

Addendum-I

Sr No. 1:- Price Variation Clause

- 1.1 Price quoted by the Bidder shall be fixed throughout the performance of the Contract and not subject to variation on any account except for 25kV Switchgears, OHE masts / portals, catenary & contact wires and 25kV Cu cables. The PV formula for these items are provided hereunder.
- 1.2 The variation in rates of 25kV circuit breakers / interrupters and cables will be governed by IEEMA price variation formula for switchgear & control gears and for cables respectively. Latest date of delivery, for considering price variation, shall not be later than 180 days before the relevant original Key Date for commissioning. For instance, if original Key Date for commissioning is 'X' and date of delivery of 160 days prior to 'X' – the price variation shall be calculated by considering the date of delivery of 180 days prior to 'X'.
- 1.3 Price Variation clause for Contact and Catenary Wires

The price payable shall be subject to adjustment, up or down, in accordance with the following formula:

$$P_1 = P_0 * (CD_2 * L_2 - CD_1 * L_1)$$

Where:

P_0	Quoted ex-works price of contact / catenary wire		
L_1	Average LME cash settlement quotation for Copper Grade A, 60 days prior to the date of opening of the Tender		
L_2	It will be minimum of: (i) LME rates prevailing on 90 days prior to the date of offering for inspection of each lot (ii) Invoiced rate in invoice of actual imports		
CD_1	Custom duty factor should be assessed in the following manner as per example below duly considering applicable rates of taxes and duties on the days specified above		
	1	Assessable value	100
	2	Custom Duty @10%	10
	3	Net Value (1+2)	110
	4	Countervailing Duty (CVD) @16% on (3)	17.6
	5	Cess @2% on CVD	0.352
	6	Total of CVD and Cess (4+5)	17.952
	7	Total Custom Duty (2+6)	27.952
	8	Education Cess @2% on above (2% of 6)	0.559
	9	Total value (1+7+8)	128.511
	10	Less CVD (Modvat) (9-6)	110.559
	11	CD_1 factor	1.1056
CD_2	Custom duty factor prevailing 90 days prior to the date of inspection call, calculated as indicated above		

Notes:

- (i) Documentary evidence for CD_2 must be given. Attested copy of custom tariff paid will constitute reasonable evidence for this purpose.
- (ii) For prevailing LME rates, certified copy of LME rate downloaded from official website will be accepted as documentary evidence.
- (iii) LME rate in L_1 & L_2 will be converted to Indian Rupees at SBI's Selling Bills rate of exchange on the date 28 days prior to the date of opening of tender and date of delivery respectively.
- (iv) If indigenous material is used instead of imported material, CD_2 factor will be taken as 1 (one), however, CD_1 shall be calculated for the purpose of price variation as above.
- (v) CD_1 and CD_2 should be based on same item serial number of Custom Tariff. The total CD will also include special additional duty, if any.
- (vi) In case index / price data are not available for particular date due to any reason then the index / price data shall be calculated by drawing a graph of 1st working day before and 1st working day after that particular date. As per graphic line price data arrived at on that particular date may be taken.

1.4 Price variation clause for supporting steel structures

Price variation clause for galvanized steel structures for railway electrification works – the price payable shall be subject to adjustment, up or down, in accordance with the following formula:

$$P_1 = \frac{P_0}{100} * \left[15 + 58 \frac{HA}{HA_0} + 16 \frac{Zn}{Zn_0} + 11 \frac{W}{W_0} \right]$$

Where:

P_1	Price payable as adjusted in accordance with the above formula
P_0	Price quoted
HA_0	Price of heavy angles (refer notes) This price is as applicable on the first working day of the month, one month prior to the date of bid submission
Zn_0	Price of electrolytic high grade zinc (refer notes) This price is as applicable on the first working day of the month, one month prior to the date of bid submission
W_0	Consumer price index number for industrial workers All-India published in RBI (Reserve Bank of India) Bulletin in the month, four months prior to the deadline for submission of Bids
<i>For example, if the date of Bid falls in May 2016, the applicable basic price of heavy angle (HA_0) and electrolytic high grade zinc (Zn_0) should be prevailing as on April 1, 2016 and all India average consumer price index number (W_0) should be for the month of Jan 2016.</i>	
<i>The above prices and indices except for W_0 are as published by IEEMA vide circular reference no. IEEMA (PVC)/TLT/2001/R1</i>	
HA	Price of heavy angles (refer notes) This price is as applicable on the first working day of the month, two months prior to the date of delivery.
Zn	Prices of electrolytic high grade zinc (refer notes) This price is as applicable on the first working day of the month, two months prior to the date of delivery.
W	Consumer price index number for industrial workers All India published in RBI (Reserve Bank of India) Bulletin in the month, five months prior to the date of delivery.

For example, if the date of delivery in terms of clause given below falls in December 2016, the applicable prices of raw materials i.e. (HA) and (Zn) should be as prevailing on Oct 01, 2016. The applicable All India average Consumer Price Index no. (W) should be for the month of July 2016.

The date of delivery is the date on which the lots of material are notified as being ready for inspection / dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

Notes:

1. All prices of raw materials are exclusive of modvatable excised duty amount and exclusive of any other central, state or local taxes, octroi etc.
2. All prices are as on first working day of the month
3. The details of prices are as under:
 - a. The price of heavy angles (in Rs/MT) is the average ex-stockyard price of heavy steel angles of size 150mm x 150mm x 12mm as per IS 2062 as quoted by two steel producers. All heavy angles of size above 110mm x 110mm are deemed to be related to this price. Actually angles may not be used for tubular structures
 - b. The price of electrolytic high grade zinc (in Rs/MT) is ex-works price as quoted by the primary producer of zinc.
- 1.5 No increase in prices on account of price variation shall be admissible for periods of delays not attributable to Employer. In case of decrease, the benefit shall be passed on to the Employer even for the delayed period.
- 1.6 Total admissible price variation amount shall be subject to a ceiling of $\pm 5\%$ (five only) of the Contract Price. Further, the above price variation shall only be applicable for items quoted in Indian Rupees.

Sr No. 2 :-

Technical Data Sheet

Overhead Protection Conductor (OPC)

SN	Indications	Unit	Expected values	Values submitted
1	Manufacturer			
2	Place of manufacture			
3	Manufacturer drawing reference			
4	Standard		IS 398 (Part II)	
5	Material		ACSR	
6	Nominal cross section	Sqmm	93.3	
7	Diameter	mm	12.5	
8	Composition (of aluminium)		12 wires, each of 2.5mm dia	
9	Composition (of steel)		7 wires, each of 2.5mm dia	
10	Maximum linear weight	Kg/m	0.437	
11	Coefficient of linear expansion	Per °C	$17 * 10^{-6}$	
12	Minimum breaking load	daN	4610	
13	Elongation factor		$132 * 10^{-6}$	
14	Maximum resistivity at 20°C	μΩ.cm	2.8264	
15	Length of wire per drum	m		
16	Weight of drum with messenger wire	kg		
17	Drum type		Wood with mild steel frame	

Buried Earth Cable (BEC)

SN	Indications	Unit	Expected values	Values submitted
1	Manufacturer			
2	Place of manufacture			
3	Manufacturer drawing reference			
4	Standard		ETI/OHE/3, IS 9968 (Part 2)	
5	Cable type		Flexible copper conductor	
6	Cable size	Sqmm	35 mm ² (7 strands each 2.5mm diameter)	
7	Conducting core		Annealed copper, Class 2, IEC 228	
8	Conductor diameter			
9	Nominal overall diameter of cable			
10	Approx weight of cable			
11	Minimum bending radius			

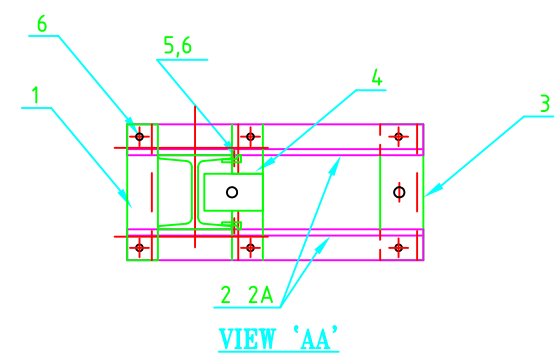
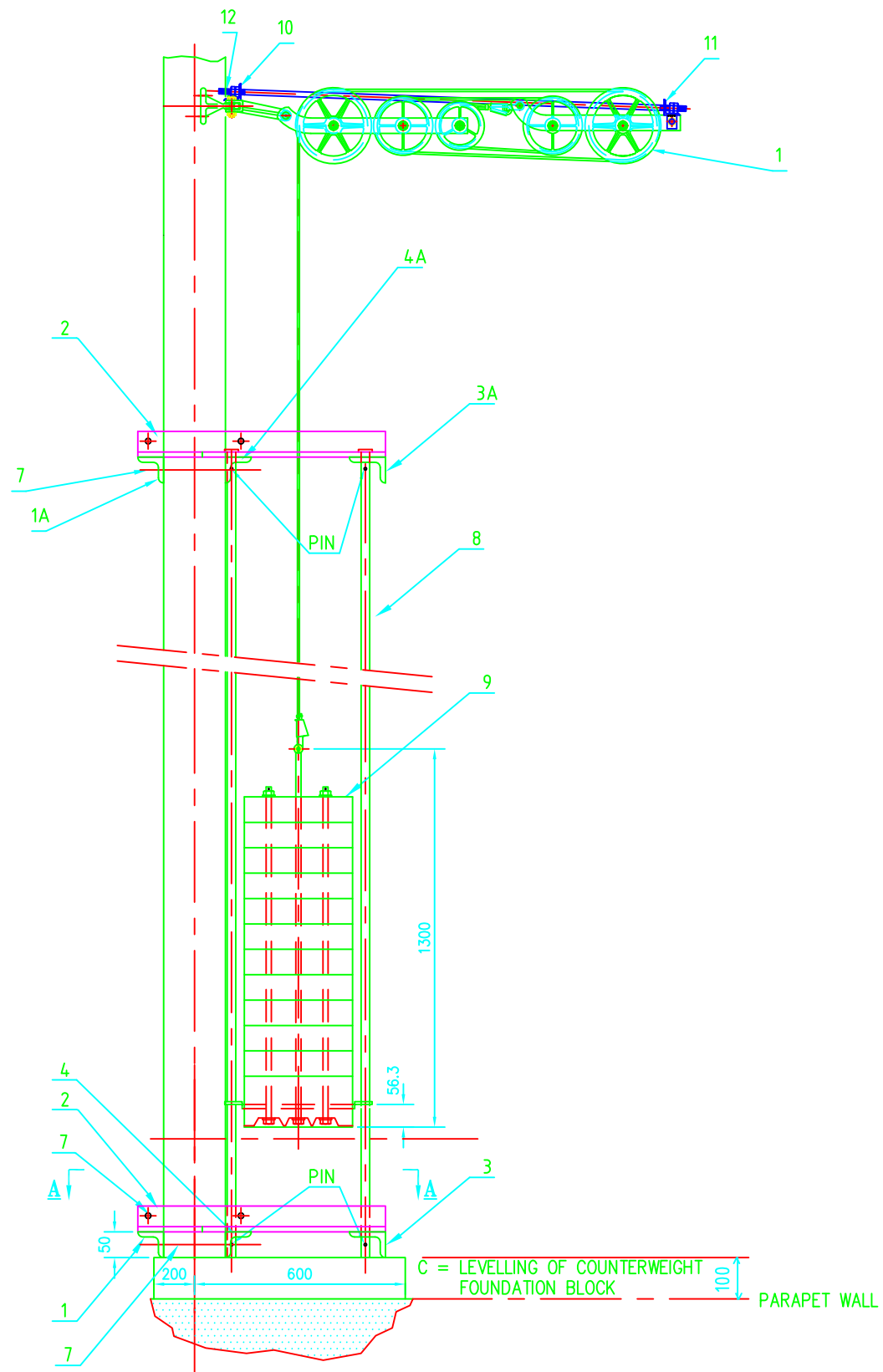
Sr No. 3 :-**Drawings for Supply items of BOQ of Section-I Schedule F**

FOLIO NUMBER	FOLIO TITLE	REVISION										DRAWN
01	TITLE	0										NP
		+										
02	Mounting on H Pole	0										NP
		+										
03	Guide Tube Fastening	0										NP
		+										
04	Pulleys	0										NP
		+										
05	Trapezoidal Counter Weight	0										NP
		+										
06	Cable Assembly	0										NP
		+										
07	Anti Falling Device for Regulating Equipment	0										NP
		+										

