIT SWITCH	(LS)	FLOOD LIGHT	
JUNCTION BOX	(JB)	SOCKETS GROUP WITH FUSE	(X)
ELECTRIC SWITCHBOARD	(Q.)	SHUNT BOX	
TROLLEY BAR		FEMALE PLUG-IN CONNECTOR MALE PLUG-IN CONNECTION	
CABLE GLAND		LIQUID TIGHT FITTING	

LIGHTING EQUIPMENTS SIGNATURE READING KEYS

PROGRESSIVE NUMBER LAMP — Q. — ITEM SWITCHBOARD — PHASE NUMBER WITH NEUTRAL

LIQUID TIGHT ø120 NUMBERING SYSTEM

LT1=1st LIQUID TIGHT REAR SIDE
LT2=2nd LIQUID TIGHT REAR SIDE
LT3=3rd LIQUID TIGHT REAR SIDE
LT4=4th LIQUID TIGHT REAR SIDE
LT5=1st LIQUID TIGHT FRONT SIDE
LT6=2nd LIQUID TIGHT FRONT SIDE
LT7=3rd LIQUID TIGHT FRONT SIDE

CABLE TRAY ITEM

A=CABLE TRAY INSIDE TRUSS
B=CABLE TRAY REAR SIDE UNDER Q01 SWITCHBOARD
C=CABLE TRAY REAR SIDE
D=CABLE TRAY REAR TROLLEY
E=CABLE TRAY FRONT SIDE UNDER Q02 SWITCHBOARD
F=CABLE TRAY FRONT SIDE
G=CABLE TRAY FRONT TROLLEY

READING KEYS

CS: CABLE W100 (A) =CABLE N° W100 INSTALLED ON CABLE TRAY SIGNED "A"
CABLE W130 (A)-(C)/LT2=CABLE N° W130 INSTALLED ON CABLE TRAY SIGNED "A" AND "C"/LIQUID TIGHT SIGNED LT2

REFERENCE DRAWINGS

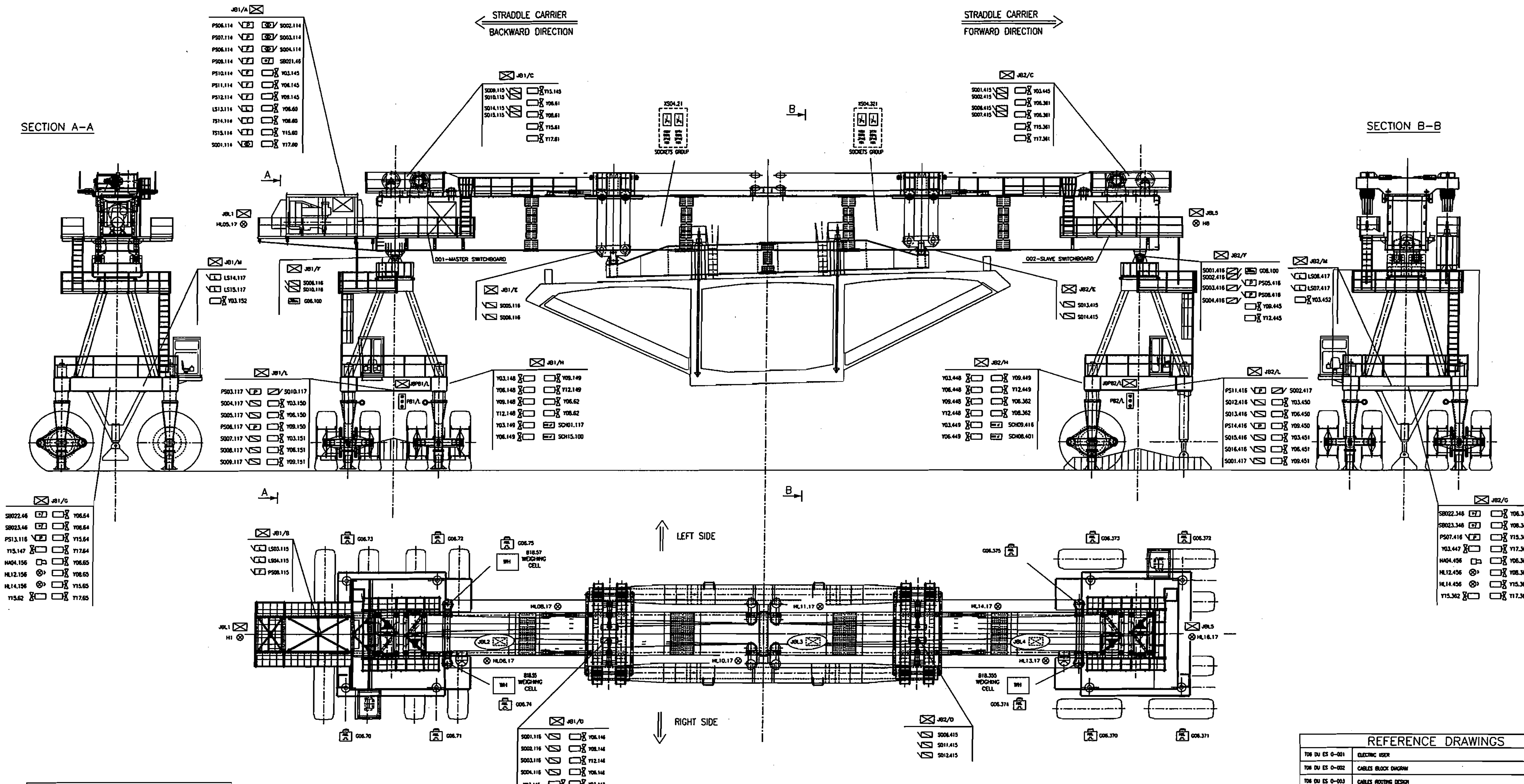
T06 DU ES 0-001	ELECTRIC USER
T06 DU ES 0-002	CABLES BLOCK DIAGRAM
T06 DU ES 0-003	CABLES ROUTING DESIGN
T06 DU ES 0-004	Q01-MASTER SWITCHBOARD-ELECTRIC DIAGRAM
T06 DU ES 0-005	Q02-SLAVE SWITCHBOARD-ELECTRIC DIAGRAM

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1	30/10/02	REVISED WHERE INDICATED	A.ZANIN	L.COCCOTTI	G.RIBIS
0	30/05/02	FIRST ISSUE	A.ZANIN	L.COCCOTTI	G.RIBIS

DEAL

APPROVED: STRADDLE CARRIER SC 720 - 32
BRANCH: ELECTRIC DRAWING
TITLE: CABLES BLOCK DIAGRAM
Substitution for: ---
Scale: -
Sheet: 1 Of: 1
File: T06DUES0-001DWG
Format: A0
Job No.: -400311
Sub-Job: ---------
Doc. No.: T06DUES0-0021
Rev.: 1

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA



ELECTRICAL SYMBOLS			
LEVEL SWITCH	(LS)	PRESSURE SWITCH	(PS)
HORN	(HS)	THERMIC SWITCH	(TS)
PROPORTIONAL SOLENOID VALVE	(PSV)	PENDANT PUSH BUTTON OR JOY STICK	(PB)
SOLENOID VALVE	(SV)	ROTATING LIGHT	(HL)
THREE–PHASE A.C. MOTOR	(M)	RADIO CONTROL	(RAC)
THREE–PHASE A.C. GENERATOR	(G)	BRAKE	(MB)
MECHANICAL LIMIT SWITCH	(LS)	FLOOD LIGHT	
JUNCTION BOX	(JB)	SOCKETS GROUP WITH FUSE	(X)
ELECTRIC SWITCHBOARD	(QL)	SHUNT BOX	
TROLLEY BAR		FEMALE PLUG–IN CONNECTOR / MALE PLUG–IN CONNECTOR	
CABLE GLAND		LIQUID TIGHT FITTING	

LIGHTING EQUIPMENTS SIGNATURE READING KEYS

PROGRESSIVE NUMBER LAMP — QL — FROM SWITCHBOARD — PHASE NUMBER WITH NEUTRAL

REFERENCE DRAWINGS	
T06 DU ES 0–001	ELECTRIC USER
T06 DU ES 0–002	CABLES BLOCK DIAGRAM
T06 DU ES 0–003	CABLES ROUTING DESIGN
T06 DU ES 0–004	001–MASTER SWITCHBOARD–ELECTRIC DIAGRAM
T06 DU ES 0–005	002–SLAVE SWITCHBOARD–ELECTRIC DIAGRAM

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	20/05/02	FIRST ISSUE	A.ZANNI	L.CECCOTTI	G.ABIS

DEAL

STRADDLE CARRIER
SC 720 – 32

ELECTRIC DRAWING

ELECTRIC USER

Scale: – Sheet 1 of 1

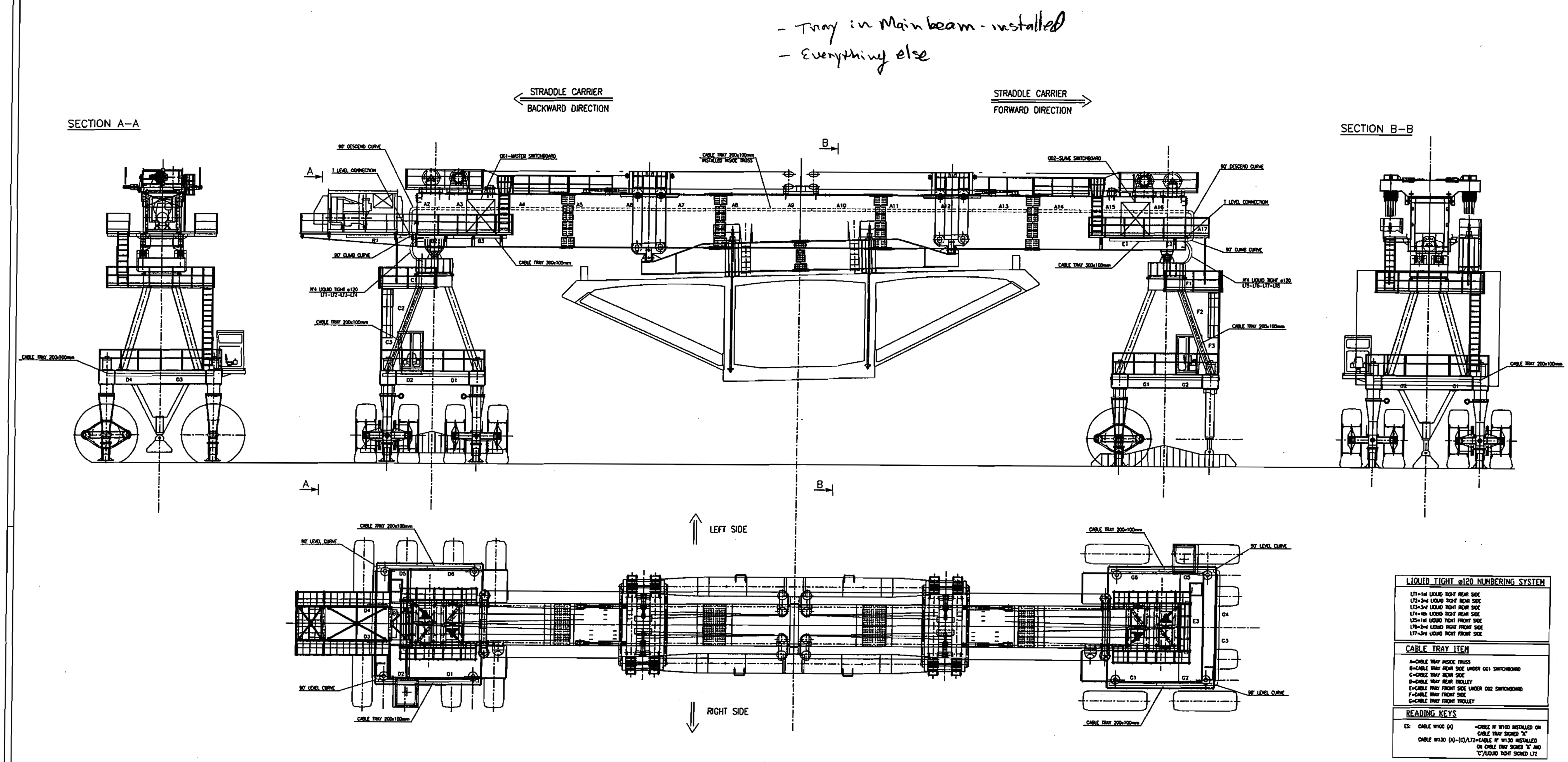
File: T06DUES0-001DWG Format: A0

Job No.: -600311

T06 DU ES 0 - 0010

Client: KIEWIT / FCI / MANSON JV

Project: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA



REFERENCE DRAWINGS	
T06 DU ES 0-001	ELECTRIC USER
T06 DU ES 0-002	CABLES BLOCK DIAGRAM
T06 DU ES 0-003	CABLES ROUTING DESIGN
T06 DU ES 0-004	001-MASTER SWITCHBOARD-ELECTRIC DIAGRAM
T06 DU ES 0-005	002-SLAVE SWITCHBOARD ELECTRIC DIAGRAM

