

CONCOR HOLDINGS (PTY) LTD

PROJECT: Port of Ngqura, South Africa

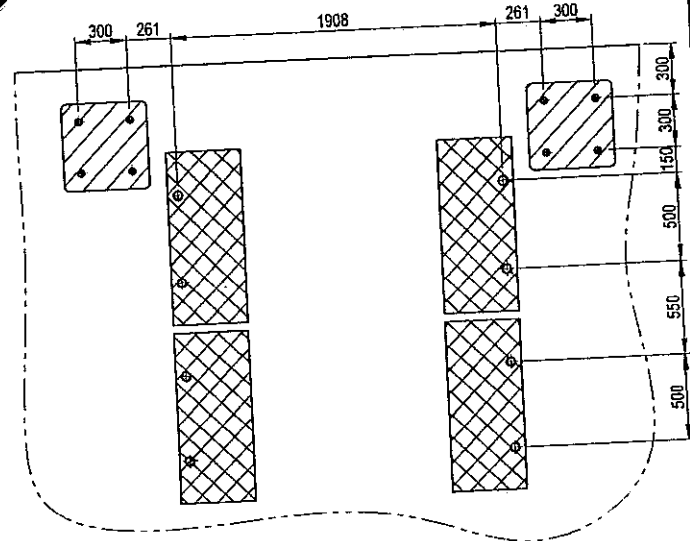
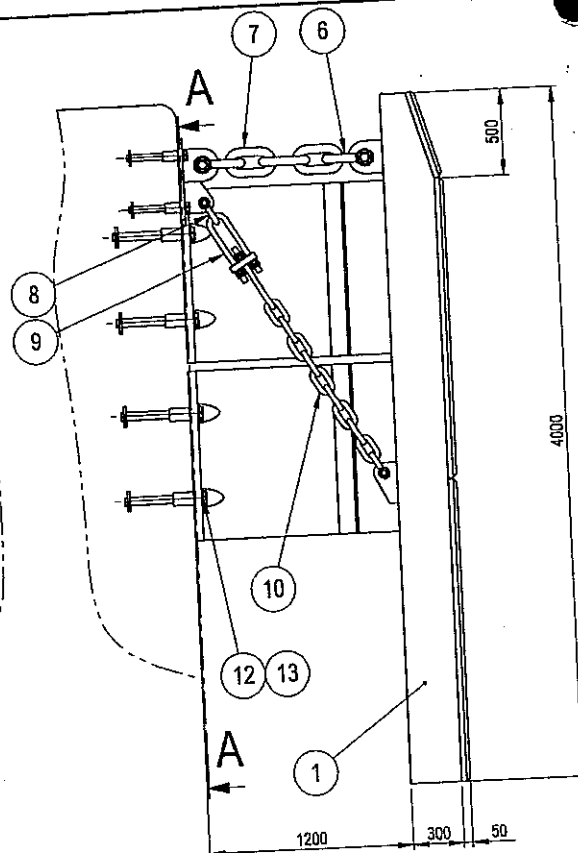
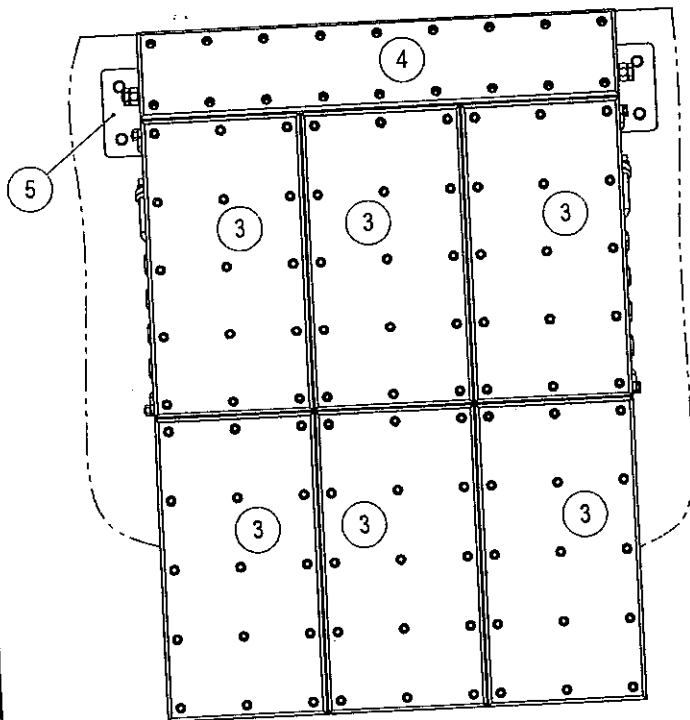


APPENDIX 1

AS – BUILT DRAWINGS

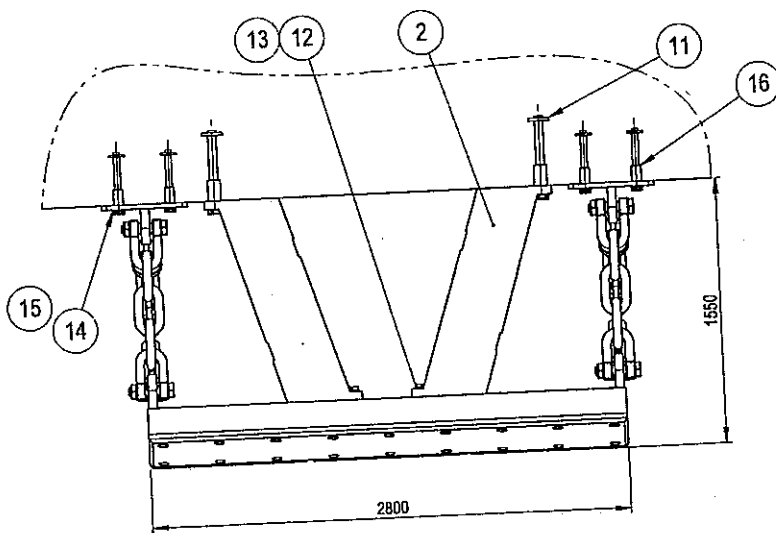
- UNIT ELEMENT FENDER SYSTEMS

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg Marine Systems and shall not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent in each case.



SECTION A-A

APPLY THREAD LOCKER TO ALL THREADS



QUANTITIES PER SYSTEM. 28 SYSTEMS REQUIRED.