TENDER DRAWING

LEGEND	
+ New Folio	* Revised Folio
- Supressed Folio	= Non revised Folio

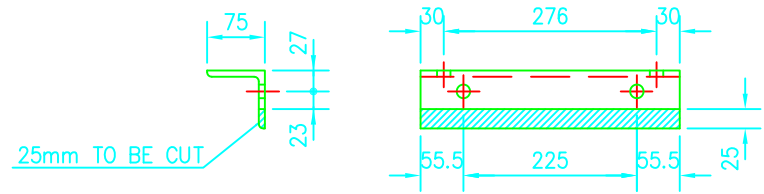
DRG. NO.	CEDD1L2-BPFB-T-OH-TYPI-1023-0	REV. 0	SCALE. N.T.S.	STATUS TENDER
<p>GENERAL ARRANGEMENT OF AUTO TENSIONING DEVICES (5 PULLEY BLOCK TYPE)</p>				
TYPICAL				



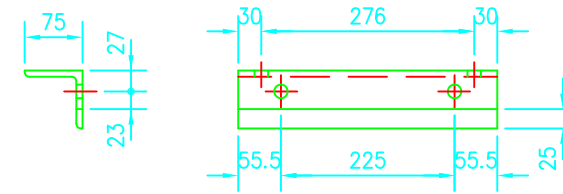
12	2	20mm ϕ GS ROD 2000mm LONG THREADED 100 AT BOTH ENDS WITH NUT, LOCK NUT & COTTER PIN	GALVANIZED STEEL
11	1	ANCHOR SIDE CLEAT ANGLE	GALVANIZED STEEL
10	1	MAST SIDE ANGLE	GALVANIZED STEEL
9	1	TRAPEZOIDAL COUNTER WEGHT ASSEMBLY	RDSO DESIGN
8	2	COUNTER WEIGHT GUIDE TUBE	RDSO DESIGN
7	8	BOLT M16 260/100 WITH WASHER, NUT & LOCK NUT	
6	8	BOLT M16 50/37 WITH WASHER, NUT & LOCK NUT	
5	2	CLIPPING ANGLE 75X75X10	GALVANISED STEEL
4A	1	TOP GUIDE TUBE BRACKET(WELDED TO PLATE) 75X75X8	GALVANISED STEEL
4	1	BOTTOM GUIDE TUBE BRACKET(WELDED TO PLATE) 75X75X8	GALVANISED STEEL
3A	1	GUIDE TUBE BKT. TOP ANGLE 75X75X6	GALVANISED STEEL
3	1	SPECIAL GUIDE TUBE BKT. BOTTOM ANGLE 75X75X6	GALVANISED STEEL
2A	1	GUIDE TUBE SUPPORT ANGLE 65X65X6	GALVANISED STEEL
2	1	GUIDE TUBE SUPPORT ANGLE 65X65X6	GALVANISED STEEL
1A	1	TOP BRACKET SUPPORT ANGLE 65X65X6	GALVANISED STEEL
1	1	BOTTOM BRACKET SUPPORT ANGLE 65X65X6	GALVANISED STEEL
Item	Qty	Description	Spaecification/Drg.

TENDER DRAWING

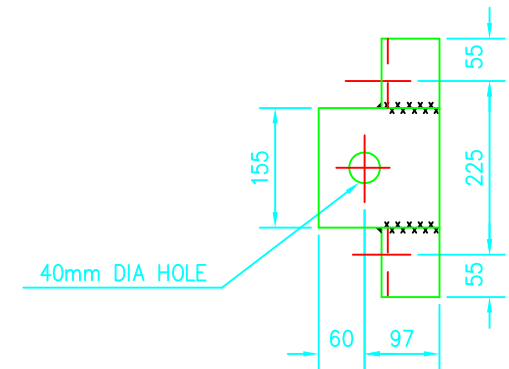
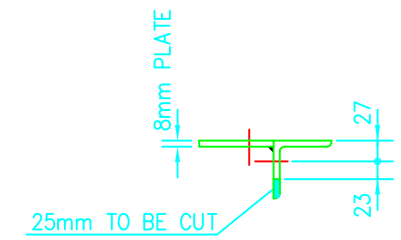
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	MOUNTING ON H POLE	Sheet No. 2/7
		Scale -



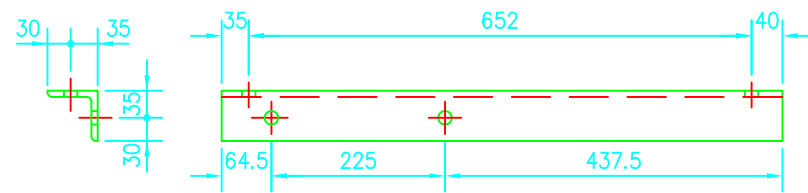
DETAIL OF ITEM 1



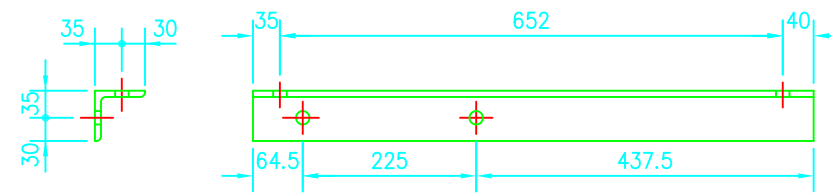
DETAIL OF ITEM 1A



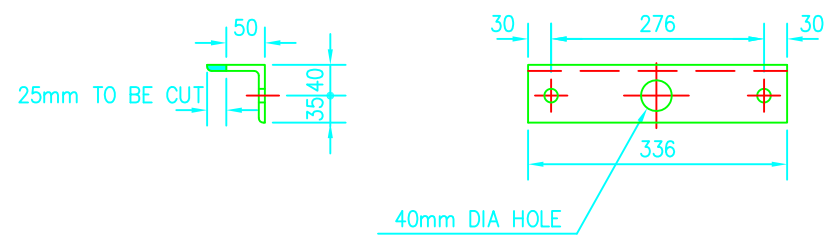
DETAIL OF ITEM 4



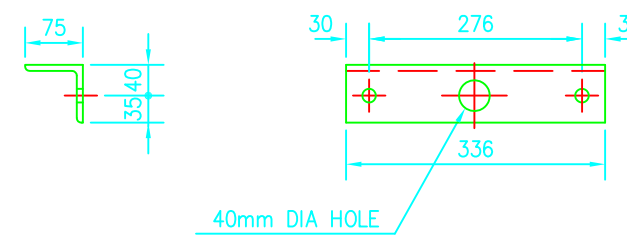
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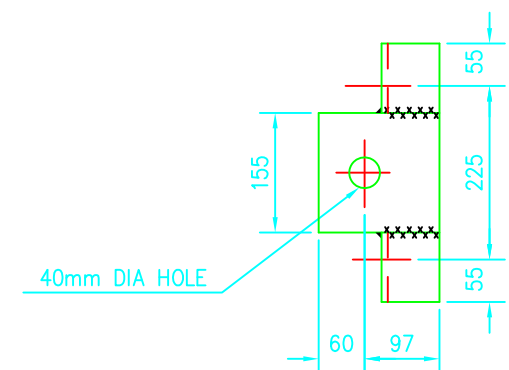
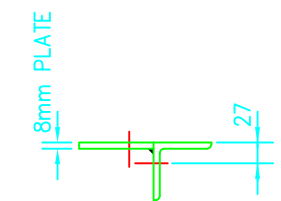
DETAIL OF ITEM 2A



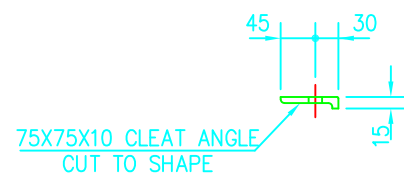
DETAIL OF ITEM 3



DETAIL OF ITEM 3A



DETAIL OF ITEM 4A

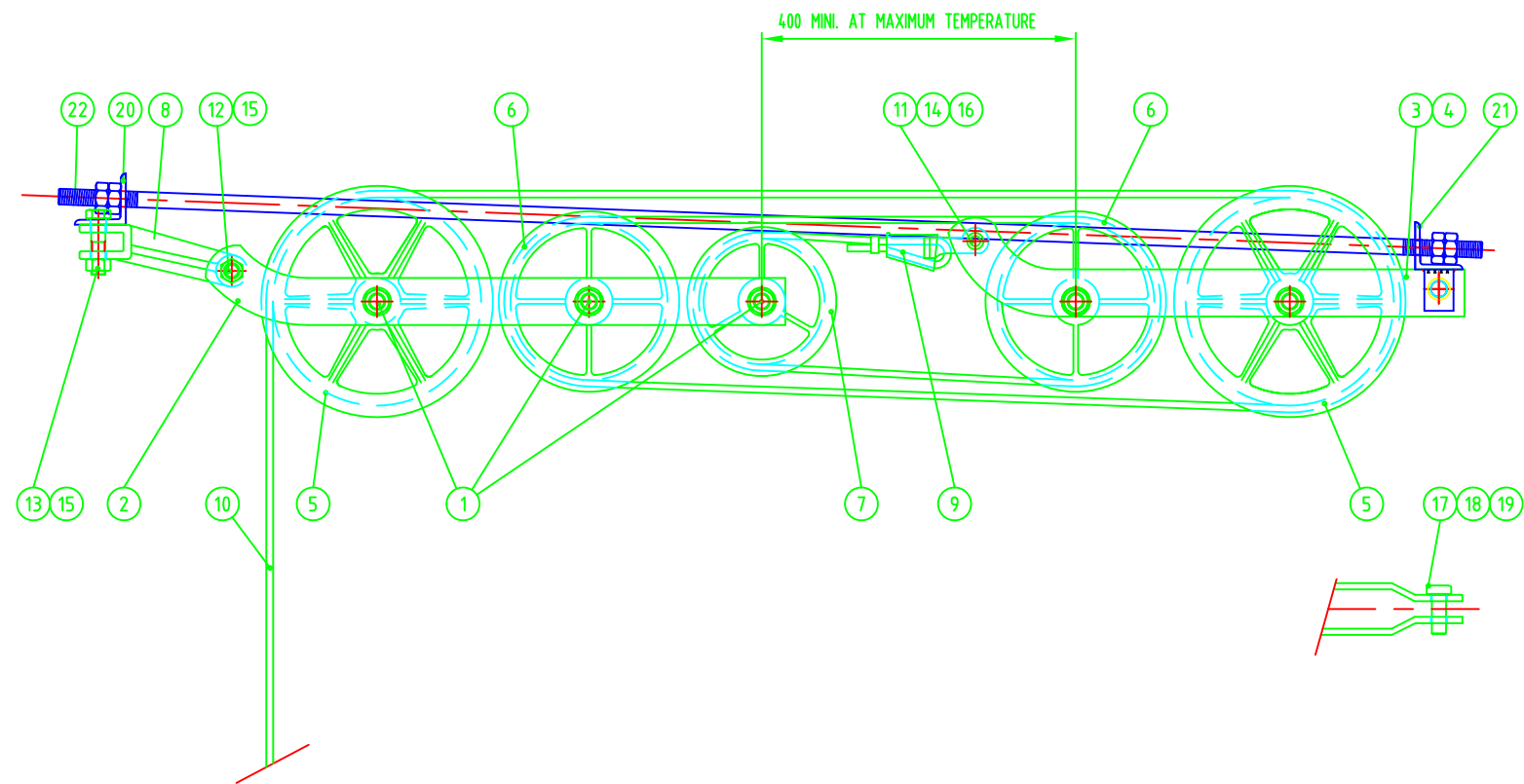


DETAIL OF ITEM 5

TENDER DRAWING

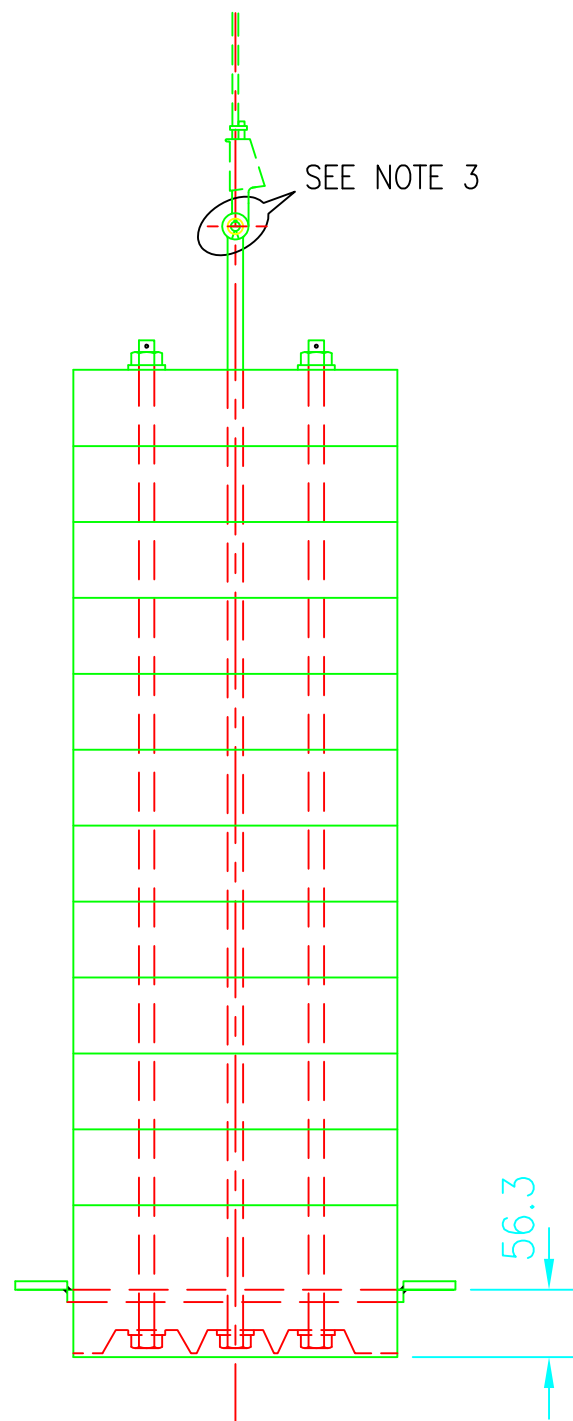
GUIDE TUBE FASTENING	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1023-0	Revision 0
		Sheet No. 3/7
		Scale -

