

Manufacturer: Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
Type: Wheeled Loader

Technical Report

15-TAHP-EK-0086/SRH

According to ISO 3449
Earth-Moving Machinery
Falling-Object Protective Structures

1 General

- | | | |
|-----|---|--|
| 1.1 | Make: | Sanko |
| 1.2 | Type: | MST Bachhoe Loader |
| 1.3 | Name and adress of ROPS manufacturer: | Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
4.Organize Sanayi Bölgesi
83414 Nolu Cad. No:124/1
TR-Şehitkamil / Gaziantep |
| 1.4 | Name(s) of adress(es) of assembly plant(s): | Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
4.Organize Sanayi Bölgesi
83414 Nolu Cad. No:124/1
TR-Şehitkamil / Gaziantep |
| 1.5 | Name and address of vehicle manufacturer: | Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
4.Organize Sanayi Bölgesi
83414 Nolu Cad. No:124/1
TR-Şehitkamil / Gaziantep |

Manufacturer: Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
Type: Wheeled Loader

Test Report

1. Trademark or name of protective structure

MST Backhoe Loader

2. Name and address of manufacturer of protective structure

Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
4.Organize Sanayi Bölgesi
83414 Nolu Cad. No:124/1
TR-Şehitkamil / Gaziantep

3. Name and address of machine manufacturer

Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş.
4.Organize Sanayi Bölgesi
83414 Nolu Cad. No:124/1
TR-Şehitkamil / Gaziantep

4. Specifications of machine on which the tests are carried out

4.1. Trademark

MST

4.2. Type and commercial description

MST Backhoe Loader

4.3. Serial number of ROPS

Not applicable

4.4. Mass of machine fitted with ROPS

9.240 kg

5.1. General arrangement drawing of both protective structure and its attachment to the machine

Refer to drawings.

5.2. Photographs from side and rear showing mounting details

Refer to enclosure.

5.3. Brief description of protective structure including type of construction, details of mounting on the tractor, details of cladding, means of access and escape, details of interior padding, features to prevent continuous rolling and details of heating and ventilation

Roof plate thickness is 4 mm, Bottom plate thickness is 3 mm, A pillar profile is 4,5 mm, B pillar profile is 4,5 mm, C pillar profile is 4,5 mm

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The test was performed with ROPS and machine frame members soaked to 20 °C.
Verification of specification of the charpy V-notch impact strength requirements for ROPS structural metallic members:

Sample	Energy met at -20° C (J)	Energy met at -30° C (J)
6 mm S235JR quality sheet metal	154	160
4 mm shaped profile	68	76

5.4. Dimensions

Refer to drawings.

5.5. Details and quality of materials used, standard used

Refer to drawings

6. Identification of The Test Object

6.1 Performance level tested

Level II

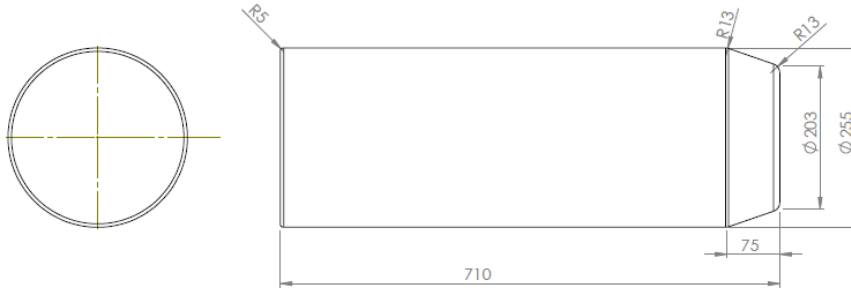
6.2. Mass

297 kg

6.3. Falling Height

4,02 m

6.4. Dimensions of the test object



6.5. Picture of crashing point

See drawings

7. Test Results

7.1 Impact Test

Energy imparted to the test object without causing penetration of any part of the FOPS structure into the DLV nor penetration of the FOPS by the test object:

11712 J

Minimum performance requirements of TS EN ISO 3449 were met in this test.

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8. Equipment for measuring and testing

Parameter of the test area

22 °C and %50 Humidity

9. Calibration Equipments

Test Instrument	Type	Manufacturer	ID - No.	
Loadcell	KHS125-200-AFB	MAG-BIAS	312011	☒
Loadcell	20t	PULSE	HT1 20319	☐
Loadcell	20t	PULSE	HT1 20318	☐
Loadcell	HT1W	PULSE	3028H71	☐
Loadcell	HT5M	PULSE	2910 HT1	☐
Accelometer	--	--	5189683	☐
Accelometer	--	Dytran	--	☒
Accelometer	--	Dytran	--	☒

10. Place and date of testing

BIAS Test Sistemleri
İkitelli Organize Sanayi Bölgesi
Metal İş Sanayi Sitesi 5.Blok No:57-59
34306 Başakşehir / İstanbul (TURKEY) 03.09.2014

11. Final Confirmation

As the result of inspections of Sanko Tekstil İşletmeleri Sanayi ve Ticaret A.Ş. company's sample seat, it has been confirmed that the sample vehicle fulfilled the requirements related to the TS EN ISO 3449 as given.

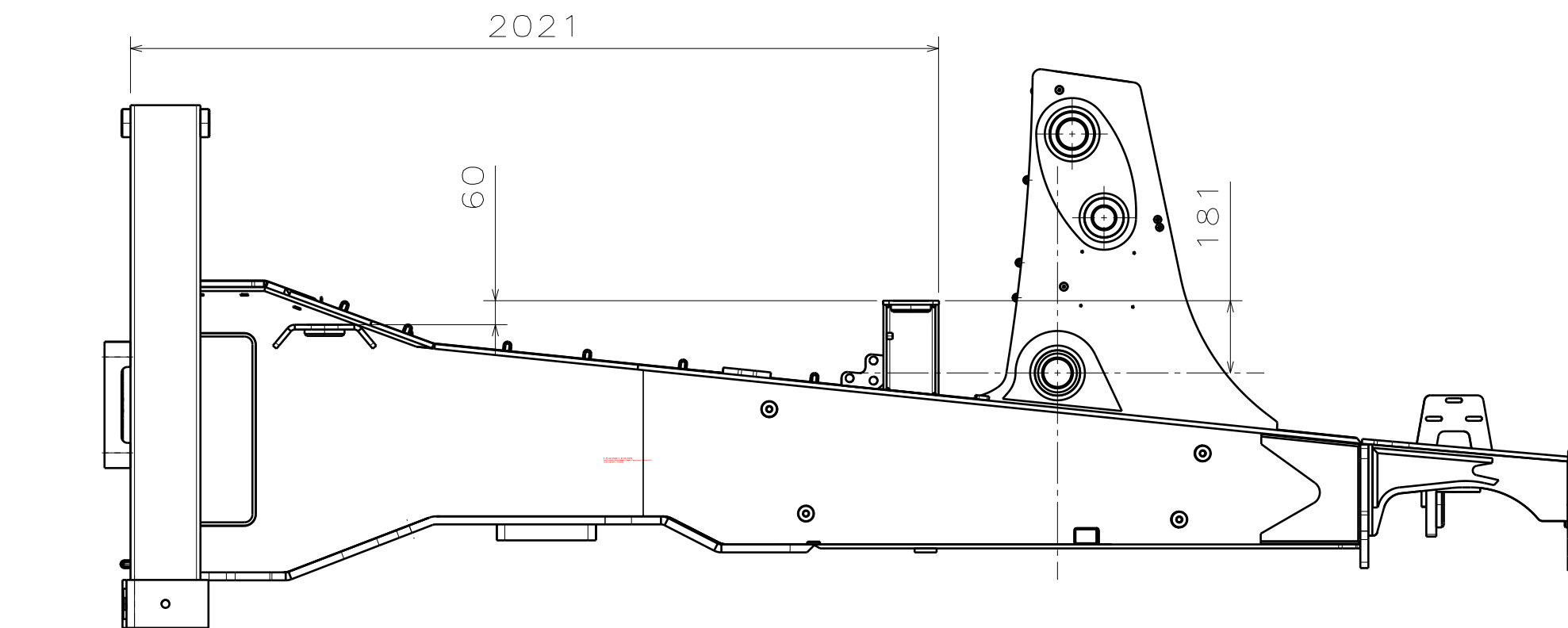
This report can not be multiplied without written approval of TÜV AUSTRIA.

This technical report consists of 4 pages.

