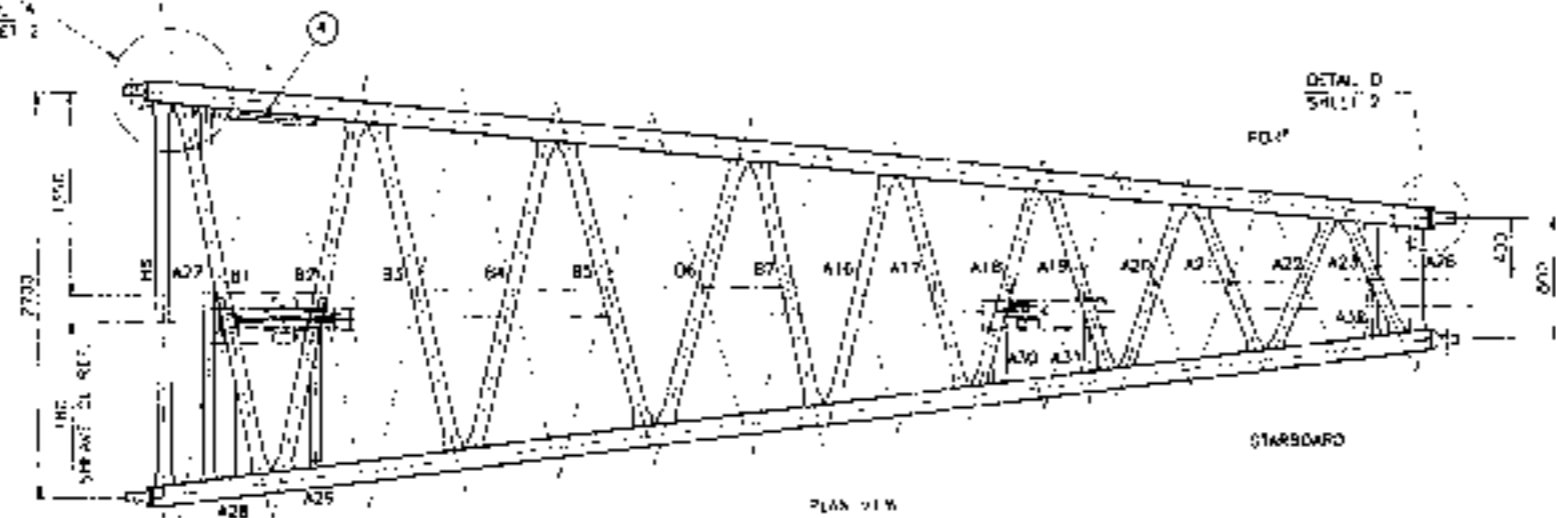
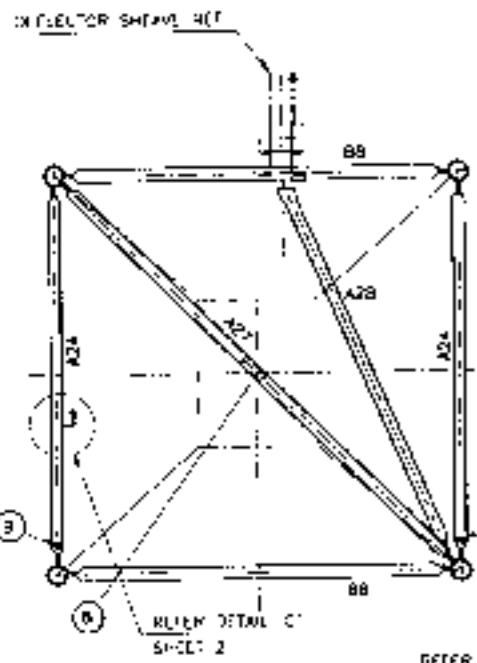


REFER DETAIL A SHEET 2

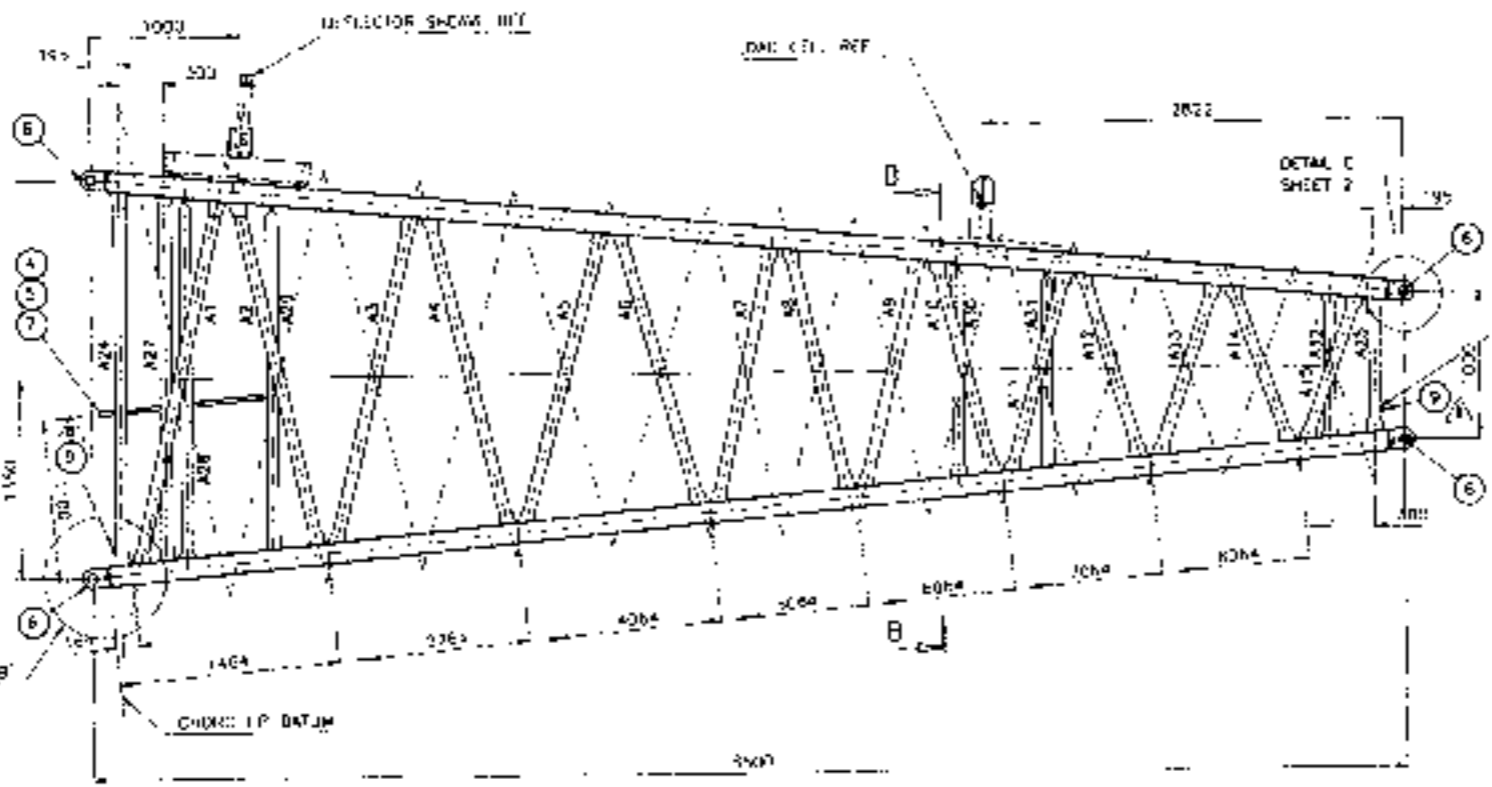


PLAN VIEW

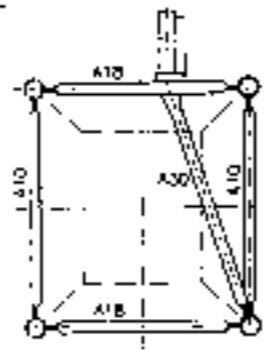
BRACE CUTTING DETAILS											
	LENGTH	ANGLE 1	ANGLE 2	DTP.		LENGTH	ANGLE 1	ANGLE 2	DTP.		
A1	2525	12.5°	6.6°	2	A18	1311	22.6°	9.3°	2		
A2	2403	18.7°	7.2°	2	A19	1266	24.1°	11.2°	2		
A3	2783	18.8°	7.9°	2	A20	1168	15.2°	12.8°	2		
A4	2464	19.6°	8.6°	2	A21	1508	23.3°	16.1°	2		
A5	2464	20.5°	9.5°	2	A22	971	26.6°	17.9°	2		
A6	1927	21.4°	10.4°	2	A23	863	26.4°	17.8°	2		
A7	1780	17.8°	6.8°	2	A24	2537	5.5°	5.5°	2		
A8	1688	18.4°	7.5°	2	A25	901	5.5°	5.5°	2		
A9	1157	19.2°	8.3°	2	A26	690	6.3°	6.3°	2		
A10	1500	20.1°	9.1°	2	A27	4550	6.3°	6.3°	1		
A11	1415	21.1°	10.1°	2	A28	2722	23.3°	6.3°	1		
A12	1326	27.7°	11.2°	2	A29	1700	21.0°	6.3°	1		
A13	1237	24.4°	12.5°	2	A30	1518	18.9°	6.3°	1		
A14	1149	24.9°	13.9°	2	A31	1501	18.1°	6.3°	1		
A15	1049	24.8°	13.8°	2	B1	2530	11.9°	5.3°	2		
A16	1578	20.2°	7.6°	2	B2	2393	18.6°	6.8°	2		
A17	474	74.2°	8.6°	2	B5	2746	19.3°	6.8°	2		
					B4	2118	28.2°	1.6°	2		
					B5	1983	21.7°	8.6°	2		
					B6	1849	22.3°	9.8°	2		
					B7	1682	15.1°	6.1°	2		
					B8	2554	6.3°	4.3°	2		



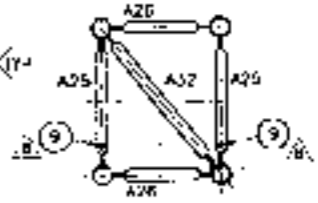
REFER DETAIL B



ELEVATION



SECTION B-B



TOTAL LENGTH OF 1.1 O.D. PIPE IS 136m

THIS DRAWING IS PRIMARILY FOR INFORMATION TO THE USER AND DOES NOT CONSTITUTE A CONTRACT. FOR EXHAUSTIVE REQUIREMENTS REFER TO THE APPLICABLE DESIGN SPECIFICATION.

