DRG. NO.: C-1946H

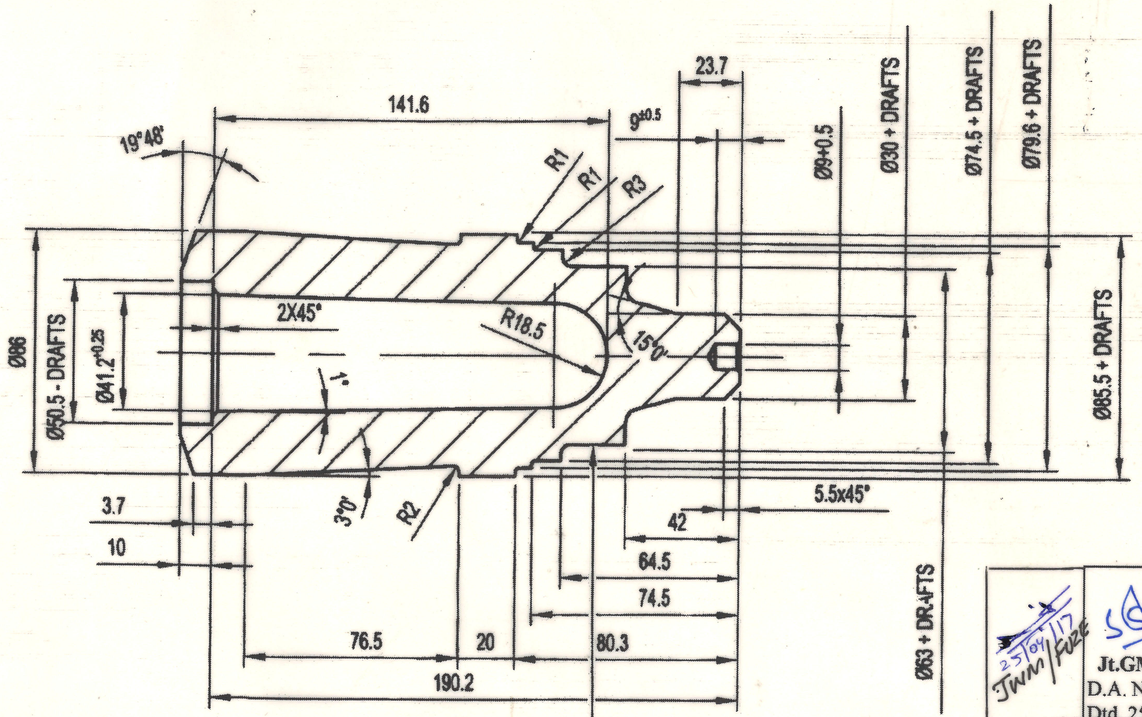
TOLERANCE CHART

SIZE	1 - 3	3 - 6	6 - 10	10 - 18	18 - 30	30 - 50	50 - 80	80 - 120	120-180	180-250
VALUE OF IT-14	0.25	0.30	0.36	0.43	0.52	0.62	0.74	0.87	1.00	1.15

MATERIAL :- IS: 617 - 1994, Gr. 4420 Cond. 'M' WITH 'Cu' UPTO 2% MIN. ACCEPTABLE.

MASS : 1640 gms. MINIMUM.

HARDNESS : 80 - 110 HB



SCALE : 1 : 2

ALL DIMNS. ARE IN mm.

UNLESS OTHERWISE STATED DRAFTS= 2°.

