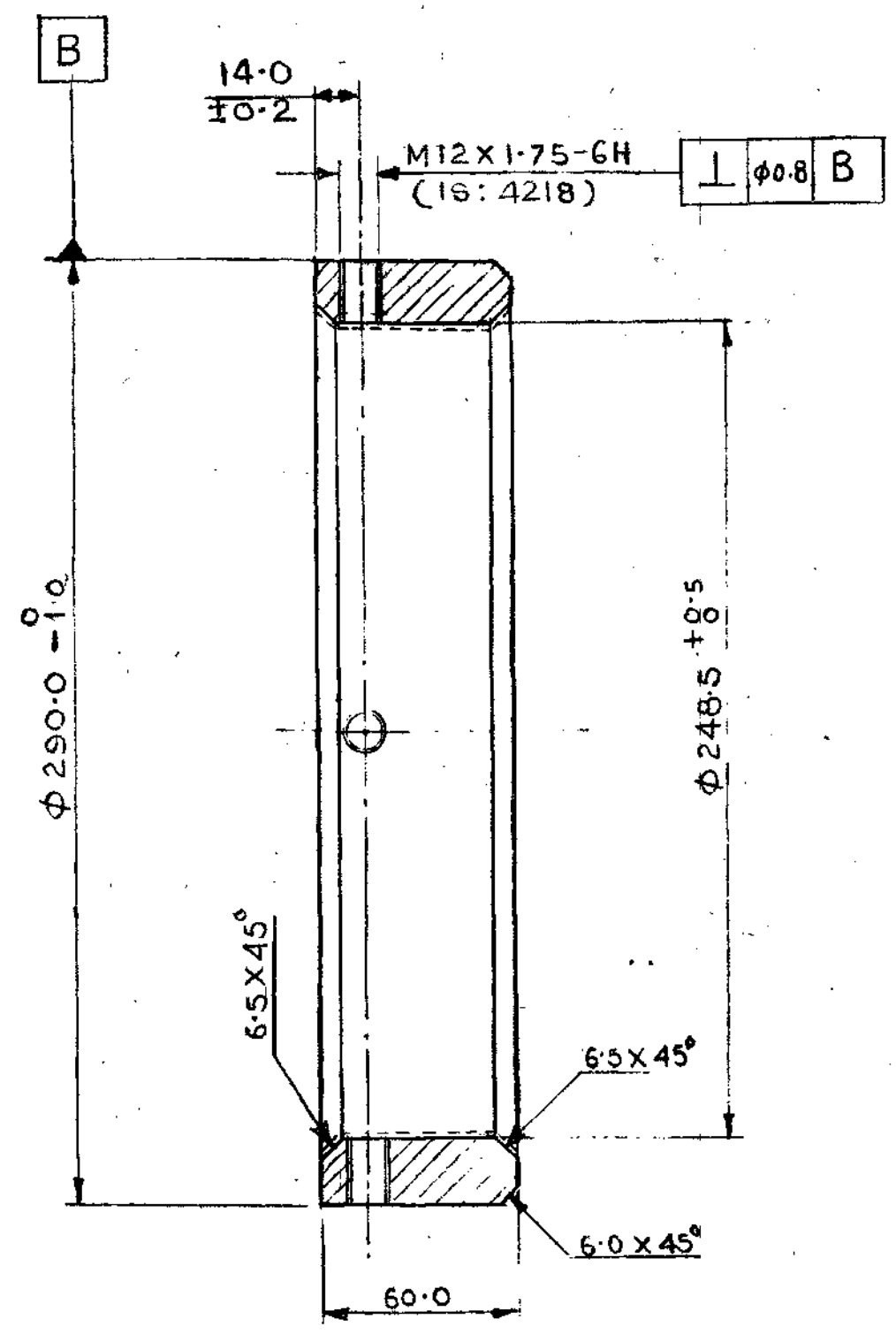
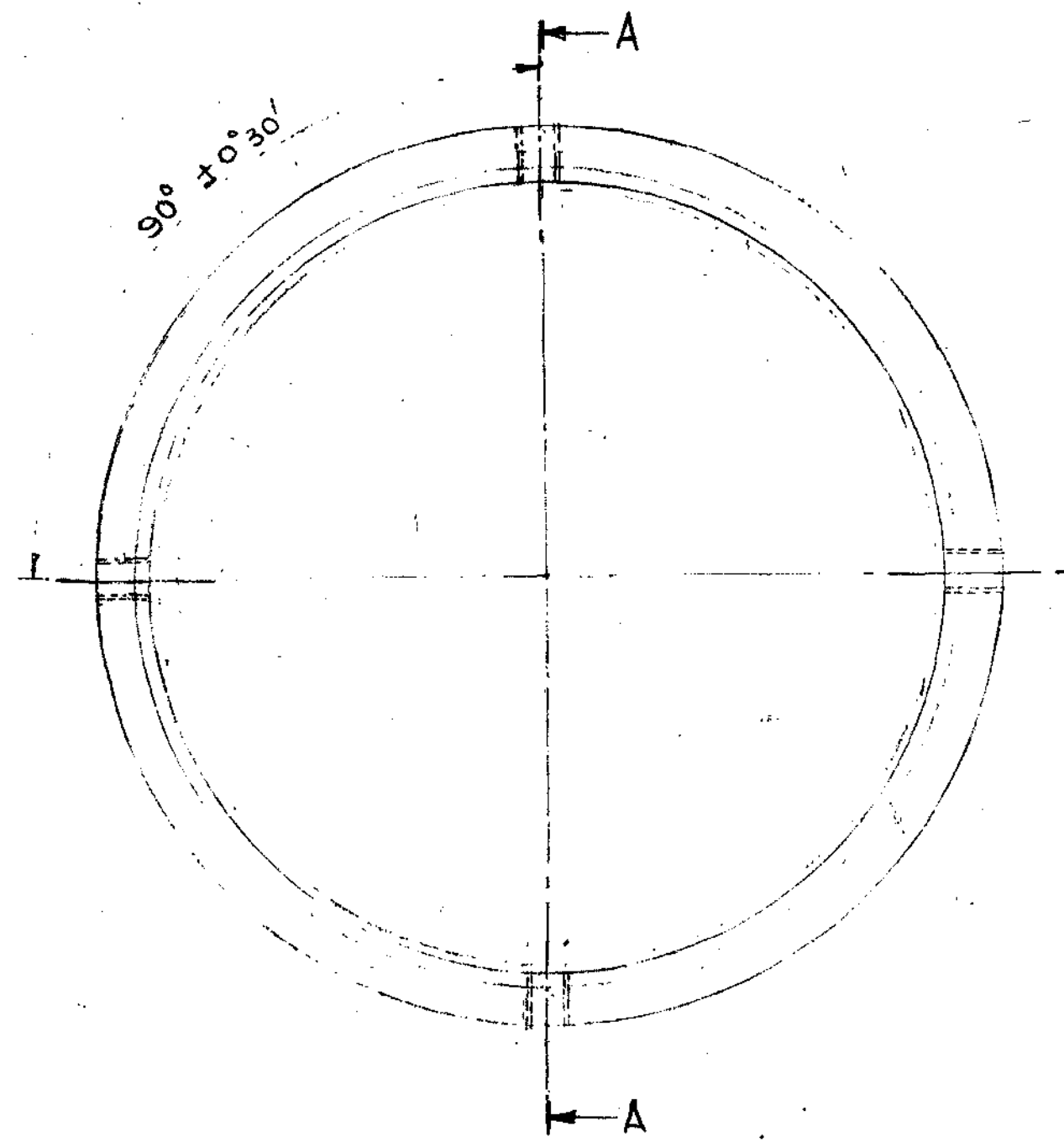


DRAWING CONVENTIONS CONFORM TO IS 8000	
DIMNS ARE IN m.m. UNLESS OTHERWISE STATED	
DET. No. 13	GEN. TOL. MEDIUM/CLASS TO IS: 2102
SHTS. No.	
DRG. No. ARDE 9501-01	

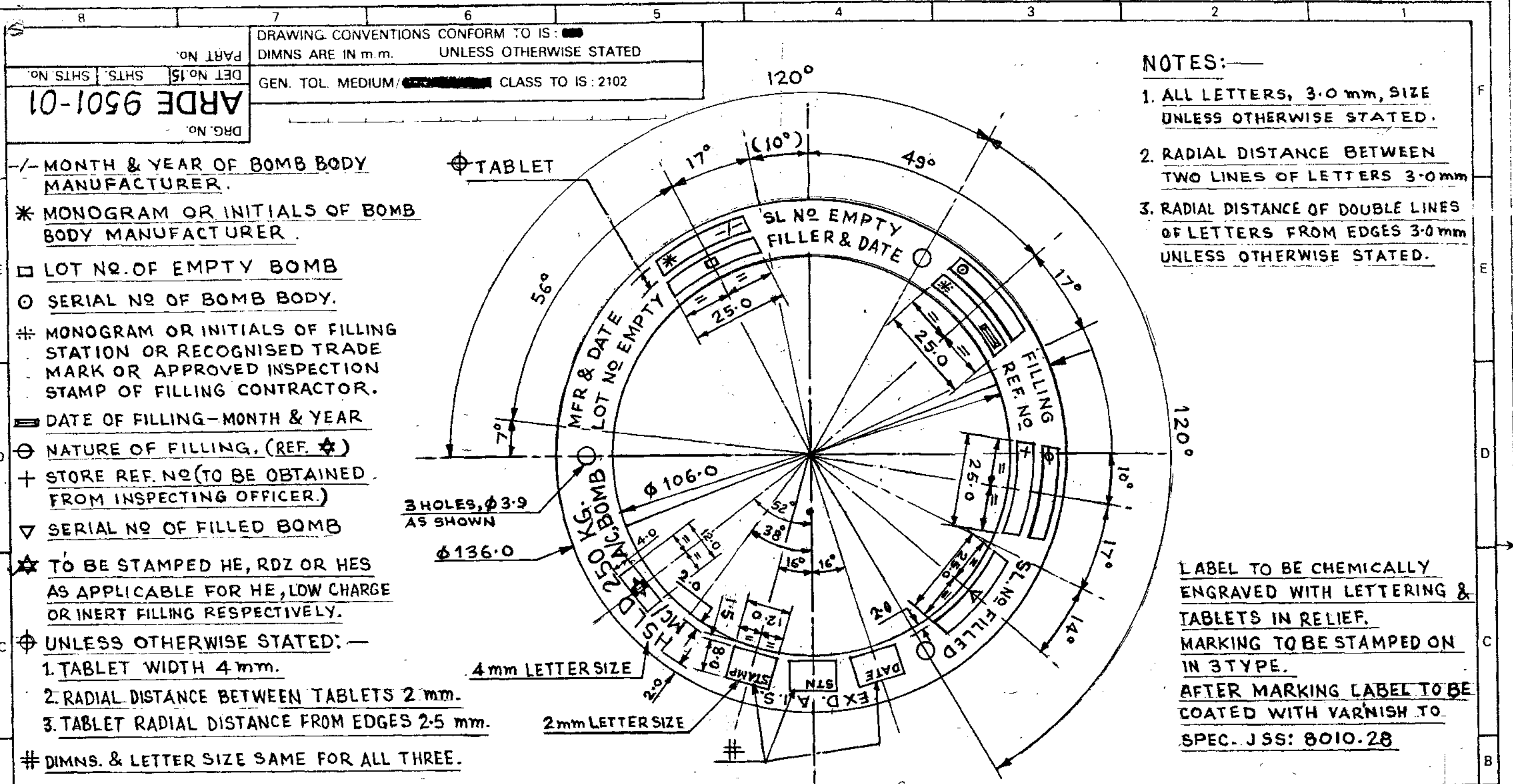
NOTES:-

1. ALL SHARP EDGES & BURRS ARE TO BE REMOVED.
2. AFTER PHOSPHATING APPLY TWO COATS OF READY MIX PAINT, AIR DRYING, MAT FINISH (TYPE BRUSHING / SPRAYING DIPPING) TO IS: 168 DEEP BRONZE GREEN, TINT NO 224 TO IS: 5 ALL SCREW THREADS AND MATING SURFACES MARKED THUS ----- ARE TO BE FREE FROM PAINT.



SECTION AA

DRG. No. ARDE 9501-01/1		DESIGN AUTHORITY	
CD		PASSED	
APPROVED		GAUGE SCHD:	
(R. PERUMAL)		DATE: 17-12-94	
MATERIAL: STEEL TO IS: 2004 20CB		PROTECTIVE FINISH: PHOSPHATED TO IS: 3618 CLASS 'B'	
R. NO.	DATE	AUTHORITY	BRIEF RECORD
			ZONE
DRG. SEALED (PROV)		AIR CMDE	
DATE: 17-12-94		SIGN	
TITLE: BASE TRANSIT		A.H.S.P.	



				DRN. <i>[Signature]</i>		CHD. <i>[Signature]</i>		TRD.		COMP.		ASSY DRG. ARDE 9501-01/1	
				CD <i>[Signature]</i>		PASSED <i>[Signature]</i>		SCALE: 1:1				DESIGN AUTHORITY	
				APPROVED <i>[Signature]</i>		(R PERUMAL) SCD FOR DIRECTOR		EST MASS:				ARDE PUNE - 411021	
								GAUGE SCHD:					
								DATE: 11-5-95					
				MATL: BRASS SHEET 1.25 mm THICK TO IS: 410		CU ZN 37 CONDITION 1/2 H						DRG. No.	
				PROTECTIVE FINISH:								ARDE 9501-01 (ISS. 1)	
												DET. No 15 SHTS. SHT.No.	
												PART No.	
												D. S. CAT. No.	
												A.H.S.P.	

DRG SEALED (PROV.) *[Signature]* CRE (AA)

TITLE: 29 Mar 96

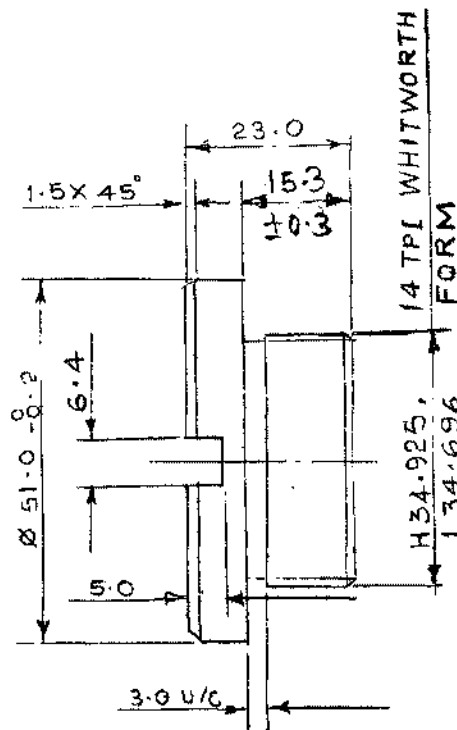
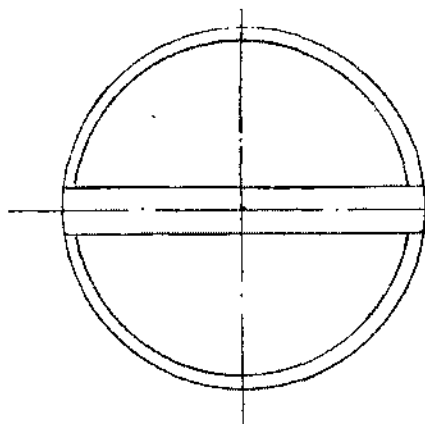
LABEL

1		2		3		4	
PART No.		DRAWING CONVENTIONS CONFORM TO IS XXXX DIMNS ARE IN m.m. UNLESS OTHERWISE STATED					
DET No. 11		SHTS		GEN. TOL. MEDIUM/ XXXX CLASS TO IS: 2102			
DRG. No.		NOTE					

ARDE 9501-01

NOTE

ALL SHARP EDGES & BURRS ARE TO BE REMOVED



BASED ON DRG No: ARDE 2122 DET No: 14

R. NO.	DATE:	AUTHORITY	BRIEF RECORD	ZONE	CD	GO
					SIGN	

DRG SEALED (PROV)		TRD.		ASSY DRG. ARDE 9501-01/10	
DRN. <i>[Signature]</i>	CHD. <i>[Signature]</i>	COMP.	DESIGN AUTHORITY		
CD <i>[Signature]</i>	PASSED <i>[Signature]</i>	SCALE: 1:1	ARDE PUNE-411 021		
APPROVED <i>[Signature]</i>	FOR DIRECTOR	EST MASS:			
(R. PERUMAL)		GAUGE SCHD:			
		DATE: 17-12-94			
MATL: STEEL TO IS: 2004 20 C8					

PROTECTIVE FINISH: ZADMIUM PLATED TO IS: 1572 Cd-12

TITLE:

PLUG

DRG. No.		
ARDE 9501-01		
DET. No. 11	SHTS.	SHT.No.
PART No.		
D. S. CAT. No.		
A.H.S.P.		