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	20/05/02	FIRST ISSUE	A.ZANIN	L.COCOTTI	C.RIBIS

DEAL

STRADDLE CARRIER
SC 720 - 32

ELECTRIC DRAWING

CABLES ROUTING AND DESIGN

Sheet 1 of 1

File: T06DUES0-003.DWG — Format: A0

Job Nr.: -600311

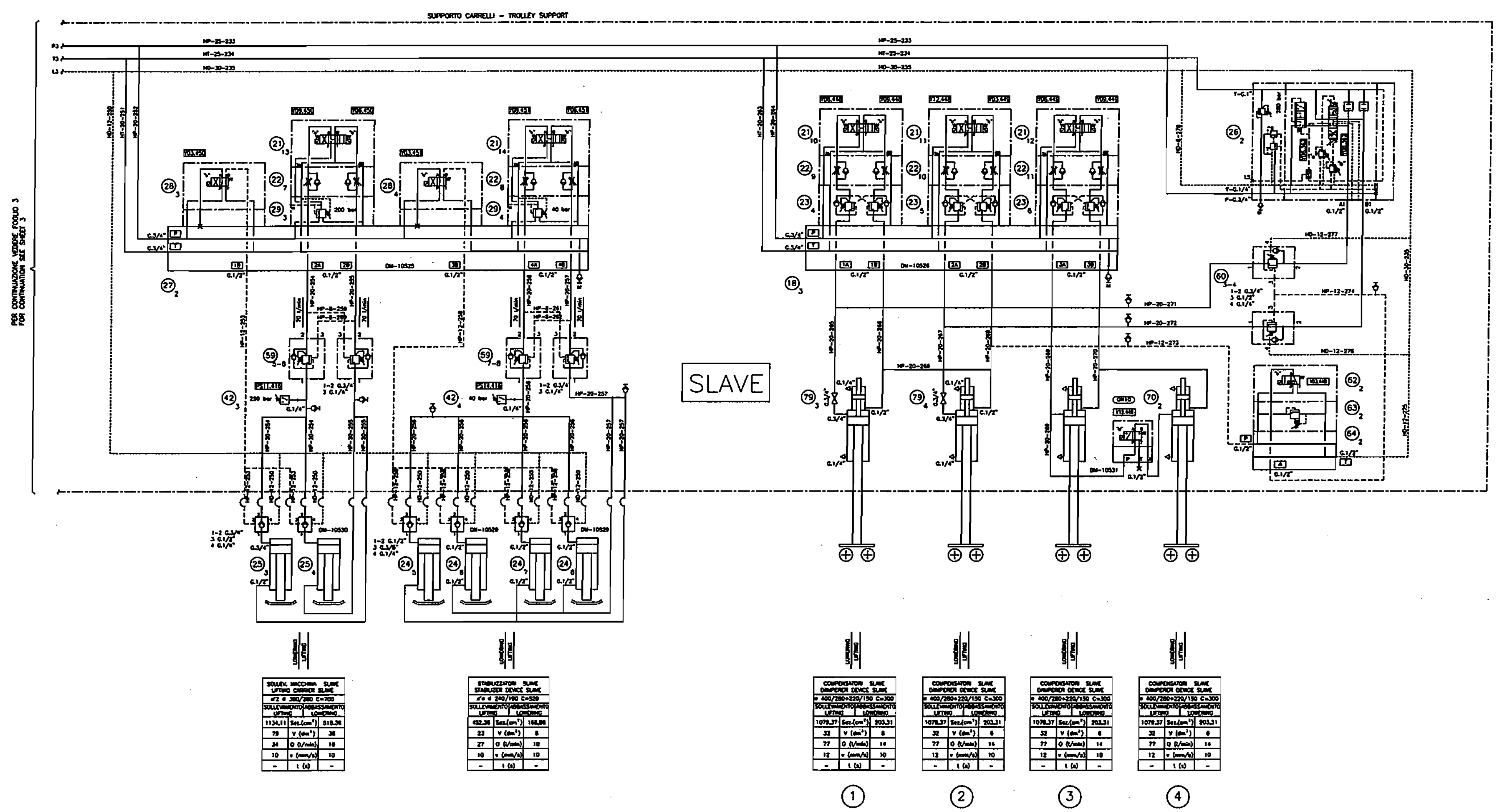
T06 DU ES 0 - 003 0

Client: KIEWIT / FCI / MANSON JV

Project: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA

LISTA MATERIALI - LIST OF MATERIAL

Pos. / Pos.	Q.ty / Q.tà	Descrizione / Description	Tipo - Type	Costruttore / Manufacturer
79	4	VALVOLA A SFERA / BALL VALVE	KHB-G3/4-1212-01X	HYDAC
78	1	BLOCCO / MANIFOLD	CP0102 T06-DU-CP-0-001	DEAL
77	1	BLOCCO / MANIFOLD	CP0101 T06-DU-CP-0-001	DEAL
76	8	VALVOLA A SFERA / BALL VALVE	KHB-G.3/8"-1112-01X	HYDAC
75	2	SFIATO ARIA / AIR VENT	BD400F2W1.0	HYDAC
74	1	FILTRO / FILTER	RF-BN/HC1300-DP-10-C-1.0/V	HYDAC
73	2	FILTRO / FILTER	DF-BH/HC330-F-10-C-1.1/V	HYDAC
72	2	FILTRO / FILTER	LF-BN/HC330-IF-10-C-1.0/V	HYDAC
71	1	SCAMBIATORE DI CALORE / HEAT EXCHANGER	OKAF-EL10L-130/2.0/C/ M/A/LPF280/10/1	HYDAC
70	2	ELETTROVALVOLA / SOLENOID VALVE	3WE10A3X/CG24N9K4+ PIASTRA G 67/01 (G.1/2")	REXROTH
69	90	PRESA DI PRESSIONE / PRESSURE CONNECTION	0714G00C G.1/4"	MINI PRESS
68	1	VALVOLA DI NON RITORNO / CHECK VALVE	S15A1.0	REXROTH
67	1	VALVOLA A SFERA / BALL VALVE	KHB-G.3/4"-1112-01X	HYDAC
66	1	PIASTRA / PLATE	G 534/01	REXROTH
65	1	VALVOLA DI MAX. PRESSIONE / RELIEF VALVE	Z2DB10VC2-4X/100V	REXROTH
64	2	PIASTRA / PLATE	G 502/01	REXROTH
63	2	VALVOLA DI MAX. PRESSIONE / RELIEF VALVE	Z2DB6VP2-4X/315V	REXROTH
62	2	ELETTROVALVOLA / SOLENOID VALVE	M-3SEW6C3X/420MG24N9K4	REXROTH



LISTA MATERIALI - LIST OF MATERIAL

Pos. / Pos.	Q.ty / Q.tà	Descrizione / Description	Tipo - Type	Costruttore / Manufacturer
61	2	VALVOLA DI NON RITORNO / CHECK VALVE	CKEB-XCN-BCW/S	SUN
60	4	VALVOLA DI BILANCIAMENTO / BALANCING VALVE	CWEA-LHN-NAW/S	SUN
59	8	VALVOLA DI BILANCIAMENTO / BALANCING VALVE	CBEA-LHN-BCW/S	SUN
58	2	VALVOLA A SFERA / BALL VALVE	KHB-G.1"-1112-01X	HYDAC
57	2	VALVOLA A SFERA / BALL VALVE	KHB-G.1/2"-1112-01X	HYDAC
56	6	VALVOLA A SFERA / BALL VALVE	KHM-G.1.1/2"-1112-01X	HYDAC
55	2	VALVOLA DI NON RITORNO / CHECK VALVE	S30A1.0	REXROTH
54	2	ACCUMULATORE / ACCUMULATOR	SB0140-1,4E1/112S140AK P0=10 ASME "U" STAMP	HYDAC
53	2	KIT ACCOPPIAMENTO / KIT	POMPA PLP20 MOTORE M2A90S4	MP FILTRI
52	2	POMPA A INGRANAGGI / GEAR PUMP	PLP20-31,500-82E2- LGE/GD-N G.3/4"	CASAPPA
51	2	BLOCCO / BLOCK	OC.10.09.076 G.1"	EDI SYSTEM
50	2	CONNETTORE / ELECTRIC PLUG	00.01.01.01.00.00	EDI SYSTEM
49	2	BOBINA / COIL	SB 00.02-11-01.30-0C	EDI SYSTEM
48	2	ELETTROVALVOLA / SOLENOID VALVE	VEI-8A-2A-12-NA-S1 00.15.02.21-17-00	EDI SYSTEM
47	2	REGOLATORE DI FLUSSO / FLOW REGULATOR	FT257/2-100 G.1"	TOGNELLA
46	2	VALVOLA DI NON RITORNO / CHECK VALVE	S20A1.0	REXROTH
45	2	VALVOLA DI NON RITORNO / CHECK VALVE	S8A5.0	REXROTH
44	2	VALVOLA DI NON RITORNO / CHECK VALVE	S30A5.0	REXROTH
43	6	VALVOLA DI NON RITORNO / CHECK VALVE	S8A1.0	REXROTH
42	6	PRESSOSTATO / PRESSURE SWITCH	HED8OA1X/350K14AS	REXROTH
41	2	PRESSOSTATO / PRESSURE SWITCH	HED8OA1X/50K14AS	REXROTH
40	2	SFIATO ARIA / AIR VENT	BD100F2W1.0	HYDAC
39	2	LIVELLO ELETTRICO / ELECTRIC LEVEL	IEG-TC1 A=250	MP FILTRI
38	2	LIVELLO ELETTRICO / ELECTRIC LEVEL	IEG-TC1 A=150	MP FILTRI
37	1	LIVELLO ELETTRICO / ELECTRIC LEVEL	IEG-TC1 A=500	MP FILTRI
36	2	LIVELLO VISIVO / OPTICAL LEVEL	LVA30-127-M12	MP FILTRI
35	1	LIVELLO VISIVO / OPTICAL LEVEL	LVA30-254-M12	MP FILTRI
34	2	TERMOSTATO / TEMPERATURE SWITCH	KPS-77	DANFOSS
33	1	GIUNTO ELASTICO / ELASTIC JOINT	DN100 PN16	
32	1	VALVOLA A FARFALLA / BUTTERFLY VALVE	DN100 PN16 LUG	
31	3	VALVOLA A SFERA / BALL VALVE	G.2" PN16	
30	3	VALVOLA A SFERA / BALL VALVE	G.1" PN16	
29	4	RIDUTTRICE DI PRESSIONE / PRESSURE REDUCING VALVE	ZDR10VP5-3X/200YM	REXROTH
28	4	SOLENOID VALVE / ELETTROVALVOLA	4WE6D6X/EG24N9K4+ EB4-15	REXROTH
27	2	BLOCCO VALVOLE / VALVES BLOCH	EM20-5/4Y	REXROTH
26	2	BLOCCO DISTRIBUTORI PROPORZIONALI / PROPORTIONAL CONTROL BLOCK	M4-5145-00/ 1M4-12JW21R 775530	REXROTH
			J280Y SZ-Z0100-68W21R000 LAV01	
25	4	VALVOLA DI RITEGNO / CHECK VALVE	CVEV/XCN NAW/S	SUN
24	8	VALVOLA DI RITEGNO / CHECK VALVE	CVCV/XCN MAV/S	SUN
23	6	VALVOLA DI BILANCIAMENTO / BALANCING VALVE	CBEA-LHN-BJY/S	SUN
22	11	REGOLATORE DI FLUSSO / FLOW REGULATOR	Z2FS10-5-3X/V	REXROTH
21	14	SOLENOID VALVE / ELETTROVALVOLA	4WE10J3X/CG24N9K4	REXROTH
20	3	VALVOLA DI RITEGNO / CHECK VALVE	S2S10-1-3X/	REXROTH
19	3	REGOLATORE DI FLUSSO / FLOW REGULATOR	Z2FS10-5-3X/S2V	REXROTH
18	3	BLOCCO VALVOLE / VALVES BLOCH	EM20-5/3Y	REXROTH
17	4	BLOCCO DISTRIBUTORI PROPORZIONALI / PROPORTIONAL CONTROL BLOCK	M4-5146-00/ 2M4-12JW21R 775537	REXROTH
			J280Y SZ-ZE46-31W21R000H130H180 SZ-ZE46-31W21R000H130H180 LAV01	
16	2	PRESSOSTATO / PRESSURE SWITCH	HED50P1-2X/50Z14+ 30-Z6-013	REXROTH
15	2	VALVOLA PROPORZIONALE CONTROLLO PRESS / PROPORTIONAL CONTROL VALVE	FTDRE4K1X/30AG24C4V+ PK-30-M1-F482-02 (G.1/4")	REXROTH
14	2	SOLENOID VALVE / ELETTROVALVOLA	KKDER1NA/HCG24N0K4V+ BLOCCO GAU/S	REXROTH
13	8	MOTORE IDRAULICO / HYDRAULIC MOTOR	A6VM107HD2/63W-0340- VZB0278	REXROTH
12	2	ELECTRONIC CARD / SCHEDA ELETTRONICA	PVR24F/11	REXROTH
11	2	POMPA A PISTONI / PISTON PUMP	A4VSG250EP2D1/32L- NZ010F01D	REXROTH
10	2	BLOCCO DISTRIBUTORI PROPORZIONALI / PROPORTIONAL CONTROL BLOCK	M4-3629-00/ 2M4-15W21R 775541	REXROTH
			J280 SZ-ZJ96-96W21R000 SZ-ZJ96-96W21R000 LAYV01	
9	12	REGOLATORE DI FLUSSO / FLOW REGULATOR	MK6G1X/V	REXROTH
8	4	VALVOLA DI BILANCIAMENTO / BALANCING VALVE	BVD20W28LW41B- V03K000600S00	REXROTH
7	4	MOTORE IDRAULICO / HYDRAULIC MOTOR	A6VM107HD1D/63W-0500- VZB370B	REXROTH
6	4	SOLENOID VALVE / ELETTROVALVOLA	4WE6D6X/EG24N9K4+ PIASTRA G342/01 (G.3/8")	REXROTH
4	1	SOLENOID VALVE / ELETTROVALVOLA	4WE6D6X/EG24N9K4+ PIASTRA G341/01 (G.1/4")	REXROTH
3	4	ELECTRONIC CARD / SCHEDA ELETTRONICA	MHVA881X/024F	REXROTH
2	1	POMPA A INGRANAGGI / GEAR PUMP	ZFZ11-11L213	REXROTH
1	1	POMPA A PISTONI / PISTON PUMP	HA4VS00FR/30L-PZB13N00N	REXROTH