ORIGINAL

ITEM	DESCRIPTION	STATUS	DATE
1	ISSUED FOR CONSTRUCTION	OPEN	11/11/14
2	ISSUED FOR CONSTRUCTION	CLOSED	11/11/14
3	ISSUED FOR CONSTRUCTION	CLOSED	11/11/14

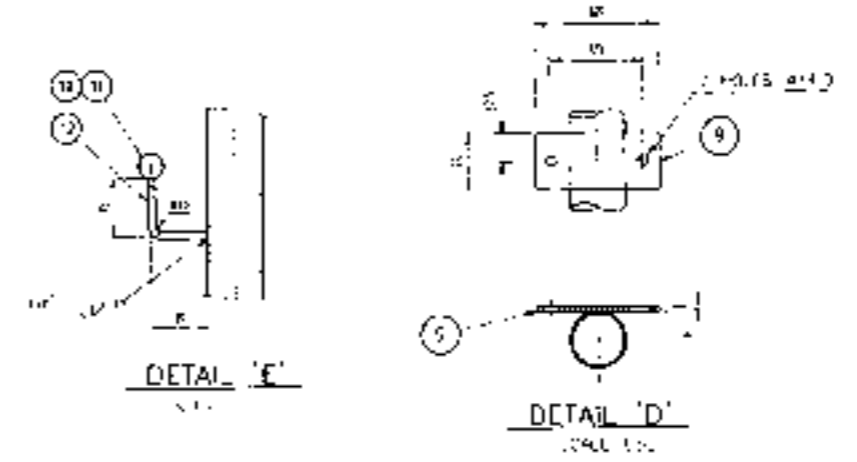
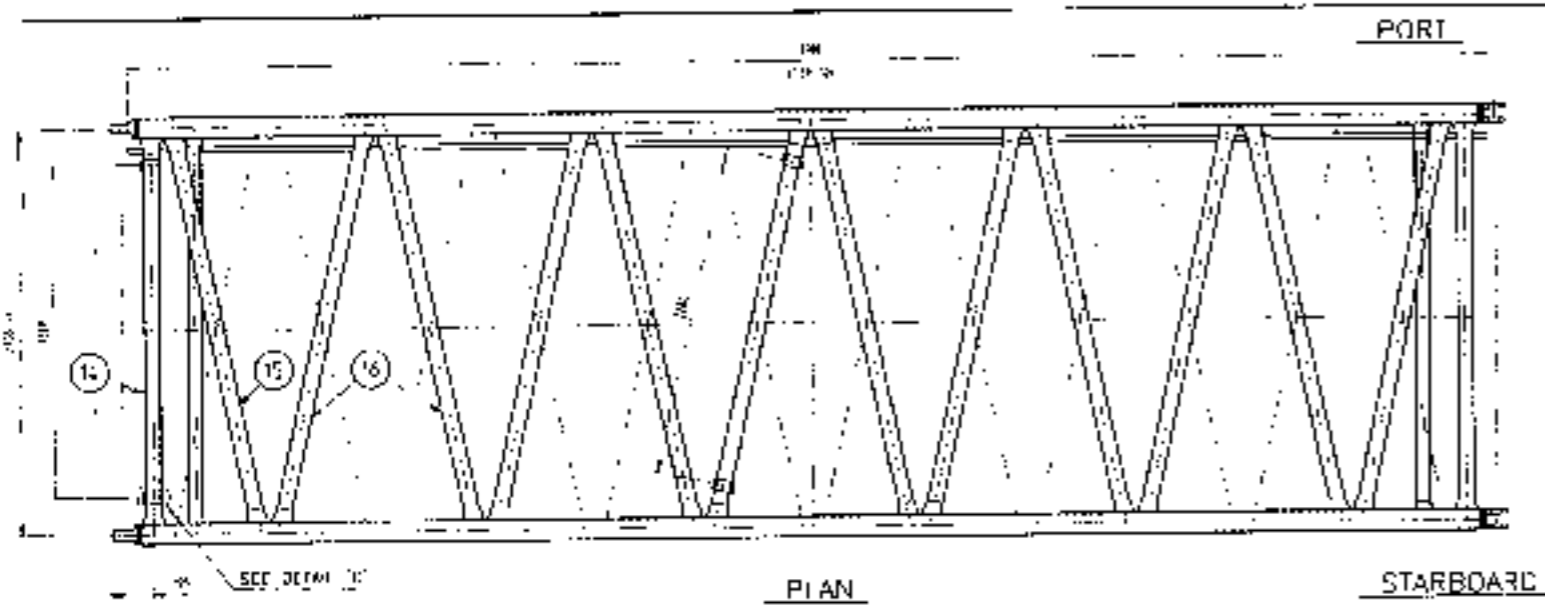
20/10K 4FT & FORWARD CRANES

ROOM TOP SECTION

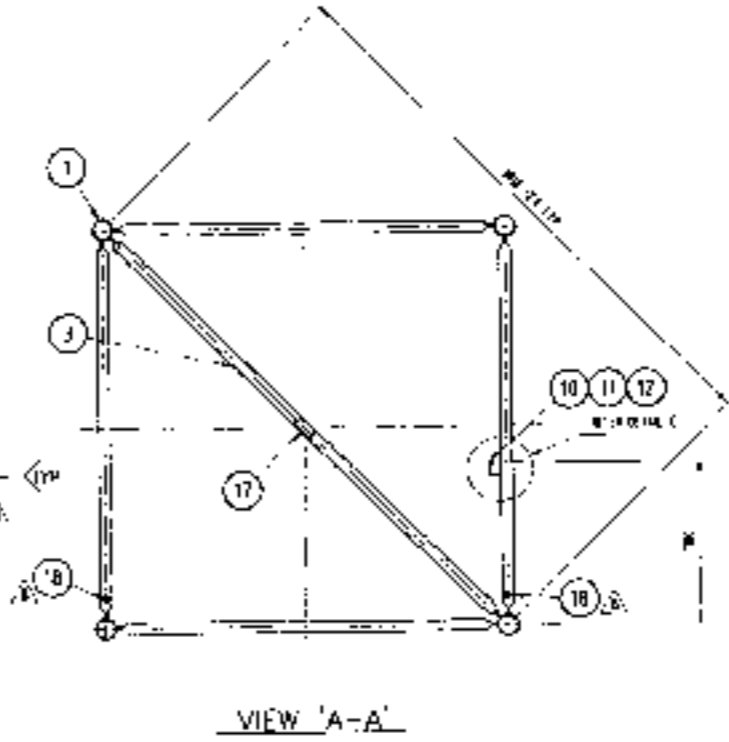
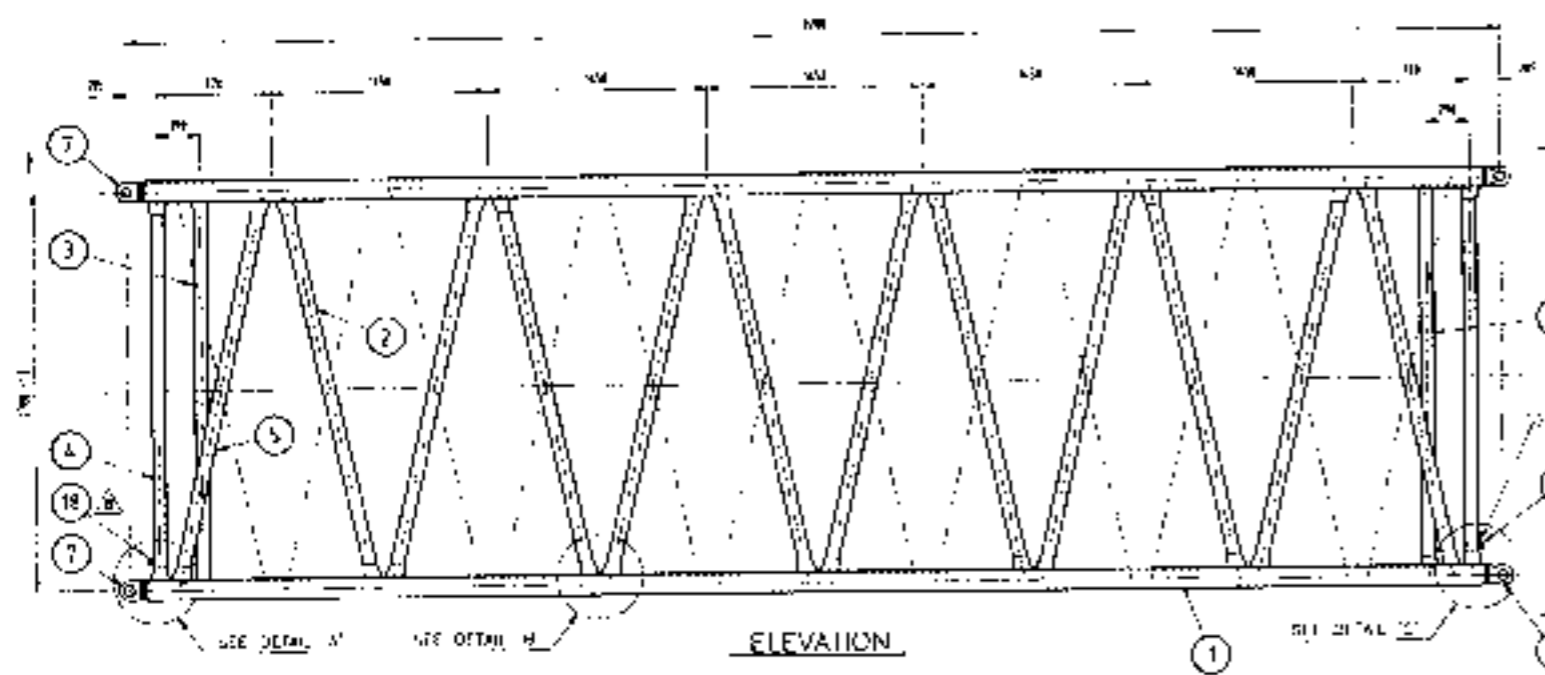
NO.	REV.	DATE	DESCRIPTION
1	1	11/11/14	ISSUED FOR CONSTRUCTION

41-4300.097

EM 283 PEDESTAL CRANES		X-1411/1417	
AFT & FORWARD CRANE ROOM TOP SECTION		A1-4300.097	
5 0 0 0 X M		3 4 5 D 1	
9.3		HD26/1-060	

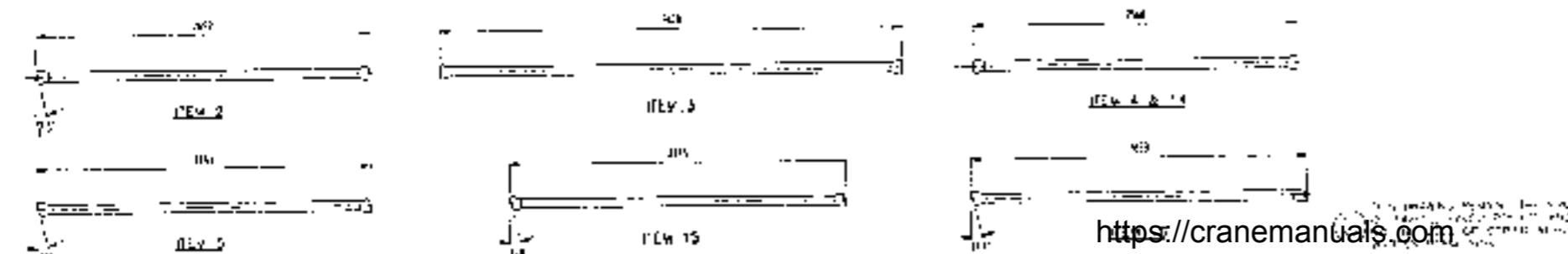
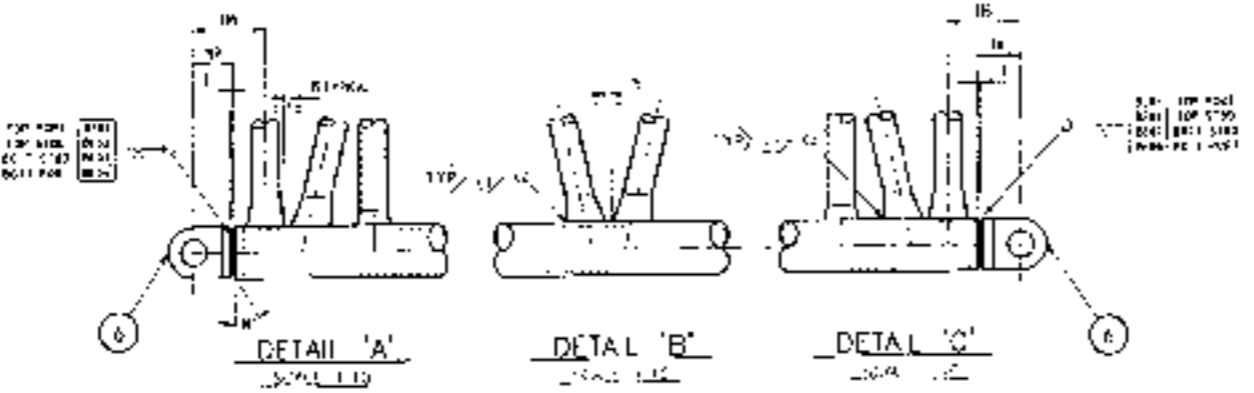
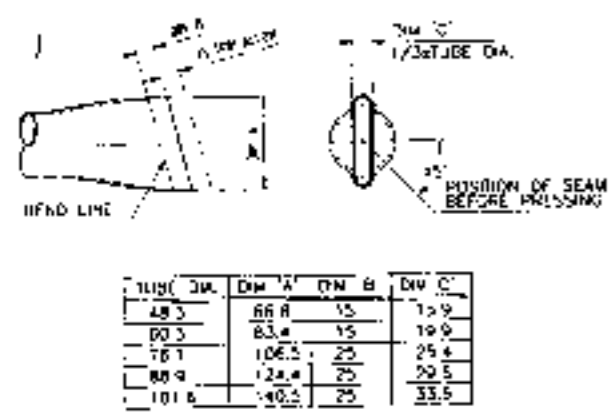