2. FOR MANUFACTURE, ASSEMBLY & QUALITY ASSURANCE
PROVISIONS REFER SPEC. NO ARDE / SPECN. / 546.

NO	DEF	M
DING ASSY.	1	
DING)	1	
USING)	1	
	1	
	2	
	2	
	1	

ALL LUG POCKETS TO BE FILLED PARTIALLY
WITH GREASE ZX-13 TO SPEC. DTD 392A BEFORE
SCREWING-IN THE PLUG DUMMY/FASTENING

MATING FACE OF ITEM NO 4 & SCREW
THREADS OF ITEM NO 14 TO BE COATED
WITH APC NO 2 TO SPEC. JSS 8030-14
AND ASSEMBLED WHILE CEMENT IS WET

RECESS ABOVE SCREWS TO BE
FILLED WITH GREASE ZX-13
TO SPEC. DTD 392 A.

LABEL TO BE FIXED ON
FILLING PLUG (ITEM NO'S)
WITH HAMMER DRIVE SCREW,
AS SHOWN.

ASSY DRG. ARDE 9501-01 DESIGN AUTHORITY ARDE PUNE 41021 TRD SCALE - 1:2 TEST MASS GAUGE SQHD. COMP	DRN. <i>44/45/46</i> CD APPROVED <i>32/4/13</i> (R PERMAL) CHD W3 PASSED <i>4</i> FOR DIRECTOR
---	--

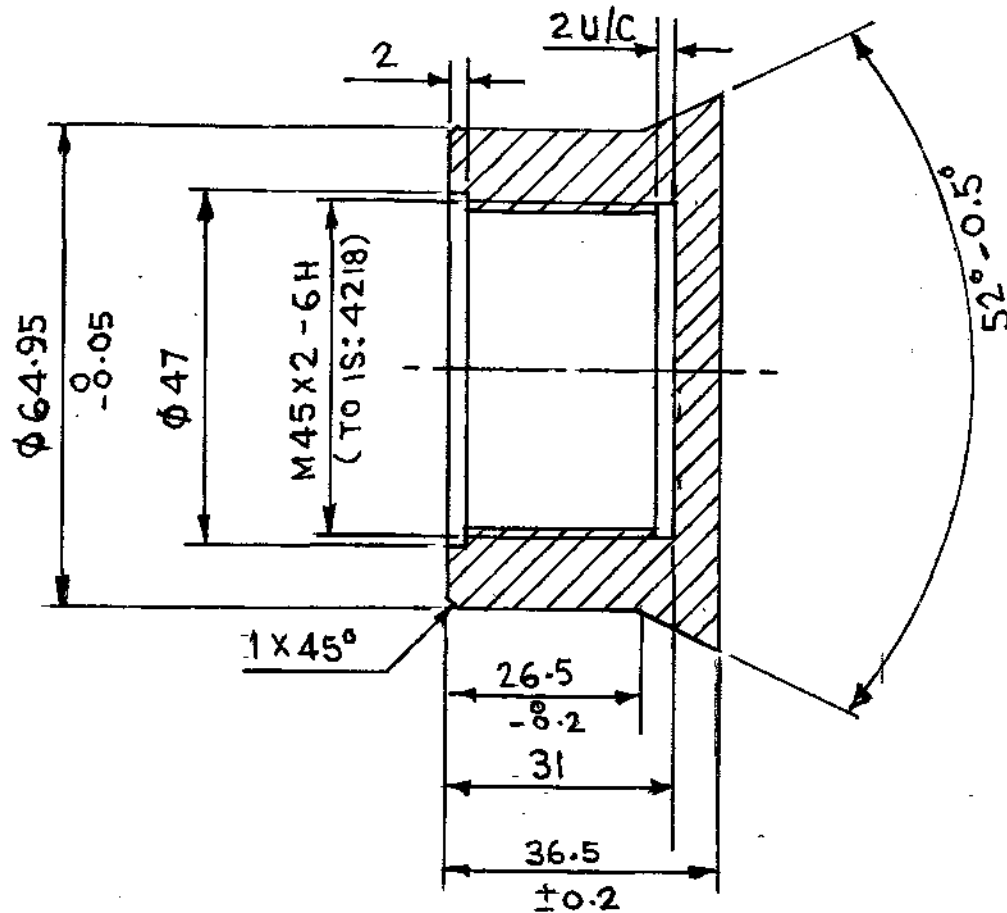
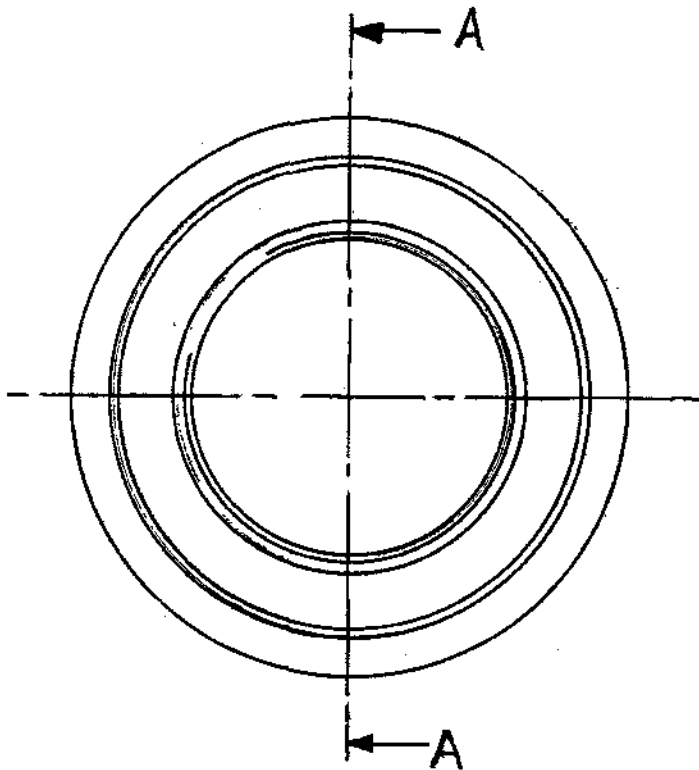
[illegible]

BOMB, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250Kg
(EMPTY ASSY.)

Impressed Dr. Prov. sealed on 20 July 95.

DRAWING CONVENTIONS CONFORM TO IS : 696	
DIMNS ARE IN m.m. UNLESS OTHERWISE STATED	
GEN. TOL. MEDIUM/ COARSE CLASS TO IS : 2102	
DRG. No.	DET. No. 4
ARDE 9501-01	2 SHTS.
PART No. 1	

NOTES :—
1 ALL SHARP EDGES & BURRS ARE TO BE REMOVED.
2 AFTER PHOSPHATING COAT ALL SURFACES EXCEPT SCREW THREADS, WITH VARNISH OIL STOVING AMMUNITION TO SPEC JSS 8010-28 (APC-221) GRADE-1 SPECIAL COAT SCREW THREADS WITH LUTING THIN MK 5 TO SPEC JSS 8030-15 (APC-10)
HARDNESS : HB 360 ± 30



A-A

DRG. No. 9501-01/1				DESIGN AUTHORITY			
ARDE PUNE - 411 021				DATE: 6 11 96			
MATERIAL: STEEL TO IS: 5517 40Ni 6Cr 4 Mo 3				PROTECTIVE FINISH: PHOSPHATED TO IS: 3618, CLASS 'B'			
APPROVED: R. PERUMAL S.C.E. FOR DIRECTOR				SCALE: 1:1			
CD: [Signature]				EST MASS:			
TRD. [Signature]				GAUGE SCHD:			
COMP. [Signature]				DATE: 6 11 96			
BRIEF RECORD				ZONE			
R. NO.				DATE:			
AUTHORITY				SIGN			
DRG SEALED (PROV.)				16 MAY 97			
TITLE: LUG HOUSING				Supersedes Drg. Prov: Sealed on 20 JUN 95			

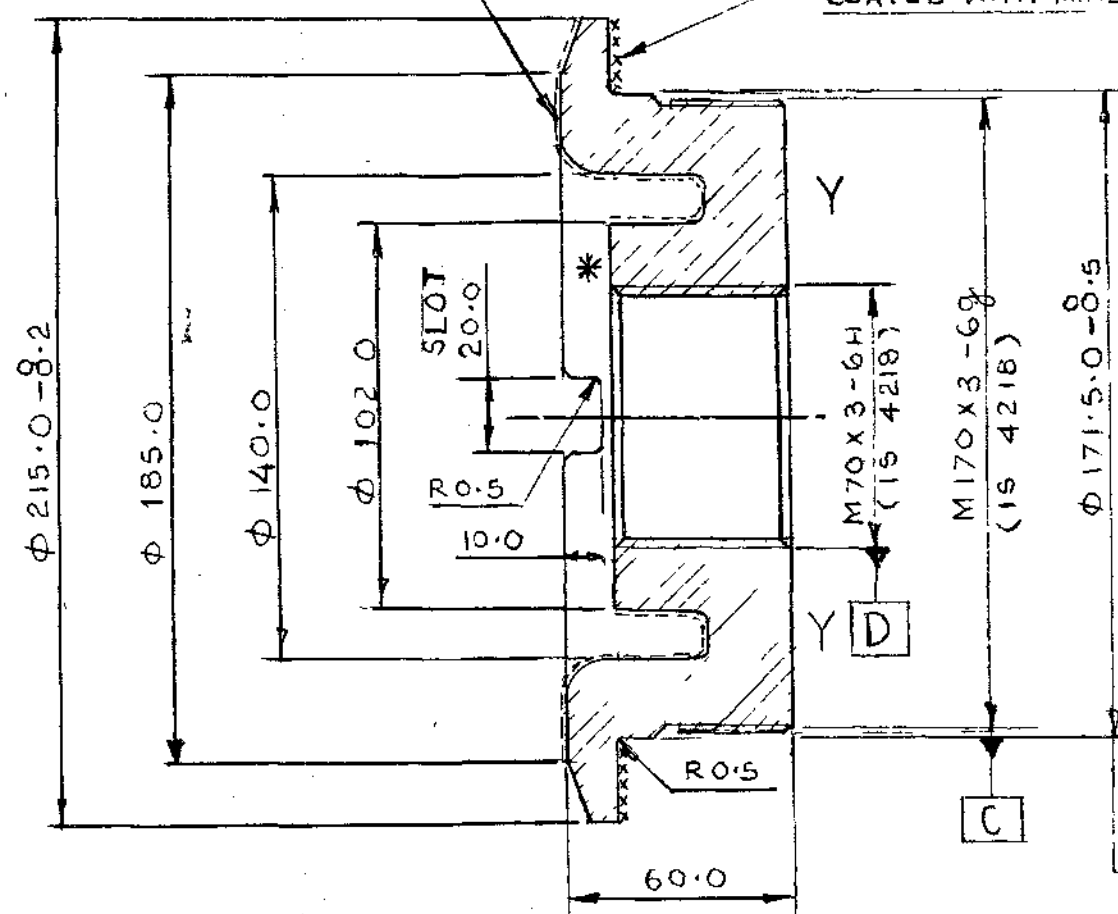
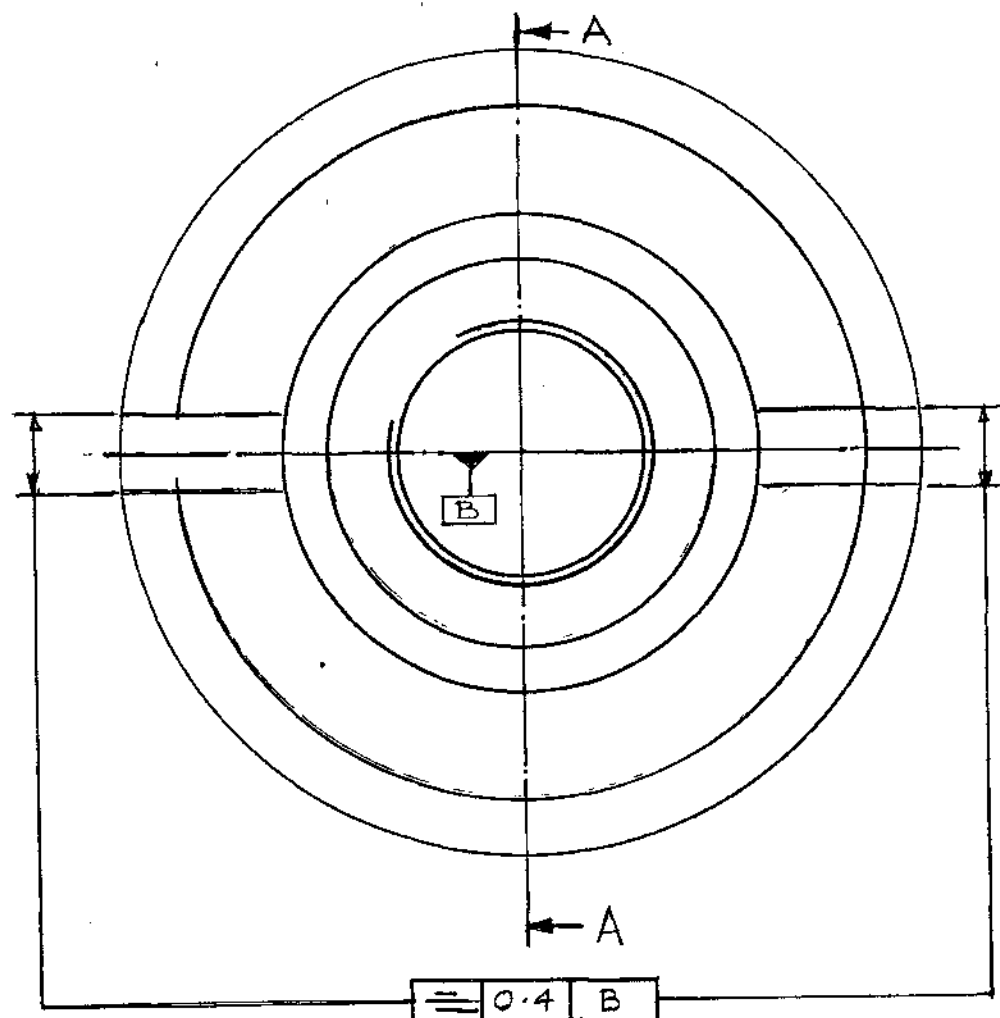
ON SHS SHS
DET No 7
ARDE 9501-01
DRG. No.

DRAWING CONVENTIONS CONFORM TO IS
DIMNS ARE IN m.m UNLESS OTHERWISE STATED
GEN. TOL. MEDIUM/ CLASS TO IS. 2102

SURFACE INDICATED THUS-----ARE TO BE
SHOT BLASTED FOLLOWED IMMEDIATELY BY
SPRAYED METAL (ZINC) COATING TO BS 3436
BY APPROVED MEANS AND TWO COATS OF READY
MIX PAINT, AIR DRYING, MATT FINISH (TYPE -
BRUSHING/SPRAYING/DIPPING) TO IS 168 DEEP
BRONZE GREEN TINT No. 224 TO IS 5

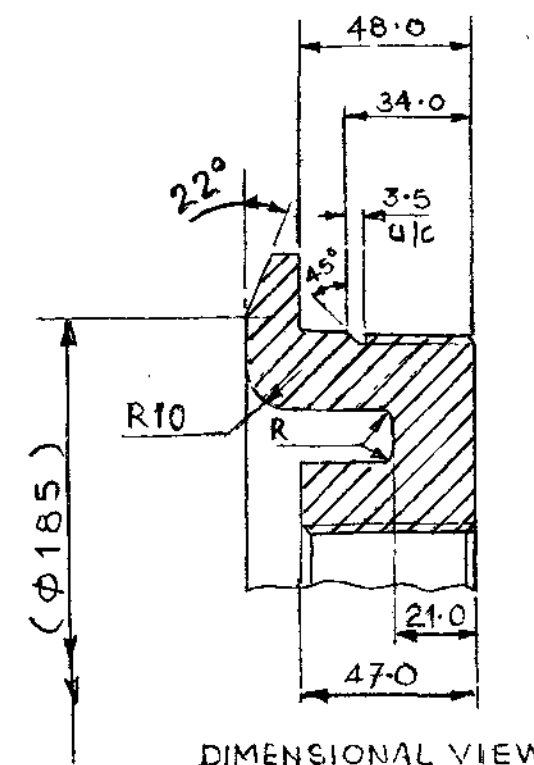
- NOTES - 1 AFTER PHOSPHATING TO BE COATED (TWO COATS) WITH VARNISHING OIL STOVING AMMUNITION
TO SPEC JSS 8010-28, GRADE 1, SPECIAL. SCREW THREADS ARE TO BE FREE FROM VARNISH
AND COAT WITH LUTING THIN MK-5, TO SPEC JSS 8030-15 (APC-10)
* 2 THE MACHINED SURFACE OF $\phi 102$ BOSS TO BE FREE FROM VARNISH AND PAINT.
3 ALL SHARP EDGES AND BURRS ARE TO BE REMOVED.
4 SCREW THREAD RUNOUTS & UNDERCUTS TO BE IN ACCORDANCE WITH SPEC IS 1369.
5 THE SURFACES MARKED Y Y TO BE COATED WITH VARNISH
(TWO COATS) TO SPEC JSS 8010-28 (APC-221) GRADE-I SPECIAL.