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1	06/08/02	ADDED ELECTRICAL TAG	BASSO	.	.
0	04/06/02	FIRST ISSUE	BASSO	.	.

DEAL

STRADDLE CARRIER
SC 720 - 32

HYDRAULIC DIAGRAM

Sheet 4 of 4

Format: A0

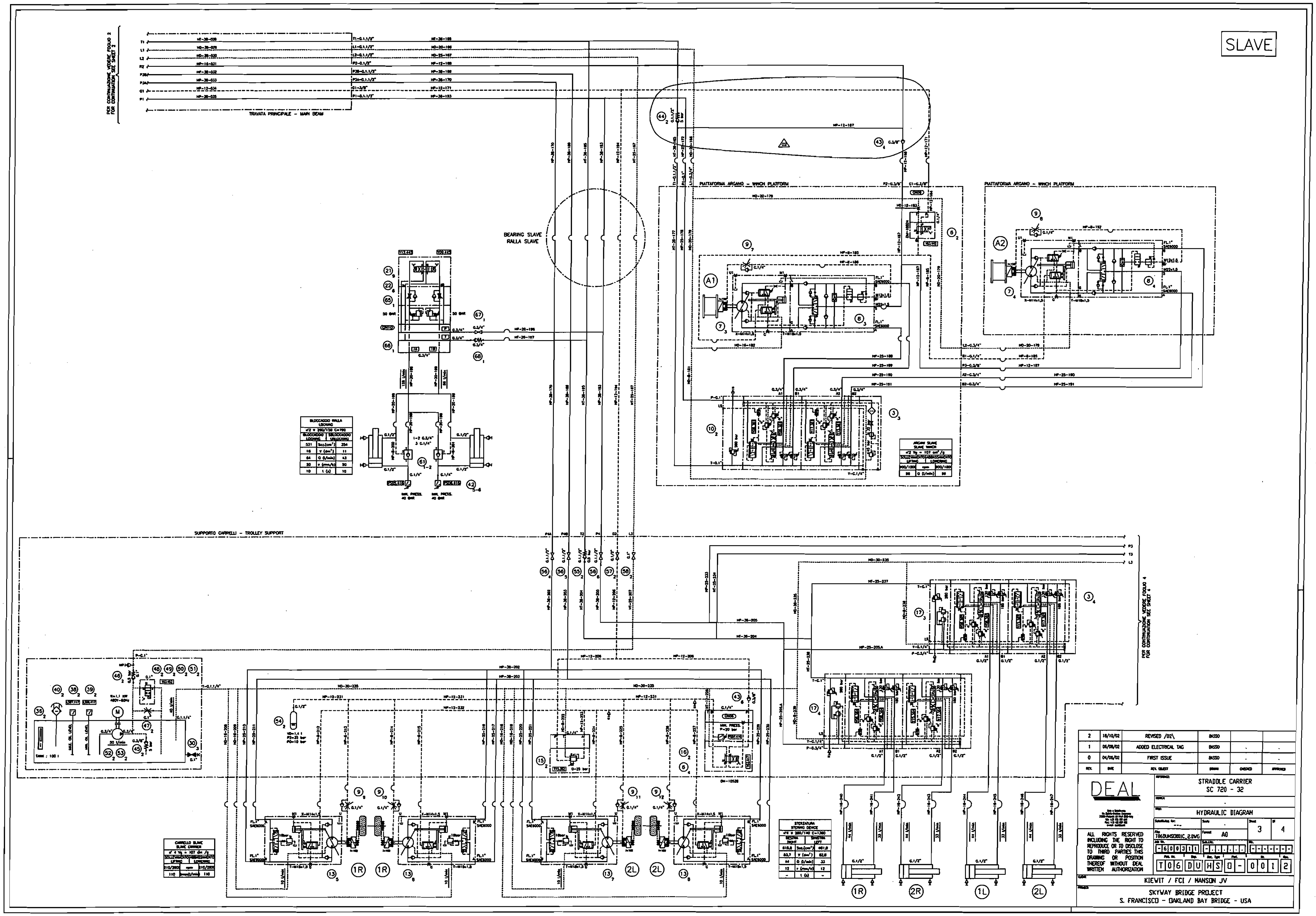
File: T06DUHS0001D_2.DWG

Job Nr.: -600311

T06 DU HS 0- 001 2

KIEWIT / FCI / MANSON JV

SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA



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0	04/06/02	FIRST ISSUE	BASSO	.	.

DEAL

STRADDLE CARRIER
SC 720 - 32

HYDRAULIC DIAGRAM

File: T06DUHS0001C_2.DWG — Format: A0 — Sheet 3 of 4

Job No.: -600311

T06 DU HS 0- 001 2

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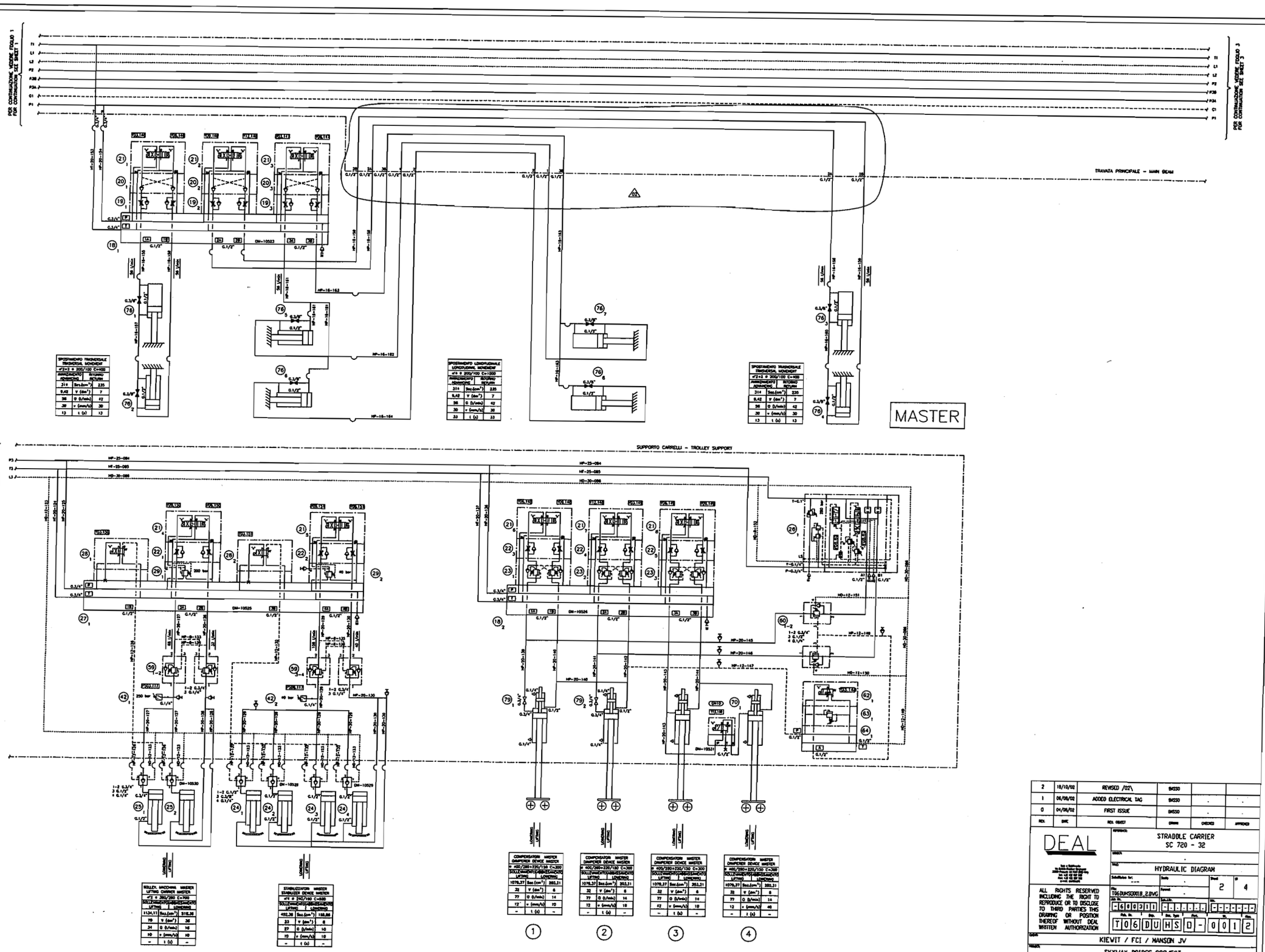
SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA



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REV.	DATE	REVISION OBJECT	DRAWN	CHECKED	APPROVED

DEAL

STRADDLE CARRIER
SC 720 - 32

HYDRAULIC DIAGRAM

Sheet 2 of 4

File: T06DUHSD0018_2.DWG

Job No. 0 0 0 3 1 1 | Sub-Job. - - - - - - | Sub-Sub. - - - - - -

T 0 6 D U H S D - 0 0 1 2

KIEWIT / FCI / MANSON JV

SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA

CENTRALE OLEODINAMICA – HYDRAULIC UNIT

TRAVATA PRINCIPALE – MAIN BEAM

PIATTAFORMA ARGANO – WINCH PLATFORM

PIATTAFORMA ARGANO – WINCH PLATFORM

MASTER

SUPPORTO CARRELLI – TROLLEY SUPPORT

FLUIDO: ESTERE SINTETICO HEES – PANOLIN HLP SYNTH 46
FLUID : SYNTHETIC ESTER HEES – PANOLIN HLP SYNTH 46

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0	04/04/02	FIRST ISSUE	BASSO	.	.
REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED

DEAL

STRADDLE CARRIER
SC 720 - 32

HYDRAULIC DIAGRAM

Sheet 1 of 4

T06DUHS0001A_2.DWG

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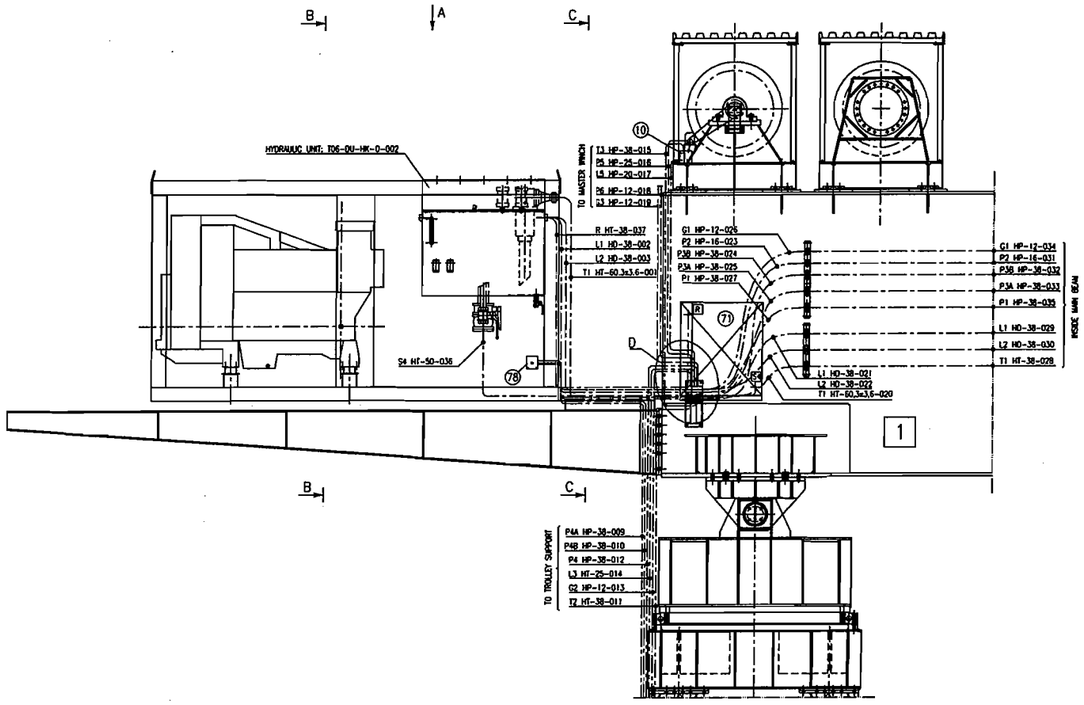
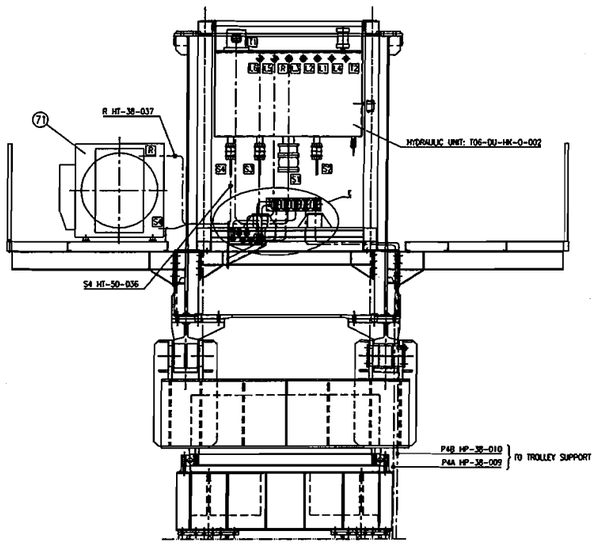
SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA





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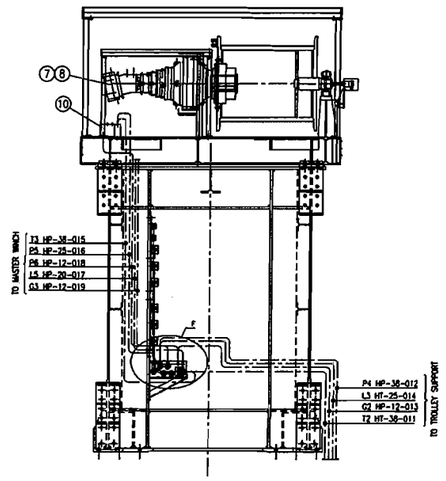

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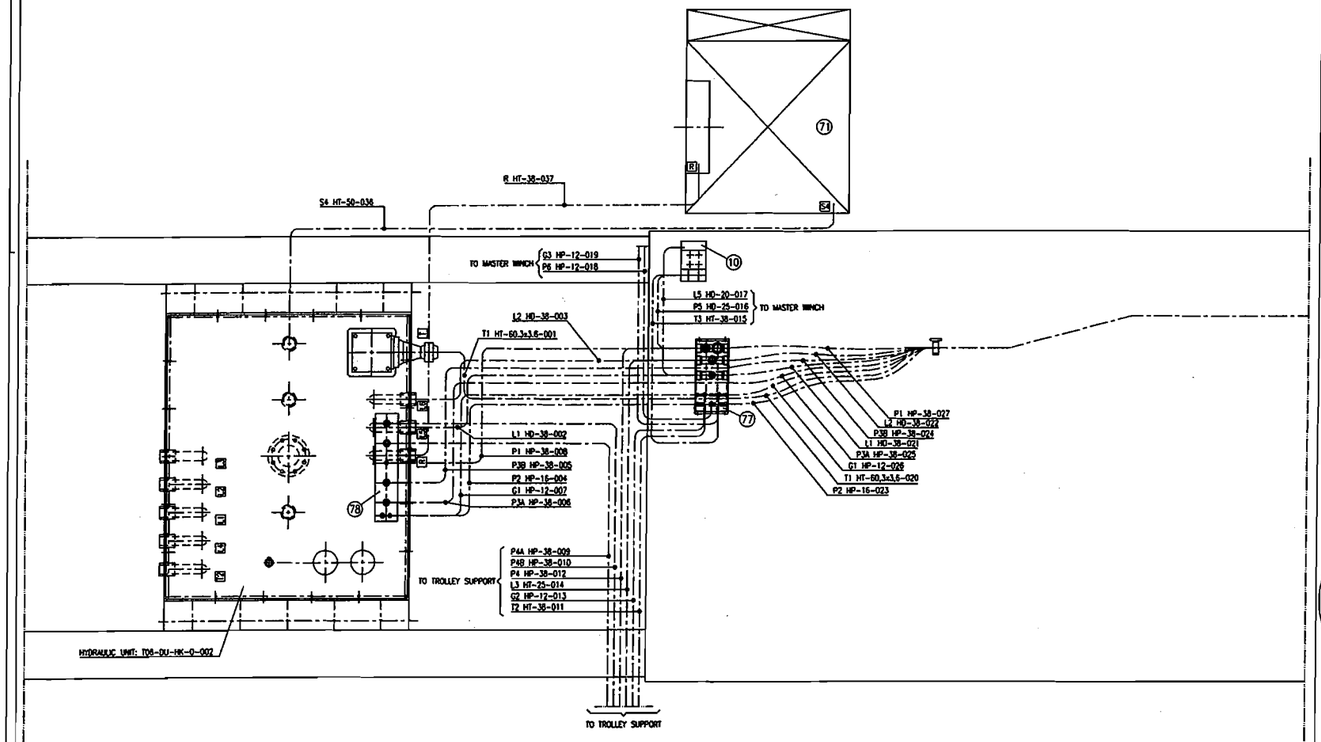

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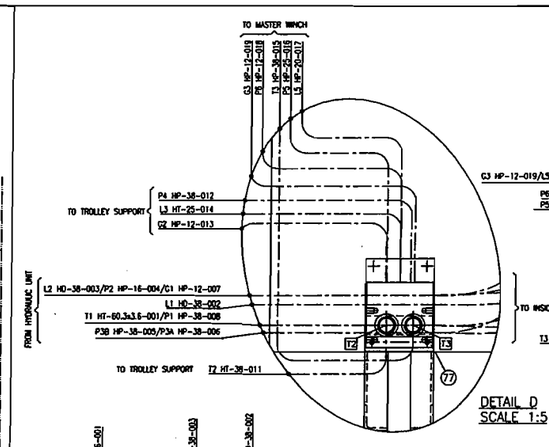

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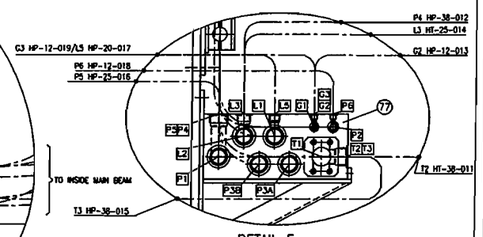

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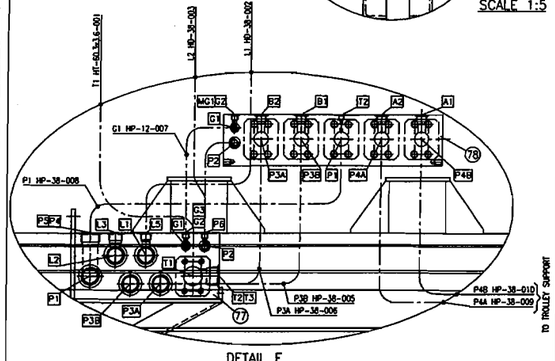

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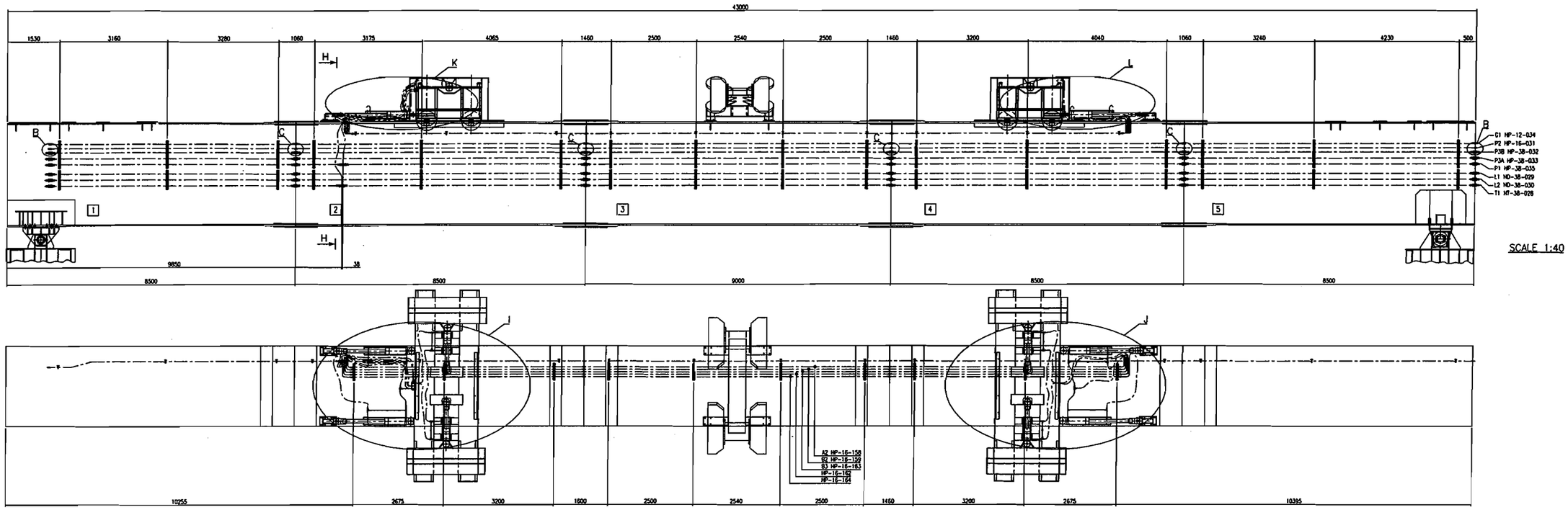
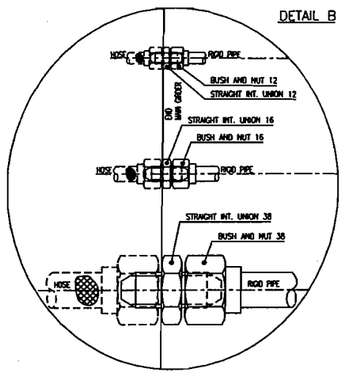
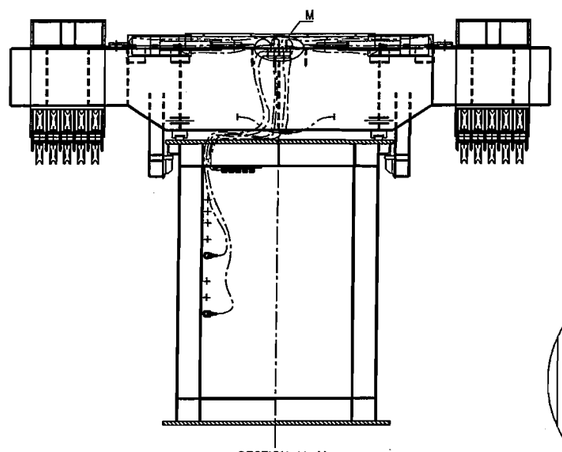
0	05/06/02	FIRST ISSUE	ORDR	BASSO	PARIS
REV.	DATE	REVISION	DRAWN	CHECKED	APPROVED