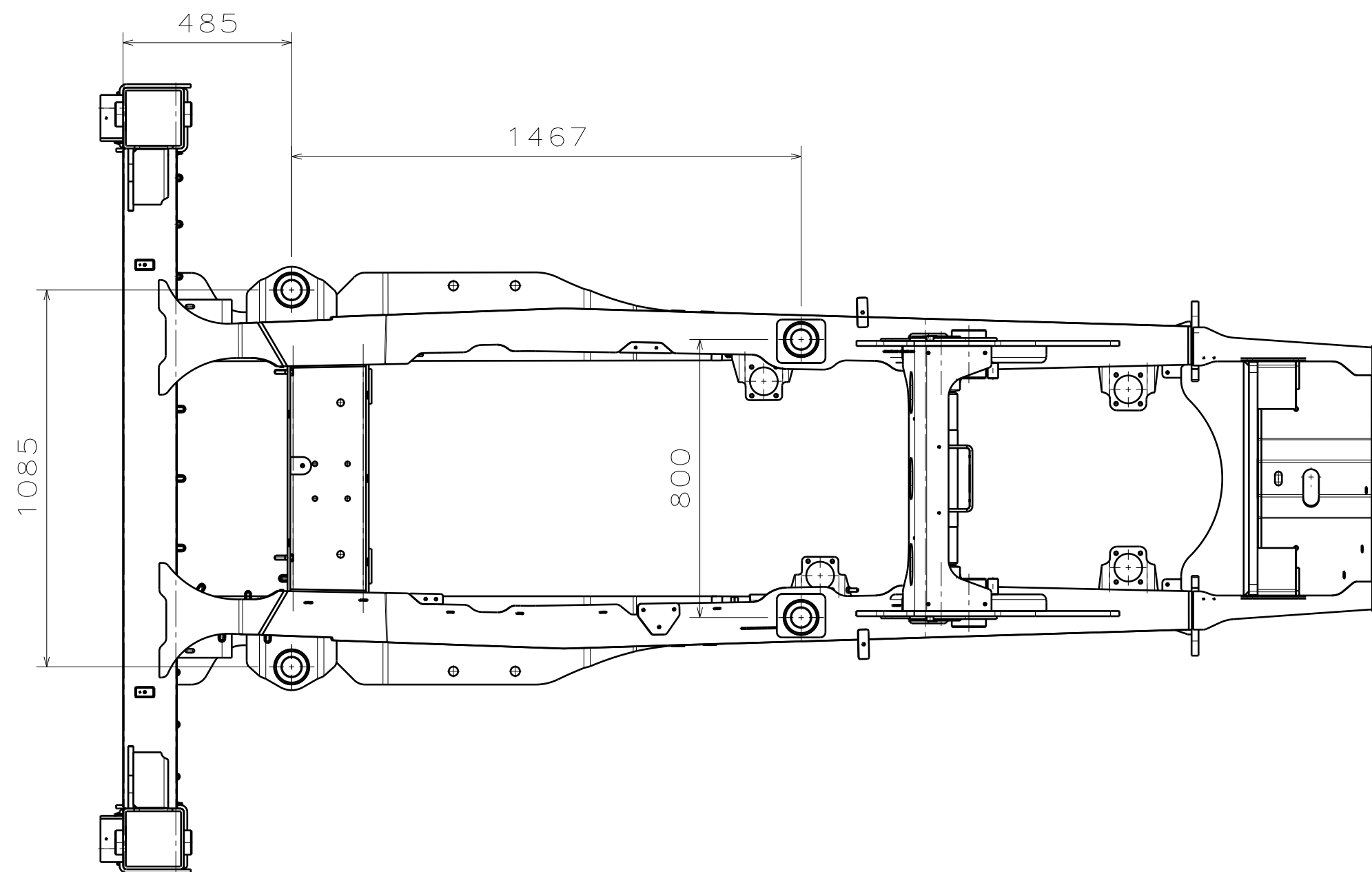
İstanbul

26.05.2015

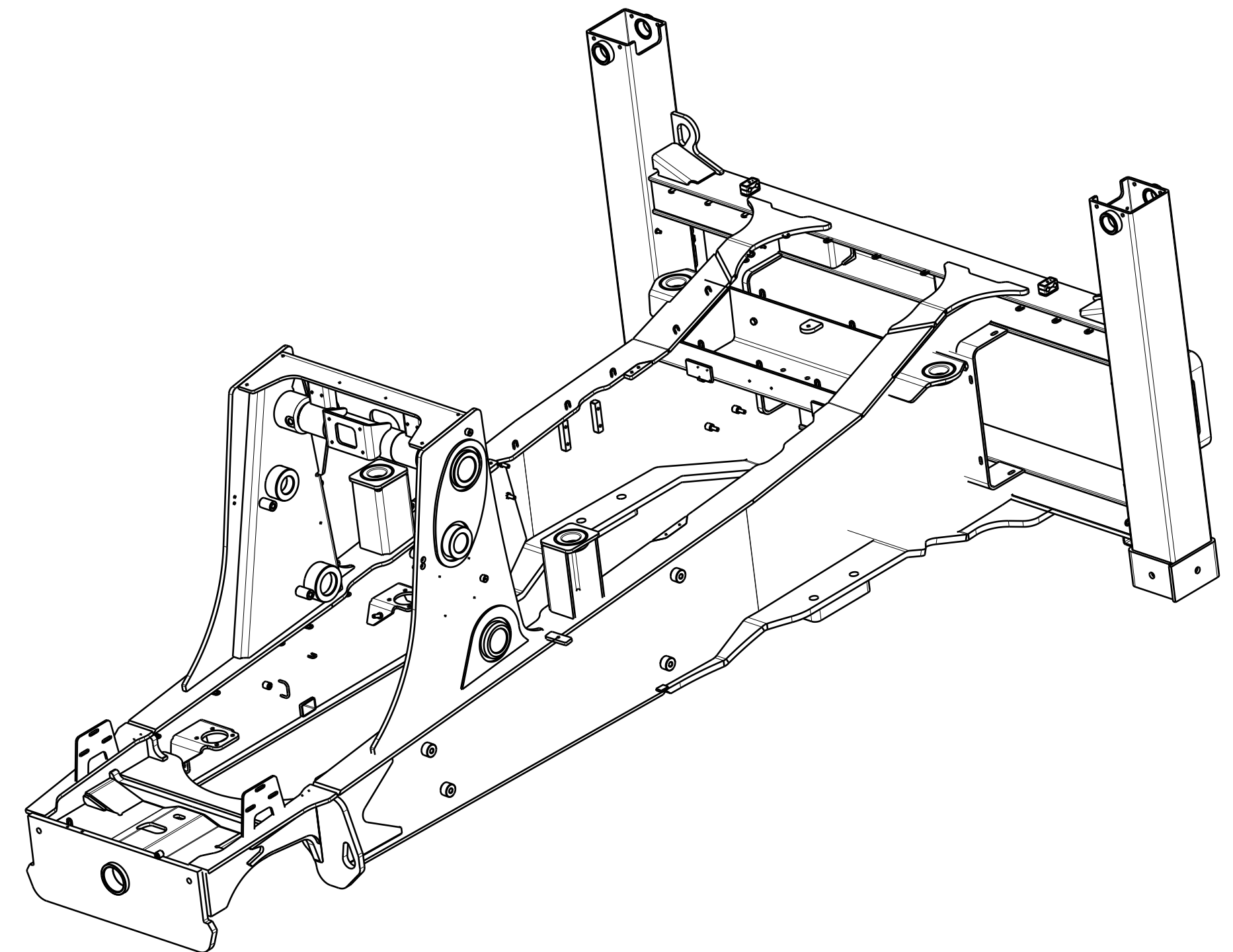
Recognized Expert
Eren AKDAĞ



Front view
Scale: 1:15

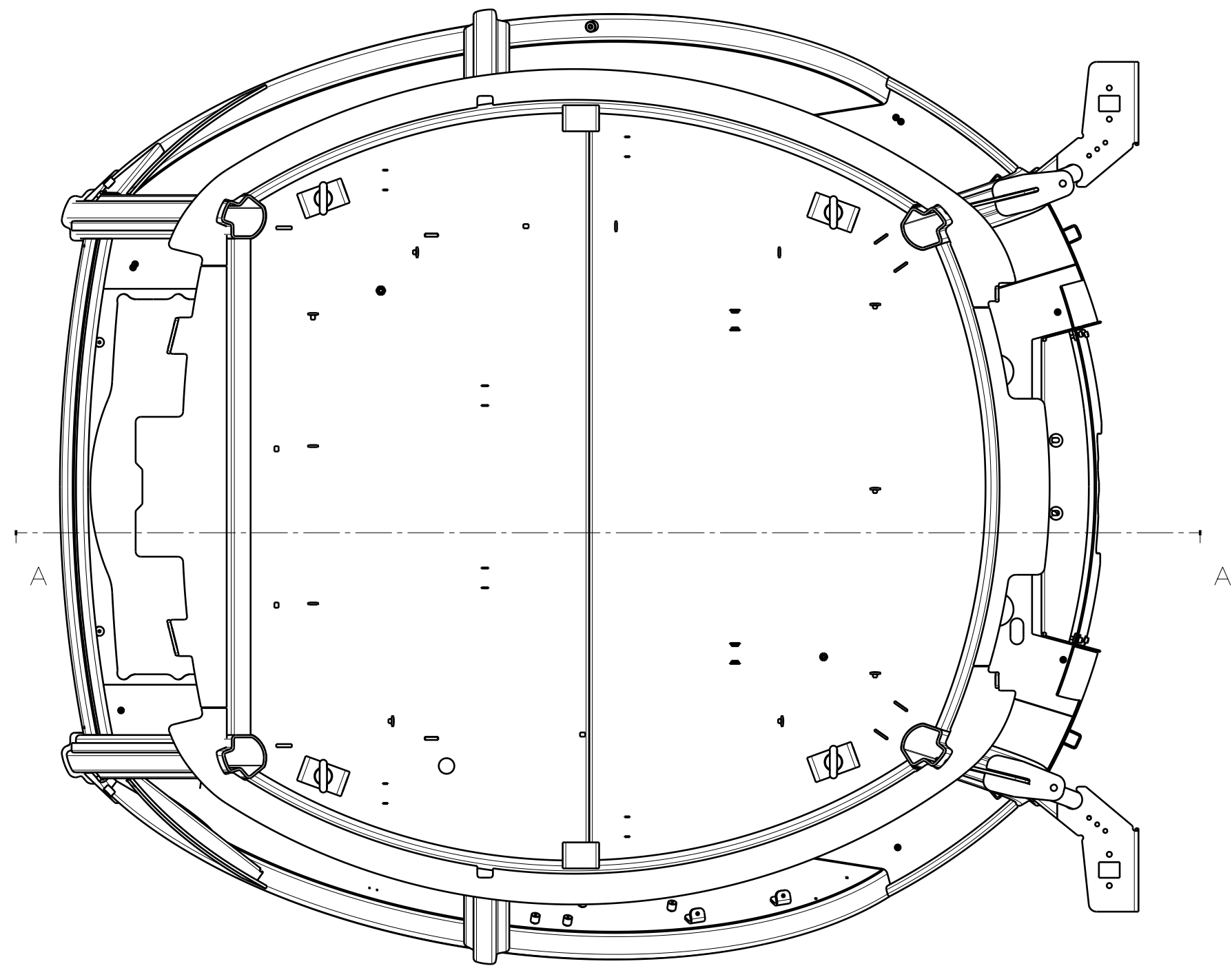


Top view
Scale: 1:15

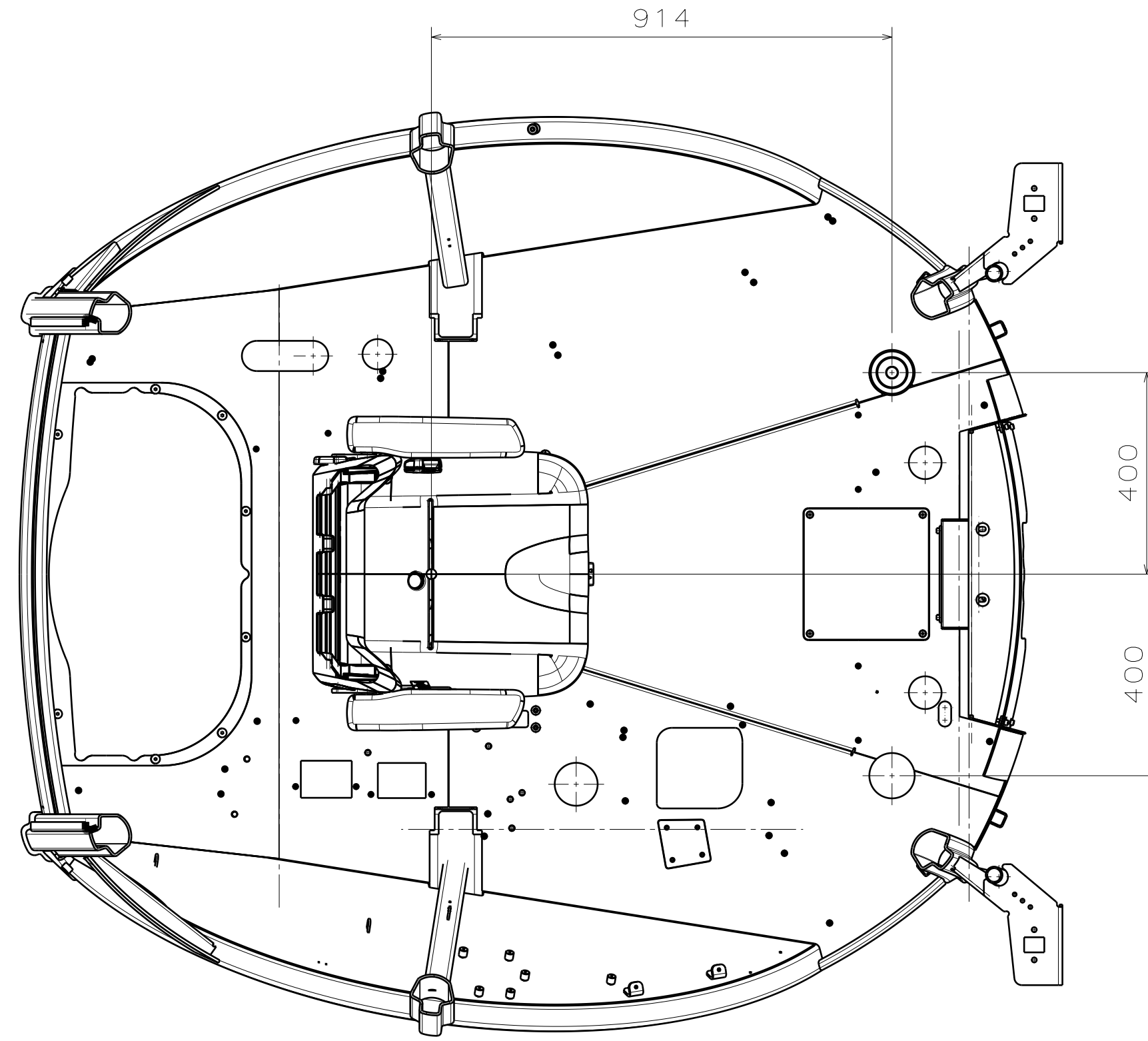


Isometric view
Scale: 1:15

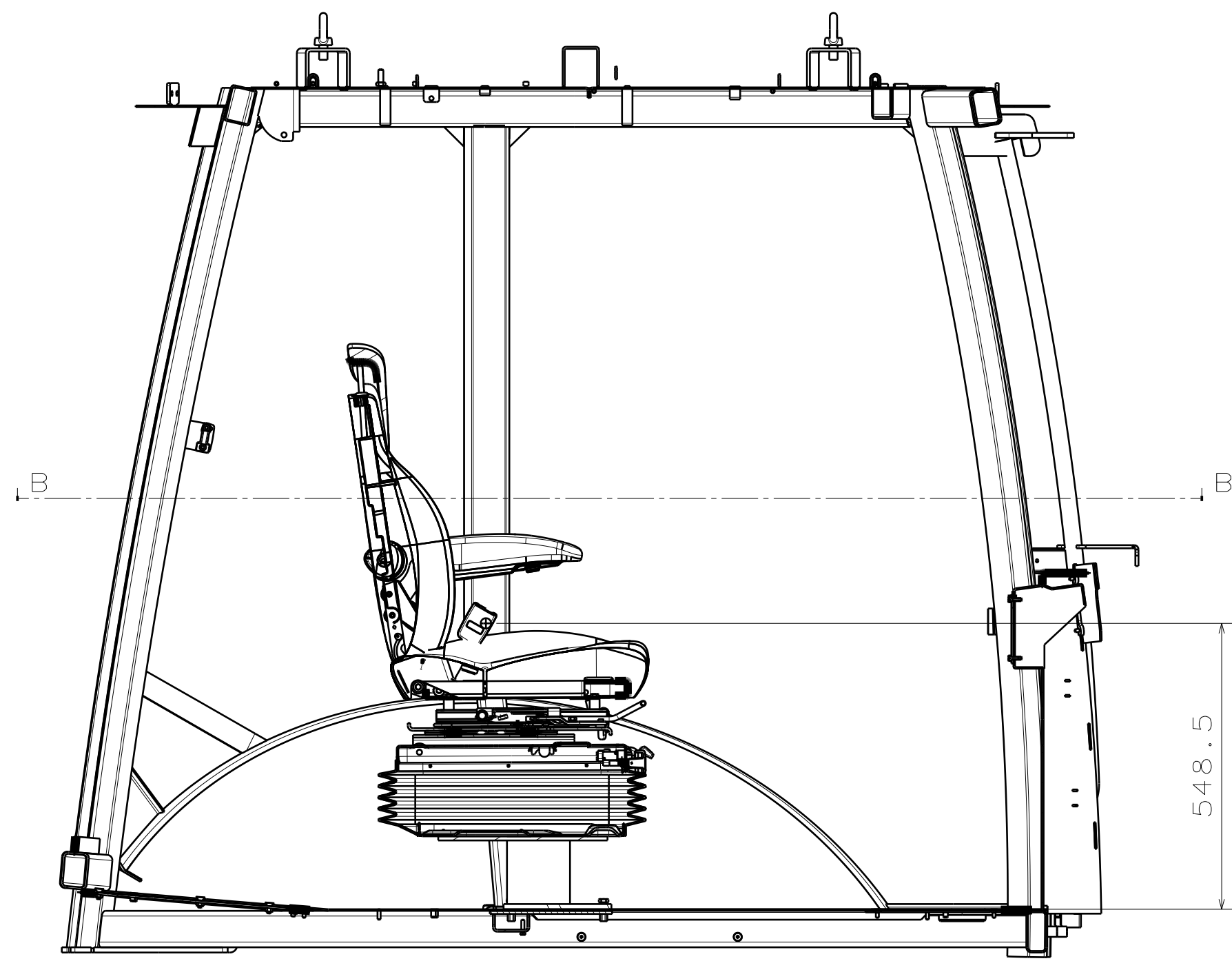
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TOTAL EFFECTIVE CASE DEPTH		SCALE 1:15	Weight (Kg) 1.051,14		
HARDNESS		HOMOLOGATION		QUANTITY	
CORE		SURF.		MATERIAL St 52-3:	
HEAT TREATMENT		UNSPECIFIED TOLERANCES		REFERENCE	
FINISH		DIN EN 10025-94		DRAWING NAME MST 644 PLUS SASE	
				DRAWING NUMBER 174631003	
				SIZE A2	