22	2	20mm ϕ GS ROD 2700mm LONG THREADED 100 AT BOTH ENDS WITH NUT LOCK NUT & COTTER PIN	GALVANIZED STEEL	
21	1	ANCHOR SIDE CLEAT ANGLE	GALVANIZED STEEL	
20	1	MAST SIDE ANGLE	GALVANIZED STEEL	
19	4	PIN V5-36	COPPER	
18	1	WASHER M18	GALVANIZED STEEL	
17	1	AXLE ϕ 18-50	GALVANIZED STEEL	
16	2	PIN V3.2-25	COPPER	
15	2	PIN V4-32	COPPER	
14	2	WASHER M12	STAINLESS STEEL	
13	1	BOLT H,M 18-75	GALVANIZED STEEL	
12	1	BOLT H,M 18-90	GALVANIZED STEEL	
11	1	ANCHOR AXLE	STAINLESS STEEL	
10	1	PARALLEL WIRE CABLE MADE UP OF 8 STRANDS OF 1+6, 6+12 WIRE OF 0.45mm. CENTRAL CORE MADE UP OF 4+4 STRANDS ϕ 8.75mm PREFORMED, INTERNALLY GREASED (SHELL 6604). STAINLESS STEEL 18/8. LENGTH 13m METER WEIGHT = 0.345 KG	STAINLESS STEEL	
9	1	ANCHOR CLAMP ASSEMBLY	207632	
8	1	ANCHOR CLEVIS	GALVANIZED CAST-IRON	
7	1	PULLEY DIA. 160	ALUMINIUM ALLOY	
6	2	PULLEY DIA. 200	ALUMINIUM ALLOY	
5	2	PULLEY DIA. 265	ALUMINIUM ALLOY	
4	1	RIGHT SLIDING ARM	HOT DIP GALVANIZED STEEL	
3	1	LEFT SLIDING ARM	HOT DIP GALVANIZED STEEL	
2	2	ANCHOR ARM	HOT DIP GALVANIZED STEEL	
1	5	DETAILED PULLEY	STAINLESS STEEL	
		TENSIONING DEVICE ASSEMBLY INCLUDING:	207617	30
Item	Qty	Description	Material-Standard-drawing Technical specification	KG Unit mass



TENDER DRAWING

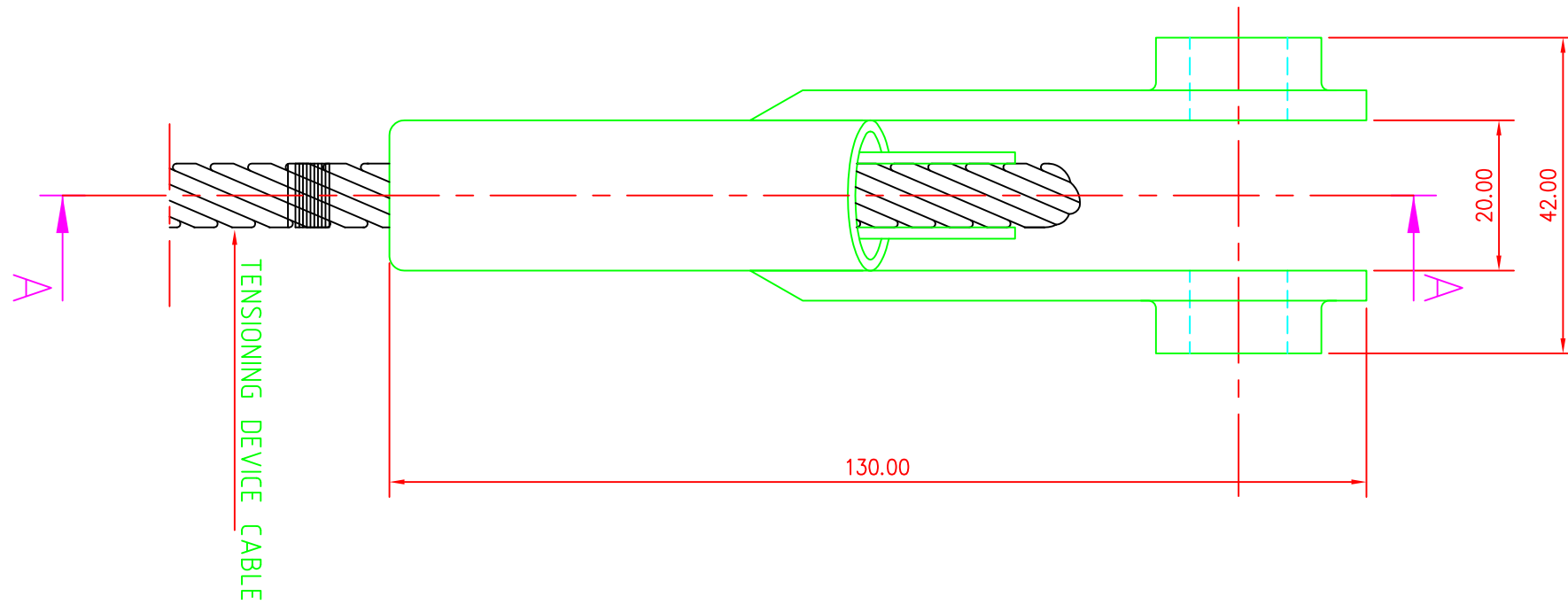
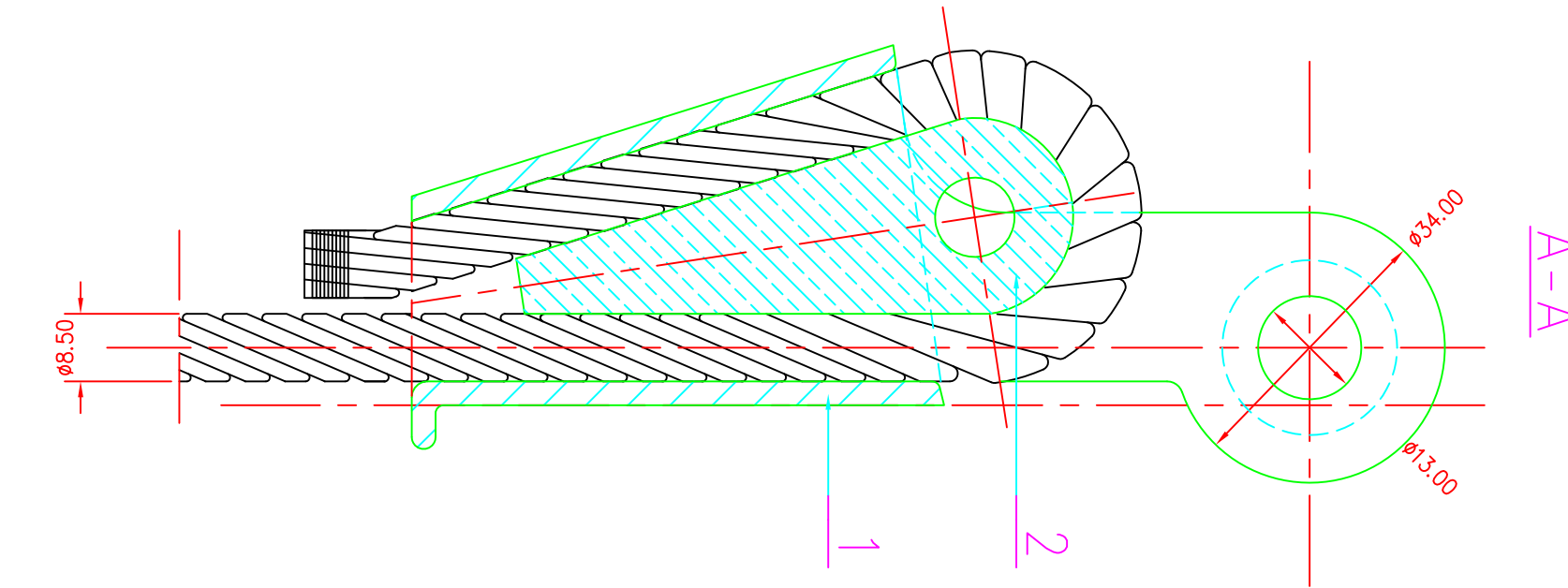
DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1023-0	Revision 0
PULLEYS	Sheet No. 4/7
	Scale -



- NOTE :-
1. GUIDE PLATE 100X10X370 LONG WITH 2 HOOKS WELDED (IDENT No.:5096 OF RDSO DESIGN) TO BE INVERTED AND FITTED IN THE BASE COUNTER WEIGHT PIECE.
 2. THE COUNTER WEIGHT ASSEMBLY TO BE MOUNTED SUCH THAT 150mm WIDE SIDE OF THE COUNTER WEIGHT IS ORIENTED TOWARDS THE MAST
 3. THE EYE AT THE WIRE ROPE END OF COUNTER WEIGHT EYE ROD (R.I. No. 5095 OF RDSO) SHOULD MATCH WITH CLAMP BODY (sheet 6/7) TO RECEIVE $\phi 12$ STAINLESS STEEL BOLT.

TENDER DRAWING

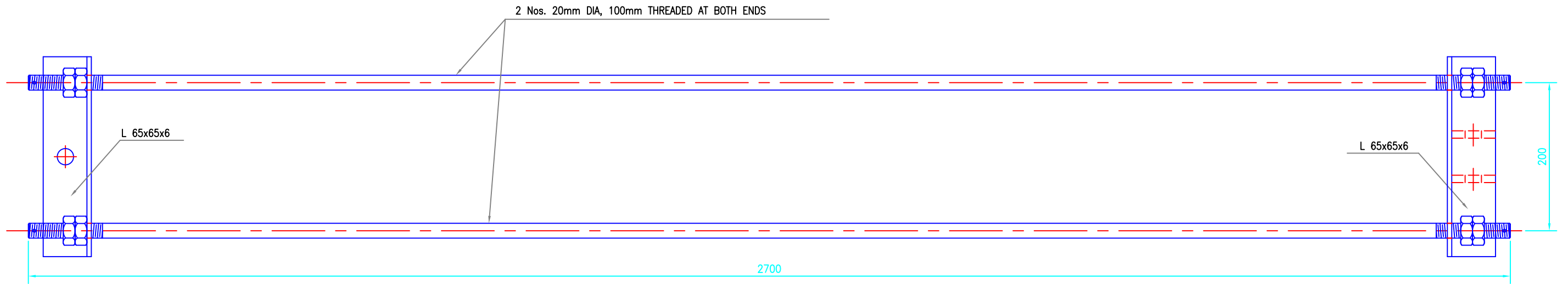
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	TRAPEZOIDAL COUNTER WEIGHT	Sheet No.	5/7
		Scale	-



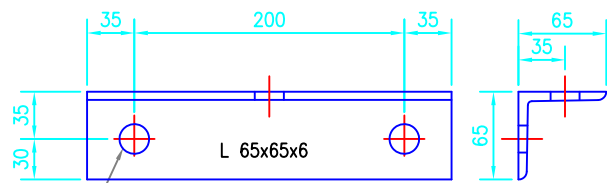
2	1	WEDGE	COPPER ALLOY	
1	1	CLAMP BODY	COPPER ALLOY	
Item	Qty	Description	Material-drawing	KG Unit mass