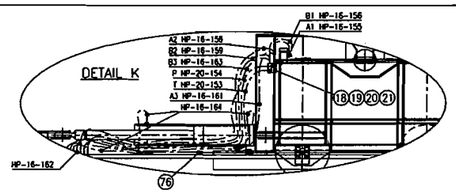
DEAL

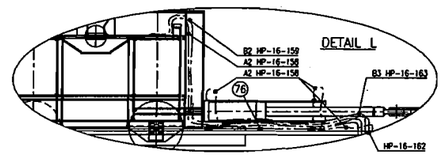
STRADDLE CARRIER
SC 720 - 32
MAIN GIRDER
PIPING
Scale 1:20
Sheet 1 of 1
File T06ORHPA002.DWG
Format A0
Job no. -60031
Sub-Job. -06021
Doc. no. T06ORHPA-0020
KIEWIT / FCI / MANSON JV
SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA

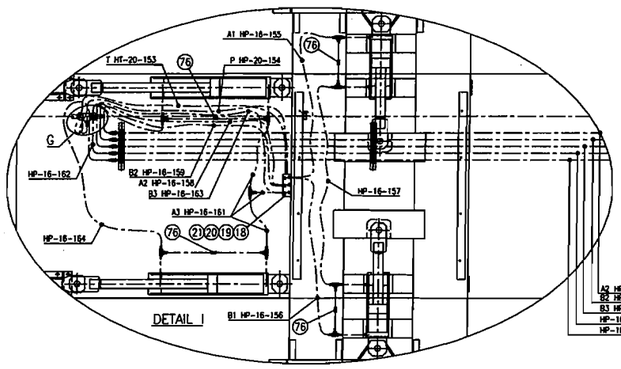


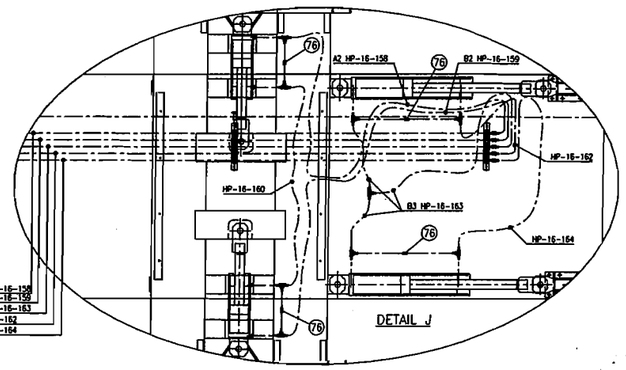


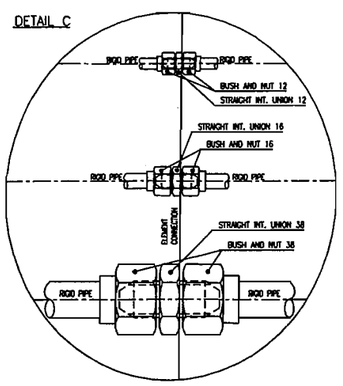


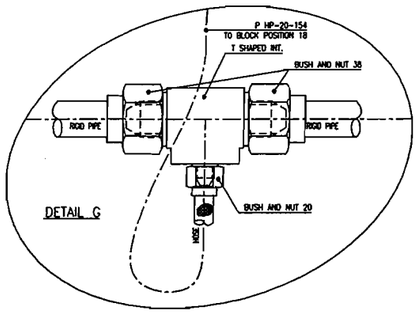












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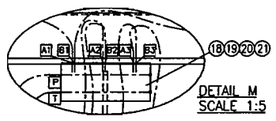

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REF. LIST OF MATERIAL: T06-DU-HM-0-001

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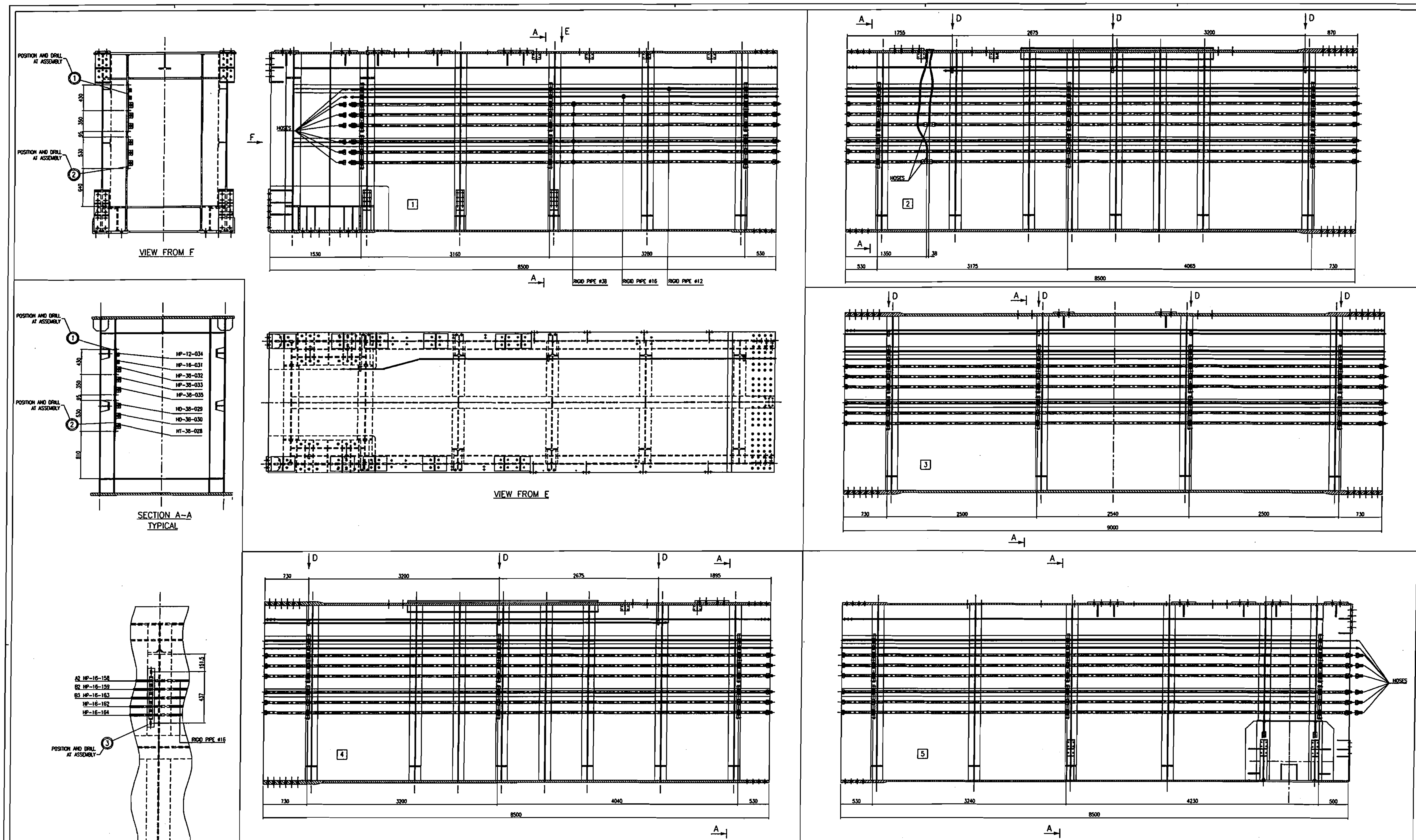
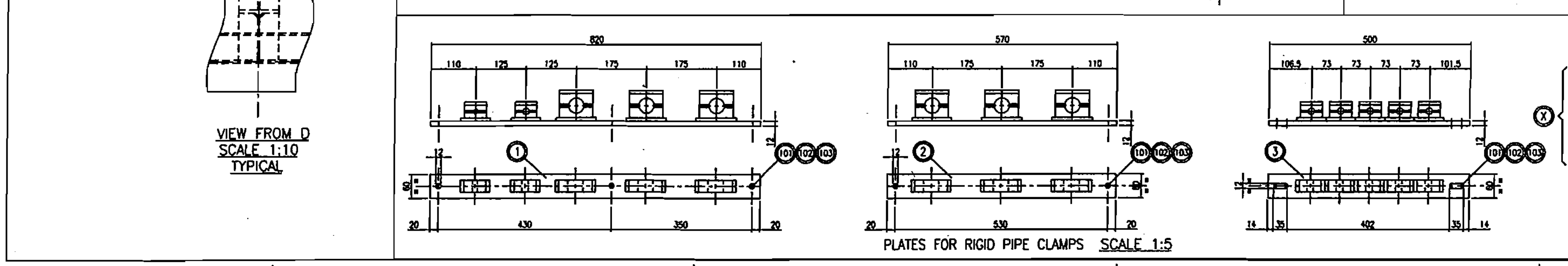
REV.	DATE	REV. DESCR.	DRAWN	CHECKED	APPROVED

DEAL

STRADDLE CARRIER
SC 720 - 32
MAIN GIRDER
PIPING
Scale 1:20
Format A0
Sheet 1 of 2
File T06ORHPA001_1.DWG
Job No. -6003110
Sub Loc. -0602100
Doc. ---------
Pos. No. T06ORHPA-001 1
Dwg. Doc. Type Prod. Qty. Rev.

CLIENT
KIEWIT / FCI / MANSON JV
PROJECT
SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA





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REF. LIST OF MATERIAL: T06-DU-HM-0-001

POS.	Q.TY	DESCRIPTION	COD.	MATERIAL	WEIGHT UNI.	WEIGHT TOT.	NOTES
103	100	NUT M10 UNI 5588 6S	•	•	•	•	
102	200	WASHER 10.5x20 UNI6592 R40	•	•	•	•	
101	100	SCREW M10x50 UNI5739 8.8	•	•	•	•	
3	10	PLATE 60x12 L=500	•	Fe 430 B	2.7	27	
2	16	PLATE 60x12 L=570	•	Fe 430 B	3.2	51.2	
1	16	PLATE 60x12 L=820	•	Fe 430 B	4.6	73.6	

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1		GENERAL REVISION	ORCB	BASSO	RIBIS
0		FIRST ISSUE	ORCB	BASSO	RIBIS

DEAL

STRADDLE CARRIER
SC 720 – 32

MAIN GIRDER

PIPING

Scale 1:20 — Sheet 2 of 2

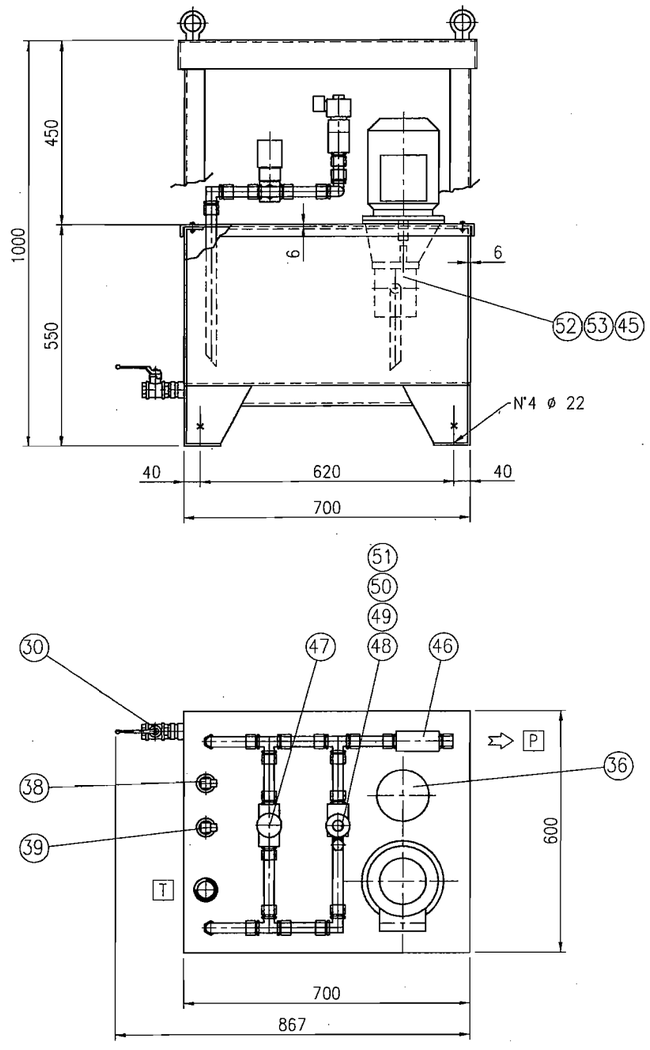
File: T06ORHPA001_1.DWG — Format A0

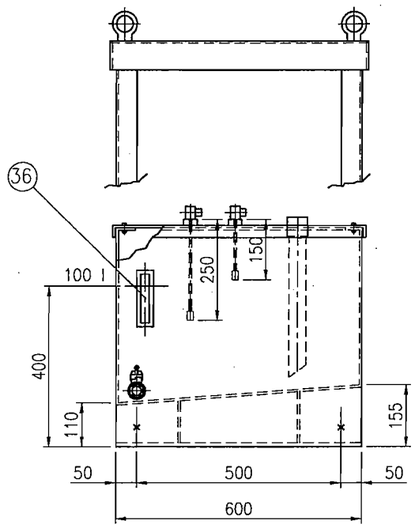
-600311 | -060210D | -------

T06 0R HP A– 001 1

KIEWIT / FCI / MANSON JV

SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA





NOTE GENERALI – GENERAL NOTE

Prevedere dei pannelli di chiusura asportabili sui quattro lati dotati di opportune aperture per l'uscita dei tubi e la ventilazione dei motori elettrici.