Item	Qty	Description	Dimension	Material	Weight
102	1	THREAD LOCKER	WEICON	AN 302-45	
16	8	NC3-ANCHOR	M36	SS 316	
15	8	BOLT	M36x80 - DIN 931	SS 316	
14	8	WASHER	Ø 40/68x5 - DIN 125	SS 316	
13	16	BOLT	M48x120 - DIN 931	SS 316	
12	16	WASHER	Ø 53/92x6 - DIN 125	SS 316	
11	8	NC3-ANCHOR	M48	SS 316	
10	2	CHAIN	Ø 30(4.0D)x9=1080	HDG - MBL: 706 kN SL3	
9	2	CHAIN TENSIONER	Ø 30x(530-720)	HDG	
8	4	SHACKLE	Ø 32/35x94	HDG - NBL: 720 kN	
7	2	CHAIN	Ø 50(4.0D)x3=600	HDG - MBL: 1570 kN SL2	
6	4	SHACKLE	Ø 45/50x149	HDG - NBL: 1500 kN	
5	2	CHAIN BRACKET	500x500x235	S355J2 - HDG	
4	1	UHME-PE	50x2800x522	FQ-1000	
3	6	UHMW-PE	50x1745x927	FQ-1000	
2	4	FENDER	UE 1200x1000	E2.0	
1	1	STEEL PANEL	4000x2800x300	S355J2	

DRAWN AK 2008-03-25
 CHECKED
 APPROVED
 SCALE 1:30
 PROJ NO. ZAF-12327
 CONT NO.

Trelleborg Marine Systems
 Trelleborg Industri AB
 Henry Dunkers gata 7
 SE-231 81 Trelleborg, Sweden

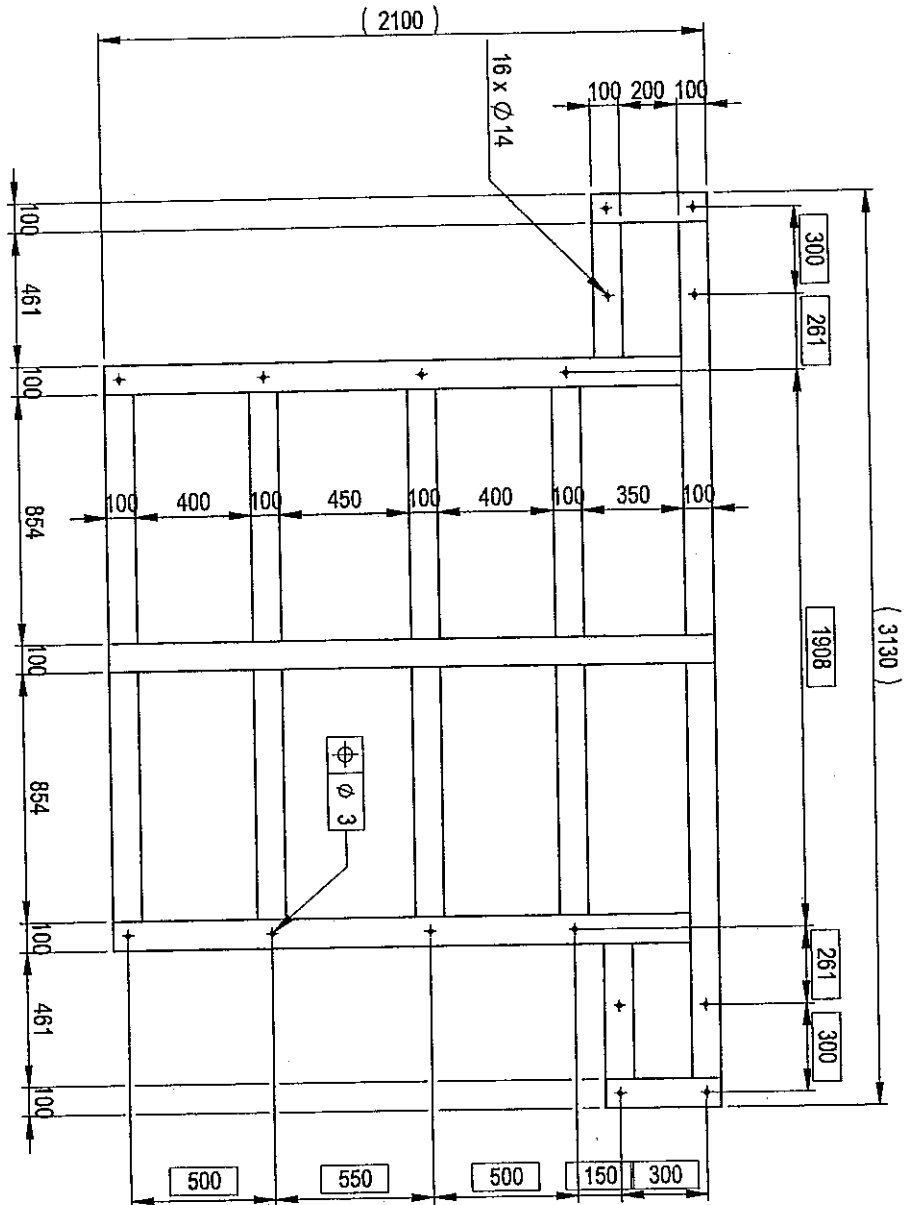


Tel : +46 410 51 000
 Fax : +46 410 440 78
 E-mail :
 tms.scandinavia@trelleborgms.com
 web : www.trelleborgms.com


TITLE: FENDER ASSEMBLY
 PORT OF NGQURA, SOUTH AFRICA

DRAWING NUMBER: 110853-001
 REV A3

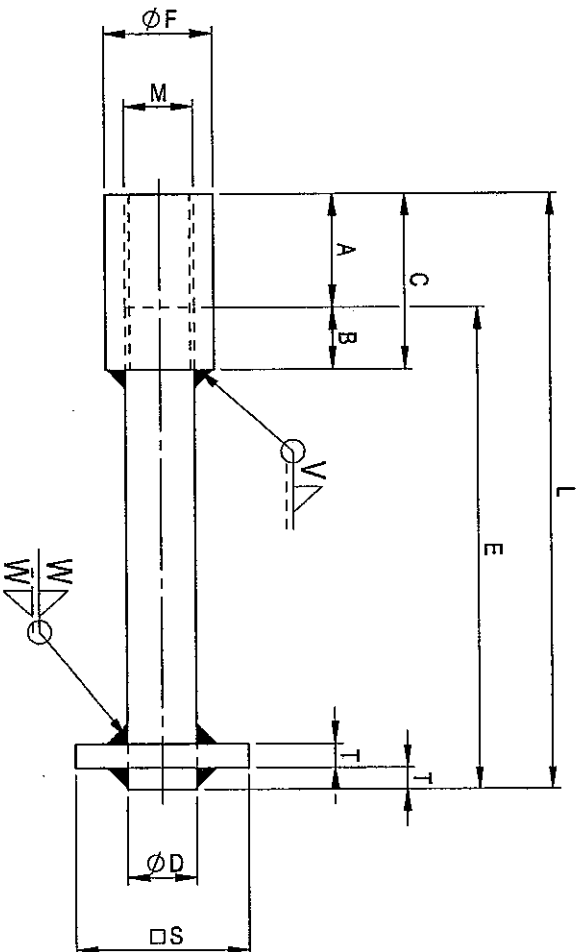
COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.



