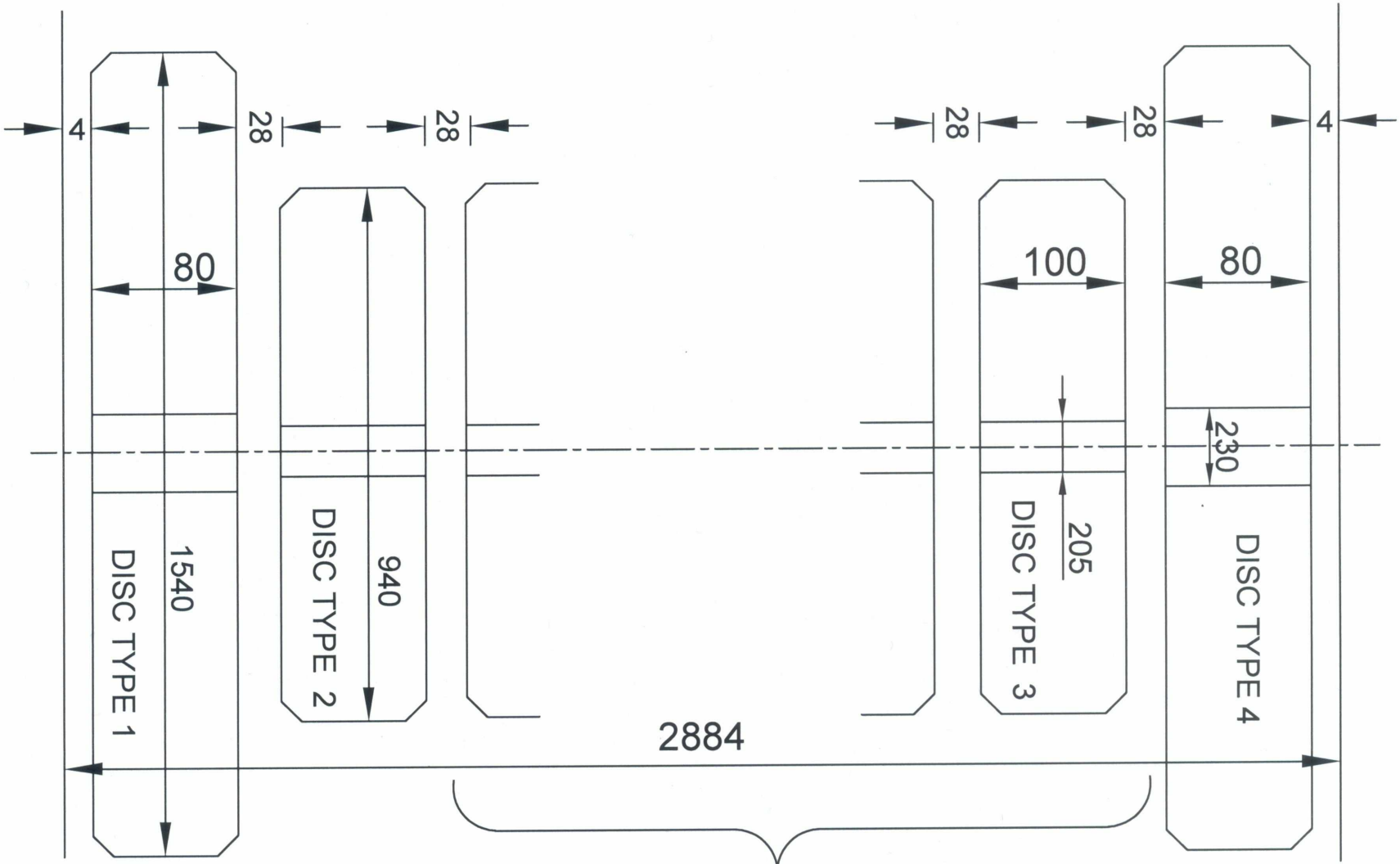


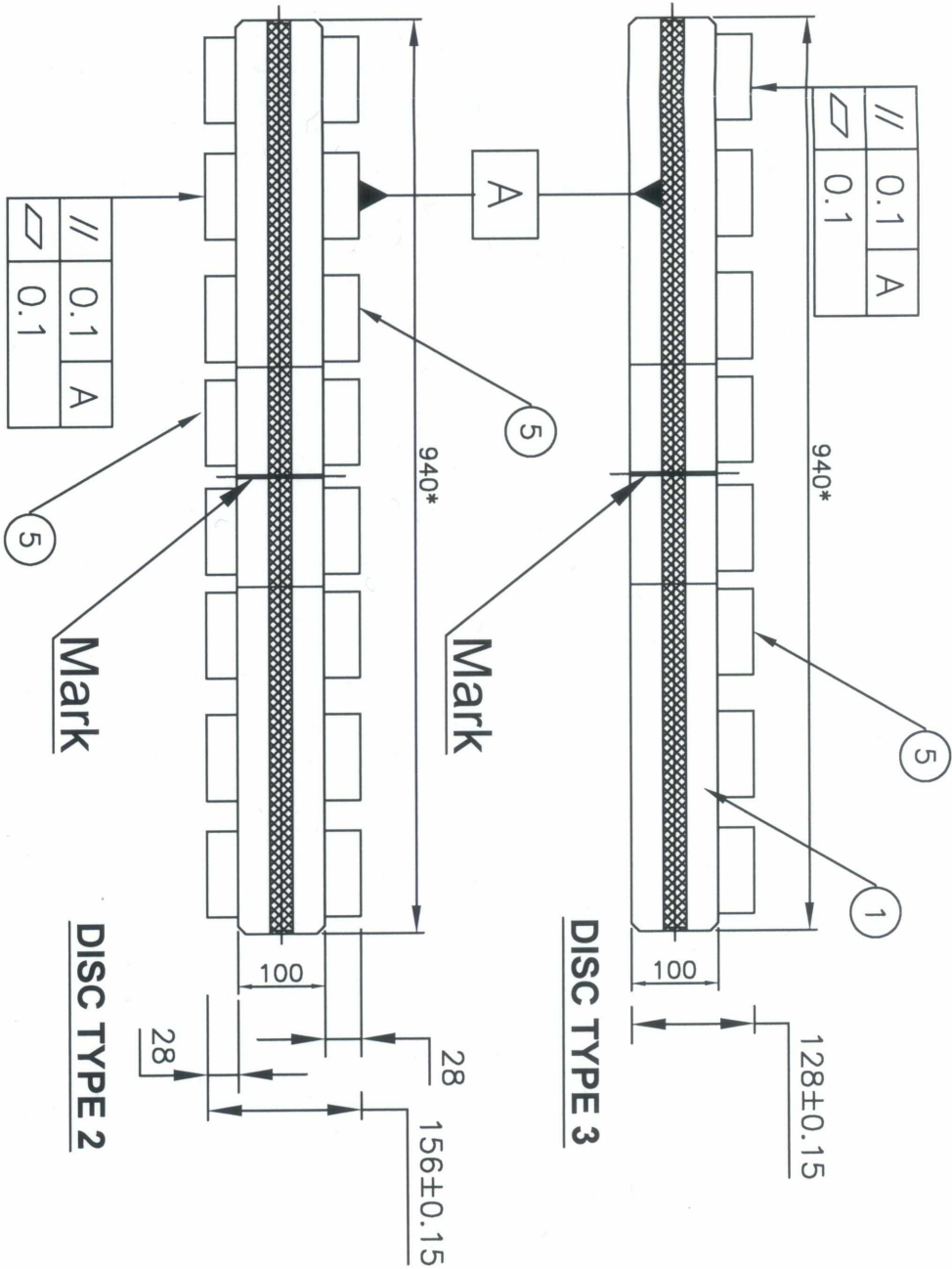
INVENTORY NO.

SIGN AND DATE

REF DRG NO.



DISC TYPE 3



GRADE OF CORE STEEL : 27CG130
QTY. OF 100 mm HT. DISC : TYPE 2- 1 NO., TYPE 3- 20 NOS.
QTY. OF 80 mm HT. DISC : TYPE 1- 1 NO., TYPE 4- 1 NO.

NOTE -

- A. DRAWING OF GAPPED CORE LIMB ASSEMBLY INDICATED ON THIS PAGE IS FOR OVERALL DIMENSION & REFERENCE. FOR DETAILS REFER OTHER PAGES.
- B. ITEM 8 TO 12 SHALL BE IN BHEL SCOPE AND NOT TO BE SUPPLIED.
- C. FOR MANUFACTURING, REFER NOTES ON SHEET 5.
- D. VENDOR TO SUPERVISE THE ERECTION OF LIMB DURING MANUFACTURING OF FIRST SET AT BHEL, WITHOUT ANY EXTRA COST TO BHEL.
- E. VENDOR TO SUPPLY RESIN & HARDENER IN SUITABLE PACKING FOR GLUING ALL 4 PIECES AS MENTIONED IN POINT F.
- F. GAPPED CORE LIMB ASSEMBLY TO BE SUPPLIED IN 4 PIECES AS BELOW -
- 1) DISC TYPE 1 ASSEMBLED AS PER SHEET 4
 - 2) DISC TYPE 4 ASSEMBLED AS PER SHEET 5
 - 3) ASSEMBLY OF DISC TYPE 2 + 10 NOS. DISC TYPE 3
 - 4) ASSEMBLY OF 10 NOS. DISC TYPE 3

REV.

DATE

ALTERED

CHECKED

APPROVED

ZONE

BHARAT HEAVY ELECTRICALS LTD.

BHOPAL

ASSY.DRG.

2497

DRN

S. DUTTA

SIGN

DATE

12.12.18

CKD

AKSHAY DAVE

14.12.18

APPD

R K SINGH

28.12.18

REV

00

TITLE

GAPPED CORE LIMB ASSEMBLY

(110 MVAR 765 KV REACTOR FOR POWERGRID)

DRG. NO.

34977000004

SHT NO.