To provide removable panel on four side of the graup with suitable opening for piping connection and ventilation of the electric motor.

I motori elettrici dovranno essere installati su supporti antivibranti ed il piping di collegamento delle pompe sarà realizzato con tubo flessibile a giunti elastici.

The electric motor will be installed on vibration damper and piping connection of the pump will be done with flexible hose or expansion joint.

Tutte le tubazioni di ritorno e ospirazione dovranno terminare al di sotto del livello minimo del serbatoio.

All the return and suction pipe must finish under the minimum level of the tank.

Il serbatoio dovrà essere dotato di opportuni portelli di ispezione su uno o più lati.

The tank will be equipped with ispection door on one or more side.

Materiale serbatoio : Fe 360 B

Tank material: Fe 360 B

Colorazione esterna: RAL 3000

Esternal color: RAL 3000

Tutte le connessioni dovranno essere contrassegnate come da indicazioni riportate sullo schema oleodinamico corrispondente.

All the connection have to be marked according to the hydraulic diagram.

Tutti i tubi flessibili dovranno riportare la dato di fabbricazione.

All the flexible hose have to be marked with the manufacturing dote.

TABELLA CONNESSIONI
CONNECTION TABLE

PORT	CONNECTION TYPE
P	G.1"
T	G.1.1/4"

REMOVE SHARP CORNERS
WITH R~=2

DWG size A*

WELDS (UNI 1310)
Where not otherwise indicated a=0.7 of minimun thk. to be connected
(Continuous welds)
Edge preparation for welding in according to UNI 11001

TOLLERANCES
Dimension without tolerance indication
Structurol steel work UNI ISO 2768-M
Mechanics UNI ISO 2768-F

FINISHING
Machining UNI 4600
0,8/ | 3,2/ | 12,5/ | 25/

TOLLERANCES
Fit ISO (UNI 7218)

WELDING PROCEDURES :
The proceaures used shall be qualified according to EN 288-3, D.M. 09-01-96, or ASME sect. IX

SCHEMA OLEODINAMICO: T06-DU-HS-O-001
HYDRAULIC DIAGRAM : T06-DU-HS-O-001

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
2					
1					
0	25/06/02	FIRST ISSUE	BASSO		

DEAL
Sede e Stabilimento
Via Buttrio-Frazione Cargnacco
33050-Pozzuolo del Friuli (UD)-Italy
Tel.: +39 432 607 990
Fax.: +39 432 607 902
e-mail: deal@deal.it

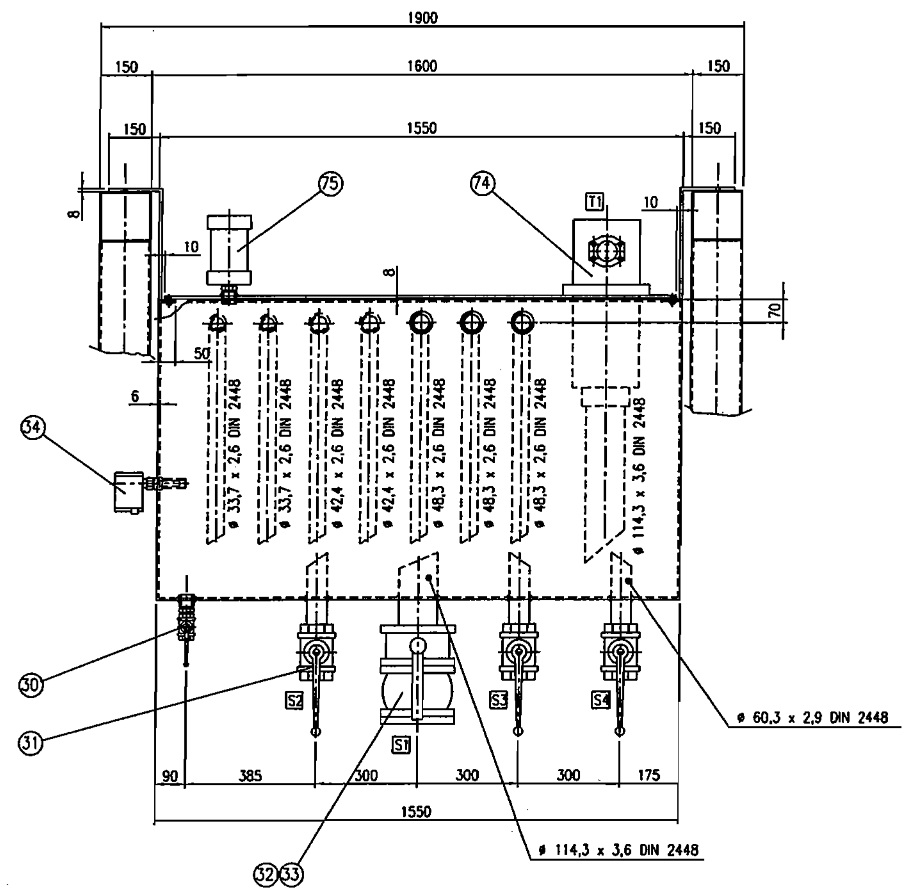
REFERENCE: STRADDLE CARRIER SC 720 - 32
OBJECT: -
TITLE: HYDRAULIC UNIT
Substitutes for: ---
Scale 1:10
Sheet 1
Of 1
File: T06DUHK0001.DWG
Format A2
Job Nr: -60031 1
Sub Nr: -060750
Mr: -------
Fab. Nr. T06 | Dep. DU | Doc. Type HK | Part. 0 - | Nr. 001 | Rev. 0

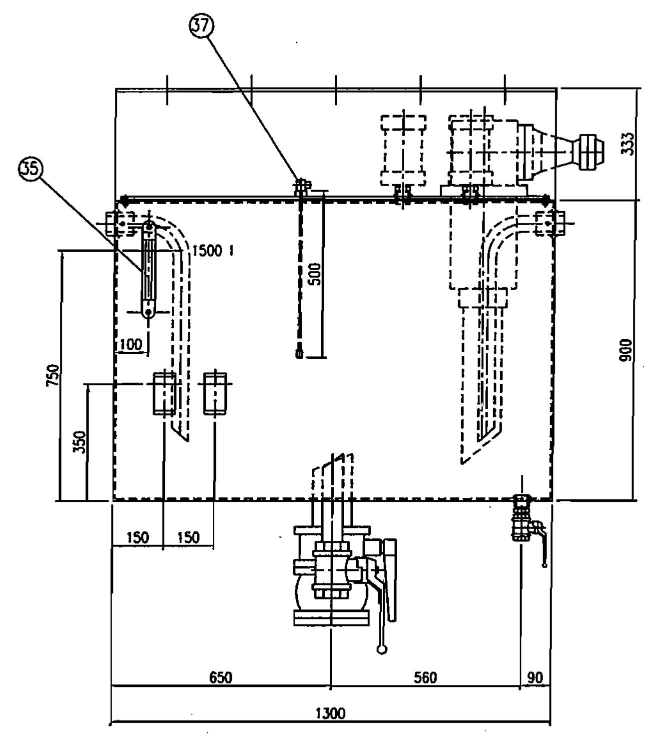
CLIENT: KIEWIT / FCI / MANSON JV

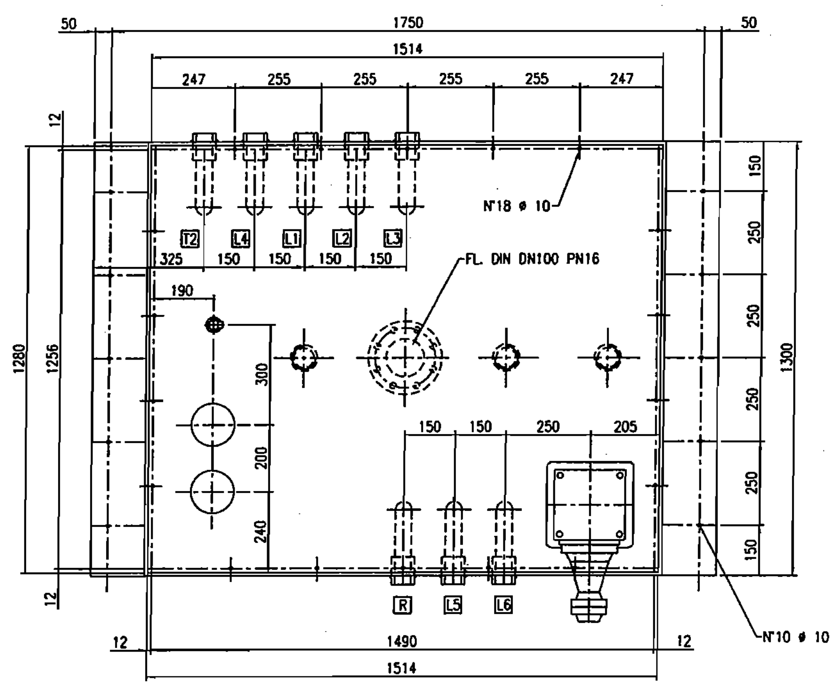
PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA

N° 2 CENTRALI OLEODINAMICHE
N° 2 HYDRAULIC UNIT

TOTAL WEIGHT = 150 Kg







NOTE GENERALI – GENERAL NOTE

Tulte le tubazioni di ritorno e aspirazione dovranno terminore al di sotto del livello minimo del serbatoio.

All the return and suction pipe must finish under the minimum level of the tonk.

Il serbatoio dovrà essere dotato di opportuni portelli di ispezione su uno o più lati.

The tank will be equipped with ispection door on one or more side.

Materiale serbatoio : Fe 360 B

Tank material: Fe 360 B

Colorazione esterna: RAL 3000

Esternal color: RAL 3000

Tutte le connessioni dovranno essere contrassegnate come da indicazioni riportate sullo schema oleodinamico corrispondente.

All the connection have to be marked according to the hydraulic diagram.

TABELLA CONNESSIONI
CONNECTION TABLE

PORT	CONNECTION TYPE
S1	FL. DN 100 UNI PN16
S2	G.2"
S3	G.2"
S4	G.2"
L1	G.1.1/4"
L2	G.1.1/4"
L3	G.1.1/4"
L4	G.1"
L5	G.1.1/2"
L6	G.1.1/2"
T1	FL.2" SAE 3000
T2	G.1"
R	G.1.1/2"

WELDING PROCEDURES :
The procedures used shall be qualified according to EN 288–3, D.M. 09–01–96, or ASME sect. IX

REMOVE SHARP CORNERS WITH R=2

SCHEMA OLEODINAMICO: T06–DU–HS–0–001
HYDRAULIC DIAGRAM : G10–DU–HS–0–001

REV.	DATE	REV. OBJECT	DRAWN	CHECKED	APPROVED
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1	08/07/02	REVISED	BASSO	.	.
0	26/06/02	FIRST ISSUE	BASSO	.	.

