

- NOTE:**
1. CASTING TO BE DULY CLEANED & FREE FROM FINS, RUNNERS, RISERS ETC.
 2. CASTING TO BE FREE FROM CRACKS, BLOW HOLES & OTHER CASTING DEFECTS.
 3. CASTING TO BE SUPPLIED IN HEAT TREATED CONDITION TO ACHIEVE MECHANICAL PROPERTIES AS SPECIFIED.
 4. ALL UNSPECIFIED RADII ARE 5mm.
 5. CASTING AND TEST BAR SHOULD BE SUPPLIED AT SAME HEAT TREATED CONDITION.
 6. CASTING SHOULD BE TESTED FOR RADIOGRAPHIC TEST AS PER ASTM E-446-1998, LEVEL-II
 7. MACHINING SIZE SHOWN IN BRACKET

 MTL-I-GC-A2 BS-3100
 ALL-MTL-GR-280-520W IS-1090-88

GRADE	C	Si	Mn	Cr	Ni	S	P	Max	CU	Max	YIELD STRENGTH (MIN)	ULTIMATE TENSILE STRENGTH (MIN)	PERCENTAGE ELONGATION OF (MIN)	REDUCTION OF AREA % (MIN)	IMPACT STRENGTH (MIN)	ANGLE OF BEND (MIN)
CR 280-520 W	0.25	0.60	1.20	0.35	0.40	0.035	0.040	0.40	280 MPa	520 MPa	18	25	22 Kgr.m/cm ²	60°		
TS-1030-89	0.35	0.60	1.0	-	-	0.060	0.060	-	260 N/mm ²	490 N/mm ²	18	-	20 J.Min	90°		
BS-3100	0.35	0.60	1.0	-	-	0.060	0.060	-	260 N/mm ²	490 N/mm ²	18	-	20 J.Min	90°		

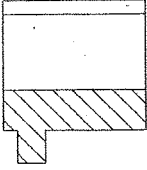
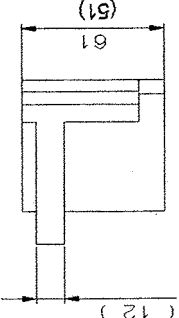
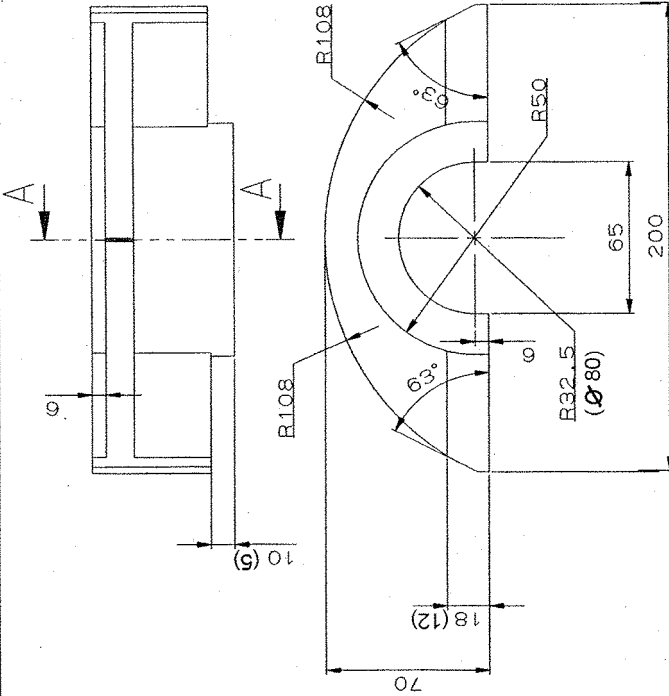
• FOR EACH REDUCTION OF 0.01% CARBON BELOW 0.25% AN INCREASE OF 0.04% MANGANESE ABOVE THE MAXIMUM SPECIFIED WILL BE PERMITTED UPTO A MAXIMUM OF 1.40% FOR GRADE 280-520W
 • THE TOTAL CONTENT OF THESE RESIDUAL ELEMENTS SHALL NOT EXCEED 1.00%
 • IF MEASURABLE, THE UPPER YIELD STRESS, OTHERWISE 0.2 PERCENT PROOF STRESS.