TENDER DRAWING

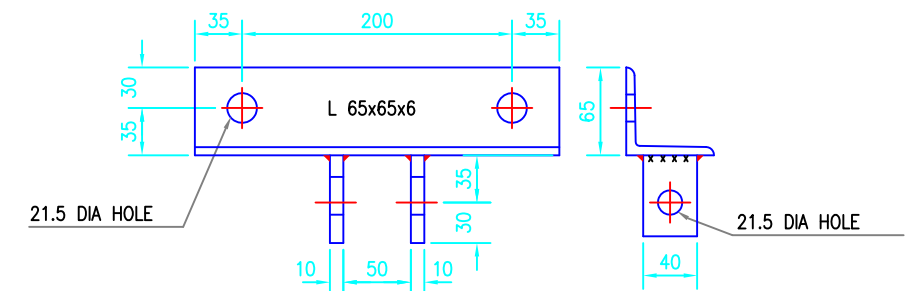
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	CABLE ASSEMBLY	Sheet No.	6/7
		Scale	-



ITEM 22(of Sht 4/7)



ITEM 20(of Sht 4/7)



ITEM 21(of Sht 4/7)

TENDER DRAWING

	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1023-0	Revision 0
	ANTI FALLING DEVICE FOR REGULATING EQUIPMENT	Sheet No. 7/7
		Scale -

FOLIO NUMBER	FOLIO TITLE	REVISION										DRAWN
		0	1	2	3	4	5	6	7	8	9	
01	TITLE	0										NP
02	Parts List	0										NP
03	Assemblies with Pole Location 4.2 from Nearest Rail	0										NP
04	Assemblies with Pole Location <4.2 from Nearest Rail	0										NP

TENDER DRAWING

LEGEND	
+ New Folio	* Revised Folio
- Supressed Folio	= Non revised Folio

DRG. NO.	CEDD1L2-BPFB-T-OH-TYPI-1002-0	REV.	0	SCALE	N.T.S.	STATUS	TENDER
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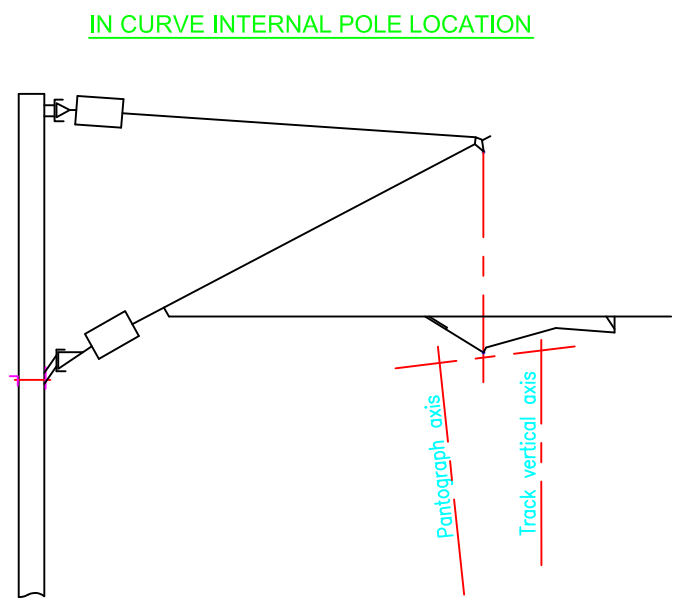
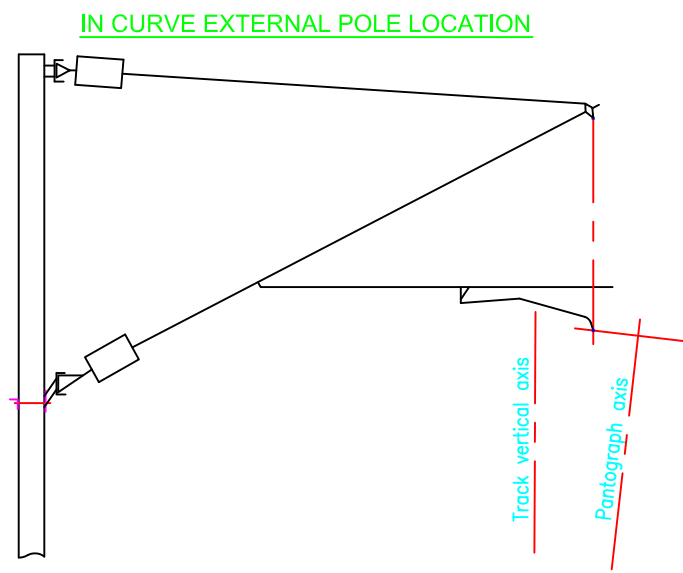
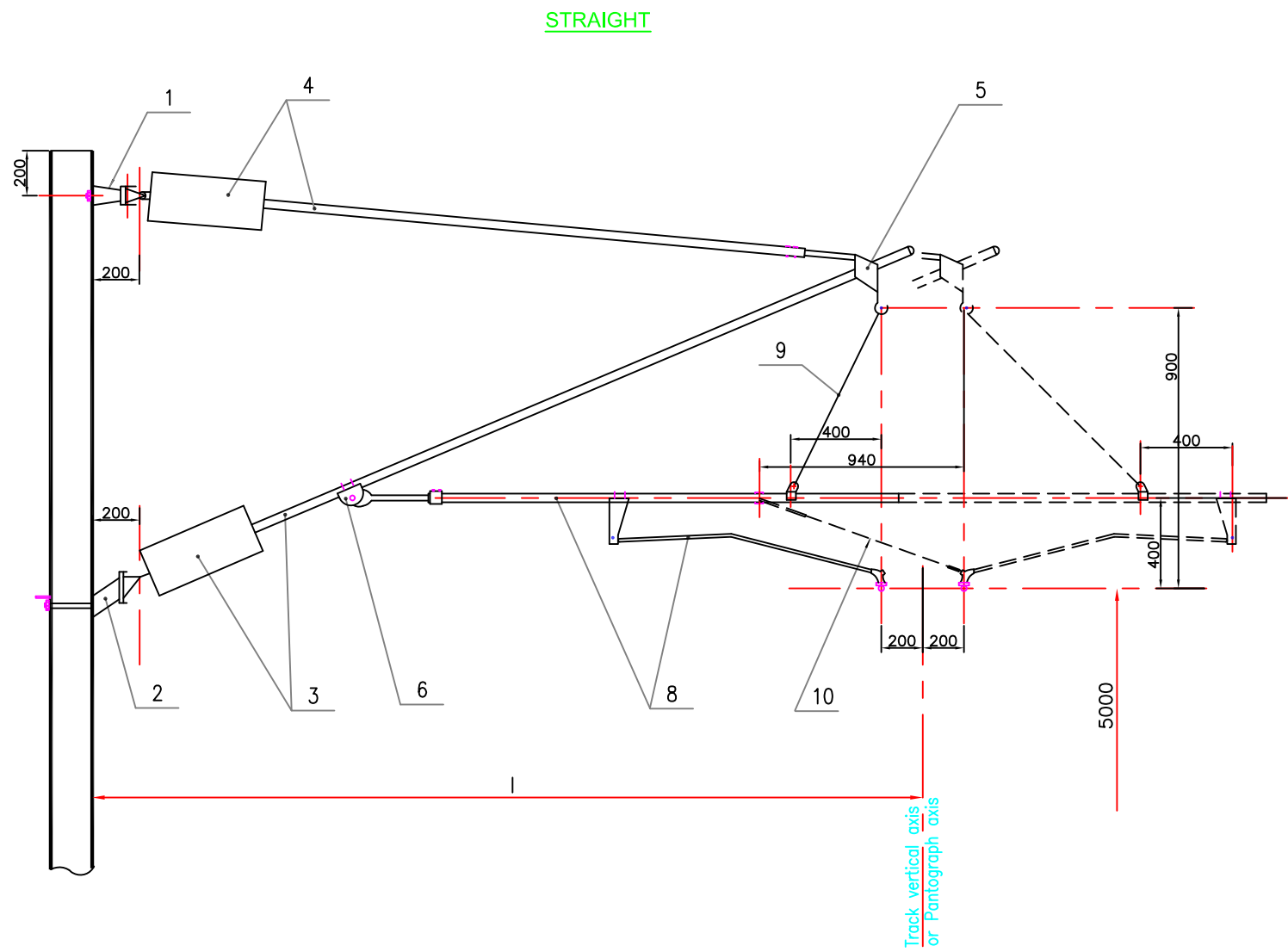
**GENERAL ARRANGEMENT OF
SINGLE CANTILEVER ON NORMAL MAST**

TYPICAL

10	Wind stay dropper	CEDD1L2-BPFB-T-OH-TYPI-1021-0
9	Register arm cable dropper	CEDD1L2-BPFB-T-OH-TYPI-1019-0(sheet 4)
8	∅38 – 4 tube register arm with 1.15m bent steady arm	CEDD1L2-BPFB-T-OH-TYPI-1019-0(sheet 5)
7	∅38 – 4 tube register arm with 1m straight steady arm	
6	Register arm fitting on ∅49 – 4.5 tube	CEDD1L2-BPFB-T-OH-TYPI-1019-0(sheet 2)
5	Messenger suspension on ∅49 – 4.5 tube	CEDD1L2-BPFB-T-OH-TYPI-1017-0(sheet 2)
4	Adjustable insulated top tube ∅38 – 4.0	CEDD1L2-BPFB-T-OH-TYPI-1016-0(sheet 8)
3	Insulated ∅49 – 4.5 bracket tube	RDSO TYPE
2	Swivelling fastening for bracket tube	RDSO TYPE
1	Swivel Fastening for top tube	CEDD1L2-BPFB-T-OH-TYPI-1016-0(sheet 2)
REFERENCE	PARTS DESCRIPTION	DRG. REFERENCE

TENDER DRAWING

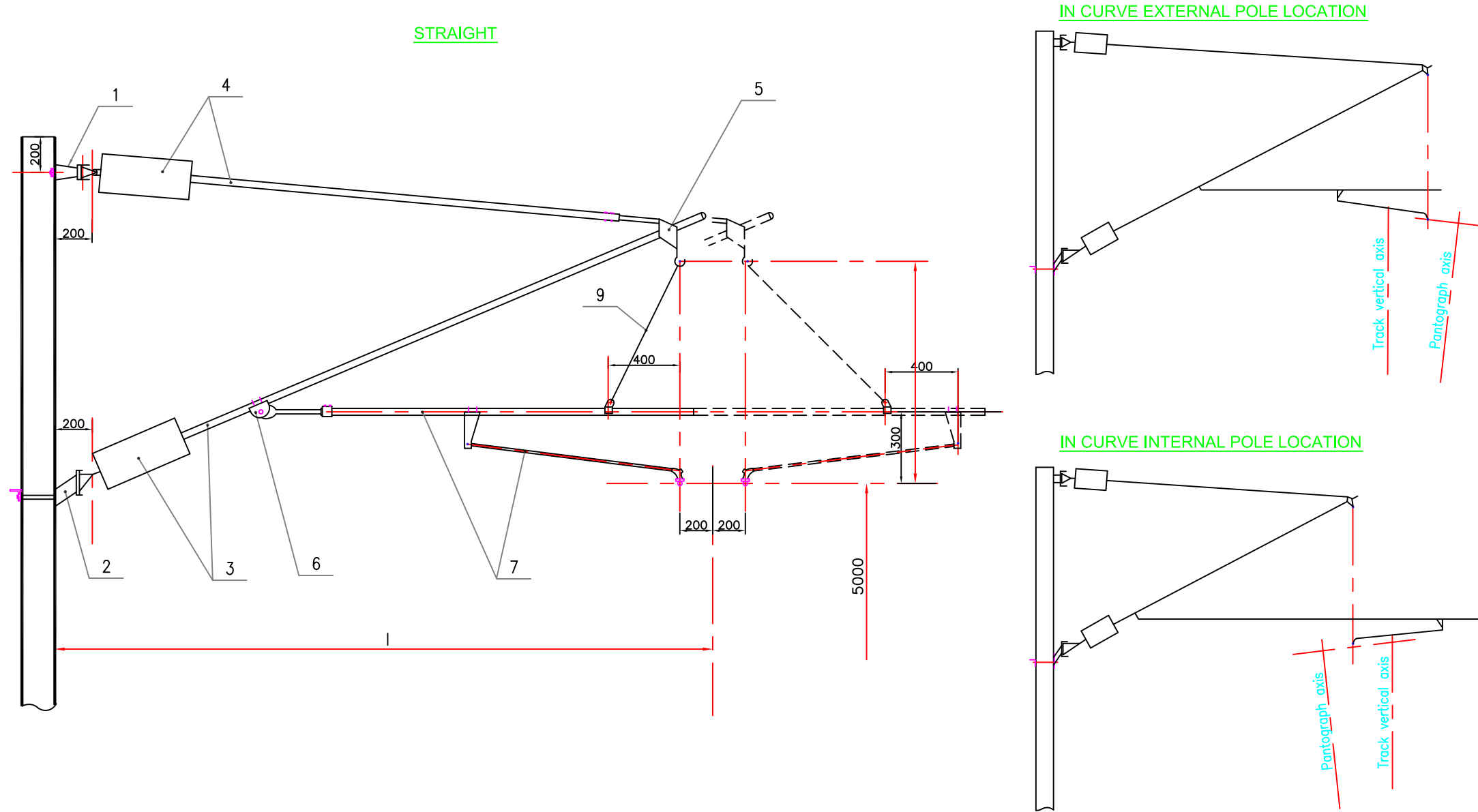
	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1002-0	Revision 0
	PARTS LIST	Sheet No. 2/4
		Scale -