THE MACHINED SURFACE MARKED 'X' OF FLANGE TO BE
COATED WITH MINERAL JELLY TO SPEC JSS 8030-9



SECTION 'AA'

HARDNESS:- HB 360 $\pm$ 30



DIMENSIONAL VIEW

DRN. <i>min</i>	CHD. <i>88</i>	TRD	COMP.	ASSY DRG ARDE 9501-01
CD <i>min</i>	PASSED <i>Dekeed</i>	SCALE: 1:2	EST MASS 9 Kg	DESIGN AUTHORITY
APPROVED <i>per</i>	(R PERUMAL) FOR DIRECTOR	GAUGE SCHD:	DATE 17-12-94	ARDE PUNE - 411021
MATL. STEEL TO IS: 5517:40Ni6Cr4Mo3	PROTECTIVE FINISH PHOSPHATED TO IS: 3618 CLASS 'B'			
R. NO	DATE	AUTHORITY	BRIEF RECORD	ZONE
DRG SEALED (PROV.)	<i>per in per</i>	CRE (AA)	16 MAY 97	

TITLE:

FILLING PLUG

Supersedes Drg. Prov. Sealed on 20 Jun 95.

DRG No
ARDE 9501-01

DET No 7 SHTS. SHT No.

PART No

D S CAT No

A.H.S.P

8

PART No.

DRAWING CONVENTIONS CONFORM TO IS : 696

DIMNS ARE IN m.m. UNLESS OTHERWISE STATED

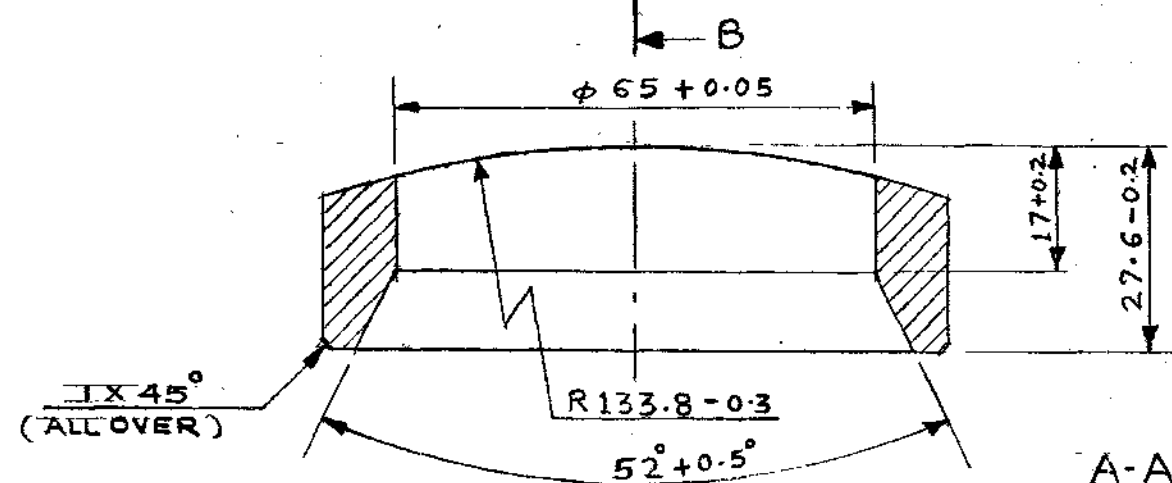
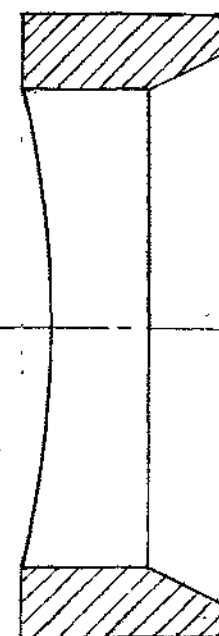
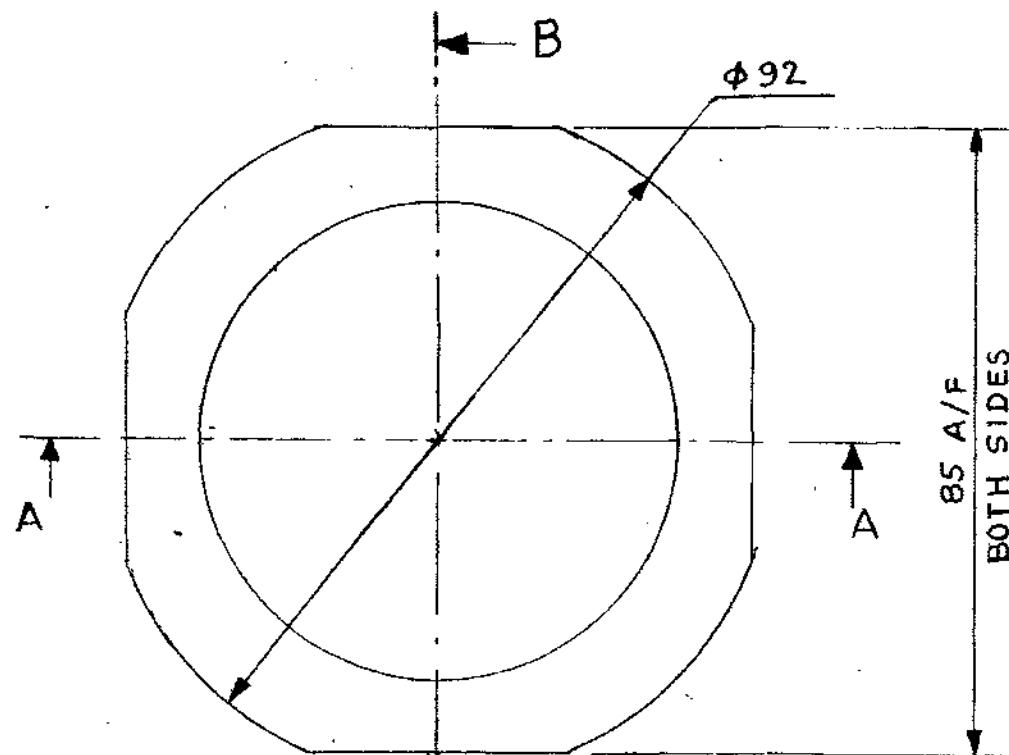
DET. No. 4 SHTS. 2

GEN. TOL. MEDIUM/COARSE/FINE CLASS TO IS : 2102

ARDE 9501-01

DRG. No.

NOTE - ALL SHARP EDGES AND BURRS ARE TO BE REMOVED.

HARDNESS:- HB 320 $\pm$ 20

A-A

DRN. DESHMUKH CHD.	TRD.	COMP.	ASSY DRG. AR DE
CD	PASSD	SCALE : 1:1	DESIGN AUTHORITY
APPROVED	EST MASS :	GAUGE SCHD :	ARDE PUNE - 411 021
R. PERUMATHI FOR DIRECTOR	DATE : 6 - 11 - 96		
MATL : STEEL TO IS : 5517 40Ni 6Cr 4Mo3			
PROTECTIVE FINISH : PHOSPHATED TO IS : 3618 C1-B			

TITLE:

LUG HOUSING HOLDER

supersedes Drg. prov. sealed on 20 Jun 95.

DRG. No.

ARDE 9501-01

DET. No. 4 SHTS. 2 SHT. No. 2

PART No.

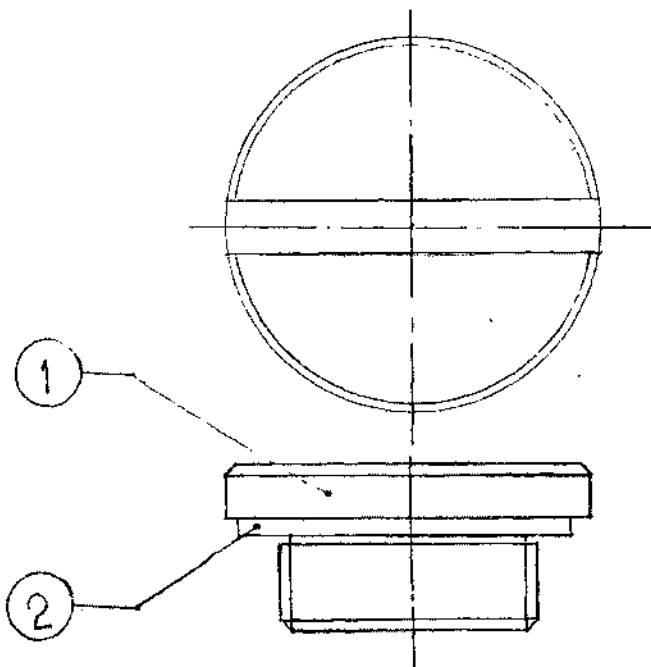
D.S.CAT.No.

A.H.S.P.

1		2		3		4	
PART No.		DRAWING CONVENTIONS CONFORM TO IS: 8000 DIMNS ARE IN m.m. UNLESS OTHERWISE STATED					
DET No. 10		SHTS.		GEN. TOL. MEDIUM/ CLASS TO IS: 2102			
ARDE 9501-01							
DRG. No.							

LIST OF COMPONENTS

ITEM NO	NOMENCLATURE	NO OFF	MATL	DRG NO	DET NO	PART NO
1	PLUG	1		ARDE 9501-01	11	
2	WASHER	1		" "	12	



R. NO.	DATE:	AUTHORITY	BRIEF RECORD		ZONE	CD	GO
					SIGN		
DRG SEALED (PROV.)			AIR CMDE.		20 JUN 95.		
DRN. G N-G	CHD. <i>Perumal</i>	TRD.	COMP.	ASSY DRG. ARDE 9501-01/1			
CD <i>18.12.94</i>	PASSED <i>Perumal</i>	SCALE: 1:1		DESIGN AUTHORITY			
		EST MASS: 0.250 Kg		ARDE PUNE-411 021			
APPROVED <i>Perumal</i>		GAUGE SCHO:					
(R. PERUMAL) FOR DIRECTOR		DATE: 17-12-94					
MATL:							
PROTECTIVE FINISH:				DRG. No.			
TITLE:				ARDE 9501-01			
				DET. No. 10		SHTS.	
				PART No.			
				D. S. CAT. No.			
				A.H.S.P.			

PLUG ASSY

3 SHS 30-0N 1 SHN 1HS

ARDE 9501-01

DRG LIST

Issue to OFR Khanna, Jalandhar
 प्रमाणित तथा निरीक्षण निदेशन के द्वारा प्रमाणित
 Certified Suitable to which Manufacture
 & Inspected
 दिनांक 29/6/97 Date
 Signature

SUPERSEDES DRG PROV SEALED ON 04 AUG 95

SR. No.	DRG No.	DET No.	DESCRIPTION	No. OFF	REMARKS
1	ARDE 9501-01	/SHT No 1	BOMB, HE, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 kg (FILLING & MARKING)	1	
2	" " "	/SHT No 2	BOMB, LOW CHARGE (NOSE & TAIL), AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 kg (FILLING & MARKING)	1	
3	" " "	/SHT No 3	BOMB, INERT, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 kg (FILLING & MARKING)	1	
✓4	" " "	1	BOMB, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 kg (EMPTY ASSY)	1	
✓5	" " "	2	BOMB BODY-LUG HOUSING (WELDING ASSY)	1	
✓6	" " "	3	BOMB BODY (MACHINING)	1	
✓7	" " "	4/SHT No 1	LUG HOUSING	4	
✓8	" " "	" " 2	LUG HOLDER	4	
✓9	" " "	5/SHT No 1	PLUG, DUMMY (FOR LUG HOUSING)	2	
✓10	" " "	" " 2	PLUG, FASTENING (FOR LUG HOUSING)	2	
✓11	" " "	6	RING NUT	1	
✓12	" " "	7	FILLING PLUG	1	
✓13	" " "	8	CONTAINER EXPLODER	2	
✓14	" " "	9	DETONATOR HOLDER	2	

A.H.S.P.		ARDE PUNE-21	
COMPILED BKD	CHD	TRD	COMP.
PASSED	APPROVED		SEALED (PROV.)
	DATE-5-3-97 FOR DIRECTOR		JR JAIN CRE(AA)
TITLE		DRG. LIST	
BOMB, HE, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 Kg (FILLING & MARKING)		ARDE 9501-01	
		SHT No 1	No. OF SHTS, 3

SHT No. 2 No OF SHTS 3

ARDE 9501-01

DRG LIST

Supersedes Drg Prev. sealed on 04 Aug 95.

SR. No.	DRG. No.	DET. No.	DESCRIPTION	No. OFF	REMARK
✓15	ARDE 9501-01	10	PLUG ASSY	1	
✓16	" " "	11	PLUG	1	
✓17	" " "	12	WASHER	1	
✓18	" " "	13	BASE TRANSIT	1	
✓19	" " "	14	NOSE PLUG	1	
✓20	" " "	15	LABEL	1	
21	" " "	16	CENTRAL TUBE ASSY.	1	
22	" " "	17	STRIP	3	
✓23	" " "	18	ROLLING RING ASSY	1	
✓24	" " "	19/SHT 1	RING (WELDING ASSY.)	4	
✓25	" " "	19/SHT 2	RING	4	
✓26	" " "	19/SHT 3	PLATE	8	
✓27	" " "	20	CLAMPING PLATE	2	
28	N.D.	-	HEXAGON HEAD SCREW M8x35 4-8 IS 1363 (PART-2)	8	
29	"	-	SPRING WASHER B8-IS 3063 PHOSPHATE COATED	8	
30	"	-	PUNCHED WASHER A8-IS 2016 PHOSPHATE COATED	20	
31	"	-	HEXAGON HEAD SCREW M16x25 4-8 IS 1363 (PART-2)	2	
32	"	-	SPRING WASHER B16 IS 3063 PHOSPHATE COATED	2	
33	"	-	HEXAGON NUT M8 IS 1363(PART3)	8	

A.H.S.P.

COMPILED BKO CHD TRD COMP

PASSED

APPROVED

DATE-5-3-97 FOR DIRECTOR

TITLE

BOMB, HE, AIRCRAFT, M.C.,
HIGH SPEED LOW DRAG 250 Kg
(FILLING & MARKING)

ARDE PUNE-21

SEALED (PROV) 9th May 97
CRE (AA)
16 MAY 97

DRG LIST

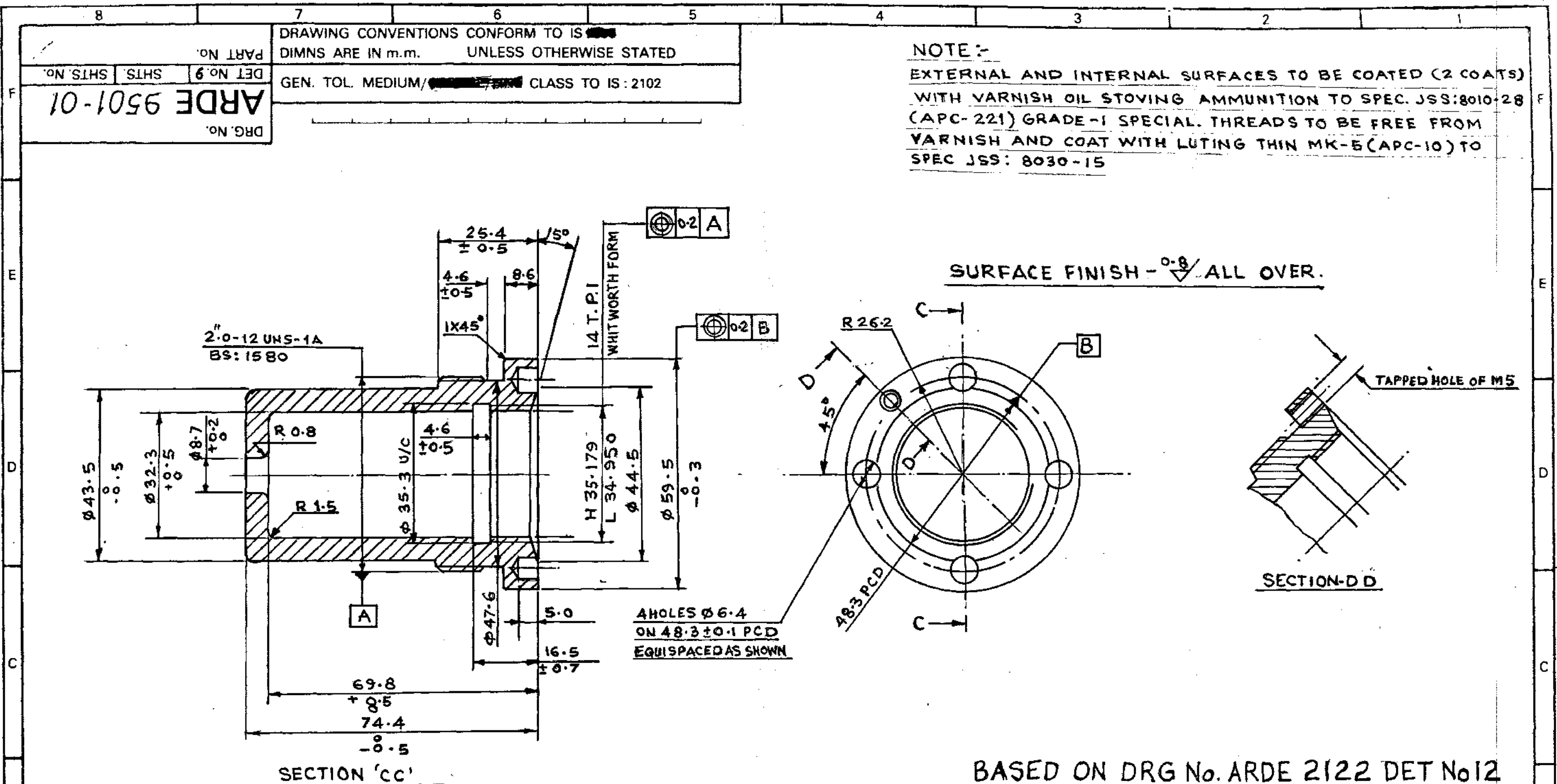
ARDE 9501-01

SHT No 2

No OF SHTS 3

SHT No. 3		No OF SHTS 3		ARDE 9501-01		Supersedes Drg Prov. sealed on 04 Aug 96	
SR No.	DRG No.	DET No.	DESCRIPTION	No OFF	REMARK		
34	ND		HEX. SOCKET HEAD SET SCREW M 12 X 25 IS 6094-TP	4			
35	" "	-	HEX. SOCKET HEAD CAP SCREW M 6 X 25 IS 2269	4			
36	" "	-	HAMMER DRIVE SCREW No 6 X 8-0 15 7519 PHOSPHATE COATED	3			
37	" "	-	WASHER CLOTH ALL WOOL MELTON FINISH 14 OZ, 30.2 ODX 12.7 ID TO ISS 1-69-01	2			
38	" "	-	WASHER GLAZED BOARD TO SPEC ISS 1215, 183 ODX 75 ID X 0.51 THICK	1			
39	" "	-	DISC FELT 944.5 X 12.7 THICK TO IS 1719	2			
40	" "	-	HEX. SOCKET SET SCREW M 5 X 10 TO IS 6094-FDP	4			
41	ARM II 72 B 22	-	TUBE EXPLoder NOSE	1			
42	ARM II 72 B 23	-	TUBE EXPLoder REAR	1			
43	ARM II 72 B 24	-	G.A. EXPLoder CE 9 OZ 5 DR	1			
44	ARM II 72 B 27	-	EXPLoder CE 3 OZ 15 DR (G.A.)	4			