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1	CASTING FOR LAUNCHER MOUNTING BRACKET-I	23.1 Kg	REMARKS
No. OFF	DESCRIPTION	PART No.	STANDARD
	GENERAL TOLERANCE	MATERIAL	
	LINEAR DIMENSIONS		
	ANGULAR DIMENSION		
	SCALE		
	DATE		
	CHECKED		
	APPROVED		
	DESIGNED BY		
	DRAWN BY		
	SCALE		
	LAUNCHER BRACKET ASSY-I-I		
	LEMP LAUNCHER		
	KAVACH MOD-II		
	MACHINE TOOL PROTOTYPE FACTORY		
	AMBERNATH		
	Officer		
	DW-1108-0903-12-2		



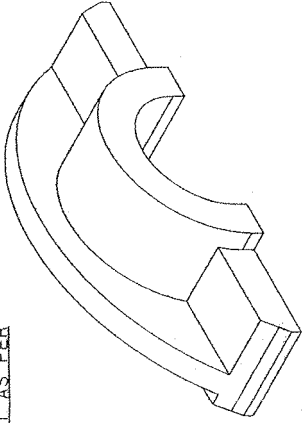
(G. Ramesh)
 Chief Inspector of Manufacturing
 for Controller of Heavy Armament Inspection



SECTION A - A

- NOTE:
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 7. MACHINING SIZE SHOWN IN BRACKET

*** MATL : Gr. A2 BS:3100
 ALT. MATL : GR 280-520W IS:1030-89



GRADE	C	SI	Mn	Cr	NI	S	P	Max	CU	Max
GR 280-520 W IS:1030-89	0.25	0.60	1.20	0.35	0.40	0.035	0.040	0.040	0.40	
Gr A2 BS:3100	0.35	0.60	1.0	-	-	0.060	0.060	0.060	-	

YIELD STRENGTH (Min)	280 MPa	260 N/mm2	490 N/mm2
ULTIMATE TENSILE STRENGTH (Min)	520 MPa		
PERCENTAGE ELONGATION OF AREA % (Min)	18	18	
PERCENTAGE REDUCTION OF AREA % (Min)	25		
IMPACT STRENGTH (Min)	22 Kgf.m/cm2	20 J.Min	90°

* FOR EACH REDUCTION OF 0.01% CARBON BELOW 0.25% AN INCREASE OF 0.04% MANGANESE ABOVE THE MAXIMUM SPECIFIED WILL BE PERMITTED UP TO A MAXIMUM OF 1.40% FOR GRADE 280-520W

⊙ IF MEASURABLE THE UPPER YIELD STRESS. OTHERWISE 0.2 PERCENT PROOF STRESS.

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+ THE TOTAL CONTENT OF THESE RESIDUAL ELEMENTS SHALL NOT EXCEED 1.00%

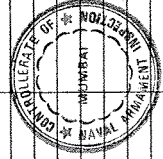
No. OFF	DESCRIPTION	PART No.	MATERIAL	STANDARD	DIMENSIONS	REMARKS
1	CASTING FOR MOUNTING BLOCK		***			2.435 Kg

GENERAL TOLERANCE						
LINEAR DIMENSIONS						
0-5	±0.1					
5-30	±0.2					
30-50	±0.3					
50-100	±0.5					
100-200	±0.8					
200-500	±1.2					
ANGULAR DIMENSION						
1°-10°	±1°					
10°-50°	±30'					
50°-100°	±20'					
>100°	±10'					
VALUE IN "um"						
±	±25					
∅	±25					
∇	±1.6					
∇∇∇	0.025-1.6					
∇∇∇∇	<0.025					