DEAL

REFERENCE: STRADDLE CARRIER SC 720 – 32

OBJECT: –

TITLE: HYDRAULIC UNIT

Substitutes for: ---
Scale: 1:10
Sheet: 1 Of: 1
File: T06DUHK0002.DWG
Format: AI
Job Nr.: -600311
Sub.J.Nr.: -060750
Mr.: -------

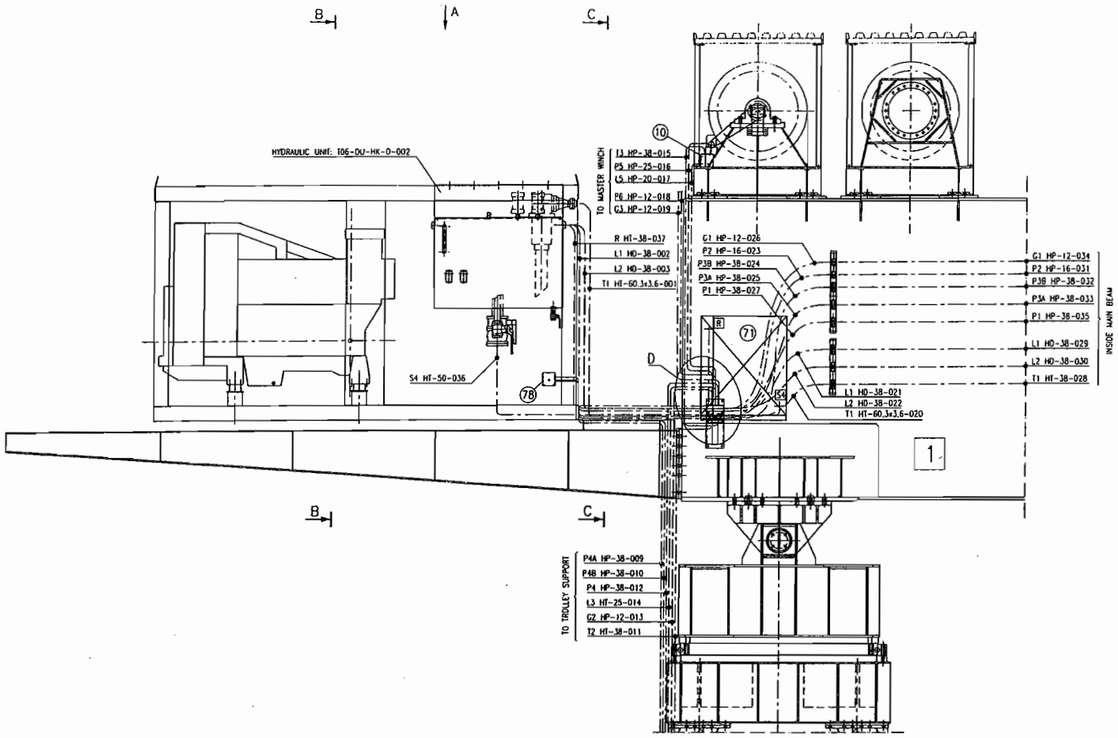
Fab. Nr. T06 | Dep. DU | Doc. Type HK | Part. 0- | Nr. 002 | Rev. 0

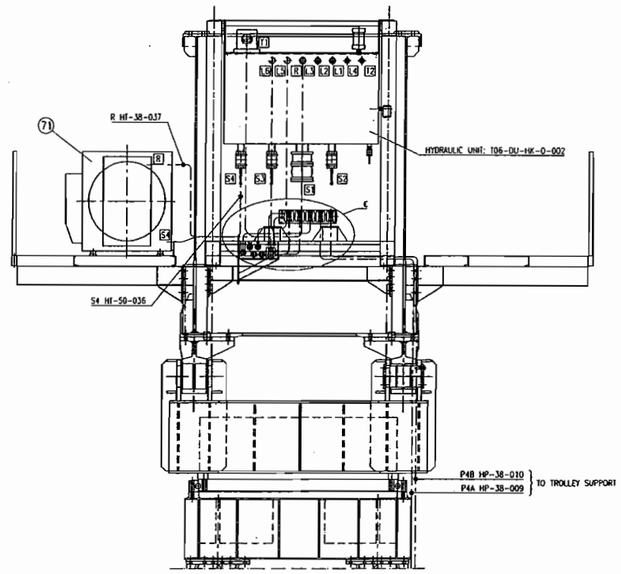
CLIENT: KIEWIT / FCI / MANSON JV

PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO – OAKLAND BAY BRIDGE – USA

N° 1 CENTRALE OLEODINAMICA
N° 1 HYDRAULIC UNIT

TOTAL WEIGHT = 550 Kg





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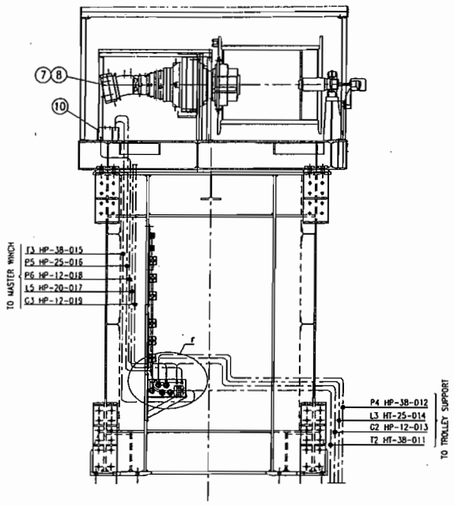

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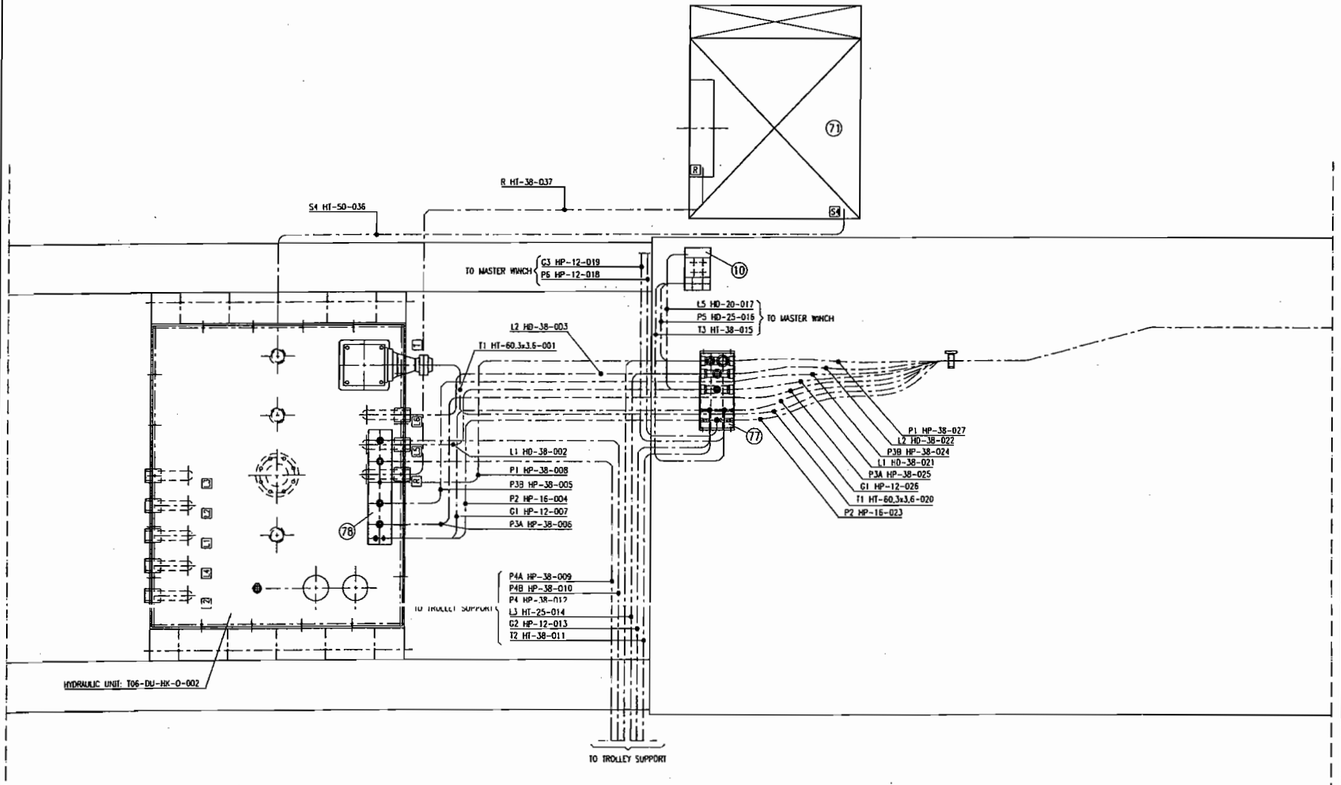

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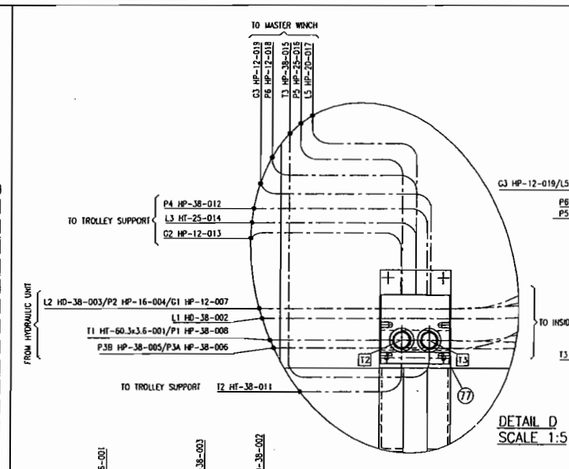
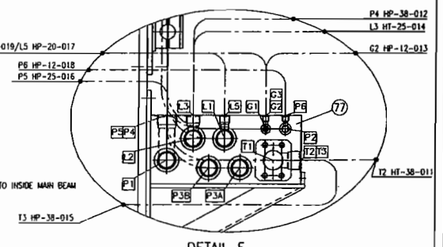


DETAIL D
SCALE 1:5



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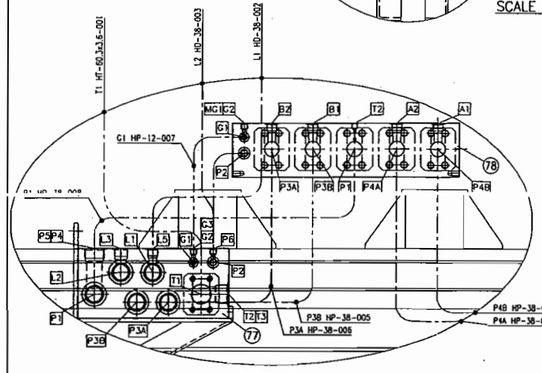

DETAIL E
SCALE 1:5

REF. SCHEME: T06-DUHS-0-001

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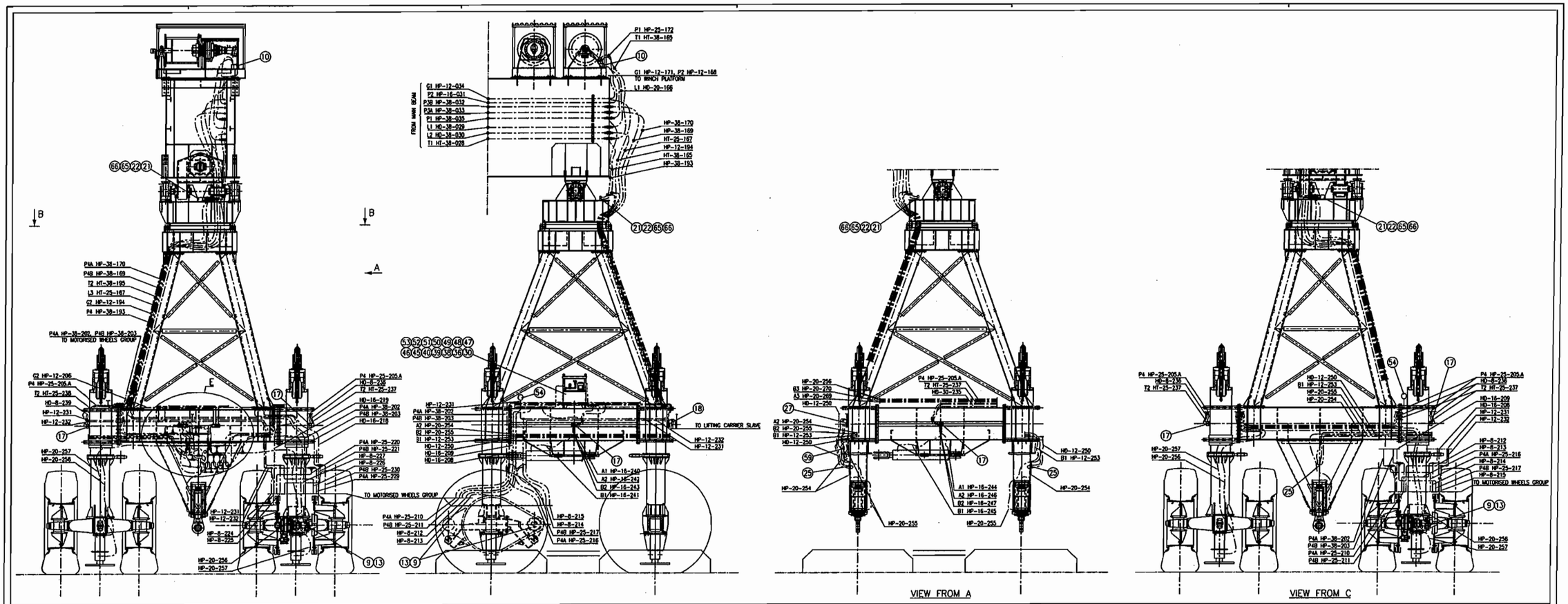
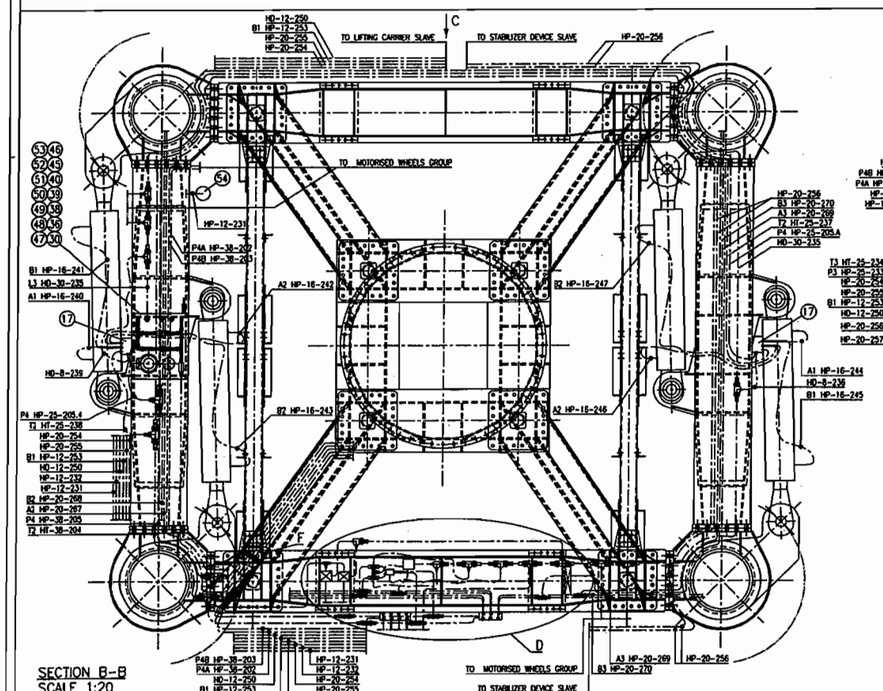
STRADDLE CARRIER
SC 720 - 32