Material List						
QTY	ITEM NO.	DESCRIPTION	UNIT	QTY	REMARKS	NO.
1	1	PIPE 100x100x10	MM	100	FOR MAIN LEGS	100
1	2	TUBE 80x80x10	MM	100	FOR BRACING	100
1	3	TUBE 60x60x10	MM	100	FOR BRACING	100
1	4	TUBE 40x40x10	MM	100	FOR BRACING	100
1	5	TUBE 20x20x10	MM	100	FOR BRACING	100
1	6	PLATE 100x100x10	MM	100	FOR BRACING	100
1	7	PLATE 100x50x10	MM	100	FOR BRACING	100
1	8	PLATE 50x50x10	MM	100	FOR BRACING	100
1	9	PLATE 50x25x10	MM	100	FOR BRACING	100
1	10	PLATE 25x25x10	MM	100	FOR BRACING	100
1	11	PLATE 100x25x10	MM	100	FOR BRACING	100
1	12	PLATE 50x25x10	MM	100	FOR BRACING	100
1	13	PLATE 25x25x10	MM	100	FOR BRACING	100
1	14	PLATE 100x100x10	MM	100	FOR BRACING	100
1	15	PLATE 100x50x10	MM	100	FOR BRACING	100
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1	17	PLATE 50x25x10	MM	100	FOR BRACING	100
1	18	PLATE 25x25x10	MM	100	FOR BRACING	100
1	19	PLATE 100x25x10	MM	100	FOR BRACING	100
1	20	PLATE 50x25x10	MM	100	FOR BRACING	100
1	21	PLATE 25x25x10	MM	100	FOR BRACING	100
1	22	PLATE 100x100x10	MM	100	FOR BRACING	100
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1	24	PLATE 50x50x10	MM	100	FOR BRACING	100
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1	44	PLATE 50x25x10	MM	100	FOR BRACING	100
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1	99	PLATE 100x25x10	MM	100	FOR BRACING	100
1	100	PLATE 50x25x10	MM	100	FOR BRACING	100



- NOTES**
- ALL WELDING AND PREPARATION TO COMPLY WITH AWS D11.1 LATEST EDITION
 - ALL WELDS, UNLESS NOTED TO BE A NON-FUSION JOINT, SHALL BE FULL PENETRATION BUTT JOINTS
 - ALL WELDS TO BE SEAM WELDED UNLESS NOTED OTHERWISE
 - TOP AND BOTTOM EDGES OF BRACING TUBES TO BE CHAMFERED AGAINST MAIN MEMBERS
 - ALL BRACING TO BE PLACED AS PER DETAIL OR AS INDICATED WHICH MAY BE PREPARED TO SHARP & FITTED TO MEMBERS
 - MEMBER BRACING LENGTHS SPECIFIED ARE TRUE LENGTHS
 - ITEMS MARKED 'P' INDICATE PRIMARY BRACING TO BE WELDED AND CERTIFIED TO THE DESIGN SPECIFICATION
 - ITEMS MARKED 'S' INDICATE SECONDARY BRACING TO BE WELDED AND CERTIFIED TO THE DESIGN SPECIFICATION
 - ITEMS MARKED 'C' INDICATE CHAMFERED TO BE WELDED TO EDGES
 - FOR WELD AMPLITUDE & WFT REFER TO AWS D11.1

ORIGINAL

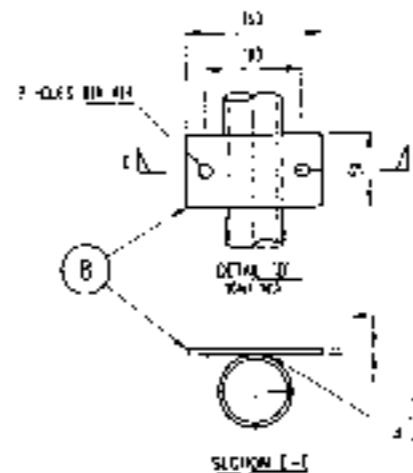
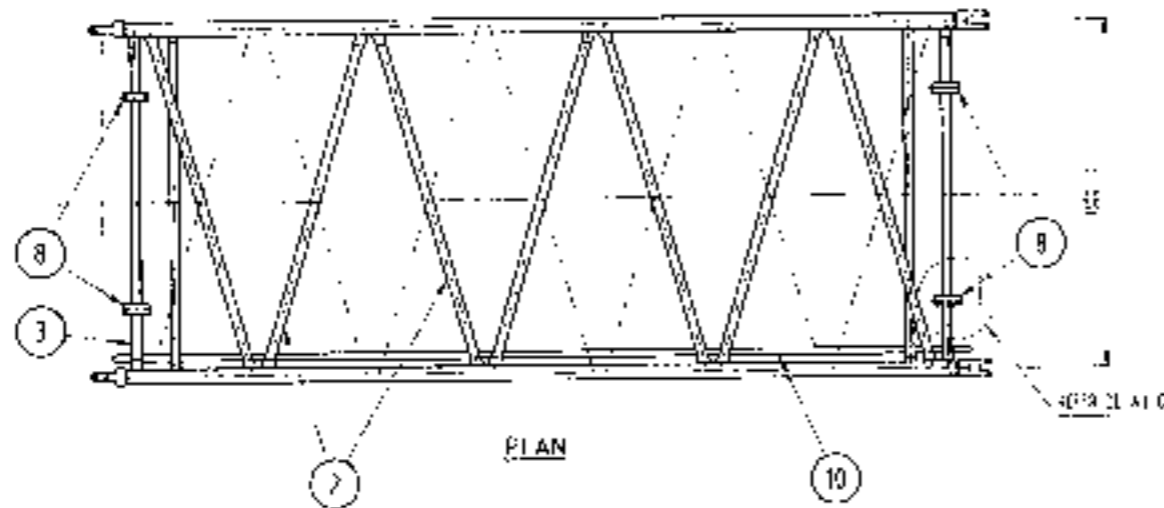


DATE	DESCRIPTION	BY	CHKD
14/11/14	ISSUE FOR FABRICATION
20/11/14	ISSUE FOR ASSEMBLY

20/10K AFT & FORWARD CRANE

9.2m EXTENSION SECTION

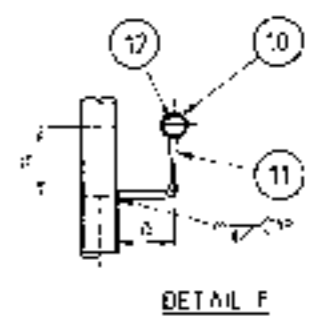
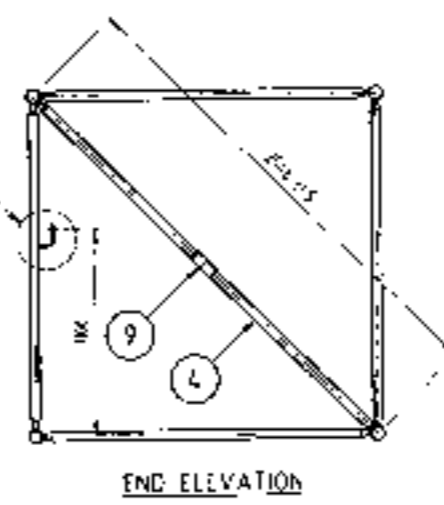
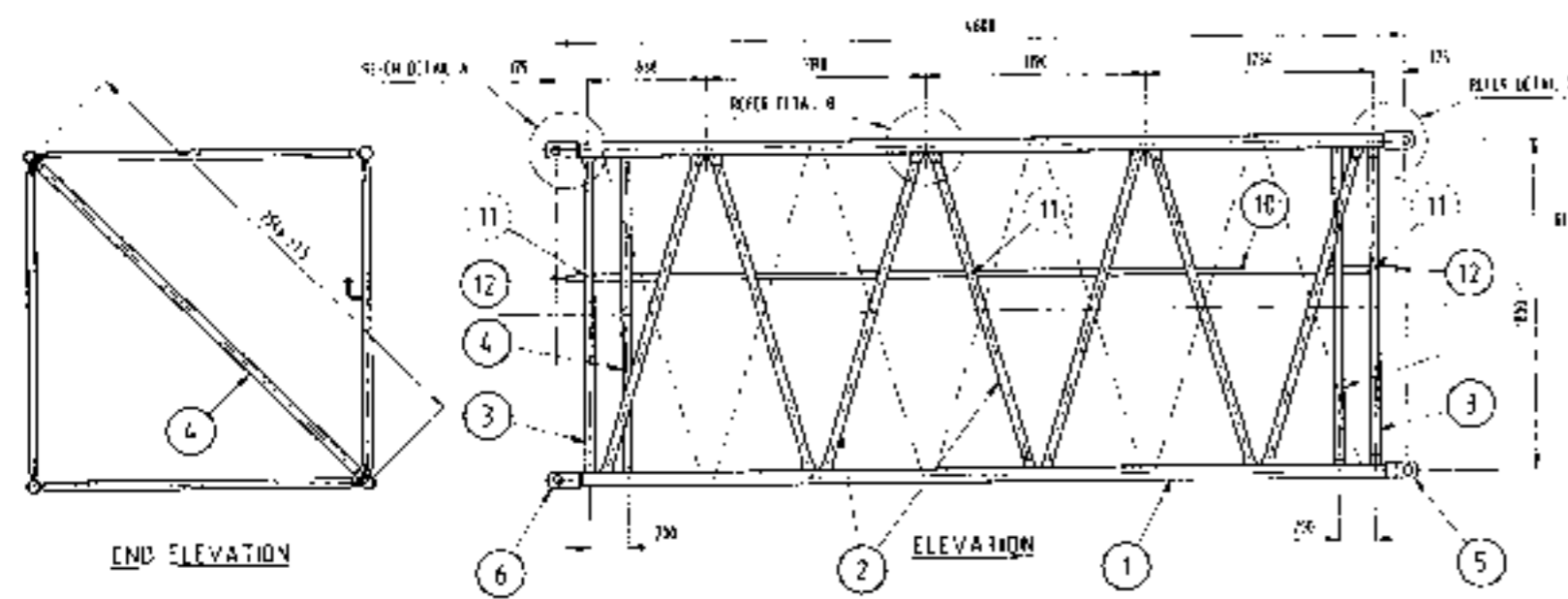
ITEM	DESCRIPTION	QTY	UNIT	REMARKS
1	PIPE 100x100x10	100	MM	FOR MAIN LEGS
2	TUBE 80x80x10	100	MM	FOR BRACING
3	TUBE 60x60x10	100	MM	FOR BRACING
4	TUBE 40x40x10	100	MM	FOR BRACING
5	TUBE 20x20x10	100	MM	FOR BRACING
6	PLATE 100x100x10	100	MM	FOR BRACING
7	PLATE 100x50x10	100	MM	FOR BRACING
8	PLATE 50x50x10	100	MM	FOR BRACING
9	PLATE 50x25x10	100	MM	FOR BRACING
10	PLATE 25x25x10	100	MM	FOR BRACING
11	PLATE 100x25x10	100	MM	FOR BRACING
12	PLATE 50x25x10	100	MM	FOR BRACING
13	PLATE 25x25x10	100	MM	FOR BRACING
14	PLATE 100x100x10	100	MM	FOR BRACING
15	PLATE 100x50x10	100	MM	FOR BRACING
16	PLATE 50x50x10	100	MM	FOR BRACING
17	PLATE 50x25x10	100	MM	FOR BRACING
18	PLATE 25x25x10	100	MM	FOR BRACING
19	PLATE 100x25x10	100	MM	FOR BRACING
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21	PLATE 25x25x10	100	MM	FOR BRACING
22	PLATE 100x100x10	100	MM	FOR BRACING
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25	PLATE 50x25x10	100	MM	FOR BRACING
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27	PLATE 100x25x10	100	MM	FOR BRACING
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63	PLATE 100x50x10	100	MM	FOR BRACING
64	PLATE 50x50x10	100	MM	FOR BRACING
65	PLATE 50x25x10	100	MM	FOR BRACING
6				



