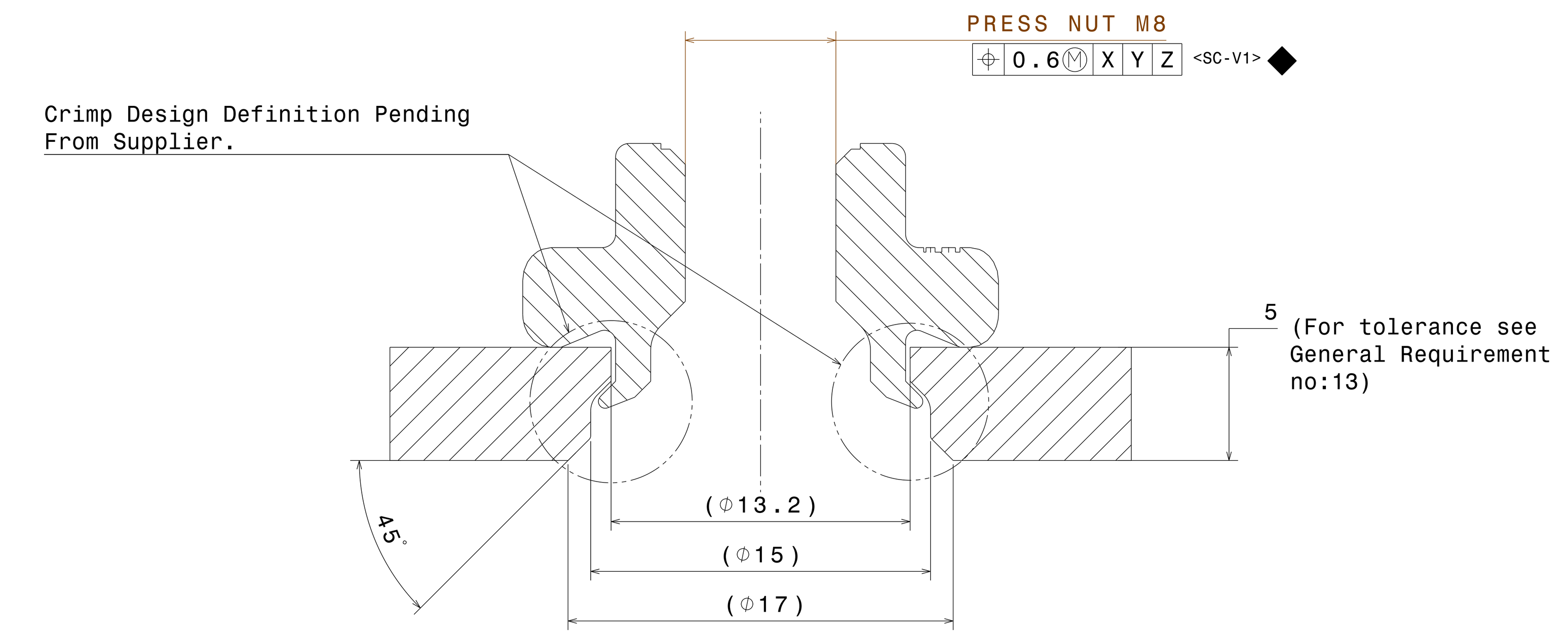
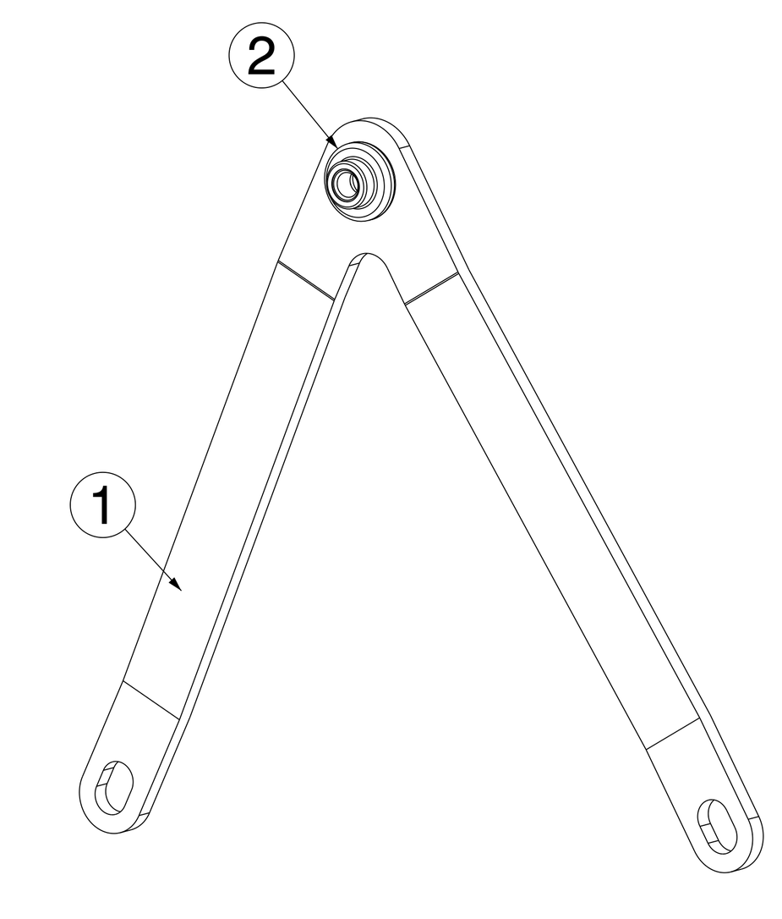
ITEM	PART NUMBER	TITLE	QUANTITY	MATERIAL	TREATMENT /COATING	MASS [g]
-	T215700	ASSEMBLY V-SHAPE NVH-BAR	-	-		122.5
01	T215701	V-SHAPE NVH-BAR	1	MBN 11253-1-AL5-IIC-NP-U+DBL4952.00	-	108.4
02	T513924	CRIMPING NUT M8	1	35B2 E.01	DBL9440.47 E.01	14.1