Front view
Scale: 1:10

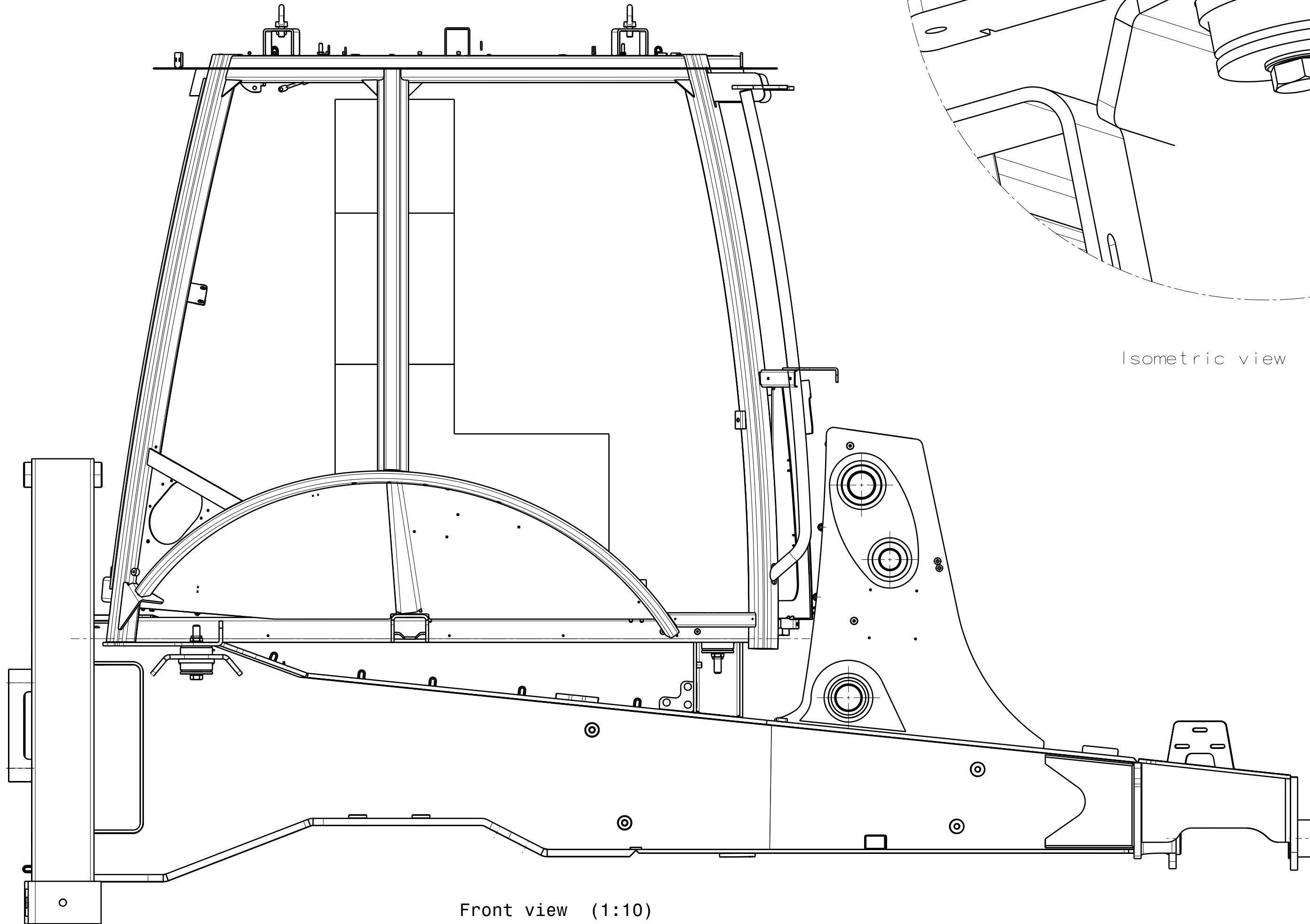


Section view B-B
Scale: 1:10

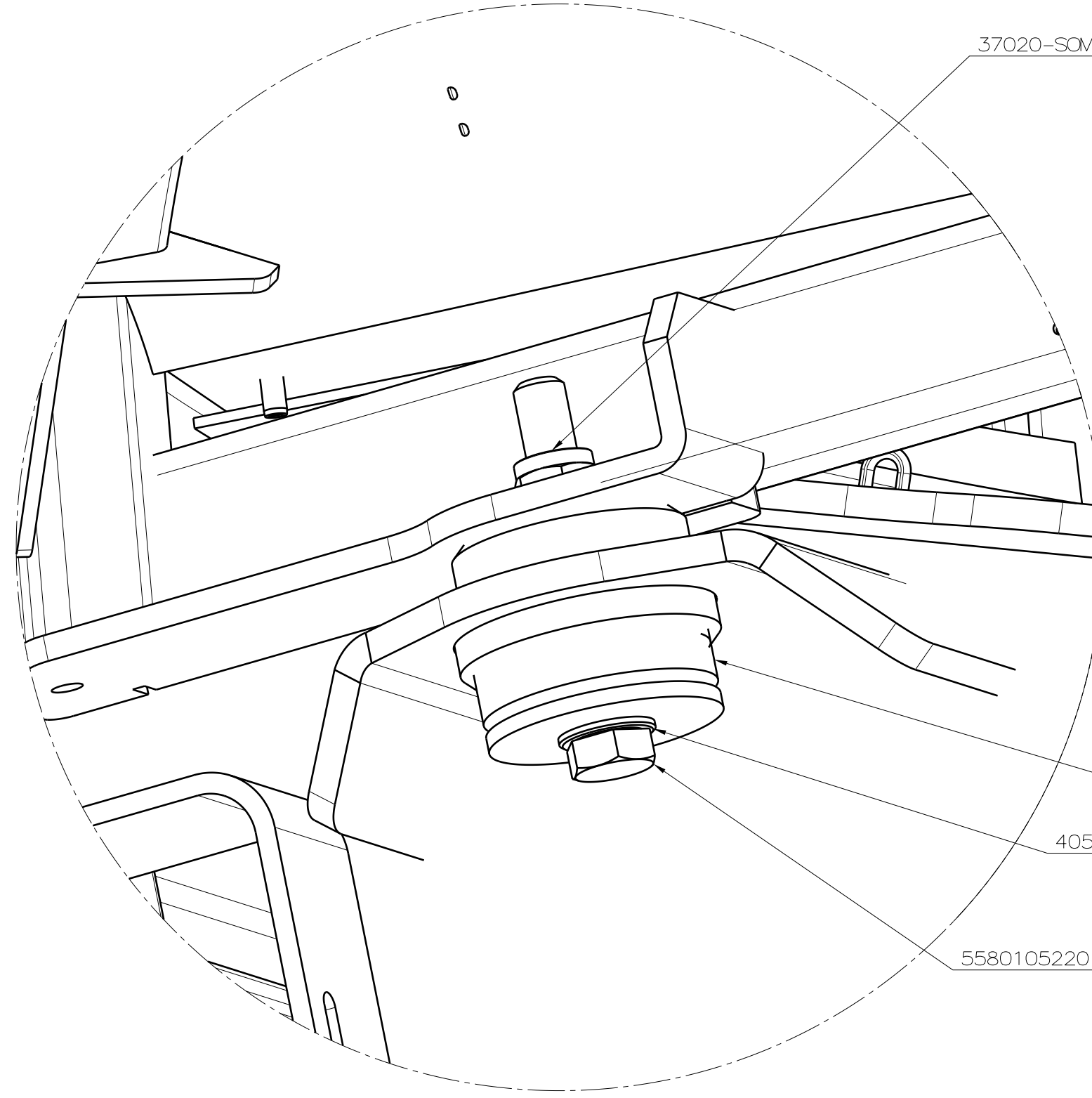


Section view A-A
Scale: 1:10

DESIGNED BY: S. MENTREBESZ	DATE: 27.05.2015	CHECKED BY: M. SOMÉZ	APPROVED BY: L. KRZEMINSKI	UR-GE DEPARTMAN I	
TOTAL EFFECTIVE CASE DEPTH	SCALE: 1:10	Weight (kg): 1.994,01	QUANTITY		
HARDNESS	POSITION	MATERIAL: St 52-3	REFERENCE	THIRD ANGLE METHOD DIMENSIONS IN mm	DRAWING NAME: MST 6 PLUS KABIN A1
CORE	SURF.				
HEAT TREATMENT	UNSPECIFIED TOLERANCES	DIN EN 10025-94	DRAWING NUMBER: 172770020	SIZE: A1	
FINISH					



Front view (1:10)



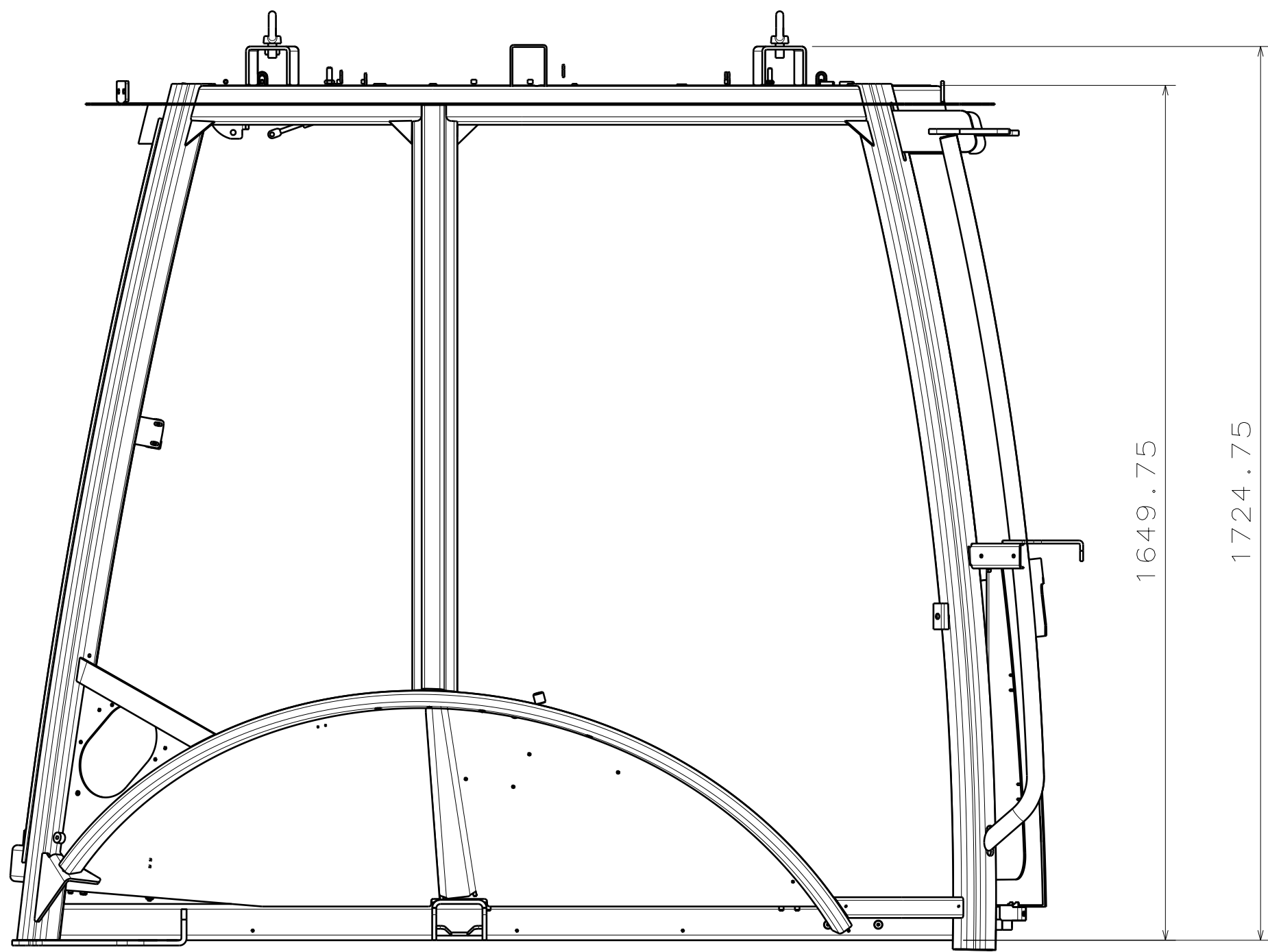
Isometric view (1:2)

37020-SOMUN, DIN 985, 10, M20, GVZ (AKB Fiberli)

