

SCE MONORAIL 134

Trolley & Monorail System

N.V. Sky Climber Europe S.A.
Nijverheidsstraat 23
2570 Duffel
Belgium

Tel. +32 (0)3 887 81 20
Fax +32 (0)3 887 09 94
info@skyclimber.be
www.skyclimber.com

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1. GENERAL DESCRIPTION OF ELECTRICAL TROLLEY SCE

The SCE-trolley is an electrical trolley designed for the Sky Climber Monorail Track SCE 134. The electrical trolley is only suited for horizontal monorail tracks. The SCE-trolley is used as carrier for Sky Climber suspended platforms, allowing these to travel sideways under the SCE Monorail 134 track.

For suspended platforms with one suspension point only 1 electrical trolley is needed. For suspended platform with two suspension points 2 trolleys are needed, however it's possible to use one electrical trolley in combination with one manual (slave) trolley.

The SCE-trolley has a unique traction system.

All 4 wheels of the SCE-trolley are driven to assure traction on the monorail track in all conditions.

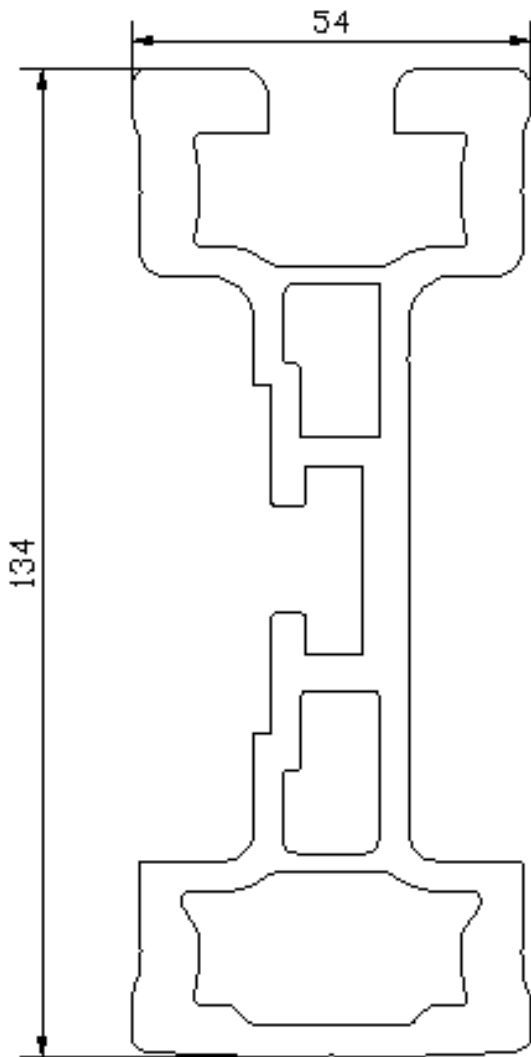
The SCE-moves with a maximum possible traversing speed of 18m/min along the monorail track and is equipped with an engine and gearbox. The gearbox and the engine are self-restraining which will prevent unwanted movement along the track. This will also prevent that the trolley will slide along the track in case of a power failure.

NUTS FOR CONNECTING MONORAILS ON BRACKETS SHALL BE MOUNTED WITH PRESCRIBED TORQUE, SEE MOUNTING INSTRUCTIONS - 'GAPS & NUT TORQUES' (page 12) FURTHER ON IN THIS MANUAL

2. LIMITATIONS AND PRECAUTIONS BEFORE USE

1. The Monorail system (SCE-trolley in combination with a suspended platform) is only to be used by people with a proper training.
2. Before using the monorail system, the operator must read and understand this manual. All injuries to people or damages to material due to misuse of this monorail system is the sole responsibility of the user.
3. Before using the monorail system, the operator must carry out all daily test, and he must make sure that everything is working properly.
4. The suspension system must always be inspected before use. Connection of wire ropes must be according to this user manual and according to the instructions from Sky Climber. All bolts and shackles must be secured with locking nuts or pins.
5. Check that all tracks have end stops at both ends.
6. Always secure the area under the suspended platform to prevent injuries from falling objects.
7. The operator shall **ALWAYS** contact the person in charge if:
 - The trolley does not work properly
 - If the trolley is damaged
 - Or other situations that affects the safety of the monorail system
8. Only original spare parts shall be used. All work on the trolley must be carried out by Sky Climber authorized service personnel.
9. The monorail system must not be used with wind forces beyond 12m/sec. If these conditions occur while using this system, the suspended platform must be disconnected from the monorail system and the trolley must be secured to the track and the operator must end his work.
10. General temperature limitation of use: minimum 0°C, maximum 55 °C.
11. Specific temperature limitation of use is mandatory after monorails being mounted at 'higher' ambient temperatures (hot climate countries), ie. monorail system shall *not be used at ambient temperature lower than 30°C below the ambient temperature during mounting!* See also page 12.

3. TECHNICAL SPECIFICATIONS SCE MONORAIL 134



Ref. nr. 01301320

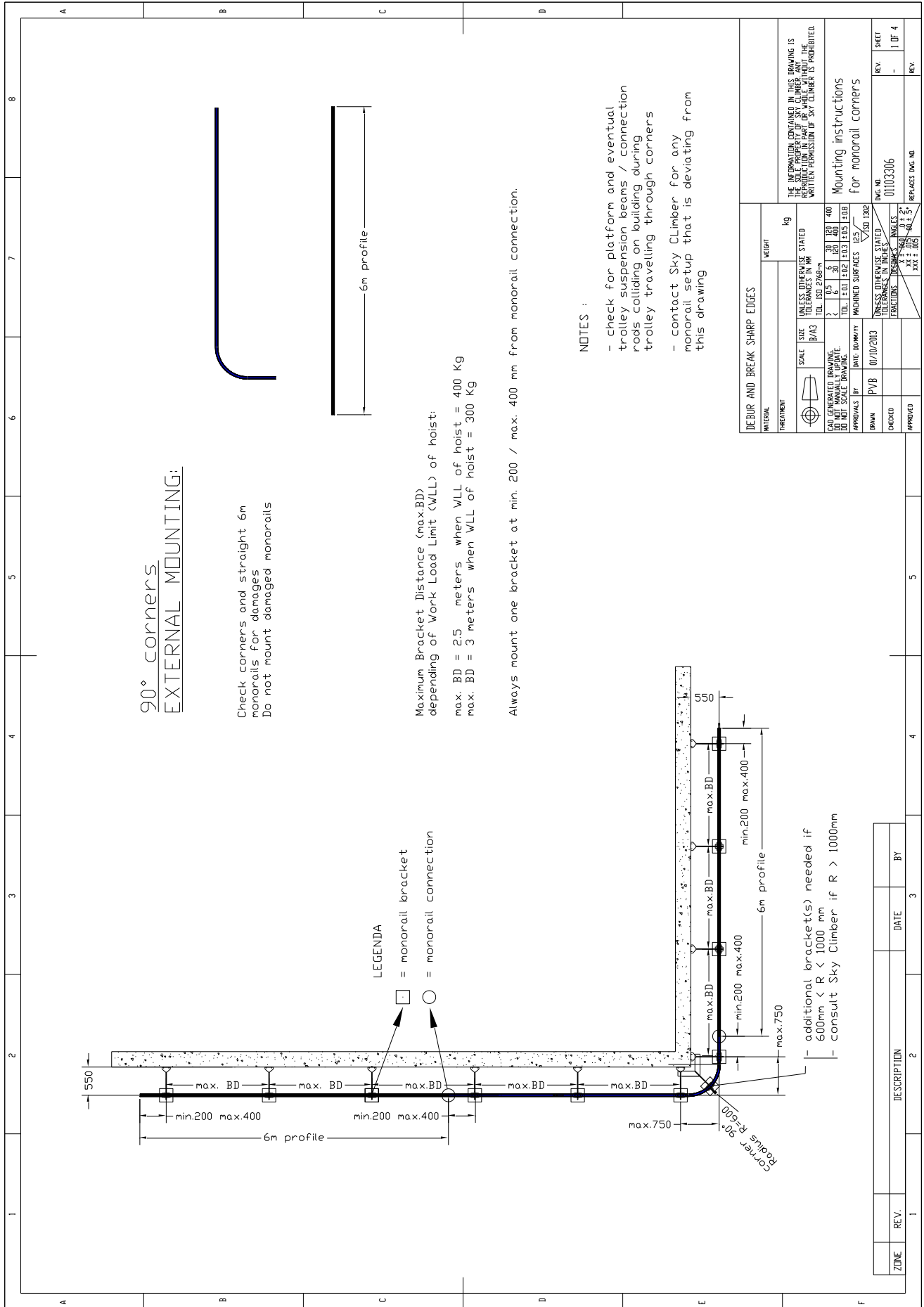
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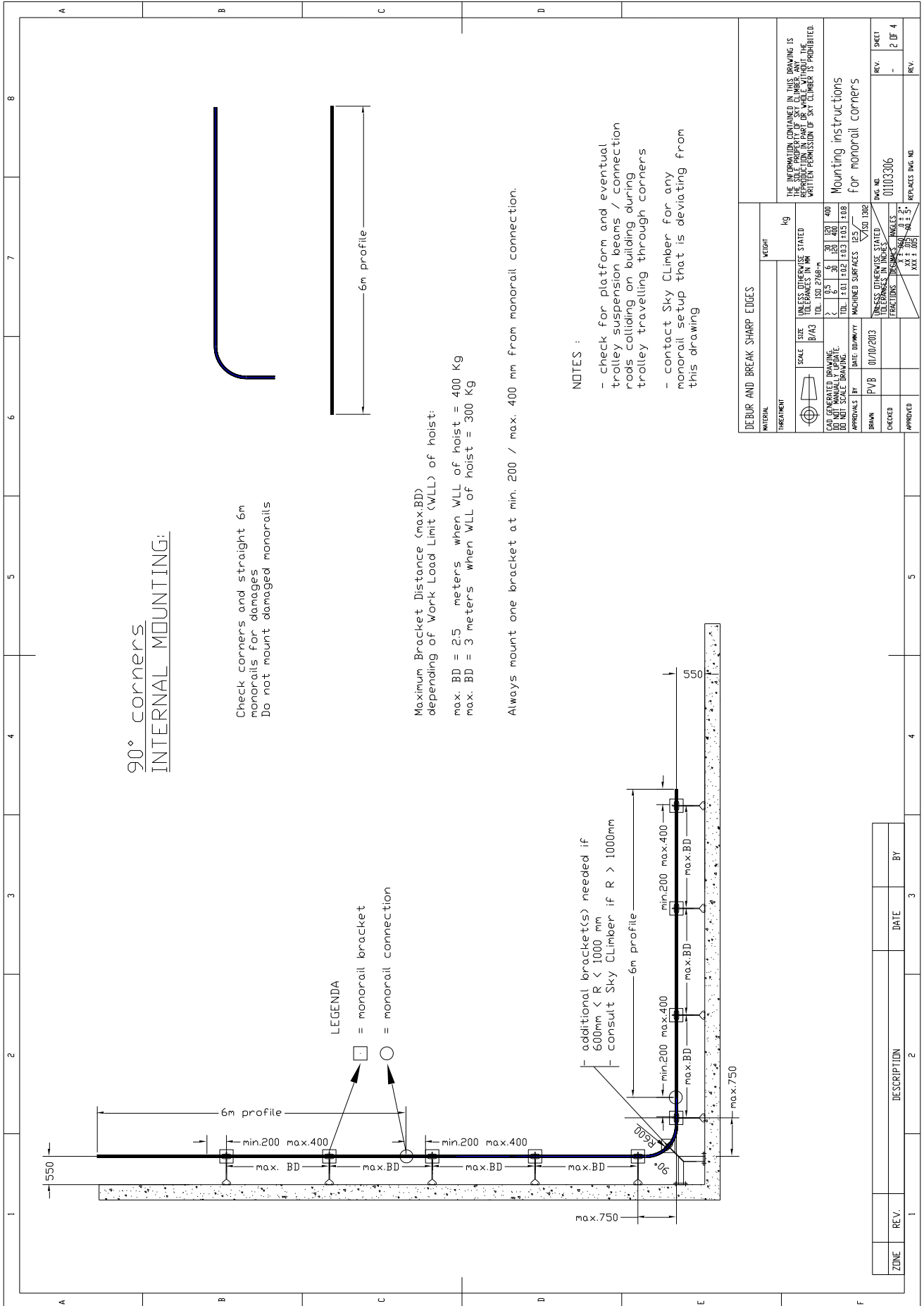
Height: 134 mm