REGULATED CATENARY

TENDER DRAWING

	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1002-0	Revision 0
	ASSEMBLIES WITH POLE LOCATION 4.2 FROM NEAREST RAIL	Sheet No. 3/4
		Scale -



UNREGULATED CATENARY - SPEED < 60 km/h

TENDER DRAWING

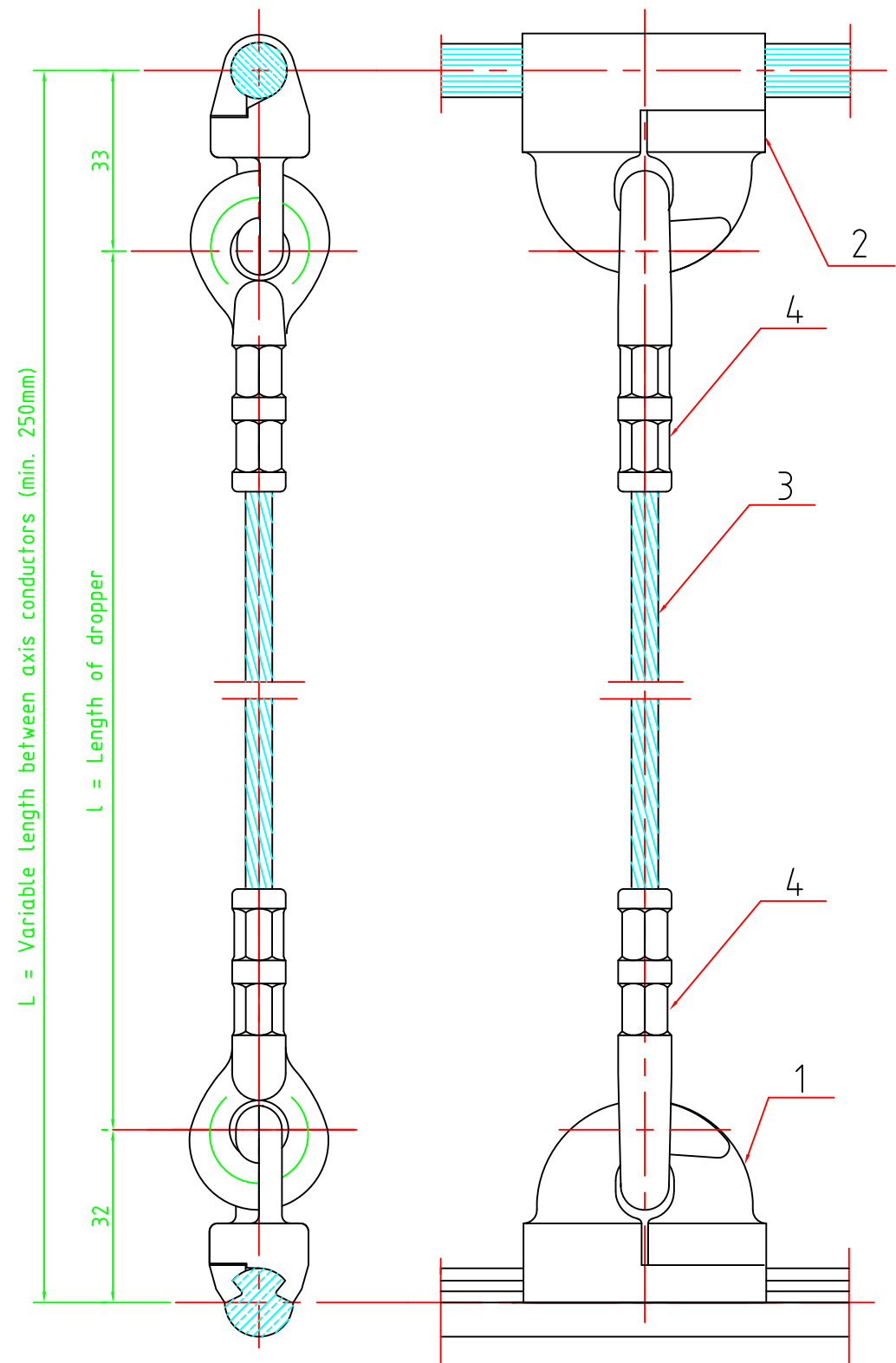
DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1002-0	Revision	0	
	ASSEMBLIES WITH POLE LOCATION <4.2 FROM NEAREST RAIL	Sheet No.	4 / 4
		Scale	-

FOLIO NUMBER	FOLIO TITLE	REVISION										DRAWN
		0	1	2	3	4	5	6	7	8	9	
01	TITLE	0										NP
		+										
02	Dropper Assembly	0										NP
		+										
03	Dropper Assembly–Hook Clamp Dropper for 15P sq mm Contact Wire	0										NP
		+										
04	Dropper Assembly–Hook Clamp Dropper for Cable Messenger	0										NP
		+										

TENDER DRAWING

LEGEND	
+ New Folio	* Revised Folio
- Supressed Folio	= Non revised Folio

DRG. NO.	CEDD1L2-BPFB-T-OH-TYPI-1024-0	REV. 0	SCALE. N.T.S.	STATUS	TENDER
GENERAL ARRANGEMENT OF DROPPER ASSEMBLY					
TYPICAL					



CONDUCTOR PARTICULAR	DROPPER
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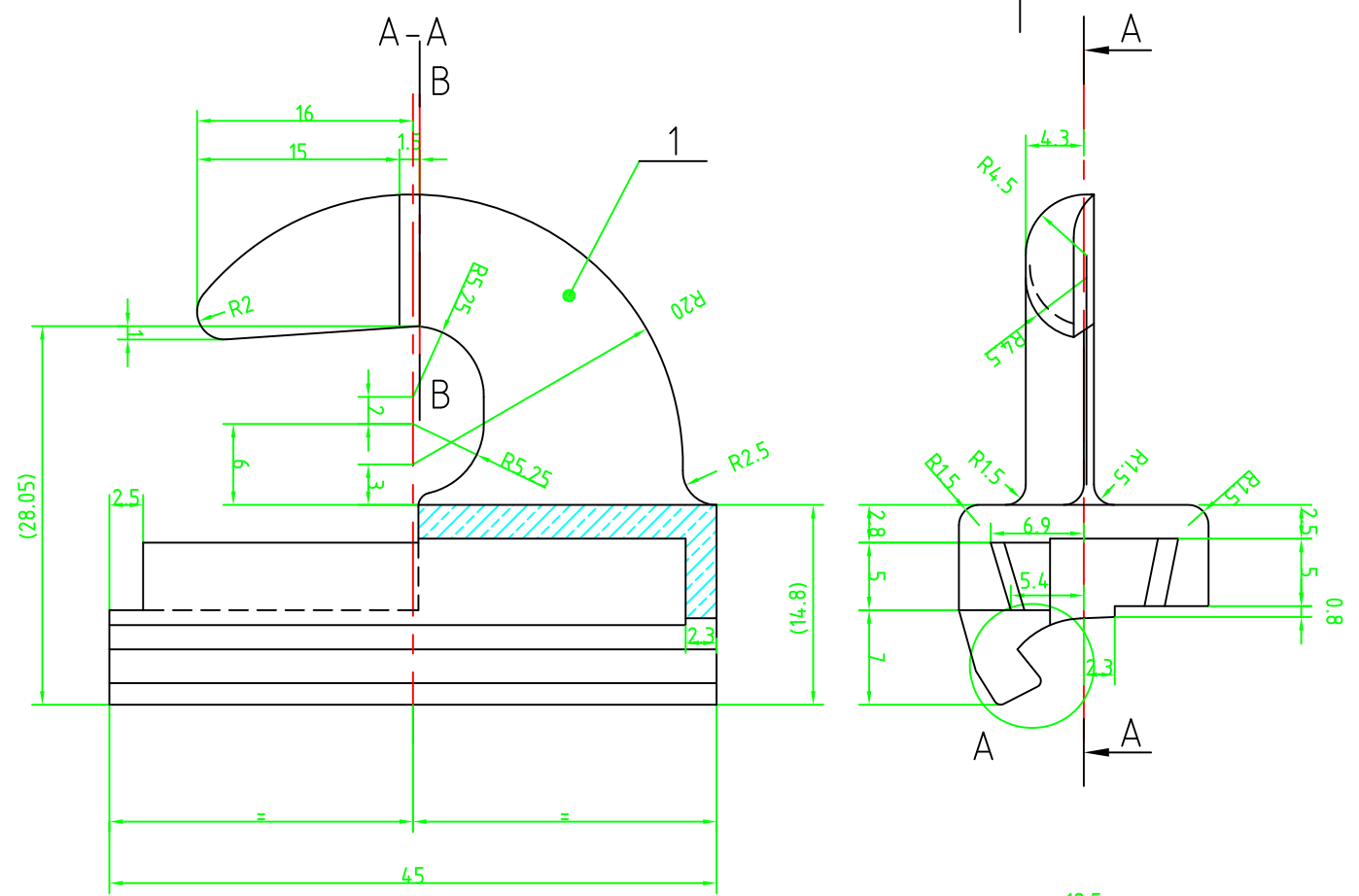
DIMENSIONAL CHARACTERISTICS	
MATERIAL	BRONZE 72%
NOMINAL CROSS SECTION AREA (sq. mm)	12
NOMINAL CABLE DIAMETER (mm)	5
MAKE UP	1 WIRE of 7 strands each of $\phi 0.65\text{mm}$ + 6 WIRES of 7 strands each of $\phi 0.54\text{mm}$
LINEAR MASS (kg/m)	0.103

MECHANICAL CHARACTERISTICS	
MINIMUM BREAKING LOAD (daN)	695
COEFFICIENT OF LINEAR EXPANSION (/ $^{\circ}\text{C}$)	17×10^{-6}
CONDUCTIVITY IN % OF COPPER	72%
MAX. RESISTANCE AT 20 $^{\circ}\text{C}$ (Ω / km)	2.1
MODULUS OF ELASTICITY FOR TENSION	N.A