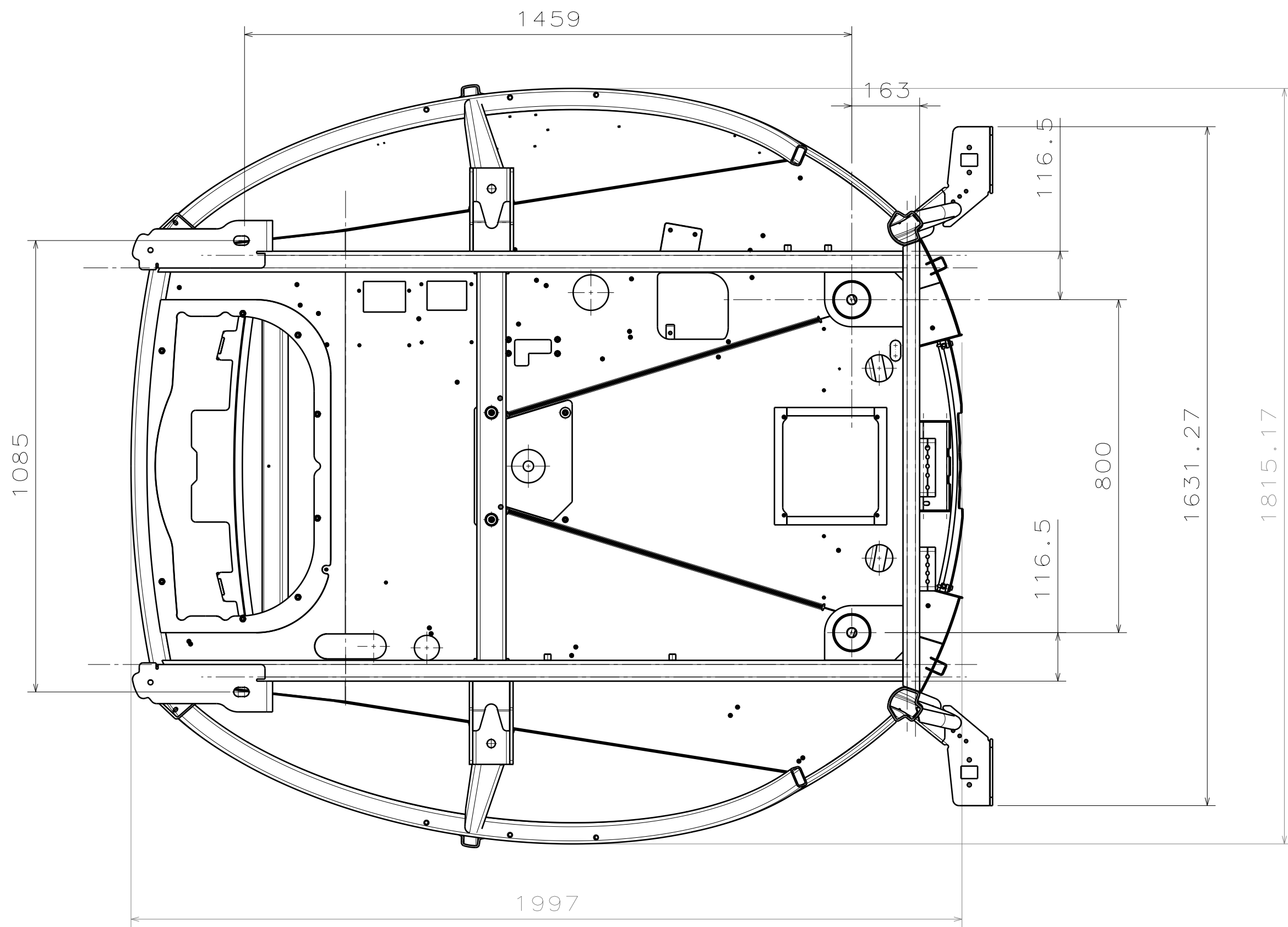
174770272-KABIN TAKOZU

40520-RONDELA, DIN 125, M20, SIYAH

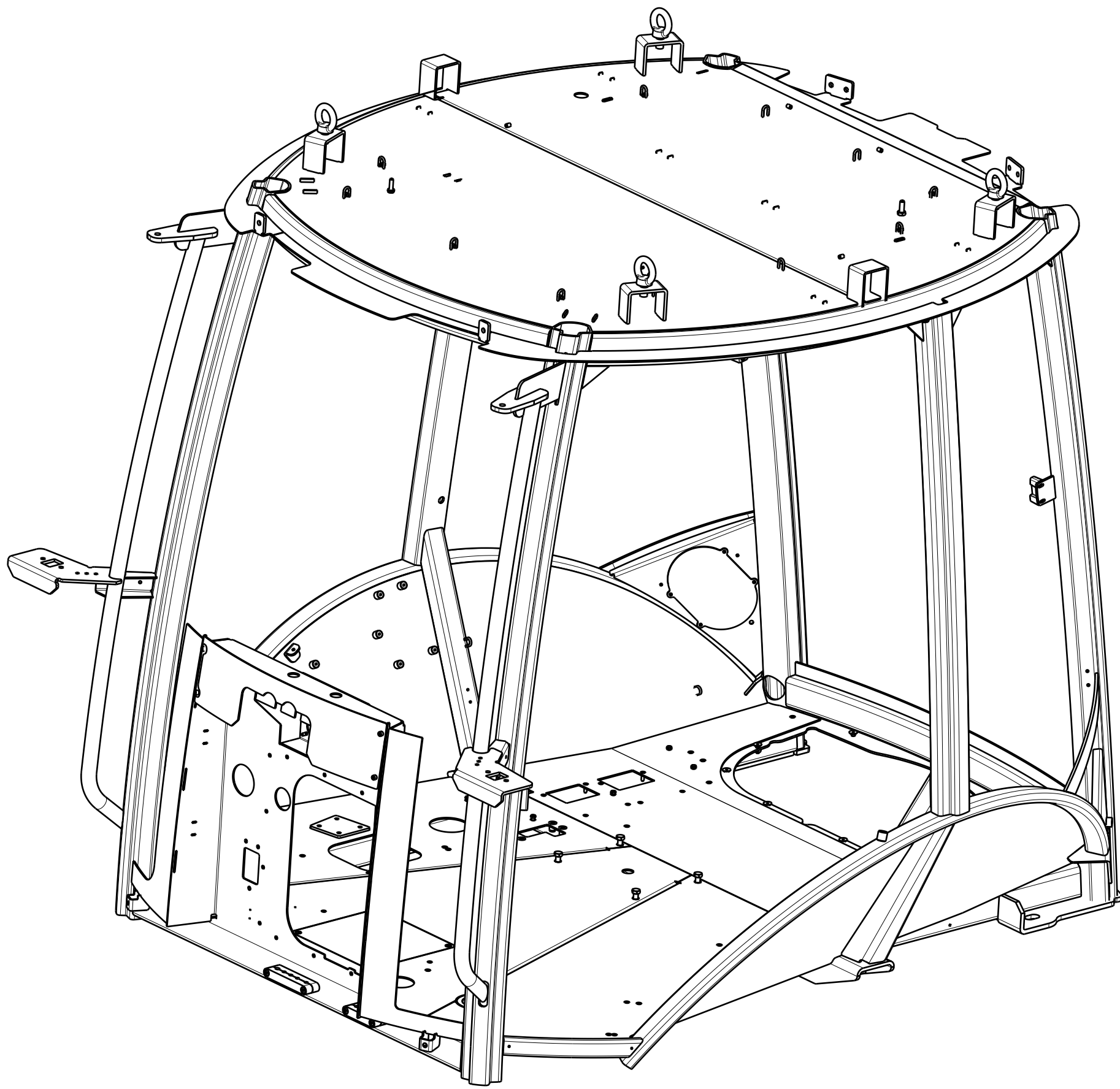
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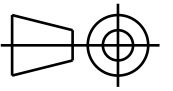
Front view
Scale: 1:10