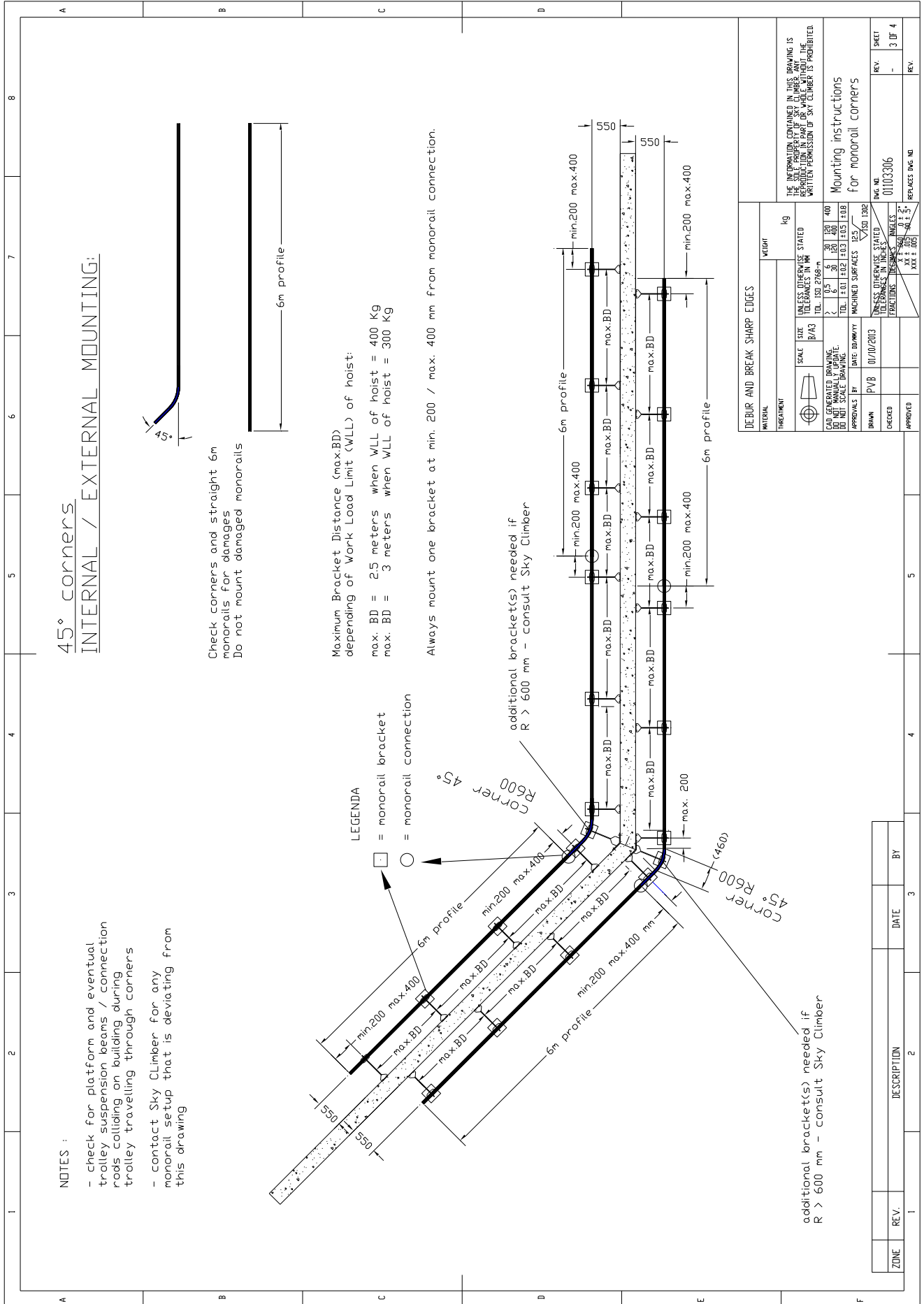
Width: 54 mm

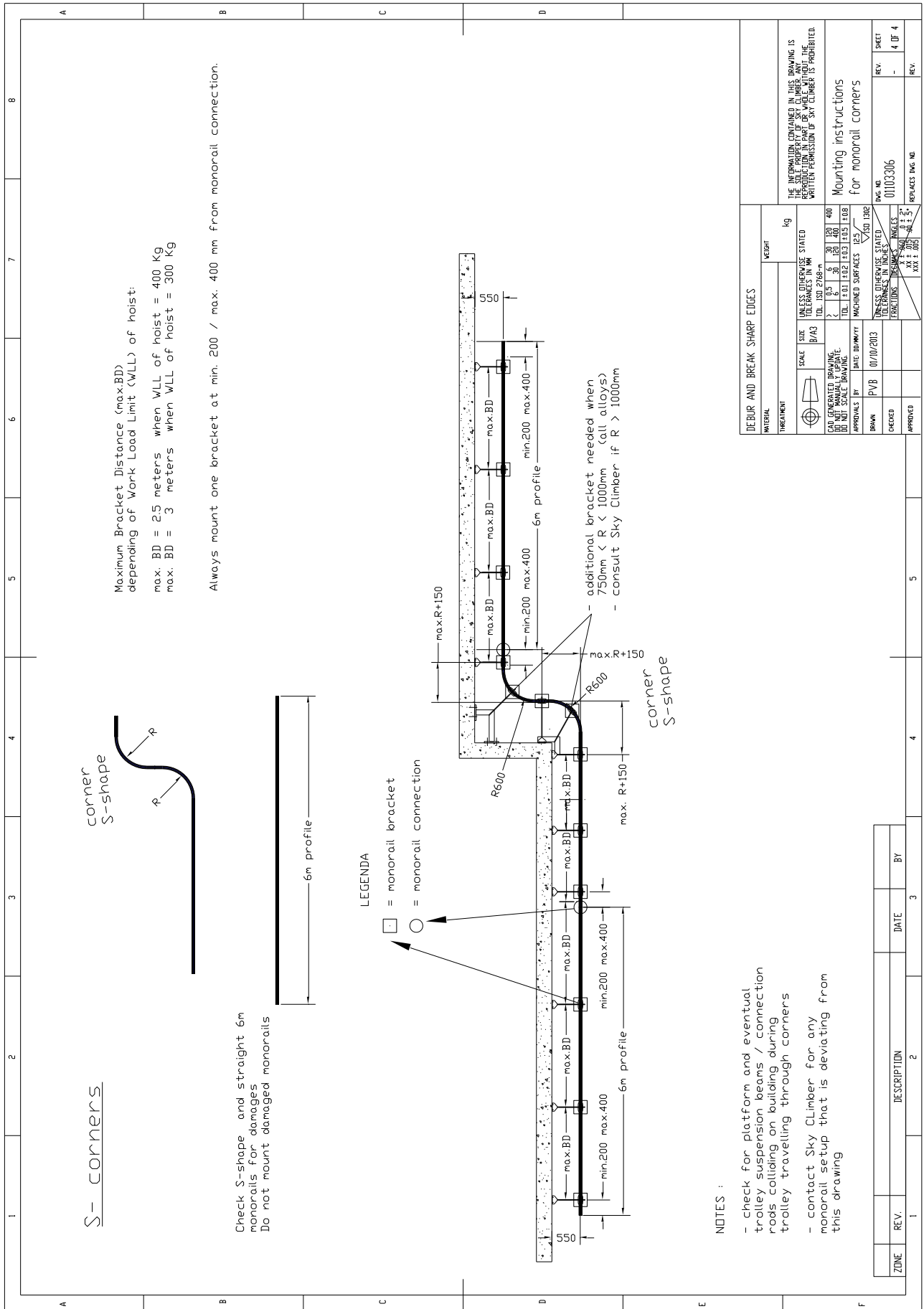
4. MOUNTING INSTRUCTION

A	B	C	D	E	F	7	8																																														
<p>General mounting guidelines :</p> <ol style="list-style-type: none"> Mounting shall be performed according to an applicable monorail layout drawing, made by Sky Climber for the specific project. Mounting shall be performed according to Sky Climber Manual "64UME003 - SCE Monorail 134, Trolley & Monorail System" First mount monorail corners, referring to "ref. 01301306 Mounting instructions for corners". Mount straight monorail lengths afterwards <p>Monorail suspension brackets : There are three possible standard bracket systems for monorail suspension :</p> <ol style="list-style-type: none"> Brackets type "Top Side Mounted" (connected on top of monorail, anchored on building side wall) referring to dwg no. 01101359FC Brackets type "Ceiling Mounted" (connected on top of monorail, anchored on ceiling underside of building) referring to dwg no. 01101311tm Brackets type "Side Mounted" (connected on side of monorail, anchored on building side wall) referring to dwg no. 01301311sm <p>Monorail connections shall be performed as described in referred dwg numbers.</p> <p>Monorail connection system : Perform monorail connections as described in dwg no. 01301308</p> <p>Procedure for mounting straight monorail lengths between corners: Start by mounting a 6 meter monorail length connected to one corner end. Gradually mount next 6 meter monorails towards next corner. Cut the last 6 meter monorail length exactly as needed to connect to next corner.</p> <p>Procedure for mounting straight monorail lengths form corner to straight monorail end: Start by mounting a 6 meter monorail length connected to one corner end. Gradually mount next 6 meter monorails towards straight monorail end. Cut the last 6 meter monorail length exactly as needed.</p>																																																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">ZONE</td> <td style="width: 10%; text-align: center;">REV.</td> <td style="width: 50%;">DESCRIPTION</td> <td style="width: 10%; text-align: center;">DATE</td> <td style="width: 10%; text-align: center;">BY</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>								ZONE	REV.	DESCRIPTION	DATE	BY																																									
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						<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center;">WEIGHT</td> <td align="center">1kg</td> </tr> <tr> <td style="text-align: center;">DEBUR AND BREAK SHARP EDGES</td> <td></td> </tr> <tr> <td style="text-align: center;">TREATMENT</td> <td></td> </tr> <tr> <td style="text-align: center;">SCALE</td> <td style="text-align: center;">B/A3</td> </tr> <tr> <td style="text-align: center;">SIZE</td> <td style="text-align: center;">A3</td> </tr> <tr> <td style="text-align: center;">UNLESS OTHERWISE STATED</td> <td></td> </tr> <tr> <td style="text-align: center;">TOLERANCES</td> <td style="text-align: center;">ISO 2768-mS</td> </tr> <tr> <td style="text-align: center;">MACHINED SURFACES</td> <td style="text-align: center;">ISO 1302</td> </tr> <tr> <td style="text-align: center;">DRAWN BY</td> <td style="text-align: center;">PVB</td> </tr> <tr> <td style="text-align: center;">CHECKED</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">APPROVED</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">DATE</td> <td style="text-align: center;">07/10/2013</td> </tr> <tr> <td style="text-align: center;">APPROVALS</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">CAD GENERATED DRAWING</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">DO NOT MANUALLY UPDATE</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">DATE</td> <td style="text-align: center;">07/10/2013</td> </tr> <tr> <td style="text-align: center;">TIME</td> <td style="text-align: center;">13:55:40</td> </tr> <tr> <td style="text-align: center;">USER</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">PROJECT</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">SHEET</td> <td style="text-align: center;">1 OF 1</td> </tr> <tr> <td style="text-align: center;">REV.</td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">DRAWING NO.</td> <td style="text-align: center;">01301305</td> </tr> <tr> <td style="text-align: center;">REPLACES DRAWING NO.</td> <td style="text-align: center;"> </td> </tr> </table> <p style="text-align: center;">General Mounting instructions</p> <p style="font-size: small;">THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF SKY CLIMBER. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. WITHOUT THE WRITTEN PERMISSION OF SKY CLIMBER, ITS REPRODUCTION IN ANY FORM OR BY ANY MEANS IS PROHIBITED.</p>		WEIGHT	1kg	DEBUR AND BREAK SHARP EDGES		TREATMENT		SCALE	B/A3	SIZE	A3	UNLESS OTHERWISE STATED		TOLERANCES	ISO 2768-mS	MACHINED SURFACES	ISO 1302	DRAWN BY	PVB	CHECKED		APPROVED		DATE	07/10/2013	APPROVALS		CAD GENERATED DRAWING		DO NOT MANUALLY UPDATE		DATE	07/10/2013	TIME	13:55:40	USER		PROJECT		SHEET	1 OF 1	REV.		DRAWING NO.	01301305	REPLACES DRAWING NO.	