MANUFACTURE OUT OF STEEL FLATS 5x100, S235JR OR SIMILAR.
WEIGHT: 68,5 kg

DRAWN	AK	2008-04-02	Trelleborg Marine Systems Trelleborg Industri AB Henry Dalkers gata 1 SE-231 81 Trelleborg, Sweden	 TRELLEBORG <small>ENGINEERED SYSTEMS</small>	Tel: +46 430 51 000 Fax: +46 430 440 78 E-mail: tms.scandinavia@trelleborg.com Web: www.trelleborg.com/marine
CHECKED					
APPROVED					
SCALE		1:25	TITLE: ANCHOR TEMPLATE ITEM 101	DRAWING NUMBER: 110853-108	REV
PROJ NO.		ZAF-12327	© - Trelleborg AB	PORT OF NGQURA, SOUTH AFRICA	A4
CONT NO.					

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.



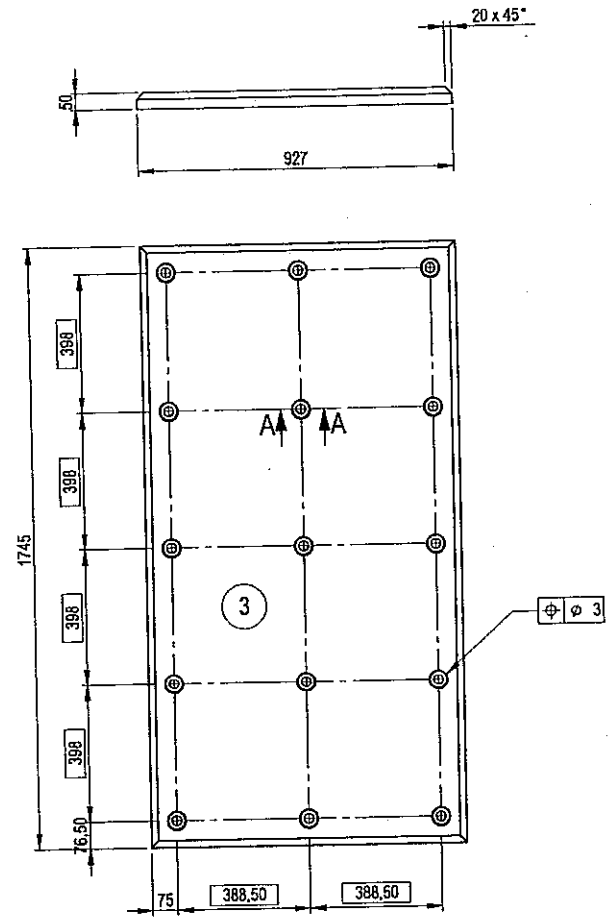
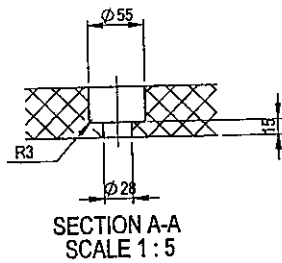
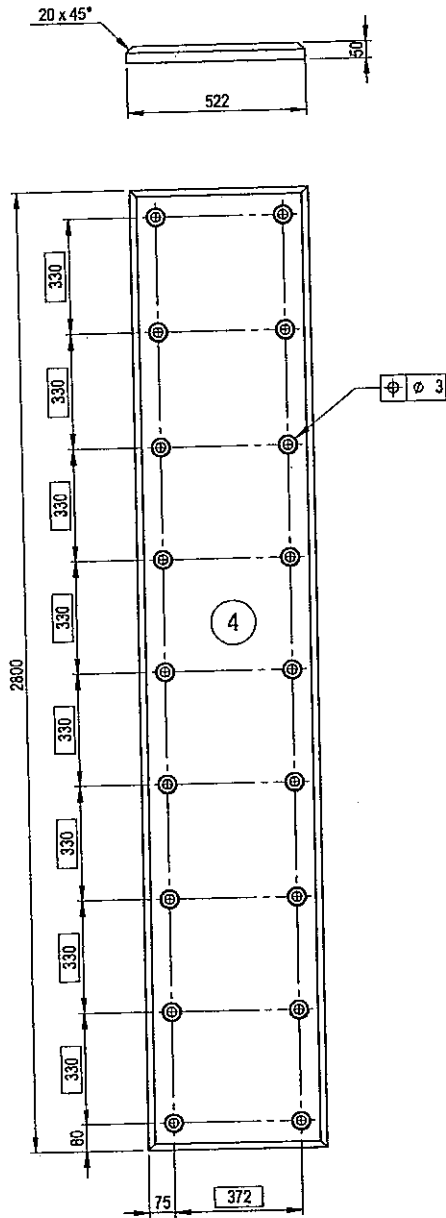
MATERIAL: STAINLESS STEEL GRADE 316

ITEM	THREAD	A	B	C	ØD	E	ØF	L	□S	T	V	W	WEIGHT
16	M36	72	40	112	36	248	54	320	100	12	8	10	5.5 kg
11	M48	96	60	156	48	304	72	400	100	15	10	10	11.5 kg

224 PCS. REQUIRED OF ITEM 11.
224 PCS. REQUIRED OF ITEM 16.


DRAWN	AK	2008-01-24	Trelleborg Marine Systems Trelleborg Industri AB Henry Dunkers gata 2 SE-231 81 Trelleborg, Sweden	TRELLEBORG ENGINEERED SYSTEMS	Tel : +46 410 51 000 Fax : +46 410 440 78 E-mail : tms.scandinavia@trelleborgns.com web : www.trelleborgns.com
CHECKED					
APPROVED					
SCALE		1:5	TITLE: NC3-ANCHORS ITEM 11 & 16	DRAWING NUMBER: 110853-107	REV
PROJ NO.			PORT OF NGQURA, SOUTH AFRICA		
CONT NO.			@ - Trelleborg AB		A4

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg and is not to be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written consent in each case.