MATERIAL LIST					
QTY	ITEM	DESCRIPTION	LENGTH	MATERIAL	WEIGHT
1	1	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	2	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	3	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	4	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	5	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	6	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	7	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	8	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	9	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	10	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	11	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	12	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	13	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	14	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	15	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	16	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	17	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	18	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	19	TUB 1 000 x 100 x 10	1000	ST 355	1000
1	20	TUB 1 000 x 100 x 10	1000	ST 355	1000

ORIGINAL

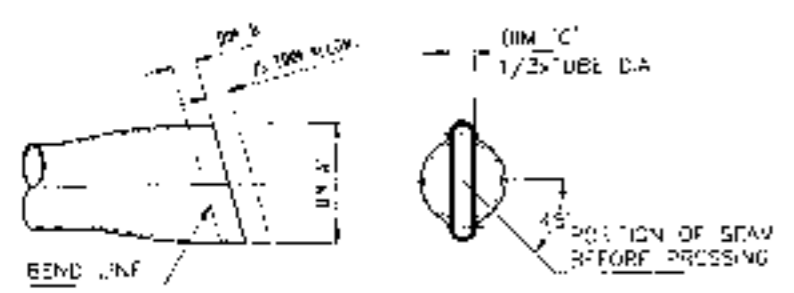
PROJECT DOCUMENT NUMBER	Revision No.	02
Doc Code	Doc Type	A
M 5000	X M	346



- NOTES**
- UNLESS NOTED OTHERWISE ALL WELDING TO BE IN ACCORDANCE WITH AWS D1.1 LATEST EDITION.
 - ALL WELDED JOINTS BETWEEN MAIN MEMBERS TO BE WELDED TO BE LOW CARBON STEEL WELDS JWS.
 - THE 2 CHAIN ENDS OF SWAYING TOWERS TO BE "SHOCK RESISTANT" MAIN CHAINS.
 - ALL BRACING TO BE FLATTENED AS PER BRACE FLATTENING DETAIL I.
 - FOR WELD JOINTS TO BE WELDED WITH BEAM TO WELD 100%.
 - TOLERANCES: STRUCTURAL MEMBERS - DIMENSIONS ± 1.000; CHAINS & BRACING LENGTH ± 0.500.
 - CONNECTOR DIMENSIONS AS DIMENSIONED; CONNECTORS TO BE AS NEEDED TO ORDER.

ITEM	QTY	UNIT	ITEM	QTY	UNIT
ST 355	1000	M	ST 355	1000	M
ST 355	1000	M	ST 355	1000	M
ST 355	1000	M	ST 355	1000	M

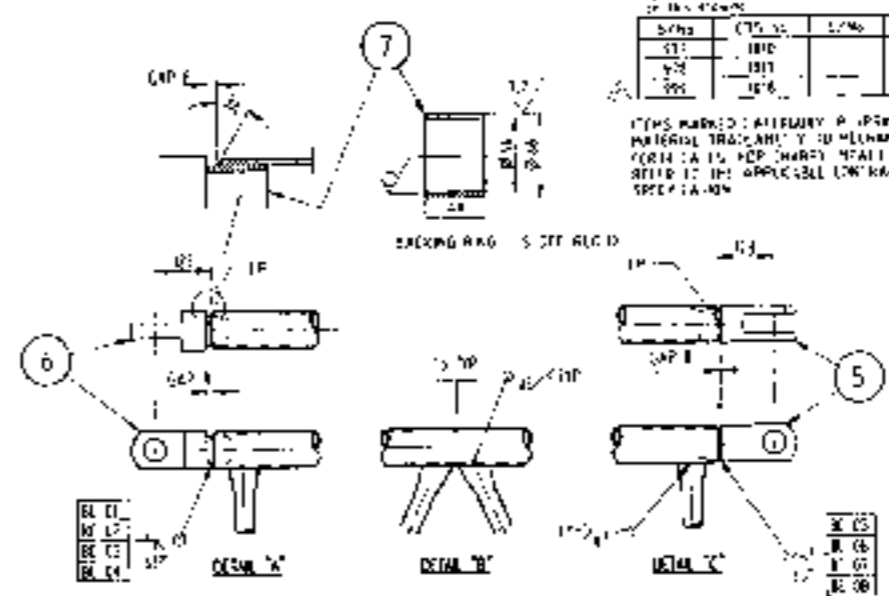
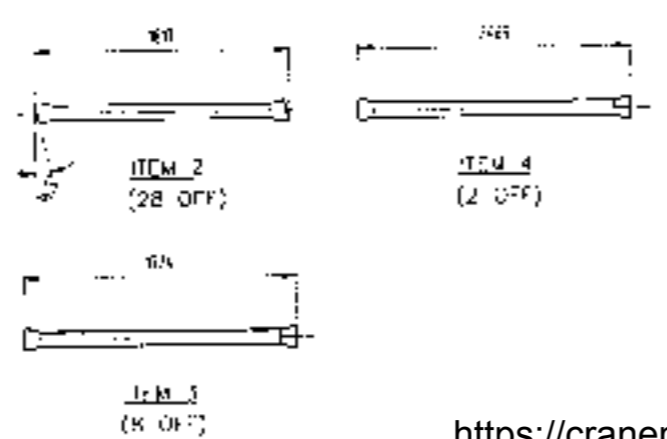
ITEMS MARKED (*) ARE TO BE ORDERED FROM THE SUPPLIER. MATERIAL TRACKING TO BE MECHANICAL & ELECTRICAL. REFER TO THE APPLICABLE CONTRACT SPECIFICATION.



TUBE DIA	DIM A	DIM B	DIM C
48.3	69.4	15	10.0
60.3	85.4	15	10.0
76.1	105.5	25	22.8
88.9	124.4	25	26.7
101.6	140.5	25	33.5

BRACE FLATTENING DETAIL

THE BELOW DIMENSIONS DO NOT INCLUDE TRIM ALLOWANCE (REF. BRACE FLATTENING DETAIL I)



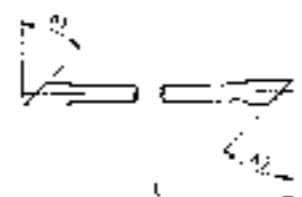
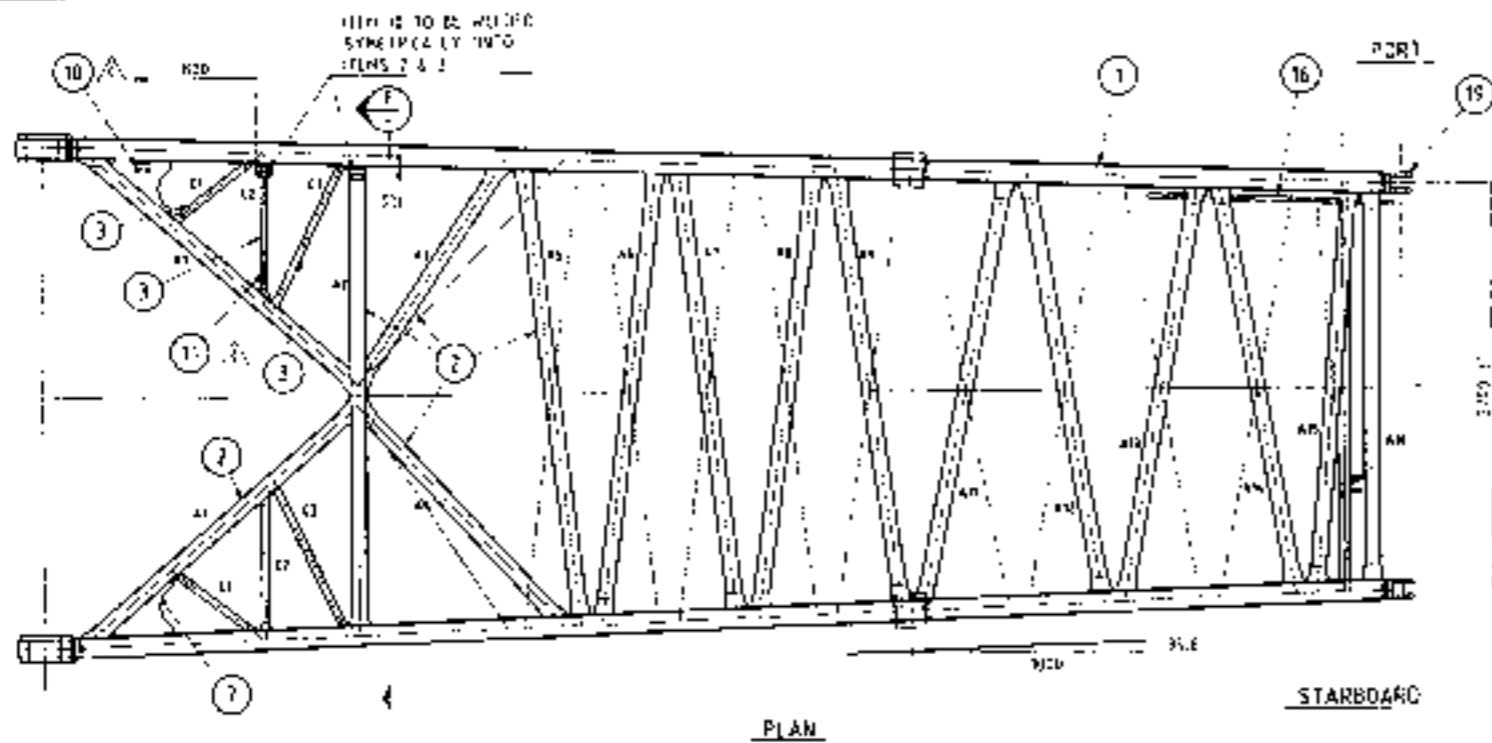
FAVELLE FAVCO Favelle Favco Cranes Pty. Ltd
 A subsidiary of Favco Engineering (Pty) Ltd