WEIGHT	1kg																																																				
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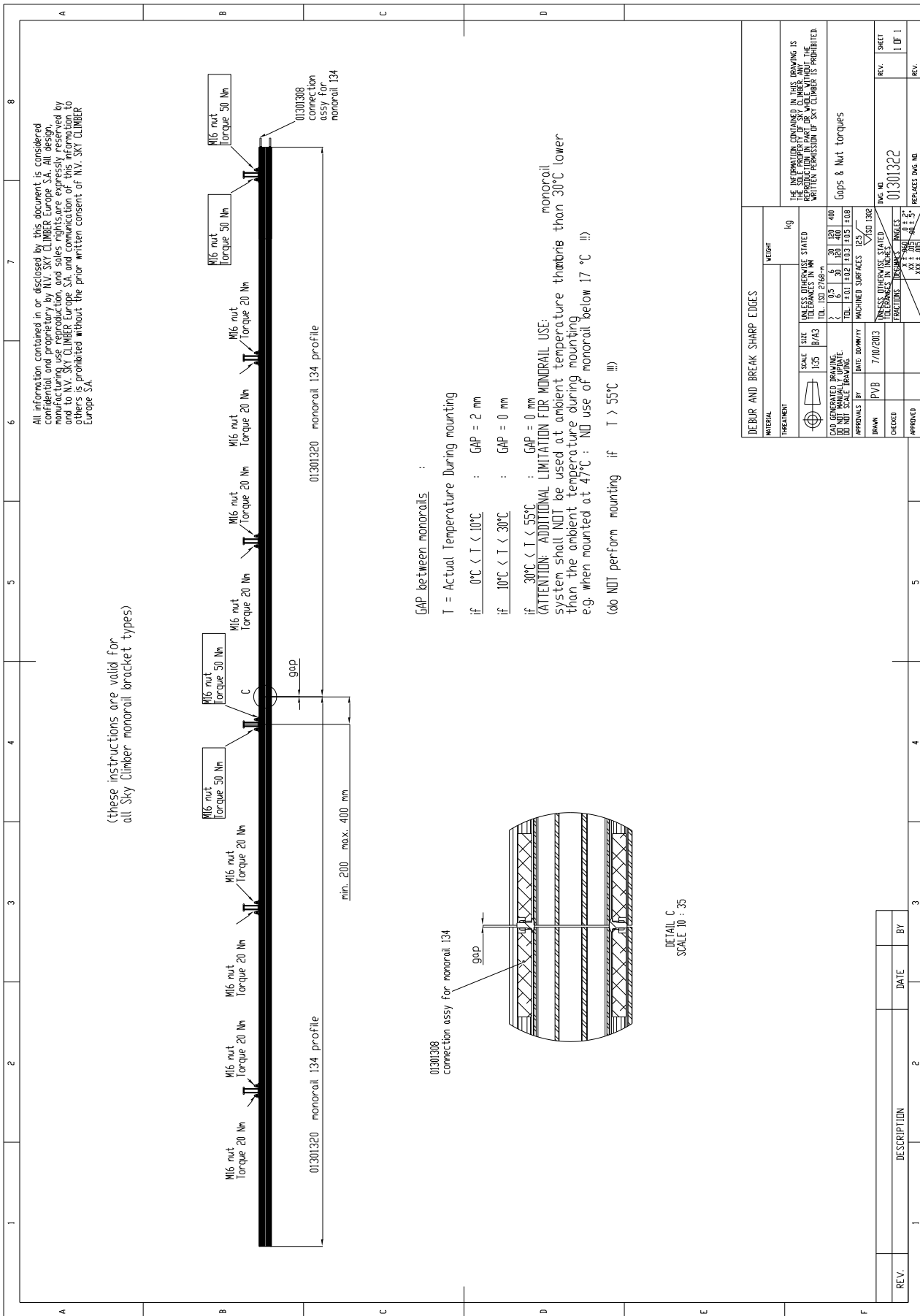






DEBUR AND BREAK SHARP EDGES		WEIGHT	
MATERIAL	TREATMENT	kg	
<small>SCALE SIZE UNLESS OTHERWISE STATED B/A3</small> <small>TOLERANCES IN MM UNLESS OTHERWISE STATED</small> <small>ISO 2768-m</small> <small>SCALE DRAWING: DO NOT SCALE DRAWING</small> <small>DATE DUMPY: 01/10/2013</small> <small>DRAWN BY: PVB</small> <small>CHECKED: [Signature]</small> <small>APPROVED: [Signature]</small>			
<small>UNLESS OTHERWISE STATED</small> <small>FRANCHISES</small>		<small>TL</small> <small>TL</small>	<small>400</small> <small>400</small>
<small>MACHINED SURFACES</small> <small>ISO 130</small>		<small>±0.1</small> <small>±0.2</small> <small>±0.3</small> <small>±0.5</small> <small>±0.8</small>	<small>IP25</small> <small>IP25</small>
<small>UNLESS OTHERWISE STATED</small> <small>FRANCHISES</small>		<small>XXI ± 0.01</small> <small>XX ± 0.02</small> <small>XX ± 0.03</small>	<small>ANGLES</small> <small>±0.1</small> <small>±0.2</small> <small>±0.3</small>
<small>DWG. NO.</small> <small>REV.</small>		<small>REPLACES DWG. NO.</small>	
<small>01103306</small>		<small>4 OF 4</small>	
<small>Mounting instructions for monorail corners</small>		<small>REV.</small> <small>-</small> <small>REV.</small>	

ZONE	REV.	DESCRIPTION	DATE	BY
1				
2				
3				
4				
5				



5. SPECIFICATIONS OF ELECTRICAL TROLLEY SCE

12345678

ABCDEF

1 = suspension rope attach point (max. Work Load Limit of hoist : 400 Kg)
 2 or 3 = secondary rope attach point (at outside of cradle, move lock pin if necessary)

Electrical Trolley Data :
 Work Load Limit : 400 kg
 Motor 0,37 Kw 50Hz
 230/400V 3ph 50 Hz
 (also 230V 1Ph 50 Hz available on demand)
 Protection degree IP65
 Duty S1
 Travelling speed : 0,15 m/s
 Weight : 23,5 Kg
 4 wheel drive
 4 anti-slip rollers

DEBRIS AND BREAK SHARP EDGES

TREATMENT	WEIGHT
UNLESS OTHERWISE STATED	6664 kg
SCALE	1:5
SIZE	B/A3
CAD GENERATED DRAWING	NO
DO NOT MANUALLY UPDATE	NO
DO NOT SCALE DRAWING	NO
APPROVALS BY	DATE (DD/MM/YY)
DESIGNED BY	PVB
DATE	22/02/2013
APPROVED BY	
DATE	

REVISION	DATE	DESCRIPTION
REV.		
BY		

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Trolley with motor for monorail 134

DWG. NO. 64009002K15

REV. SHEET C | 1 OF 1

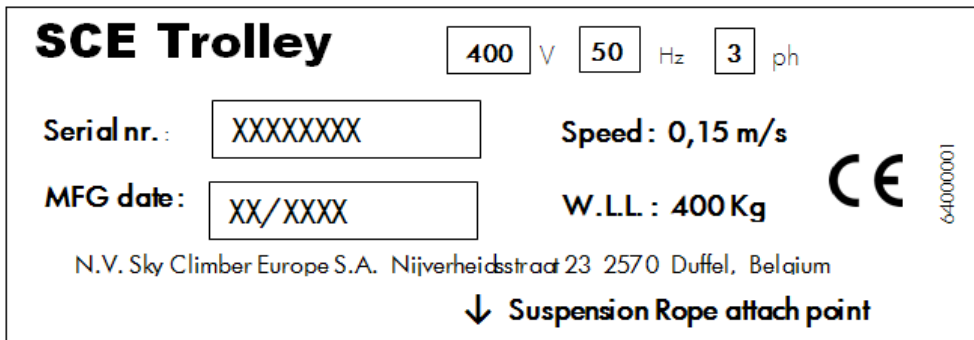
REV. SHEET C | 1 OF 1

SPECIFICATIONS TROLLEY SCE-

❖ Working Load Limit (WLL)	4000N (400 kg)
❖ Self-weight	235N (23,5 kg)
❖ Wire rope	8.4mm
❖ Horizontal speed trolley	9 m/min
	❖ (higher speed up to 18 m/min is possible upon request)
❖ Power	400V (3 ph)
❖ Length x width x depth (mm)	436x355x280mm
❖ Electrical engine	0.37 kW –rpm 1350/53
❖ Gearbox	1:56
❖ Safety against rolling of track	End stops on track
❖ Safety against falling of track	Fall protection studs
❖ Maintenance	Annual maintenance
❖ Spare Parts	Only use Sky Climber original parts

NAMEPLATE

Size : 130 x 45 mm



6. SPARE PARTS OF ELECTRICAL TROLLEY

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	26008505	Ball bearing 6004 2RS1	9
2	12002020	Retaining Ring 20mm DIN471	9
3	0101343	Shaft for trolley	1
4	36009158	Long Lock Pin Assy	2
5	64009501	retainer plate trolley	2
6	12000016	WASHER M16 DIN125A	4
7	13000142	BOLT M16x140 - Din 931	2
8	13000169	Self locking Nut M16 DIN985	2
9	12000310	Spring washer M10 DIN127B	4
10	11000420	Bolt M10x20 DIN933	4
11	44000376	Cover,Shaft,gearbox	2
12	14003212	Key 6x6x12 DIN6885A	2
13	0101345	Big gear wheel for trolley with plastic rollers	2
14	14004318	Key 8x7x18 DIN6885B	2
15	12002025	CIRCLIP dia 25 DIN 471	2
16	34008618	HED Gearbox RV50-1/30	1
17	34008617	Flange U50	1
18	34008613	HED Motor 0,37 KW 4P 3ph - 50Hz	1
19	26008555	Ball bearing 6203 2RS 17x40x12	2
20	0101379	Connection tube for electrical trolley, short	2
21	0101378	Connection tube for electrical trolley, long	2
22	0103328	Plastic gear + wheel anti-slip for trolley with motor	4
23	64000001	Nameplate SCE Trolley	1
24	11000330	Bolt M8 x 30 DIN933	4
25	12005008	Nut M8 DIN934	4
26	11002315	Hex socket head cap screw M8x15 DIN912 8.8 Zn	4
27	11002216	Screw DIN912 M6x16	8
28	11000320	Hex socket head cap screw M8x20 DIN912 8.8 Zn	4
29	12000308	Spring Washer M8 DIN127B Zn	4
30	12000010	Washer M10 - DIN 125A	4
31	12000406	Serrated lock washer M6 DIN6798A	4
32	12000408	Serrated lock washer M8 DIN6798A	4

DEBUR AND BREAK SHARP EDGES		WEIGHT	23,5 Kg
MATERIAL		UNLESS OTHERWISE STATED	
TREATMENT		UNLESS OTHERWISE STATED	
SCALE		SIZE	
CAR GENERATED DRAWING		DO NOT SCALE DRAWING	
DATE: 30-11-2011		APPROVALS BY:	
DRAWN: PVB		DATE: 30-11-2011	
CHECKED:		APPROVED:	
APPROVED:		DATE: 30-11-2011	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF N.V. SKY CLIMBER. WITHOUT THE WRITTEN PERMISSION OF SKY CLIMBER IS PROHIBITED.		REV. NO.	64009002
Trolley with motor for monorail 134		REV.	E
		REPLACES ING. NO.	