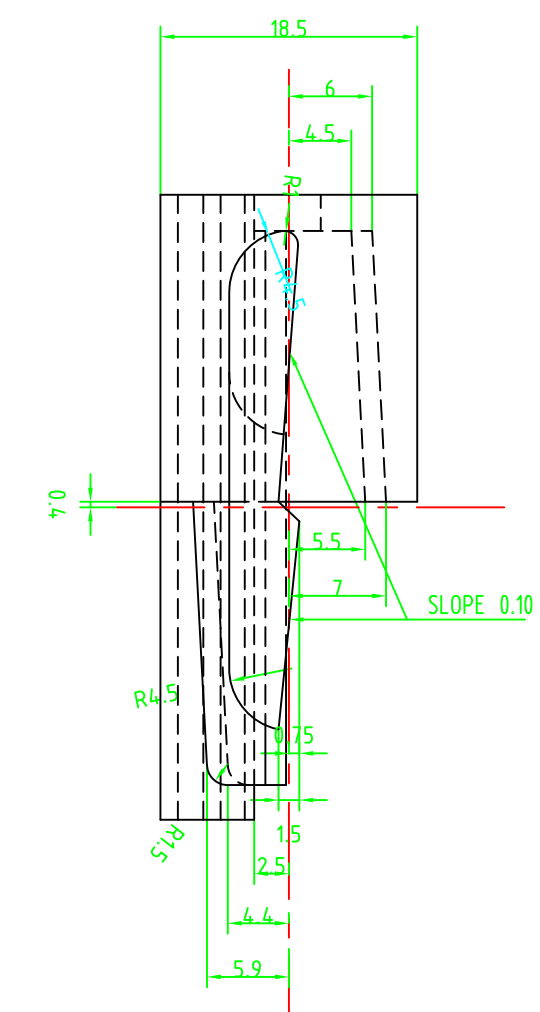
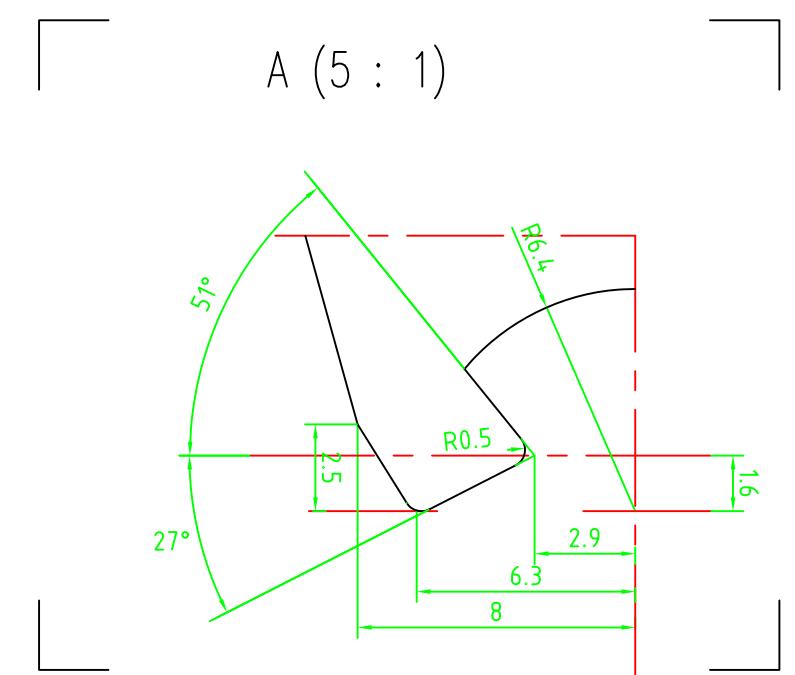
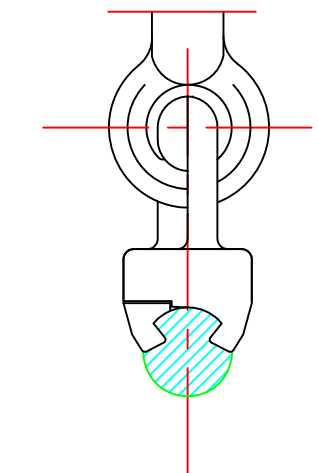
ITEM	DESCRIPTION	QTY.	MATERIAL
4	CRIMPED SOCKET	2	COPPER ALLOY
3	DROPPER CABLE	1	BRONZE (Magnesium Copper alloy)
2	MESSENGER WIRE DROPPER CLIP	1	COPPER ALLOY
1	CONTACT WIRE DROPPER CLIP	1	COPPER ALLOY

TENDER DRAWING

DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1024-0	Revision	0
	Sheet No.	2/4
	Scale	-



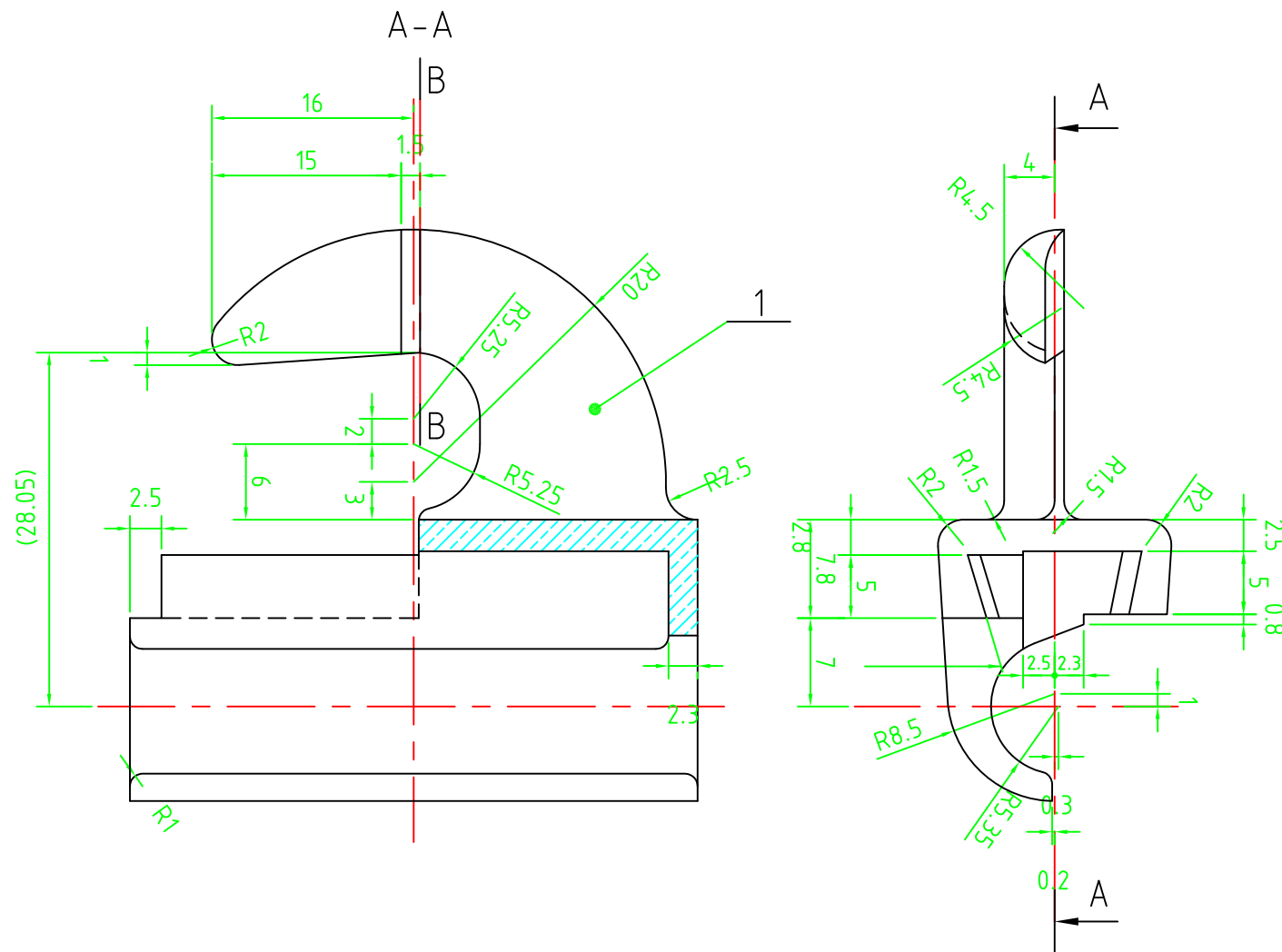
VIEW OF THE ASSEMBLY



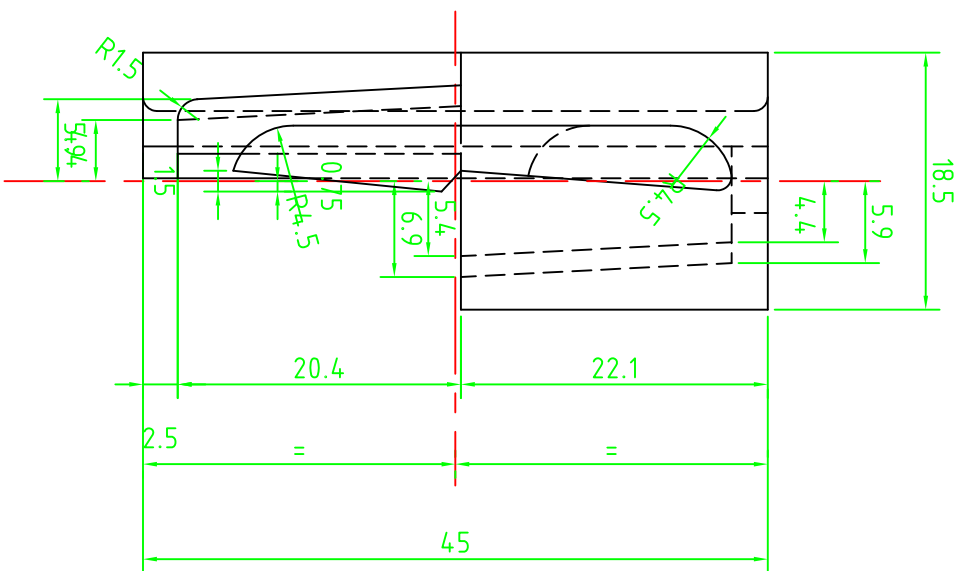
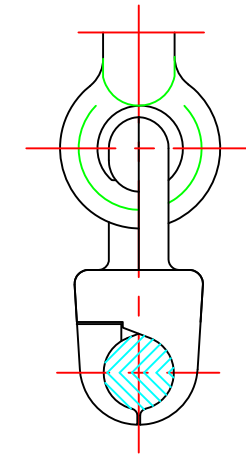
1	2	HALF HOOK CLAMP CONTACT WIRE	COPPER ALLOY	0.080
Item	Qty	Description	Material-drawing	KG Unit mass

TENDER DRAWING

DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1024-0	Revision	0
DROPPER ASSEMBLY-HOOK CLAMP DROPPER FOR 150 SQ MM CONTACT WIRE	Sheet No.	3/4
	Scale	-



VIEW OF THE ASSEMBLY



1	2	HALF HOOK CLAMP FOR Bz65.4mm ² CABLE MESSENGER	COPPER ALLOY	0.100
Item	Qty	Description	Material-drawing	KG Unit mass

TENDER DRAWING

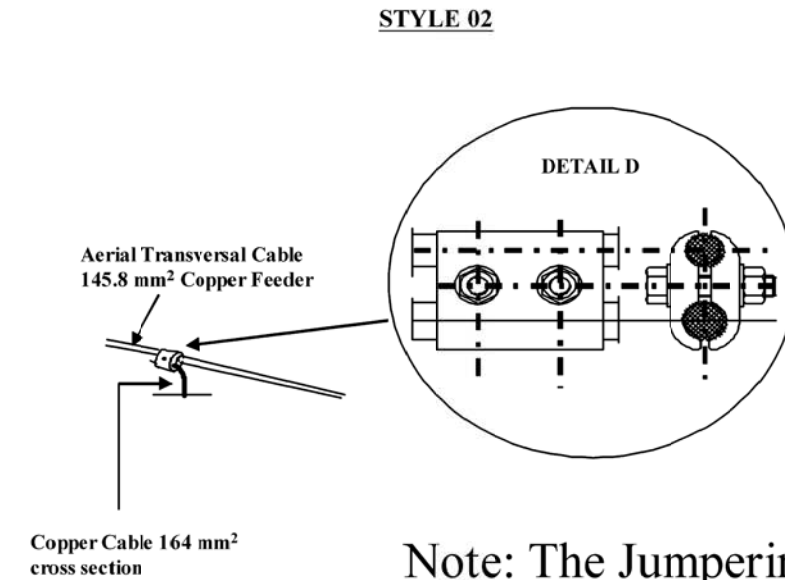
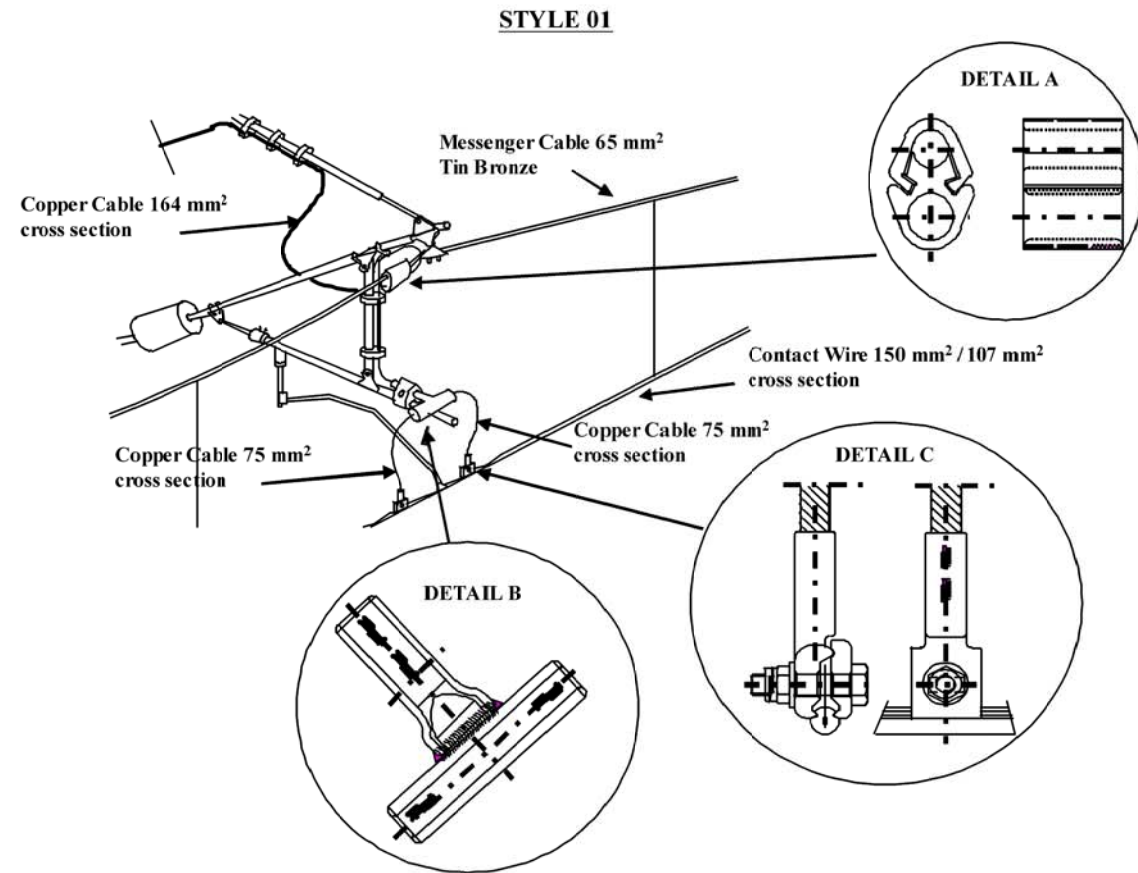
DROPPER ASSEMBLY-HOOK CLAMP DROPPER FOR CABLE MESSENGER	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1024-0	Revision 0
		Sheet No. 4/4
		Scale -