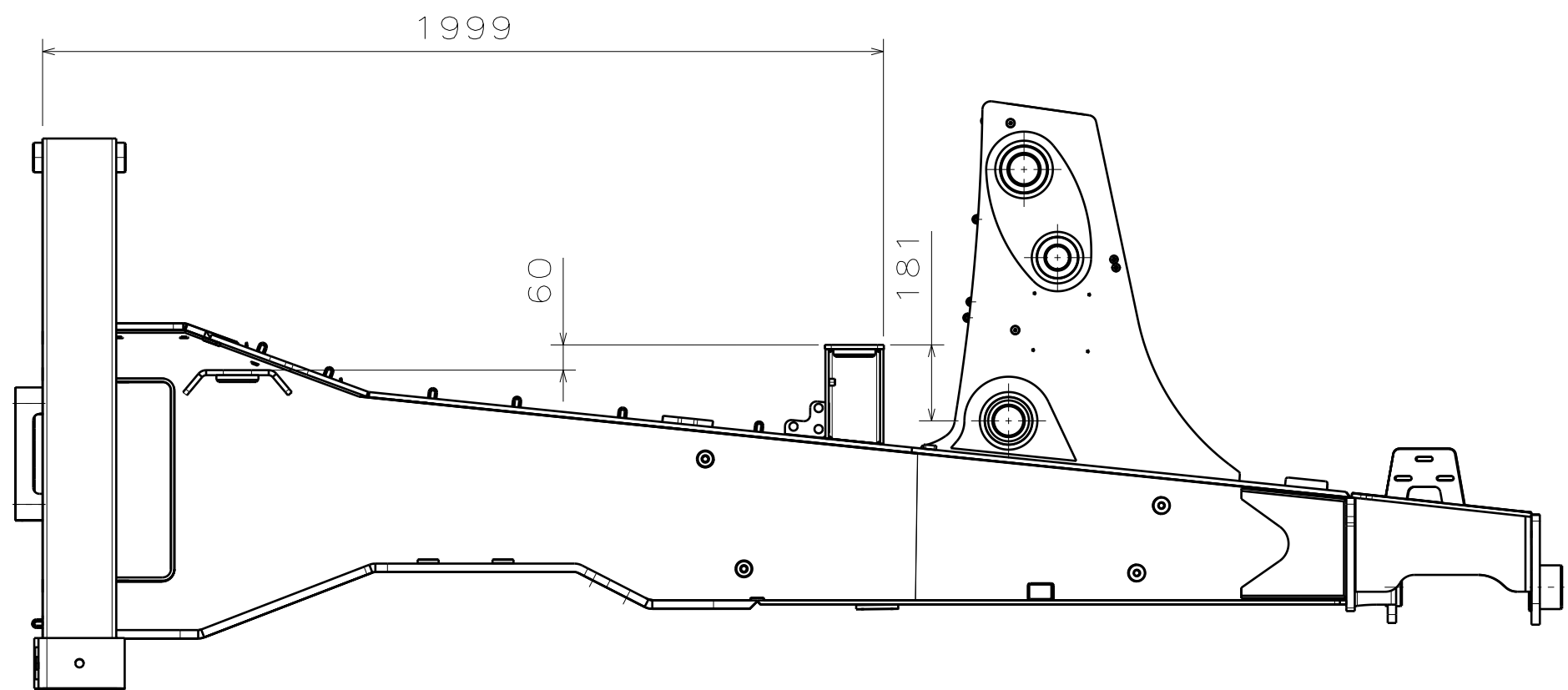


Bottom view
Scale: 1:10

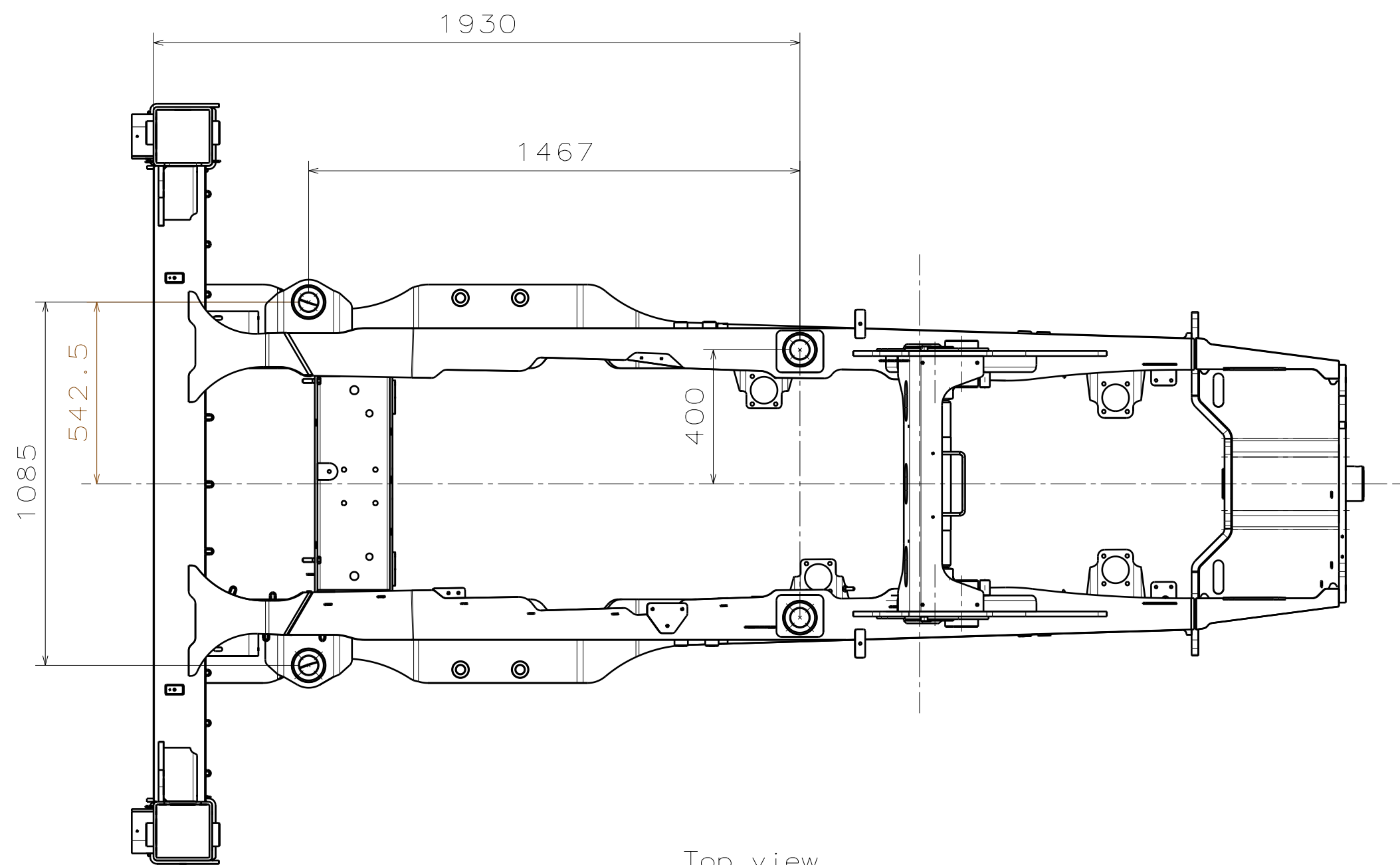


Isometric view
Scale: 1:10

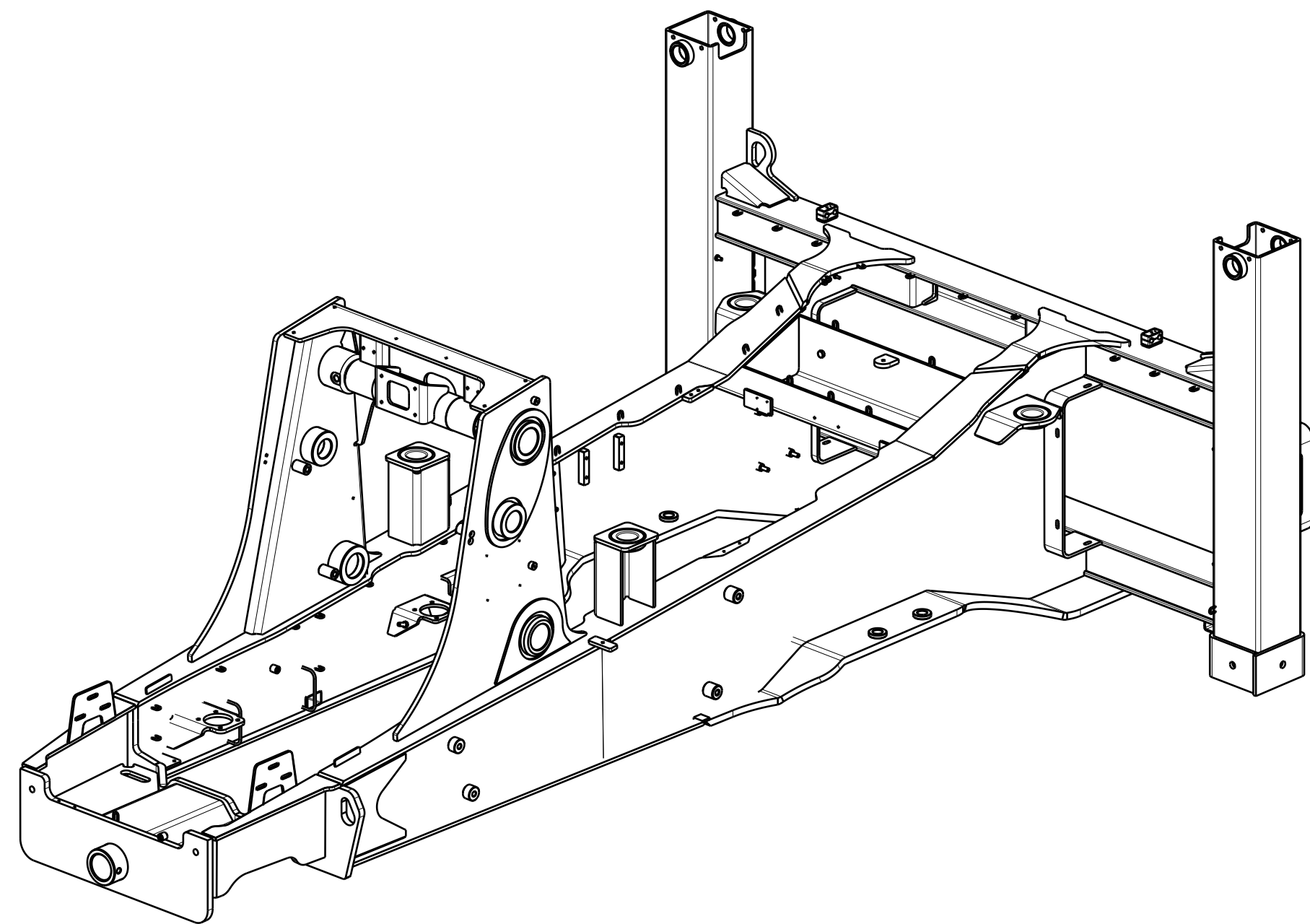
DESIGNED BY: S.MENTRIBESE		DATE: 27.05.2015	CHECKED BY: M.SOMIEZ	APPROVED BY: L.KRIZIANCIC	UR-GE DEPARTMAN I
TOTAL EFFECTIVE CASE DEPTH			SCALE 1 : 10	Weight (Kg) 1.994,01	
HARDNESS			QUANTITY		
HOMOLOGATION			OUNCU ACI METODU OCULUR mm DİR		
CORE		SURF.	MATERIAL St 52-3;		 THIRD ANGLE METHOD DIMENSIONS IN mm
REFERENCE					
DRAWING NAME MST 6 PLUS KABIN					
HEAT TREATMENT			UNSPECIFIED TOLERANCES		A1
FINISH			DIN EN 10025-94		DRAWING NUMBER 172770020
					SIZE A1



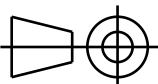
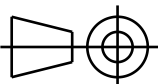
Front view
Scale: 1:15



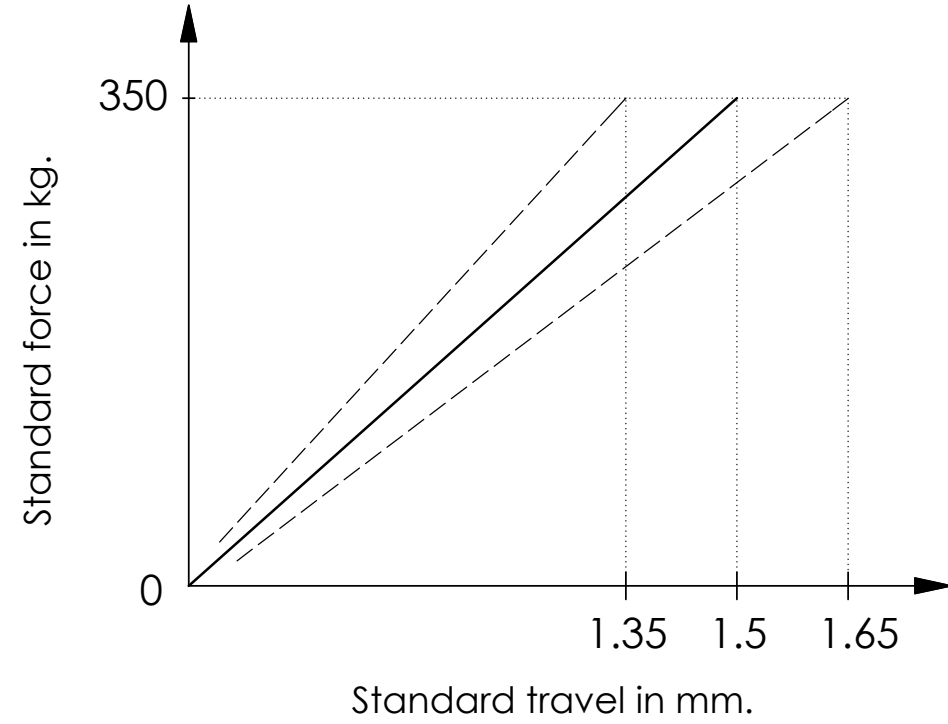
Top view
Scale: 1:15



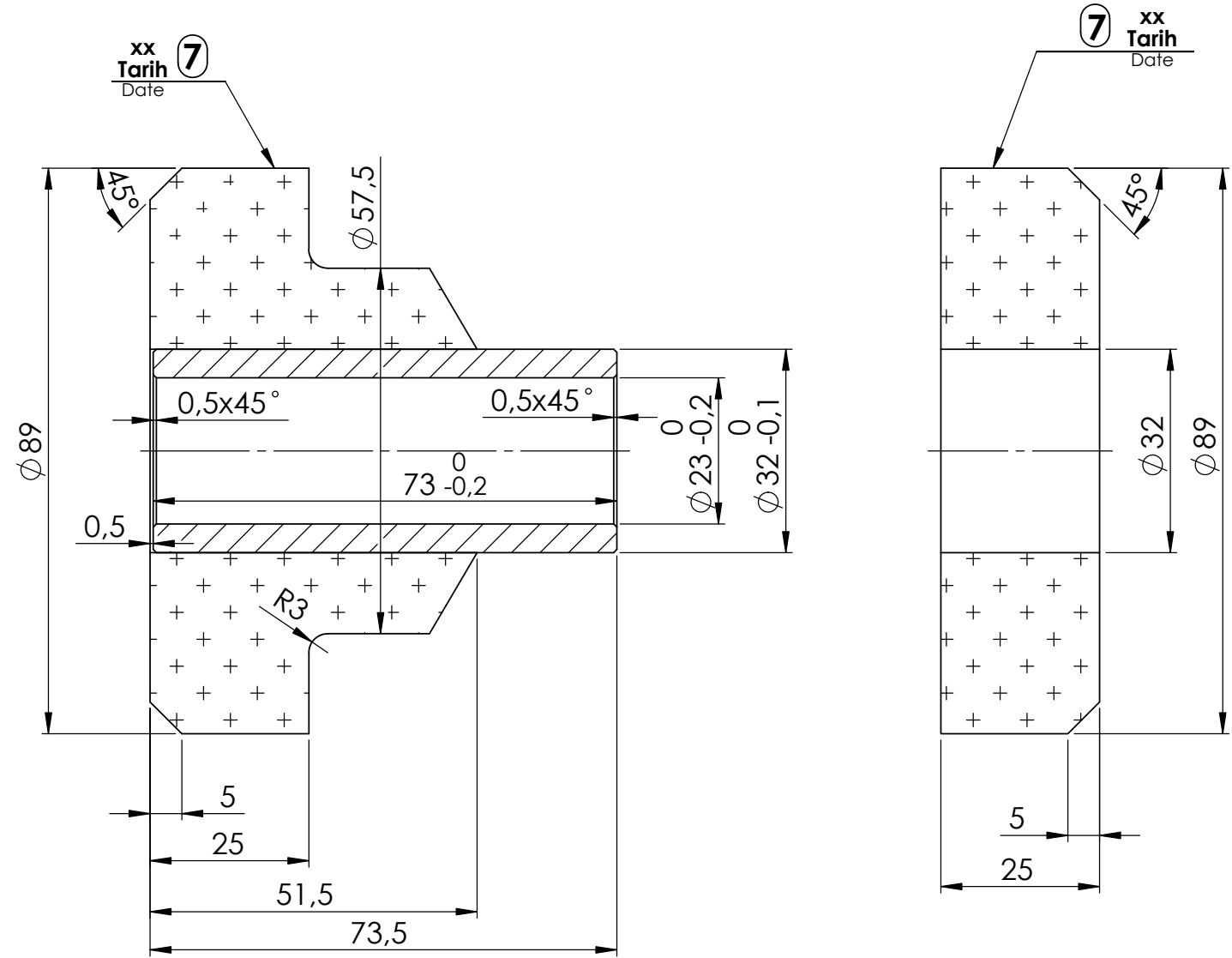
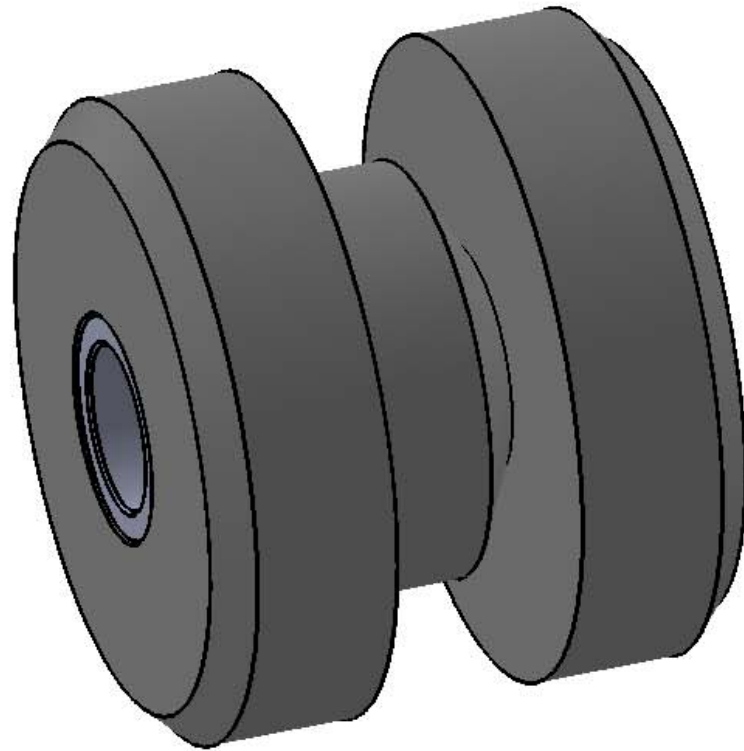
Isometric view
Scale: 1:15

DESIGNED BY:		DATE:		CHECKED BY:		APPROVED BY:		UR-GE DEPARTMAN I	
S.MEMTRBESE		27.05.2015		M.SONMEZ		L.KIRILANGIC			
TOTAL EFFECTIVE CASE DEPTH				SCALE		Weight (Kg)			
				1 : 15		1.132,79		 THIRD ANGLE METHOD DIMENSIONS IN mm	
HARDNESS				HOMOLOGATION		QUANTITY			
								QLOULER mm DIR	
CORE		SURF..		MATERIAL		REFERENCE		 THIRD ANGLE METHOD DIMENSIONS IN mm	
				WELDING ASSY					
HEAT TREATMENT				UNSPECIFIED TOLERANCES		DRAWING NAME		MST6 2 WS PLUS SASI	
FINISH				DIN EN 10025-94		DRAWING NUMBER		SIZE	
						172631003		A2	

STATİK TEST GRAFİĞİ STATIC TEST CURVE

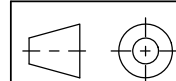


İZOMETRİK GÖRÜNÜŞ ISOMETRIC APPEARANCE



İÇ BORU YÜZEY KORUMA : Zn (Cr+3) SARI KAPLAMA
INNER PIPE SURFACE PROTECTION : Zn (Cr+3) YELLOW COATED
(B): 13-60 Sertlik NR 60±3 Shore A
13-60 Hardness NR 60±3 Shore A
(A): EN 10305-2 E 235+C

3	YAN LASTİK	RUBBER	1	3	(B)	1236/2	
2	LASTİK HAMURU	RUBBER COMPOUND	1	2	(B)	1236/1B	
1	İÇ BORU	INNER PIPE	1	1	(A)	1236/1A	
SIRA Sequence	PARÇANIN ADI Part Name	ADET Quantity	MONTAJ NO Assembly Nr.	MALZEME Material	RESİM NO Drawing Nr.	AĞIRLIK Weight	
Desing : Design	SEM NO Sem Nr. 1236	ÇİZEN Drawn by HÜLYA KONAK	TARİH Date 26.04.2013	İMZA Signature			
Solidworks	REFERANS NO Reference Nr.	KONTROL Controlled by SERKAN GÖMEÇ	TARİH Date 26.04.2013	İMZA Signature			
Format : A3	MALZEME Material	ONAY Approved by AYHAN TOKAY	TARİH Date 26.04.2013	İMZA Signature			
	RESİM NO Drawing Nr. 1236	ÖLÇEK Scale 1:1	PARÇA ADI Part Name	KABİN TAKOZU CABIN MOUNTING			