7. SPARE PARTS OF SLAVE TROLLEY

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	0101342	Wheel for trolley without motor	4
2	26008505	Ball bearing 6004 2RS1	8
3	0101325	retainer plate trolley	2
4	12002020	Retaining Ring 20mm DIN471	4
5	0101334	Connection tube trolley	2
6	36009158	Long Lock Pin Assy	2
7	12000016	WASHER M16 DIN125A	4
8	11001614	Bolt ISO 4014 - M16 x 140 x 44-N	2
9	12005516	Nut M16 DIN985	2

ZONE	REV.	DESCRIPTION	DATE	APPROVED
DEBUR AND BREAK SHARP EDGES				

MATERIAL	TREATMENT	WEIGHT	SCALE	SIZE
		11273 9		

UNLESS OTHERWISE STATED
DIMENSIONS IN MM
TOL. ISO 2768-mS
UNLESS OTHERWISE STATED
DIMENSIONS IN INCHES
TOL. ISO 2768-mS

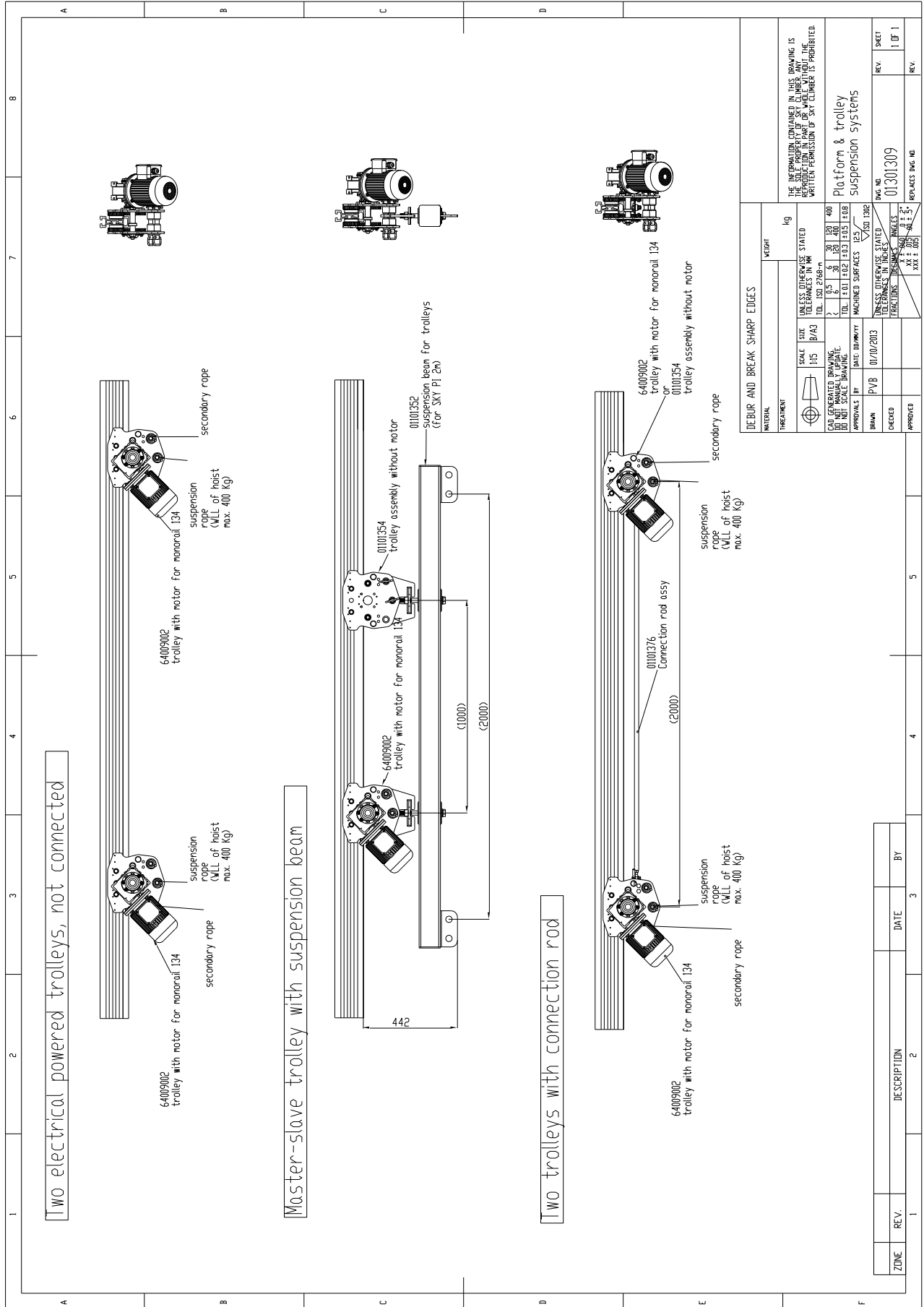
DATE	BY	REV.	DESCRIPTION
29-11-2011	PVB		Trolley assembly without motor

DWG NO: 01101354
REPLACES DWG NO:

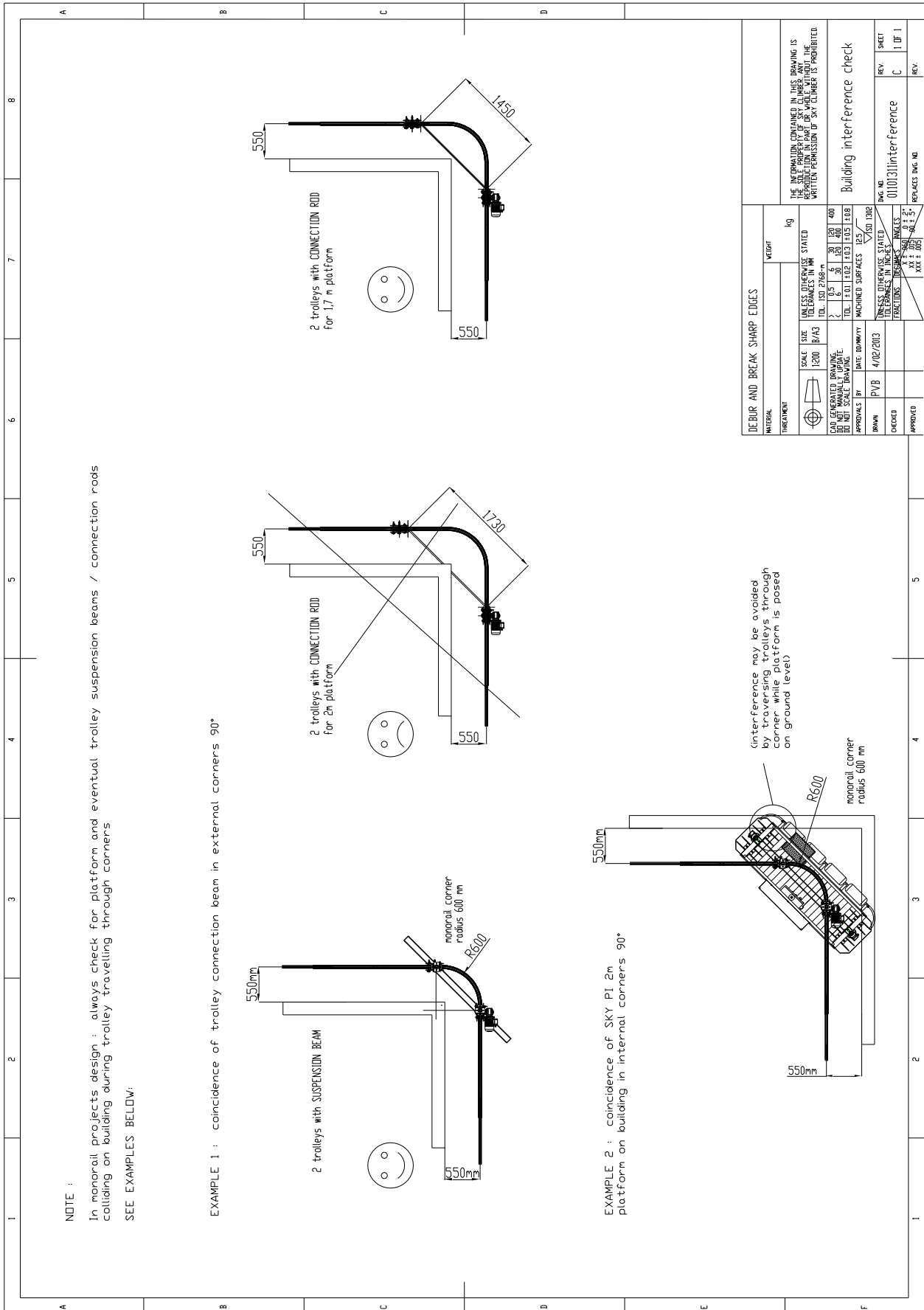
REVISIONS:

REV.	DESCRIPTION
1	DF 1

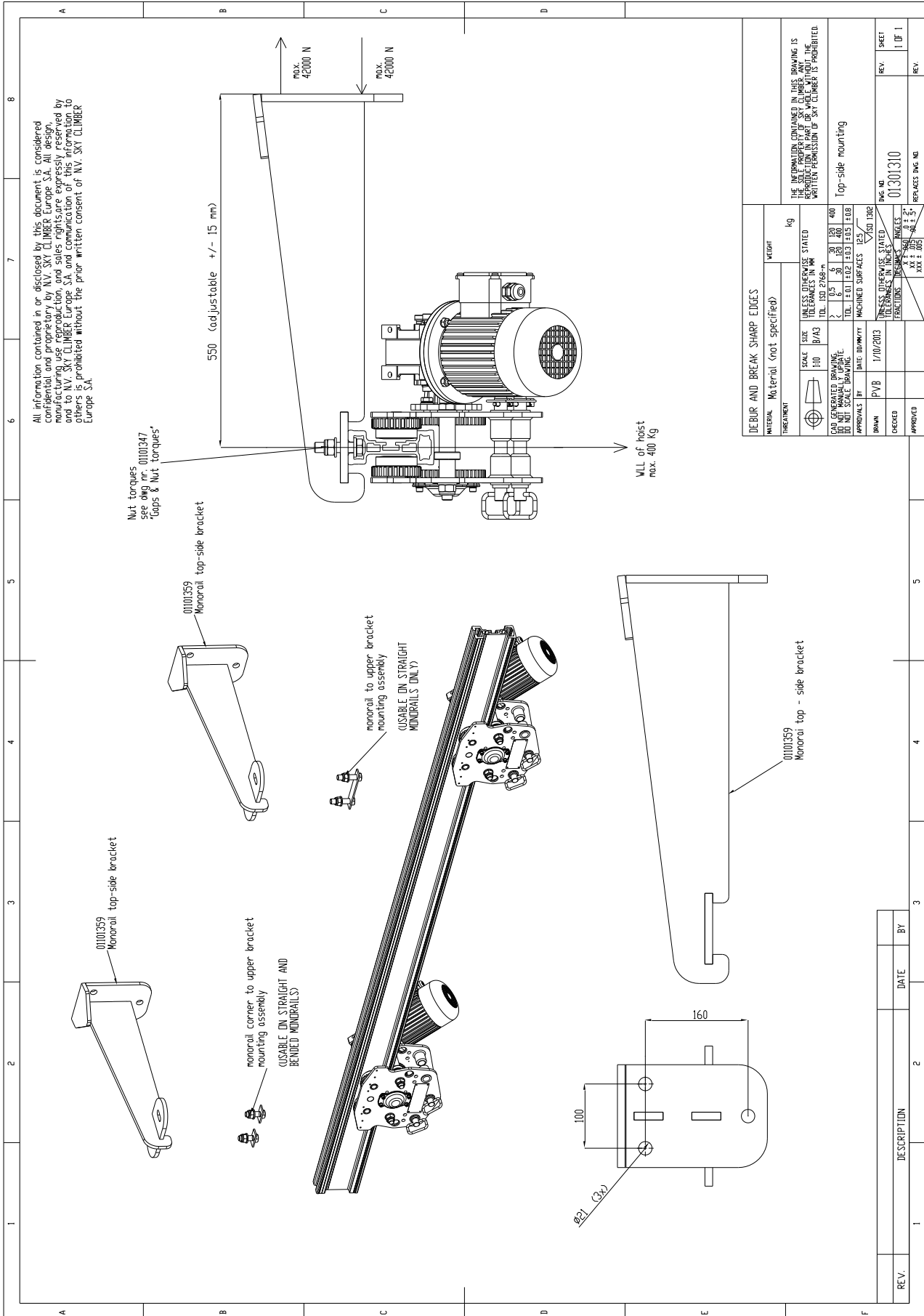
8. PLATFORM & TROLLEY SUSPENSION SYSTEMS