FOLIO NUMBER	FOLIO TITLE	REVISION										DRAWN
		0	1	2	3	4	5	6	7	8	9	
01	TITLE	0										NP
		+										
02	Feeding Jumper	0										NP
		+										
03	'G' Type Continuity Jumper	0										NP
		+										
04	'H' Type Equipotential Jumper	0										NP
		+										
05	'F' Type Equipotential Jumper	0										NP
		+										

TENDER DRAWING

LEGEND	
+ New Folio	* Revised Folio
- Supressed Folio	= Non revised Folio

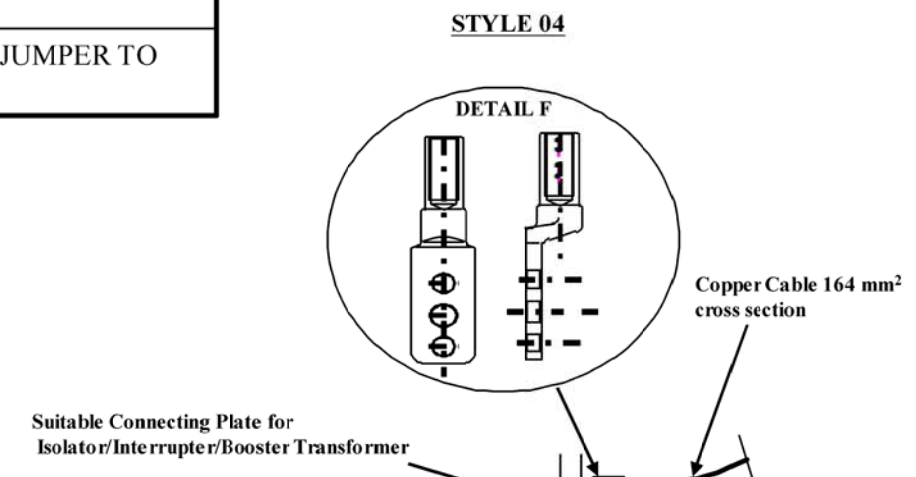
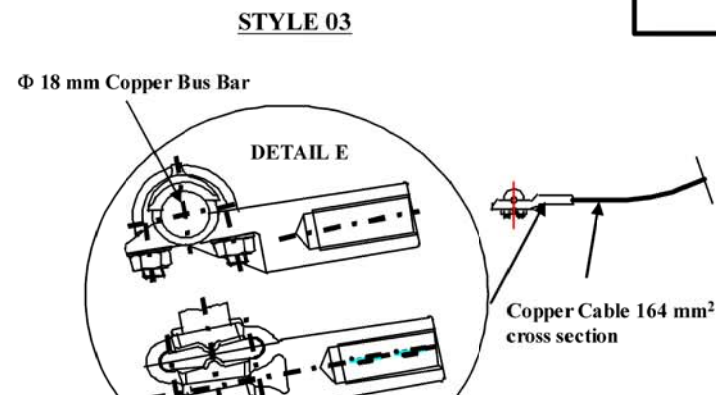
DRC. NO.	CEDD1L2-BPFB-T-OH-TYPI-1025-0	REV. 0	SCALE. N.T.S.	STATUS	TENDER
GENERAL ARRANGEMENT OF JUMPER ASSEMBLY					
TYPICAL					



Note: The Jumpering arrangement consisting of Style 01 and style 04 will be applicable for following connections.

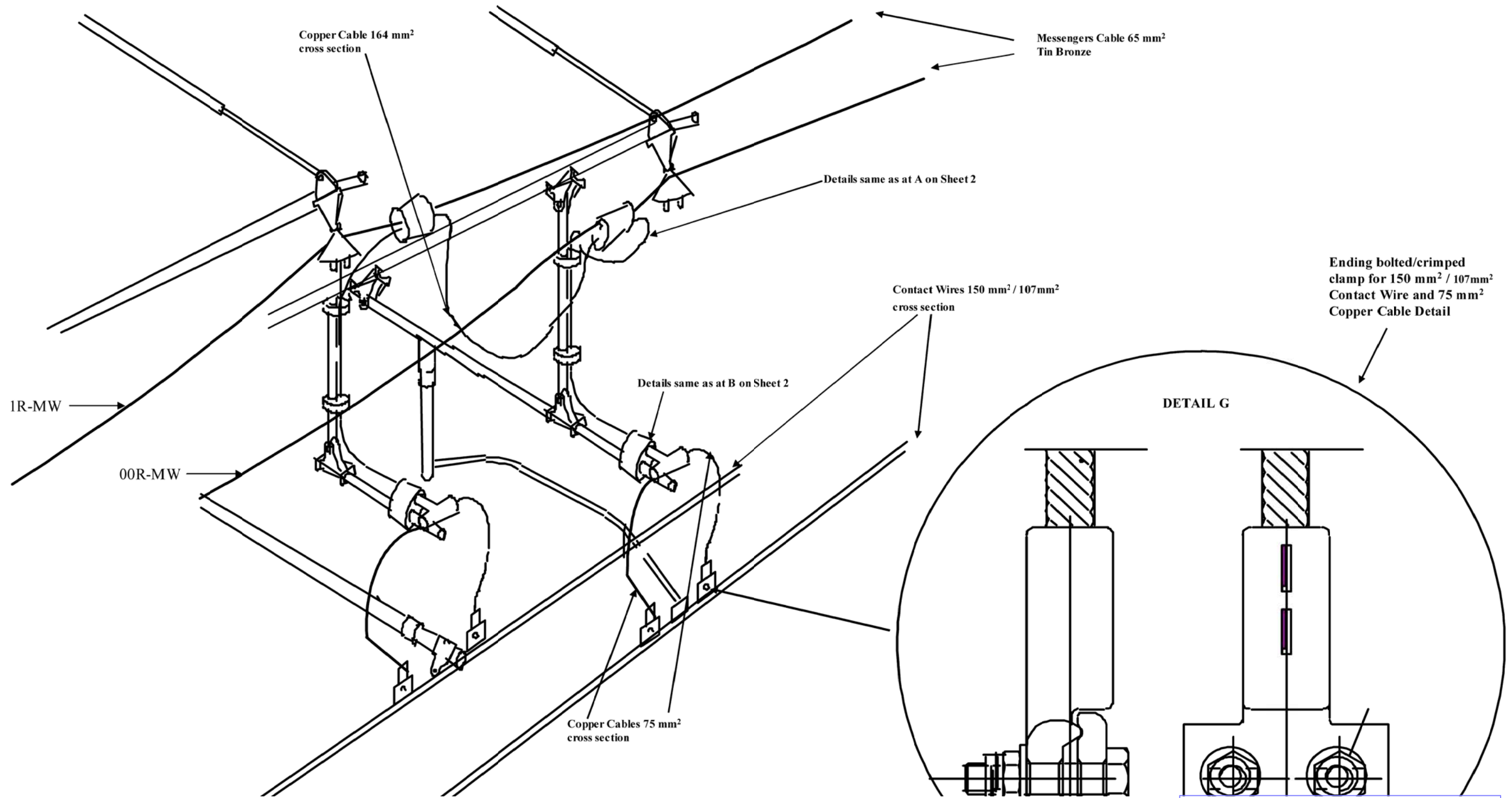
- a) Isolator to OHE
- b) Interruptor to OHE
- c) BT to OHE

STYLE 01	CONNECTION OF FEEDING JUMPER TO MESSENGER WIRE AND CONTACT WIRE
STYLE 02	CONNECTION OF FEEDING JUMPER TO FEEDER WIRE
STYLE 03	CONNECTION OF FEEDING JUMPER TO SOLID COPPER BUSBAR
STYLE 04	CONNECTION OF FEEDING JUMPER TO ISOLATOR



TENDER DRAWING

DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1025-0	Revision	0
	Sheet No.	2/5
	Scale	-



TENDER DRAWING

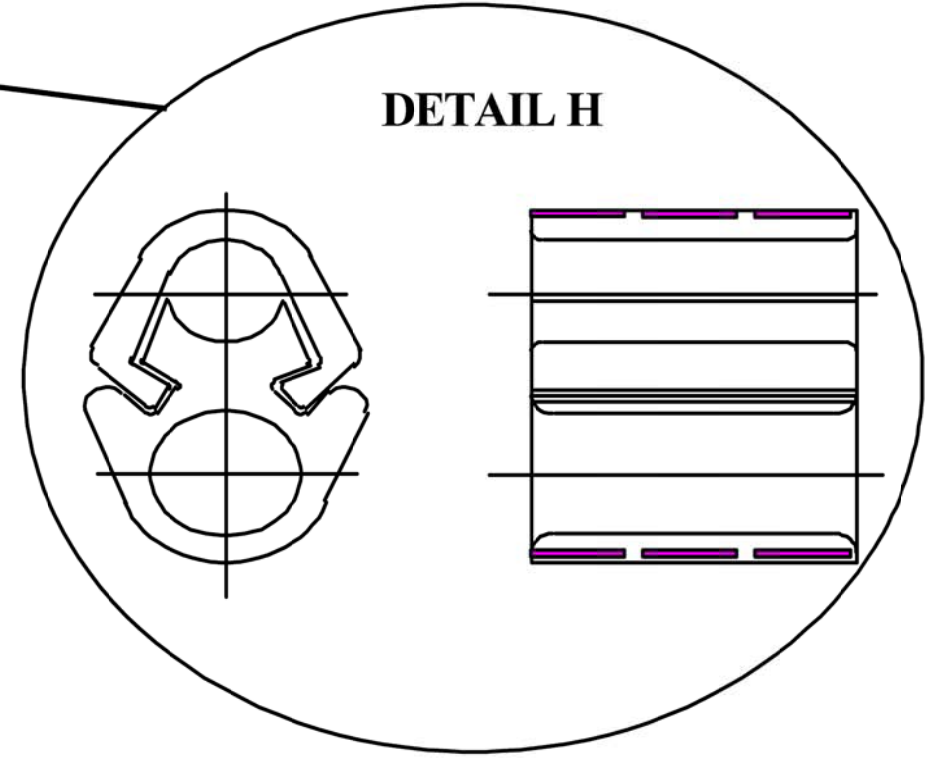
	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1025-0	Revision 0
	'G' TYPE CONTINUITY JUMPER	Sheet No. 3/5
		Scale -