RESİMDE VERİLMEDİĞİ TAKTİRDE
IF NOT GIVEN IN THE DRAWING
UYGULANACAK OLAN TOLERANS NORMU
TOLERANCE FROM TO BE USED

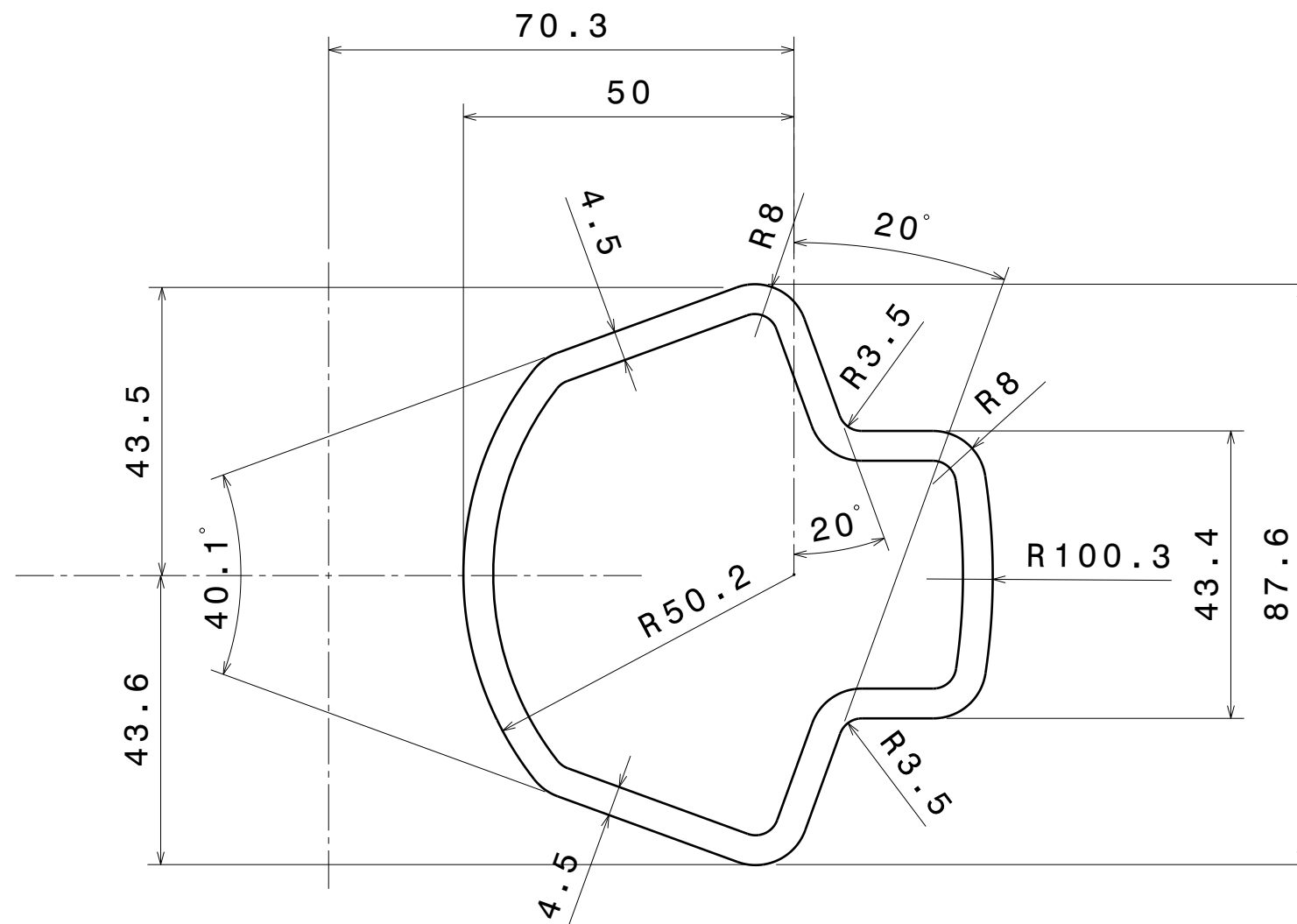
DIN ISO 2768 mK
DIN ISO 3302-1M3

İS BU DÖKÜMANIN KULLANMA ve UYGULANMASI İLE İLGİLİ HER TÜRLÜ HAKLARI SEM LASTİK SAN.TİC.A.Ş.'NE AİTTİR.İZİNSİZ KOPYA EDİLEMEZ.ÜÇÜNCÜ SAHİSLAR TARAFINDAN BASKA MAKSATLA KULLANDIRILAMAZ.
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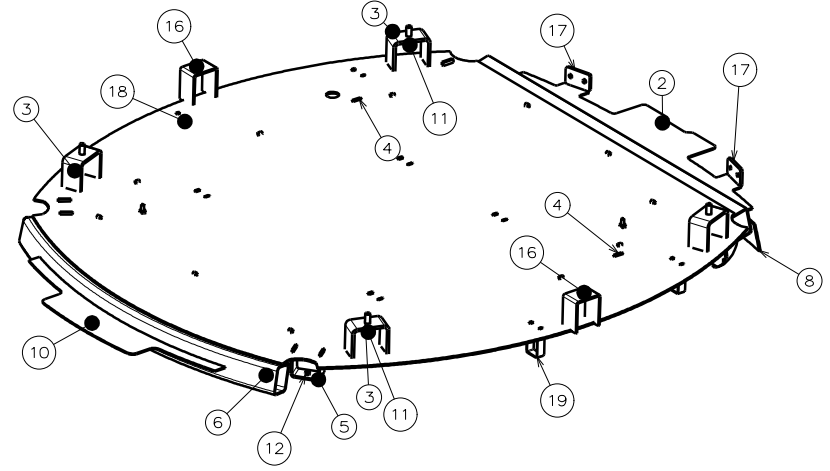
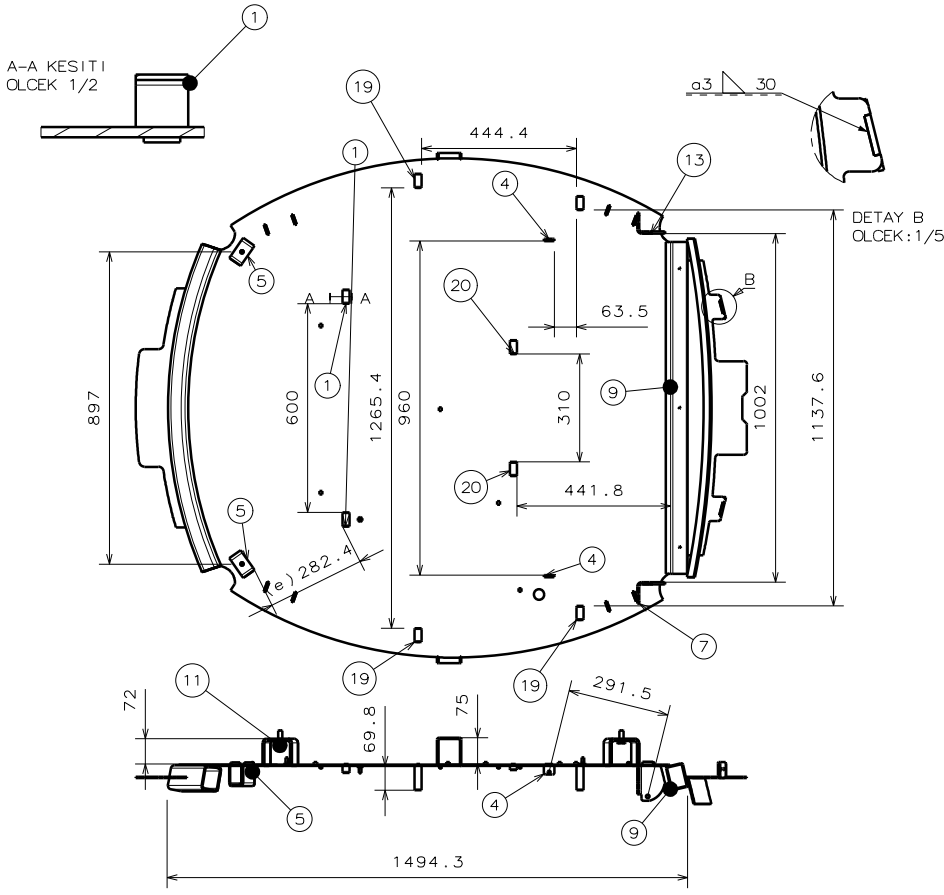
Yeni Yalova Yolu
13.Km. Ovaakça
BURSA / TÜRKİYE
Tel:(0224) 267 05 41



Front view
Scale: 1:1

REV	DEĞİŞİKLİK	TARİH	İSİM	ONAY
h	172770109,144,121,241,503,529,531 detay parçalara ve 172770064 kaynaklı kompleksine revizyon işlenmiştir.	09.06.2015	E.DOĞAN	A.TOGAY

SANKO
MST 6



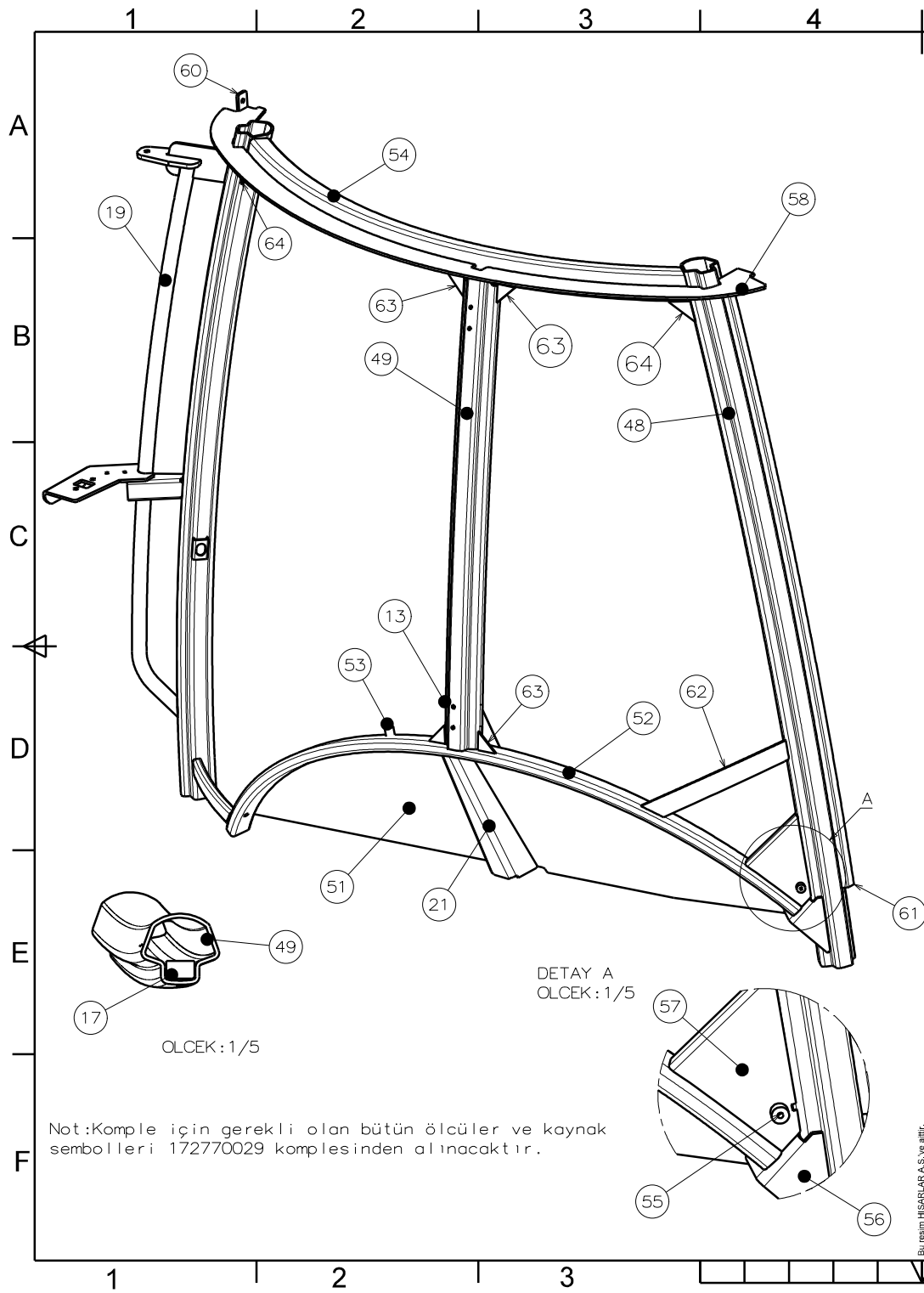
Bill of Material: 172770025

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2	TAVAN ARKA SACI	1	172770109	Part	
3	TAVAN DIS TRIM BRAKETİ	4	172770144	Part	
4	ARKA CERÇEVE AMORTİSORU BRAKETİ	2	172770161	Part	
5	TAVAN ON İC TRIM BRAKETİ	2	172770163	Part	
6	TAVAN ON PROFİLİ	1	172770121	Part	
7	AMORTİSOR BAĞLANTI BRAKETİ SAG	1	172770162	Part	
8	TAVAN ARKA ETEK SACI	1	172770240	Part	
9	TAVAN ARKA PROFİLİ	1	172770241	Part	
10	TAVAN ON SACI	1	172770503	Part	
12	M6 SOMUN	2	15013007	Part	
11	M12X35 Civata	4	15010313	Part	None
13	AMORTİSOR BAĞLANTI BRAKETİ SOL	1	172770191	Part	
16	TAVAN ORTA DESTEK SACI	2	172770529	Part	
17	TAVAN ARKA FAR BRAKETİ	2	172770531	Part	
1	TAVAN BAĞLANTI STOPERİ	2	172770522	Part	
19	İC DOSEME DESTEK PARÇASI-1	4	172770563	Part	
20	İC DOSEME DESTEK PARÇASI-2	2	172770564	Part	
18	TAVAN SACI KAYNAKLI KOMPLESİ	1	172770064	Assembly	

GENEL OLCU TOLERANSLARI			TARİH	İSİM	İMZA	HİSARLAR			
DOĞRUSAL	ISO 2768-c	CİZEN	13.07.2012	Emrah DOĞAN		Eskişehir-Bursa yolu 20 km. 26550 Eskişehir / TÜRKİYE Tel : 0.222.411 24 30 Faks : 0.222.411 30 01 http://www.hisarlar.com.tr E-mail : hisarlar@hisarlar.com.tr			
AÇILAR	ISO 2768-c	KONTROL	13.07.2012	Seçil ATILLA					
KONUM	ISO 2768-L	ONAY	13.07.2012	Göksel ÖZKIR					
YÜZEY KALİTESİ	*	PARÇA ADI TAVAN KAYNAKLI KOMPLESİ				RESİM NO	OLCEK	SAYFA	
YÜZEY İŞLEMİ	*					172770025	1/10	1/1	
CAD RESİM ÜZERİNDE ELLE DEĞİŞİKLİK YAPILMAZ OLCU ALINMAZ	MALZEME		MALZEME EBADI		BRUT AĞ/ADET	ADET	A3		
	*		*		*	1			

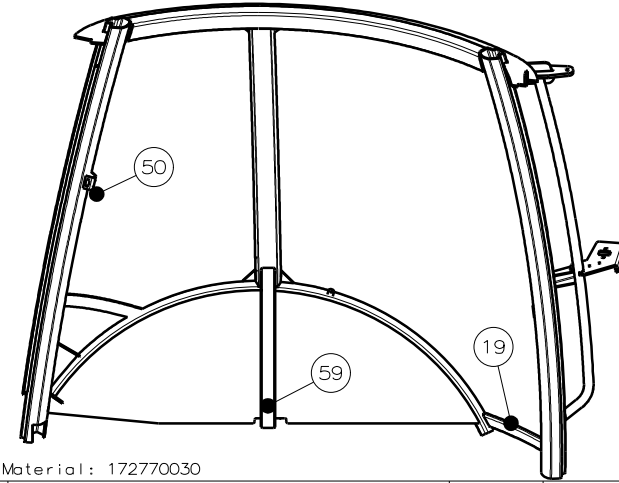
Bu resim HİSARLAR A.Ş.'ye aittir.
HİSARLAR'ın yazılımı olmadan bu resim
tanımlanan parçaların imalatı yapılamaz, resim
görsel olarak değiştirilemez.
Tüm yasal hakları HİSARLAR A.Ş.'ye aittir.