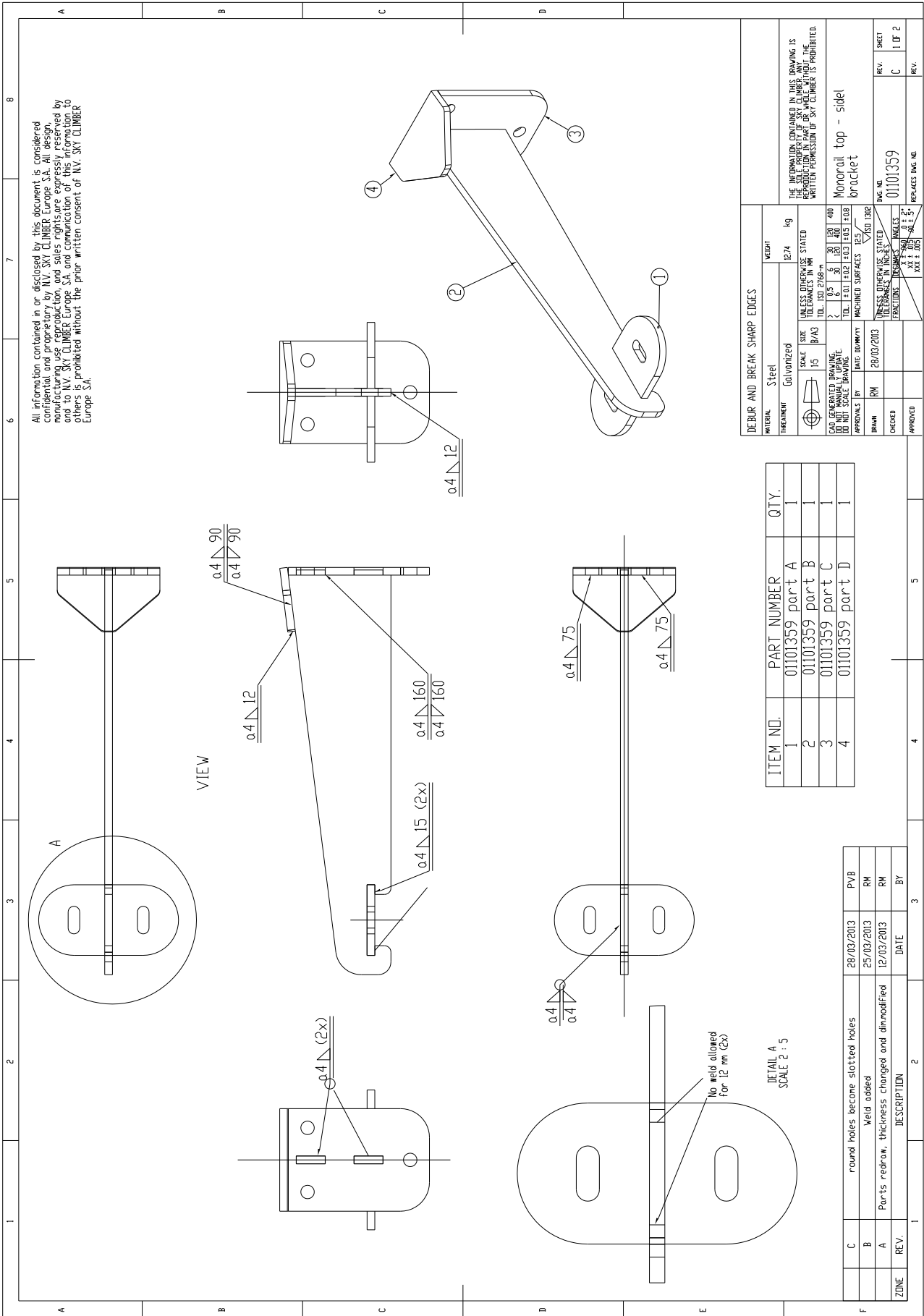
9. BUILDING INTERFERENCE CHECK



10. TOP SIDE MOUNTED MONORAIL



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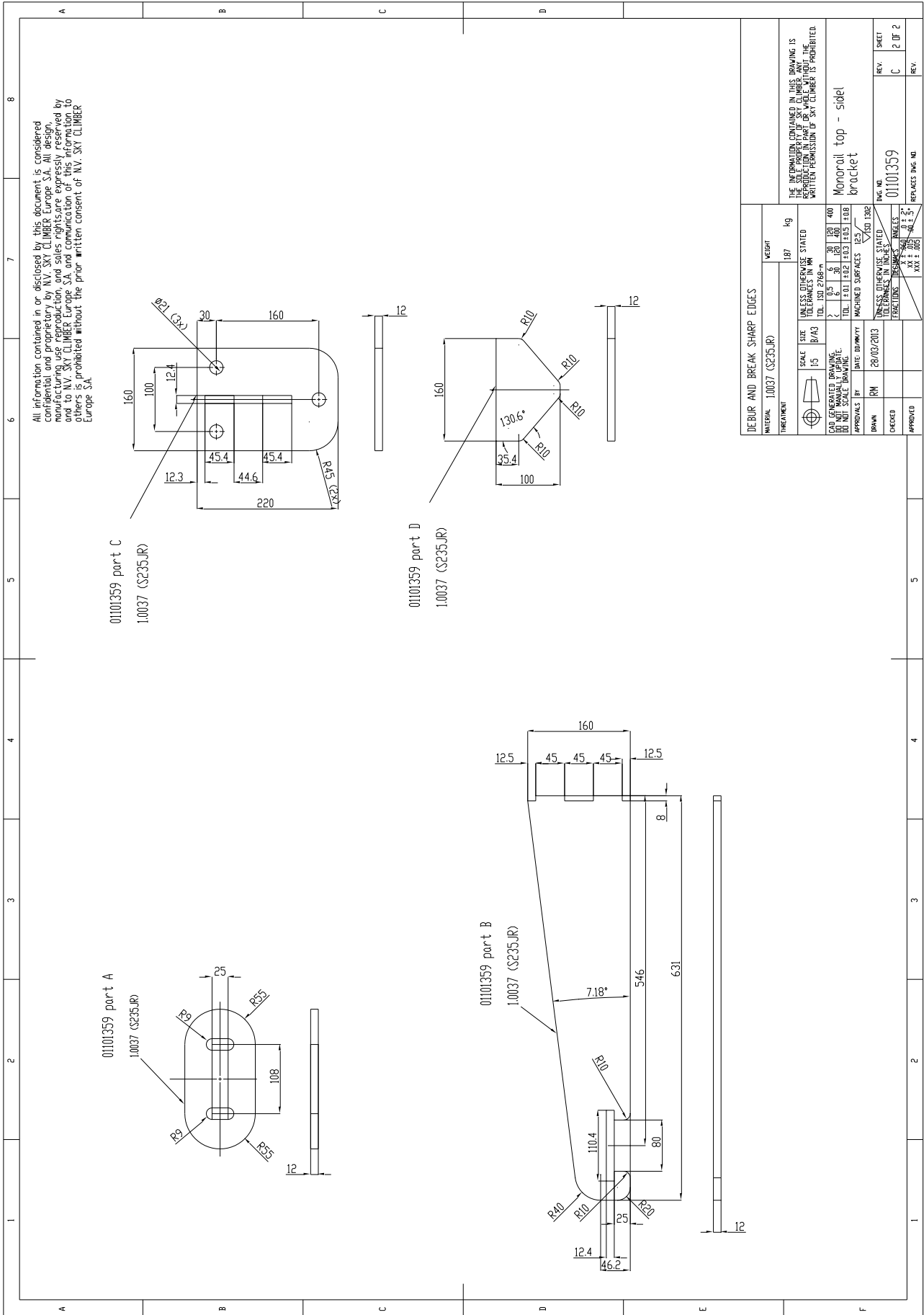
DEBUR AND BREAK SHARP EDGES		WEIGHT	
MATERIAL	Steel	WEIGHT	12.74 Kg
TREATMENT	Galvanized	SCALE	1:5
SIZE	B/A3	TOLERANCES IN MM	UNLESS OTHERWISE STATED
ISO	2768-mS	Ø	±0.10
ISO	2768-mS	h	±0.10
ISO	2768-mS	b	±0.10
ISO	2768-mS	L	±0.10
ISO	2768-mS	TOL	F 0.1 G 0.2 H 0.3 J 0.5 K 0.8
ISO	2768-mS	FINISH	MACHINED SURFACES 12.5
ISO	2768-mS	DATE	28/03/2013
ISO	2768-mS	BY	RM
ISO	2768-mS	CHECKED	
ISO	2768-mS	APPROVED	

ITEM NO.	PART NUMBER	QTY.
1	01101359 part A	1
2	01101359 part B	1
3	01101359 part C	1
4	01101359 part D	1

ZONE	REV.	DESCRIPTION	DATE	BY
C		round holes become slotted holes	28/03/2013	PVB
B		Weld added	25/03/2013	RM
A		Part's redraw, thickness changed and dimmodified	12/03/2013	RM

DETAIL A
SCALE 2 : 5

No weld allowed
for 12 mm (2x)



ABCDEF

12345678

01103307
Monorail top-side bracket 750 mm

01103307
Monorail top-side bracket 750 mm

Monorail corner to upper bracket mounting assembly (USABLE ON STRAIGHT and BENDED MONORAILS)

Monorail to upper bracket mounting assembly (USABLE FOR STRAIGHT MONORAILS ONLY)