A.H.S.P.			ARDE PUNE-21	
COMPLIED BKO	CHD <i>[Signature]</i>	TRD <i>[Signature]</i>	COMP	
PASSED <i>[Signature]</i>	APPROVED <i>[Signature]</i> DATE-5-3-97 FOR DIRECTOR		SEALED (PROV.)	16 MAY 97 CRE (AA)
TITLE BOMB, HE, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 Kg (FILLING & MARKING)			DRG. LLST ARDE 9501-01	
			SHT No 3	No OF SHTS 3



SECTION 'CC'

BASED ON DRG No. ARDE 2122 DET No 12

DRN. G. N. G.	CHD. <i>ing</i>	TRD.	COMP.	ASSY DRG. ARDE 9501-01/1
CD	PASSED <i>Blackw...</i>	SCALE: 1:1		DESIGN AUTHORITY
APPROVED <i>Perumal</i>	FOR DIRECTOR	EST MASS: 0.500 kg		ARDE PUNE - 411021
(R PERUMAL)		GAUGE SCHD:	DATE: 18-12-94	
MATERIAL: STEEL TO IS: 2004-20 C8				
PROTECTIVE FINISH: PHOSPHATED TO IS: 3618 CL 'B'				

DRG SEALED (PROV.) *Blackw...* **AIR CMDE. 20 JUN 95**

DRG. No. ARDE 9501-01

DET. No 9 SHTS. SHT.No.

PART No.

D. S. CAT. No.

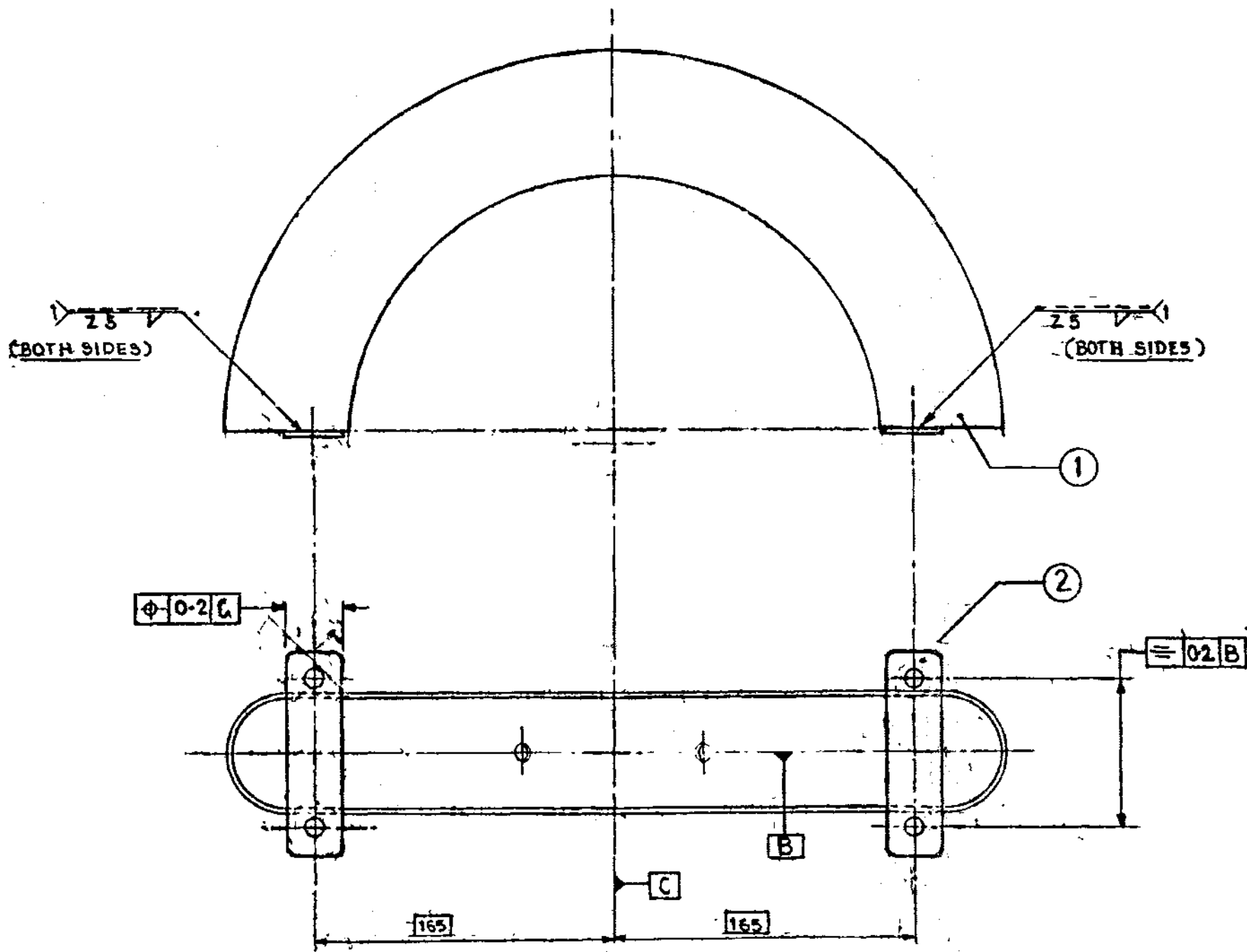
A.H.S.P.

DETONATOR HOLDER

DRAWING CONVENTIONS CONFORM TO IS: 800	
DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED	
GEN. TOL. MEDIUM/PRECISION CLASS TO IS: 2102	
DRG No	ARDE 9501-01
DET No	19
SHTS	3
SHT No	1

LIST OF COMPONENTS					
ITEM NO	NOMENCLATURE	NO. OF	MATL	DRG No	DET No PART No
1	RING	1		ARDE 9501-01	19, SHT 2
2	PLATE	2		19, SHT 1	19, SHT 3

NOTES:—
WELDING SYMBOLS TO CONFORM TO IS: 813.
WELDING TO BE DONE TO IS: 9395.



PROTECTIVE FINISH:—
1. PHOSPHATED TO IS: 3618 CLASS 'B'.
2. PRIMER COAT :— READY MIXED PAINT, AIR- DRYING, MATT FINISH (TYPE: BRUSHING / SPRAYING / DIPPING) TO IS: 168, RED OXIDE (No 446) TO IS: 5, TO BE COATED ALL OVER INTERNALLY & EXTERNALLY.
3. FINISH COAT :— READY MIXED PAINT, AIR- DRYING, MATT FINISH (TYPE: BRUSHING / SPRAYING / DIPPING) TO IS: 168 DEEP BRONZE- GREEN (No 224) TO IS: 5, TO BE COATED ALL OVER INTERNALLY & EXTERNALLY.

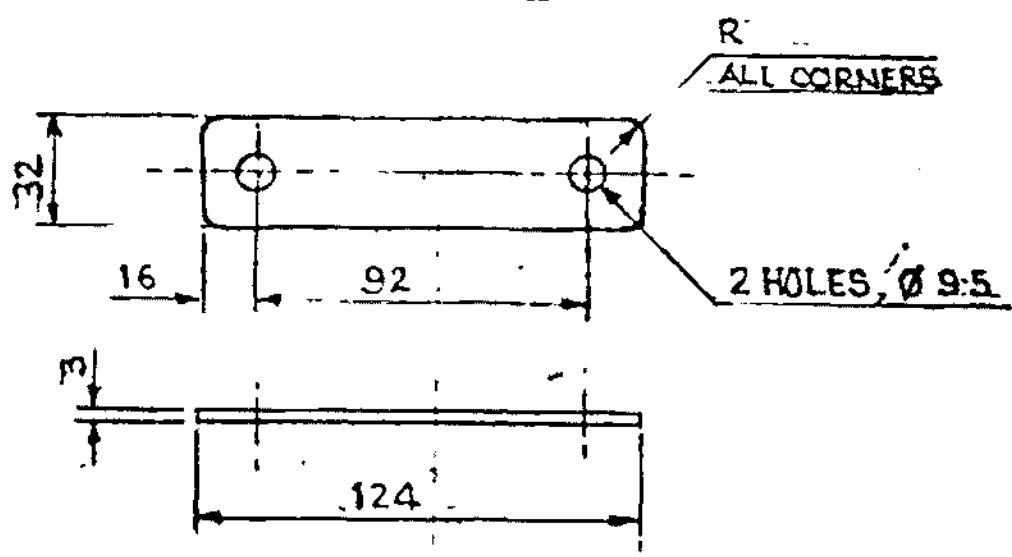
DRN	CHD	TRD	COMP	ASSY DRG	ARDE 9501-01
CD	PASSED	SCALE	1:2	DESIGN AUTHORITY	
APPROVED	EST MASS	Gauge SCHD	DATE: 19-7-96	ARDE PUNE-411 021	
(R. PERUMAL)					
R NO.	DATE	AUTHORITY	BRIEF RECORD	ZONE	CD GO
DRG SEALED (PROV.)	16 MAY 97	CRS (AM)	PROTECTIVE FINISH AS ABOVE		

RING WELDING ASSY

DRG No	ARDE 9501-01
DET No	19
SHTS	3
SHT No	1
PART No	
D S CAT No	
A.M.S.P	

1		2		3		4	
PART No		DRAWING CONVENTIONS CONFORM TO IS: 696 DIMNS ARE IN mm UNLESS OTHERWISE STATED					
DET No 19		SHTS 3		GEN TOL MEDIUM/COORDINATE CLASS TO IS: 2102			
DRG No		ARDE 9501-01					

NOTE: —
ALL SHARP EDGES & BURRS ARE TO BE REMOVED.



R. NO.	DATE:	AUTHORITY	BRIEF RECORD		ZONE	CD	GO	
DRG SEALED			APPROVED		SIGN			
DRN. 9501-01			CHD	TRD	COMP.			
CD			PASSED	SCALE: 1:2		ASSY DRG ARDE 9501-01/18 SHT. 1		
APPROVED			SCIE	EST MASS:		DESIGN AUTHORITY		
(R. PERUMAL)			FOR	GAUGE SCHD:		ARDE PUNE-411 021		
DATE: 8-8-96			DATE: 8-8-96					
MATE. STEEL TO IS: 1029 St. 34								
PROTECTIVE FINISH:			DRG. No.					
TITLE:			ARDE 9501-01					
<u>PLATE</u>			DET. No 19		SHTS. 3		SHT. No. 3	
			PART No.					
			O. S. CAT. No.					
			A.H.S.P.					

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Provisionally Sealed



(Signature)
(S.P. KH. KARNI) Air Cmdo
CHIEF RESIDENT ENGINEER

DATE: 20 JUN 95

भारत सरकार

Government of India

रक्षा मंत्रालय

Ministry of Defence

अनुसंधान तथा विकास संगठन

Research & Development Organisation

ARDE/SPECN/546

SPECIFICATION FOR

MANUFACTURE, ASSEMBLY AND QUALITY ASSURANCE OF
BOMB, AIRCRAFT, M.C.,

HIGH SPEED LOW DRAG 250 Kg (EMPTY ASSEMBLY)

पु. धो. ल. अनुभाग
Q. P. C. SECTION
भा. नि. समीक्षा पत्रावली
Q. F. K. AMALPUR

प्र. संख्या १६/१६/९५

दिनांक २-१६-९५

From D. G. P. S.

Issued By

आयुध अनुसंधान तथा विकास संगठन, पश्चिम, पुणे ४११०२१

ARMAMENT RESEARCH & DEVELOPMENT ESTABLISHMENT

PASHAN, PUNE - 411021.

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SPECIFICATION FOR

MANUFACTURE, ASSEMBLY AND QUALITY ASSURANCE OF

BOMB, AIRCRAFT, M.C., HIGH SPEED LOW DRAG 250 Kg (EMPTY ASSEMBLY)

0. FOREWORD

0.1 This specification is the property of the Ministry of Defence and must be returned to the Department/Agency from which it is received, immediately after the tender has been declined or on completion of the contract or on demand.

0.2 This specification or any other information issued in connection therewith may only be used for specific enquiries, tenders or orders placed by a competent authority on behalf of the Ministry of Defence. It is not to be used for any other purpose, whatsoever, without the express written sanction of the DTD&P (Air). Any enquiry regarding this specification should be addressed to the Inspecting Authority named in the tender or contract.

Issued By :

The Director
Armament Research & Development Establishment
Research and Development Organisation
Ministry of Defence
Pashan, PUNE - 411 021

Sealed By :

The Chief Resident Engineer (AIR ARMAMENT)
Resident Technical Office
Ministry Of Defence
Pashan, PUNE - 411 021

Obtainable From :

The Director
Directorate of Technical
Development & Production (Air)
Ministry of Defence
DHQ PO, NEW DELHI - 110 011

1. SCOPE

1.1 This specification governs the manufacture, assembly and quality assurance of bomb body assembly of HSLD 250 Kg bomb.

2. DOCUMENTS

2.1 Applicable document- The following document of issue in effect on date of invitation for bids or request for proposal, or finalising the contract form a part of this document to the extent specified herein:

Drawing - ARDE 9501-01 - BOMB, AIRCRAFT, M.C., HIGH SPEED
LOW DRAG 250 Kg (EMPTY ASSEMBLY)

2.2 Copies of drawing and specification required can be obtained from the agency mentioned under "Obtainable from" at para 0.2 or as directed by the contract.

3. REQUIREMENTS

3.1 This specification shall be read in conjunction with the drawing no. ARDE 9501 and the relevant contract requirements. All parts must be manufactured strictly in accordance with the limits and dimensions thereon and as required by this specification. Any question relating to the drawings or specifications should be referred to the Inspecting Authority mentioned in the contract.

3.2 No component/part shall be built up or repaired in any way not provided for by the drawings or this specification, unless authorised in writing by the Inspecting Officer or by any other agency authorised by him.

3.3 When the specification or drawing permits a choice or alternate materials, the manufacturer is required to notify the Inspecting Officer in writing which of the permitted alternative he chooses. If the choice of the alternative is changed during the course of the manufacture, the manufacturer shall obtain the prior permission of the Inspecting officer before such a change-over.

3.4 The contractor may subcontract the manufacture of sub assemblies or part thereof with the prior permission and approval of the Inspecting Officer.

3.5 Wherever specifications are quoted on the drawings or in this specification, the latest issues are implied, unless stated otherwise.

3.6 A list of specifications referred to herein is given in Appendix "A" to this specification.

3.7 Unless otherwise stated in the contract, the contractor is also required to supply all paintings, varnishes, lutings and

- other preservatives called for on the drawings or in this specification.

3.8 Any sample which may be supplied to the contractor shall be taken as a general guide to assembly only and not as an indication of workmanship or dimension.

4. MATERIALS AND COMPONENTS

4.1 All materials used in the manufacture of the store shall comply with the requirements of the material specifications or properties quoted in the relevant drawings.

4.2 The material IT 90G, conforming to the following shall be used for casting of the bomb body :

Chemical composition

Carbon	-	0.28 to 0.33
Silicon	-	0.30 (Maximum)
Manganese	-	1.30 to 1.50
Nickel	-	0.75 to 1.25
Chromium	-	0.60 to 1.00
Molybdenum	-	0.35 to 0.55
Sulphur & Phosphorous	-	0.03 (Maximum) each

Mechanical properties (After casting & heat treatment)

U.T.S.	-	100 Kgf/sq.mm (Minimum)
Y.S.	-	85 Kgf/sq.mm (Minimum)
Elongation	-	14 % (Minimum)
Izod Impact Value	-	3.0 m kgf 2 to 4.2 m kgf (Minimum) x
Hardness	-	HB 300 TO 340

4.3 All materials used in the manufacture of the store must have been accepted as satisfactory by the Inspecting Officer before being taken into use. No mechanical work, heat treatment or other operation which may modify their physical properties must be carried out on the materials after they have been submitted for test, unless so required by the drawing or authorised by the Inspecting Officer.