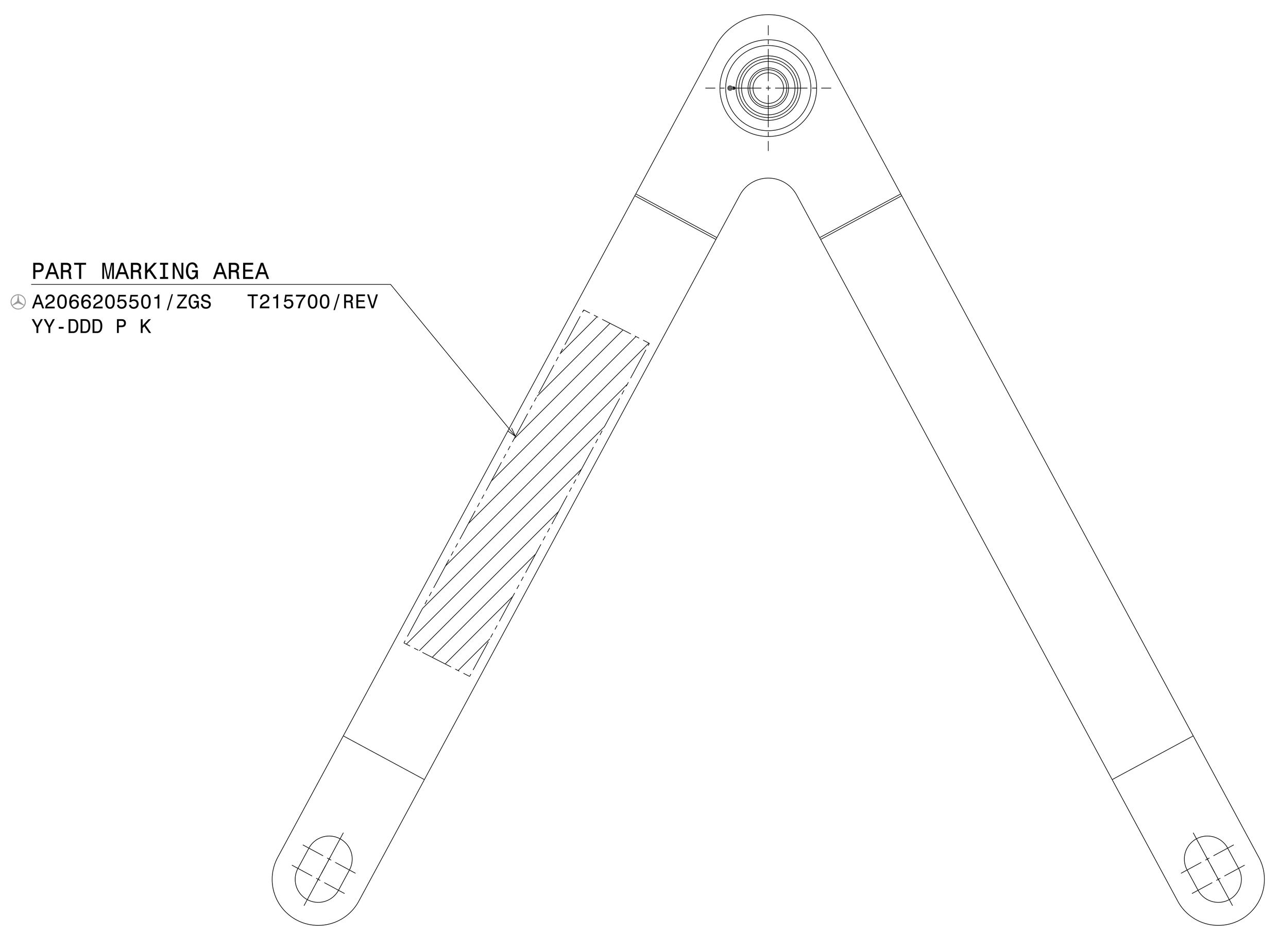
Allgemeintoleranzen nach General tolerances acc. to MBN 10 231		
Symbol	Toleranz Tolerance -Art -Wert -type-value	Bedeutung / Meaning
(datum target symbol)	0	Bezugsstellen nach Datum targets according MBN 11 011
(surface profile symbol)	2 X Y Z	Flaechenformtoleranz fuer umgeformte Flaechen Surface tolerance for formed surfaces
(flatness symbol)	0.6	Ebenheit im Anschlussbereich Flatness in the connecting area
(line profile symbol)	2 X Y Z	Linienformtoleranz fuer geschnittene Kanten Line tolerance for cut edges
(arrow symbol)		Materialseite Side of material
(position symbol)	⌖ 0.6 X Y Z	Positionstoleranz fuer Loecher Position tolerance for holes
(position symbol)	⌖ 0.4 X Y Z	Positionstoleranz Fixierloecher (Bezugselemente) fuer die nicht fixierte Raumrichtung Position tolerance for locating holes (reference elements) of the not defined direction of space
∅	+0.2 -0.1	Lochdurchm. allg. bzw. Formkontur Hole diameter general resp. shape
(bending symbol)	+2	Biegeradien / Bending radii
(free cut symbol)	+2	Freischnitte / Free cuts