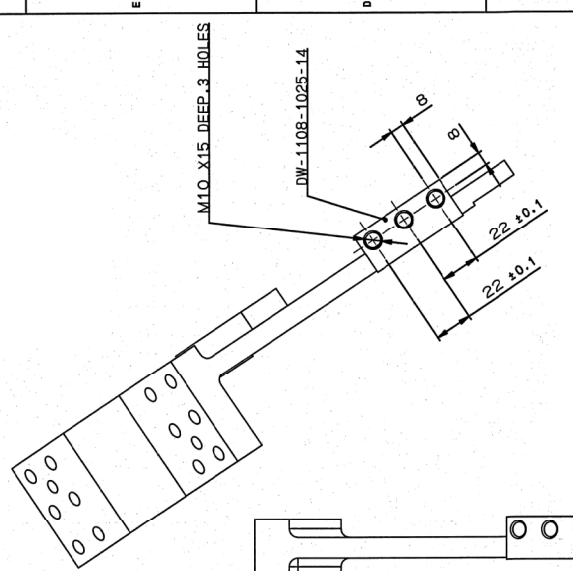
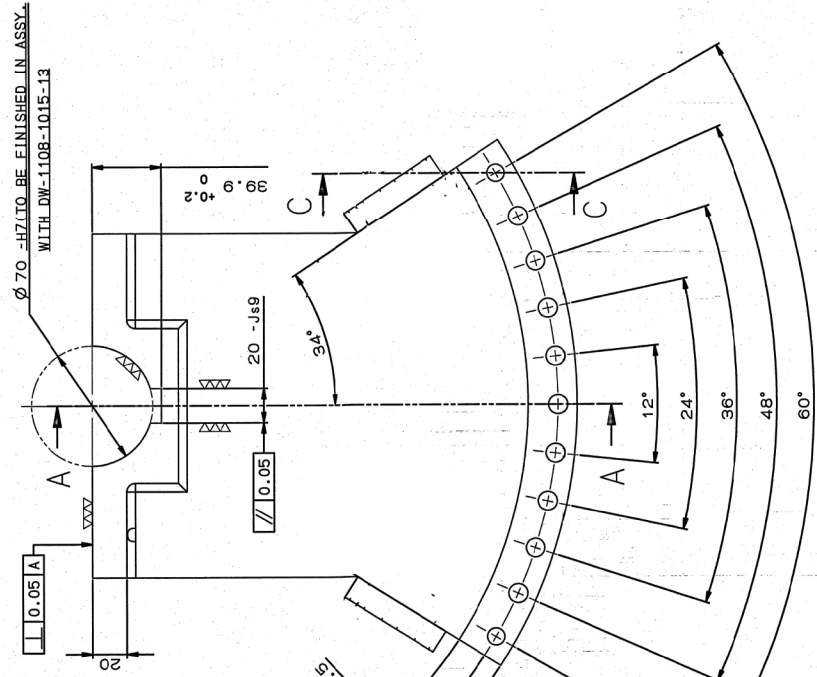
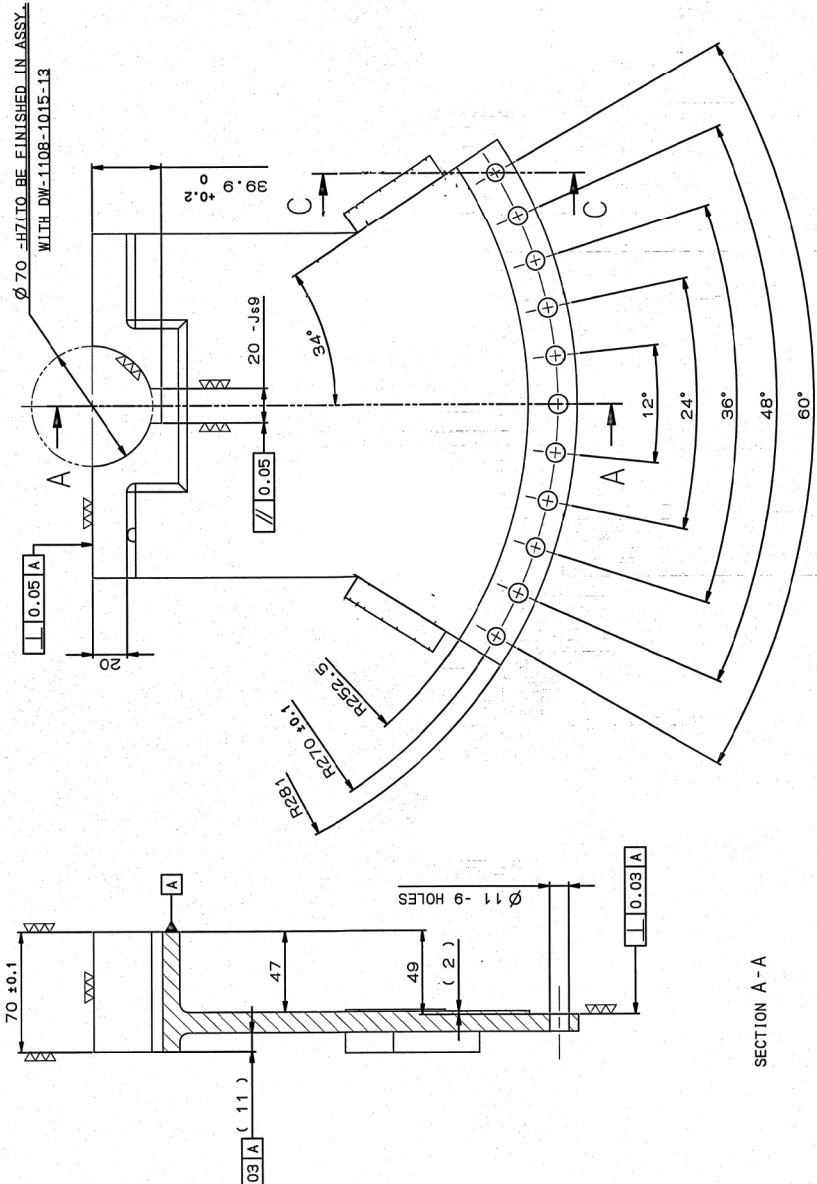
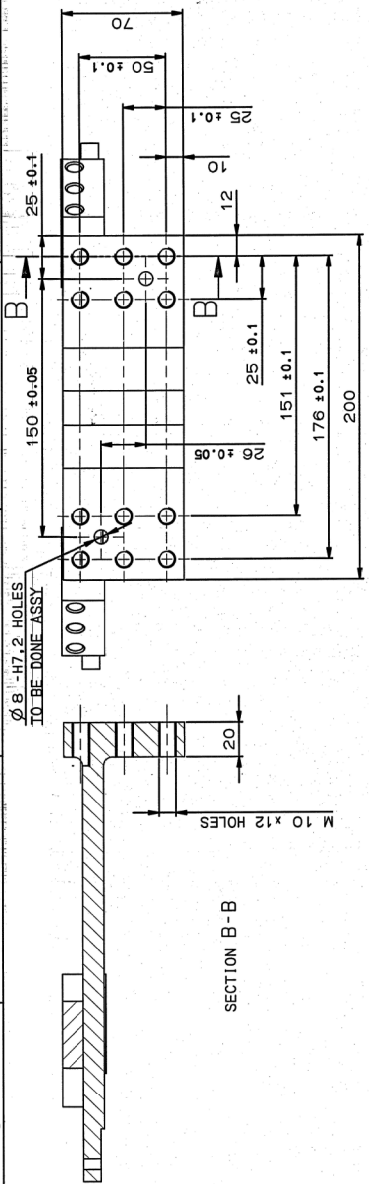
REPLACED BY	DATE	NAME
REPLACED FOR	02.02.89	VILJAY