TOL. ON UNTOLERATED DIMNSIONS ± IT 14/2 &
SURFACE ROUGHNESS ∇40

(h)
MARKING
i) Mfg. INITIAL
ii) H.B. No. ------
H.B. i.e. HEAT BATCH

NOTE :-

1. THE CASTINGS ARE TO BE INSPECTED FOR THE FOLLOWING PARAMETERS :

a) **CHEMICAL COMPOSITION**:-
ONE CASTING FROM EACH CAST BATCH SHALL BE SELECTED AND TESTED FOR CHEMICAL COMPOSITION.

b) **MECHANICAL PROPERTIES**:-
ONE CASTING FROM EACH CAST BATCH SHALL BE SELECTED AND TESTED FOR MECHANICAL PROPERTIES.

c) **HARDNESS**:-
2.5% OF THE CASTINGS FROM EACH CAST BATCH SHALL BE SELECTED AT RANDOM FOR HARDNESS TEST.

d) **SOUNDNESS**:-
i) CASTING SHOULD BE FREE FROM SURFACE DEFECTS SUCH AS BURR, CRACKS, HEAVY DENTS OR DEEP SCRATCHES.

ii) ONE CASTING FROM EACH CAST BATCH SHALL BE EXAMINED FOR POROSITY BY SECTIONING. THE QUALITY OF CASTING WILL BE DECIDED BASED ON THE GUIDELINES SHOWN ON SKETCH ENCLOSED.

e) **MASS**:-
CASTINGS SELECTED AT RANDOM FROM EACH CAST BATCH SHALL BE CHECKED FOR MASS.

f) SUUPLY CONDITION - SEMI-MACHINED

25/04/17 JWM/FUZE	Jt.GM/QC D.A. No. 12/17 Dtd. 25/04/17	Marking note added & drg. no. advanced to 'H'
	D.A. No. 13/012 Dt. 07.05.12 (G) 07/5/12 JWM CDO	Note 'f' added as per directive of JT./GM (QC)
	Bimal JWM DA.No- 88/07 Dt.08/02/07 (E) JWM/CDO DA. No. 346 dt. 04.01.06	MATL. AMENDED VIDE CQA(MET) LETTER No.:- 84mm/AMN/MQA-2/1, 06JAN2003 -MASS & NOTE AMENDED
	(D) JWM/CDO DA. No. 341 dt. 14.12.05	D DWG. AMENDMENT IS BASED ON CQA(A) LETTER NO. QA/Proj/CNC dt.30.11.05 ID SHT. No. 2 IS ADDED
DT & SG	DESCRIPTION	
AMENDMENTS		

01	01	AS ABOVE	CASTING BODY
ITEM NO.	NO OFF	MATERIAL	DESCRIPTION

LIST OF PARTS

SCHEDULE NO.	
SCALE: 1:2	PROJECTION THIRD ANGLE
DRAWN BY:	
CHECKED BY: 04.01.06	
APPROVED BY: JWM/CDO 04.01.06	
APPROVED BY Jt. GM/QC 05/1/06	
DATE	SIGN.

COMPT:- BODY
PROJECTILE FOR 84mm
TPT ROUND FFV 65

STORE DRG NO
F1301-047300M
F1301-047291-A

BLANK FOR PROJECTILE BODY (CASTING)