5/10K PEDESTAL CRANE

4.6m BCDM EXTENSION SECTION

ITEM	QTY	UNIT	ITEM	QTY	UNIT
ST 355	1000	M	ST 355	1000	M
ST 355	1000	M	ST 355	1000	M
ST 355	1000	M	ST 355	1000	M

Part No. A1-0200.150

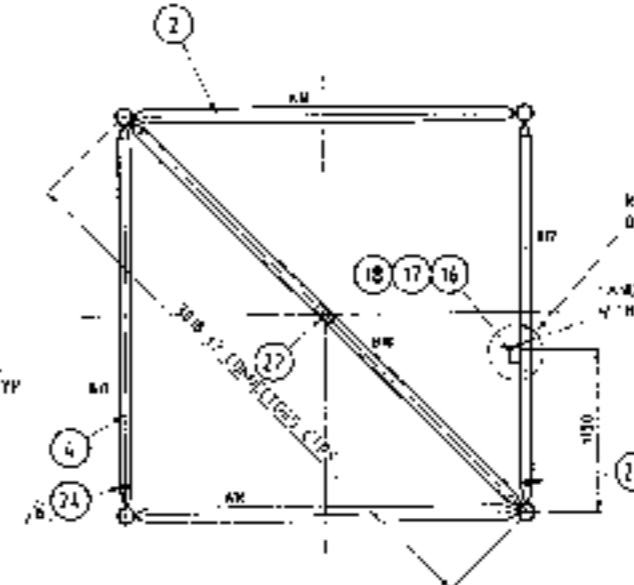
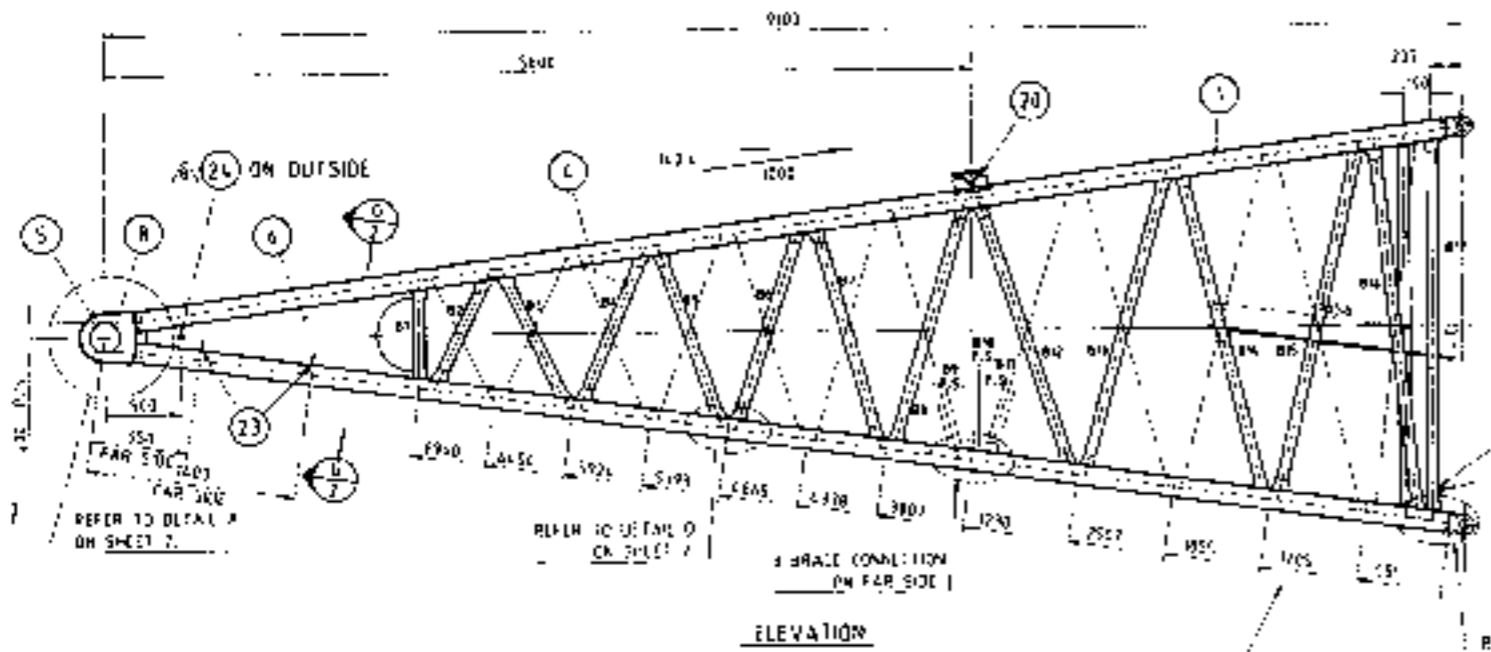


TYPICAL BRACE CUTTING

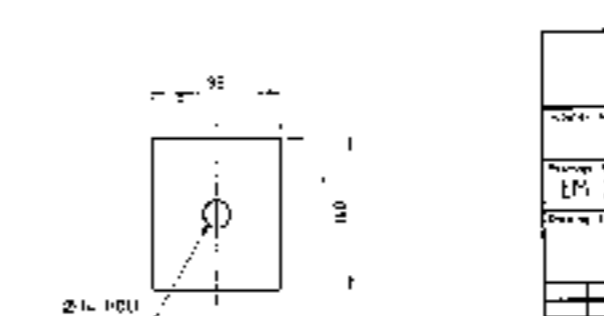
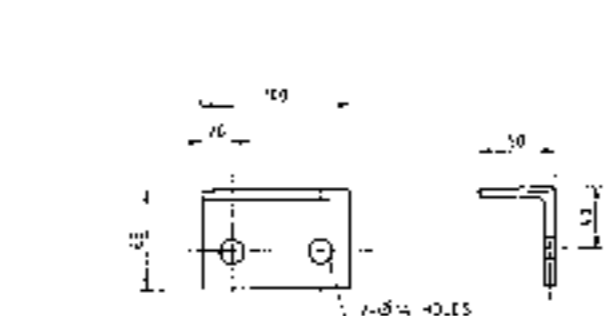
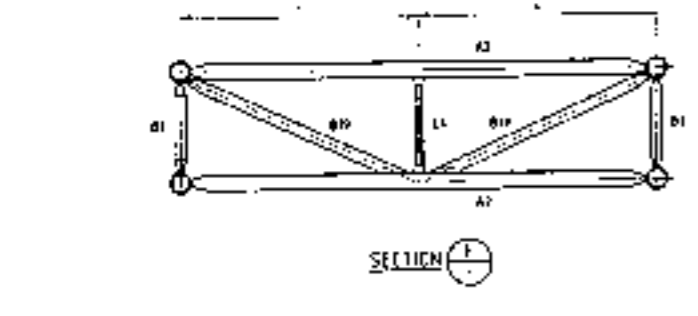


SPECIAL BRACE CUTTING
A12, B1, B2, B3, C1

BRACE CUTTING DETAILS													
No.	MEMBER	PLATE THICKNESS	HEIGHT	WIDTH	WT	No.	MEMBER	PLATE THICKNESS	HEIGHT	WIDTH	WT	No.	MEMBER
A1	2631	2	36.1"	19.7"	4	B1	666	1	8.1"	8.0"	2	B18	1641
A2	2998	2	21.1"	27.4"	2	B2	738	1	12.1"	24.2"	2	B19	1642
A3	1775	2	36.1"	31.0"	2	B3	858	1	12.5"	17.2"	2	B20	1643
A4	2421	2	16.8"	17.7"	2	B4	1019	1	16.5"	28.2"	2	B21	1644
A5	2902	2	5.1"	8.2"	2	B5	1210	1	16.5"	27.5"	2	B22	1645
A6	2768	2	8.2"	5.1"	2	B6	1348	1	8.5"	25.2"	2	B23	1646
A7	2224	2	5.1"	8.2"	2	B7	1431	1	1.0"	28.8"	2	B24	1647
A8	2892	2	9.5"	5.4"	2	B8	1615	1	8.7"	24.1"	2	B25	1648
A9	2659	2	4.4"	18.5"	2	B9	1628	1	4.3"	22.7"	2	B26	1649
A10						B10	1641	1	8"	8"	2	B27	1650
A11	2467	2	9.1"	11.5"	2	B11	1654	1	9.2"	25.2"	2	B28	1651
A12	2782	2	12.7"	8.2"	2	B12	1666	1	10.8"	24.8"	2	B29	1652
A13	2228	2	8.2"	16.4"	2	B13	1671	1	7.7"	22.2"	2	B30	1653
A14	2222	2	14.8"	6.2"	2	B14	1741	1	4.1"	22"	2	B31	1654
A15	2285	2	6.8"	2.7"	2	B15	2168	1	5"	28.2"	2	B32	1655
A16	2222	2	7.7"	2.7"	2	B16	2482	1	5.2"	18.8"	2	B33	1656
						B17	2536	1	8"	8"	2	B34	1657
						B18	3176	1	10.5"	51.8"	2	B35	1658
						B19	3448	1	10.5"	51.8"	2	B36	1659
						C1	444	1	12"	59.4"	2		
						C2	992	1	4.8"	2.7"	2		
						C3	1812	1	25.5"	6.2"	2		
						C4	2222	1	4"	0"	2		