4.4 Where materials to the specification called for cannot be obtained, materials to other specifications giving equivalent mechanical properties may be used if authorised in writing by the Inspecting Officer who may require alternative materials to be subjected to such additional tests as he may direct before acceptance. The Inspecting Officer shall permit such a change in materials or material condition in consultation with and with the approval of CRE(AA) & ARDE, PUNE.

4.5 The Bomb shall consist of all the components listed in the schedule of parts supplied with the drawings no. ARDE 9501-01 and all must be supplied by the contractor unless otherwise stated in the contract.

• Ammended vide RCMA (AA)/1440/5/ Tech dt 8 March 96. 250 kg HSLD
E-41 v-4.

5. MANUFACTURING PROCESS

5.1 Workmanship - Machined components are to be finish machined to conform to the surface finish and dimensions called for on the relevant drawings. All rags and burrs are to be removed as they are formed when cutting or drilling operations are carried out on components and assemblies.

5.2 Casting - The bomb body shall be cast in one piece out of the material mentioned in the relevant drawing.

5.3 Heat treatment

5.3.1 Components- The heat treatment cycle to yield the required mechanical properties of the components shall be established based on sample test specimen, manufactured out of material specified for the component. The heat treatment cycle, once found to be satisfactory, shall be finalised and frozen for the entire period of the contract. No change in the heat treatment cycle shall be made without permission of the Inspecting Officer. Minor variation, if required, in the heat treatment parameters to account for the permissible variation of the chemical composition of the raw material shall be finalised in consultation with the Inspecting Officer. No component shall be heat treated more than once. Repeated heat treatment shall be resorted to with the permission of the Inspecting Officer who may, in addition to rechecking of the raw material composition of the concerned component, look into the heat treatment cycle as a whole before giving such permission.

5.3.2 Bomb body - All bomb body castings shall be heat treated, prior to machining, to give the mechanical properties specified at para 4.2 above.

5.4 Shot/sand blasting

5.4.1 Bomb body- The interior of the bomb body, when cast in such a way requiring partial machining or no machining at all, shall be thoroughly cleaned by shot/sand blasting. The interior of the bomb body shall be free from irregularities, discontinuities of profile (except those of the lug housings) or surface defects. Minor surface defects which do not lead to local weakening of the shell are permissible. Surface defects, if any, shall be rectified by welding with the consent of the Inspecting Officer as per para 5.5.3.

5.4.2 Components - Wherever shot blasting is recommended for components having threads, care shall be to protect the threads *taken* against damage during shot blasting.

5.5 Welding

5.5.1 Welding fixtures - Suitable welding fixtures are required to be used for welding of assemblies. The welding fixtures are

Inspecting Officer for locating and welding these components
in the drawing.

5.5.2 Fusion Welding - All fusion welding shall be carried out by the metal arc process as per IS: 9595. All welding operators shall have been checked and approved according to Section 4 of IS : 817 as competent to carry out welding with the material shown in the drawings to produce consistently high quality welds. The welders shall also undergo 'Periodic Control Test' at regular intervals of six months in case the duration of the contract exceeds six months. All fusion welding shall be carried out in such a manner as to ensure that the welds are of good, clean metal, free from cracks, gas holes, slag inclusions and all other impurities. The surfaces of the welds shall have an even contour and regular finish and shall indicate proper fusion with and penetration of the parent metal. Welds showing cracks or cavities or blow holes may be rectified with the approval of the Inspecting Officer.

5.5.3 Lug Housing and Repair by Welding - Welding of Lug Housing and repair of defects by welding shall be carried out by competent operators, duly approved by the Inspecting Officer. Only electrodes which deposit metal of the same general properties as the parent metal shall be used. All surfaces to be welded shall be cleaned free from scale, dirt, paint, heavy rust or other surface deposits. Where necessary to obtain a crack free weld, the casting shall be pre-heated to a temperature of 250 deg. C $\pm$ 10 deg. C. All slag shall be thoroughly removed from welds and ground to give a smooth finish without discontinuities or steps. Great care must be taken not to reduce the wall thickness in the dressing operation. The quality and acceptability of welding shall be adjudicated by the Inspecting Officer whose decision on these matters shall be final.

5.5.4 Stress Relieving- Bomb body, after welding of Lug Housing and repair of defects by welding, shall be stress relieved by reheating to a temperature of 250 $\pm$ 10 deg. Centigrade, followed by cooling/still air.

5.6 Machining of Bomb body - The external shape of the bomb body shall be finish machined as per relevant drawing. Owing to slender shape of the bomb body, internal machining to obtain the required profile has been found to be difficult and time-consuming. It is, therefore, recommended that the bomb body be cast in such a way so as to require minimum internal machining. The machining allowance required to be provided on the cast bodies shall be the minimum possible to give the finished dimensions.

6. QUALITY ASSURANCE PROVISIONS

6.1 General- The contractor shall offer free of charge all the specimen/test pieces, duly machined, if required, for testing/checking of raw materials and arrange testing/checking of these specimen/test pieces at the testing agency duly approved by the Inspecting Officer. When finished or partly finished stores or components are expended or damaged in tests, re-tests or examinations as stipulated in the specification or elsewhere as a condition of acceptance, the contractor supplying the stores will be required to supply, replace or repair, free of charge, the stores so damaged or expended which become the property of the Government.

6.2 Responsibility of contractor- The contractor shall undertake cent per cent inspection of the items before offering the same to the Inspecting Officer for acceptance, and maintain detailed records. Contractor's documentation shall include details of raw material source, its mechanical properties and chemical composition. The document shall be comprehensive including the entire raw material flow history with details of successive operations performed on it at his various production facilities. It is the responsibility of the prime contractor to ensure maintenance of such document by his subcontractor(s), if subcontracting is resorted to. Such document shall be made available for scrutiny of the Inspecting Officer on demand.

6.2.1 Submission of items/store- At the time of submitting each completed lot of item for acceptance of the Inspecting Officer, the contractor shall supply the following information accompanied by a certificate attesting that the information provided is correct and applicable to the items/store being submitted.

- (a) A statement that the lot complies with all of the quality assurance provisions specified in this and applicable documents.
- (b) A statement that all the materials purchased by the contractor meet the requirements and that certificates of conformance are available for review/scrutiny.
- (c) A statement that only the material, bonded and cleared by the Inspecting officer, is used for the lot of items being offered and that no deviation/change in the approved process of manufacture has been made.
- (d) No. of items in the lot.
- (e) Date submitted.

The certificate shall be signed by a responsible agent of the contractor.

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6.2.2 The contractor may also submit items with dimensional and geometric deviations for concessional acceptance by the Inspecting Officer. When such request is made, the contractor shall submit along with the details of items and related deviations, causative factors, already identified by him, leading to such deviations along with the details of remedial action. He shall also provide a guarantee that such concessional acceptance shall not be sought by him subsequently. However, the acceptance of deviated components will depend on the discretion of Inspecting Officer.

6.3 Formal acceptance of material or components, by the Inspecting Officer, shall not relieve the manufacturer of his responsibility for any parts which may subsequently prove to be defective. If the material or components from batches accepted after inspection prove to be subsequently defective during examination or assembly, the manufacturer shall undertake to replace the defective material or components free of cost.

6.4 Gauges and fixtures- During all stages of manufacture and assembly, all components shall be subjected to examination, gauging and, where necessary, testing. The contractor shall supply at his own cost all the necessary gauges as listed in Appendix 'C' and necessary test fixtures as required by this specification. He shall also offer central facilities for inspection of components, if manufactured by various sub-contractors.

7. TESTING

7.1 Material

7.1.1 Components- The entire raw material required for manufacture of the store shall be procured, as far as possible, at a stretch and offered for acceptance of the Inspecting Officer. These materials shall be subjected to the appropriate tests given in the material specifications quoted on the drawing. The method of preparation of the test pieces and method of testing shall comply with the conditions laid down in the relevant specifications.

7.1.2 Casting - At the commencement of each production batch, the Inspecting Officer may, at his discretion, require full chemical composition of the material taken from the crucible or ladle from which the casting are poured. The number and type of test sample shall be agreed upon between the Inspecting Officer and the contractor but after satisfactory control of the material has been achieved, such tests may be omitted at the discretion of the Inspecting Officer.

7.2 Mechanical tests

7.2.1 Three sets of two test pieces for checking tensile and Izod tests shall be taken from each melt representing the beginning and end of each cast or of each batch. Test samples shall be cast attached to or separate from the bomb body as

agreed to between the Inspecting Officer and the Contractor. When test samples are cast attached to the bomb body, they shall not be detached from the castings until heat treatment has been completed or until they have been stamped to identify them with the melt to which they relate.

7.2.2 Where test samples are cast separately, these shall be cast in the moulds of the same material as is used for the bomb body castings and shall be made at the same time as the castings and run from the same ladle. The test samples shall be stamped, prior to heat treatment, to identify them with the melt to which they relate. Test bars shall be heat treated with the castings they represent.

7.2.3 Two sets of test pieces, one representing the beginning and the other, the end of casting, shall be subjected to both tensile and Izod tests. The tensile tests shall be carried out on test pieces conforming to the dimensions of Indian Standards Test Piece, or of one of the subsidiary round test pieces, in accordance with the requirements of B.S. 18 "Tensile Testing of Metals". Izod impact tests shall be in accordance with the requirements laid down in B.S. 131 "Forms of Notched Bar Test Pieces". If any one of the test pieces fails to meet the specified tensile strength, elongation or Izod values, the balance set of test pieces shall be subjected to tensile and Izod tests as mentioned above. If any one the test piece fails to meet the specified strength, elongation or Izod value the batch represented by the test pieces shall be rejected.

7.2.4 Hardness Test - Hardness tests shall be carried out on each finished bomb body. The points for checking hardness on each bomb body shall be chosen in consultation with the Inspecting Officer so as to reveal variation in hardness with change of section along the bomb body. The total number of points may not exceed 6 per bomb.

7.2.5 Crack Detection On completion of all heat treatment, welding & machining etc. but before any finishes are applied, each bomb body shall be checked for the presence of cracks by means of an approved crack detection machine. The bomb body shall conform to ASTM level 3/level 4. Bomb body with crack shall be rejected.

7.2.6 Pressure Test-After completion of all heat treatment, machining and welding of Lug Housing, but before any finishes are applied, each bomb body shall be subjected to a hydraulic pressure test at a pressure of 4 kg/sq.cm for five minutes. There shall be no leakage through the walls or through the welded regions. Leaky bomb bodies may be rectified by welding.

7.2.7 Repair of Leaky holes - A maximum of 12 leaky holes are permitted for repair by welding. The density of leaky holes shall not be more than 4 holes within a radius of 25 mm and holes shall be not touching each other. One blow hole of size 12 mm diameter

with depth not exceeding beyond $1/3$ of wall thickness shall be permitted for weld repair. Any bomb body having blow holes, number and depth, in excess of the above shall be rejected. Minor blow holes on internal surfaces & other imperfections are to be filled up by using Iron cement.

7.2.8 Proof Loading of Lugs - After stress relieving and before any finishes are applied, the lug housing welded to the bomb body shall be subjected to the proof load given on the drawings. The load shall be tensile in nature and shall be applied slowly by approved means. The reaction points on the bomb body shall be designed to avoid any local high loads. The adapter used for proof loading of lug housing shall have the same mechanical properties of the lug housing and shall have matching thread profile and fit. Great care must be taken not to damage the screw threads during this test. There shall not be any sign of yielding of the threads under the load applied. Any sign of yielding of the threads or the portion of bomb body around the lug housing shall entail in rejection of the bomb body under proof loading.

7.3 Weight & C.G - The weight and centre of gravity position of each bomb body shall be checked and shall lie within the limits given on the drawing.

8. Finishes

8.1 Care must be taken to apply only the appropriate finishes to the surfaces specified on the drawings and to exclude all metal spray, bitumen, paint or varnish from screw threads etc., which are required to be free from such finishes.

8.2 Surface Preparation - All components to be metal sprayed, painted, coated with bitumen or varnish shall be made perfectly clean, dry and free from grease, scales, dust or other foreign matter. Removal of grease shall be by an approved organic solvent, and of scales and oxides by blasting with a suitable abrasive grit.

8.3 Metal Spraying- The surface to be metal sprayed shall be prepared and coated with zinc in accordance with the requirements of Appendix 'B'. The thickness of zinc coating at any one point shall be 0.1 to 0.2 mm. The spraying shall be automatically controlled and metal spraying pistols of an approved type only shall be used. Great care must be taken not to damage or coat screw threads etc. which are specified to be free from finishes.

8.3.1 The thickness and adhesion test specified in Appendix 'B' shall be carried out on first lot 100% and later on may be reduced at the discretion of the Inspector. Any damage to the zinc coat resulting from tests shall be rectified by respraying.

8.4 Varnishing The whole of the internal surface of the bomb body shall be coated with varnish stoving ammunition to specification no. IND/ME/674 (b). While applying the varnish

- particular care shall be taken to ensure that all joints and crevices are sealed, and the coatings shall be free from thin patches, tears, air bubbles and ripples, to the satisfaction of the Inspecting Officer. Coating of varnish shall not be thicker than 0.25 mm.

8.5 Painting- All painting operations shall be carried out under clean and dry conditions. Condensations of moisture before and during painting operations must be avoided and draughts and dust excluded. The under-coat must be thoroughly dry before the finishing coat is applied. The resultant finish must match the relevant standard of colour and must present a smooth surface free from brush marks, thin patches and other blemishes. Undue accumulation of paint at any point and tears and blobs must be avoided. All screw threads and the surfaces indicated on the drawing must be free from paint.

9. Marking, Packing & Supply

9.1 Marking- Each finished component shall be marked with the manufacturer's initials of maximum three letters, lot number and year of manufacture, two numerals each, (e.g., OFM 05/95) by punching on any convenient and conspicuous place on the component prior to application of protective finishes. The place for punching and the manufacturer's initials shall be chosen with the approval of the Inspecting Officer.

9.2 Supply- The supply of bomb body (empty assembly) will comprise of the complete assembly as per drawing No. ARDE 9501-01 including all components thereof.

9.3 Label- After completion of empty assembly, and all finishes, the label shall be fixed to the filling plug, after punching necessary information, as shown in the relevant drawing. The label shall be suitably masked when the filling plug is required to be given additional finishes.

9.4 The bombs shall be transported in such away as to avoid damage to the painted surface of the bomb body.

10. APPROVAL FOR INITIAL PRODUCTION

10.1 The manufacturer shall submit a detailed process sheet indicating check points/test stages with gauges, instruments and test set-up proposed to be provided by the manufacturer for approval by the Inspecting Officer before commencement of bulk production.

10.2 The Contractor shall also submit one complete unit as per Drawing No. ARDE 9501-01 manufactured by full production tools, jigs and fixtures, to the Inspecting Officer for approval before bulk production is proceeded with. Such approval shall not be given until the store has been examined by the Inspecting

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- Officer specified in the contract. No further production may be undertaken by the Contractor until this approval is given.

10.3 The initial production samples are required to undergo all tests/examinations as explained in paras above. When tests are carried out and the store submitted fails to meet the test conditions, the Contractor may submit additional samples for further tests and the whole cost of all such tests shall be borne by the Contractor.

Graped 14/6/95
(R. PERUMAL)
Scientist 'D'
Project Officer

APPROVED

Raghubir Singh
Air Cmde
(RAGHUBIR SINGH)
Head of the Division (WH-II)

PROVISIONALLY SEALED

S R Kulkarni
Air Cmde
(S R KULKARNI)
CHIEF RESIDENT ENGINEER (AA)
DATE: 20 JUN 95.

