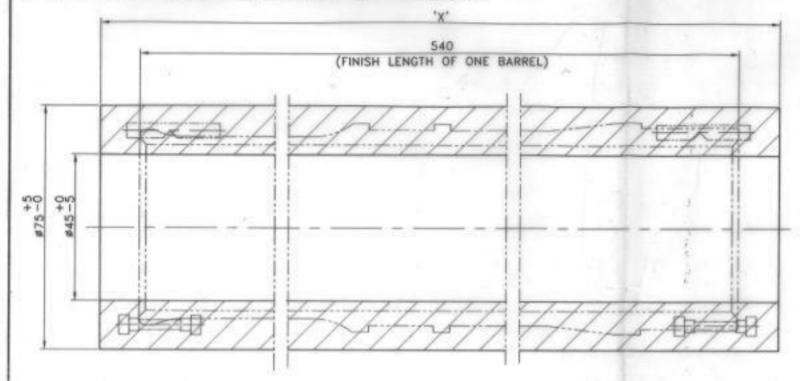
## DIMENSIONS ARE IN mm TOLS, FOR UNTOLERANCED LINEAR DIMNS, IS:2102 (MED.CL)



NO OF BARRELS FROM EACH FORGING	LENGTH OF FORGING-'X'				
ONE BARREL	580 ±10				
TWO BARRELS	1150±10				

MATERIAL - STEEL BS:970 Pt-1, GDE 817M40 IN 'X' CONDITION

ALT.MATERIAL - ALTERNATIVELY HOT FINISHED SEAMLESS TUBE INLIEU OF FORGINGS TO ABOVE MENTIONED MATERIAL SPECIFICATION AND HEAT TREATED TO ACHIEVE THE MECHANICAL PROPERTIES.

BASED ON CQA(W) DRG.NO: ARDE 1917/1,DC(I)-18927-W DATED 05-08-05 DS CAT NO 1010-1321, SHT-2/2

## NOTES:-

- 1, FORGINGS WITH LONGER LENGTHS CORRESPONDING TO 3 TO 4 BARRELS WITH ALLOWANCE REQUISITE FOR PARTING AND FACING ARE ALSO ACCEPTABLE.
- 2. ULTRASONIC TEST SHALL BE CARRIED OUT ON ALL TUBES FOR CHECKING THEIR SOUNDNESS BEFORE AND AFTER HEAT TREATMENT AS PER CQA(MET) INSPECTION INSTRUCTION No.FNR-0001H/HTC/CIM/INST-14.
- 3. HARDNESS TO BE CHECKED ON ALL FORGINGS AT TWO POINT 180° APART FOR EACH BARREL.
- 4. TEST PIECES WILL BE PREPARED AS SHOWN ON DRAWING FOR MECHANICAL TEST FROM EACH HEAT TREATMENT BATCH SELECTING AT THE RATE OF ONE SAMPLE FROM EACH OF THE FORGINGS SHOWING THE HIGHEST AS WELL AS LOWEST HARDNESS BY USING THE LONGITUDINAL TEST PIECES THE FOLLOWING MECHANICAL PROPERTIES TO BE ACHIEVED.

a- 0.2% PROOF STRESS (MIN) - 1005 MPa

b- UTS

1150-1300 MPc

C- ELONGATION ON 5.65 \50

(MIN)-10% (MIN)-25 ft/lbs.

d- IZOD IMPACT VALUE

341 to 401 HB.

e- HARDNESS

5. NON METALLIC INCLUSION RATING TEST IS TO BE CARRIED OUT AS PER IS:4163-1982 AND ACCEPTANCE STANDARD SHOULD BE AS UNDER:-

TYPE OF INCLUSION	SERIES (THIN)	SERIES (THICK)			
A	2 MAX	BETTER THEN LEVEL-1			
8	2 MAX	-DO			
C	2 MAX	-00-			
D	2 MAX	-DO-			

6. MACRO-ETCH TEST IS TO BE CARRIED OUT AS PER ASTM E 381/IS: 13015-91 AND ACCEPTANCE STANDARD SHOULD BE C1, S1, R1.

			ITEM NO.	NO. OFF	MATE	RIAL	DESCRIPTION
				L	IST	OF	PARTS
	SCHEDULE	NO :-	COMPT.:- BARREL MORTAR		STORE DRG NO. 1010-002658		
	SCALE:-1:1	PROJECTION THIRD ANGLE	(MACHINING)				
	DRAWN BY : Claus 1/2/8/06 TRACED BY : CHECKED BY : 1/4		BARREL MORTAR(FOR				(FORGING)
							(TOROINO)
			DRAWING NO: F-22				F-2255
- 27	APPROVED B	14 : Formet at	DIAMINO NO.			1 2200	
DT.&SG. DESCRIPTION	CONCURRE	D BY: Quelle	M /	C :			NO. OF SHTS.:-1
AMENDMENTS	SIGN.	DATE Trans (ONE)	G. 6	s. FY.	COSSIPOR	RE.	SHT. NO. :- 1