750

max. 46200N

max. 46200N

hoist VLL max. 400 Kg

DEBUR AND BREAK SHARP EDGES

MATERIAL	TREATMENT	WEIGHT
SCALE	SIZE	UNLESS OTHERWISE STATED
1:10	B/A3	TOLERANCES IN MM
		TOL. ISO 2768-m
		2 0.5 0.3 0.2 0.1
		3 0.5 0.3 0.2 0.1
		4 0.5 0.3 0.2 0.1
		5 0.5 0.3 0.2 0.1
		6 0.5 0.3 0.2 0.1
		7 0.5 0.3 0.2 0.1
		8 0.5 0.3 0.2 0.1
		9 0.5 0.3 0.2 0.1
		10 0.5 0.3 0.2 0.1
		11 0.5 0.3 0.2 0.1
		12 0.5 0.3 0.2 0.1
		13 0.5 0.3 0.2 0.1
		14 0.5 0.3 0.2 0.1
		15 0.5 0.3 0.2 0.1
		16 0.5 0.3 0.2 0.1
		17 0.5 0.3 0.2 0.1
		18 0.5 0.3 0.2 0.1
		19 0.5 0.3 0.2 0.1
		20 0.5 0.3 0.2 0.1
		21 0.5 0.3 0.2 0.1
		22 0.5 0.3 0.2 0.1
		23 0.5 0.3 0.2 0.1
		24 0.5 0.3 0.2 0.1
		25 0.5 0.3 0.2 0.1
		26 0.5 0.3 0.2 0.1
		27 0.5 0.3 0.2 0.1
		28 0.5 0.3 0.2 0.1
		29 0.5 0.3 0.2 0.1
		30 0.5 0.3 0.2 0.1
		31 0.5 0.3 0.2 0.1
		32 0.5 0.3 0.2 0.1
		33 0.5 0.3 0.2 0.1
		34 0.5 0.3 0.2 0.1
		35 0.5 0.3 0.2 0.1
		36 0.5 0.3 0.2 0.1
		37 0.5 0.3 0.2 0.1
		38 0.5 0.3 0.2 0.1
		39 0.5 0.3 0.2 0.1
		40 0.5 0.3 0.2 0.1
		41 0.5 0.3 0.2 0.1
		42 0.5 0.3 0.2 0.1
		43 0.5 0.3 0.2 0.1
		44 0.5 0.3 0.2 0.1
		45 0.5 0.3 0.2 0.1
		46 0.5 0.3 0.2 0.1
		47 0.5 0.3 0.2 0.1
		48 0.5 0.3 0.2 0.1
		49 0.5 0.3 0.2 0.1
		50 0.5 0.3 0.2 0.1
		51 0.5 0.3 0.2 0.1
		52 0.5 0.3 0.2 0.1
		53 0.5 0.3 0.2 0.1
		54 0.5 0.3 0.2 0.1
		55 0.5 0.3 0.2 0.1
		56 0.5 0.3 0.2 0.1
		57 0.5 0.3 0.2 0.1
		58 0.5 0.3 0.2 0.1
		59 0.5 0.3 0.2 0.1
		60 0.5 0.3 0.2 0.1
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		64 0.5 0.3 0.2 0.1
		65 0.5 0.3 0.2 0.1
		66 0.5 0.3 0.2 0.1
		67 0.5 0.3 0.2 0.1
		68 0.5 0.3 0.2 0.1
		69 0.5 0.3 0.2 0.1
		70 0.5 0.3 0.2 0.1
		71 0.5 0.3 0.2 0.1
		72 0.5 0.3 0.2 0.1
		73 0.5 0.3 0.2 0.1
		74 0.5 0.3 0.2 0.1
		75 0.5 0.3 0.2 0.1
		76 0.5 0.3 0.2 0.1
		77 0.5 0.3 0.2 0.1
		78 0.5 0.3 0.2 0.1
		79 0.5 0.3 0.2 0.1
		80 0.5 0.3 0.2 0.1
		81 0.5 0.3 0.2 0.1
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		83 0.5 0.3 0.2 0.1
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		88 0.5 0.3 0.2 0.1
		89 0.5 0.3 0.2 0.1
		90 0.5 0.3 0.2 0.1
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		97 0.5 0.3 0.2 0.1
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		99 0.5 0.3 0.2 0.1
		100 0.5 0.3 0.2 0.1
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		104 0.5 0.3 0.2 0.1
		105 0.5 0.3 0.2 0.1
		106 0.5 0.3 0.2 0.1
		107 0.5 0.3 0.2 0.1
		108 0.5 0.3 0.2 0.1
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		121 0.5 0.3 0.2 0.1
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		140 0.5 0.3 0.2 0.1
		141 0.5 0.3 0.2 0.1
		142 0.5 0.3 0.2 0.1
		143 0.5 0.3 0.2 0.1
		144 0.5 0.3 0.2 0.1
		145 0.5 0.3 0.2 0.1
		146 0.5 0.3 0.2 0.1
		147 0.5 0.3 0.2 0.1
		148 0.5 0.3 0.2 0.1
		149 0.5 0.3 0.2 0.1
		150 0.5 0.3 0.2 0.1
		151 0.5 0.3 0.2 0.1
		152 0.5 0.3 0.2 0.1
		153 0.5 0.3 0.2 0.1
		154 0.5 0.3 0.2 0.1
		155 0.5 0.3 0.2 0.1
		156 0.5 0.3 0.2 0.1
		157 0.5 0.3 0.2 0.1
		158 0.5 0.3 0.2 0.1
		159 0.5 0.3 0.2 0.1
		160 0.5 0.3 0.2 0.1
		161 0.5 0.3 0.2 0.1
		162 0.5 0.3 0.2 0.1
		163 0.5 0.3 0.2 0.1
		164 0.5 0.3 0.2 0.1
		165 0.5 0.3 0.2 0.1
		166 0.5 0.3 0.2 0.1
		167 0.5 0.3 0.2 0.1
		168 0.5 0.3 0.2 0.1
		169 0.5 0.3 0.2 0.1
		170 0.5 0.3 0.2 0.1
		171 0.5 0.3 0.2 0.1
		172 0.5 0.3 0.2 0.1
		173 0.5 0.3 0.2 0.1
		174 0.5 0.3 0.2 0.1
		175 0.5 0.3 0.2 0.1
		176 0.5 0.3 0.2 0.1
		177 0.5 0.3 0.2 0.1
		178 0.5 0.3 0.2 0.1
		179 0.5 0.3 0.2 0.1
		180 0.5 0.3 0.2 0.1
		181 0.5 0.3 0.2 0.1
		182 0.5 0.3 0.2 0.1
		183 0.5 0.3 0.2 0.1
		184 0.5 0.3 0.2 0.1
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		186 0.5 0.3 0.2 0.1
		187 0.5 0.3 0.2 0.1
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		189 0.5 0.3 0.2 0.1
		190 0.5 0.3 0.2 0.1
		191 0.5 0.3 0.2 0.1
		192 0.5 0.3 0.2 0.1
		193 0.5 0.3 0.2 0.1
		194 0.5 0.3 0.2 0.1
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		196 0.5 0.3 0.2 0.1
		197 0.5 0.3 0.2 0.1
		198 0.5 0.3 0.2 0.1
		199 0.5 0.3 0.2 0.1
		200 0.5 0.3 0.2 0.1

UNLESS OTHERWISE STATED TOLERANCES IN INCHES: FRACTIONS DECIMALS .001 .01 .02 .03 .04 .05 .06 .07 .08 .09 .10 .12 .15 .20 .25 .30 .375 .50 .625 .750 .875 1.00 1.25 1.50 2.00 2.50 3.00 4.00 5.00 6.00 8.00 10.00 12.50 15.00 20.00 25.00 30.00 37.50 50.00 62.50 75.00 87.50 100.00

UNLESS OTHERWISE STATED TOLERANCES IN MILLIMETERS: FRACTIONS DECIMALS .001 .01 .02 .03 .04 .05 .06 .07 .08 .09 .10 .12 .15 .20 .25 .30 .375 .50 .625 .750 .875 1.00 1.25 1.50 2.00 2.50 3.00 4.00 5.00 6.00 8.00 10.00 12.50 15.00 20.00 25.00 30.00 37.50 50.00 62.50 75.00 87.50 100.00

DATE: 7/10/2013

BY: PVB

CHECKED: []

APPROVED: []

DESCRIPTION: Bracket for top-side mounting

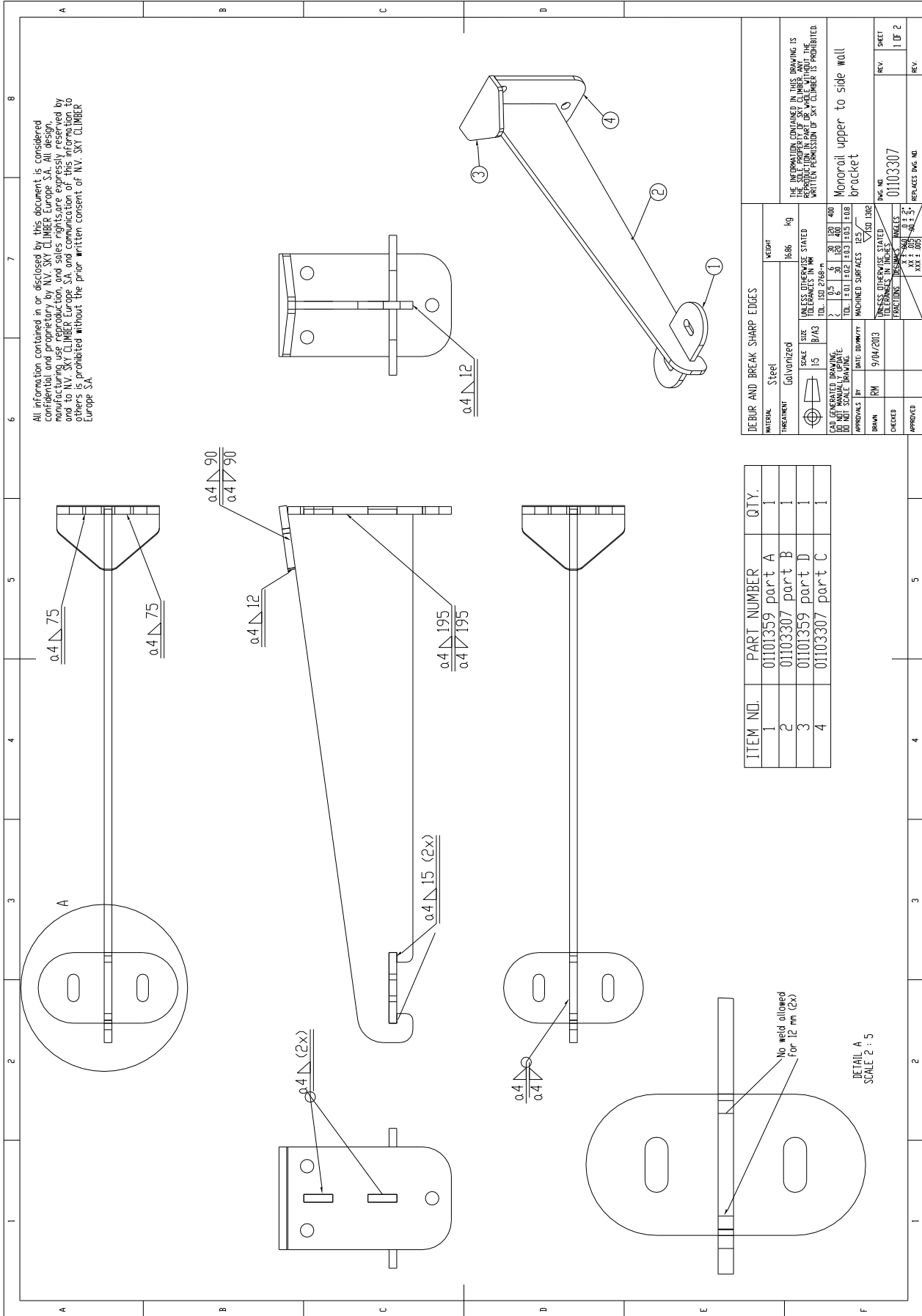
REV. 1 OF 1

01301323

REPLACES DWG. NO. []

01103307
Monorail top-side bracket 750 mm

01103307
Monorail top-side bracket 750 mm



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DEBUR AND BREAK SHARP EDGES		WEIGHT	1636	kg
MATERIAL	Steel	SCALE	UNLESS OTHERWISE STATED	
TREATMENT	Galvanized	SIZE	B/A3	
UNIT	mm	SCALE	1:5	
DATE GENERATED	9/04/2013	DATE DIMENSIONS	9/04/2013	
DATE MANUALLY UPDATE		DATE DIMENSIONS	9/04/2013	
APPROVALS BY	RM	APPROVED	APPROVED	
DESIGNED BY		CHECKED	CHECKED	
DATE		APPROVED	APPROVED	

ITEM NO.	PART NUMBER	QTY.
1	0101359 part A	1
2	0103307 part B	1
3	0101359 part D	1
4	0103307 part C	1