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APPENDIX "A"

LIST OF SPECIFICATIONS:

SL NO	SPECN. NO	BRIEF NOMENCLATURE
1	IS - 5 ✓	Colours for ready mixed paints & enamels
2	IS - 168 ✓	Ready mixed paint, air drying, semi - glossy / matt, for general purposes
3	IS - 410 ✓	Cold rolled brass sheet, strip & foil
4	IS - 813 ✓	Scheme of symbols for welding
5	IS - 814 ✓	Covered electrodes for metal arc welding of structural steel
6	IS - 1363 ✓	Hexagon head bolt.
7	IS - 1369 ✓	Dimensions for Screw thread runouts & undercuts
8	IS - 1573	Electroplated coatings of Zinc on iron & steel
9	IS - 2004 ✓	Carbon steel forgings for general Engg. purposes
10	IS - 2016 ✓	Plain washer - steel.
11	IS - 2102 ✓	General tolerances for dimensions & form & position
12	IS - 2269 ✓	Hexagonal socket head cap screw.
13	IS - 3618 ✓	Phosphate treatment of iron and steel for protection against corrosion
14	IS - 4218 ✓	ISO metric screw threads
15	IS - 5517 ✓	Steel for hardening & Tempering
16	IS - 6094 ✓	Hexagonal socket set screw.
17	BS - 220	Specification for ingot Zinc (Replaced by BS 3436)
18	BS - 970	Specification for wrought steels for mechanical & allied Engg. purposes
19	BS - 1580	Unified Screw Threads.
20	BS - 3436 ✓	Specification for ingot Zinc
21	BS - 4174	Self tapping screw & metallic drive screw
22	IND/ME/674(b)	Varnish stoving Ammunition
23	IND/ME/884	Valcanised chloroprene rubber compounds (Neoprene Rubber)
24	JSS-8010-28	Varnish stoving APC-221
25	JSS-8030-9	Mineral Jelly
26	JSS-8030-14	Cement RD-1192K Ammunition (APC-2)
27	JSS-8030-15	APC-10
28	JSS-9150-03	Grease ZX-30
29	DTD-392-A	Grease ZX-30 (Replaced by JSS-9150-03) - JSS 9150-03
30	IT-90G ✓	Alloy steel casting of Armour plates
31	IS-9595 ✓	Recommendation for Metal Arc welding of Carbon & Carbon Manganese steels
32	IS-3600	Metal of testing fusion welded joints & weld metal in steel.
33	IS - 7307	Approval tests for welding procedures.
34	IS - 822	Code of procedure for inspection of welds.
35	IS - 6527	Stainless Steel
36	IS - 1079	Steel

APPENDIX 'B'

REQUIREMENTS & TESTS FOR SPRAYED METAL COATING

B.1 Surface Preparation

B.1.1 The surface after preparation shall be free from grease, rust, scale or other foreign matter and shall provide an adequate key for the subsequent sprayed metallic coating. The surface shall be obtained by shot blasting or sand blasting. Only clean, sharp, angular grit shall be used uncontaminated with paint, grease, etc. Residual grit from the grit blasting operation shall be removed from the surfaces, for e.g. by dry compressed air, before spraying.

B.1.2 The prepared surface shall be comparable in roughness with reference surface produced in accordance with para 8 below.

B.1.3 The sprayed coating shall be applied as soon as possible after surface preparation. If visible deterioration as compared with freshly prepared surface has occurred, then surface preparation shall be repeated.

B.2 Coating Metal- The composition of the Zinc to be sprayed shall comply with the requirements of BS 3436 Grade B (99.9 percent purity) but the copper content shall not exceed 0.05 percent.

B.3 Method of Application

B.3.1 The coating shall be applied to clean and dry surface prepared in accordance with para.1, by means of an approved metal spraying pistol.

B.3.2 The surface of the sprayed coating shall be of uniform texture free from lumps and coarse areas.

B.3.3 To provide some safeguard against excessive oxidation, the coating applied shall exhibit a bright metallic lustre when lightly burnished.

B.3.4 If it is necessary to apply a further coating to achieve the specified thickness great care must be taken that there is no contamination or corrosion of the previous coating. The thickness of the coating shall be measured by means of a magnetic or electro-magnetic thickness meter approved by the Inspector, the calibration of which has been checked against a known similar thickness of coating within an accuracy of ± 10 percent before and after the test. The effect of the measurements of modifications of the magnetic field associated with the shape and thickness of the article shall be taken into account when checking the calibration of the instrument.

B.4 Adhesion

B.4.1 The sprayed metallic coating shall fulfill the requirements of the test described below.

APPENDIX 'B' (contd)

B.4.2 Using a straight edge and hardened steel scribe ground to a sharp 30 deg. point, two parallel lines shall be scribed at a distance apart equal to ten times the average coat thickness. In scribing the two lines enough pressure shall be applied on each occasion to cut through the coating to the basic metal in a single stroke. If, at the second cut, any part of the coating between the lines breaks away from the basic metal, it shall be deemed to have failed the test.

B.5 Preparation of Reference Surface

B.5.1 The basic metal shall be a flat piece of steel not less than 1/4" thick and having a hardness of the same order as the bomb body. An unbroken surface shall be grit blasted in accordance with the details given below, until a uniformly rough clean surface has been attained and maintained without visible change for at least 25 per cent of the total blasting time.

ABRASIVE	- Chilled iron grit No. 24
AIR PRESSURE	- Not less than 2.5 kg/sq. cm (30 lb./sq. in.)
NOZZLE DIAMETER	- Not exceeding 12.7mm (1/2 inch.)
NOZZLE POSITION	- At right angles to and about 228.6mm (9 inches) from the surface.

NOTE: For components with hardness in excess of HB 350 it may be necessary to replace the chilled iron with alumina or similar hard abrasive.

APPENDIX 'C'

GAUGE SCHEDULE

1. BOMB BODY MACHINING (DRG. NO. ARDE 9501 DET. NO. 3)

S1. No	Dimension/feature	Zone	Method of Inspection
1	M 70x3- 6H * " NO GO Gauge" entering up to three threads permitted	D7	Thread GO/NO GO Gauge*
2	CG 724.0±12.0	E7	Fixture
3	250.0±0.5	E5	Fixture
4	14.0"±0.03"	C5	Fixture
5	Ø 290.0-0.5	D5	Snap GO/NO GO Gauge
6	1415.0±2.0	C5	Limit Gauge
7	210.0±5Kg <i>? 110.0±5Kg</i>		Weighing Machine <i>116 Kg Approx</i>
8	Surface finish		Instrument
9	Ø 86.2±0.5	D8	Plug GO/NO GO Gauge
10	0.25 Concentricity	D7	Fixture
11	13.0	D7	Limit Gauge
12	849.0	F6	Fixture
13	21.5-1.5	D7	Instrument
14	R 2232-3.5	D7	Template
15	12.8-1.5	D6	Instrument
16	R 1784-9.0	D6	Template
17	11.0-1.5	E6	Instrument
18	90 degree	D4	Instrument
19	Ø 66.0±0.5(4holes)	D4	Plug GO/NO GO Gauge
20	684.0	C5	Fixture
21	Ø 210.0±0.5	D4	Plug GO/NO GO Gauge
22	11.0-1.5	D4	Instrument
23	0.25 Concentricity	C3	Fixture
24	20.0	E4	Snap GO/NO GO Gauge
25	Ø 172.0±1.0	D3	Plug GO/NO GO Gauge
26	Ø 248.0-0.4	D3	Snap GO/NO GO Gauge
27	Ø 282.0±0.5	D3	Snap GO/NO GO Gauge
28	Ø 11.0±0.5	C3	Plug GO/NO GO Gauge
29	32.0±0.5	D2	Plug GO/NO GO Gauge
30	191.0±1.0	C2	Limit Gauge
31	PCD 189	D1	Instrument
32	54.0±3-1	D7	Limit Gauge
33	65.0±3-1	E7	Limit Gauge
34	R 6.0	C7	Visual
35	Ø 73.0	D7	Plug GO/NO GO Gauge
36	20.0	E4	Snap GO/NO GO Gauge
37	R 3.0	E4	Radial gauge
38	R 205.0	F4	Template
39	R 60.0	F4	-Do-
40	35.0	F3	Limit Gauge
41	35.0	F4	Fixture
42	45 degree	F4	Limit Gauge
43	2x45 degree	F3	Visual
44	30 degree	F3	Instrument

APPENDIX 'C'(contd)

45	1x45 degree	F3	Visual
46	32.0	D3	Instrument
47	6.5+0.5	C3	Limit Gauge
48	Ø6.8+0.3	C3	Plug GO/NO GO Gauge
49	22 degree30Min±30 Min	E2	Fixture
50	6.4 (4 Slots)	D2	---do---
51	45 degree	C2	Instrument
52	10.16	C1	Limit Gauge
53	6.4+0.5	B1	Limit Gauge

2. BOMB BODY-LUG HOUSING WELDING ASSEMBLY
(DRG. NO. ARDE 9501-01 DET. NO. 2)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	250.0+0.5	E6	Fixture
2	14"±0.03"	D6	Fixture
3	849.0	F7	Fixture

3. LUG HOUSING (DRG. NO. ARDE 9501-01 DET. NO. 4)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	M45X2-6H	D5	Thread GO/NO Go Gauge
2	26.0+0.1	C6	Limit Gauge
3	Ø64.95-0.05	D5	Snap GO/NO GO Gauge
4	SR 135	E7	Radius Gauge
5	R 10	C6	Radius Gauge
6	2.0 U/C	C6	Visual
7	35.0	C6	Snap GO/NO GO Gauge
8	9.5+0.2	C5	Limit Gauge
9	1.5X45 degree	E5	Visual
10	Ø92.0	E2	Ring GO/NO GO Gauge
11	21.0	C8	Limit Gauge
12	Ø46.5+0.2	D5	Ring GO/NO GO Gauge
13	3.6+0.1	C5	Limit Gauge

4. PLUG FOR LUG HOUSING (DRG. NO. ARDE 9501-01 DET. NO. 5)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	M45x2	A2	Thread GO/NO GO Gauge
2	3.5-0.1	B2	Snap GO/NO GO Gauge
3	Ø6.0(2 HOLES)	B3	Plug GO/NO GO Gauge
4	30.0	B2	Limit Gauge
5	16.0	B3	Snap GO/NO GO Gauge
6	10.0	B3	Limit Gauge

APPENDIX 'C'(contd)

7	3.5 U/C	B1	Visual
8	1x45 degree	B2	Visual
9	Ø46.0-0.1	D2	Ring GO/NO GO Gauge
10	23-0.1	A3	Snap GO/NO GO Gauge
11	R 2	B3	Visual
12	2.0x4.0 Slot	C2	Limit Gauge

5. RING NUT (DRG. NO. ARDE 9501-01 DET. NO. 6)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	0.3 Concentricity	F8	Fixture
2	M 170x3 -6H	D7	Thread GO/NO Gauge
3	1 0.05 B	C7	Fixture
4	0.1 Concentricity	C3	Fixture
5	5x45 degree	D2	Template
6	189.0 PCD±0.2	D4	Fixture
7	190.0±0.2	E5	Snap GO/NO GO Gauge
8	30.0-0.5	F7	Snap GO/NO GO Gauge
9	Ø209.0-0.5	D8	Snap GO/NO GO Gauge
10	20.0	C7	Limit Gauge
11	15.0	C7	Limit Gauge
12	5x45 degree	F7	Template
13	45 degree	D5	Fixture
14	4HOLES M 6	C4	Thread GO/NO GO Gauge

6. FILLING PLUG (DRG. NO. ARDE 9501-01 DET. NO. 7)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	M70x3-6H	D3	Thread GO/NO GO Gauge
2	M170x3-6g	D3	Thread GO/NO GO Gauge
3	Ø215.0-0.2	D6	Snap GO/NO GO Gauge
4	Ø185	D5	Fixture
5	Ø140	D5	Plug GO/NO GO Gauge
6	Ø102	D4	Ring GO/NO GO Gauge
7	20.0	D4	Limit Gauge
8	47.0	C1	Limit Gauge
9	34.0	E1	Limit Gauge
10	60.0	C4	Snap GO/NO GO Gauge
11	R 0.5	C4	Visual
12	Ø171.5-0.5	D3	Snap GO/NO GO Gauge
13	R10	D2	Radius Gauge
14	22 degree	D2	Instrument
15	48.0	E1	Limit Gauge
16	3.5 U/C	D1	Visual
17	45 degree	D1	Instrument
18	21.0	C1	Limit Gauge
19	10.0	D4	Limit Gauge

APPENDIX 'C' (Contd)

20 R 0.5

D4

Visual

7. CONTAINER EXPLODER (DRG. NO. ARDE 9501-01 DET. NO. 8)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	M70x3-6g	E7	Thread GO/NO GO Gauge
2	2.0" -12 UNS-1B	E5	Thread GO/NO GO Gauge
3	0.0.3 CD	D4	Fixture
4	0.3 Concentricity	D4	Fixture
5	Ø 47.0	C8	Plug GO/NO GO Gauge
6	*45.2±0.5	E7	Plug GO/NO GO Gauge
7	Ø45.3±0.5	E7	Plug GO/NO GO Gauge
8	257.3±0.8	D7	Limit Gauge
9	*66.0±0.5	E6	Plug GO/NO GO Gauge
10	Ø65.8±0.5	E6	Plug GO/NO GO Gauge
11	40.0±1.0	F5	Limit Gauge
12	Ø61.0±0.2	E5	Plug GO/NO GO Gauge
13	Ø86.6-0.5	E4	Ring GO/NO GO Gauge
14	R 5.0±1.0	F8	Radius Gauge
15	Ø57.1±0.5	E8	Ring GO/NO GO Gauge
16	25.4	D8	Limit Gauge
17	R 1.5±0.5	E8	Radius Gauge
18	247.1±0.5	D7	Limit Gauge
19	Ø51.2	E6	Plug GO/NO GO Gauge
20	1x45 degree	D6	Visual
21	12.7	D5	Limit Gauge
22	4.6±0.5	F6	Visual
23	Ø66.3	E6	Snap GO/NO GO Gauge
24	R 0.8	E5	Visual
25	1x45 degree	E5	--Do--
26	45 degree	F6	Instrument
27	52.1±0.5	F6	Limit Gauge
28	8.9	F5	Limit Gauge
29	R 38.1	E4	Fixture
30	45 degree	F4	Instrument
31	Ø8.0x7.6±0.3	F2	Plug GO/NO GO Gauge
32	73.0±0.1 PCD	F2	Fixture
33	4.6±0.5	E3	Plug GO/NO GO Gauge
34	Ø6.0	E2	Plug GO/NO GO Gauge

8. DETONATOR HOLDER (DRG. NO. ARDE 9501-01 DET. NO. 9)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	2.0"-12UNS -1A	E7	Thread GO/NO GO Gauge
2	H32-855	D6	Thread GO/NO GO Gauge
3	H35-179	D5	Thread GO/NO GO Gauge
4	L 34.950	D5	Thread GO/NO GO Gauge

APPENDIX 'C' (Contd)

5	0.2A Concentricity	E5	Fixture
6	0.2B Concentricity	E5	Fixture
7	$\varnothing 32.3 \pm 0.5$	D8	Plug GO/NO GO Gauge
8	4.6 ± 0.5	D6	Limit Gauge
9	25.4 ± 0.5	E6	Limit Gauge
10	$\varnothing 43.5 - 0.5$	D8	Ring GO/NO GO Gauge
11	$\varnothing 8.7 \pm 0.2$	D8	Plug GO/NO GO Gauge
12	R0.8	D7	Visual
13	R1.5	D7	--Do--
14	$\varnothing 35.3$ U/C	D7	Limit Gauge
15	69.8 ± 0.5	C7	Limit Gauge
16	$74.4 - 0.5$	C7	Limit Gauge
17	$\varnothing 47.6$	C6	Snap GO/NO GO Gauge
18	5.0	C6	Limit Gauge
19	16.5 ± 0.7	C6	Limit Gauge
20	1x45 degree	E6	Visual
21	4.6 ± 0.5	E6	Limit Gauge
22	8.6	E6	Limit Gauge
23	15 degree	E6	Instrument
24	$\varnothing 59.5 - 0.3$	D5	Ring GO/NO GO Gauge
25	$\varnothing 6.4$	C5	Plug GO/NO GO Gauge
26	48.3 ± 0.1 PCD	C5	Fixture
27	45 degree	E4	Fixture
28	R26.2	E4	Fixture
29	M5	D1	Thread GO/NO GO Gauge

9. PLUG (DRG. NO. ARDE 9501-01 DET. NO. 11)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	23.0	C3	Snap GO/NO GO Gauge
2	H 34.925	B1	Thread GO/NO GO Gauge
3	L 34.696	B4	Thread GO/NO GO Gauge
4	$\varnothing 51.0 - 0.2$	B2	Snap GO/NO GO Gauge
5	6.4	C2	Limit Gauge
6	5.0	B2	Limit Gauge
7	3.0 U/C	B3	Visual
8	1.5x45 degree	C2	Visual
9	15.3 ± 0.3	C3	Limit Gauge
10	14 TPI	B4	Thread GO/NO GO Gauge

10. WASHER (DRG. NO. ARDE 9501-01 DET. NO. 12)

Sl. No	Dimension/feature	Zone	Method of Inspection
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All dimensions to be checked in mould

APPENDIX 'C'(contd)

10. BASE TRANSIT (DRG. NO. ARDE 9501-01 DET. NO. 13)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	M12X1.75-6H	E4	Thread GO/NO GO Gauge
2	Ø248.5+0.5	D4	Plug GO/NO GO Gauge
3	90 degree+30 minutes	D8	Fixture
4	Ø290-1.0	C5	Ring GO/NO GO Gauge
5	6.5x45 degree	C5	Template
6	60.0	B5	Snap GO/NO GO Gauge
7	14.0±0.2	E4	Limit Gauge
8	6.5x45 degree	C4	Template

12. NOSE PLUG (DRG. NO. ARDE 9501-01 DET. NO. 14)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	2.0"-12UNS-1A	D5	Thread GO/NO GO Gauge
2	0.2 Concentricity	E5	Fixture
3	Ø60.0-0.3	C6	Ring GO/NO GO Gauge
4	R 10.0	C8	Radius Gauge
5	122.0	E7	Limit Gauge
6	3.0U/C	C7	visual
7	Ø47.6	D7	Snap GO/NO GO Gauge
8	25.4	C6	Limit Gauge
9	R 1.0	E6	Visual
10	69.9-0.2	E6	Limit Gauge
11	1x45 degree	D5	Visual
12	Ø44.3-0.1	D6	Snap GO/NO GO Gauge
13	8.0(4 SLOTS)	E4	Limit Gauge
14	Ø101.8-0.2	C3	Snap GO/NO GO Gauge
15	2.5	D4	Limit Gauge