ITEM	APPROVED BY	DATE	QTY
A1	STEINER	2/10/68	1.0
A2	WITTE	2/10/68	1.0
A3	WITTE	2/10/68	1.0
A4	WITTE	2/10/68	1.0
A5	WITTE	2/10/68	1.0
A6	WITTE	2/10/68	1.0
A7	WITTE	2/10/68	1.0
A8	WITTE	2/10/68	1.0
A9	WITTE	2/10/68	1.0
A10	WITTE	2/10/68	1.0
A11	WITTE	2/10/68	1.0
A12	WITTE	2/10/68	1.0
A13	WITTE	2/10/68	1.0
A14	WITTE	2/10/68	1.0
A15	WITTE	2/10/68	1.0
A16	WITTE	2/10/68	1.0
A17	WITTE	2/10/68	1.0
A18	WITTE	2/10/68	1.0
A19	WITTE	2/10/68	1.0
A20	WITTE	2/10/68	1.0
A21	WITTE	2/10/68	1.0
A22	WITTE	2/10/68	1.0
A23	WITTE	2/10/68	1.0
A24	WITTE	2/10/68	1.0
A25	WITTE	2/10/68	1.0
A26	WITTE	2/10/68	1.0
A27	WITTE	2/10/68	1.0
A28	WITTE	2/10/68	1.0
A29	WITTE	2/10/68	1.0
A30	WITTE	2/10/68	1.0
A31	WITTE	2/10/68	1.0
A32	WITTE	2/10/68	1.0
A33	WITTE	2/10/68	1.0
A34	WITTE	2/10/68	1.0
A35	WITTE	2/10/68	1.0
A36	WITTE	2/10/68	1.0
A37	WITTE	2/10/68	1.0
A38	WITTE	2/10/68	1.0
A39	WITTE	2/10/68	1.0
A40	WITTE	2/10/68	1.0
A41	WITTE	2/10/68	1.0
A42	WITTE	2/10/68	1.0
A43	WITTE	2/10/68	1.0
A44	WITTE	2/10/68	1.0
A45	WITTE	2/10/68	1.0
A46	WITTE	2/10/68	1.0
A47	WITTE	2/10/68	1.0
A48	WITTE	2/10/68	1.0
A49	WITTE	2/10/68	1.0
A50	WITTE	2/10/68	1.0
A51	WITTE	2/10/68	1.0
A52	WITTE	2/10/68	1.0
A53	WITTE	2/10/68	1.0
A54	WITTE	2/10/68	1.0
A55	WITTE	2/10/68	1.0
A56	WITTE	2/10/68	1.0
A57	WITTE	2/10/68	1.0
A58	WITTE	2/10/68	1.0
A59	WITTE	2/10/68	1.0
A60	WITTE	2/10/68	1.0
A61	WITTE	2/10/68	1.0
A62	WITTE	2/10/68	1.0
A63	WITTE	2/10/68	1.0
A64	WITTE	2/10/68	1.0
A65	WITTE	2/10/68	1.0
A66	WITTE	2/10/68	1.0
A67	WITTE	2/10/68	1.0
A68	WITTE	2/10/68	1.0
A69	WITTE	2/10/68	1.0
A70	WITTE	2/10/68	1.0
A71	WITTE	2/10/68	1.0
A72	WITTE	2/10/68	1.0
A73	WITTE	2/10/68	1.0
A74	WITTE	2/10/68	1.0
A75	WITTE	2/10/68	1.0
A76	WITTE	2/10/68	1.0
A77	WITTE	2/10/68	1.0
A78	WITTE	2/10/68	1.0
A79	WITTE	2/10/68	1.0
A80	WITTE	2/10/68	1.0
A81	WITTE	2/10/68	1.0
A82	WITTE	2/10/68	1.0
A83	WITTE	2/10/68	1.0
A84	WITTE	2/10/68	1.0
A85	WITTE	2/10/68	1.0
A86	WITTE	2/10/68	1.0
A87	WITTE	2/10/68	1.0
A88	WITTE	2/10/68	1.0
A89	WITTE	2/10/68	1.0
A90	WITTE	2/10/68	1.0
A91	WITTE	2/10/68	1.0
A92	WITTE	2/10/68	1.0
A93	WITTE	2/10/68	1.0
A94	WITTE	2/10/68	1.0
A95	WITTE	2/10/68	1.0
A96	WITTE	2/10/68	1.0
A97	WITTE	2/10/68	1.0
A98	WITTE	2/10/68	1.0
A99	WITTE	2/10/68	1.0
A100	WITTE	2/10/68	1.0



20/10K AFT & FORWARD CRANE

BOOM BOTTOM SECTION

SECTION 1

SECTION 2

SECTION 3

SECTION 4

SECTION 5

SECTION 6

SECTION 7

SECTION 8

SECTION 9

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DATA SHEETS

DOCUMENT NO. MS000KM301

REVISION: A

DATE: 23.07.1997 PAGE: 2 of 21

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Sheet No.	Description	Page No.
1	General Information	1
2	Dimensions	2
3	Weights	3
4	Technical Specifications	4
5	Material Requirements	5

**MECHANICAL DATA SHEET
PEDESTAL CRANE**

PACKAGE NO.

DOC. NO. M500DKM301

REV. 1A

DATE: 25.07.1987

PAGE: 3 of 21

1 TAG		MODEL	
2 DESCRIPTION		SERIAL NO.	
3 SIZE (DX, DY, DZ)		LAYOUT DWG. NO.	
4 VENDOR		P & ID NO.	
5 MANUFACTURER		AREA/ELEVATION	
6			

1.0 ENVIRONMENT

8 OUTSIDE TEMPERATURE MIN/MAX/DESIGN [°C]		41	20	10
9 PERMISSIBLE MACHINE ROOM TEMP. MIN/MAX [°C]				
10 RELATIVE HUMIDITY, MIN/MAX/DESIGN [%]			100	100
11 DESIGN WIND VELOCITIES [M/SEC]				ELEVATION
12 IN SERVICE CONSTANT		25		
13 IN SERVICE 8 SEC. GUST		38		
14 OUT OF SERVICE CONSTANT		40		
15 OUT OF SERVICE 60 SEC. GUST		50		

AREA CLASSIFICATION

17 MACHINERY HOUSING	SAFE
18 DRIVERS CAB	SAFE
19 BOOM	ZONE 1
20	
21	

2.0 DESIGN REQUIREMENTS

23 TO MEET SPECIFICATION NO.	M500DSM380
24 SPECIFIED CRANE STANDARD	LRS Code for lifting equipment in a marine environment
25	AS 1418/BS 2573
26	

DESIGN CLASSIFICATION

27 STRUCTURAL DUTY GROUP	A5
28 STRUCTURAL CLASS OF UTILIZATION	U5
29 STRUCTURAL STATE OF LOADING	Q2

30 MACHINERY	WHIP HOIST	MAIN HOIST	LUFF HOIST	SLEW DRIVE	SPLITTER G. BOX
31 GROUP	NA	M5	M6	M4	M5
32 CLASS OF OPERATION	NA				
33 STATE OF LOADING	NA				
34 OPERATION UNDER MAX. LOAD AND RADIUS AT [DEG. LIST]	20°± ROLL AND PITCH				

36 NOTES:

- 37 1 Design classification according to BS 2573.
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**MECHANICAL DATA SHEET
PEDESTAL CRANE**

PACKAGE NO. 1

DOC. NO. M5000KM101

REV. 1A

DATE 25.07 1997

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3.0 DIMENSIONAL DATA (MM)

2	A-MAX CHALL HT ABOVE USIDE OF SLEW RING		M-MAX HOOK HT ABOVE PIVOT	
3	B-BOOM LENGTH	45300	LW-MAX. HOOK TRAVEL	
4	D-PIVOT PIN TO USIDE OF SLEW RING		Q-MAX. BOOM ANGLE ABOVE HOR.	83deg
5	E-HT OF SLEWING COLUMN		I-LENGTH OF BOOM FOOT SECTION	9100
6	F-PEDEST.CENTRE TO PIVOT PIN	1700	J-LENGTH OF BOOM HEAD SECTION	9100
7	G-TAIL RADIUS	5200	K-LENGTH OF BOOM CENTRE SECT.	9200
8	H-HT. OF SLEW RING AB L.A.T.		L-NO. OF BOOM CENTRE SECTIONS	3
9	R-HOOK RADIUS, MAX	45000		

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32 NOTES

33 1. PEDESTAL (ADAPTOR), MAIN DIMENSIONS, MM

34 OUTER DIAMETER: 3178

35 FLANGE OUTER DIAMETER: 3178

36 HEIGHT: 5000

37 MATERIALS: AS3678 350MPa

38 BOLTING FLANGE: AS3678 350MPa

39 CYLINDRICAL PART: AS3678 350MPa

40 SECONDARY STEELWORK: AS3678 250MPa

41 Missing data to be completed by bidder.

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**MECHANICAL DATA SHEET
PEDESTAL CRANE**

PACKAGE NO

DOC. NO. M5000HM301

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4.0 WEIGHT FORCES AND MOMENTS

WEIGHTS (TONNES)

3	CRANE BASE FRAME WITH MACHINERY HOUSE/CAB	
4	"A" FRAME WITH ANY WINCHES, SHEAVES AND AUXILIARIES	23.8 (note2)
5	BOOM WITH SHEAVES ETC.	28.0 (note3)
6	MAIN HOOK AND SHEAVE/SWIVEL BLOCK	12.0
7	WHIP HOOK AND BALL/SWIVEL	1.5
8	WIRE ROPES	0.5
9	TOTAL DRY WEIGHT	95.8
10		
11	FUEL, HYDRAULIC FLUID ETC.	5.0
12		
13		
14		

FORCES AND MOMENTS

16	MAX. STATIC VERTICAL FORCE AT SLEW RING (KN)	
17	MAX. DYNAMICAL VERTICAL FORCE AT SLEW RING (KN)	
18	MAX. OVERTURNING MOMENT INCL CRANE WEIGHT AT SLEW RING: STATIC (KNM)	
19	DYNAMIC (KNM)	
20		

5.0 LIFTING CAPACITIES

TABLE 5.1

23.1 MAIN HOIST (STAT LIFTS, SINGLE FALL)						23.2 MAIN HOIST (STATIC) 2 AND 3 FALLS					
24. REQ'D VALUES			24. ACTUAL VALUES			24. REQ'D VALUES			24. ACTUAL VALUES		
25. RAD R(M)	25. S.W.L TONN	25. S.W.L TONN	25. RAD R(M)	25. S.W.L TONN	25. S.W.L TONN	25. RAD R(M)	25. 2 FALLS S.W.L TONN	25. 3 FALLS S.W.L TONN	25. RAD R(M)	25. 2 FALLS S.W.L TONN	25. 3 FALLS S.W.L TONN
27. 8	15					8	30	48			
28.						16	30	45			
29.						25	30				
30.											
31. 45	75					45					

34. NOTES:

- 35. 1) SLEW BEARING
- 36. MANUFACTURER: HOECHST ROTHENBERG
- 37. MODEL: 192.32.3.150
- 38. TYPE (ball/roller, etc.): 3-ROW ROLLER
- 39. NOMINAL DIAMETER, mm: 3150
- 40. BEARING OD, mm: 3368
- 41. BEARING HEIGHT, mm: 263
- 42. NO. OF SIZE OF BOLTS, OUTER RING: 70/420
- 43. NO. OF SIZE OF BOLTS, INNER RING: 70/420
- 44. BEARING MATERIAL: 42CrMo4MCOV
- 45. BOLT MATERIAL: 10H
- 46. CONDITION MONITORING, TYPE: NONE
- 47. 2) INCLUDING SLEW BEARING AND SLEW DRIVE
- 48. 3) INCLUDING WINCHES AND POWER PACK
- 49. Missing data to be completed by bidder

**MECHANICAL DATA SHEET
PEDESTAL CRANE**

PACKAGE NO. T

DOC. NO. M5000KM301

REV. 1A

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6.0 LIFTING AND HOOK SPEEDS

TABLE 6.1

HOOK	S.W.L %	MAIN HOIST NO. OF ROPE FALLS 3		NO. OF ROPE FALLS 2		MAIN HOIST SINGLE ROPE FALL	
		LOAD TONNES	SPEED (M/S) UP DOWN	LOAD TONNES	SPEED (M/S) UP DOWN	LOAD TONNES	SPEED (M/S) UP DOWN
100	45		0.3 0.3	30	0.5 0.5	15	>1.0 >1.0
75							
50							
EMPTY HOOK	0		1.0 1.0	0	1.5 1.5	0	2.5 2.5

7.0 SLEWING AND LUFFING

TABLE 7.1 SLEWING AT MAX. TRIMLIST OF +2°

PERCENTAGE OF SLEWING MOMENT	0	40	60	80	100
SLEWING MOMENT (KNM)	1				
SLEWING SPEED (RPM)					1.0

TABLE 7.2 BOOM HOISTING (LUFFING) DEGREES/SECOND

LOAD AT MAX. RADIUS	MAX. S.W.L AT MAX RADIUS	EMPTY HOOK
FROM MAX. TO MIN. RADIUS (UP)	AVER. 0.8 (80secs.)	90SECS.
FROM MIN. TO MAX. RADIUS (DOWN)	AVER. 0.9 (70 secs.)	