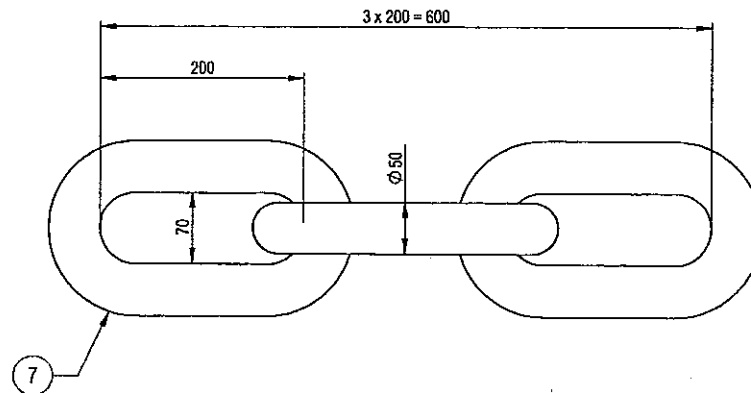
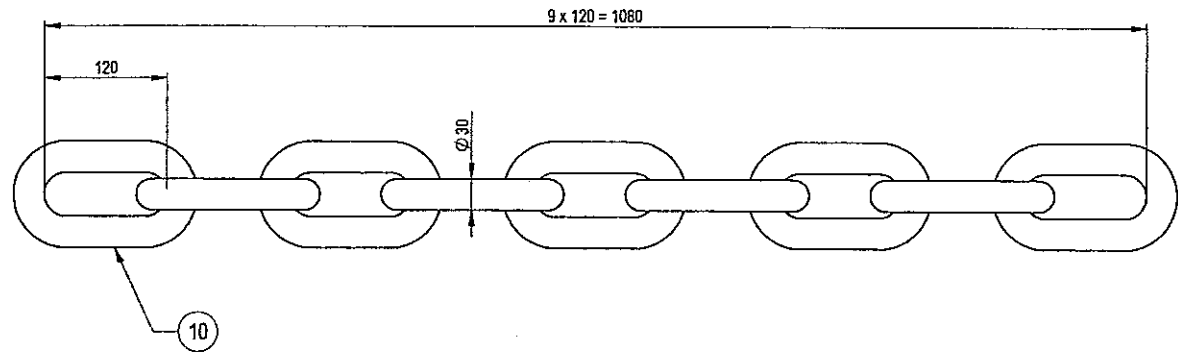
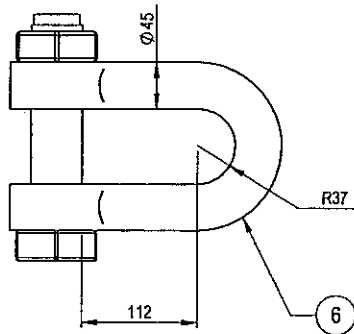
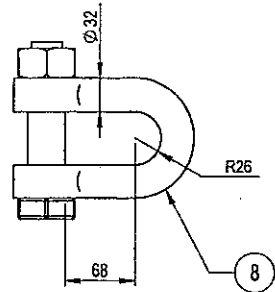


QUANTITIES PER SYSTEM. 35 SYSTEMS REQUIRED.

Item	Qty	Description	Dimension	Material	Weight
4	1	UHMW-PE (BLACK)	50x2800x522	FQ-1000	67
3	6	UHMW-PE (BLACK)	50x1745x927	FQ-1000	75


DRAWN	AK	2008-03-25	Trelleborg Marine Systems Trelleborg Industri AB Henry Dankers gata 1 SE-231 81 Trelleborg, Sweden		Tel: +46 410 51 000 Fax: +46 410 440 78 Email: tms.scandinavia@trolleborg.com web: www.trelleborg.com/marine
CHECKED					
APPROVED					
SCALE	1:15		TITLE: UHMW-PE (BLACK) ITEM 3 & 4 NGQURA, SOUTH AFRICA	DRAWING NUMBER:	REV
PROJ NO.	ZAF-12327			110853-106	A3
CONT NO.			© - Trelleborg AB		

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AS and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.

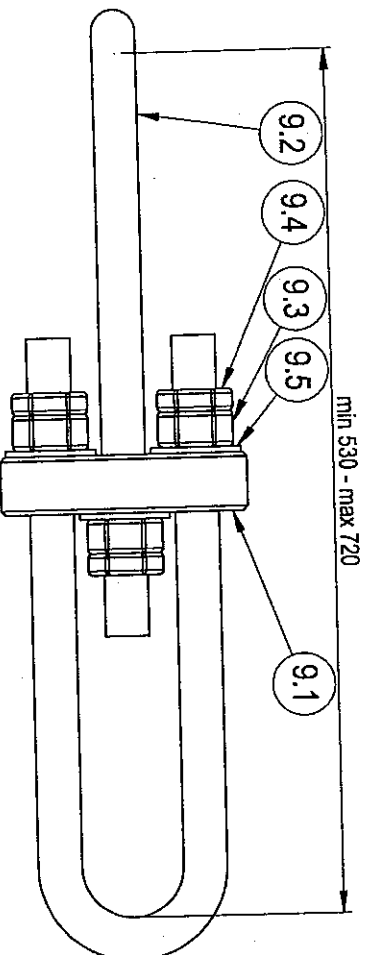
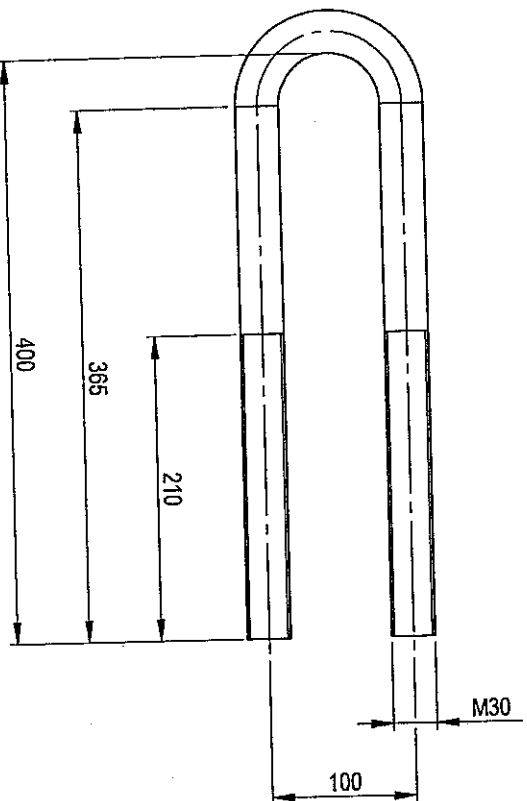
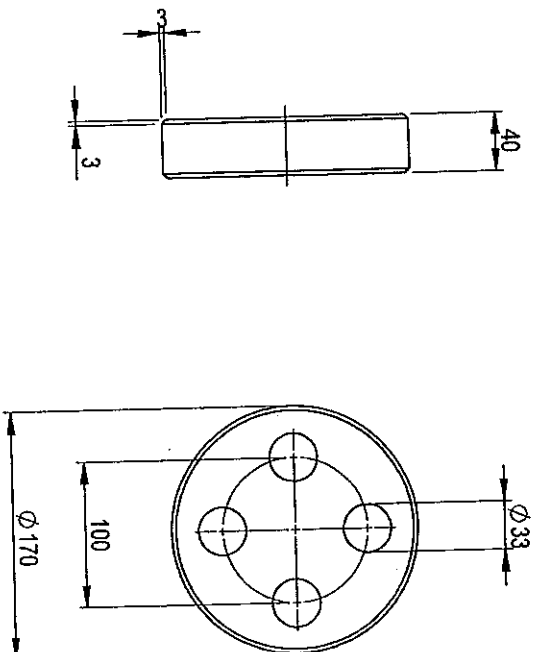


HOT DIP GALVANIZE: EN ISO 1461 COATING 80-100 MICRON.
 QUANTITIES PER SYSTEM. 35 SYSTEMS REQUIRED.