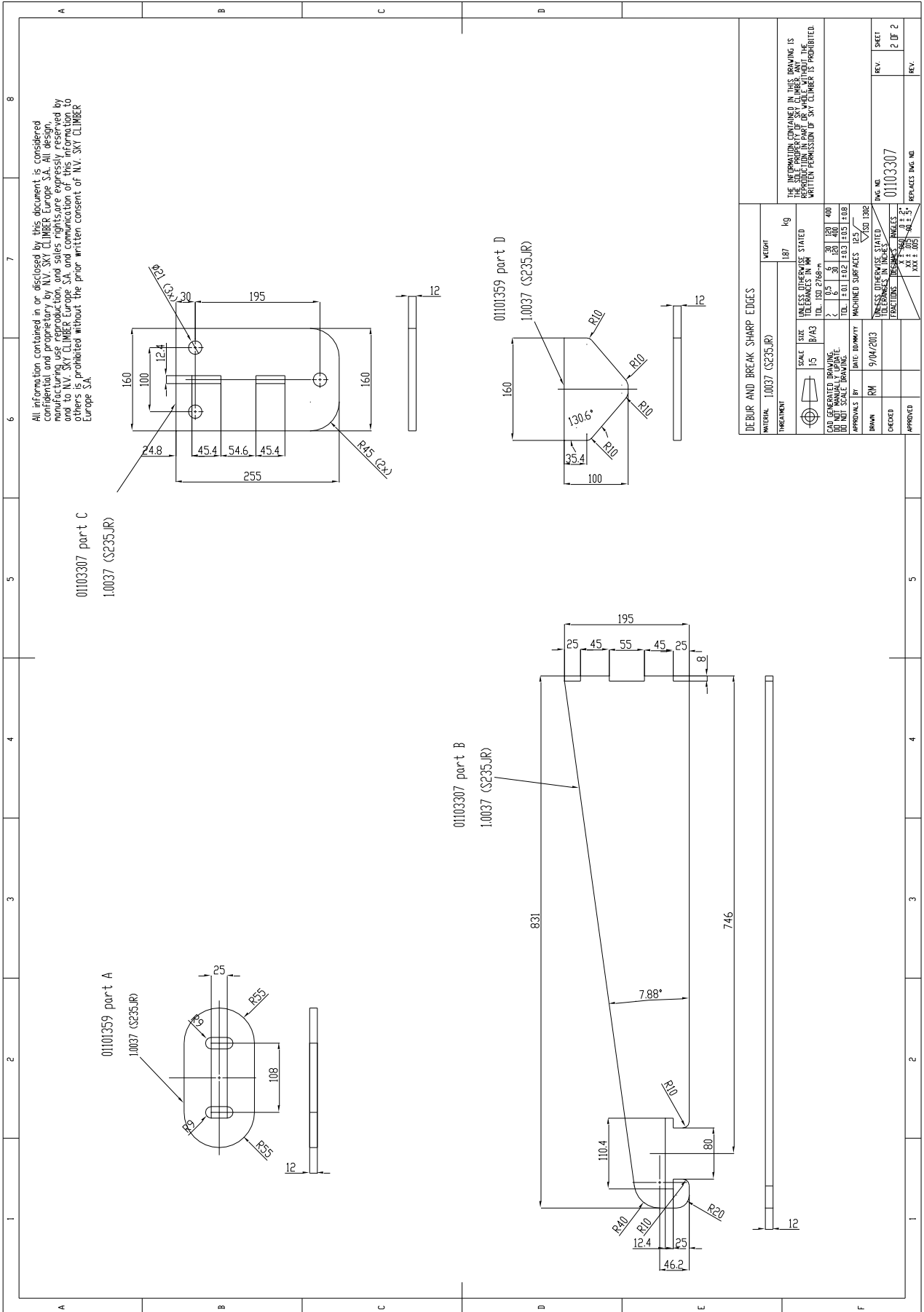
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Monorail upper to side wall bracket

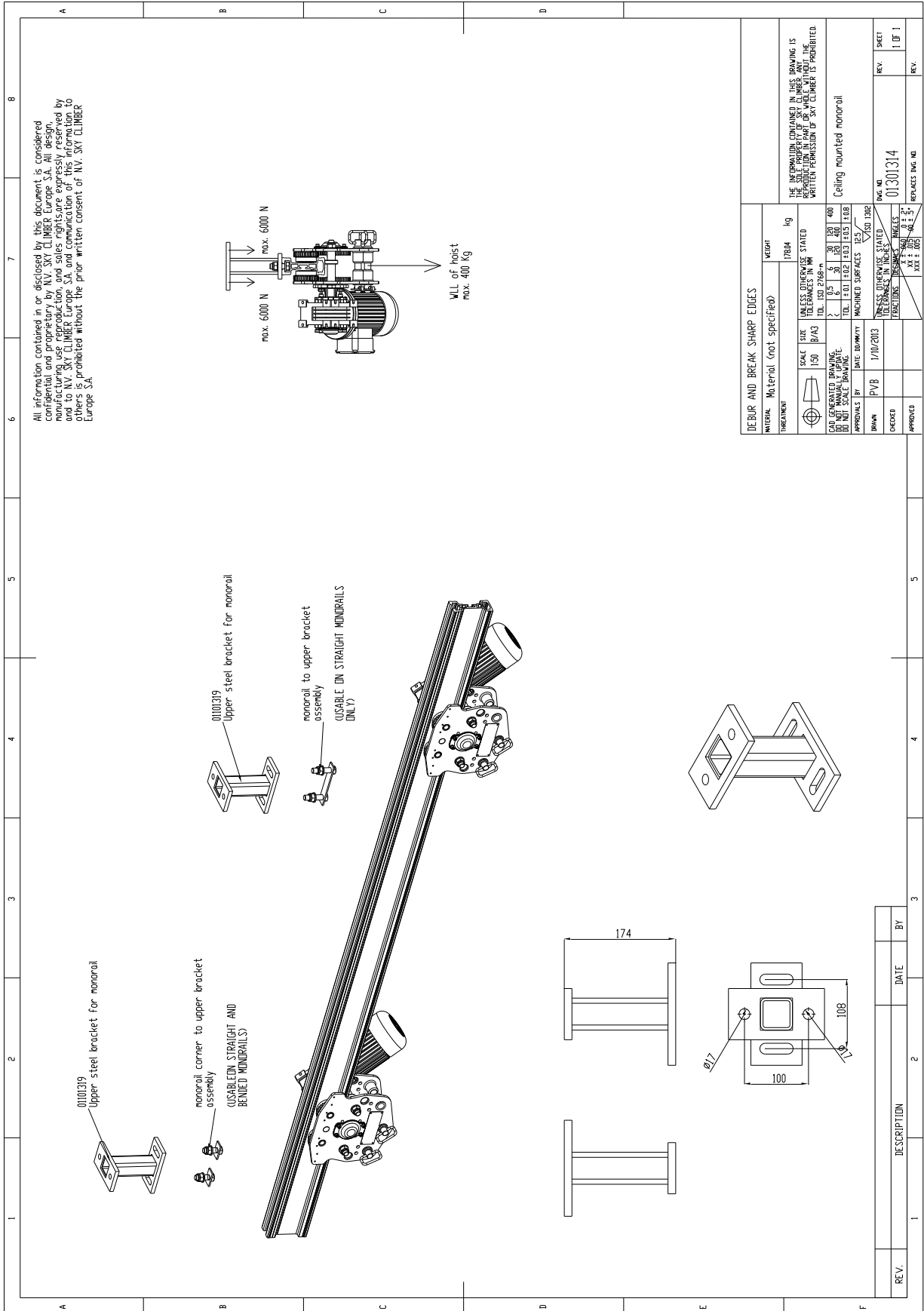
FIG. NO. 0103307

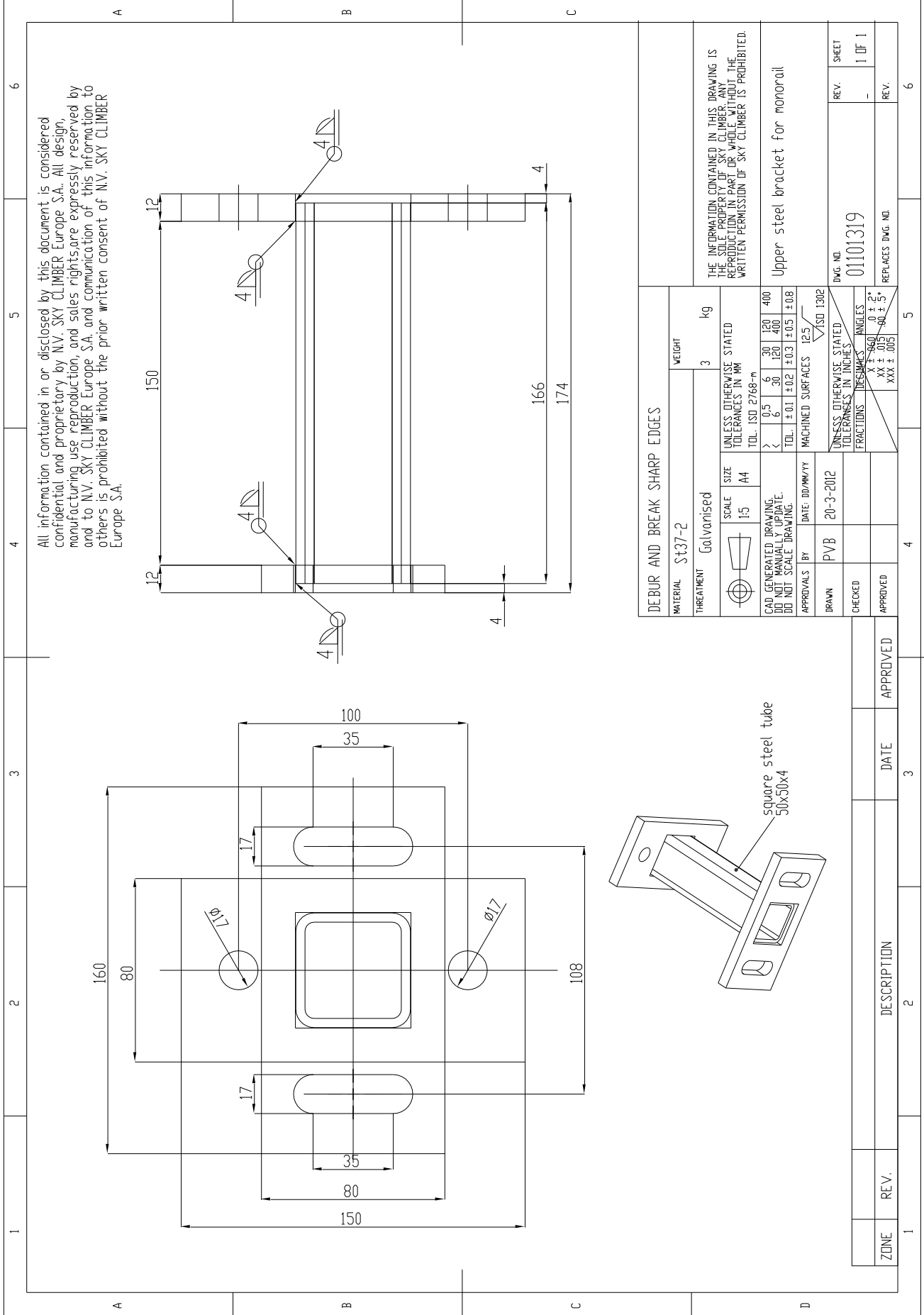
REPLACES FIG. NO.

DETAIL A
SCALE 2 : 5



11. CEILING MOUNTED MONORAIL





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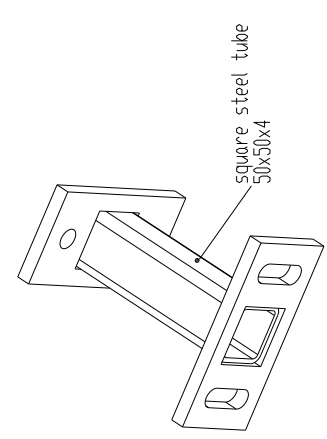
DEBUR AND BREAK SHARP EDGES		WEIGHT	
MATERIAL	St37-2	3	Kg
TREATMENT	Galvanized	UNLESS OTHERWISE STATED	
SCALE	1:5	TOLERANCES IN MM	
SIZE	A4	>	0,5 6 30 120 400
CAD GENERATED DRAWING	NO	<	0,5 6 30 120 400
MANUAL UPDATE	NO	TOL.	± 0,1 ± 0,2 ± 0,3 ± 0,5 ± 0,8
DO NOT SCALE DRAWING	NO	MACHINED SURFACES	12,5
APPROVALS BY	DATE: DD/MM/YY	ISO 1302	
DRAWN	PVB	UNLESS OTHERWISE STATED	
CHECKED		TOLERANCES IN INCHES	
APPROVED		FRACTIONS	XX ± 0,015
		ANGLES	XX ± 0,5°
		ANGLES	XXX ± 0,05

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Upper steel bracket for monorail

DWG. NO. 01101319

REPLACES DWG. NO.