22. NOTES:

- 23 1 DIESEL ENGINE
- MAKE: CATERPILLAR
- 24 MODEL TYPE: 3408BDT4A (electronic)
- 25 SWEEP VOLUME: cm³: 14,600
- RATED POWER, kw: 421 at 2100 RPM
- 26 STARTING SYSTEM: ELECTRIC
- 27 NO. OF STARTS REQUIRED: 8
- ALARMS AND SAFETY SHUTDOWNS:
- 28 OVERSPEED
- 29 LOW L. O. PRESSURE: 138Kpa
- HIGH L. O. TEMP: _____
- 30 HIGH J. W. TEMP: 86-99 degC

31 Missing data to be completed by bidder

**MECHANICAL DATA SHEET
PEDESTAL CRANE**

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B.0 HOIST DRUMS, SHEAVES AND WIRE ROPE

TABLE B.1

DATA	HOIST		
	MAIN	WHP	BOOM
DRUM:			
DIAMETER (1) (MM)	1132	N/A	812
FLANGE DIAMETER (MM)	1600		1250
WIDTH BETWEEN FLANGES (MM)	990		907
NO. OF LAYERS	3		13
NO. OF DEAD TURNS (2)	8		5
DIAMETER SHEAVE	620		820
WIRE ROPE:			
TYPE	NON ROTATING		LANGS LAY
CONSTRUCTION	35+7		
DIAMETER (MM)	32		32
CORE MATERIAL	STEEL		STEEL
WIRE MATERIAL	STEEL		STEEL
TENSILE STRENGTH (N/MM ²)	2070		2070
TOTAL BREAKING LOAD (KN)			
CROSS SECTION NOM. EFFECTIVE (MM ²)			
CORROSION PROTECTION	GALVANIZED		GALVANIZED
NO. OF FALLS FOR MAX. S.W.L.	3		6
TOTAL LENGTH (M)			
WEIGHT PER METRE (KGS)			
OPERATING TEMP. °C. MAX	80 TO BE CONFIRMED		80 TO BE CONFIRMED
OPERATING TEMP. °C. MIN			

NOTE: (1) CTR. OF ROPE
NOTE: (2) WITH HOOK OR BOOM AT MAX. LOWER LIMIT OF TRAVEL

NOTES:

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9.0 ELECTRICAL LIGHTNING AND EQUIPMENT

TABLE 9.1 FLOODLIGHTS

LOCATION	SLEWING STRUCTURE	BOOM TIP	BOOM
TYPE	200MK II Zone 1	200MK II Zone 1	200MK II Zone 1
SUPPLIER	Chalmit	Chalmit	Chalmit
NO. REQUIRED	2	2	2
FOCUSED ON			
BEAM ANGLE (X,Y)			
POWER SUPPLY			
RATING (WATT)			
OUTPUT (LUMEN)			
HAZARD CLASSIFICATION	ZONE 1	ZONE 1	ZONE 1
LIGHT DATA:			
DIST. FROM PEDESTAL (M)			
INTENSITY AT DECK LEVEL (LUX)			
DIST. FROM BOOM TIP (M)			
INTENSITY AT BEAM CENTRE (LUX)			

TABLE 9.2 AIRCRAFT WARNING LIGHTS

LOCATION	A' FRAME APEX	BOOM
TYPE		
SUPPLIER		
NO. REQUIRED		
SPACING		
POWER SUPPLY		
RATING		
HAZARD CLASSIFICATION	EEExt	

TABLE 9.3 CRANE LIGHTNING

LOCATION	CAB	WALKWAYS	PEO & QUARTER	MACHINERY HOUSE
TYPE	Protecta II (1)	Protecta II (1)	Protecta II (1)	Protecta II (1)
SUPPLIER	Chalmit	Chalmit	Chalmit	Chalmit
NO. OF UNITS				
POWER SUPPLY				
RATING				
HAZARD CLASSIFICATION	Zone 1	Zone 1	Zone 1	Zone 1
INTENSITY				
NOTES				

(1). Protecta II XPD2436H Zone 1 for normal use, Protecta II XPD52435H Zone 1 for emergency use.

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TABLE 9.4 COLLECTOR RINGS

SERVICE	NUMBER	ENCLOSURE	GLAND-TYPE/SIZE
MAIN POWER SUPPLY	3 note(1)	EExd	
NEUTRAL	1	EExd	
EARTH	1	EExd	
EMERGENCY POWER SUPPLY	3 note (1)	EExd	
INSTRUMENT EARTH (IE)	See note (2)		
FIRE ALARMS CABIN			
GAS DETECTION			
CONTINGENCY SPARE			
INSTRUMENT EARTH (IE)			
PROTECTIVE EARTH (PE)			
FIRE DETECTOR/FIRE ALARM			
TELECOM, PA, LOUDSPEAKERS			
CONTINGENCY SPARE			
TOTAL			

NOTES:

(1) If 3-phase: 480V 3Ph 60Hz, if single phase: 240V 1Ph 50Hz

(2) INSTRUMENT SLIP RINGS REQUIRED.

EExd rated circuits:

- PA system A, 100V, 2rings

- PA system B, 100V, 2rings

- Telephone, 48V, 2rings

- Beacon, loop A, 48V, 2rings

- Beacon, loop B, 48V, 2rings

- Gas detectors (3off), 24V, 3rings

- Sol. valve release (2off), 24V, 4rings

- Audible alarm (1off), 24V, 2rings

- Visual alarm (1off), 24V, 2rings

- Instrument Earth (2off), 2rings

- Protective Earth (1off), 1ring

- TOTAL : 30 rings

S rated circuits:

- Heat detectors (2off), 24V, 4rings

- Smoke detectors (2off), 24V, 4rings

- Manual alarm call points, (2off), 24V, 4rings

- Platform & Crane status (4off), 24V, 8rings

- Lockout switch (1off), 24V, 2rings

- Released pressure Transm (1off), 24V, 2rings

- TOTAL : 24rings

SPARE/CONTINGENCY : >6rings

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10.0 HYDRAULIC SYSTEM

- 2 OPERATING PRESSURE (BAR/G) 305
- 3 RESERVOIR CAPACITY (LITRES)
- 4 RESERVOIR LOCATION Above pumps in machinery house
- 5 HYDRAULIC FLUID TYPE Shell TELLUS ?
- 6 HYDRAULIC FLUID SYSTEM CAPACITY (LITRES)
- 7 HYDRAULIC TUBING: TYPE Hoses and hard tubing
- 8 HYDRAULIC TUBING: MATERIAL Tubing SS306L; Hoses Steel reinforced "rubber"
- 9 HYDRAULIC FITTINGS: TYPE
- 10 HYDRAULIC FITTINGS: MATERIAL Carbon steel, corrosion protected

DATA

CRANE FUNCTION

		MAIN HOIST	WHIP HOIST	BOOM HOIST	SLEWING DRIVE
12	EQUIPT. NO.	2 off	N/A	1 off	2 off
13	OUTPUT (KW)				
14	OPERAT. SPEED (RPM)	2375		2375	
15	SUPPLIER/TYPE	A4VG90 (1)		A4VG90 (1)	A4VG90 (1)
16	EQUIPT. NO.	3 off		2 off	2 off
17	OUTPUT (KW)				
18	OPERAT. SPEED (RPM)	543/2300		1200/4000	
19	SUPPLIER/TYPE	A6VM200 (1)		A6VM80 (1)	A2PM63 (1)
20	EQUIPT. NO.				
21	FILTRAT. RATIO				
22	SUPPLIER/TYPE				
23	EQUIPT. NO.	1 off			
24	OUTPUT (KW)				
25	INPUT (KW)	421			
26	GEAR BOX				
27	OUTP. SPEED(S) (RPM)	2375			
28	SUPPLIER/TYPE	AM 450	TECHNO DRIVE		
29	MAIN LINE PULL ON FIRST LAYER (KN)	188.7		156.0	

32 NOTES.

33 (1) Hydraulic pumps and motors of make REXROTH

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11.0 INSTRUMENTATION

TABLE 11.1 DRIVERS CAB

INSTRUMENT	INDICATOR	WARNING LIGHT	AUDIBLE ALARM
DIESEL ENGINE			
TACHOMETER			
COOLING WATER - TEMPERATURE			
COOLING WATER - LEVEL			
LUBRICATING OIL - PRESSURE			
LUBRICATING OIL - TEMPERATURE			
LUBRICATING OIL - LEVEL			
FUEL OIL - PRESSURE AT INJECTION			
FUEL OIL PUMP INLET			
FUEL OIL LEVEL			
PNEUMATIC START RECEIVER PRESSURE			
HYDRAULIC SYSTEM:			
OPERATING PRESSURE - BOOSTER & CONTR.			
FLUID TEMPERATURE			
RESERVOIR LEVEL		ANNUNCIATOR	
FILTER DIFFERENTIAL PRESSURE		ANNUNCIATOR	
HOIST WINCHES:			
MOVEMENT DIRECTION			
SPEED (LINE SPEED M/S)			
LOAD RADIUS INDICATOR			
GAS/FIRE DETECTION			
GAS ALARM			
ESD ALARM			
FIRE ALARM			
MISCELLANEOUS			
BOOM TEMPERATURE			
WINDSPEED	YES	YES	
NOTES:			

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TABLE 11.2 MACHINERY HOUSE

	INDICATOR	VISUAL ALARM	AUDIBLE ALARM
3 RUNNING HOURS COUNTER			
4 LUB. OIL - LEVEL SIGHT GLASS			
5 LUB. OIL FILTER DIFF. PRESSURE			
6 LUB. OIL TEMPERATURE			
7 COOLING WATER - LEVEL SIGHT GLASS			
8 COOLING WATER TEMPERATURE			
9 FUEL OIL - PRESSURE			
10 FUEL OIL - FILTER DIFF. PRESSURE			
11 FUEL OIL - LEVEL SIGHT GLASS			
12 HYDRAULIC OIL - OPERATING PRESSURE			
13 HYDRAULIC OIL - BOOST PRESSURE			
14 HYDRAULIC OIL - CONTROL PRESSURE			
15 HYDRAULIC OIL - FILTER DIFF. PRESSURE			
16 HYDRAULIC OIL - FLUID TEMPERATURE			
17 HYDRAULIC OIL - RESERVOIR LEVEL SIGHT GLASS			
18 COMPRESSED AIR - PRESSURE	N/A		

TABLE 11.3 AUXILIARY SYSTEMS

	INDICATOR	VISUAL ALARM	AUDIBLE ALARM
21 OVER LOAD PROTECTION			
22 ACCUMULATOR PRESSURE			
23 OIL LEVEL SIGHT GLASS			
24			
25 CAB AIR CONDITIONING/HEATING			
26 TEMPERATURE			
27			
28 FIRE PROTECTION			
29 GAS PRESSURE	N/A		