Item	Qty	Description	Dimension	Material	Weight
10	2	CHAIN	Ø 30(4.0D)x9=1080	HDG - MBL: 706 kN	18.9
8	4	SHACKLE	Ø 32/35x94	HDG - NBL: 720 kN	4.7
7	2	CHAIN	Ø 50(4.0D)x3=600	HDG - MBL: 1570 kN	29.1
6	4	SHACKLE	Ø 45/50x149	HDG - NBL: 1500 kN	12.8

Item	Qty	Description	Dimension	Material	Weight
DRAWN	AK	2008-03-26	Trelleborg Marine Systems Trelleborg Industri AB Henry Dankers gata 2 SE-231 81 Trelleborg, Sweden		
CHECKED			 Tel : +46 410 51 000 Fax : +46 410 440 78 E-mail : tms.scandinavia@trelleborgms.com web : www.trelleborgms.com		
APPROVED					
SCALE	1:5	TITLE: CHAINS & SHACKLES ITEM 6, 7, 8 & 10 NGQURA, SOUTH AFRICA		DRAWING NUMBER:	REV
PROJ NO.	ZAF-12327			110853-105	A3
CONT NO.		© - Trelleborg AB			

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.

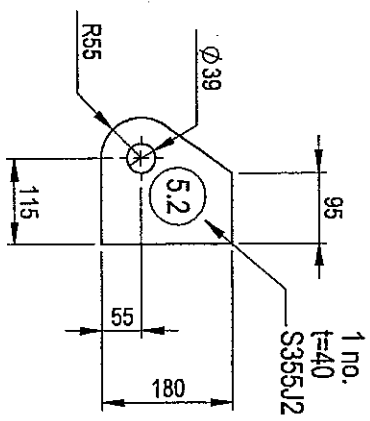
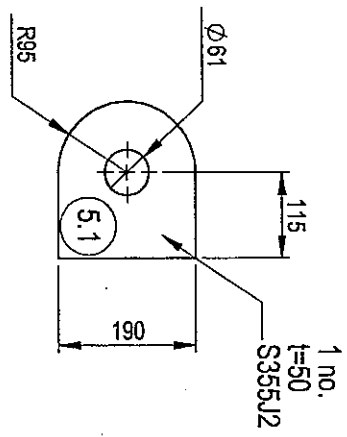
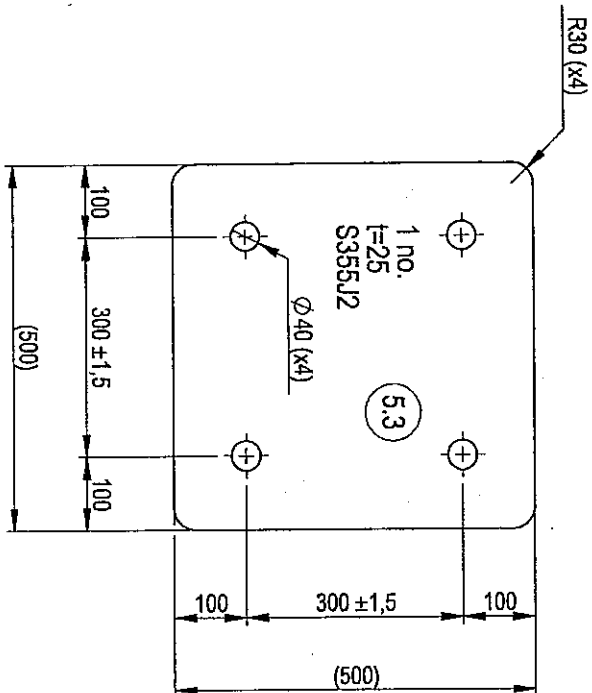
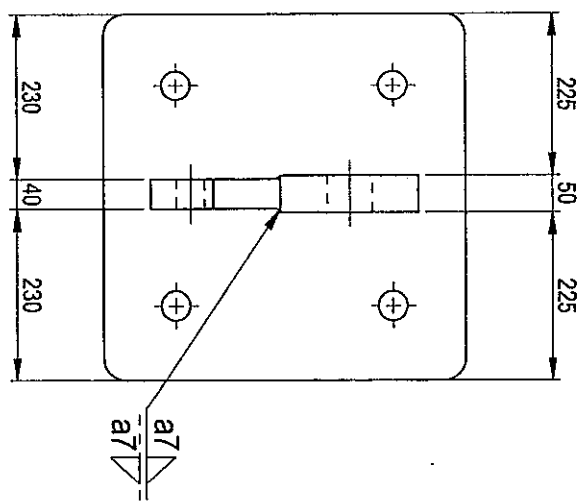
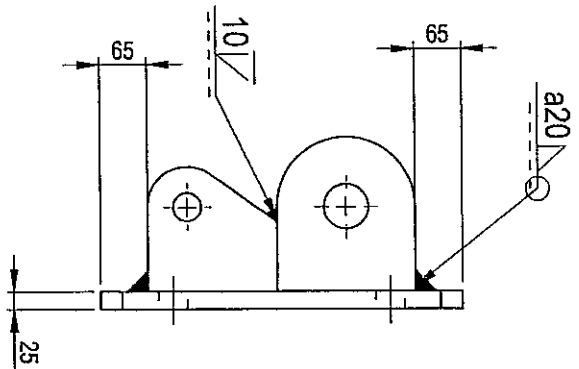


QUANTITIES ARE FOR ONE CHAIN TENSIONER, 70 CHAIN TENSIONERS REQUIRED.

Item	Qty	Description	Dimension	Material	Weight
9.5	4	WASHER	Ø 31/56x4 ~ DIN 125	HDG	
9.4	4	THIN NUT	M30 - DIN 439	8. HDG	
9.3	4	NUT	M30 - DIN 934	8. HDG	9.8
9.2	2	CYLINDER	Ø 30x887	6.8 - HDG	
9.1	1	CYLINDER	Ø 170x40	S355J2 - HDG	6

DRAWN	AK	2008-03-26	Trelleborg Marine Systems Trelleborg Industri AB Henry Dunkers gata 2 SE-231 81 Trelleborg, Sweden	TRELLEBORG ENGINEERING SYSTEMS	Tel: +46 410 51 000 Fax: +46 410 440 78 E-mail: tms.scandinavia@trelleborgms.com web: www.trelleborgms.com
CHECKED					
APPROVED					
SCALE		1:1.5	TITLE: CHAIN TENSIONER ITEM 9	DRAWING NUMBER: 110853-104	REV
PROJ NO.	ZAF-12327		© - Trelleborg AB	NGOURA, SOUTH AFRICA	A4
CONT NO.					

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.



MATERIAL: S355J2
 REMOVE ALL SHARP EDGES.
 HOT DIP GALVANIZE: EN ISO 1461 MIN. COATING 105 MICRON.
 WEIGHT: 69 kg
 QUANTITIES PER BRACKET: 70 BRACKETS REQUIRED.

DRAWN	AK	2008-03-26
CHECKED		
APPROVED		
SCALE	1:10	
PROJ NO.	ZAF-12327	
CONT NO.		