13. LABEL (DRG. NO. ARDE 9501-01 DET. NO. 15)

Sl. No	Dimension/feature	Zone	Method of Inspection
1	Ø136.0	C6	To be checked in die & punch
2	Ø106.0	D5	-----DO-----

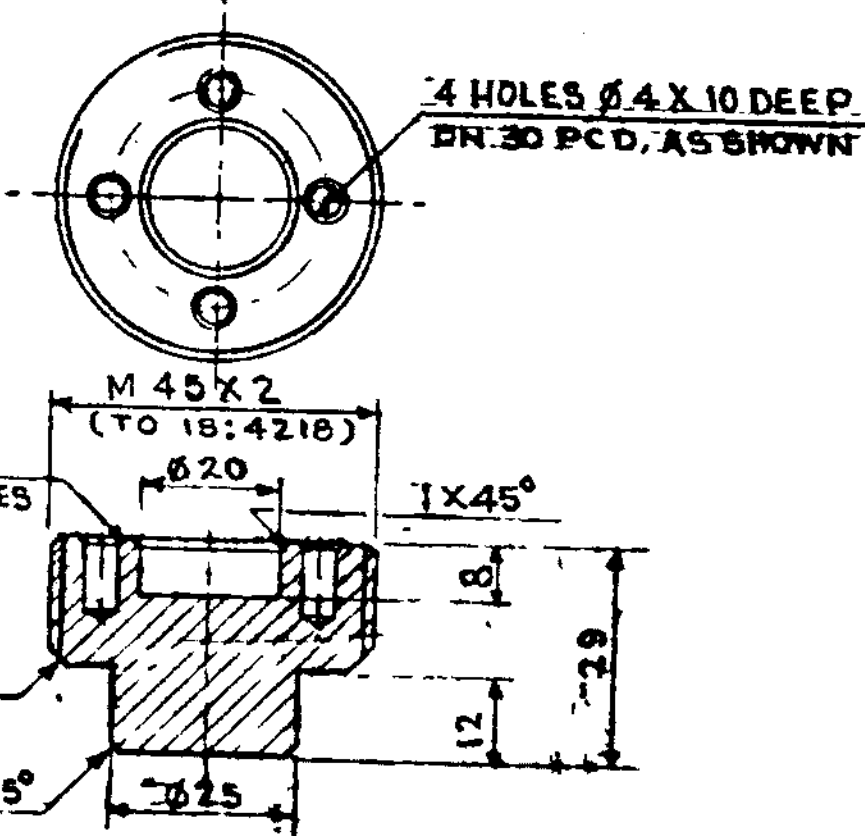
ON LHD
DET No 5 SHTS 2
ARDE 9501-01
ON DRG

DRAWING CONVENTIONS CONFORM TO IS: 800
DIMNS ARE IN m.m. UNLESS OTHERWISE STATED

GEN. TOL. MEDIUM/GENERAL CLASS TO IS: 2102

NOTE:-

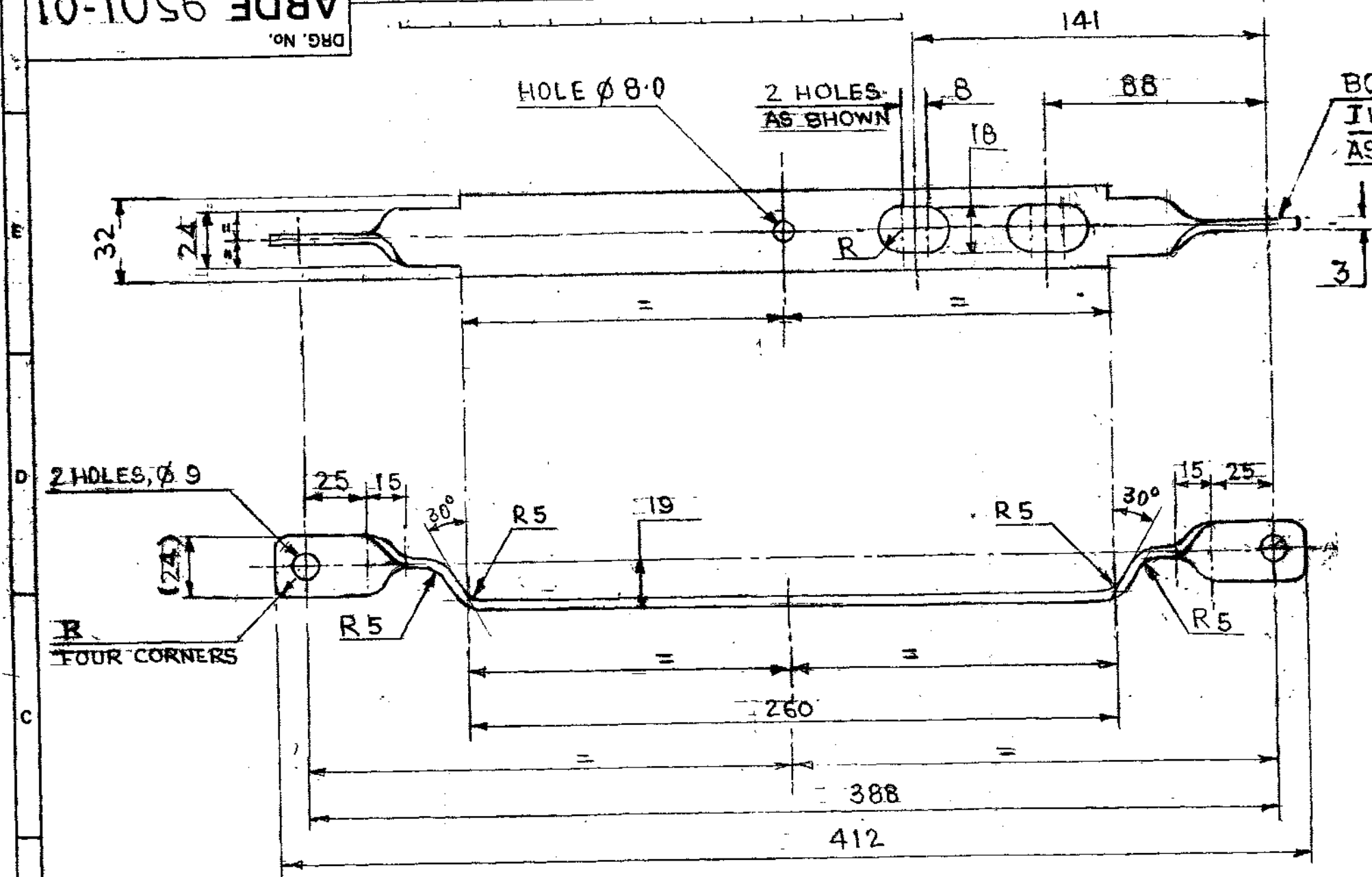
ALL SHARP EDGES & BURRS ARE TO BE REMOVED.



R. NO	DATE	AUTHORITY	BRIEF RECORD	ZONE	CD	GO
DRG SEALED (PROV) For in 9mm						
DRN 68	CHD	TRD	COMP	ASSY DRG ARDE 9501-01		
CD	PASSED	SCALE: 1:1	EST MASS:	DESIGN AUTHORITY		
APPROVED	For direction	GAUGE SCHD.	DATE 23/10/96	ARDE PUNE-411 021		
PERUMAL		MATERIAL STAINLESS STEEL TO IS: 6527				
PROTECTIVE FINISH				DRG. No.		
TITLE				ARDE 9501-01		
PLUG DUMMY				DET. No. 5 SHTS. 2 SHT.No. 1		
(FOR LUG HOUSING)				PART No.		
Supersides Drg. Prov. Sealed on 20 JUN 95.				Q. & CAT. No.		
				A.N.S.P.		

8		7		6		5		4		3		2		1	
DRAWING CONVENTIONS CONFORM TO IS : 696															
DIMNS ARE IN m.m. UNLESS OTHERWISE STATED															
GEN. TOL. MEDIUM/ CLASS TO IS : 2102															
DET. No. 20 SHTS. 10 PART No. 10-1056 DRG. No. ARDE 9501-01															

NOTE —
ALL SHARP EDGES & BURRS ARE TO BE REMOVED.



PROTECTIVE FINISH: —

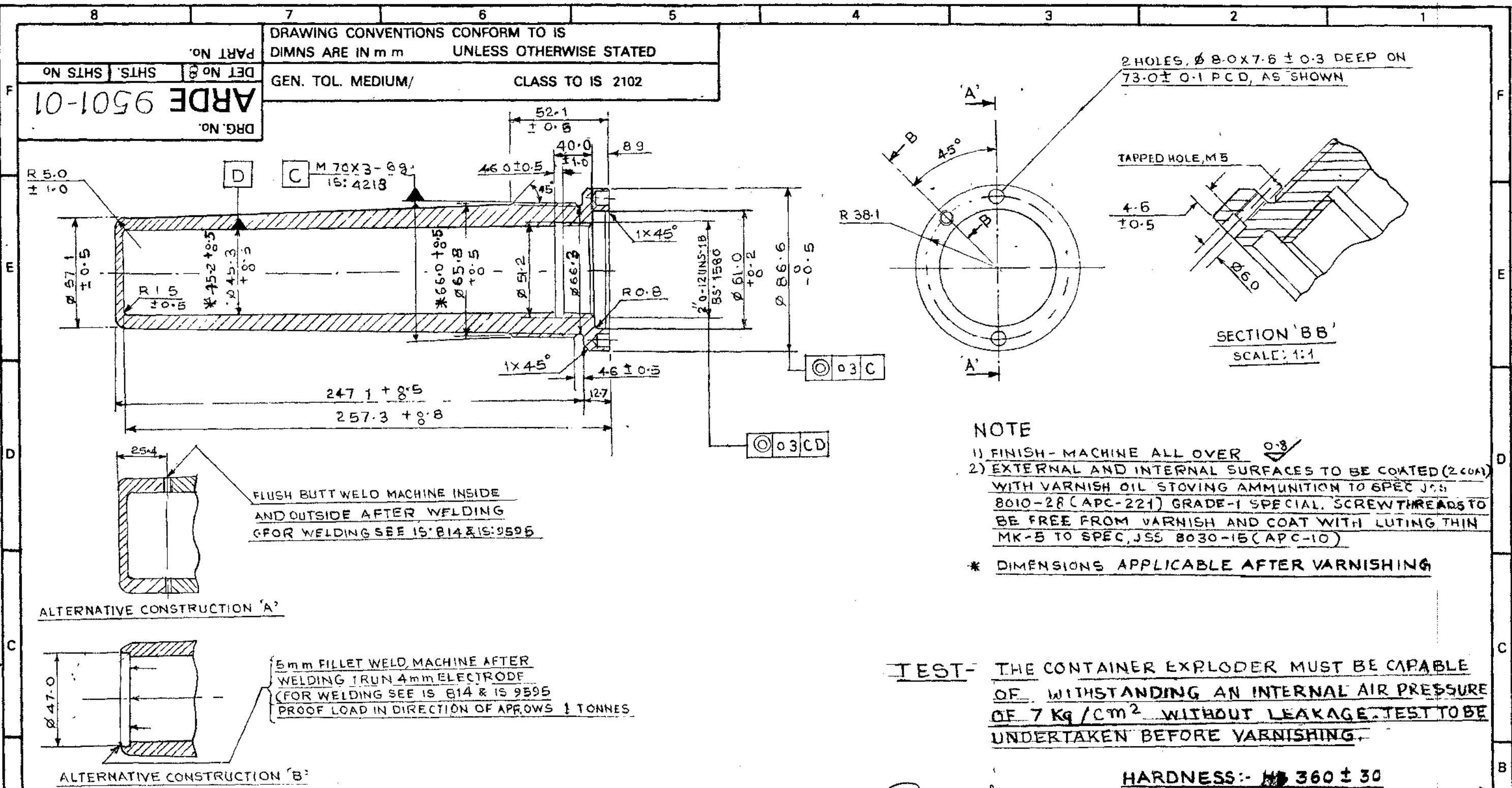
1 PHOSPHATED TO IS: 3618 CLASS 'B'

2 PRIMER COAT : — READY MIXED PAINT, AIR DRYING, MATT FINISH (TYPE : BRUSHING / SPRAYING / DIPPING) TO IS. 168. RED OXIDE (No 446) TO IS: 5. TO BE COATED ALL OVER.

3 FINISH COAT : — READY MIXED PAINT AIR DRYING, MATT FINISH (TYPE BRUSHING / SPRAYING / DIPPING) TO IS: 168, DEEP BRONZE GREEN (No 224) TO IS: 5 TO BE COATED ALL OVER.

DRN. <i>[Signature]</i>				CHD. <i>[Signature]</i>		TRD.		COMP.		ASSY DRG. ARDE 9501-01/18	
CD <i>[Signature]</i>				PASSED <i>[Signature]</i>		SCALE: 1:2				DESIGN AUTHORITY	
APPROVED <i>[Signature]</i>				SCD <i>[Signature]</i>		EST MASS:				ARDE PUNE - 411 021	
R. PERUMAL				FOR DIRECTOR		GAUGE SCHD:					
DATE: 16 MAY 97				MATERIAL: STEEL TO IS: 1029 St 34		DATE:				DRG No. ARDE 9501-01	
PROTECTIVE FINISH: AS ABOVE										DET No 20 SHTS. SHT No.	
BRIEF RECORD				ZONE		CD		GO		PART No.	
R. NO. DATE: AUTHORITY				SIGN						D S. CAT. No.	
DRG SEALED (PROV.) <i>[Signature]</i> CRE(AA)										A.H.S.P.	

CLAMPING PLATE



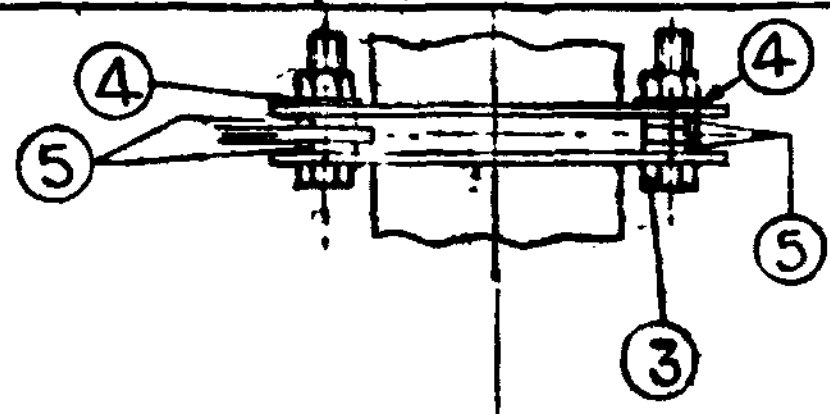
DRG SEALED (PROV.)				DRG No ARDE 9501-01			
DET No 8 SHTS				SHT.No.			
PART No				D. S. CAT. No.			
A.H.S.P							