SCALE	1:1
CHECKED BY	11
APPROVED BY	11

CASTING FOR MOUNTING BLOCK	LAUNCHER MOUNTING BLOCK ASSY.-11
LRMR LAUNCHER	KAVACH MOD-11
MACHINE TOOL PROTOTYPE FACTORY, Design	OFFICE
AMBERNATH	
DRAWING No.	DW-1108-0904-13-2



(G Ramesh)
 Commander
 Chief Inspector of Naval Armament
 for Controller of Naval Armament Inspection



*** PHOSPHATING AND PAINTING TO BE DONE AS PER IS:3618 CLASS B PAINTING TO BE DONE AS PER DW-1134

*** TO BE MANUFACTURED FROM DW-1108-1012-12-2

NOTE: COMPONENT HOLDER TO DW-1108-1025-14 (2 NO.) TO BE WELD WITH ARC MOUNTING BRACKET TO DRG. NO. DW-1108-1012-12

1	ARC MOUNTING BRACKET	PART No.	MATERIAL	STANDARD	DIMENSIONS	REMARKS
No. OFF	DESCRIPTION	No. OF ASSOCIATED PART	INDEX	ALTERATION	SCALE	DATE
1	ARC MOUNTING BRACKET	ARC MOUNTING BRACKET			1:1	17/1
GENERAL TOLERANCE						
LINEAR DIMENSION (DRG)						
FRACTIONAL DIMENSION						
ANGULAR DIMENSION						
VALUE IN "μm"						
REVISION						
DRAWN BY: M/JAY						
CHECKED BY: 4						
APPROVED BY: 17/1						
REPLACED						
REVISION						
DATE						
NAME						
SCALE						
1:1						
DRAWING NO. DW-1108-1012-12						
DESIGN OFFICE						
MACHINE TOOL PROTOTYPE FACTORY, AMBENALH						

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Ø 10-H7	+0.015	0	DEVIAN
Ø 10-H7	0	0	DEVIAN