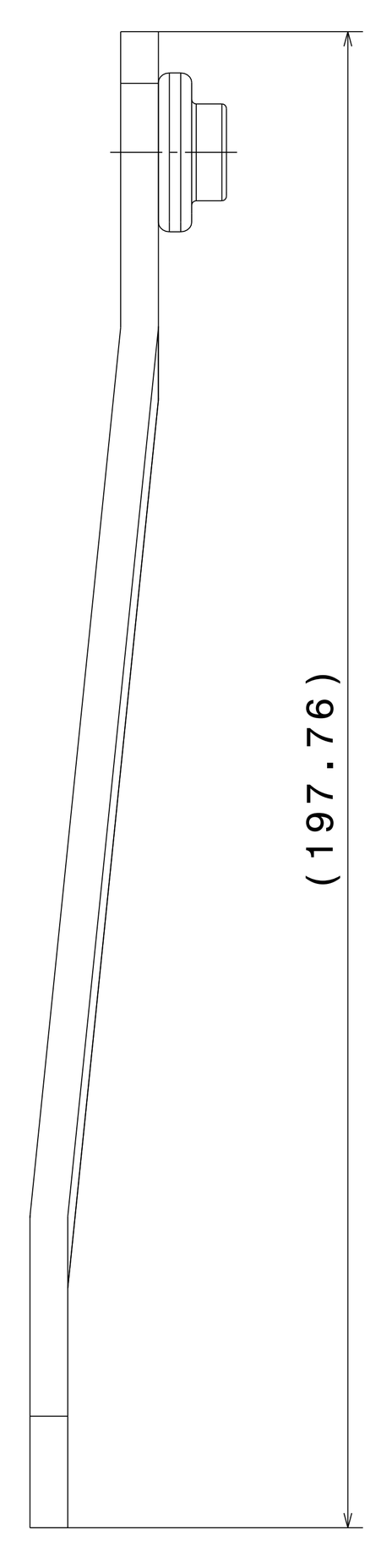
Section cut C-C
Scale: 5:1
(G-10)