DRG. NO.: C-1946H

M/C

No. OF SHTS: 2

SHT NO. : 1

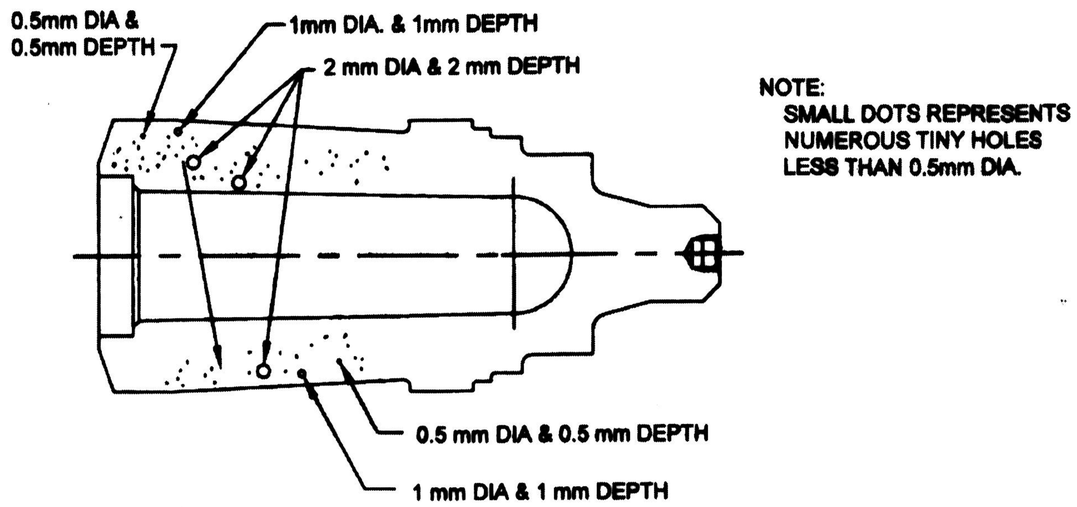
G & S FY. COSSIPORE

DRG. NO.: C-1946H

FOLLOWING SKETCHES ARE AS PER APPENDIX 'B' OF SPECN. CQA(A)4918(d)

ALL DIMNS. ARE IN mm.

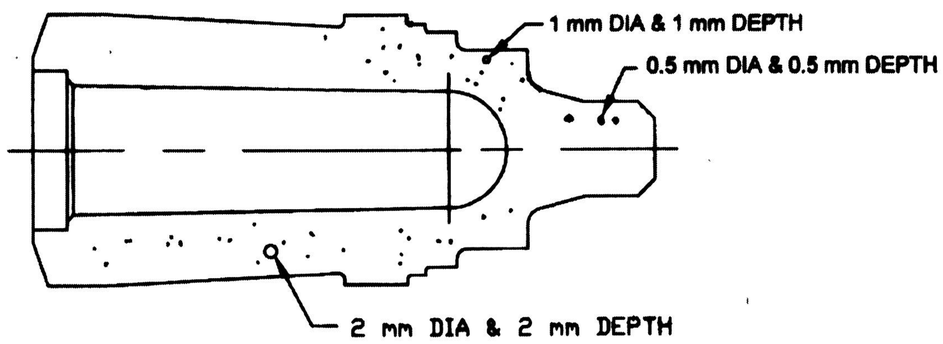
TOL. ON UNTOLERATED DIMNS. ARE ± IT 14/2



NOTE:
SMALL DOTS REPRESENTS NUMEROUS TINY HOLES LESS THAN 0.5mm DIA.

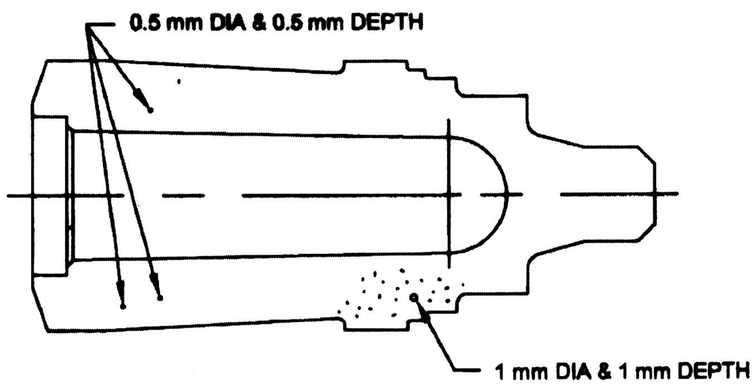
MARKED I (CLASSIFIED GOOD)
TOTAL NO OF BLOW HOLES : 7 ONLY

FIG. I



MARKED II (CLASSIFIED ACCEPTABLE)
TOTAL NO OF BLOW HOLES : 5 ONLY

FIG. II



MARKED III (CLASSIFIED ACCEPTABLE)
TOTAL NO. OF BLOW HOLES : 4 ONLY

FIG. III

ITEM NO.	NO OFF	MATERIAL	DESCRIPTION
01	01	AS ABOVE	CASTING BODY

LIST OF PARTS

DT & SG	DESCRIPTION
AMENDMENTS	

SCHEDULE NO.