CAD



REV	DEĞİŞİKLİK	TARİH	İSİM	ONAY
9	172770151,119 ve 565 numaralı parçalara revizyon işlenmiştir. 172770501 numaralı parçanın resmi oluşturulmuştur.	10.06.2015	E.DOĞAN	A.TOGAY

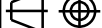
SANKO
MST 6



Bill of Material: 172770030

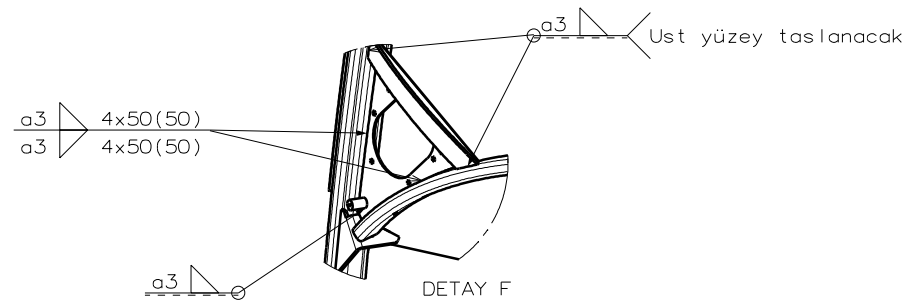
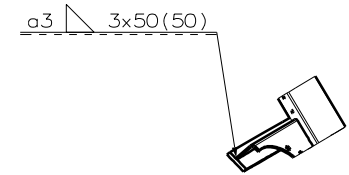
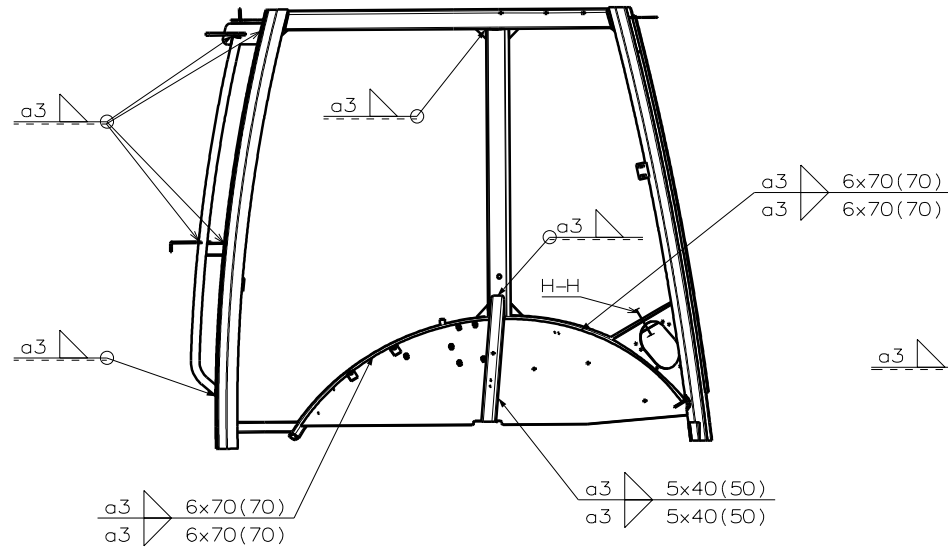
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49	ORTA DİREK PROFİLİ SOL	1	172770114	Part	
50	KİTLET SACI	1	172770195	Part	
51	CAMURLUK SACI SOL	1	172770151	Part	
52	CAMURLUK PROFİLİ SOL	1	172770125	Part	
53	CAMURLUK BRAKETİ 1	1	172770172	Part	
54	KAPI ÜST PROFİLİ SOL	1	172770119	Part	
55	BRAKET_3	1	172770156	Part	
56	BRAKET_2 SOL	1	172770500	Part	
57	BRAKET_1 SOL	1	172770501	Part	
58	TAVAN YAN SACI	1	172770502	Part	
59	ORTA DİREK DESTEK PROFİLİ SOL	1	172770565	Part	
60	TAVAN ON FAR BRAKETİ	1	172770530	Part	
61	RULMAN ÇALIŞMA SACI SOL	1	172770507	Part	
62	SOL ALT CAM DESTEK SACI	1	172770284	Part	
63	ORTA PROFİL DESTEK SACI	4	172770521	Part	
64	DIKME PROFİLİ DESTEK SACI	2	172770520	Part	
21	CAMURLUK DESTEK SACI SOL	1	172770541	Part	
19	KAPI ALT PROFİLİ SOL	1	172770127	Part	
17	ORTA DİREK KAPAGI	1	172770841	Part	

Tüm yasa ihlalleri HISARLAR A.Ş.'ye aittir.

GENEL ÖLÇÜ TOLERANSLARI			TARİH	İSİM	İMZA	HISARLAR			
		CİZEN	13.08.2012	Emrah DOĞAN					
DOĞRUSAL	ISO 2768-c	KONTROL	13.08.2012	Seçil ATILLA			Eskişehir-Bursa yolu 20 km. 26550 Eskişehir / TÜRKİYE Tel : 0.222.411 24 30 Faks : 0.222.411 30 01 http://www.hisarlar.com.tr E-mail : hisarlar@hisarlar.com.tr		
ACILAR	ISO 2768-c	ONAY	13.08.2012	Göksele ÖZKIR					
KONUM	ISO 2768-L	PARÇA ADI							
YÜZEY KALİTESİ	*	SOL YAN KAYNAKLI KOMPLE				RESİM NO		ÖLÇEK	SAYFA
YÜZEY İŞLEMİ	*					172770030		1/10	1
CAD	RESİM ÜZERİNDE ELLE DEĞİŞİKLİK YAPILMAZ ÖLÇÜ ALINMAZ	MALZEME		MALZEME EBADI		BRUT AĞ/ADET	ADET		A3
		*		*		*	1		

Bu resim HISARLAR A.Ş.'ye aittir.
HISARLAR'ın yazılı izni olmadan bu resimle
ilgili hiçbir şekilde çoğaltma, yayma veya
başka amaçlarla kullanma yasaktır.
Tüm yasal haklar HISARLAR A.Ş.'ye aittir.

SANKO
MST 6



GENEL ÖLÇÜ
TOLERANSLARI

DOĞRUSAL

AÇILAR

KONUM

YÜZEY KALİTESİ

YÜZEY İŞLEMİ

CAD

ISO 2768-c

ISO 2768-c

ISO 2768-L

*

*

RESİM ÜZERİNDE
ELLE DEĞİŞİKLİK
YAPILMAZ ÖLÇÜ
ALINMAZ

CİZEN

KONTROL

ONAY

PARÇA ADI

SAG YAN KAYNAKLI
KOMPLE

MALZEME

*

TARİH

13.08.2012

13.08.2012

13.08.2012

MALZEME EBADI

*

İSİM

Emrah DOĞAN

Seçil ATILLA

Göksele ÖZKIR

İMZA

HISARLAR

Eskişehir-Bursa yolu 20 km. 26550 Eskişehir / TÜRKİYE
Tel : 0.222.411 24 30 Faks : 0.222.411 30 01
http://www.hisarlar.com.tr E-mail : hisarlar@hisarlar.com.tr

RESİM NO

172770029

ÖLÇEK

1/15

SAYFA

2/2

BRUT AĞ/ADET

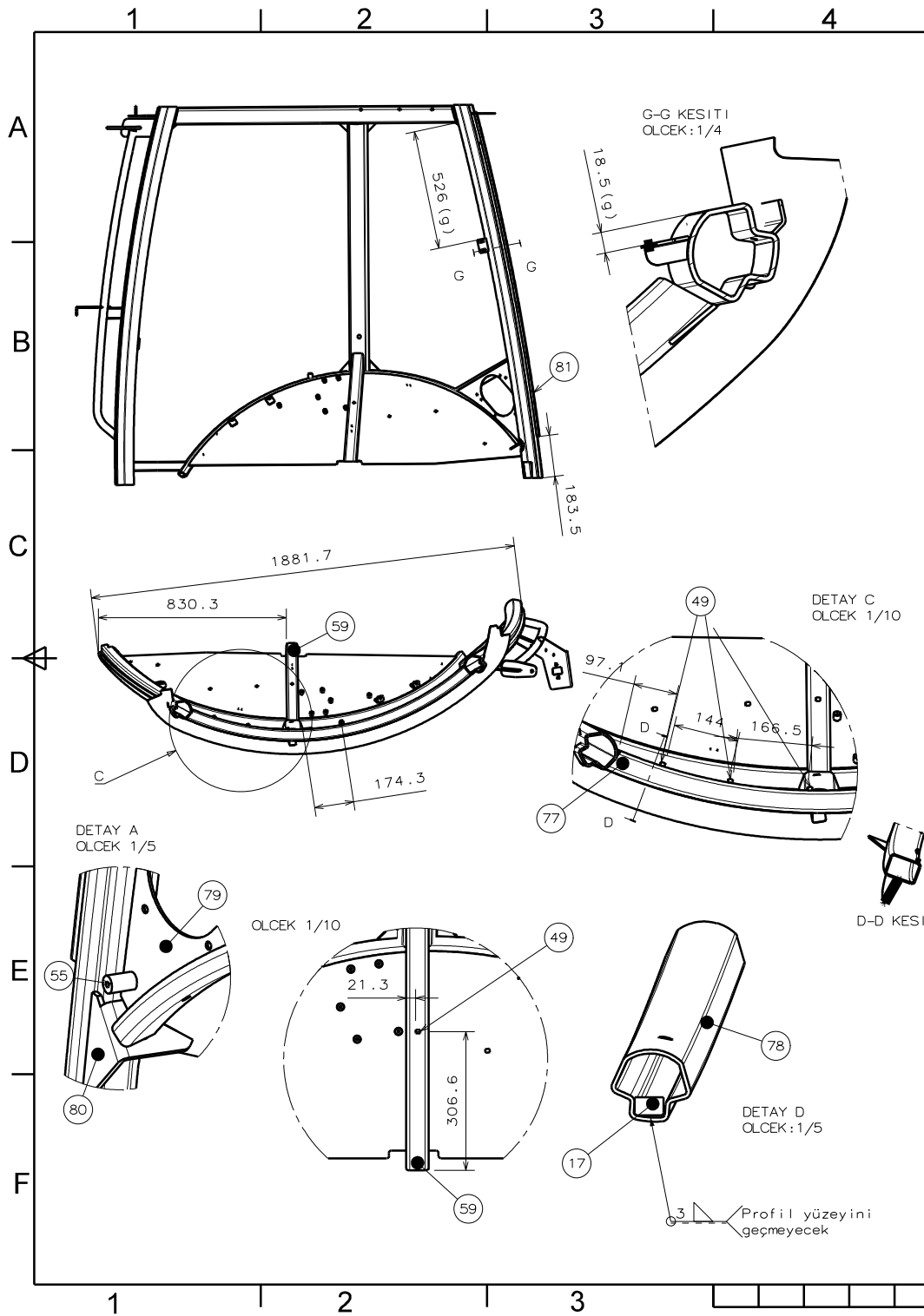
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ADET

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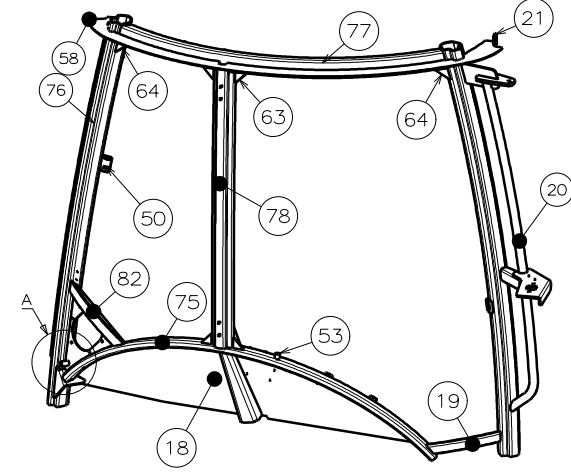
A3

Bu resim HİSARLAR A.Ş.'ye aittir. HİSARLAR'ın yazılı izni olmadan bu resimle tanımlanan parçaların imalatı yapılamaz, resim



REV	DEĞİŞİKLİK	TARİH	İSİM	ONAY
h	172770154 ve 156 iptal edilmiştir. 172770612 ve 571 numaralı parçalar eklenmiştir. 172770116,120,502,530 parçaları ile 172770051 kompleksine revizyon işlenmiştir.	10.06,2015	E.DOĞAN	A.TOGAY