ZONE	REV.	DATE	APPROVED
1		3	
DESCRIPTION			
1		3	

12. SIDE MOUNTED MONORAIL

12345678

ABCDEF

01301316 side bracket assembly

01301316 Counterplate for side mounted monorail

12005514 Nut M14 DIN995 selflocking nut

01301315 side bracket for monorail

max. 42000 N

max. 42000 N

160

160

550

518

12

45

12.52°

01301315 side bracket for monorail

WLL of hoist
max. 400 Kg

100

160

12

80

120

45

Ø21 (3x2)

DEBUR AND BREAK SHARP EDGES

TREATMENT	MATERIAL (not specified)	WEIGHT	kg
 STRESS RELIEVING CAN BE GENERATED MANUALLY DO NOT MANUALLY REPEAT DO NOT SCALE DRAWING	SCALE	UNLESS OTHERWISE STATED	
	SIZE	B/A3	
	TOL. 27°C ± 0.1	±0.3	±0.2
DATE DIMENITY	1/10/2013	MACHINED SURFACES	125/100 130/8
APPROVALS BY	PV/B	UNLESS OTHERWISE STATED	UNLESS OTHERWISE STATED
CHECKED		FRACTIONS	FRACTIONS
APPROVED		XX ± 0.01	XX ± 0.01

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Side mounted monorail

REV. NO. 01301319
REV. 1 OF 1

REPLACES DWG NO.

REV.	DESCRIPTION	DATE	BY

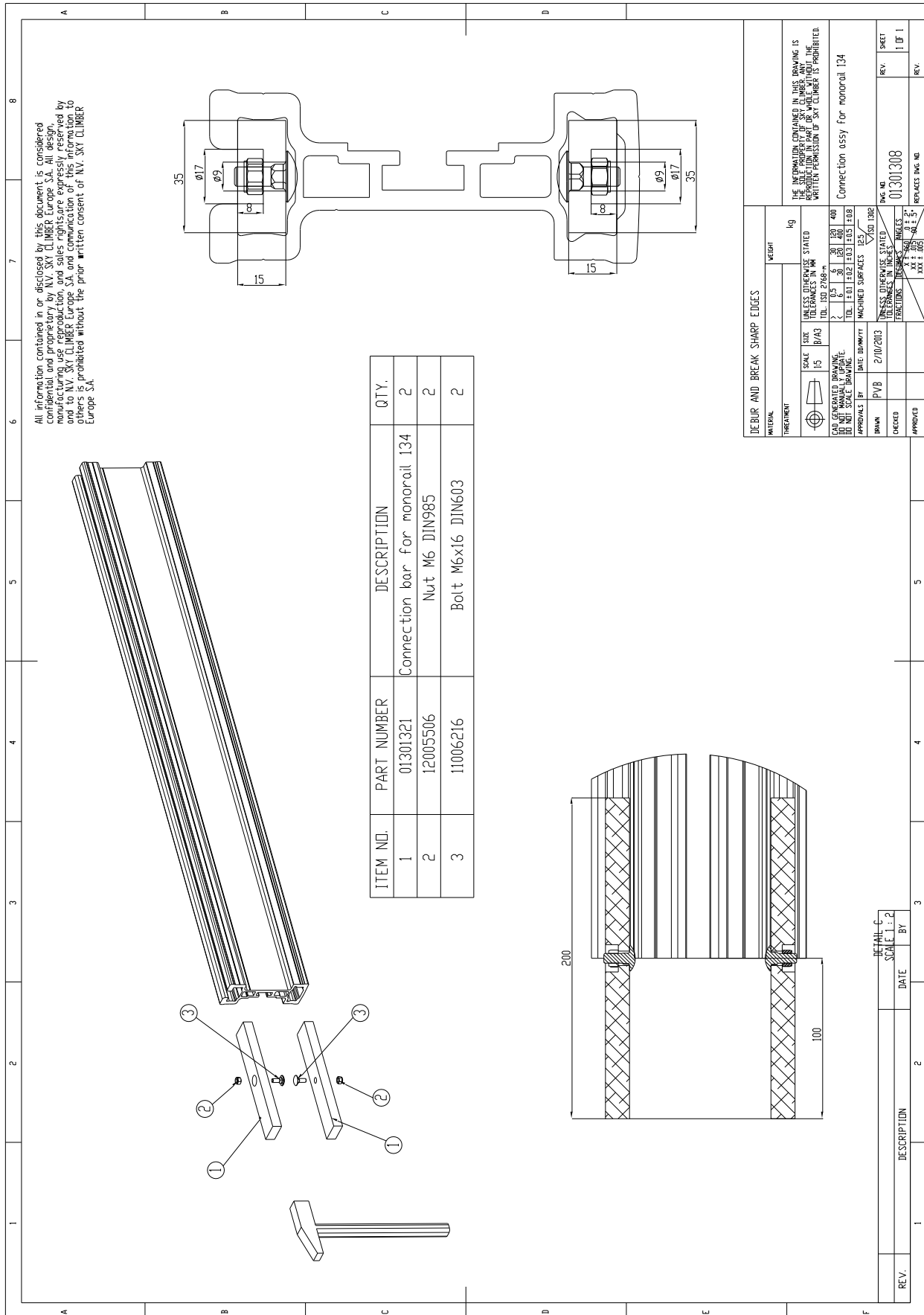
27

64UME003.docx

print date 07/10/2013

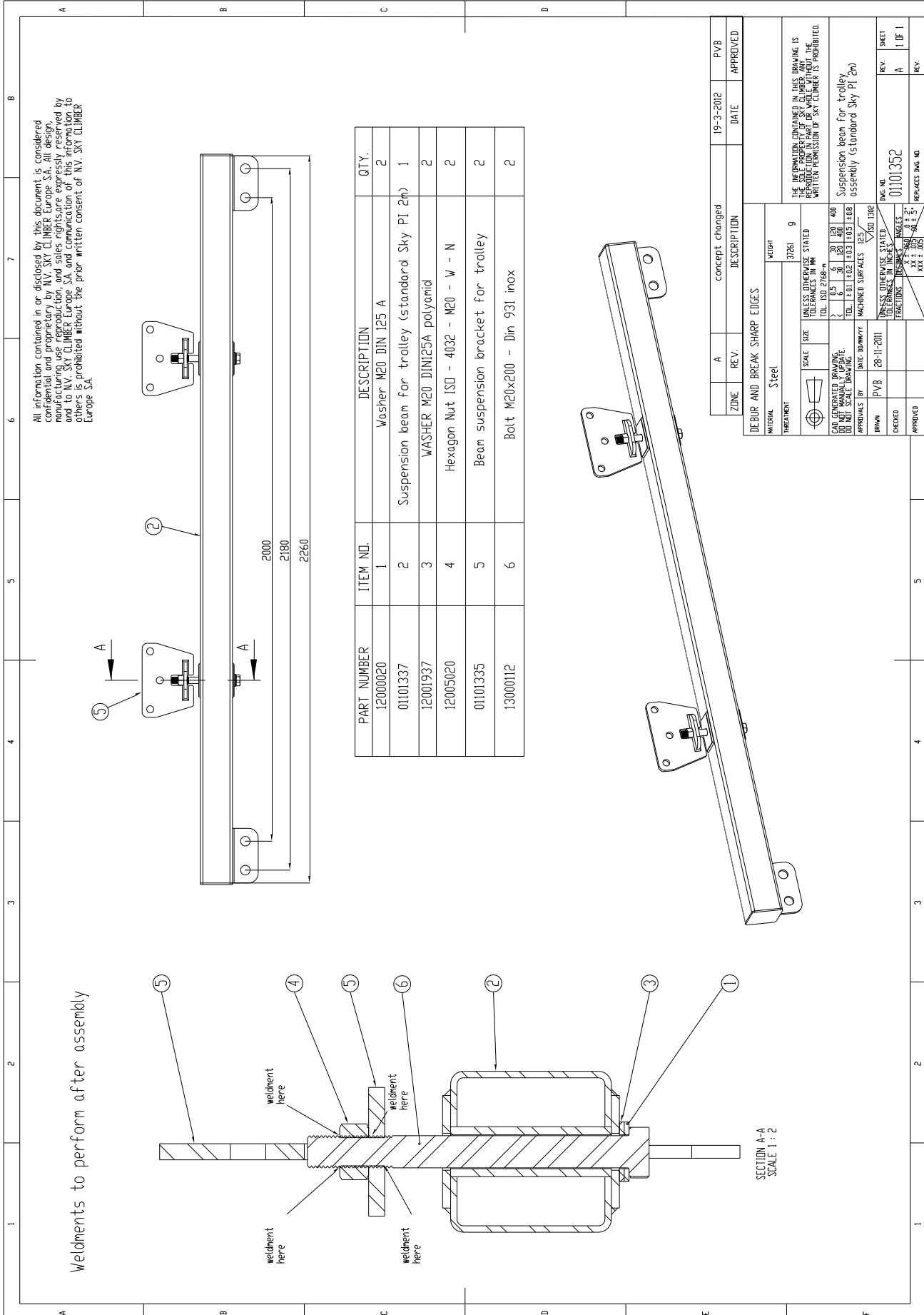
SCE MONORAIL 134

13. RAIL JOINT CONNECTION



14. SUSPENSION BEAM

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Weldments to perform after assembly

SECTION A-A
SCALE 1:2

PART NUMBER	ITEM NO.	DESCRIPTION	QTY.
12000020	1	Washer M20 DIN 125 A	2
01101337	2	Suspension beam for trolley (standard Sky Pl 2m)	1
12001937	3	WASHER M20 DIN125A polyamid	2
12005020	4	Hexagon Nut ISO - M20 - W - N	2
01101335	5	Beam suspension bracket for trolley	2
13000112	6	Bolt M20x200 - Din 931 inox	2

ZONE	A	REV.	concept changed	DATE	19-3-2012	APPROVED	PVB
MATERIAL: Steel							
TREATMENT: 27261 0							
DEBUR AND BREAK SHARP EDGES							
SCALE: SIZE 2 9.5 6 30 100 400							
TOLERANCES IN MM: 2 0.5 0.6 0.8 1.0 1.2 1.5 1.8 2.0 3.0 4.0							
TOLERANCES IN INCHES: 1/16 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1 1 1/8 1 1/4 1 1/2 1 3/4 2 2 1/4 3 3 1/2 4 5 6 8 10 12 15 20 25 30 40 50 60 80 100 125 150 200 250 300 400 500 600 800 1000							
MACHINED SURFACES: 12.5 / ISO 1302							
UNLESS OTHERWISE STATED: 12.5 / ISO 1302							
APPROVALS BY: DATE: DWYTY: 26-11-2011							
DRAWN: PVB							
CHECKED:							
APPROVED:							
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Suspension beam for trolley assembly (standard Sky Pl 2m)							
ING. NO. 01101352							
REV. SHEET A 1 OF 1							
REPLACES ING. NO.							

16. RETAINER ASSY FOR ELECTRICAL CABLE

A
B
C
D

1
2
3
4
5
6
7
8

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12008110	Eye Bolt M10, DIN580	1
2	12000410	serrated lock washer M10	2
3	11001425	Bolt M10 x 25 DIN931	1
4	51008089	Safety spring hook 8-80	1
5	53008024	Cable retainer 6-8mm 3,1KN	1

DEFUR AND BREAK SHARP EDGES		WEIGHT
MATERIAL		kg
THREATEN		
SCALE	1:2	
SIZE	10/A3	
DATE	4/02/2013	
APPROVALS BY	PVB	
CHECKED		
APPROVED		

ZONE	REV.	DESCRIPTION	DATE	BY
1				

MATERIAL		WEIGHT
MATERIAL		kg
THREATEN		
SCALE	1:2	
SIZE	10/A3	
DATE	4/02/2013	
APPROVALS BY	PVB	
CHECKED		
APPROVED		

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Retainer assy for trolley electrical cable

PAGE NO: 01101390

REV: 1 OF 1

REPLACES ENG. NO.

17. C-type trolley

Development in process.....