Trelleborg Marine Systems
 Trelleborg Industri AB
 Henry Dunkers gata 2
 SE-231 81 Trelleborg, Sweden

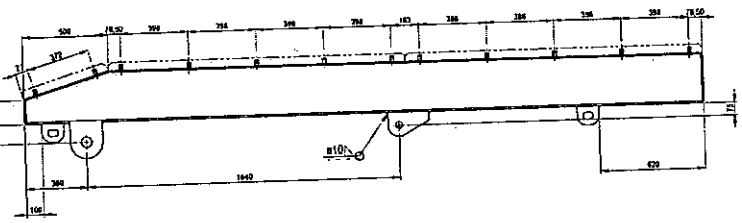
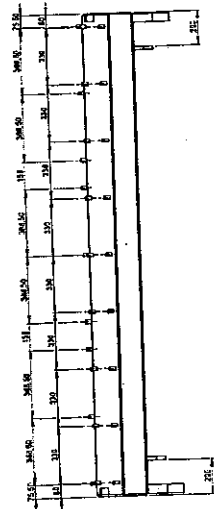
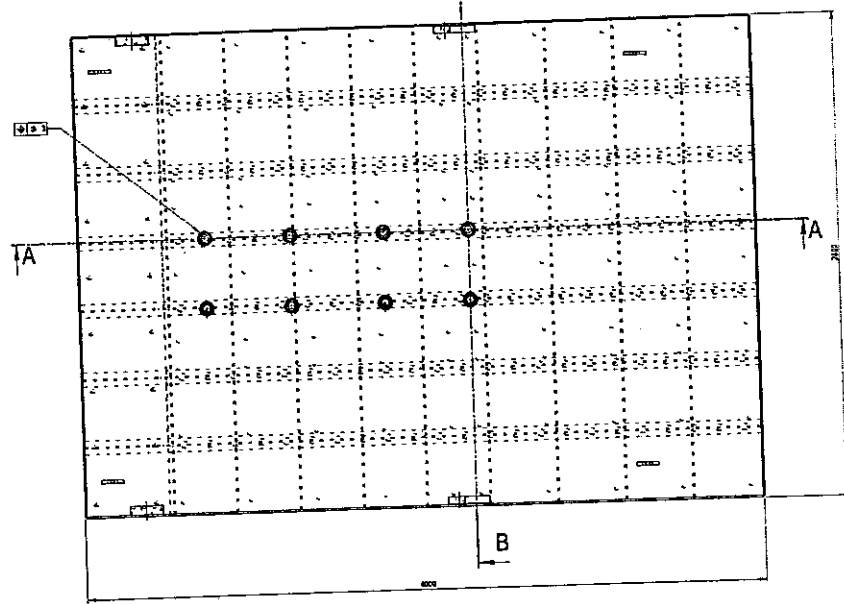
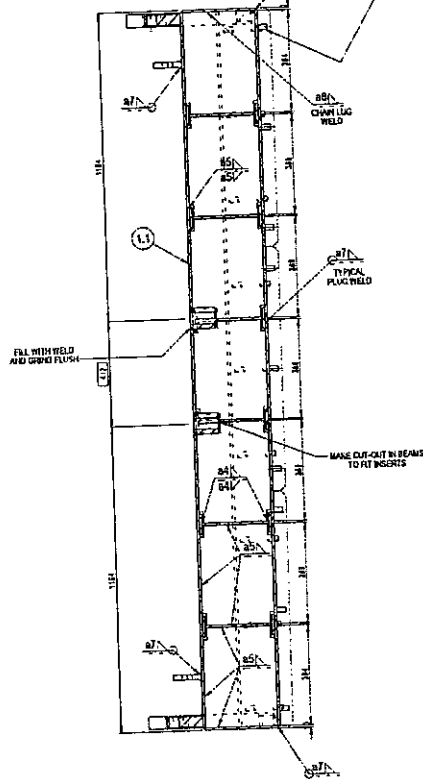
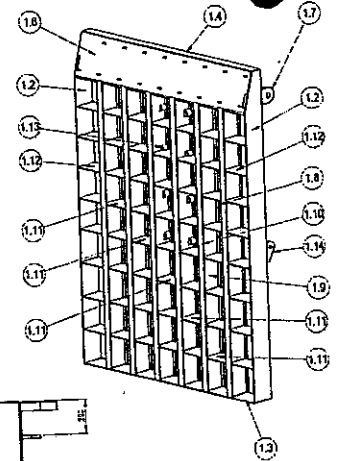
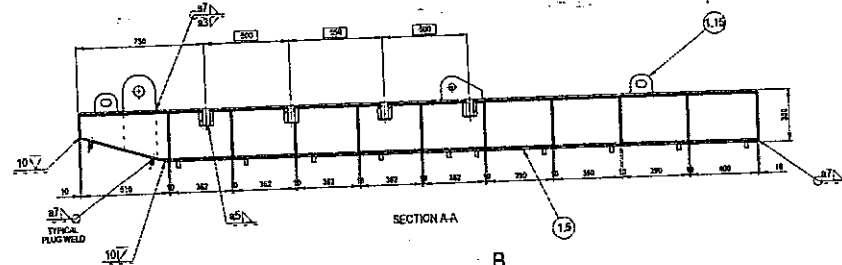
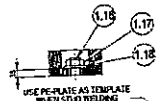


Tel : +46 410 51 000
 Fax : +46 410 440 78
 E-mail :
 trns.scandinavia@trelleborgms.com
 web : www.trelleborgms.com

TITLE: CHAIN BRACKET
 ITEM 5
 NGOURA, SOUTH AFRICA

DRAWING NUMBER:
 110853-103

REV
 A4



TOLERANCE
DIM ±0.15

WELDING UNLESS OTHERWISE STATED
WELDED TO CLASS 1
FILLET WELDS: $a = 0.7 \times$ PLATE THICKNESS
BUTT WELDS: SINGLE V-BUTT WELDS: FULL PENETRATION
CORNER WELDS EVERYWHERE

SURFACE PREPARATION
AGGRESSIVE BLAST CLEAN TO SA 2.5 (ISO 8501-1:1988)
THE SURFACE TO BE PAINTED SHALL BE SMOOTH AND ROUGH WELDS
AND CORNERS SHALL BE TREATED, POROSITY, SPATTER, DAGS ETC SHALL BE ADJUSTED,
AND CORNERS SHALL BE TREATED, POROSITY, SPATTER, DAGS ETC SHALL BE ADJUSTED,
AND CORNERS SHALL BE TREATED, POROSITY, SPATTER, DAGS ETC SHALL BE ADJUSTED,

PAINTING
ACCORDING TO ISO 12944 CORROSION CATEGORY CS-M PAINT SYSTEM S8201
TOTAL DRY FILM THICKNESS 610 MICROMETRES (INTERMEDIATE COAT 500 MICROMETRES)
FILM THICKNESS CONTROL SHALL BE COMPLEMENTED WITH PINHOLE DETECTION CONTROL
COLOUR: BLACK RAL 9005

THE CONSTRUCTION MUST BE COMPLETELY SEALED TO PREVENT THE INGRESS OF WATER.
HYDRASTATIC TEST PROCEDURE
DRAIN ONE HOLE OF 18 mm DIAMETER IN THE PANEL.
FIT AND WELD IN B.S.P. STOPCOCK
FIT TUBES - VALVES AND CONNECT AIR LINE
TEST TO 0.15 bar FOR 15 MINUTES MINIMUM
CHECK ALL EXTERNAL WELDS WITH SOAPY WATER
AFTER ANY REPAIRS, FIT IN B.S.P. BUNG WITH PIPE TAPE

FOR DETAILS SEE DRAWING 110553-112
TOTAL WEIGHT: 3273 kg
QUANTITIES PER PANEL: 35 PANELS REQUIRED.