R. NO	DATE	AUTHORITY	BRIEF RECORD	ZONE	CD	GO	SIGN

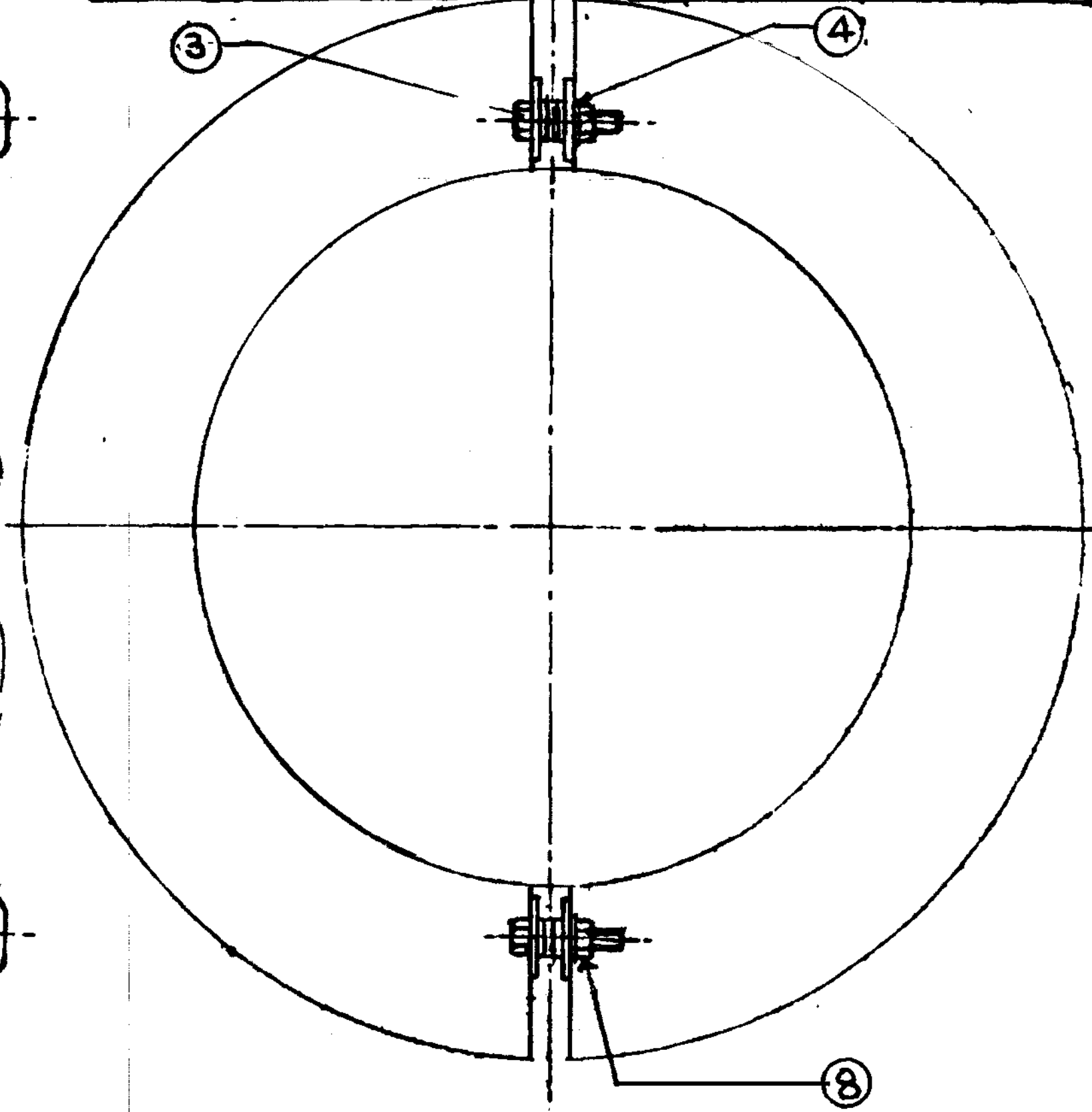
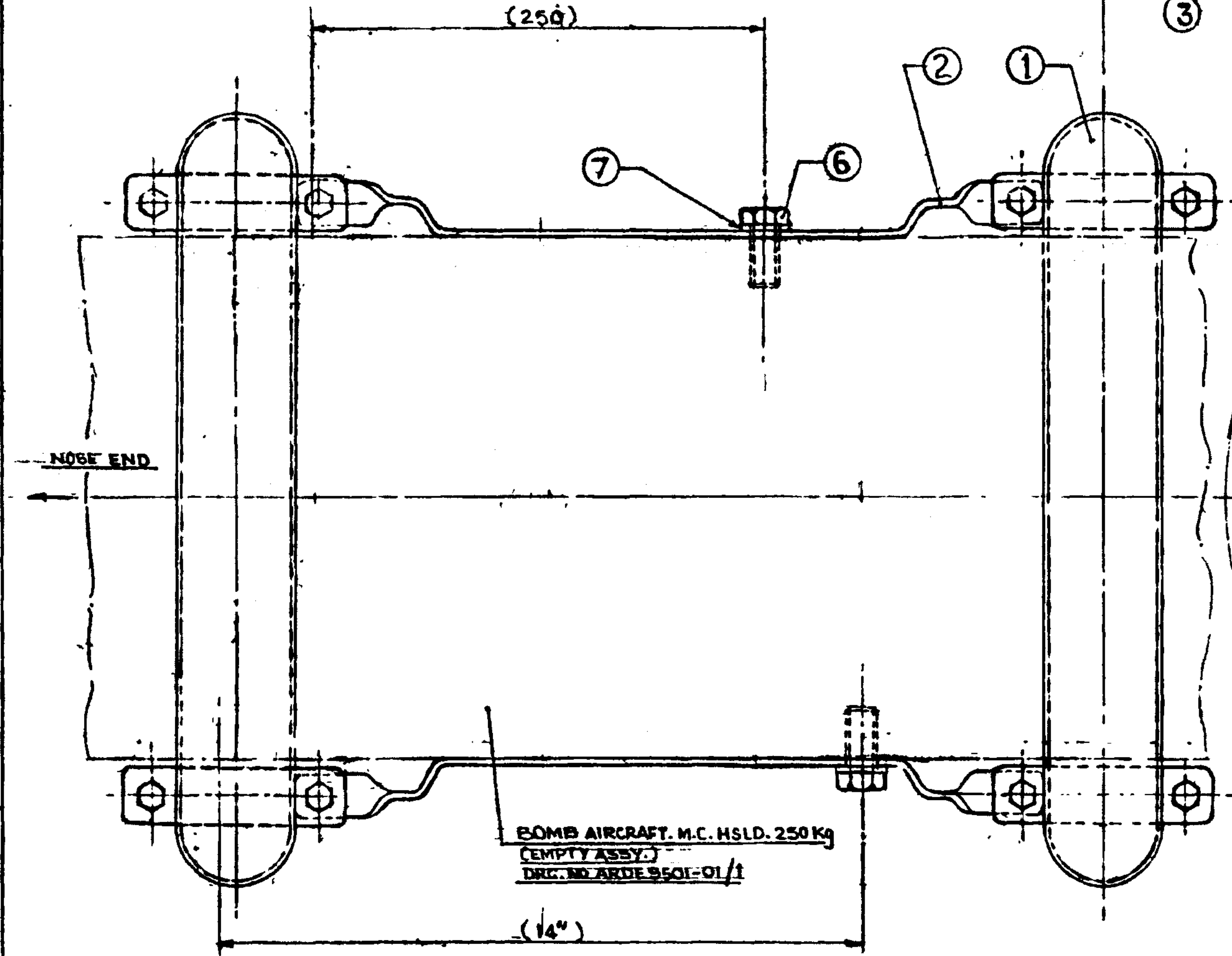
DRN	CHD	TRD.	COMP
CD	PASSED	SCALE: 1:2	EST MASS: 3.15 Kg
APPROVED	FOR DIRECTOR	GAUGE SCHD:	DATE: 18-12-94
(R. PERUMAL)			
MATERIAL: STEEL TO IS: 5517: 40 Ni 6 Cr 4 Mo 3			
PROTECTIVE FINISH: PHOSPHATED TO IS: 3618 CLASS B1			

TITLE: **CONTAINER EXPLODER**

ON JURY
 DRAWING CONVENTIONS CONFORM TO IS 800
 DIMS ARE IN mm UNLESS OTHERWISE STATED
 GEN TOL MEDIUM/COURSE/FINE CLASS TO IS 2102
 ARDE 9501-01
 DRG. NO.



LIST OF COMPONENTS					
ITEM NO	NOMENCLATURE	QTY	MATL	ORG. NO.	DET. NO. PART NO.
1	RING WELDING ASSY.	4		ARDE 9501-01	19 SHIT
2	CLAMPING PLATE	2		"	20
3	HEXAGON HEAD SCREW M8 X 25 - A-B-15: 1363 (PART 2)	8	STEEL	ND	"
4	SPRING WASHER B8-153063- PHOSPHATE COATED.	8		ND	"
5	PUNCHED WASHER A 815-2016-STEEL PHOSPHATE COATED.	10		ND	"
6	HEXAGON HEAD SCREW M16 X 25 - A-B-15: 1363 (PART 2)	2	STEEL	ND	"
7	SPRING WASHER B16-15: 3063- PHOSPHATE COATED.	2		ND	"
8	HEX. NUT M8-15: 1363 (PART 2)	8		ND	"



DRG. NO. ARDE 9501-01/1				TRD		COMP		ASSY DRG. ARDE 9501-01/1	
CD				PASSED		SCALE 1:2		DESIGN AUTHORITY	
APPROVED				DATE: 2-9-96		EST MASS		ARDE PUNE-411 021	
REPRUMAL				DATE: 2-9-96		GALGE SCHD			
MATERIAL				PROJECTIVE FINISH		DRG No		ARDE 9501-01	
R NO				DATE		AUTHORITY		DET No 18 SHIT	
BRIEF RECORD				ZONE		CD		SHIT No	
DRG SEALED (PROV.)				SIGN		D S CAT No		PART No	
16 MAY 97						A.H.S.P			

ROLLING RING ASSY.

DRAWING CONVENTIONS CONFORM TO IS: 000
DIMNS ARE IN m.m. UNLESS OTHERWISE STATED
GEN. TOL. MEDIUM/000000 CLASS TO IS: 2102

MECHANICAL PROPERTIES:—

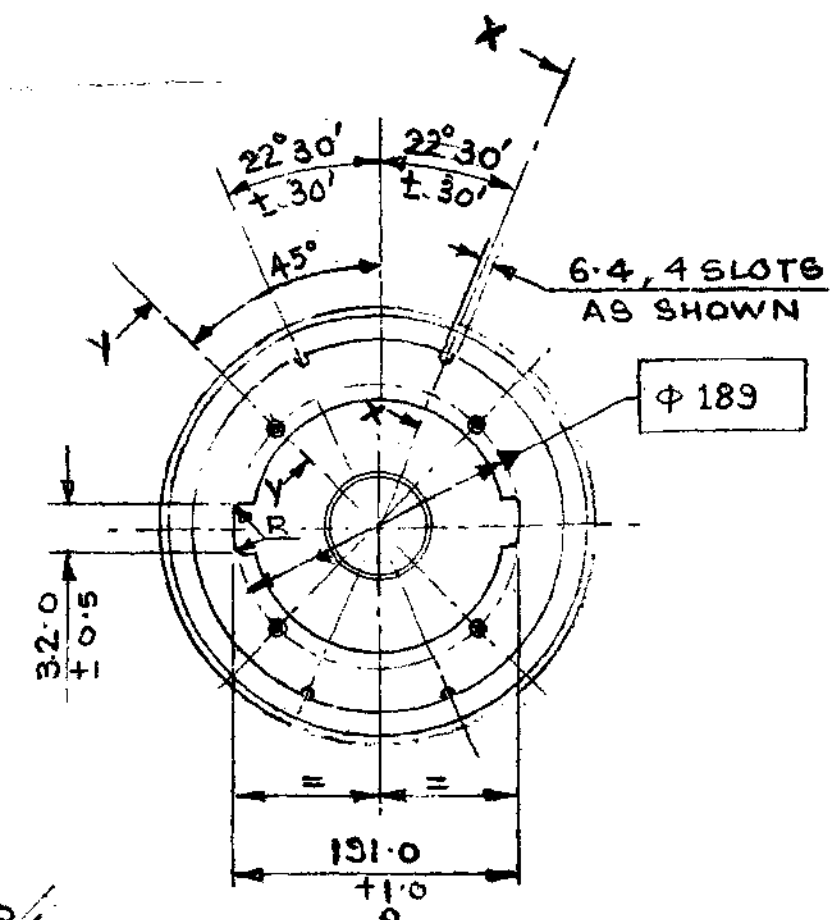
a) UTS ————— 100 Kg/mm^2 (MIN)

b) YS ————— 85 Kg/mm^2 (MIN)

c) ELONGATION ————— 14% (MIN)

d) IZOD VALUE ————— 3 m kg^f (MIN)

e) HARCNESS ————— HB 300 TO 340

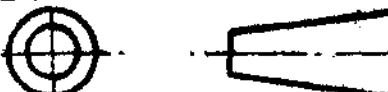


- 1 ALL SHARP EDGES AND BURRS ARE TO BE REMOVED:
- 2 SCREW THREADS RUNOUTS & UNDERCUTS TO BE IN ACCORDANCE WITH SPEC 15 1369
- 3 DIMENSIONS ARE APPLICABLE AFTER HEAT TREATMENT AND
MACHINING.
- 4 WALL THICKNESS IS TO BE MEASURED AT POSITIONS A, B, C & D
AT FOUR POINTS CIRCUMFERENTIALLY 90° APART & LYING
IN SAME LONGITUDINAL LINE OF THE BODY.

PROTECTIVE FINISH:- THE INTERNAL SURFACE IS TO BE
COATED WITH VARNISH STOVING AMMUNITION TO SPEC.
JSS:8010-2P (APC 2.2) GRADE: I SPECIAL.

"SURFACE FINISH:- $\frac{25}{\nabla}$ INSIDE, $\frac{6.3}{\nabla}$ OUTSIDE

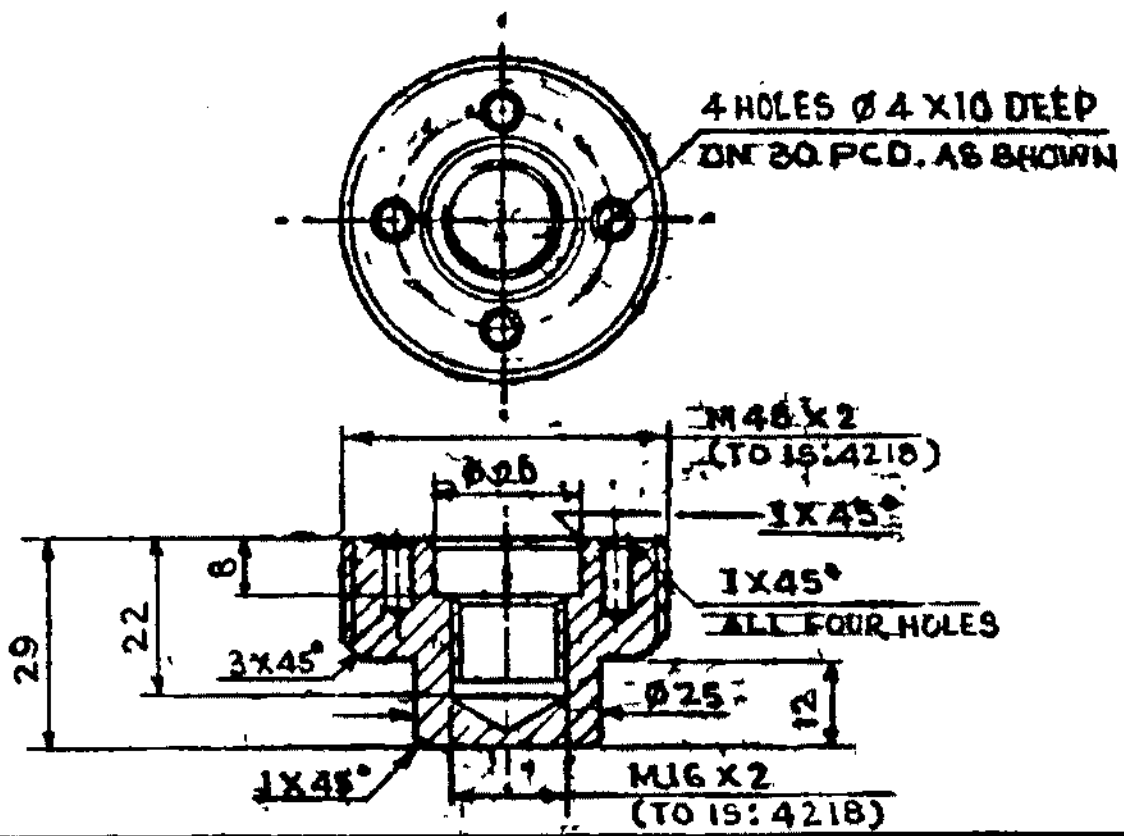
* WALL THICKNESS IS REQUIRED TO BE MAINTAINED BY VARYING THE INTERNAL AND EXTERNAL RADIUS.

				DRN 27/2004		CHD 27/2004	TRD.	COMP.	ASSY DRG. ARDE 9501-01/2
				CD		PASSED	SCALE: 1:5		DESIGN AUTHORITY
				APPROVED		(R PERMANENT) FOR DIRECTOR	EST MASS: 110 ± 5kg		ARDE PUNE - 411 021
				CD		GO	GAUGE SCHD:		
				SIGN			DATE: 10-6-94		
R. NO.	DATE:	AUTHORITY	BRIEF RECORD	ZONE			MATERIAL: STEEL TO IS: 5517 OR IT 90G		
DRG SEALED (PROV.) <i>Rev in Form</i> CRE(AA) 16 MAY 97									
BOMB BODY									
supersedes Drg. prov. sealed on 20 JUN 95.									
								DRG. No.	
								ARDE 9501-01	
								DET. No. 3	
								SHTS.	
								SHT.No.	
								PART No.	
								D. S. CAT No.	
								A.M.S.P.	

supersedes Drq. prov. sealed on 20 JUN 95.

DRAWING CONVENTIONS CONFORM TO IS : 800 DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED	
PART No. DET. No. 5 SHTS. 2 ARDE 9501-01 ON DNG	GEN. TOL. MEDIUM / CONVENTIONS CLASS TO IS 2002

NOTE:-
ALL SHARP EDGES & BURRS ARE TO BE REMOVED.



R. NO.	DATE:	AUTHORITY	BRIEF RECORD	ZONE	CD	GO
DRG. SEALED (PROV.) <i>9/20/96</i> <i>CRP (AAS)</i> <i>16 MAY 97</i>				ASSY. DRG. ARDE 9501-01/1		
ORNL. <i>10</i>	CHD.	TRD.	COMP.	DESIGN AUTHORITY ARDE PUNE-411 021		
APPROVED <i>SCB</i> (R. PERUMAL)		SCALE: 1:1 EST. MASS: GAUGE SCHO: DATE: 25/10/96				
MATL: STAINLESS STEEL TO IS: 6623 Q2 Cr 18 Ni 9				DRG. No. ARDE 9501-01		
PROTECTIVE FINISH: TITLE: PLUG FASTENING (FOR LUG-HOUSING)				DET. No. 5 SHTS. 2 SHT. No. 2. PART No.		
Supersedes Drg. prov. sealed on 20 Jan 96.				D.S. CAT No. A.H.S.P.		