SCALE: 1:2 — PROJECTION THIRD ANGLE

DRAWN BY:

CHECKED BY: 05.01.06

APPROVED BY: JWM/CDO 05.01.06

CONCURRED BY Jt. GM/QC 05/1/06

DATE

COMPT:- BODY
PROJECTILE FOR 84mm
TPT ROUND FFV 65

STORE DRG NO
F1301-047300M
F1301-047291-A

BLANK FOR PROJECTILE BODY (CASTING)

DRG. NO.: C-1946H

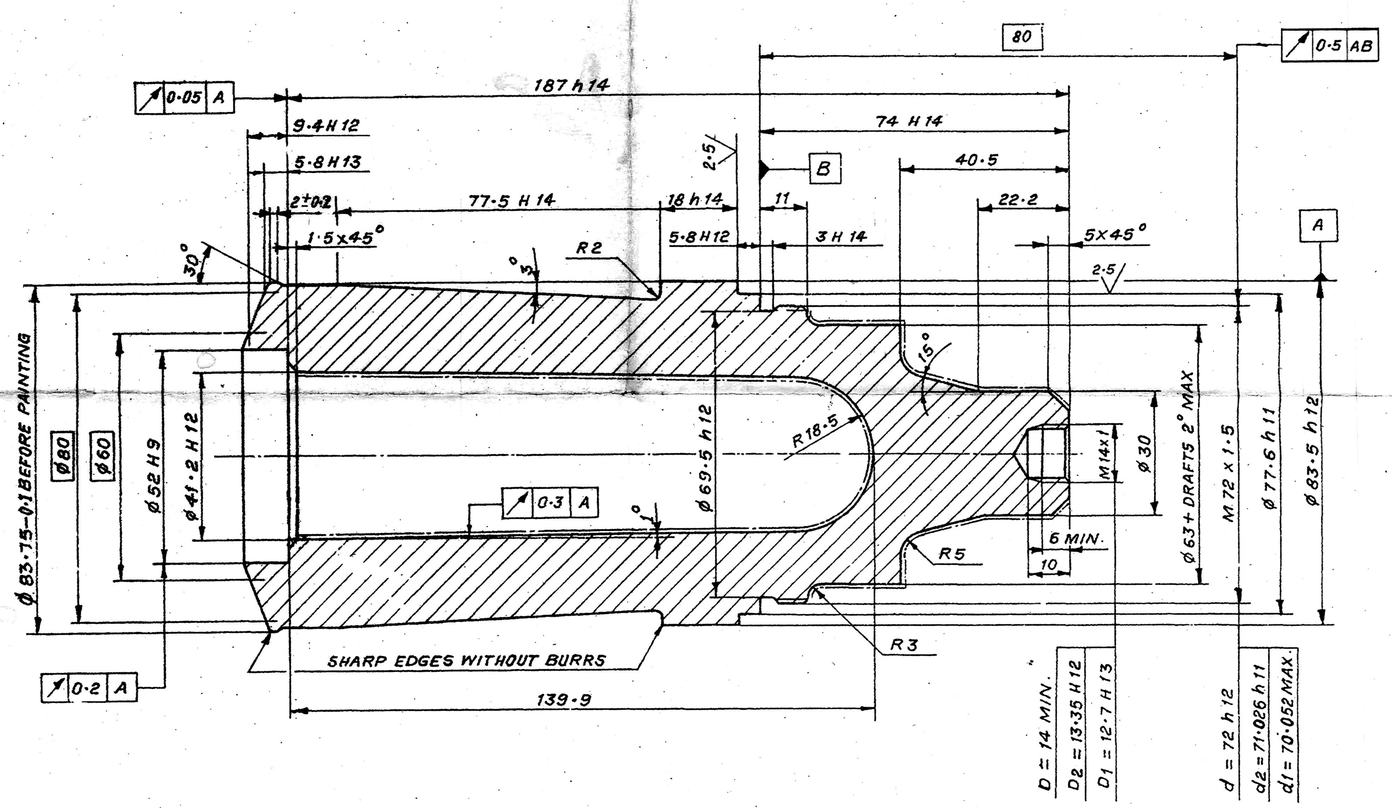
M/C

No. Of Shts. : 2

G & S FY. COSSIPORE

SHT NO. : 2

D C I-33513-A



NOTE:-

PARAMETERS OF SURFACE TREATMENT, HARDNESS AND MASS ARE APPLICABLE TO BOTH CASTING AND FORGING MATERIAL.