Item	Qty	Description	Dimension	Material	Weight
1.19	108	WASHER	Ø25x8x4 - DIN 125	316	
1.17	108	TURN BOLT	M20 - DIN 438	316	
1.18	108	WELD STUD	M20x35	316LN	
1.16	4	STEEL PLATE	20x130x110	S355J2G3	7
1.14	2	STEEL PLATE	40x240x140	S355J2G3	15
1.13	8	THREADED INSERT	2 Ø22.5x4x8x100	316LN	24
1.12	18	STEEL PLATE	10x250x280	S355J2G3	155
1.11	45	STEEL PLATE	10x365x280	S355J2G3	371
1.10	6	STEEL PLATE	10x345x280	S355J2G3	152
1.9	6	STEEL PLATE	8x350x250	S355J2G3	574
1.8	8	STEEL PLATE	10x350x280	S355J2G3	154
1.7	2	STEEL PLATE	50x75x150	S355J2G3	61
1.6	1	STEEL PLATE	10x270x512.5	S355J2G3	114
1.5	1	STEEL PLATE	10x345x2780	S355J2G3	748
1.4	1	STEEL PLATE	10x270x130	S355J2G3	25
1.3	1	STEEL PLATE	10x270x280	S355J2G3	61
1.2	2	STEEL PLATE	10x350x280	S355J2G3	165
1.1	1	STEEL PLATE	10x350x2780	S355J2G3	863

DRAWN: AK 2008.01.11
 CHECKED: []
 APPROVED: []
 SCALE: 1:5
 PROJ. NO.: DW-4297
 CONT. NO.: 1-100004-01

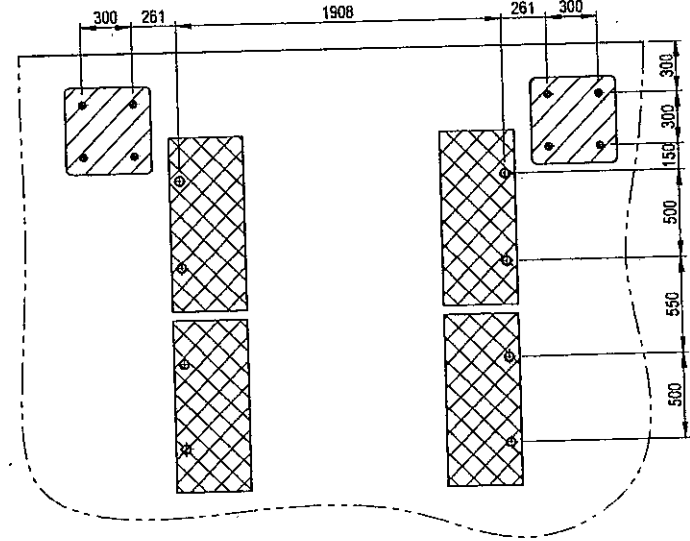
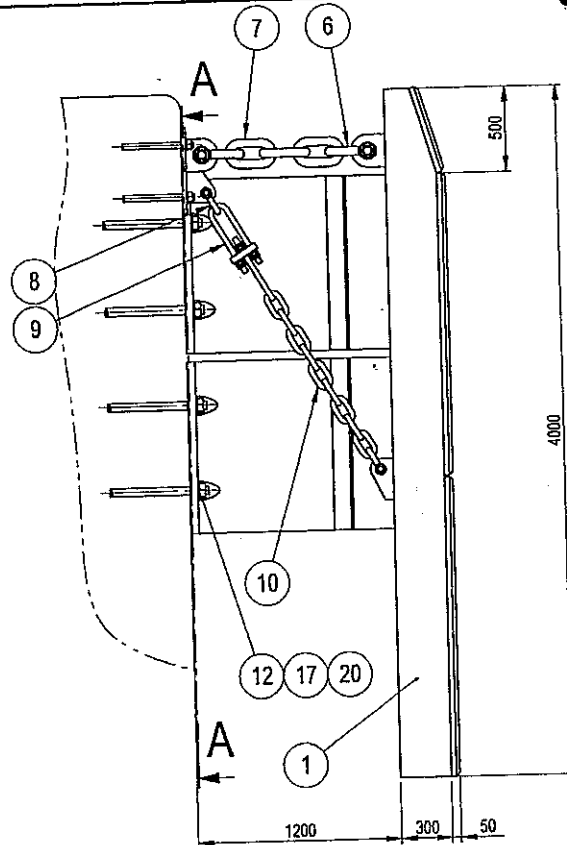
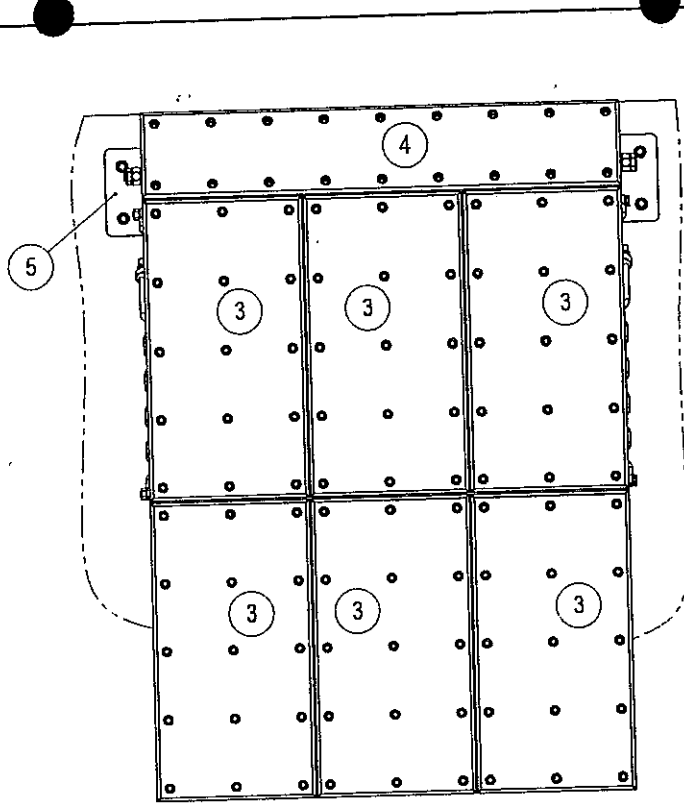
Issuing Office: Port of Nelspruit
 Drawing No.: DW-4297
 Date: 2008.01.11
 Rev: 1