OBJECT: MAIN GIRDER
SHEET: PIPING
Scale: 1:20
Format: A0
File: T06ORHPA002.DWG
Job N°: -6003111
Sub Job: -0602100
Sheet 1 of 1
Doc. N°: T06ORHPA-0020
Rev.

CLIENT: KIEWIT / FCI / MANSON JV
PROJECT: SKYWAY BRIDGE PROJECT
SAN FRANCISCO - OAKLAND BAY BRIDGE - USA





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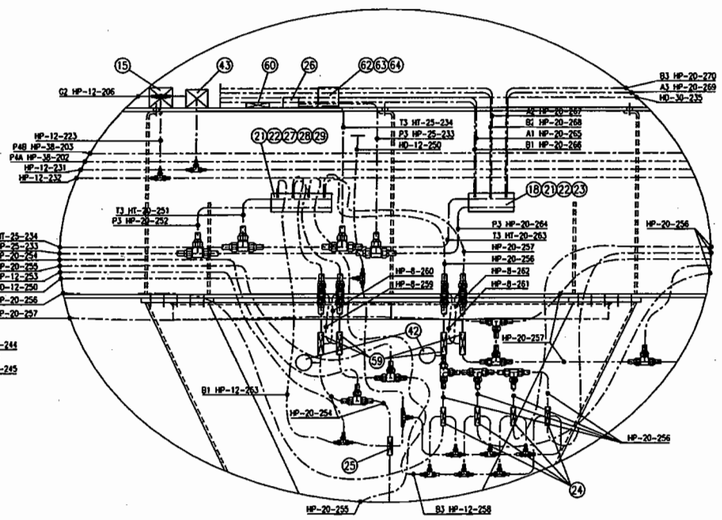

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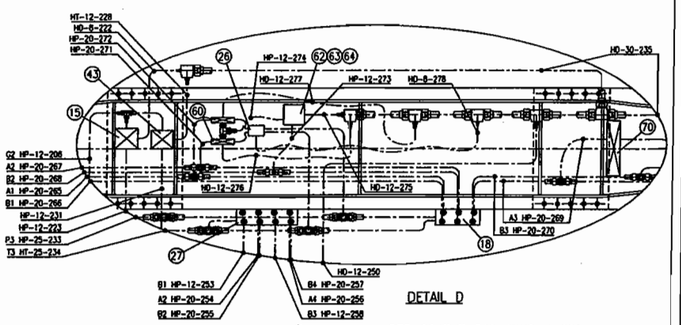

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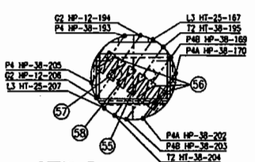
SCALE 1:10



DETAIL F
SCALE 1:5

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DEAL

STRADDLE CARRIER
SC 720 - 32

TROLLEY SUPPORT-SLAVE

PIPING

Scale 1:40 | Sheet 1 | of 1

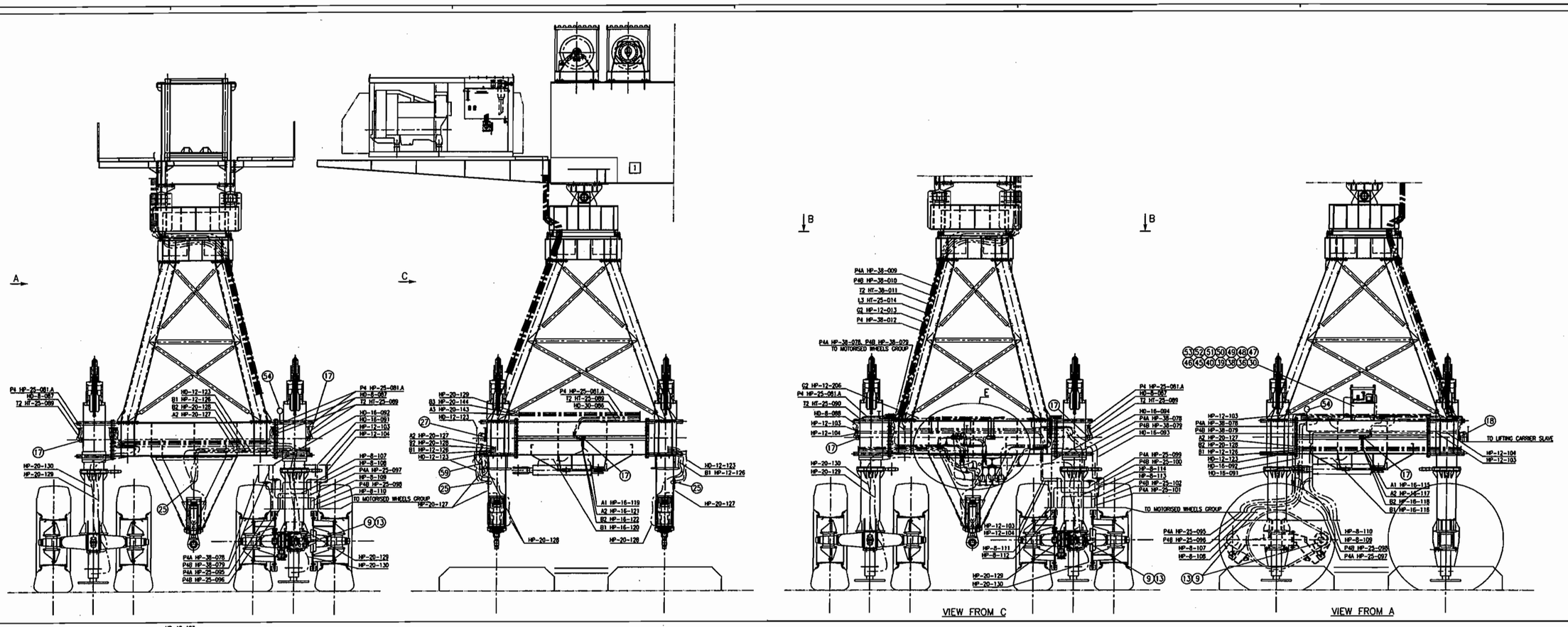
File T06ORHPT004.DWG | Format A0

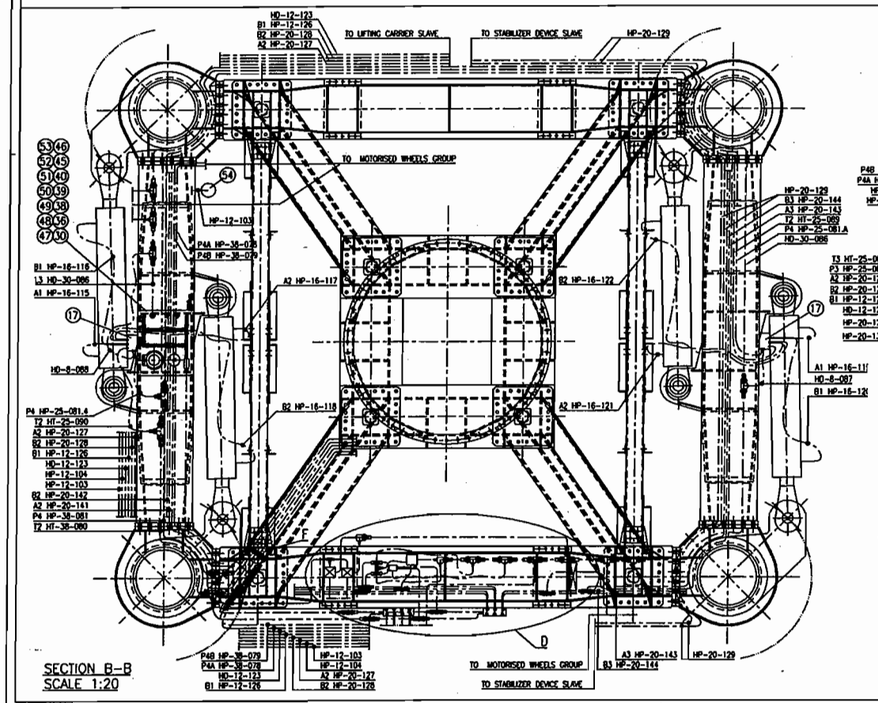
Job No. -0003110 | Sub Libr. -0020100

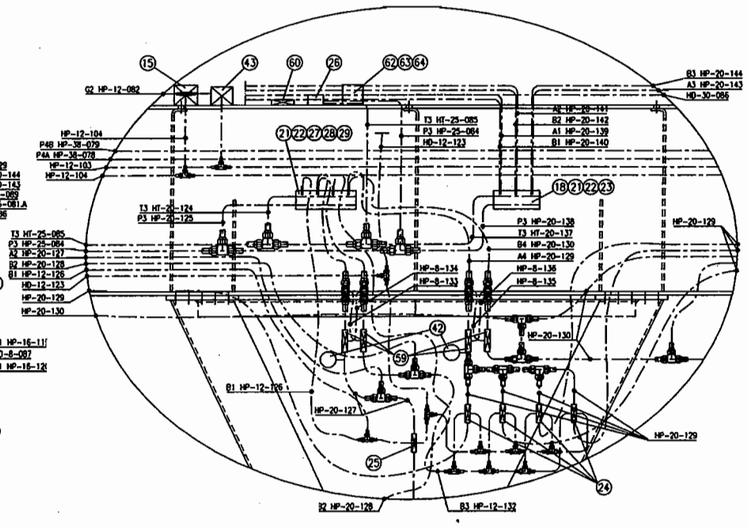
Pub. No. T06ORHPF-0040 | Rev. | Rev. Type | Pages | To | Rev.

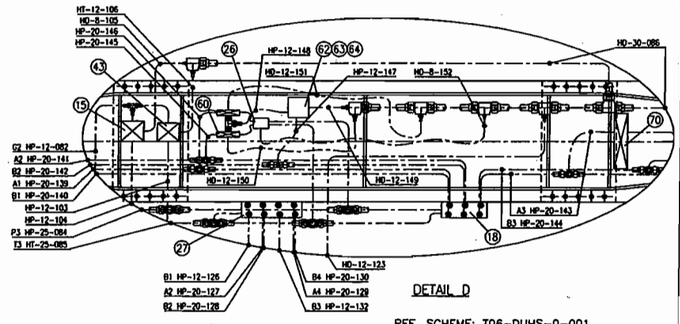
CLIENT: KIEWIT / FCI / MANSON JV

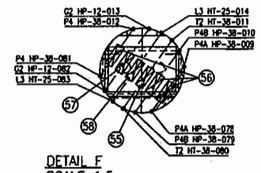
PROJECT: SKYWAY BRIDGE PROJECT
S. FRANCISCO - OAKLAND BAY BRIDGE - USA











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DEAL

STRADDLE CARRIER
SC 720 - 32

TROLLEY SUPPORT-MASTER

PIPING

Scale 1:40 | Sheet 1 | of 1

File: T06ORHPP001.DWG

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Job No.: -0003111 | Sub-Job: -060210 | Rev.: -------

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