MATERIAL:-

CASTING: IS:617:1994 (Reaffirmed 1999) GRADE 4420 M.

FORGING: IS:734:1975 (Reaffirmed 2001) Gr. 64430 Cond. 'WP'

OR

IS:734:1991 Gr. 64430 Cond. 'WP'

SURFACE TREATMENT:-

CHROMATE CONVERSION COATING TO SPEC. IS:11232-91 CLAUSE I OR ANODIC COATING TO SPEC. DEF-151, TYPE II.

HARDNESS:- 80 - 110 HB

~~MATERIAL~~:-

~~IS: 617: 75 GRADE 4420M WITH HARDNESS 80-110 HB.~~

~~SURFACE TREATMENT:-~~

~~CHROMATED TO SPEC. F 1329-014380 OR ACCICOAT 600 OR ANODISED TO SPEC. DEF. 151 TYPE II.~~

MASS:- 1543 ± 10g

Utgava	Andr nr	Plats pa ritning / Beskrivning	Datum	Utford	Gransk / Godk	
		MATL., SURFACE TREATMENT AMENDED & NOTE, HARDNESS ADDED.	DC.37414-A	02-6-16		
	16.12.04	SCANNED WITHOUT CHANGE				
		BOX ENTRY IN D.S. CAT Nº DELETED	DC 36598-A	23-9-99		
		GAUGE SCHD AND ASSY NO ADDED. MATERIAL AND ANODISED SPEC AMENDED.	DC 35509-A	21-5-93		
		DRGNº F1301-047291 G WAS F1301-047291 F & SURFACE TREATMENT AMENDED	D.C.34692-A	17-8-89		
		DRG.Nº F1301-047291 F WAS F1301-047291 E DIMENSION RE BEFORE PAINTING AMENDED.	D.C.I. 34375-A	3-5-88		
		D.S.CAT Nº ADDED.	D.C.I. 34314-A	1-2-88		
		SURFACE TREATMENT NOTE AMENDED	D.C.I 33789-A	30-7-85		
		RETRACED WITH ADDITION OF MATERIAL & ITS COMPOSITION & PHYSICAL PROPERTIES	DC I 33764-A	11-6-85		
		DRG SEALED IN SUPERSESSION OF ISSUE	DC I 33513-A	3-11-83		
E	1	B2	83-03-10		SIG	
D	1-13	Redrawn, Drawing amended; E6; E3, D7; D5, D4, D3, 2D2, C3, B4, 2B2	81-03-17		DO	AHSP.

Det	Antal	Benamning / Beteckning	Ritning / Referens	Material / Ovrigt
				SIS A1 4250-10 or equal

Dar ej annat anges galler
Tolerans ± IT 14/2
Ytjamnhet 4
Gradning R 0·3 eller matt ytbeh
Fas 0·3 ·45 efter

Form och lagetoleranser ent SMS 1920 Skalk

Matmetod
Narligg yta / Tang yta

Konstr / Ritad	Ritningsgranskad	Konstruktionsgranskad	Godkand	Registrerad	GAUGE SCHD
HA YC	BP		HZ		I-2760
Datum 67-08-22	Kontrollerbarhetsgr	Produktionsgranskad	Datum 67-08-22	Datum	

Benamning

PROJECTILE BODY

D.S CAT Nº

NOT TO BE ALLOTTED

FFV

F 1301-047291 G