01

NO OF SHTS

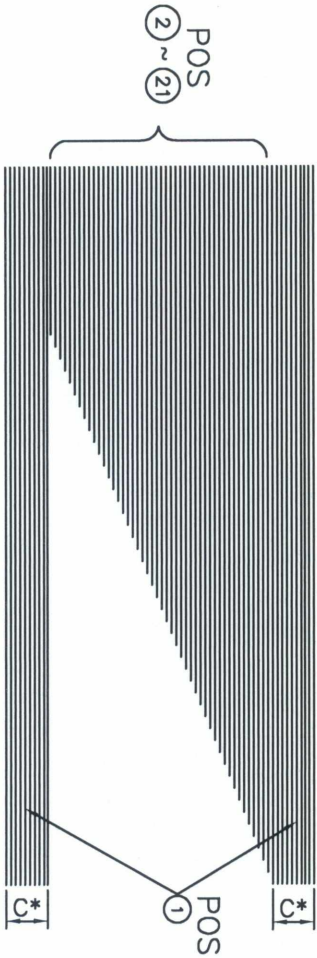
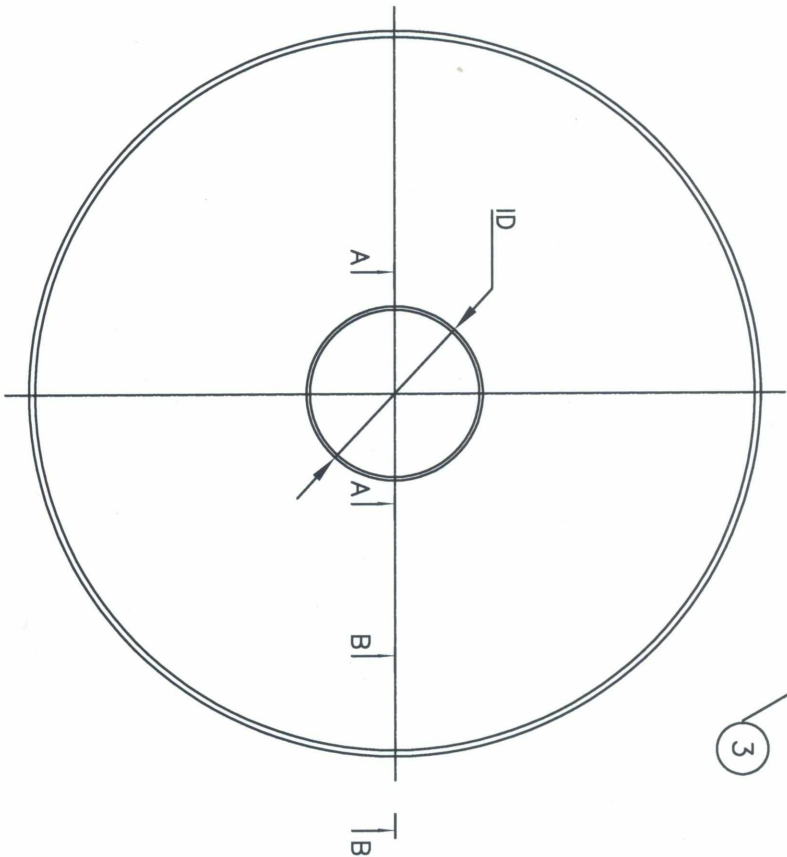
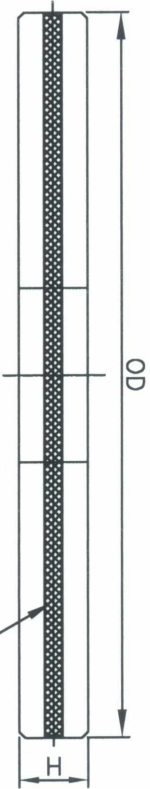
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INVENTORY NO.

SIGN AND DATE

REF DRG NO.

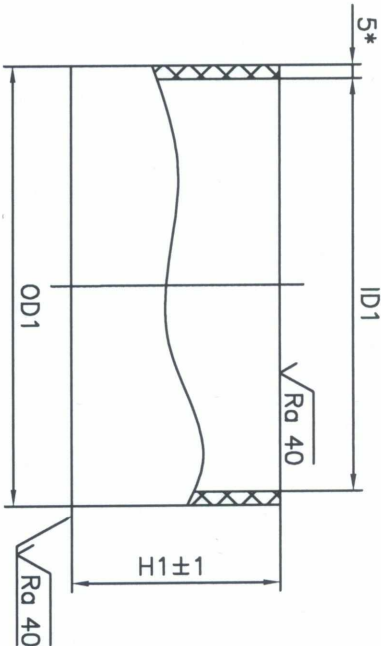
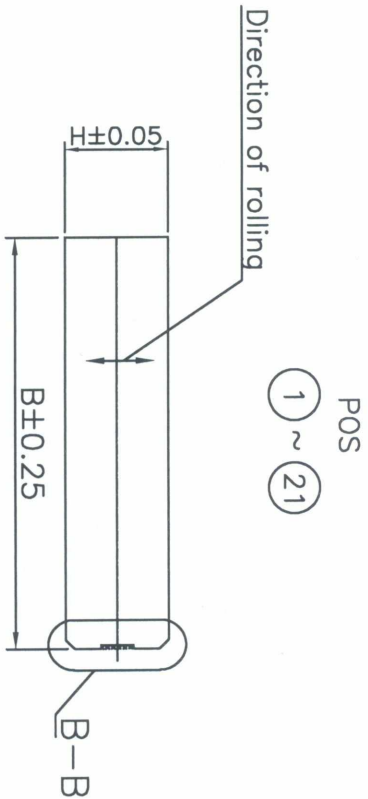


ITEM 1 OR 2

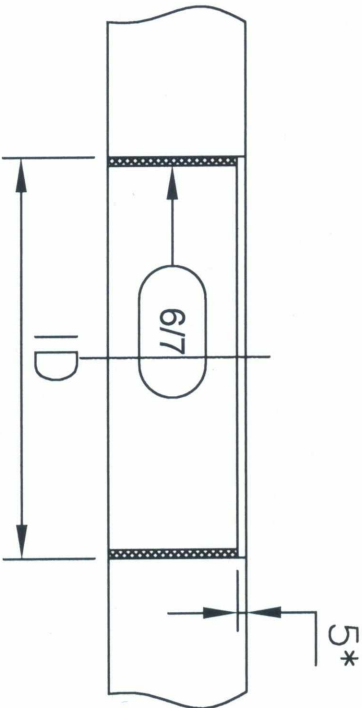
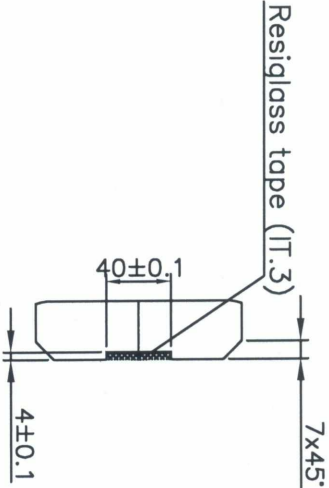
TABLE 1		
PARAMETER	DISC TYPE 2 & 3	DISC TYPE 1 & 4
ID	205	230
OD	940 (TOL. +0, -2)	1540 (TOL. +0, -2)
H	100 ±0.05	80 ±0.05
C	1.62	1.89
B	REFER TABLE 2	REFER TABLE 3
QTY./LIMB	1+20	1+1
NO. OF STACKS	395	380
ID1	195 (TOL.+0.5)	220 (TOL.+0.5)
OD1	205 (TOL.+1, -0.5)	230 (TOL.+1, -0.5)
H1	95 ±0.05	75 ±0.05
H2	28 ±0.1	4 ±0.1

TABLE 2		
POS	B (mm)	Qty. / Stack
1	367.5	6
2	345.0	1
3	327.5	1
4	310.0	1
5	295.0	1
6	277.5	1
7	260.0	1
8	242.5	1
9	225.0	1
10	210.0	1
11	192.5	1
12	175.0	1
13	157.5	1
14	142.5	1
15	125.0	1
16	107.5	1
17	90.0	1
18	72.5	1
19	57.5	1
20	40.0	1
21	22.5	1

TABLE 3		
POS	B (mm)	Qty. / Stack
1	655.0	7
2	620.0	2
3	585.0	2
4	555.0	2
5	520.0	2
6	487.0	2
7	455.0	2
8	423.0	2
9	390.0	2
10	357.0	2
11	325.0	2
12	293.0	2
13	260.0	2
14	227.0	2
15	195.0	2
16	163.0	2
17	130.0	2
18	95.0	2
19	65.0	2
20	30.0	2



ITEM 6 OR 7 (EPOXY TUBE)



REV.

DATE

ALTERED

CHECKED

APPROVED

ZONE

BHARAT HEAVY ELECTRICALS LTD.
BHOPAL

ASSY. DRG.

2497

W/O.

69120-A-530-01

DRN

S. DUTTA

CKD

AKSHAY DAVE

APPD

R K SINGH

TITLE

GAPPED CORE LIMB ASSEMBLY
(110 MVAR 765 KV REACTOR FOR POWERGRID)

DRG. NO.

34977000004

SHT NO.

02

NO OF SHTS.

05

SIGN

DATE

12.12.18

14.12.18

28.12.18

REV

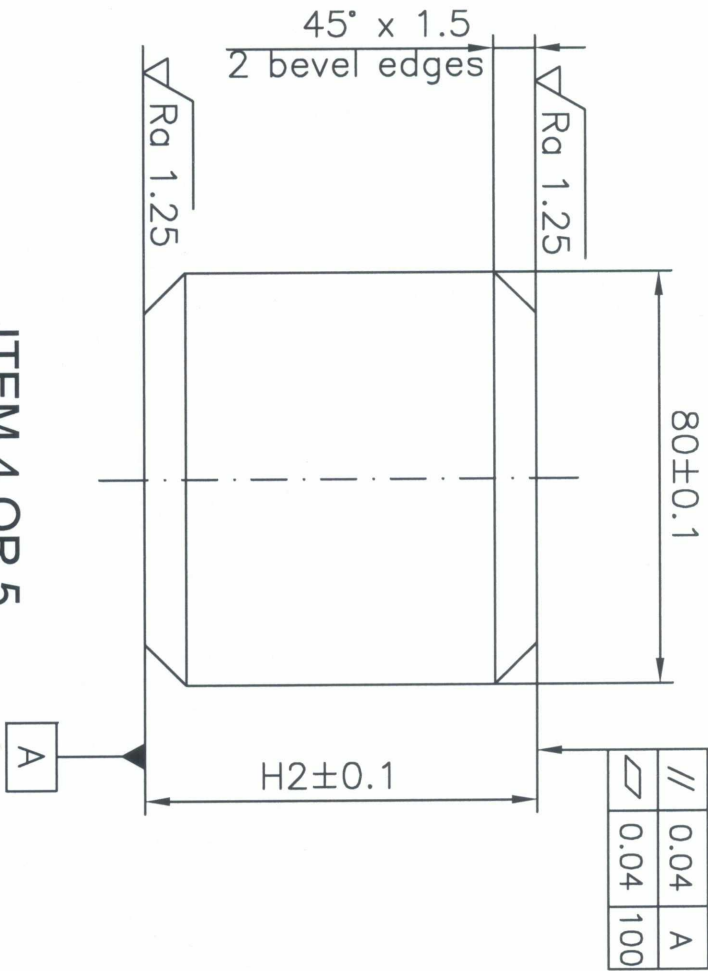
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INVENTORY NO.

SIGN AND DATE

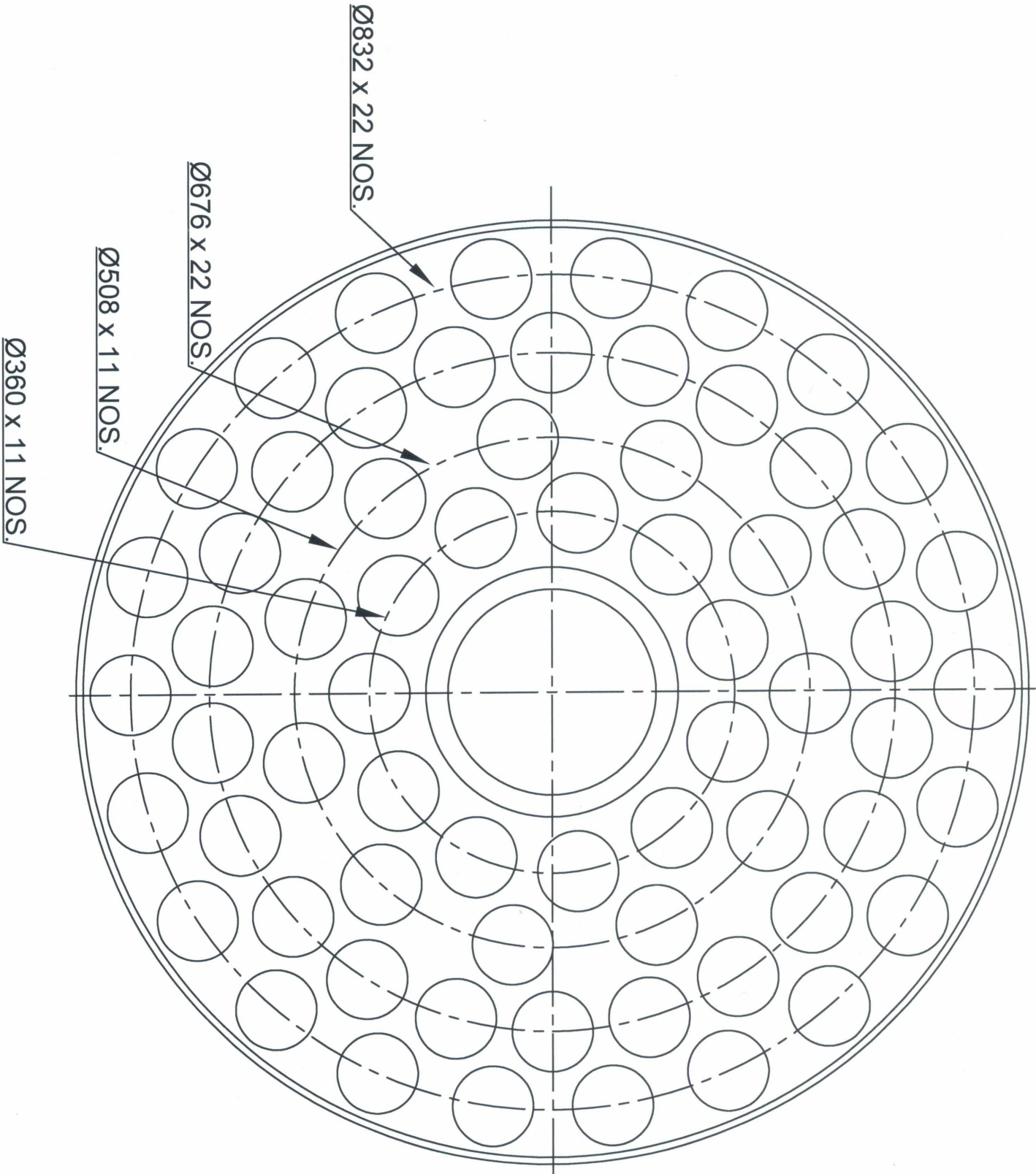
REF DRG NO.



ITEM 4 OR 5

REQUIREMENTS FOR CERAMIC SPACER (ITEM 4 OR 5) :

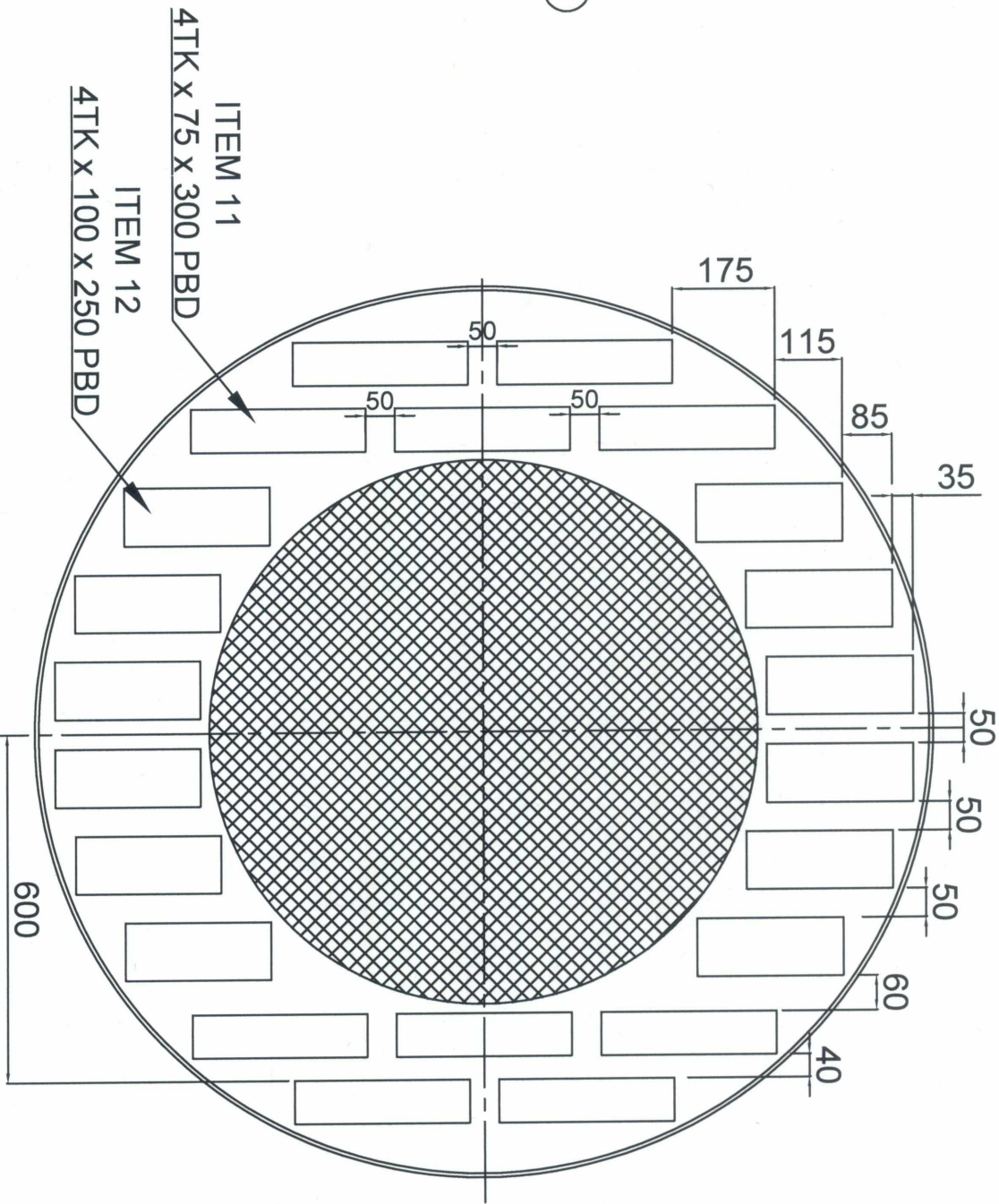
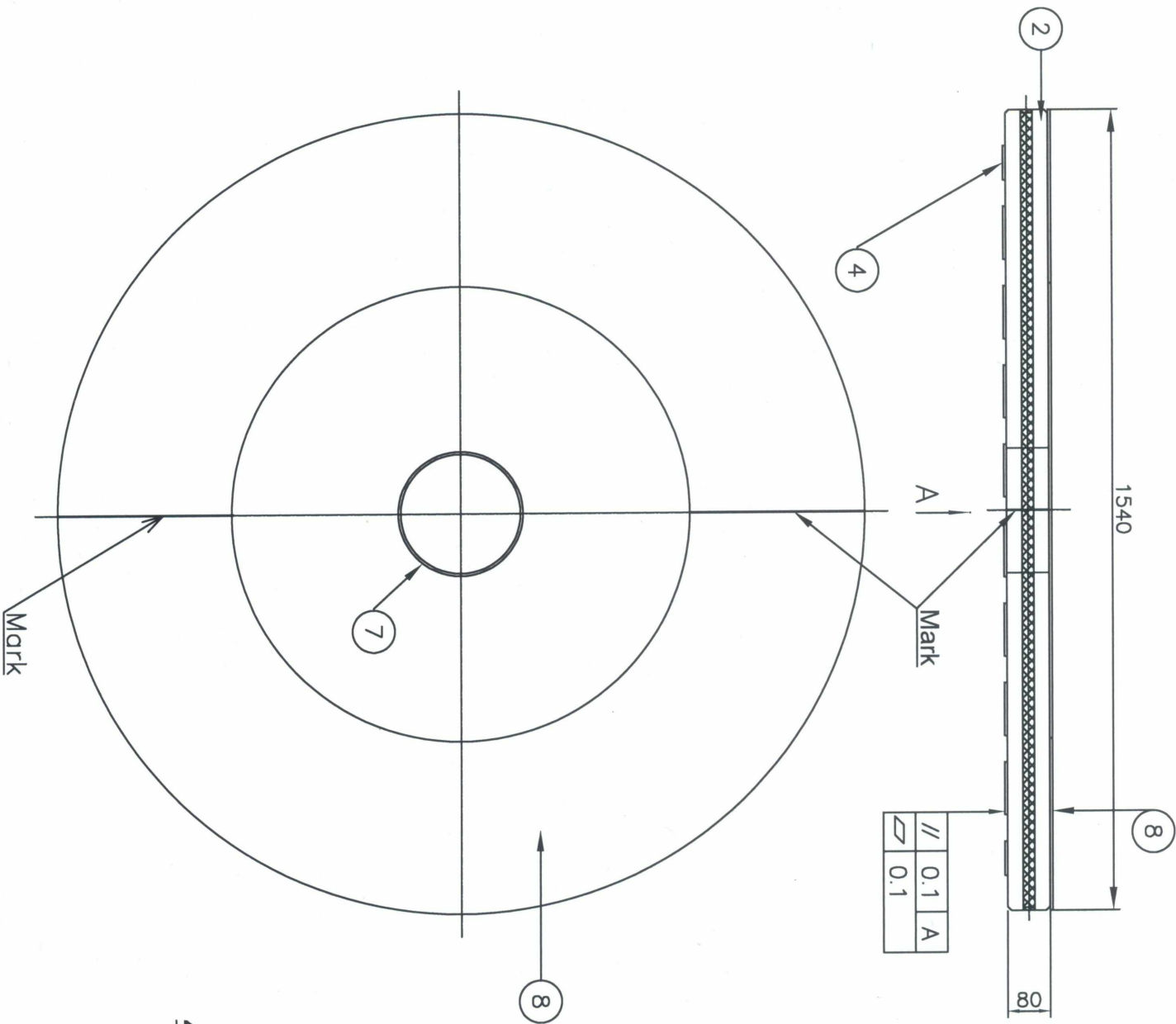
1. MATERIAL = STEATITE C221
2. DENSITY = 2.5 TO 3 Kg/cm³
3. COMPRESSIVE STRENGTH = 140 MPa MIN.
4. POROSITY = NIL



CERAMIC SPACER PLACEMENT

REV.	DATE	ALTERED	Bharat Heavy Electricals Ltd. Bhopal	ASSY. DRG. 2497	DRN S. DUTTA	SIGN SMD	DATE 12.12.18
		CHECKED					
ZONE		APPROVED		W.O. 69120-A-530-01	CKD AKSHAY DAVE		14.12.18
TITLE			GAPPED CORE LIMB ASSEMBLY (110 MVAR 765 KV REACTOR FOR POWERGRID)		DRG. NO.	34977000004	REV
					SHT NO.	03	NO OF SHTS.
						05	00

INVENTORY NO.	SIGN AND DATE	REF DRG NO.
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CERAMIC SPACER TO BE PASTED AS PER SHEET 2 IN THIS AREA.

DISC TYPE 1 (BOTTOM)

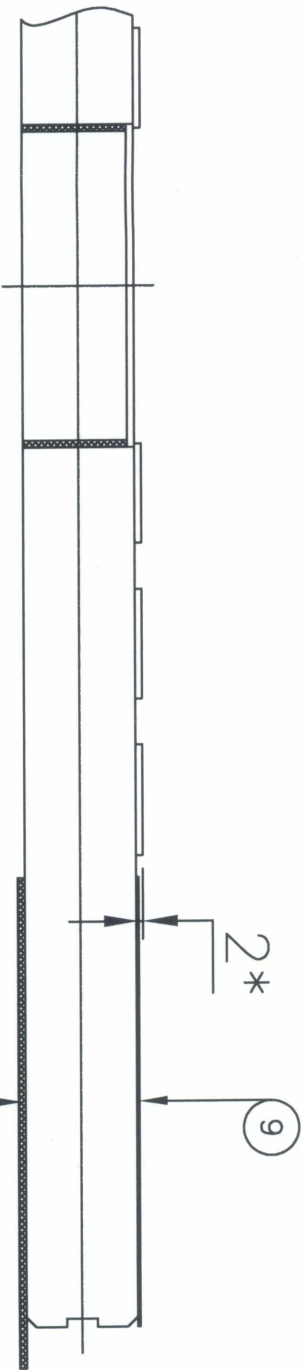
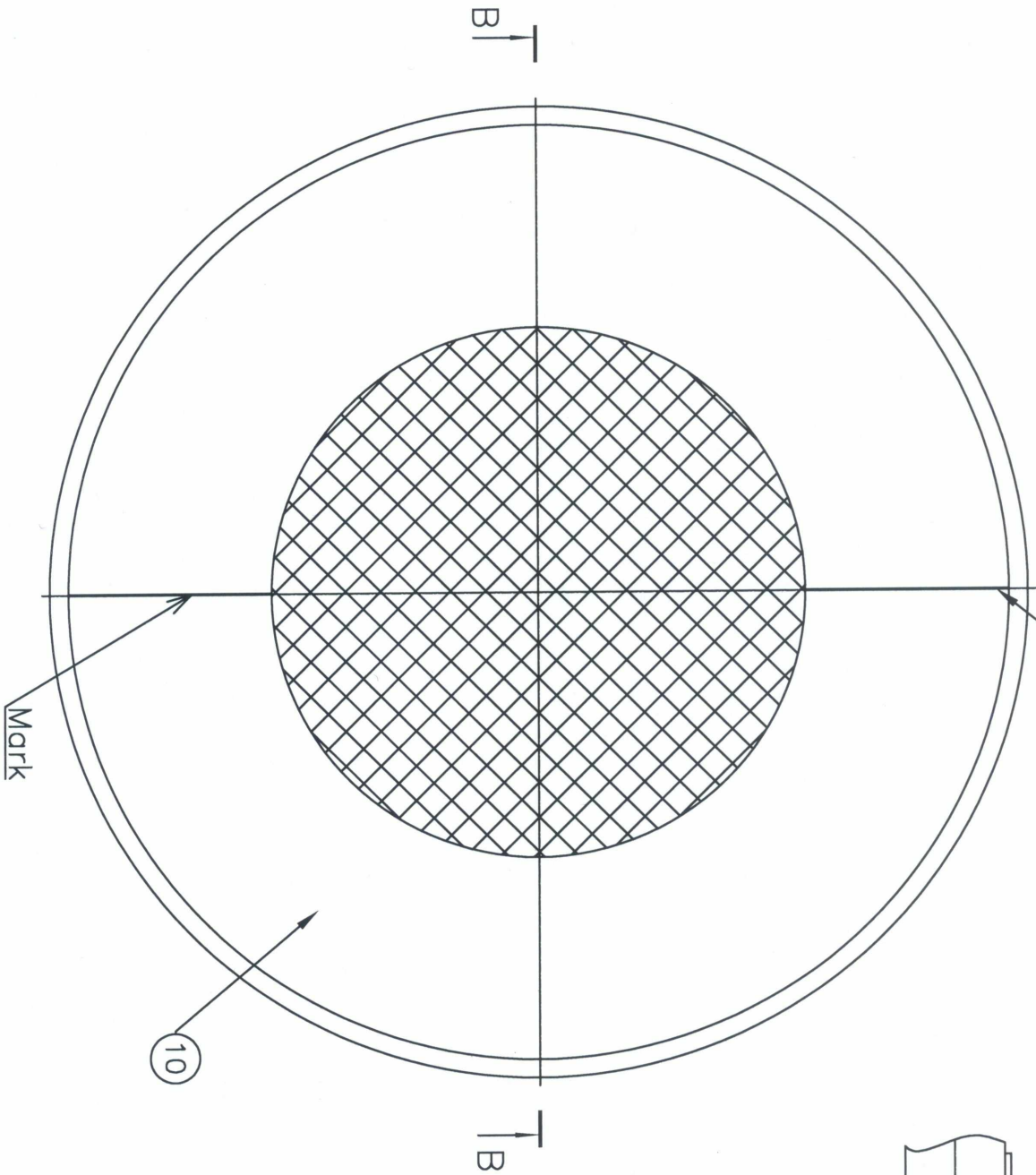
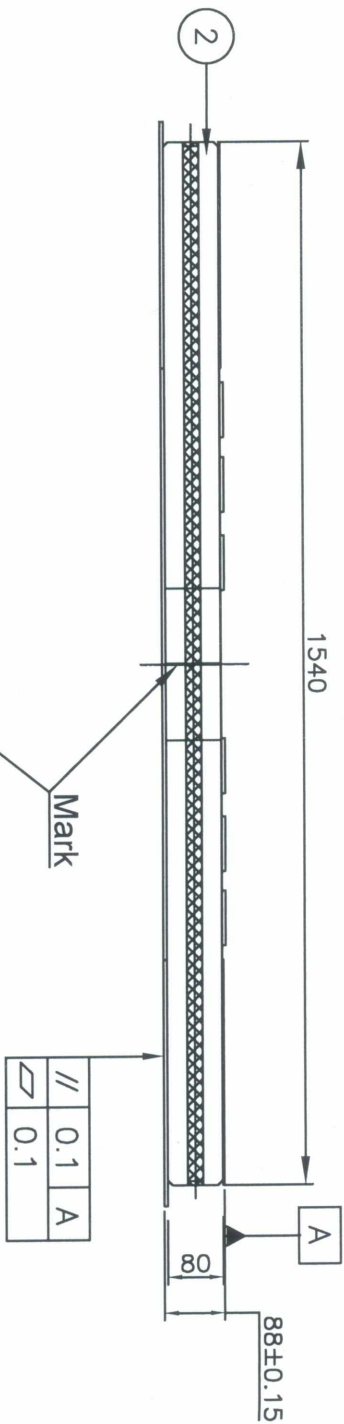
REV.	DATE	ALTERED	DATE	REV.	DATE
		CHECKED			
		APPROVED			
ZONE					

TITLE	ASSY. DRG.	NAME	SIGN	DATE
BHARAT HEAVY ELECTRICALS LTD.	2497	S. DUTTA		12.12.18
BHOPAL	W.O.	AKSHAY DAVE		14.12.18
	69120-A-530-01	R K SINGH		28.12.18
GAPPED CORE LIMB ASSEMBLY	DRG. NO.	34977000004		REV
(110 MVAR 765 KV REACTOR FOR POWERGRID)	SHT NO.	04	NO OF SHTS.	05
				00

INVENTORY NO.

SIGN AND DATE

REF DRG NO.



CERAMIC SPACER TO BE PASTED AS PER SHEET 2 IN THIS AREA.

NOTES FOR DISC MANUFACTURING -

1. * REFERENCE DIMENSIONS.
2. THE TIGHTING FORCE FOR RESIGLASS TAPE UNDER WINDING IS 50 KG.
3. RESIN SYSTEM SHALL BE SUBJECT TO BHEL APPROVAL.
4. CERAMIC SPACERS SHALL BE UNIFORMLY ARRANGED OVER THE CIRCUMFERENCE BEFORE RESIN FILLING.
5. DISC PRESSURE OVER CERAMIC SPACER MUST BE NO LESS 1 MPA BEFORE RESIN FILLING.
6. RESIN SYSTEM SHALL PENETRATE BETWEEN PLATES AT FULL DISC HEIGHT UNDER VACUUM IMPREGNATION.
7. IF CRACKS OCCURS THE DISC SHALL BE IMPREGNATED AND BAKED REPEATEDLY.
8. OVERFLOW OF RESIN TO 5mm IS ALLOWED ON HORIZONTAL DISC SURFACE FROM THE SIDE OF CERAMIC SPACER.

DISC TYPE 4 (TOP)

	BHARAT HEAVY ELECTRICALS LTD. BHOPAL	ASSY. DRG. 2497	DRN	S. DUTTA	SIGN	DATE
			CKD	AKSHAY DAVE		12.12.18
TITLE GAPPED CORE LIMB ASSEMBLY (110 MV/AR 765 KV REACTOR FOR POWERGRID)		W.O. 69120-A-530-01	APPD	R K SINGH		14.12.18
			DRG. NO.	34977000004		28.12.18
			SHT NO.	05	NO OF SHTS.	05
						00