SANKO
MST 6



Bill of Material: 172770029

Number	Nomenclature	Quantity	Part Number	Type	Revision
75	CAMURLUK PROFİLİ SAG	1	172770124	Part	
59	ORTA DIREK DESTEK PROFİLİ	1	172770116	Part	
53	CAMURLUK BRAKETİ 1	1	172770172	Part	
76	SAG ARKA DIKME PROFİLİ	1	172770111	Part	
77	KAPI ÜST PROFİLİ SAG	1	172770120	Part	
78	ORTA DIREK PROFİLİ SAG	1	172770115	Part	
79	FİLTRE BAĞLANTI SACI	1	172770612	Part	
80	BRAKET_2 SAG	1	172770155	Part	
55	SAG CAMURLUK SOMUNU	1	172770571	Part	
58	TAVAN YAN SACI	1	172770502	Part	
50	KİTLEK SACI	1	172770195	Part	
81	RULMAN ÇALIŞMA SACI SAG	1	172770508	Part	
82	SAG ALT CAM DESTEK SACI	1	172770285	Part	
64	DIKME PROFİLİ DESTEK SACI	2	172770520	Part	
63	ORTA PROFİL DESTEK SACI	4	172770521	Part	
49	BÖNÜK	4	025-1114	Part	
17	ORTA DIREK KAPAGI	1	172770841	Part	
18	SAG CAMURLUK SACI KAYNAKLI KOMPLE	1	172770051	Assembly	
19	KAPI ALT PROFİLİ SAG	1	172770126	Part	
20	SAG ON DIKME KAYNAKLI KOMPLE	1	172770053	Assembly	
21	TAVAN ON FAR BRAKETİ	1	172770530	Part	

GENEL ÖLÇÜ TOLERANSLARI		TARİH	İSİM	İMZA
DOĞRUSAL	ISO 2768-c	13.08.2012	Emrah DOĞAN	
AÇILAR	ISO 2768-c	13.08.2012	Seçil ATILMA	
KONUM	ISO 2768-L	13.08.2012	Göksele ÖZKIR	
YÜZEY KALİTESİ	*	PARÇA ADI		
YÜZEY İŞLEMİ	*			
RESİM ÜZERİNDE ELLE DEĞİŞİKLİK YAPILMAZ ÖLÇÜ ALINMAZ		SAG YAN KAYNAKLI KOMPLE		
MALZEME		MALZEME EBADI		BRUT AĞ/ADET
*		*		ADET
				1
				A3

HISARLAR

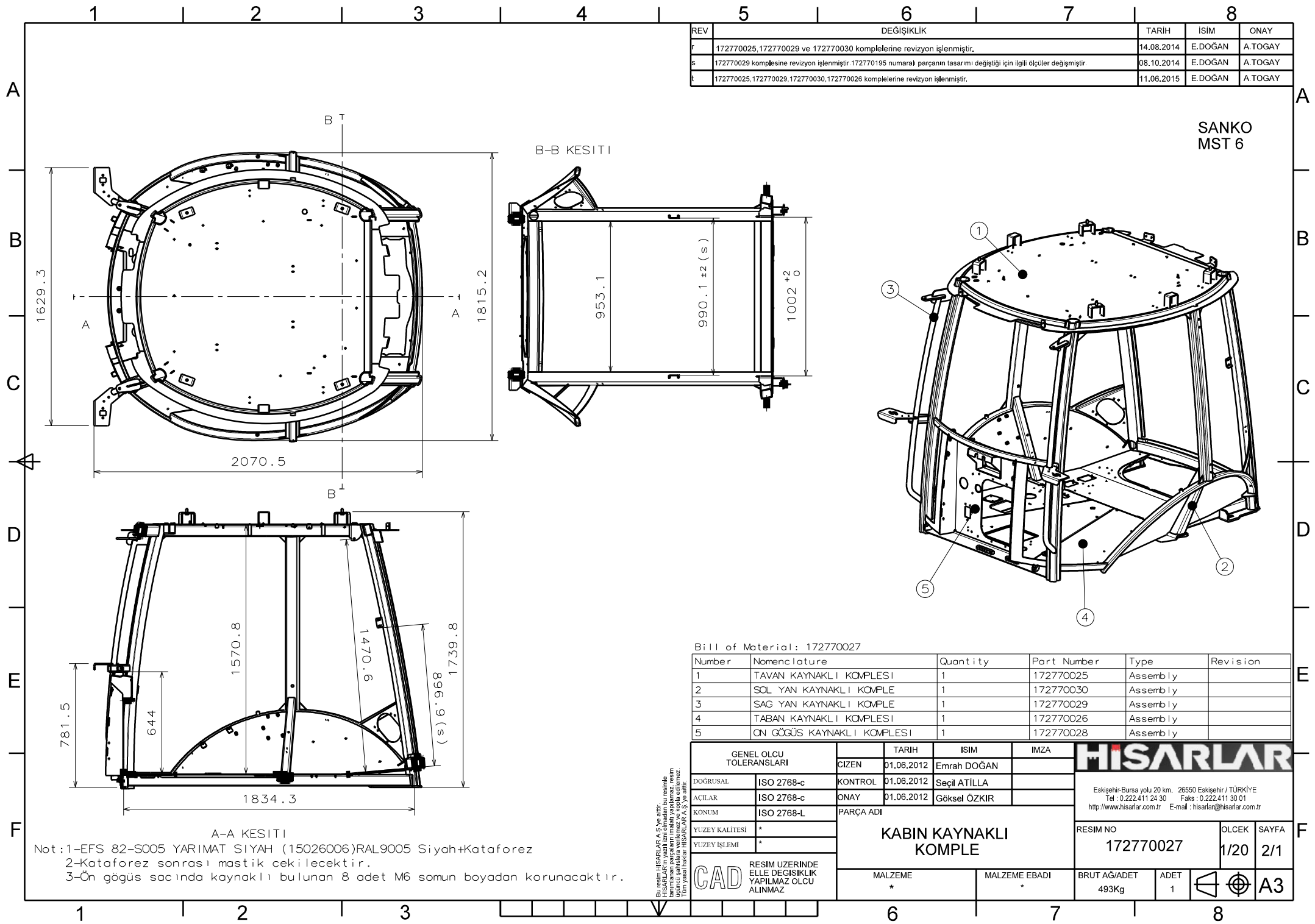
Eskişehir-Bursa yolu 20 km. 26550 Eskişehir / TÜRKİYE
Tel : 0 222 411 24 30 Faks : 0 222 411 30 01
http://www.hisarlar.com.tr E-mail : hisarlar@hisarlar.com.tr

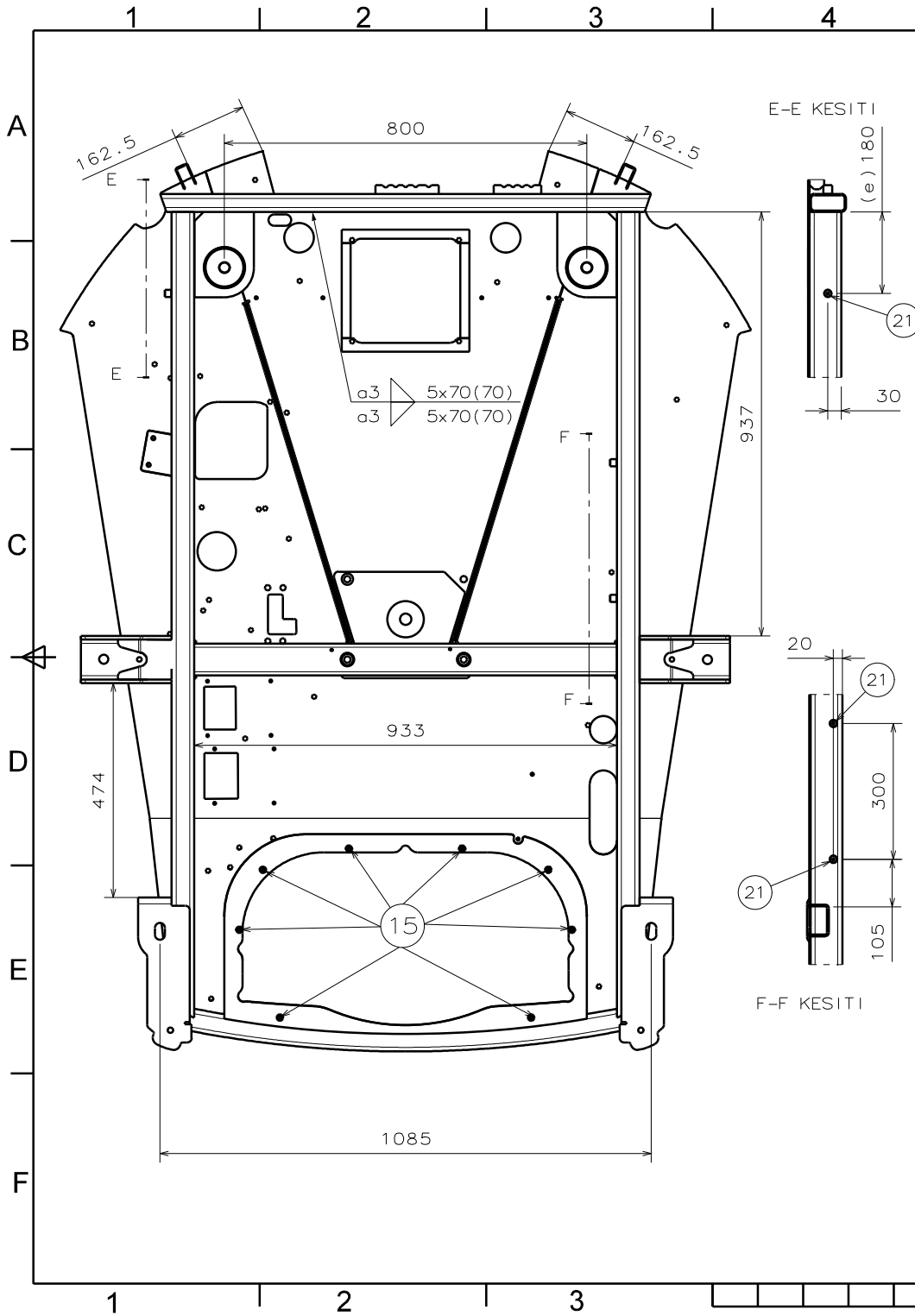
RESİM NO
172770029

ÖLÇEK
1/15

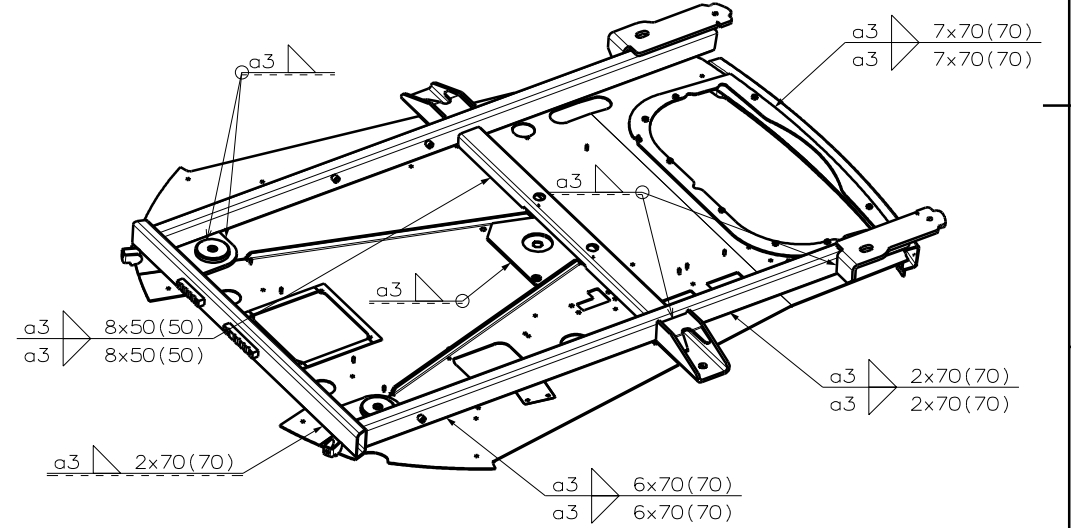
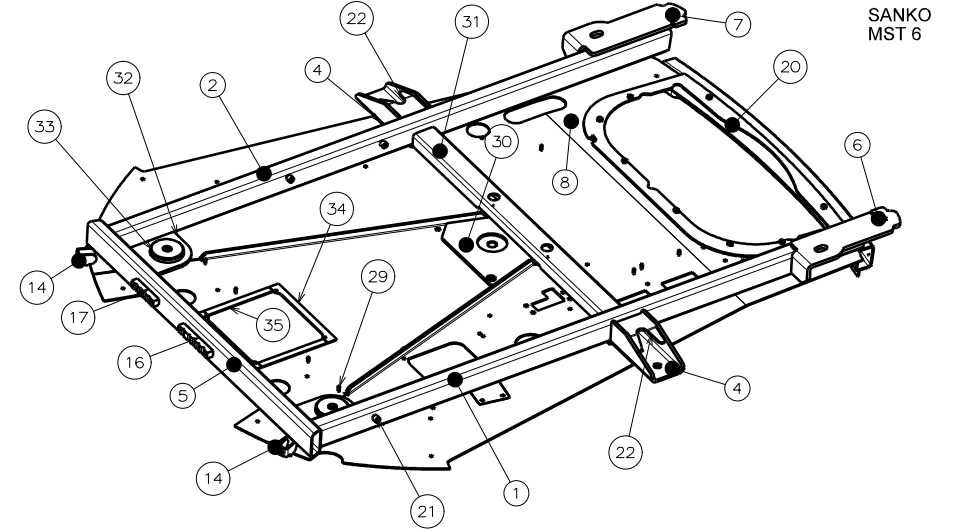
SAYFA
2/1

A3





REV	DEĞİŞİKLİK	TARİH	İSİM	ONAY
1	172770545 546, 131, 134, 135, 164, 140, 235 ve 15013014 M10 somunu iptal edilmiştir. 15012011 M8 somunundan 4 adet iptal edilmiştir. 172770225, 130, 174, 181, 224 numaralı parçalara revizyon girilmiştir. 172770505, 601, 602, 603, 617, 618, 621, 622, 625, 626, 633 numaralı parçalar eklenmiştir.	10.06.2015	E.DOĞAN	A.TOGAY



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