Messenger Cable
65 mm² Tin Bronze

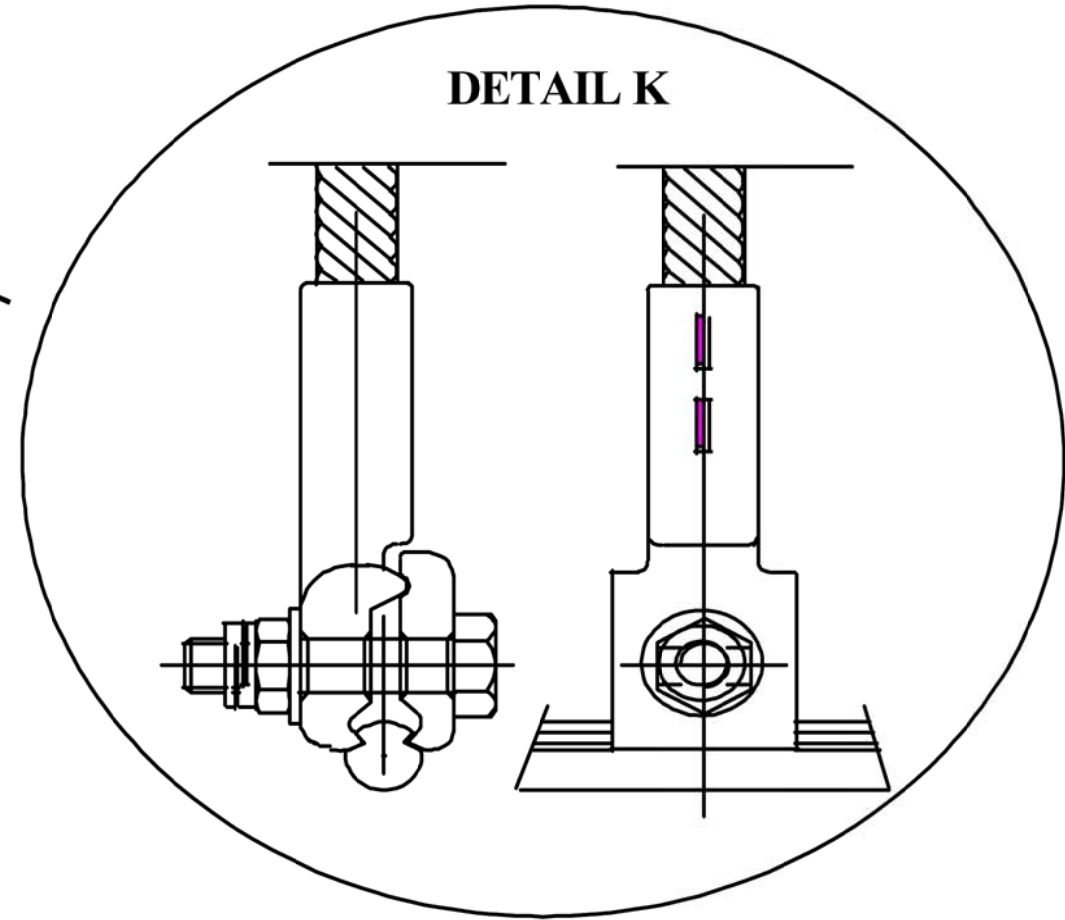
Copper Cable 26 mm²
cross section

Contact Wire 150 mm²
/ 107 mm² cross section

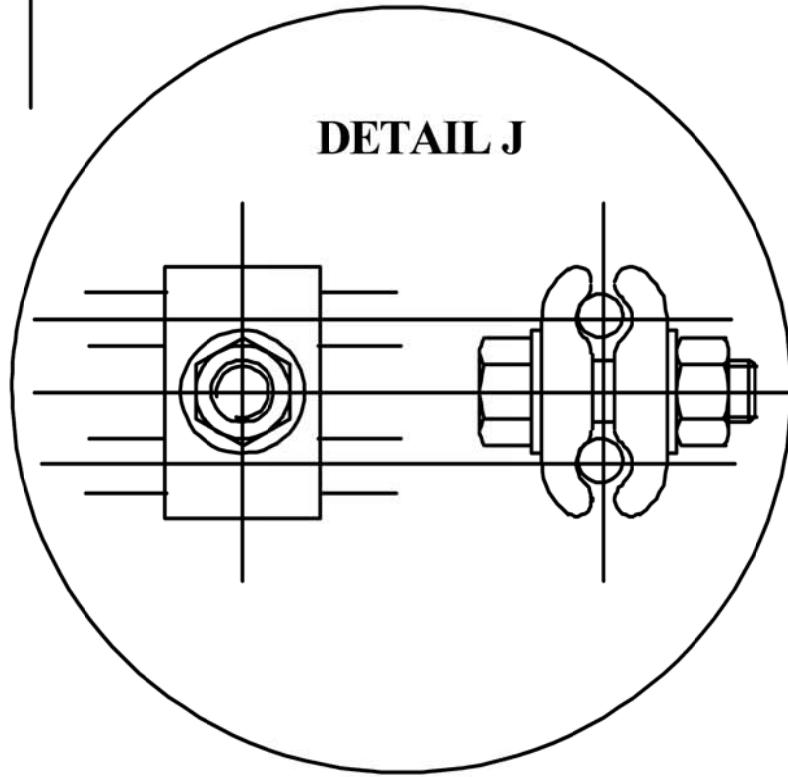
DETAIL H



DETAIL K



DETAIL J



TENDER DRAWING

	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1025-0	Revision 0
	'H' TYPE EQUIPOTENTIAL JUMPER	Sheet No. 4/5
		Scale -

'F' JUMPER
26 SQ.MM
COPPER

26 SQ.MM
COPPER
JUMPER

CUT IN INSULATOR

DETAIL H

DETAIL J

DETAIL K

IR-MW

OOR-MW

OOR-FW

IR-CW

TENDER DRAWING

	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1025-0	Revision 0
	'F' TYPE EQUIPOTENTIAL JUMPER	Sheet No. 5/5
		Scale -

FOLIO NUMBER	FOLIO TITLE	REVISION										DRAWN
01	TITLE	0										NP
		+										
02	Section Insulator Nomenclature	0										NP
		+										
03	Section Insulator	0										NP
		+										

TENDER DRAWING

LEGEND	
+ New Folio	* Revised Folio
- Supressed Folio	= Non revised Folio

DRC. NO.	CEDD1L2-BPFB-T-OH-TYPI-1026-0	REV. 0	SCALE. N.T.S.	STATUS	TENDER
GENERAL ARRANGEMENT OF SECTION INSULATOR ASSEMBLY					
TYPICAL					

MKD. No.	QTY.	DESCRIPTION
1	6	SPACER CLAMP
2	2	ISOLATED CLAMP
3	2	ANCHOR CLAMP
4	2	ADJUSTABLE SCREW
5	2	INSULATOR WITH SILICON RIBS
6	16	SCREW CHC 5x16
7	8	SCREW F/90,M5x20
8	2	STRAIGHT PIN 8 DIA x 35
9	8	GROOVED DOWEL PIN DIA 4 x 10
10	2	STIFFNER L = 700mm
11	8	HALF-CLAMP
12	4	INSULATED SLIDER SUPPORT
13	2	INSULATED SLIDER
14	8	SCREW H,M10 x 20-20
15	8	NUT H, M10
16	8	SMALL CONTACT WASHER CS10
17	2	LONG CONTACT RUNNER
18	2	SHORT CONTACT RUNNER
19	4	TURNBUCKLE
20	1	CABLE DIA 4mm L=7m
21	8	ISOLATED SUSPENSION END
22	4	HEART SHAPED THIMBLE DIA 3mm
23	2	ANCHOR HEAD (REP 107-150)
24	4	SCREW CHC M8 x 20 + COUNTERNUT M8

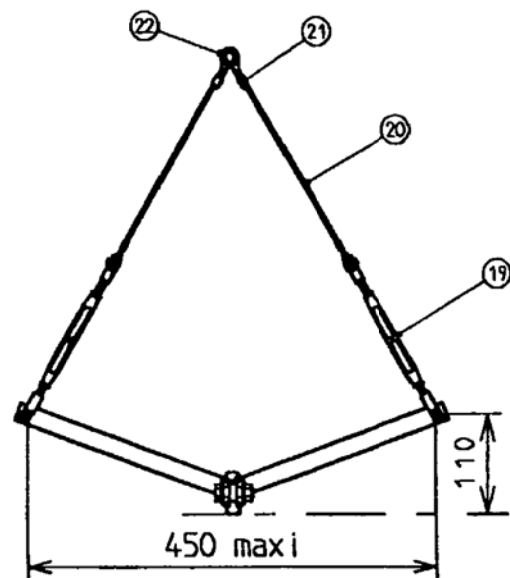
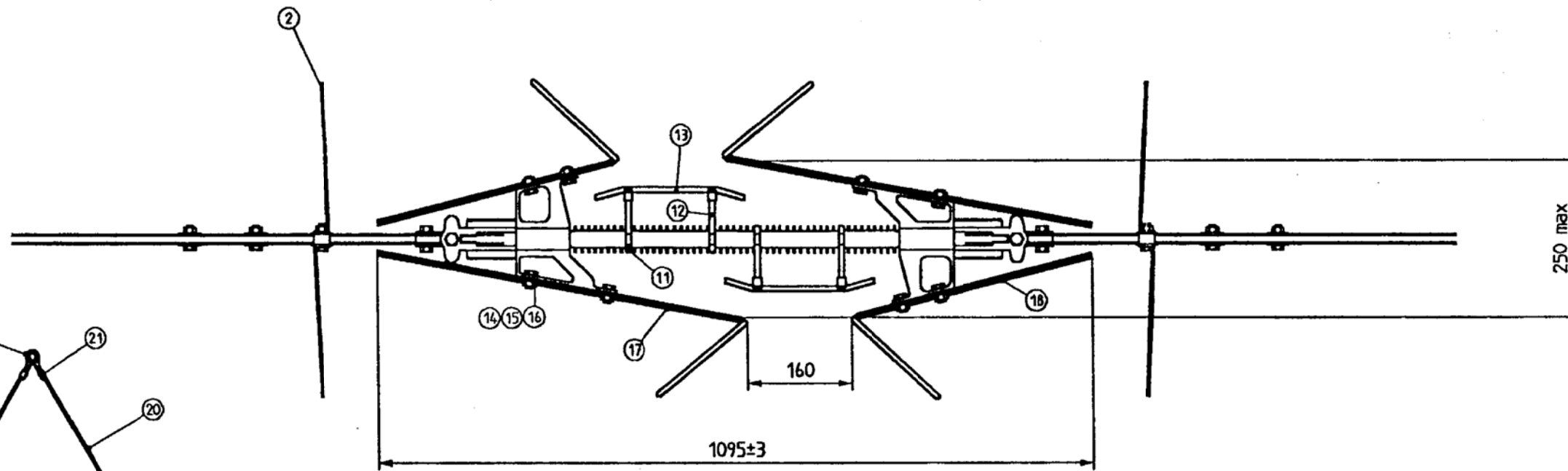
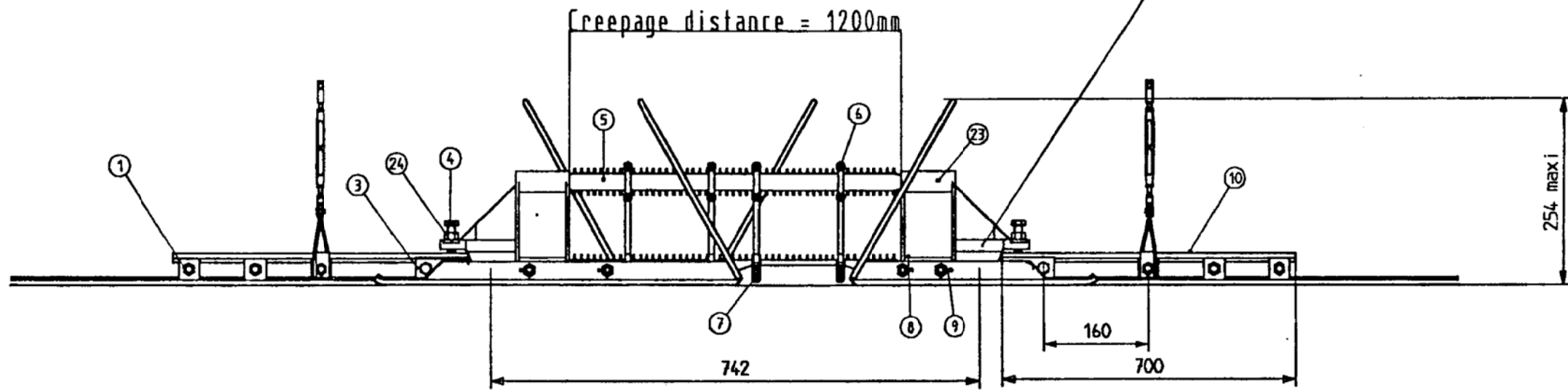
MECHANICAL CHARACTERISTICS :
BREAKING LOAD : 80 kN

ELECTRICAL CHARACTERISTICS :
DRY CONDITION, FLASHOVER = 78.3 kV
RAIN CONDITION :
1MN WITHSTAND STRENGTH = 64.5 kV
WORKING SPEED = 200 km/h

TENDER DRAWING

	DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1026-0	Revision 0
	SECTION INSULATOR NOMENCLATURE	Sheet No. 2/3
		Scale -

Contact wire identification
 107: Fc107 half flat and round-Fc150 half flat
 150: Fc150 round



TENDER DRAWING

DRAWING No. : CEDD1L2-BPFB-T-OH-TYPI-1026-0	Revision	0
	SECTION INSULATOR	Sheet No. 3/3
	Scale	-