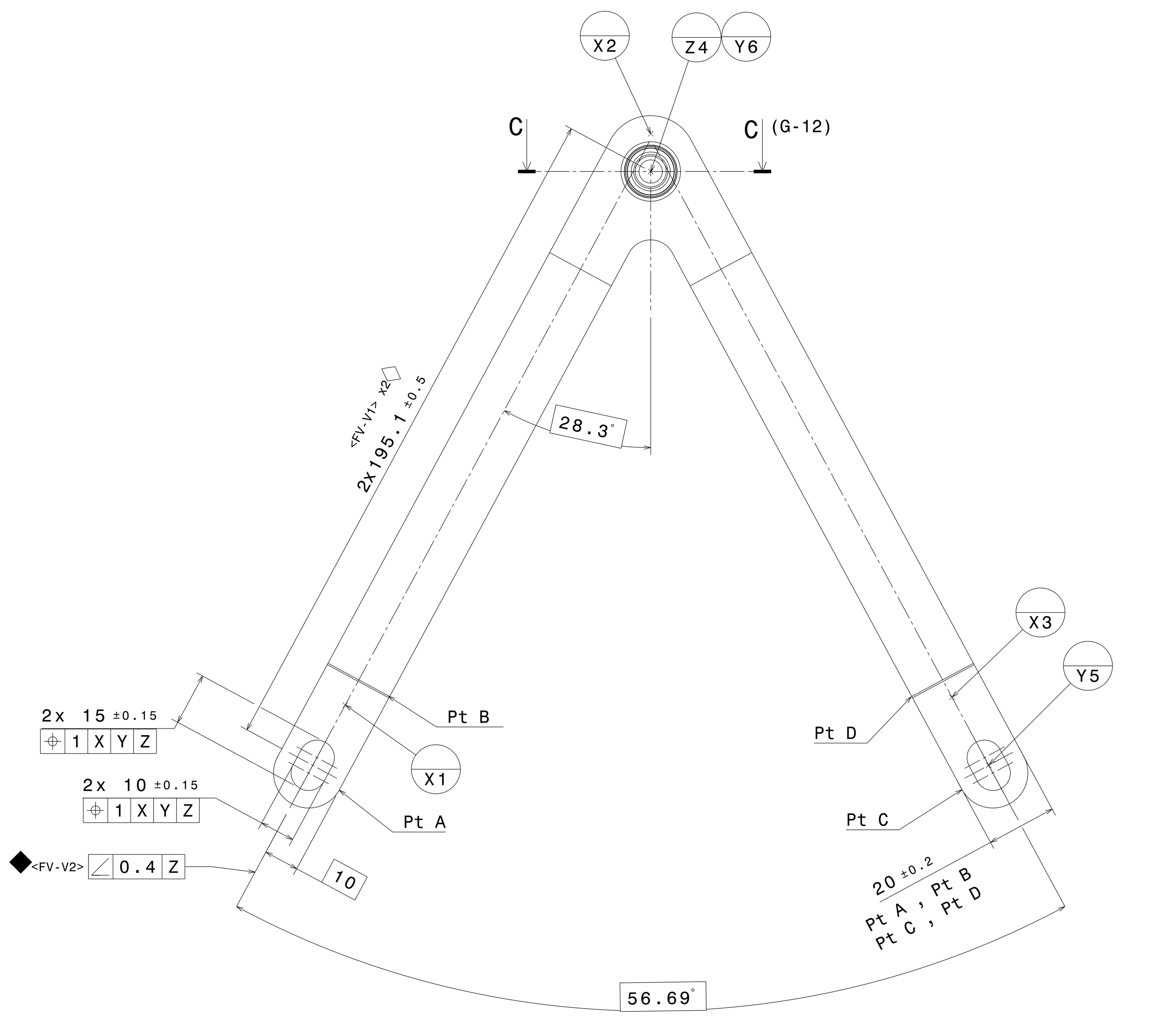
Isometric view
Scale: 1:2



Rear view
Scale: 1:1

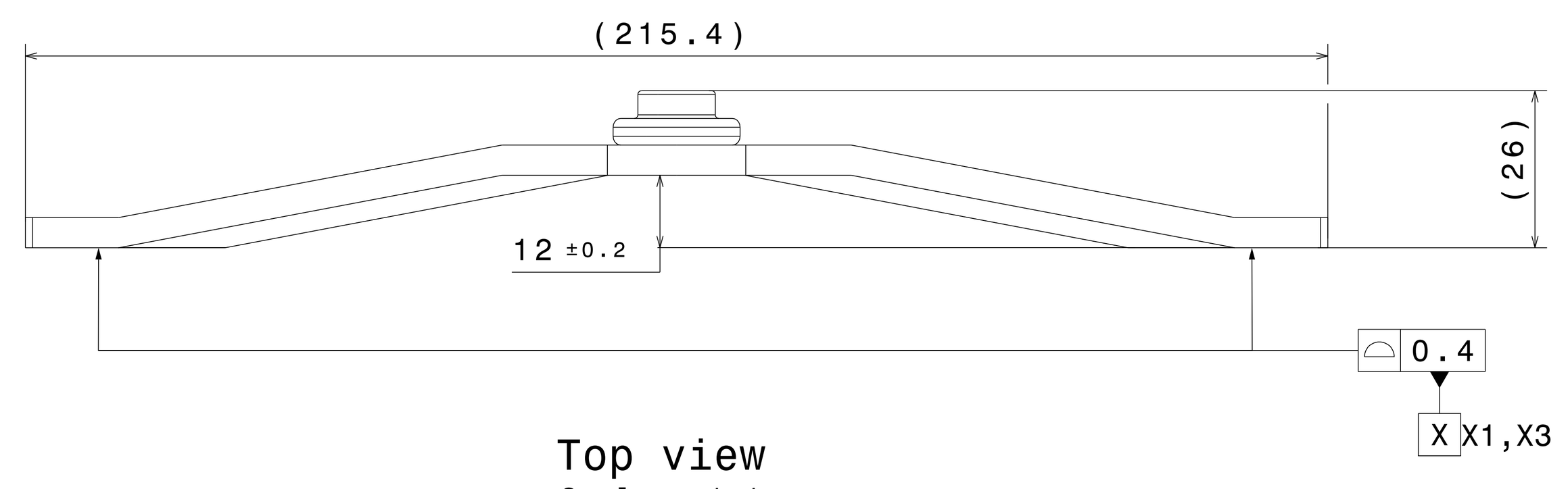


Right view
Scale: 1:1



Front view
Scale: 1:1

Reference points in vehicle axis system				
Datum	X	Y	Z	Notes
X1	-626.5	87.2	220.7	"X" Ref surface of part
X2	-614.5	0	383.9	
X3	-626.5	-86	222.9	
Z4	-614.5	0	373.1	"Z" Ref center point of hole
Y5	-626.5	-96.5	203.5	""Y" Ref center of Oblong hole
Y6	-614.5	0	373.1	"Y" Ref center point of hole