TRELLEBORG
 PORT OF NELSPRUIT, SOUTH AFRICA

Job No: DW-4297
 Date: 2008.01.11
 Email: info@trelleborg.com
 Web: www.trelleborg.com

DRAWING NUMBER: 110553-101
 REV: []

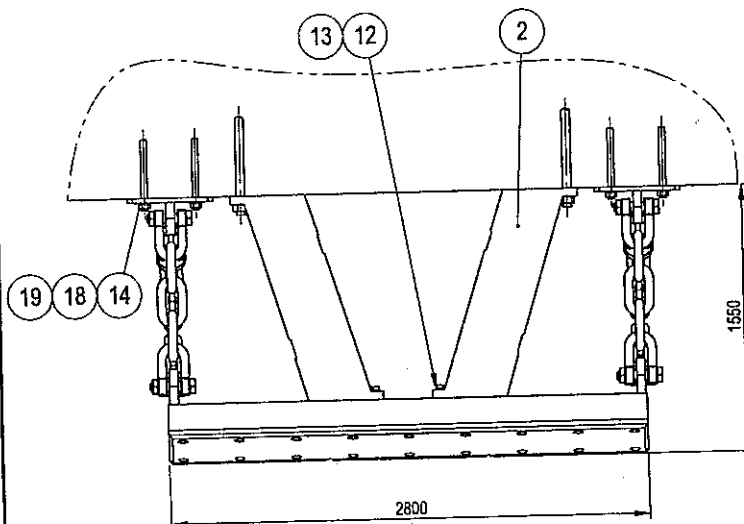
COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.




SECTION A-A

APPLY THREAD LOCKER TO ALL THREADS

QUANTITIES PER SYSTEM. 7 SYSTEMS REQUIRED.

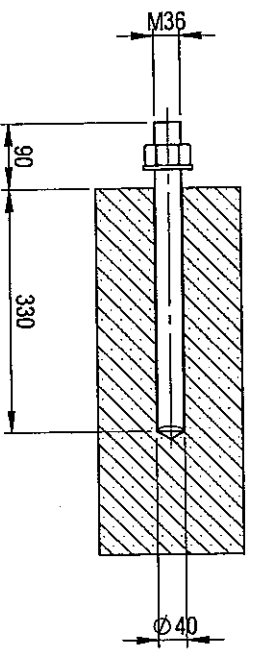
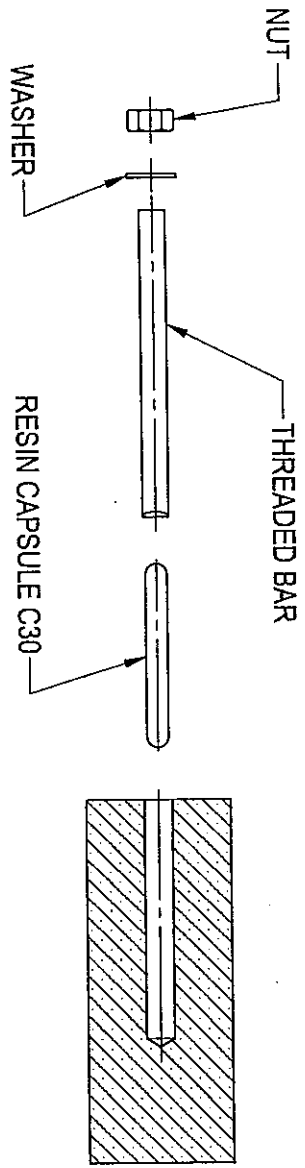



102	1	THREAD LOCKER	WEICON	AN 302-45	
20	8	NUT	M48 - DIN 934	SS 316	
19	8	NUT	M36 - DIN 934	SS 316	
18	8	THREADED BAR + CAPSULE	M36x420 + C30	SS 316	
14	8	WASHER	Ø 40/68x5 - DIN 125	SS 316	
13	8	BOLT	M48x120 - DIN 931	SS 316	
12	16	WASHER	Ø 53/92x6	SS 316	
17	8	THREADED BAR + CAPSULES	M48x580 + 2xC30 + 1xC24	SS 316	
10	2	CHAIN	Ø 30(4.0D)x9=1080	HDG - MBL: 706 kN SL3	
9	2	CHAIN TENSIONER	Ø 30x(530-720)	HDG	
8	4	SHACKLE	Ø 32/35x94	HDG - NBL: 720 kN	
7	2	CHAIN	Ø 50(4.0D)x3=600	HDG - MBL: 1570 kN SL2	
6	4	SHACKLE	Ø 45/50x149	HDG - NBL: 1500 kN	
5	2	CHAIN BRACKET	500x500x235	S355J2 - HDG	
4	1	UHMW-PE	50x2800x522	FQ-1000	
3	6	UHMW-PE	50x1745x927	FQ-1000	
2	4	FENDER	UE 1200x1000	E2.0	
1	1	STEEL PANEL	4000x2800x300	S355J2	

Item	Qty	Description	Dimension	Material	Weight
DRAWN	AK	2008-03-28	Trelleborg Marine Systems Trelleborg Industri AB Henry Dunkers gata 2 SE-231 81 Trelleborg, Sweden		
CHECKED					
APPROVED					
SCALE	1:30	TITLE:	FENDER ASSEMBLY PORT OF NGQURA, SOUTH AFRICA	DRAWING NUMBER:	REV
PROJ NO.	ZAF-12327			110853-002	A3
CONT NO.		© - Trelleborg AB			

Tel : +46 410 51 000
Fax : +46 410 440 78
E-mail :
tms.scandinavia@trelleborgms.com
web : www.trelleborgms.com

COMMERCIAL IN CONFIDENCE This drawing remains the property of Trelleborg AB and must not be reproduced or improperly used or communicated to the third party without our written consent in each case.



DRAWN	AK	2008-04-04	Trelleborg Marine Systems Trelleborg Industri AB Henry Dunkers gata 1 SE-231 81 Trelleborg, Sweden	 TRELLEBORG <small>ENGINEERED SYSTEMS</small>	TITLE: RESIN ANCHOR (M36) INSTALLATION PROCEDURE PORT OF NGQURA, SOUTH AFRICA	DRAWING NUMBER: 110853-109	REV A4
CHECKED							
APPROVED							
SCALE		1:10					
PROJ. NO.		ZAF-12327					
CONT. NO.			© - Trelleborg AB				

Tel: +46 410 51 000
 Fax: +46 410 440 78
 E-mail: tns.scandl@trelleborg.com
 Web: www.trelleborg.com/marine