31 NOTES:

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12.0 SEASTATE LOAD DERATING CHARTS

TABLE 12.1 MAIN HOIST - CASE 1

HOOK SPEEDS	NO. OF FALLS									
	RADIUS (M)									
DERATING SPEEDS	ONE									
	8	10	15	20	25	30	35	40	45	
PLATFORM	LOADS IN TONNES									
	15	15	15	15	15	15	15	15	15	
11 0,0 M SIG. WAVE HT.										
12 DERATED FACTOR										
13 DYNAMIC FACTOR										
14 DERATED LOAD										
16										
18 0,5 M SIG. WAVE HT.										
17 DERATED FACTOR										
18 DYNAMIC FACTOR										
19 DERATED LOAD										
20										
21 1,0 M SIG. WAVE HT.										
22 DERATED FACTOR										
23 DYNAMIC FACTOR										
24 DERATED LOAD										
25										
26 2,0 M SIG. WAVE HT.										
27 DERATED FACTOR										
28 DYNAMIC FACTOR										
29 DERATED LOAD										
30										
31 3,0 M SIG. WAVE HT.										
32 DERATED FACTOR										
33 DYNAMIC FACTOR										
34 DERATED LOAD										
35										
36 4,0 M SIG. WAVE HT.										
37 DERATED FACTOR										
38 DYNAMIC FACTOR										
39 DERATED LOAD							1,82			
40	15	15	15	15	15	15	15			
41 5,0 M SIG. WAVE HT.										
42 DERATED FACTOR										
43 DYNAMIC FACTOR										
44 DERATED LOAD										
45 NOTES										
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TABLE 12.2 MAIN HOIST - CASE 2

NO	HOOK SPEEDS	NO OF FALLS		TWO						
		RADIUS (M)								
		8	10	15	20	25	30	35		40
5	OPERATING SPEEDS									
7	PLATFORM									
8	DYNAMIC FACTOR	30	30	30	30	30				
9	STIFFNESS FACTOR	1.33	1.33	1.33	1.33	1.33				
11	0,0 M SIG. WAVE HT									
12	DERATED FACTOR									
13	DYNAMIC FACTOR									
14	DERATED LOAD									
15										
16	0,5 M SIG. WAVE HT.									
17	DERATED FACTOR									
18	DYNAMIC FACTOR									
19	DERATED LOAD									
20										
21	1,0 M SIG. WAVE HT.									
22	DERATED FACTOR									
23	DYNAMIC FACTOR									
24	DERATED LOAD									
25										
26	2,0 M SIG. WAVE HT.									
27	DERATED FACTOR									
28	DYNAMIC FACTOR									
29	DERATED LOAD									
30										
31	3,0 M SIG. WAVE HT									
32	DERATED FACTOR									
33	DYNAMIC FACTOR									
34	DERATED LOAD									
35										
36	4,0 M SIG. WAVE HT									
37	DERATED FACTOR									
38	DYNAMIC FACTOR									
39	DERATED LOAD									
40										
41	5,0 M SIG. WAVE HT.									
42	DERATED FACTOR									
43	DYNAMIC FACTOR									
44	DERATED LOAD									
45	NOTES:									
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TABLE 12.3 MAIN MDIST - CASE 3

NO.	DESCRIPTION	NO. OF FALLS								
		THREE								
		RADIUS (M)								
		8	10	15	20	25	30	35	40	45
		LOADS IN TONNES								
		45	45	45						
		1.33	1.33	1.33						
3	HOOK SPEEDS									
6	DERATING SPEEDS									
7	PLATFORM									
8	DYNAMIC FACTOR									
9	STIFFNESS FACTOR									
11	0.0 M SIG. WAVE HT.									
12	DERATED FACTOR									
13	DYNAMIC FACTOR									
14	DERATED LOAD									
16	0.5 M SIG. WAVE HT.									
17	DERATED FACTOR									
18	DYNAMIC FACTOR									
19	DERATED LOAD									
21	1.0 M SIG. WAVE HT.									
22	DERATED FACTOR									
23	DYNAMIC FACTOR									
24	DERATED LOAD									
26	2.0 M SIG. WAVE HT.									
27	DERATED FACTOR									
28	DYNAMIC FACTOR									
28	DERATED LOAD					1.84				
30						1.35				
31	3.0 M SIG. WAVE HT.									
32	DERATED FACTOR									
33	DYNAMIC FACTOR									
34	DERATED LOAD									
36	4.0 M SIG. WAVE HT.									
37	DERATED FACTOR									
38	DYNAMIC FACTOR									
39	DERATED LOAD									
41	5.0 M SIG. WAVE HT.									
42	DERATED FACTOR									
43	DYNAMIC FACTOR									
44	DERATED LOAD									
45	NOTES:									
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13.0 MATERIALS OF CONSTRUCTION

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CERT. DIN 50049

MO3 NO.

ASTM A513-84 TYPE1

AS 3679 GR 350

AS 3679 GR 350

- BOOM
- A FRAME
- MACHINERY BED
- SHEAVES
- SHEAVE SHAFT
- BOOM PIVOT PIN
- HOOK
- HOOK BLOCK PLATES

12 SECONDARY STRUCTURE STEELWORK

AS 3679

14.0 SURFACE TREATMENT AND COLOURS

14 GENERAL

TO M5000SG400

15 GALVANIZED ITEMS:

TO M5000SG400

16 BOOM, A FRAME AND PEDESTAL ADAPTOR

TO M5000SG400

18 TOP COAT COLOURS

ACCORDING TO BS4800

19 COLOUR SCHEME

ORANGE, 06 E 51

20 CRANE BODY FROM SLEWING TO TOP OF A FRAME

EXTERNAL: ORANGE, INTERNAL: OFFWHITE?

21 DRIVERS CABIN:

ORANGE, 06 E 51

22 BOOM:

ORANGE, 06 E 51

23 PEDESTAL ADAPTOR FROM TOP FLANGE TO SERVICE PLATFORM:

ORANGE, 06 E 51

24 FROM SERVICE PLATFORM TO LOWER END

ORANGE, 06 E 51

26 NOTES:

**MECHANICAL DATA SHEET
PEDESTAL CRANE**

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TAG	X-1401	MODEL	20Y10x
DESCRIPTION	PEDESTAL CRANE	SERIAL NO.	
SIZE (OX,DY,DZ)		LAYOUT DWG. NO.	
VENDOR	Favelle Favco Cranes Pty. Ltd.	P & ID NO.	
MANUFACTURER	Favelle Favco Pty.Ltd	AREA/ELEVATION	HD40

TAG	X-1402	MODEL	20Y10x
DESCRIPTION	PEDESTAL CRANE	SERIAL NO.	
SIZE (OX,DY,DZ)		LAYOUT DWG. NO.	
VENDOR	Favelle Favco Cranes Pty. Ltd.	P & ID NO.	
MANUFACTURER	Favelle Favco Pty.Ltd	AREA/ELEVATION	HD20

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NOISE

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TAG X-1401
SERVICE PEDESTAL CRANE
SIZE (DX,DY,DZ)
VENDOR Favella Favco Cranes Pty. Ltd.
MANUFACTURER Favella Favco Pty. Ltd.

MODEL 20110K
SERIAL NO.
LAYOUT DWG. NO.
P & ID NO.
AREA/ELEV. HD10

TAG X-1402
SERVICE PEDESTAL CRANE
SIZE (DX,DY,DZ)
VENDOR Favella Favco Cranes Pty. Ltd.
MANUFACTURER Favella Favco Pty. Ltd.

MODEL 20110K
SERIAL NO.
LAYOUT DWG. NO.
P & ID NO.
AREA/ELEV. HD20

WEIGHT DATA SHEET TAGGED EQUIPMENT

PACKAGE NO. EM283

DOC. NO. M5006KMS01

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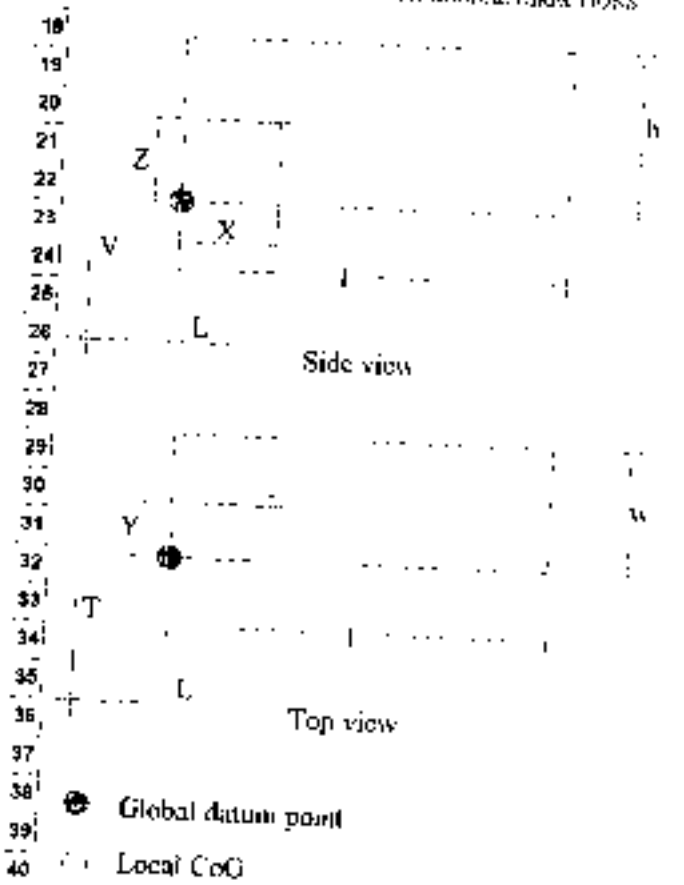
1	TAG NO	X-1401	SERIAL NO	
2	DESCRIPTION	PEDESTAL CRANE	LAYOUT DWG NO.	
3	VENDOR	Favalle Favco Cranes Pty. Ltd.	P & ID NO	
4	MANUFACTURER	Favalle Favco Pty Ltd	AREA	HD40
5	MODEL	20110K		

WEIGHT OF COMPLETE UNIT [kg]

CONDITION	WEIGHT	REMARKS
9 DRY DELIVERED FROM VENDOR	72900	
10 + CONTENT NORMAL OPERATING	1000	
11 = OPERATING	73900	FILLING (%)
12 TEST (FILLED WITH FLUID)		
13 LIFTING MAX. AT PAD EYES		
14 LARGEST REMOVABLE ITEM		

OVERALL SIZES AND POSITIONS OF LOCAL CENTER OF GRAVITY (CoG) [mm]

PROFILE OF EQUIPMENT WITH GLOBAL DIRECTIONS



LENGTH (l)		DRY CoG X:	0
WIDTH (w)		DRY CoG Y:	0
HEIGHT (h)		DRY CoG Z:	0
VENDOR DWG. REF		OPER CoG X:	0
REV	DATE:	OPER CoG Y:	0
		OPER CoG Z:	0

GLOBAL POSITION OF DATUM POINT [mm]

LONGI: TRANS: VERT:

WEIGHT/COG STATUS (BY VENDOR)

E1 Estimate at bid, E2 Confirmed after P.O.
E3: Recalculated/Catalogue data, E4: Final calculated
E5: Weighed

STATUS: E2

NOTES:

DATE | 25.07.1997

SIGN:

