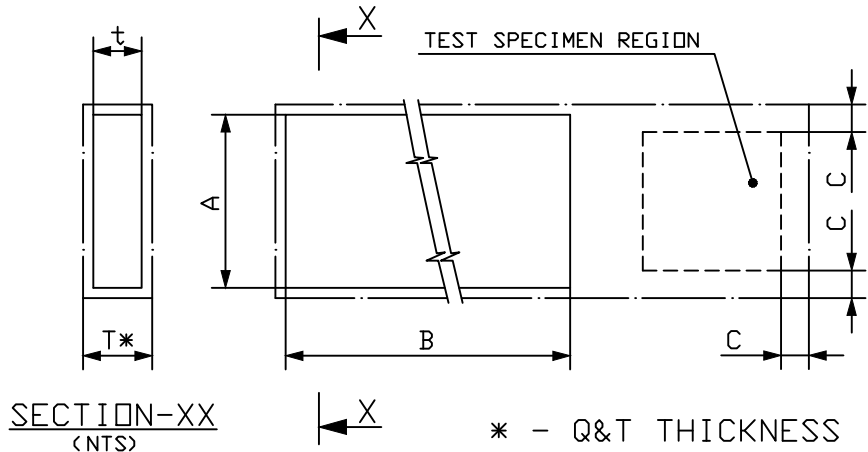


ALL DIMENSIONS ARE IN MILLIMETERS

- NOTES:-** ALL DIMENSIONS ARE IN MILLIMETER
1. APPLICABLE SPECIFICATIONS :
D) PC-M-960
 2. MATERIAL SPECIFICATION : 20MnMoNi55.
 3. SURFACE FINISH : $\sqrt{3.2}$ ON SURFACE 'C' & RING GROOVE, $\sqrt{6.3}$ OR FINER ON ALL OTHER SURFACES.
 4. THE FORGING SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
 5. FINISHED FORGING SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960
 6. THE FORGING SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960
 7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL OTHER MACHINED SURFACES.
 8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
 9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
 10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
 11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED TUBESHEET FORGING.
 12. SURFACE -'C' SHALL BE PROTECTED IMMEDIATELY AFTER MACHINING AND CARRYING OUT NDE BY BRIGHT COLOURED PEELABLE PLASTIC COAT IN ORDER TO PRESERVE THIS MACHINED SURFACE.
 13. IN ADDITION TO THE MONITORING TEST COUPONS REQUIRED UNDER THE SPECIFICATION, PRODUCTION WELD TEST PLATES OF SIZE AND QUANTITY AS GIVEN BELOW, BELONGING TO THE SAME MELT NUMBER AND SIMILARLY HEAT TREATED AS THE COMPONENT, SHALL ALSO BE SUPPLIED.

S.NO.	t	A	B	C	QUANTITY
1	87.5	250	2500	T	1 NO. EACH WITH EVERY TUBESHEET FORGING
2	57.5	250	2500	T	
3	130	700	3000	1/2 T	
4	450	700	700	1/2 T	***

*** THIS PLATE IS FOR DRILLING QUALIFICATION AND SHALL BE SUPPLIED IN QUANTITY TWO PER 4 TUBESHEET FORGINGS FROM ANY ONE OF THE MELT OF THESE 4 Nos. OF TUBESHEET FORGINGS

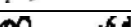
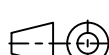


14. FOR 87.5mm THICK PLATE, IN ADDITION TO THE TESTS PERFORMED AT 1/4 T DEPTH, TESTS SHALL ALSO BE CONDUCTED WITH SPECIMENS TAKEN AT NEAR SURFACE AND MID THICKNESS.
15. APPROXIMATE WEIGHT : 19592 kg

*** - MACHINING ALLOWANCE
(DOTTED LINES INDICATED FOR FINAL MACHINING ARE ONLY FOR INFORMATION)

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)					
LINEAR				ANGULAR	
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 20'
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 30'
30 TO 120	± 0.3	—	—	120 TO 400	± 10'
120 TO 400	± 0.5	—	—	OVER 400	± 5'

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

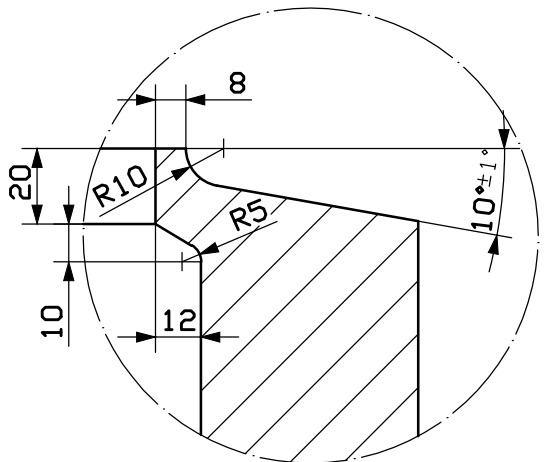
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				700MWe/GHAVP-1&2				
 05-228/D Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014				DRN	NAME N.K.	SIGNATURE 	DATE 120814	NO. OF VAR
				CHD	NKK/SM		120814	
				APPD	AS		120814	
DEPT NC	GRADE OF UNTOL DIM C/M/F		SCALE 1:20 ; 1:5 1:2 ; NTS	WEIGHT (Kg)	REF TO ASSY / OLD DWG		ITEM NO	NO. OF ITEMS
CODE 150					GHAVP-1&2/33111/4197/DD/ROD			
TITLE					CARD CODE U 01	DRAWING NO : 2-93-170-05230		REV 00
TUBESHEET (FORGING)								

2-93-170-05231
DRAWING NO.

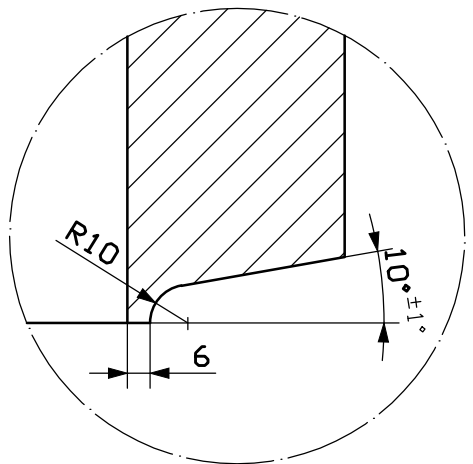
ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

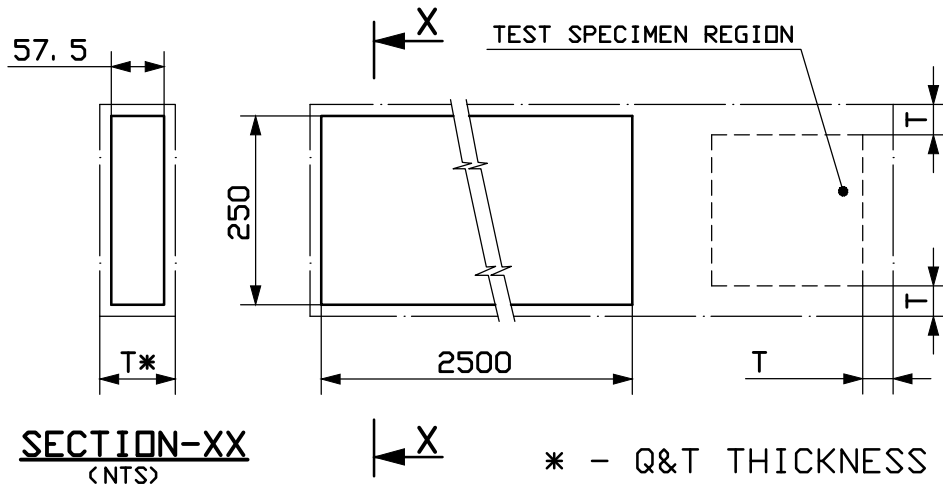
1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : **20MnMoNi55.**
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ OR FINER ON ALL OTHER SURFACES.
4. THE SHELL SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED SHELL SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960
6. THE SHELL SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL OTHER MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED SHELL.
12. IN ADDITION TO THE MONITORING TEST COUPONS UNDER THE SPECIFICATION, PRODUCTION WELD TEST PLATES OF SIZE AND QUANTITY AS GIVEN BELOW, BELONGING TO THE SAME MELT NUMBER AND SIMILARLY HEAT TREATED AS THE COMPONENT, SHALL ALSO BE SUPPLIED.
1) PL. 57.5x250x2500 - 1 NO. EACH WITH EVERY SHELL-I FORGING ONLY.



DETAIL-B
(1:2)



DETAIL-A
(1:2)

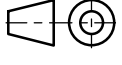


13. APPROXIMATE WEIGHT : 16954 kg

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR			
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°		
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'		
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'		
30 TO 120	± 0.3	—	—	120 TO 400	± 10'		
120 TO 400	± 0.5	—	—	OVER 400	± 5'		

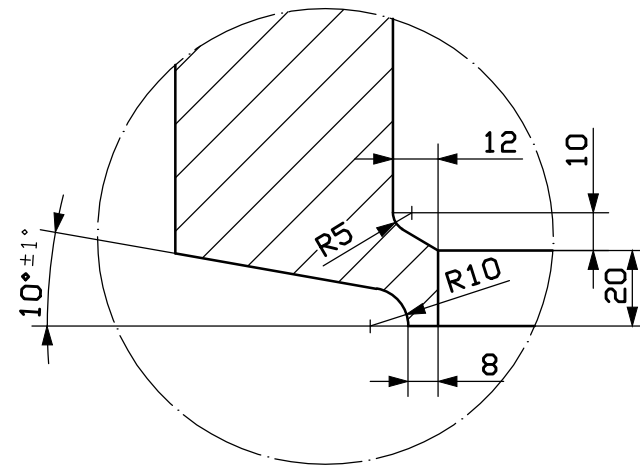
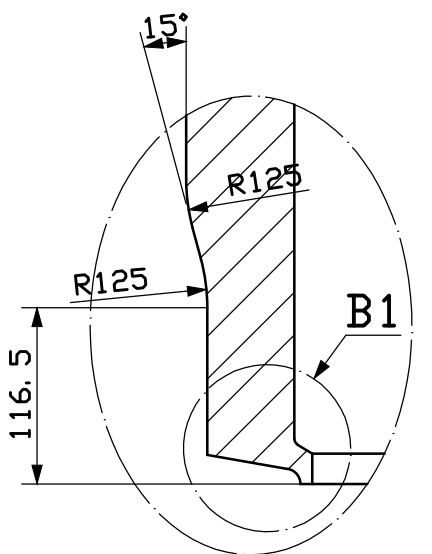
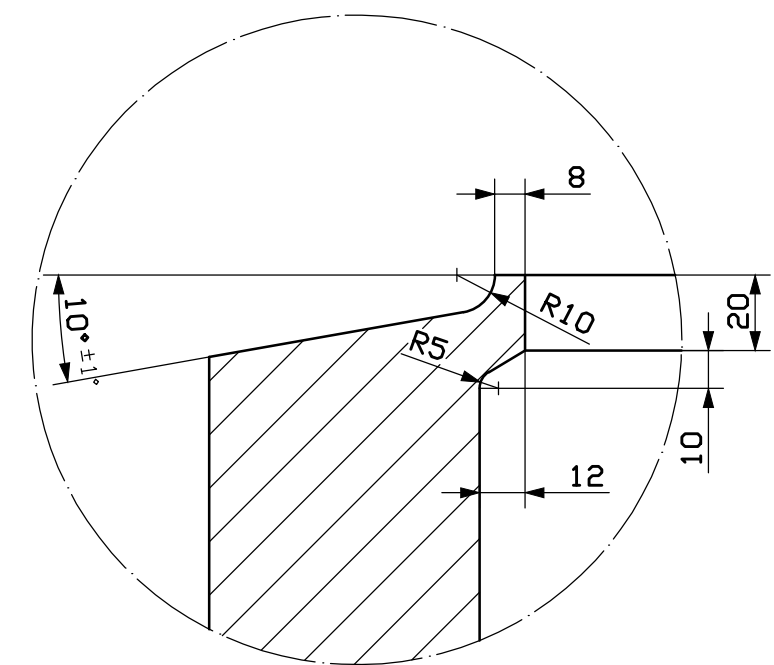
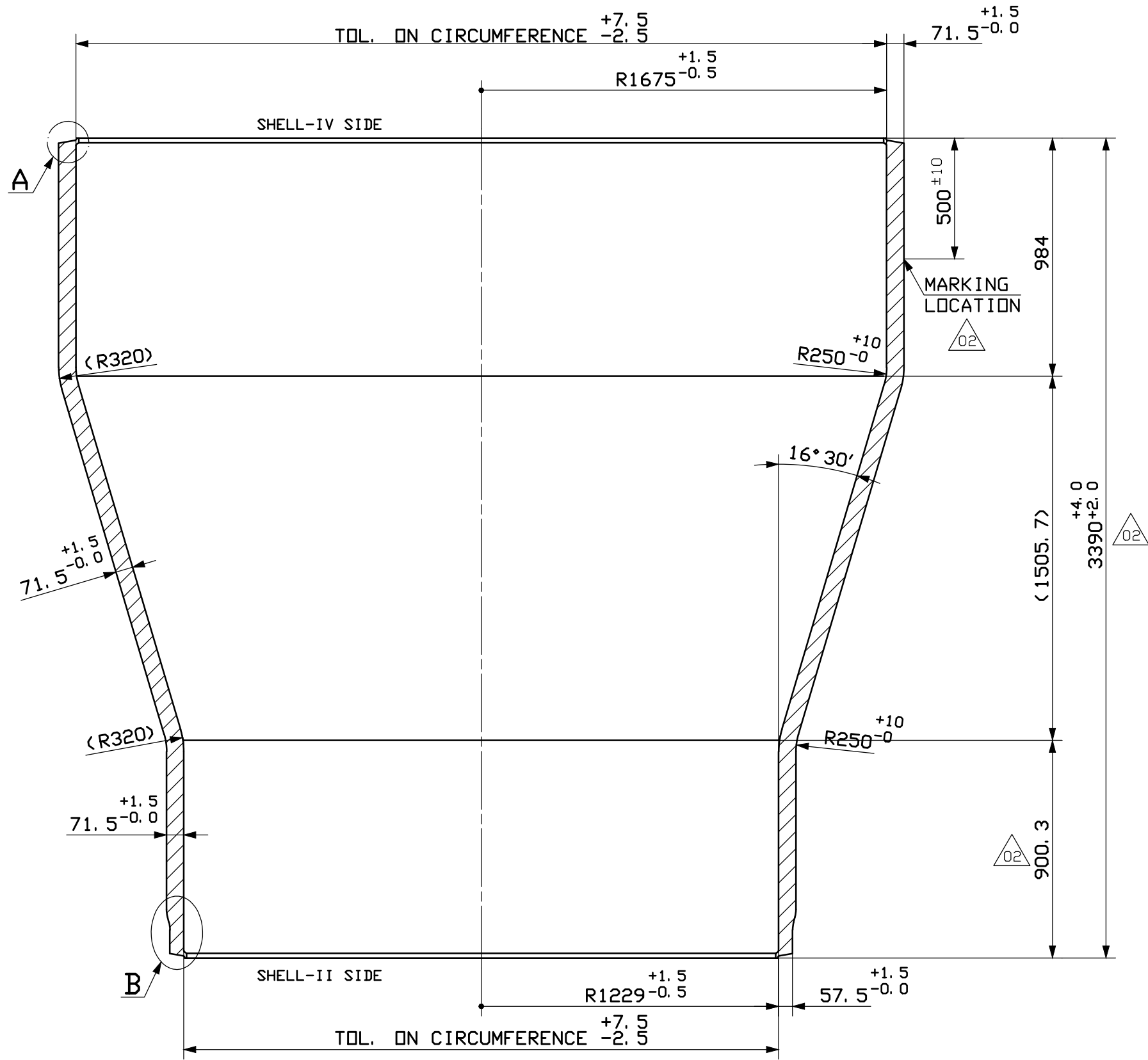
REV 01	DATE 271017	ALTERED : CHD&APPD : <i>[Signature]</i>
IN LINE WITH CUSTOMER'S DRAWING DETAIL-B ADDED.		

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		700MWe/GHAVP-1&2					
 05-228/D	Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		DRN N.K.	SIGNATURE <i>[Signature]</i>	DATE 120814	NO. OF VAR	
			CHD NKK/RRV	<i>[Signature]</i>	120814		
			APPD AS	<i>[Signature]</i>	120814		
DEPT NC	GRADE OF UNTOL DIM C/M/F		SCALE 1:20 ; 1:2 NTS	WEIGHT (Kg)	REF TO ASSY / OLD DWG GHAVP-1&2/33111/4198/DD/ROO	ITEM NO	NO OF ITEMS
CODE 150	TITLE SHELL-I (FORGING)			CARD CODE U 01	DRAWING NO : 2-93-170-05231		REV 01

Size A2

98290-021-86-2
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETERS



DETAIL-B (1:5)

DETAIL-B1 (1:2)

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR			
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°		
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'		
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'		
30 TO 120	± 0.3	—	—	120 TO 400	± 10'		
120 TO 400	± 0.5	—	—	OVER 400	± 5'		

REV 02	DATE 271017	ALTERED : CHD&APPD : <i>[Signature]</i>	REV 01	DATE 130117	ALTERED : CHD&APPD : <i>[Signature]</i>
IN LINE WITH CUSTOMER'S DRAWING DETAIL-A, B & B1 MODIFIED.			IN DET-B, DIMN. 141.5 CHANGED TO 116.5		

NOTES:-

1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : **20MnMoNi55.**
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ ON ALL OTHER SURFACES.
4. THE CONE SHELL SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED CONE SHELL SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960
6. THE CONE SHELL SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESSES INDICATED ARE SPECIFIED MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED CONE SHELL.
12. APPROXIMATE WEIGHT : 17968 kg

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

700MWe/GHAVP-1&2



Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

DRN	NAME N.K.	SIGNATURE <i>[Signature]</i>	DATE 120814	NO. OF VAR
CHD	NKK/RRV	<i>[Signature]</i>	120814	
APPD	AS	<i>[Signature]</i>	120814	

DEPT NC	GRADE OF UNTOL DIM C/M/F	SCALE 1:20 ; 1:2 1:5	WEIGHT (Kg)	REF TO ASSY / OLD DWG GHAVP-1&2/33111/4199/DD/ROO	ITEM NO	NO OF ITEMS
CODE 150						
TITLE CONE SHELL-III (FORGING)				CARD CODE U 01	DRAWING NO : 2-93-170-05236	REV 02

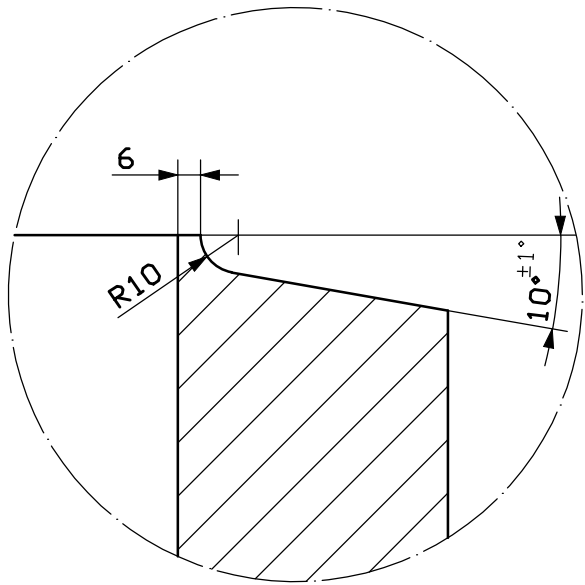
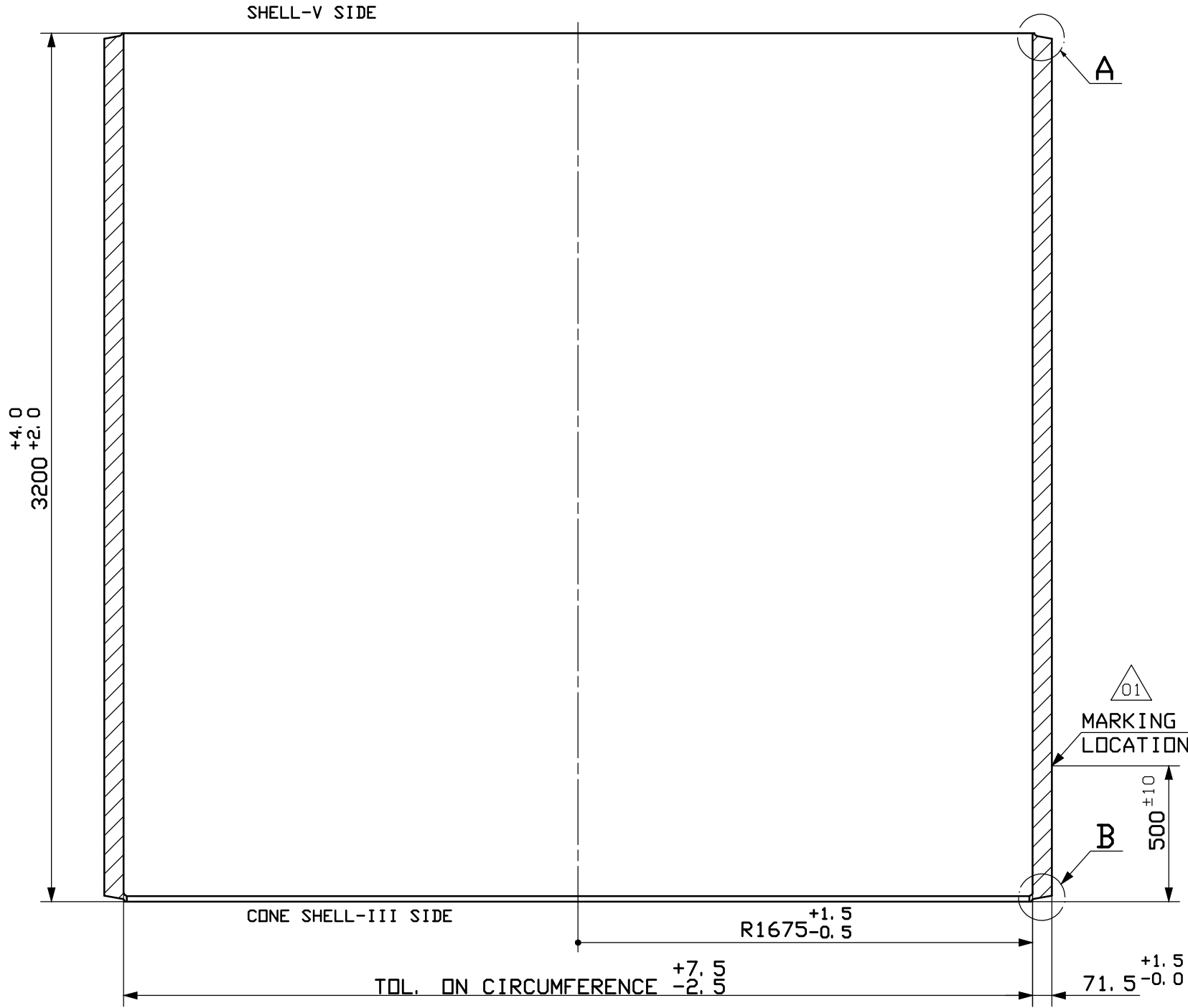
Size A2

2-93-170-05237
DRAWING NO.

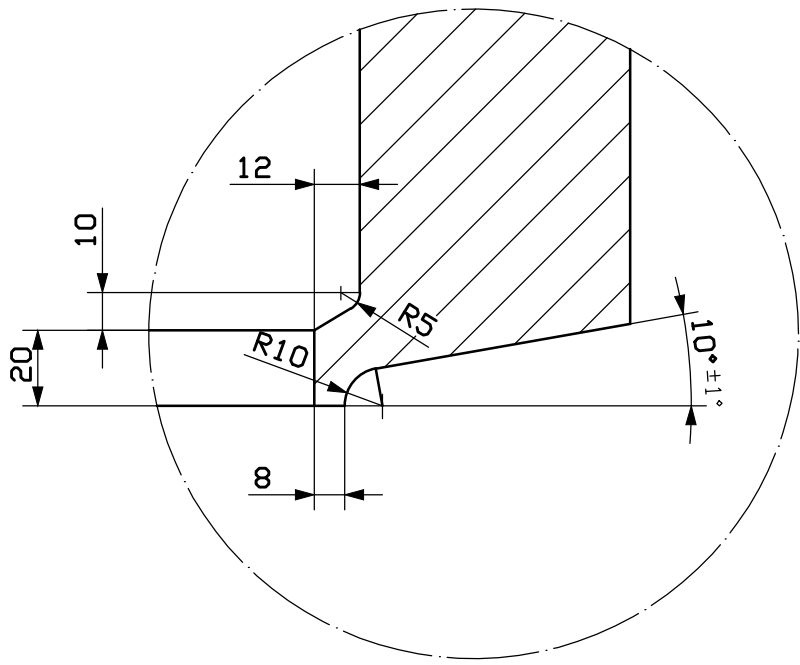
ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : **20MnMoNi55.**
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ ON ALL OTHER SURFACES.
4. THE SHELL SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED SHELL SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE SHELL SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED SHELL.
12. APPROXIMATE WEIGHT : 19181 kg



DETAIL-A
(1:2)



DETAIL-B
(1:2)

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

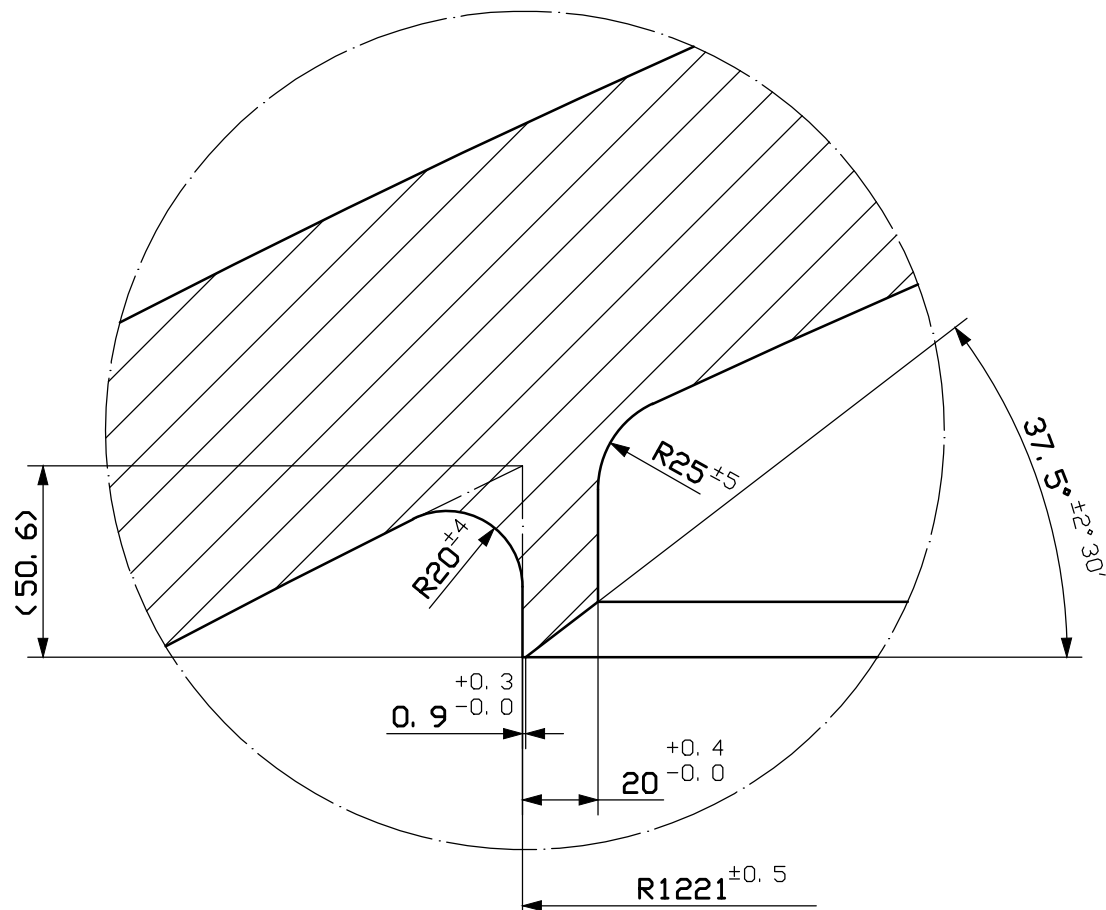
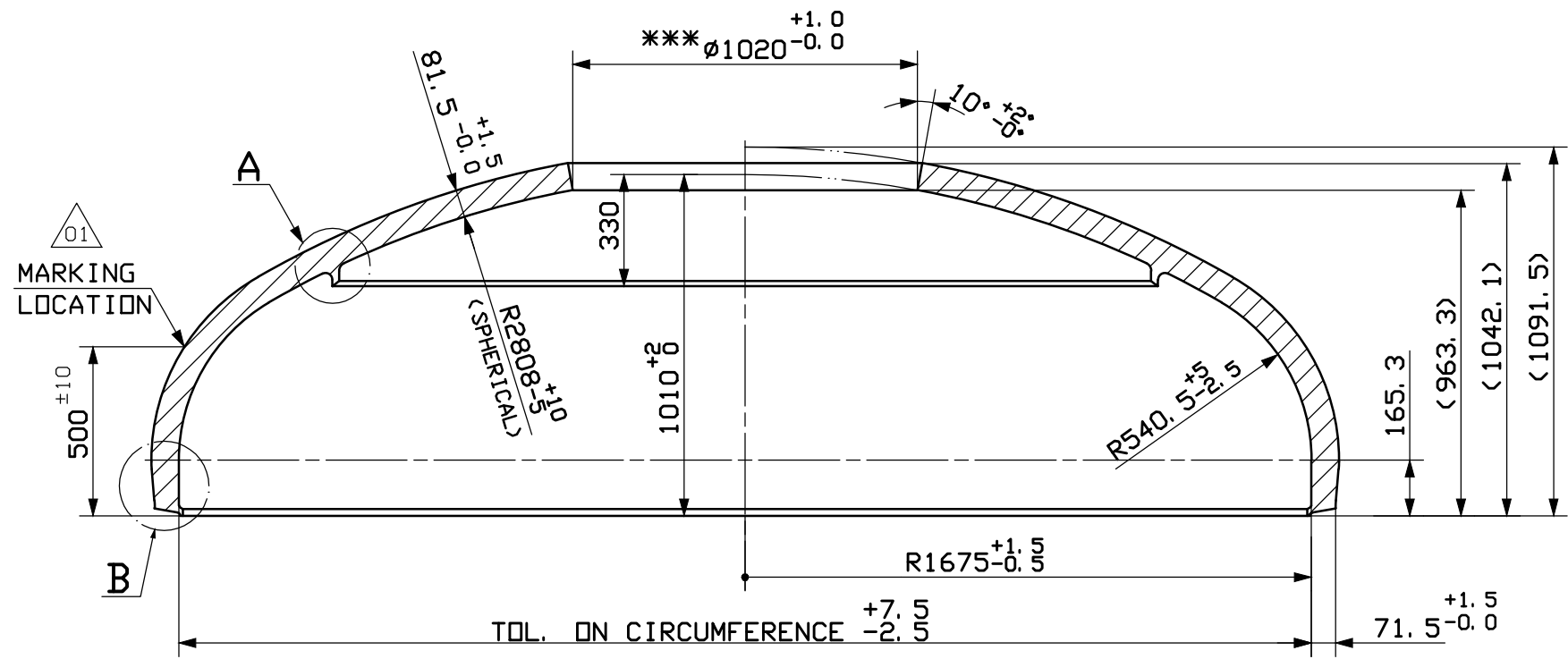
LINEAR				ANGULAR			
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°		
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'		
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'		
30 TO 120	± 0.3	-	-	120 TO 400	± 10'		
120 TO 400	± 0.5	-	-	OVER 400	± 5'		

REV 01	DATE 281017	ALTERED : CHD&APPD : <i>[Signature]</i>
IN LINE WITH CUSTOMER'S DRAWING DETAIL-B ADDED.		

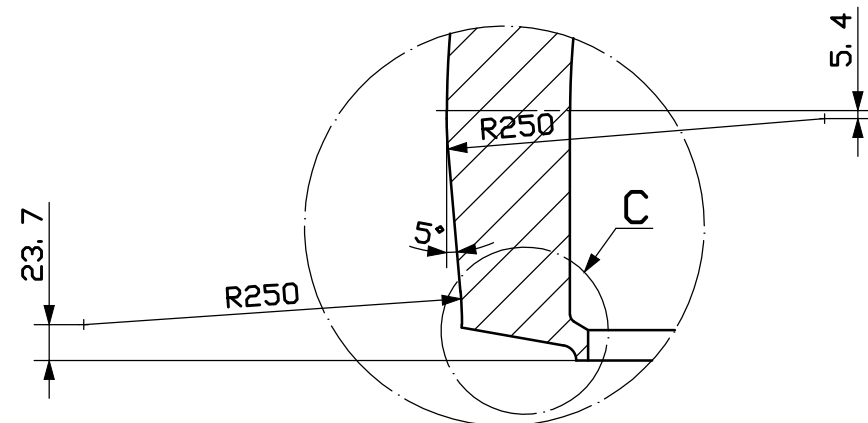
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT 700MWe/GHAVP-1&2									
		Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		DRN N.K.	SIGNATURE <i>[Signature]</i>	DATE 120814	NO. OF VAR			
DEPT NC		GRADE OF UNTOL DIM C/M/F		CHD NKK/RRV	SIGNATURE <i>[Signature]</i>	DATE 120814	NO. OF ITEMS			
CODE 150		SCALE 1:20 ; 1:2		APPD AS	SIGNATURE <i>[Signature]</i>	DATE 120814	NO. OF ITEMS			
TITLE SHELL-IV (FORGING)				CARD CODE U 01	DRAWING NO : 2-93-170-05237		REV 01			

2-93-170-05238
DRAWING NO.

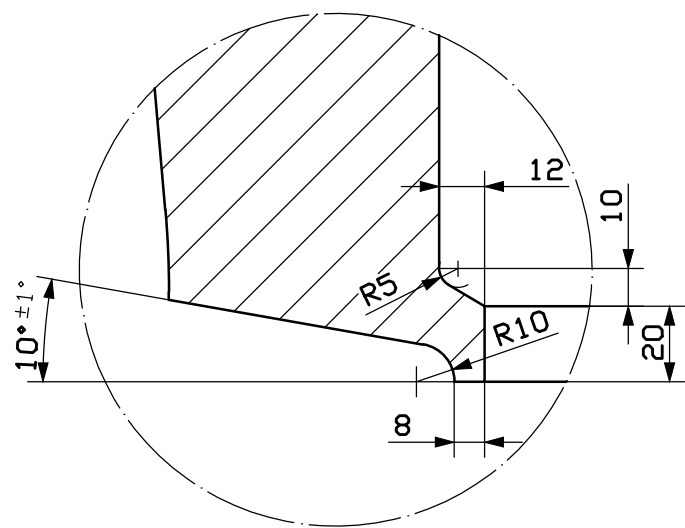
ALL DIMENSIONS ARE IN MILLIMETERS



DETAIL-A
(1:2)



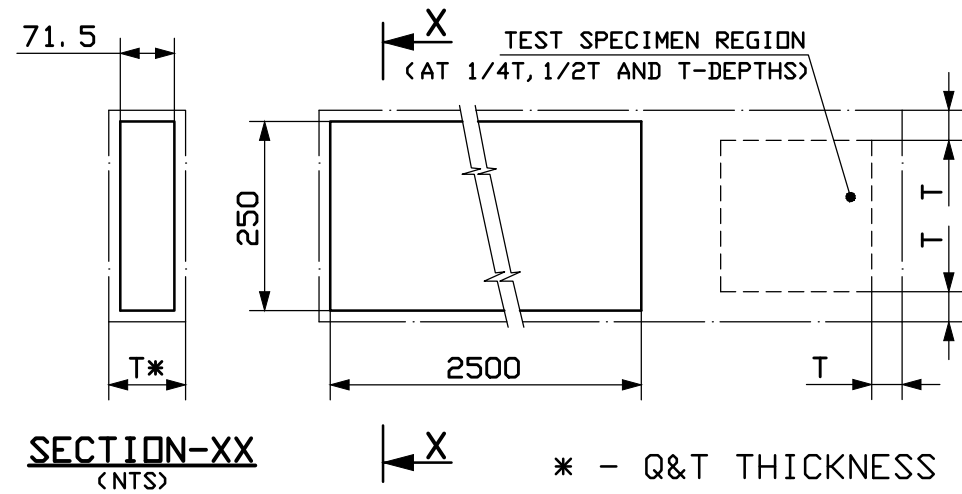
DETAIL-B
(1:5)



DETAIL-C
(1:2)

NOTES:-

1. APPLICABLE SPECIFICATIONS :
D) PC-M-960
2. MATERIAL SPECIFICATION : 20MnMoNi55.
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ ON ALL OTHER SURFACES.
4. THE COMPONENT SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED COMPONENT SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE COMPONENT SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED COMPONENT.
12. ~~HANDLING LUGS MAY BE WELDED ON THIS FORGING, IF REQUIRED BY THE MANUFACTURER, ON SUITABLE BUTTERINGS.~~
13. IN ADDITION TO THE MONITORING TEST COUPONS UNDER THE SPECIFICATION, PRODUCTION WELD TEST PLATES OF SIZE AND QUANTITY AS GIVEN BELOW, BELONGING TO THE SAME MELT NUMBER AND SIMILARLY HEAT TREATED AS THE COMPONENT, SHALL ALSO BE SUPPLIED.
D) PL. 71.5x250x2500 - 1 NO. EACH WITH EVERY TORISPHERICAL HEAD FORGING.



14. APPROXIMATE WEIGHT : 8861 kg

***-ID ϕ 1020⁺¹₋₀ SHALL BE MACHINED TO ID ϕ 1313.3⁺¹₋₀ AT BHEL.

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR			
0.5 TO 3	±0.1	400 TO 1000	±0.8	0 TO 10	±1°		
3 TO 6	±0.1	1000 TO 2000	±1.2	10 TO 50	±30'		
6 TO 30	±0.2	2000 TO 4000	±2.0	50 TO 120	±20'		
30 TO 120	±0.3	-	-	120 TO 400	±10'		
120 TO 400	±0.5	-	-	OVER 400	±5'		

REV	DATE	ALTERED :
01	301017	CHD&APPD : <i>[Signature]</i>
IN LINE WITH CUSTOMER'S DRAWING DETAIL-C MODIFIED.		

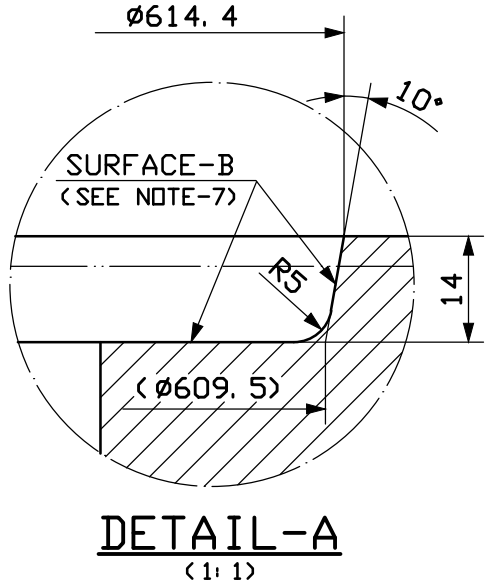
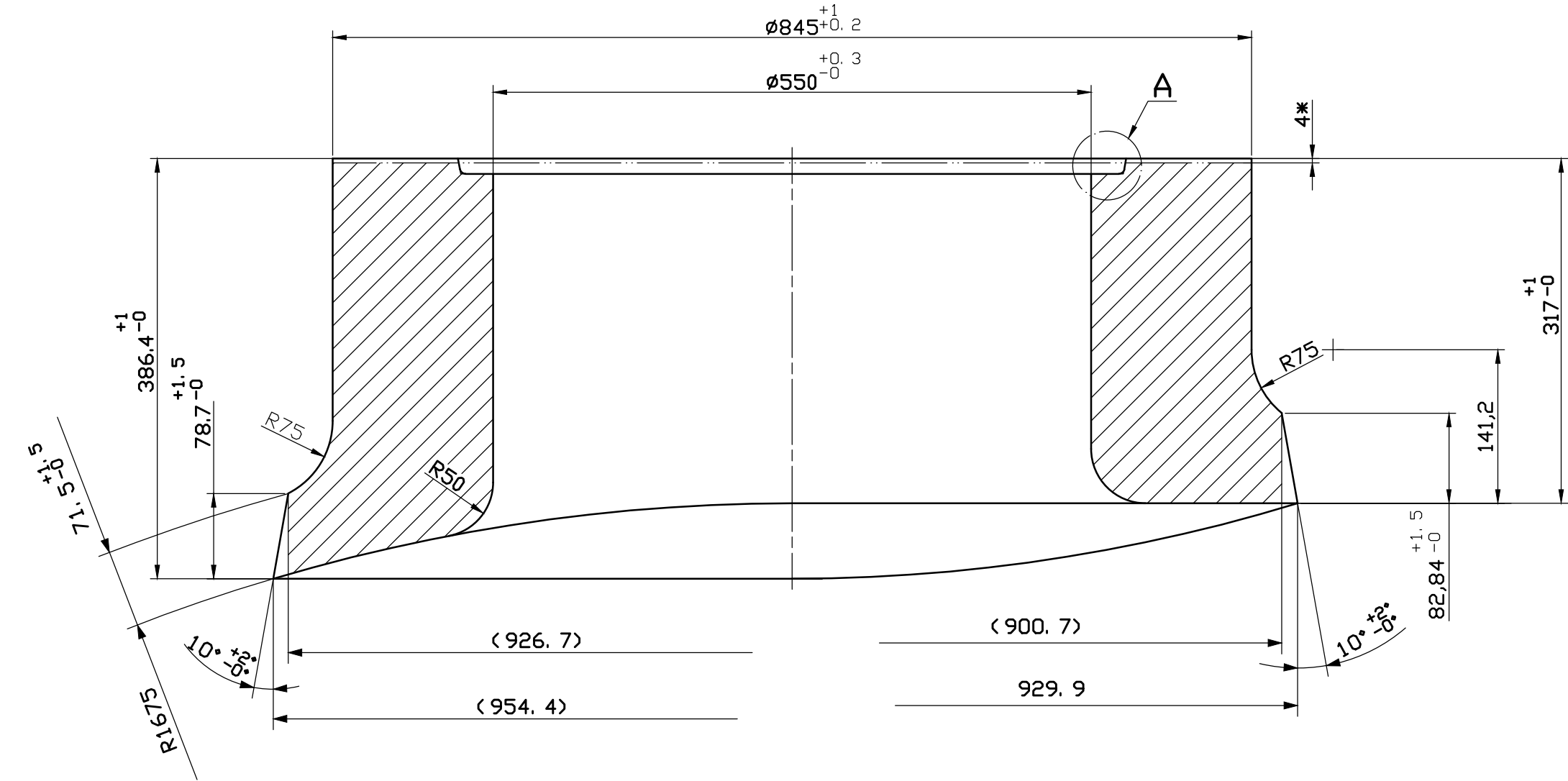
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		700MWe/GHAVP-1&2					
 05-228/D	Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		DRN	NAME N.K.	SIGNATURE <i>[Signature]</i>	DATE 090814	NO. OF VAR
			CHD	NKK/RRV	<i>[Signature]</i>	090814	
			APPD	A.S	<i>[Signature]</i>	090814	
DEPT NC	GRADE OF UNTOL DIM C/M/F	SCALE 1:20 ; 1:5 1:2 ; NTS	WEIGHT (Kg) 8686	REF TO ASSY / OLD DWG GHAVP-1&2/33111/4019/DD/ROO GHAVP-1&2/33111/4201/DD/ROO		ITEM NO	NO OF ITEMS
TITLE TORISPHERICAL HEAD (FORGING)			CARD CODE U 01	DRAWING NO : 2-93-170-05238		REV 01	

2-93-170-05240
DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

1. APPLICABLE SPECIFICATIONS :
D) PC-M-960
2. MATERIAL SPECIFICATION : **20MnMoNi55.**
3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED NOZZLE SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SURFACE 'B' SHALL BE PROTECTED IMMEDIATELY AFTER MACHINING AND CARRYING OUT NDE BY BRIGHT COLOURED PEELABLE PLASTIC COAT IN ORDER TO PRESERVE THIS MACHINED SURFACE.
8. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
9. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
10. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
11. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
12. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED NOZZLE.
13. APPROXIMATE WEIGHT : 951 kg

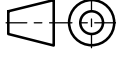


* - MACHINING ALLOWANCE.
<DOTTED LINE INDICATED FOR FINAL MACHINING IS ONLY FOR INFORMATION>

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

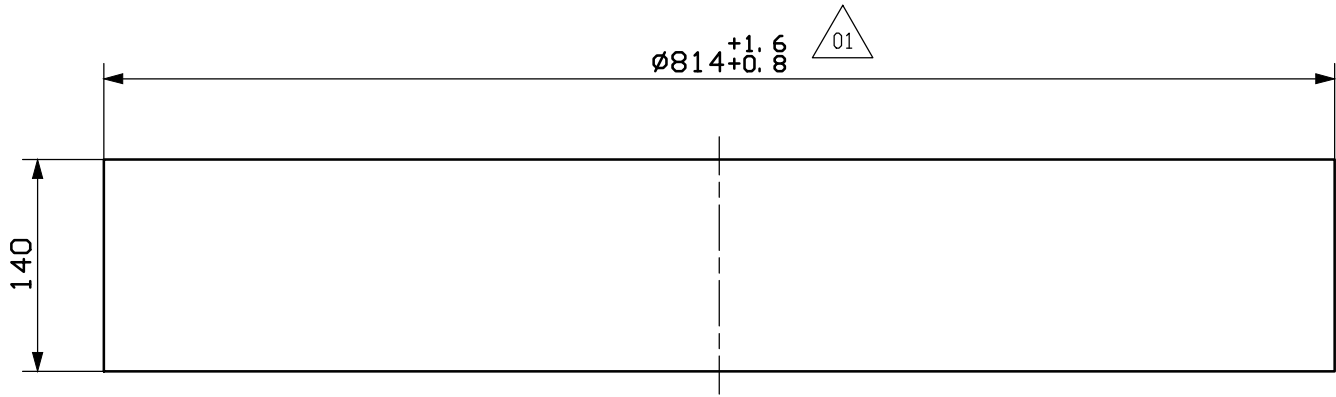
LINEAR				ANGULAR			
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1'		
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'		
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'		
30 TO 120	± 0.3	—	—	120 TO 400	± 10'		
120 TO 400	± 0.5	—	—	OVER 400	± 5'		

REV 01	DATE 120117	ALTERED : CHD&APPD : <i>[Signature]</i>
THICKNESS INCREASED BY 5% BASED ON CUSTOMER'S REQUIREMENT.		

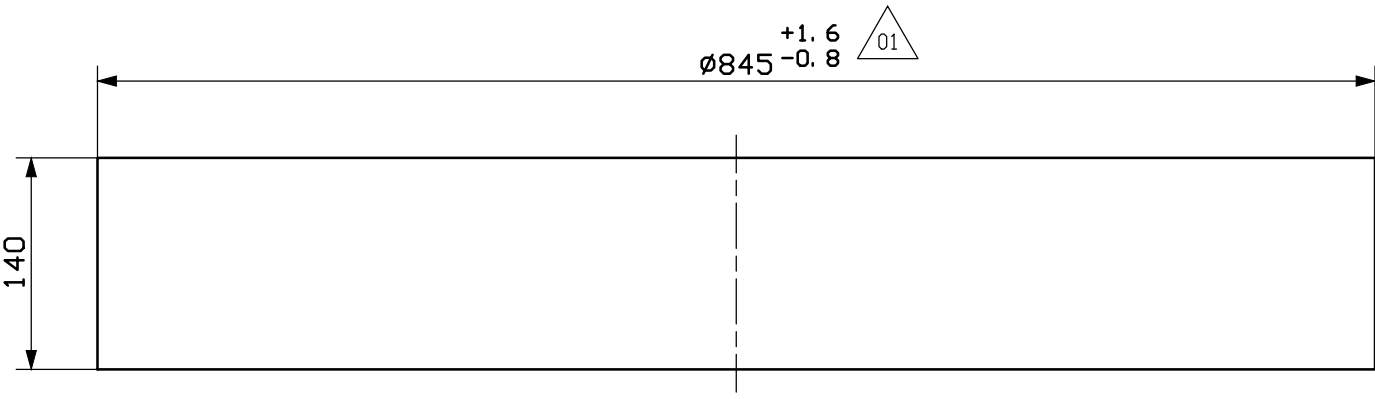
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT										
	700MWe/GHAVP-1&2										
	Bharat Heavy Electricals Ltd				DRN	NAME N.K.	SIGNATURE <i>[Signature]</i>	DATE 090814	NO. OF VAR		REF TO ASSY / OLD DWG GHAVP-1&2/33111/4019/DD/R00 GHAVP-1&2/33111/4210/DD/R00
	UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014				CHD	AK/SM	<i>[Signature]</i>	090814			
					APPD	A.S	<i>[Signature]</i>	090814			
DEPT NC	GRADE OF UNTOL DIM C/M/F			SCALE 1:5 ; 1:1	WEIGHT (Kg) —		ITEM NO		No OF ITEMS		REV
CODE 150	TITLE SECONDARY MANHOLE NOZZLE (FORGING)		CARD CODE U 01	DRAWING NO : 2-93-170-05240				01			

2-93-170-05245
DRAWING NO.

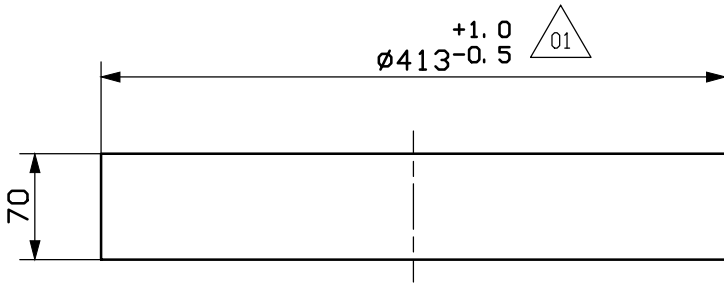
ALL DIMENSIONS ARE IN MILLIMETERS



(a) PRIMARY MANHOLE COVER
APPROXIMATE WEIGHT : 566 kg



(b) SECONDARY MANHOLE COVER
APPROXIMATE WEIGHT : 609 kg



(c) HANDHOLE COVER
APPROXIMATE WEIGHT : 73 kg

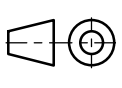
NOTES: -

1. APPLICABLE SPECIFICATION : PC-M-960
2. MATERIAL SPECIFICATION : 20MnMoNi55
2. GENERAL TOLERANCES TO IS 2102-m
3. SURFACE FINISH : $\sqrt{3.2}$
4. FINISHED FORGING SHALL BE EXAMINED FOR 100% U.T. & 100% M.T. IN ACCORDANCE WITH PC-M-960
5. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACE.
6. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR		
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°	
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'	
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'	
30 TO 120	± 0.3	-	-	120 TO 400	± 10'	
120 TO 400	± 0.5	-	-	OVER 400	± 5'	

REV	DATE	ALTERED :
01	130117	CHD&APPD : <i>[Signature]</i>
COVER OD INCREASED TO MATCH THE CORRESPONDING NOZZLE OD.		

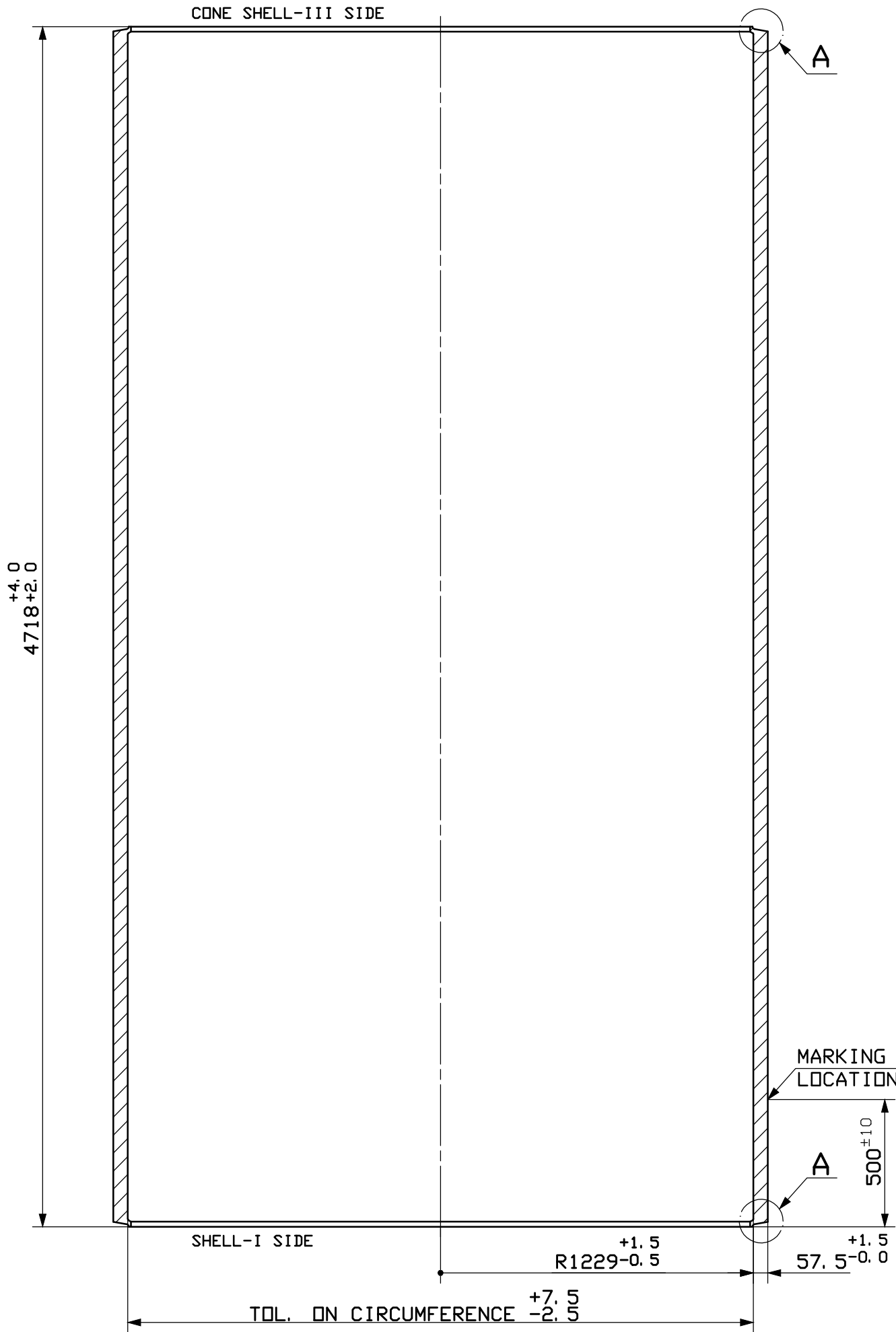
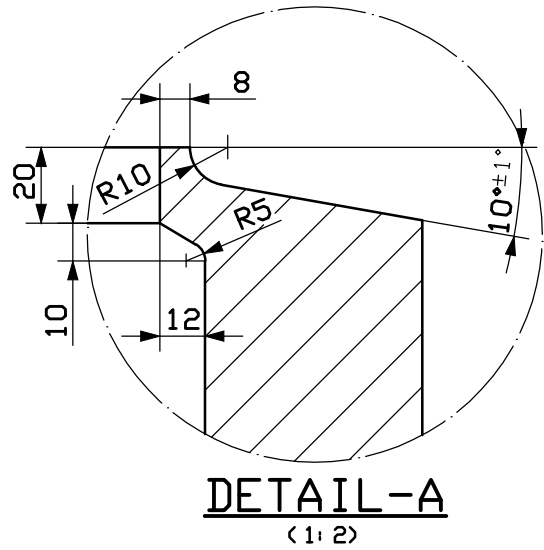
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
700MWe/GHAVP-1&2									
		Bharat Heavy Electricals Ltd		DRN	NAME N.K.	SIGNATURE <i>[Signature]</i>	DATE 090814	NO. OF VAR	
		UNIT: HIGH PRESSURE BOILER PLANT		CHD	AK/SM	<i>[Signature]</i>	090814		
		TIRUCHIRAPALLI - 620014		APPD	A.S	<i>[Signature]</i>	090814		
DEPT NC	GRADE OF UNTOL DIM C/M/F		SCALE 1:5	WEIGHT (Kg)	REF TO ASSY / OLD DWG GHAVP-1&2/33111/4175/DD/ROO GHAVP-1&2/33111/4219/DD/ROO			ITEM NO	NO OF ITEMS
CODE 150	TITLE MANHOLE & HANDHOLE COVERS			CARD CODE U 01	DRAWING NO : 2-93-170-05245			REV 01	

DRAWING NO. : 2-93-170-05313

ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : 20MnMoNi55.
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ OR FINER ON ALL OTHER SURFACES.
4. THE SHELL SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED SHELL SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960
6. THE SHELL SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL OTHER MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED SHELL.
12. APPROXIMATE WEIGHT : 16781 kg

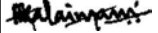
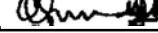
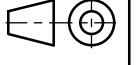


TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR			
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°		
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'		
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'		
30 TO 120	± 0.3	—	—	120 TO 400	± 10'		
120 TO 400	± 0.5	—	—	OVER 400	± 5'		

REV	DATE	ALTERED :
		CHD&APPD :

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

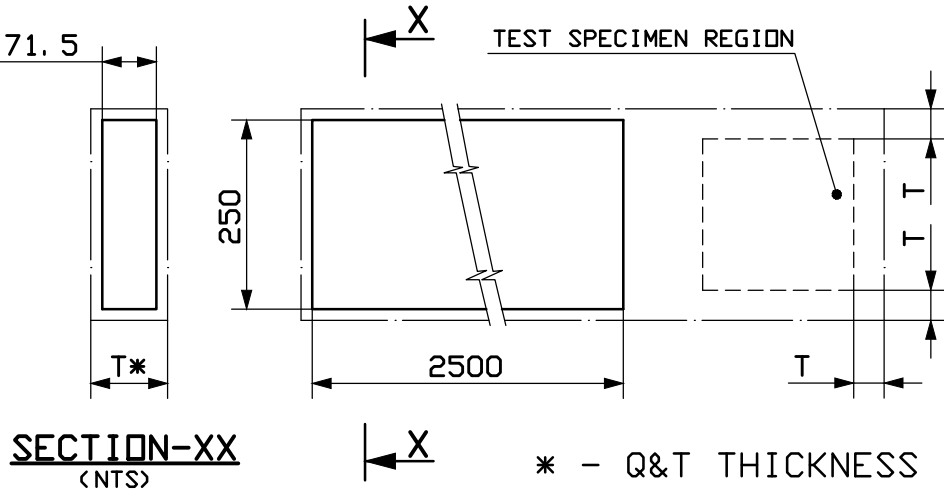
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		700MWe/GHAVP-1&2							
	Bharat Heavy Electricals Ltd		DRN	NAME N.K.	SIGNATURE 	DATE 271017	NO. OF VAR		
	UNIT: HIGH PRESSURE BOILER PLANT		CHD	NKK/RRV		271017			
	TIRUCHIRAPALLI - 620014		APPD	AS		271017			
DEPT NC	GRADE OF UNTOL DIM C/M/F		SCALE 1:20 ; 1:2	WEIGHT (Kg)		REF TO ASSY / OLD DWG GHAVP-1&2/33111/4198/DD/ROO		ITEM NO	No OF ITEMS
CODE 150									
TITLE SHELL- II (FORGING)				CARD CODE U 01	DRAWING NO : 2-93-170-05313			REV 00	

DRAWING NO:
2-93-170-05314

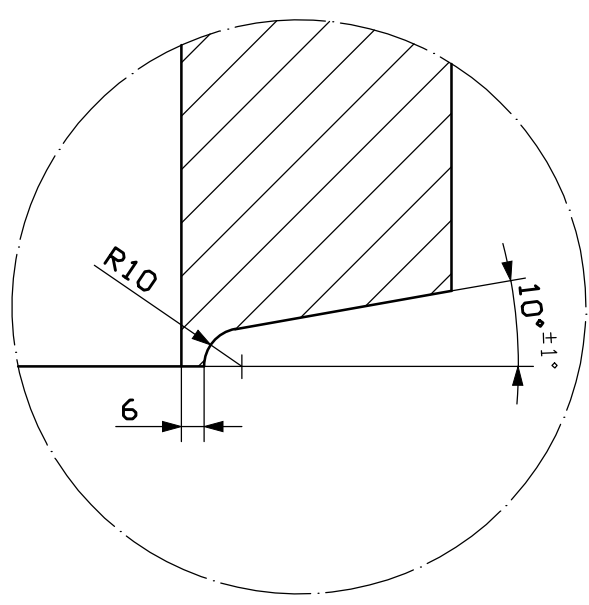
ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

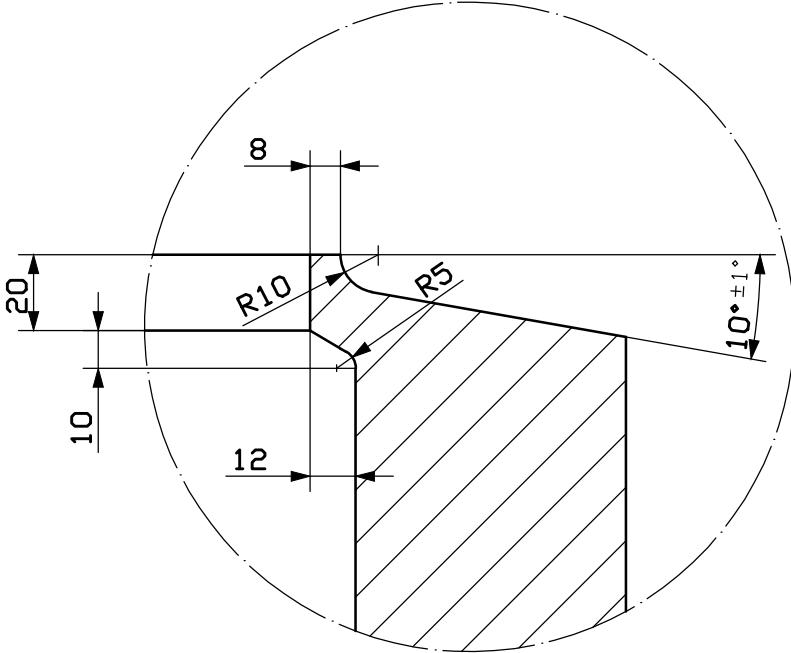
1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : **20MnMoNi55.**
3. SURFACE FINISH : $\sqrt{3.2}$ ON INNER SURFACES, & $\sqrt{6.3}$ ON ALL OTHER SURFACES.
4. THE SHELL SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED SHELL SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE SHELL SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED SHELL.
12. IN ADDITION TO THE MONITORING TEST COUPONS UNDER THE SPECIFICATION, PRODUCTION WELD TEST PLATES OF SIZE AND QUANTITY AS GIVEN BELOW, BELONGING TO THE SAME MELT NUMBER AND SIMILARLY HEAT TREATED AS THE COMPONENT, SHALL ALSO BE SUPPLIED.
- i) PL. 71.5x250x2500 - 1 NO. EACH WITH EVERY SHELL-V FORGING ONLY.



13. APPROXIMATE WEIGHT : 23827 kg



DETAIL-A
(1 of 2)

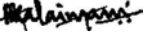
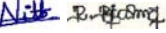
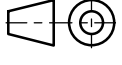


DETAIL-B
(1 of 2)

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

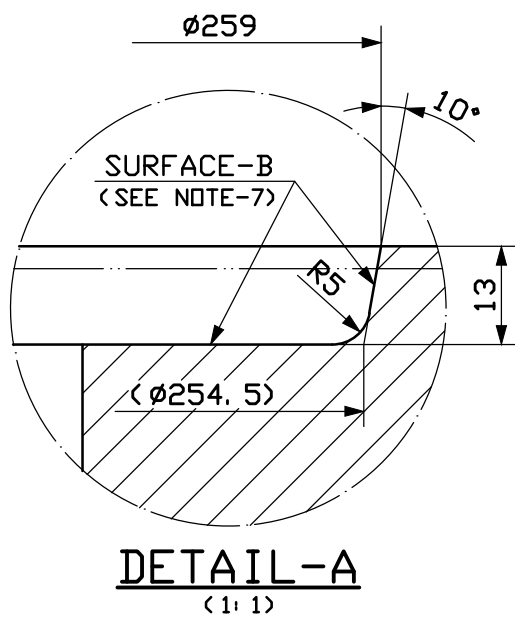
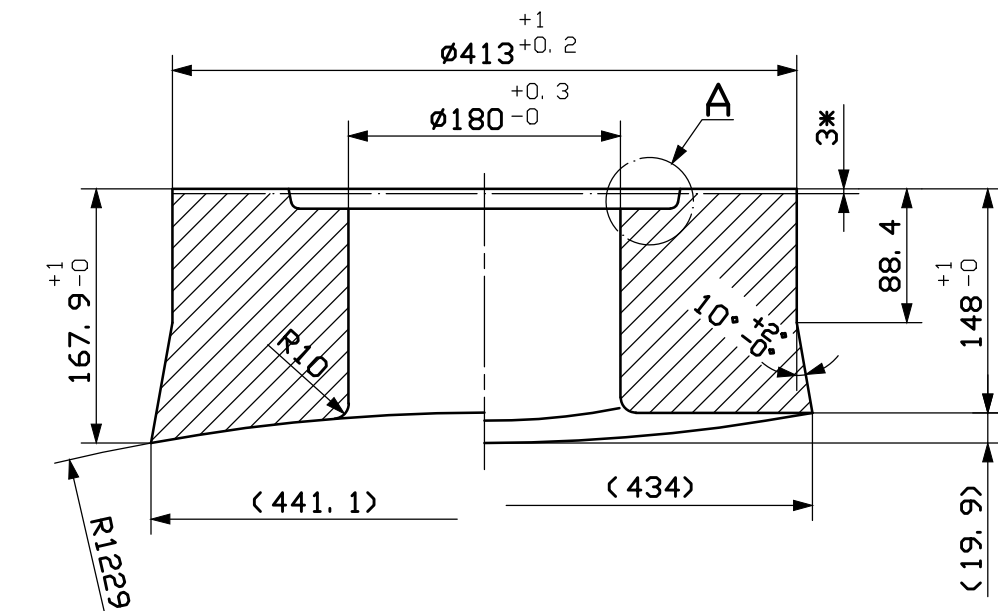
LINEAR				ANGULAR		
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°	
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'	
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'	
30 TO 120	± 0.3	-	-	120 TO 400	± 10'	
120 TO 400	± 0.5	-	-	OVER 400	± 5'	

REV	DATE	ALTERED :
		CHD&APPD :

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.		TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT								
		700MWe/GHAVP-1&2								
				Bharat Heavy Electricals Ltd		DRN	NAME N.K.	SIGNATURE 	DATE 281017	NO. OF VAR
				UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		CHD	NKK/RRV		281017	
DEPT NC		GRADE OF UNTOL DIM C/M/F		SCALE 1:20 ; 1:2 NTS	WEIGHT (Kg)	REF TO ASSY / OLD DWG GHAVP-1&2/33111/4200/DD/R00		ITEM NO	NO OF ITEMS	
CODE 150		TITLE SHELL-V (FORGING)			CARD CODE U 01	DRAWING NO : 2-93-170-05314		REV 00		

NOTES:-

1. APPLICABLE SPECIFICATIONS : PC-M-960
2. MATERIAL SPECIFICATION : 20MnMoNi55.
3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED NOZZLE SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SURFACE 'B' SHALL BE PROTECTED IMMEDIATELY AFTER MACHINING AND CARRYING OUT NDE BY BRIGHT COLOURED PEELABLE PLASTIC COAT IN ORDER TO PRESERVE THIS MACHINED SURFACE.
8. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
9. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
10. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED NOZZLE.
12. APPROXIMATE WEIGHT : 146 kg



* - MACHINING ALLOWANCE.

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-n)

LINEAR				ANGULAR	
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'
30 TO 120	± 0.3	—	—	120 TO 400	± 10'
120 TO 400	± 0.5	—	—	OVER 400	± 5'

REV	DATE	ALTERED :
01	120117	CHD&APPD : <i>[Signature]</i>
THICKNESS INCREASED BY 5% BASED ON CUSTOMER'S REQUIREMENT.		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

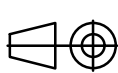
700MWe/GHAVP-1&2



Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

DEPT
NC
CODE
150

GRADE OF
UNTOL DIM
C/M/F



SCALE
1:5 ; 1:1

WEIGHT (Kg)

— —

REF TO ASSY / OLD DWG
GHAVP-1&2/33111/4214/DD/ROO

ITEM
NO

No OF
ITEMS

TITLE
HAND HOLE NOZZLE
(FORGING)

CARD
CODE
U 01

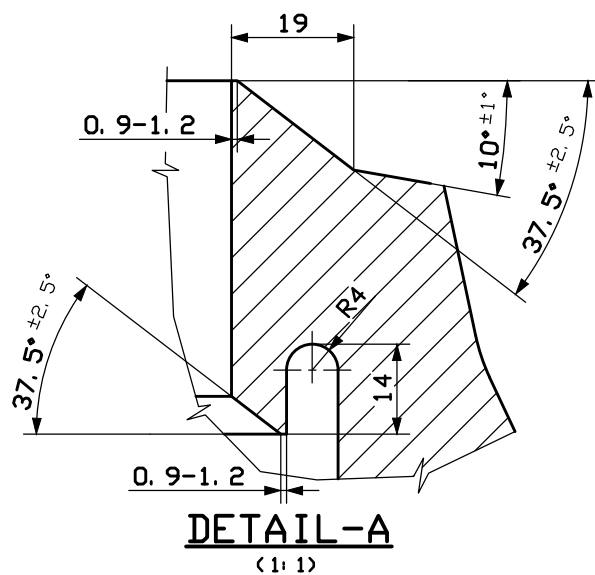
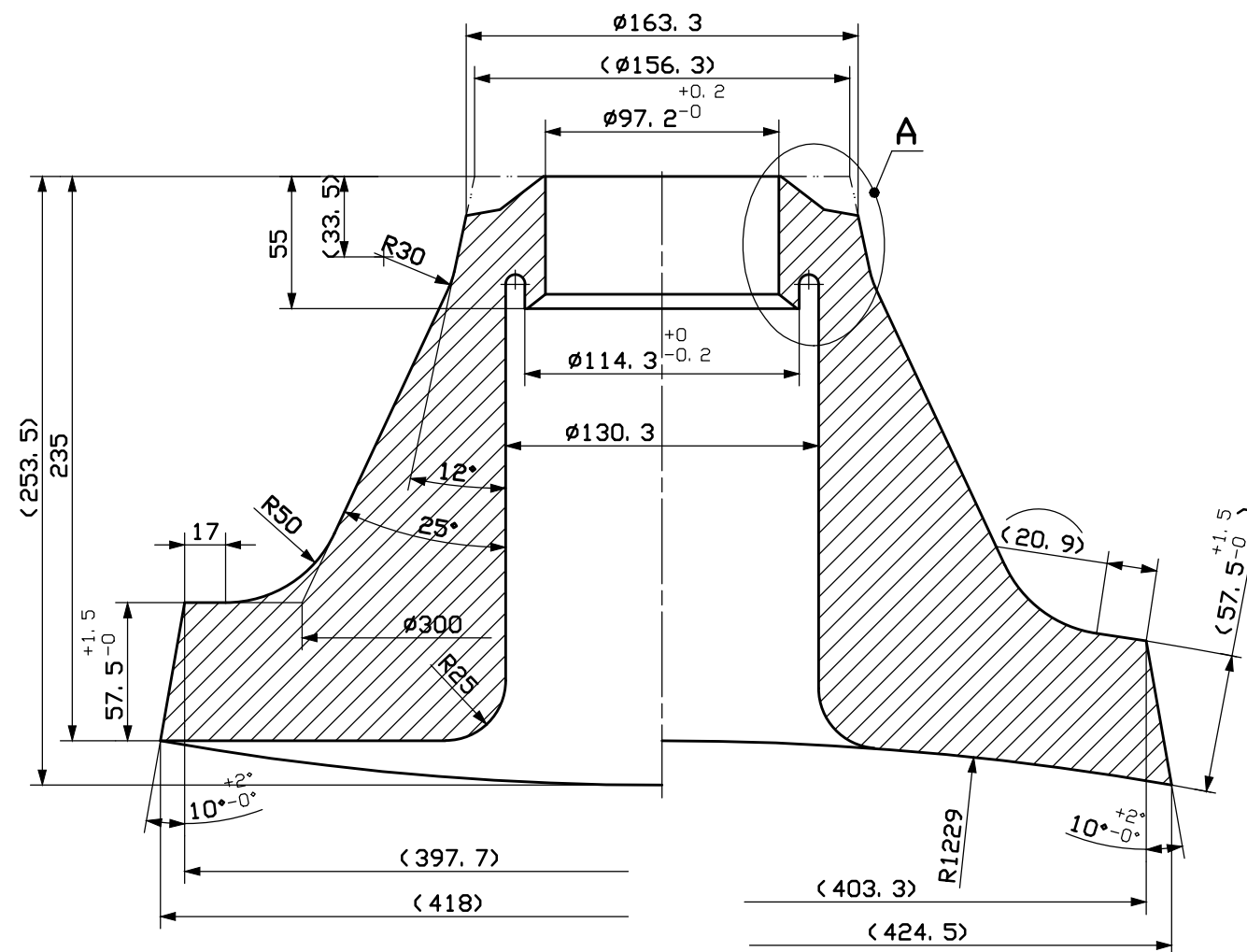
DRAWING NO :
3-93-170-05293

REV
01

3-93-170-05295

DRAWING NO:

ALL DIMENSIONS ARE IN MILLIMETERS



NOTES:-

1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
2. MATERIAL SPECIFICATION : 20MnMoNi55.
3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
5. FINISHED NOZZLE SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED NOZZLE.
12. APPROXIMATE WEIGHT. : 94 Kg

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR	
0.5 TO 3	±0.1	400 TO 1000	±0.8	0 TO 10	± 1°
3 TO 6	±0.1	1000 TO 2000	±1.2	10 TO 50	± 30'
6 TO 30	±0.2	2000 TO 4000	±2.0	50 TO 120	± 20'
30 TO 120	±0.3	—	—	120 TO 400	± 10'
120 TO 400	±0.5	—	—	OVER 400	± 5'

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

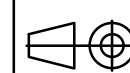
700MWe/GHAVP-1&2



Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

DEPT
NC
CODE
150

GRADE OF
UNTOL DIM
C/M/F



SCALE
1:2.5 ; 1:1

WEIGHT (Kg)
—

REF TO ASSY / OLD DWG
GHAVP-1&2/33111/4209/DD/ROO

ITEM
NO

TITLE

PDHRS NOZZLE
(FORGING)

CARD
CODE
U 01

DRAWING NO :

3-93-170-05295

REV

01

REV	DATE	ALTERED :
01	130117	CHD&APPD : <i>[Signature]</i>

THICKNESS INCREASED BY 5% BASED ON CUSTOMER'S REQUIREMENT.

Size A3

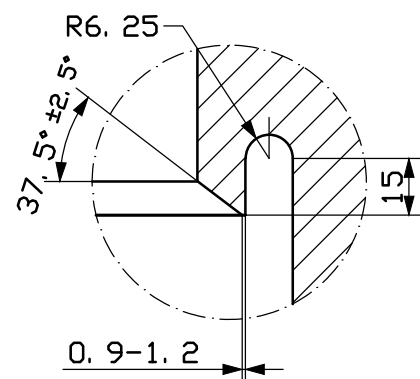
3-93-170-05297

DRAWING NO:

ALL DIMENSIONS ARE IN MILLIMETERS

NOTES:-

1. APPLICABLE SPECIFICATIONS :
1) PC-M-960
 2. MATERIAL SPECIFICATION : 20MnMoNi55.
 3. SURFACE FINISH : $\sqrt{3.2}$ OR FINER ALL OVER.
 4. THE NOZZLE SHALL BE SUPPLIED IN FINISH MACHINED CONDITION AS SHOWN.
 5. FINISHED NOZZLE SHALL BE SUBJECTED TO 100% M.T AS PER PC-M-960.
 6. THE NOZZLE SHALL ALSO BE CHECKED BY 100% U.T AS PER PC-M-960.
 7. SUITABLE RUST PREVENTIVE COATING WHICH IS EASILY REMOVABLE SHALL BE APPLIED ON ALL MACHINED SURFACES.
 8. THE COMPONENT SHALL BE FORGED AS CLOSE TO THE FINISHED SHAPE AS POSSIBLE.
 9. DETAILED DRAWINGS INDICATING THE VARIOUS STAGES OF MANUFACTURE SHALL BE SUPPLIED TO THE PURCHASER FOR HIS APPROVAL PRIOR TO TAKING UP THE MANUFACTURE OF THE JOB.
 10. WALL THICKNESS INDICATED ARE MINIMUM VALUES.
 11. F.T.C AS PER SPECIFICATION PC-M-960 SHALL BE SUPPLIED ALONG WITH THE FINISHED NOZZLE.
 12. APPROXIMATE WEIGHT : 541 kg
- * - MACHINING ALLOWANCE.



DETAIL-A
(1:2)

TOLERANCE IF NOT SPECIFIED SHALL BE AS BELOW (REFER IS 2102-m)

LINEAR				ANGULAR	
0.5 TO 3	± 0.1	400 TO 1000	± 0.8	0 TO 10	± 1°
3 TO 6	± 0.1	1000 TO 2000	± 1.2	10 TO 50	± 30'
6 TO 30	± 0.2	2000 TO 4000	± 2.0	50 TO 120	± 20'
30 TO 120	± 0.3	—	—	120 TO 400	± 10'
120 TO 400	± 0.5	—	—	OVER 400	± 5'

REV	DATE	ALTERED :
01	130117	CHD&APPD : R. R. R.

THICKNESS INCREASED BY 5% BASED ON CUSTOMER'S REQUIREMENT.

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

700MWe/GHAVP-1&2



Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

DEPT
NC
CODE
150

GRADE OF
UNTOL DIM
C/M/F



SCALE
1:5 ; 1:2

WEIGHT (Kg)
—

REF TO ASSY / OLD DWG
GHAVP-1&2/33111/4215/DD/ROO

ITEM
NO

TITLE
FEED WATER NOZZLE
(FORGING)

CARD
CODE
U 01

DRAWING NO :
3-93-170-05297

REV
01

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

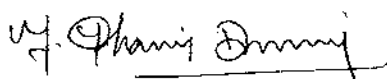
_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

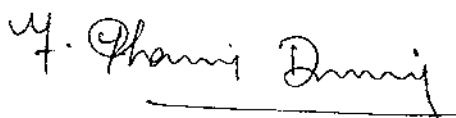

BHEL

Section 1 – Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
- 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved


Y. Phani Dutt

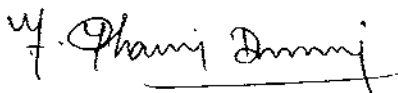
in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.



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Section 3 – Disqualification from tender process and exclusion from future contracts

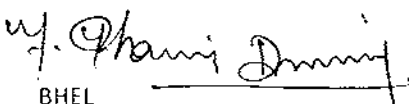
If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 – Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.


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Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

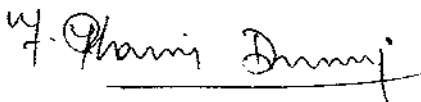
- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

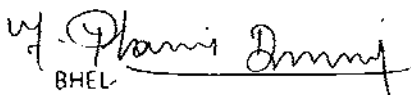
Section 8 –Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.



BHEL

- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s) Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL, within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the


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Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal

(Office Seal)

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place-----

Date-----

Witness: -----

(Name & Address) -----

Witness: -----

(Name & Address) -----

Y. Phani Dhanu

BHEL

 BHEL - TRICHY	THIRD PARTY NON-DISCLOSURE AGREEMENT		Doc.No. : ISMS-04/TP/011
			Ver. No: 3.0 Rev. No: 00
	Date : 27 - 10 - 14		

THIRD PARTY NON-DISCLOSURE AGREEMENT

I, _____, on behalf of the _____ (Name of Company), acknowledge that the information received or generated, directly or indirectly, while working with BHEL, Trichy on contract is confidential and that the nature of the business of the BHEL, Trichy is such that the following conditions are reasonable, and therefore:

I warrant and agree as follows:

I, or any other personnel employed or engaged by our company, agree not to disclose, directly or indirectly, any information related to the BHEL, Trichy Without restricting the generality of the foregoing, it is agreed that we will not disclose such information consisting but not necessarily limited to:

- Technical information: Methods, drawings, processes, formulae, compositions, systems, techniques, inventions, computer programs/data/configuration and research projects.
- Business information: Customer lists, project schedules, pricing data, estimates, financial or marketing data,

On conclusion of contract, I, or any other personnel employed or engaged by our company shall return to BHEL, Trichy all documents and property of BHEL, Trichy, including: drawings, blueprints, reports, manuals, computer programs/data/configuration, and all other materials and all copies thereof relating in any way to BHEL, Trichy 's business, or in any way obtained by me during the course of contract. I further agree that I, or any others employed or engaged by our company shall not retain copies, notes or abstracts of the foregoing.

This obligation of confidence shall continue after the conclusion of the contract also.

I acknowledge that the aforesaid restrictions are necessary and fundamental to the business of the BHEL, Trichy and are reasonable given the nature of the business carried on by the BHEL, Trichy I agree that this agreement shall be governed by and construed in accordance with the laws of country.

I enter into this agreement totally voluntarily, with full knowledge of its meaning, and without duress.

Dated at _____, this ____ day of _____, 20__.

Name

Company

Signature

BANK GUARANTEE FOR PERFORMANCE SECURITY

(Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s))

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

IFSC AND MICR CODE

Dear Sirs,

1. In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at _____¹ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) (VENDOR CODE) with its registered office at _____² hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated³ valued at Rs.....⁴ (Rupees -----)/FC.....(in words.....) for⁵ (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to% (... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

2. we,, (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs -----⁶ (Rupees -----) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

3. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

4. We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

5. The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

6. We thebank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

7. We.....BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

8. The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor / Contractor / Supplier's liabilities.

9. This Guarantee shall remain in force upto and including.....⁷ and shall be extended from time to time for such period as may be desired by Employer.

10. This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

11. Unless a demand or claim under this guarantee is made on us in writing on or before the⁸we shall be discharged from all liabilities under this guarantee thereafter.

12. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirappalli.

13. We..... BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

a) The liability of the Bank under this Guarantee shall not exceed.....⁶

- b) This Guarantee shall be valid up to⁷
- c) Unless the Bank is served a written claim or demand on or before (minimum 3 to 6 months from the expiry date)⁸ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

14. We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

BANK EMAIL ID:

BANK PHONE NO:

AUTHORISED SIGNATORIES CELL PHONE NO:

BANK FAX NO:

¹ NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited

² NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

³ DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

⁴ CONTRACT VALUE

⁵ PROJECT/SUPPLY DETAILS

⁶ BG AMOUNT IN FIGURES AND WORDS

⁷ VALIDITY DATE

⁸ DATE OF EXPIRY OF CLAIM PERIOD

List of Consortium Bank			
	Nationalised Bank		Nationalised Bank
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign bank
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	The Royal Bank of Scotland N.V.
10	Punjab National Bank	26	J P Morgan
11	Punjab & Sindh Bank		Private bank
12	State Bank of India	27	Axis Bank
13	State Bank of Hyderabad	28	The Federal Bank Limited
14	Syndicate Bank	29	HDFC
15	State Bank of Travancore	30	Kotak Mahindra Bank
16	UCO Bank	31	ICICI
17	Union Bank of India	32	Indusind Bank
18	United Bank of India	33	Yes Bank