Top view
Scale: 1:1

General Requirements

1)Max. burr height (+0.3mm), Max. notches depth (-0.3mm) allowed.
2)Compliance with environmental, health and occupational safety requirements for regulated substance or process material restriction according to DBL 8585
3)Part marking position - See drawing reference :
According to customer MBN 10435 (logo, customer part number, ZGS + index)
According to Valeo requirement (logo, part number + index, daily production date, material, country of origin)
4)Form / shape : refer to CAD model provided in the defined revision level - CAD revision level is always master
5)Gaging: supplier must demonstrate capability for SPPC relevant characteristics using statistical analysis
6)Formability: forming/stamping simulation to be presented by supplier and to be approved by Valeo
7)Appearance requirements: see "book of defects"
8)GD&T symbology: Daimler MBN 11011i
9)Weight tolerance: ± 5%
10)No change in manufacturing process or product design without Valeo approval
11)All tests of functional and material DBL by Daimler to be performed and documented by supplier
12)Forming limitations
Max.allowable thinning: 11%
Max.allowable thickening: 10%
13)Thickness tolerance according to MBN_10231
14)Testing of the thickness e-coating every batch.
14a)Pullout and torque testing according to MBN 10365. Pullout Torque M8 ≥ 31.2N_m.<F>
15)Insulating plastic coating (Nycoat) on the thread before e-coating.
16)No Scratch / Failure impacting the surface treatment or mechanical properties
17)No material cracks allowed.
18)E-Coating should not impact the screw thread quality.
19)Display of crimping is to be understood schematically and the crimping design must be agreed with nut supplier to fulfill the RPA requirements.
20)Corrosion requirement for assembly : 720 hours salt spray test DIN EN ISO 9227 NSS (h).

R Marking	Regulation Theme	Standard number for Global Product	Regulation number for Country Specific Product
<NT-R1> R	1. Material Restrictions 2. Reusability, Recyclability and Recoverability (RRR) 3. Material Marking	Valeo BRDS & TDOC_100363499	1907/2006/CE
			2000/53/CE
			UNECE R133
			GBT 30512:2014
			Act 11789 (K-REACH)
			27448
			AIS 129

SPPC Sum Up

Internal	2	◆
Internal Followed	2	◇
Customer	0	◆
Customer Followed	0	◇
Safety and/or Regulation	1	S R
Other	1	

◆	SIGNIFICANT CHARACTERISTICS Cpk ≥ 1.66	2
◇	FUNCTIONAL CHARACTERISTICS Cpk ≥ 1.33	2
<F>	FUNCTIONAL CHARACTERISTICS WITHOUT CAPABILITY REQUIREMENT	1

Drawing assumes ISO-14405
E (envelope Principle) ,
unless otherwise specified

REV	ECO NUMBER	RESPONSIBLE	DATE	DESCRIPTION OF CHANGE
E.01		K.GANESH / W.HIRNING	2020/12/17	1)Updated DBL 9440.47 was DBL 8451.76. (H-15) 2)Material updated 35B2 was Steel. (I-15)
E	TCO_100423021_01	AT / GK / VL	2020/06/30	1)Drawing updated based on R02V22. 2)Criping nut replaced from T86481C to T513924. 3)Material updated. 4)Added Material Regulation Table.
D	TCO_100531228_01	WH / LN / VL	2020/09/14	Drawing updated for blank release.
C	TCO_100345783_01	VV / VL / KD	2019/07/17	1.Drawing updated for Tool Go. 3D version R02V17. 2.Tolerances , Datum Points updated and 20+/-0.2 dimension location revised. 3.SPPC's Updated. 4.Surface requirement updated. 5.DBL 7381.00 updated, it was DBL 7381.22.
B	TCO_100253765_01	SB / VL	2019/01/30	1)Treatment Coating details updated in BOM . 2)Drawing updated based on R02V14.
A	TECO_100195028	SB / VL / MA	2018-08-16	Initial release for prototype.

All units shown are in millimeters (mm), unless otherwise indicated.
All surface finish is in micrometers (µm), unless otherwise indicated.

Template update: 2020/09/14

Reason: -
Interchangeability -
Checked -
Tech. Checked -
Customer: DAIMLER | REV
Part A2066205501 | ZGS 000
Drawing -

Former Part N°	Rev	Prototype Drw	Rough Part N°	Dev Code	Project Code
-	-	-	-	-	BR206

MATERIAL SEE CHART

TREATMENT COATING E-Coating Black acc.to DBL 7381.00 (For additional requirement see gen.requirement no.20)

TITLE & DESCRIPTION
Front End Module
ASSEMBLY V-SHAPE NVH-BAR

APPROVED BY

APPROVED DATE

ESTIMATED MASS SEE CHART

CREATED BY Vengatesh L

CREATION DATE 2018/08/16

Thermal Front End
Germany
Valeostrasse 1, 74321 Bietigheim-Bissingen

DRAWING NUMBER DRW_T215700_001
DRAWING REV. E.01
PART NUMBER SEE CHART

SCALE 1 : 1 First Angle Std
SIZE A0
SHEET 1 / 1