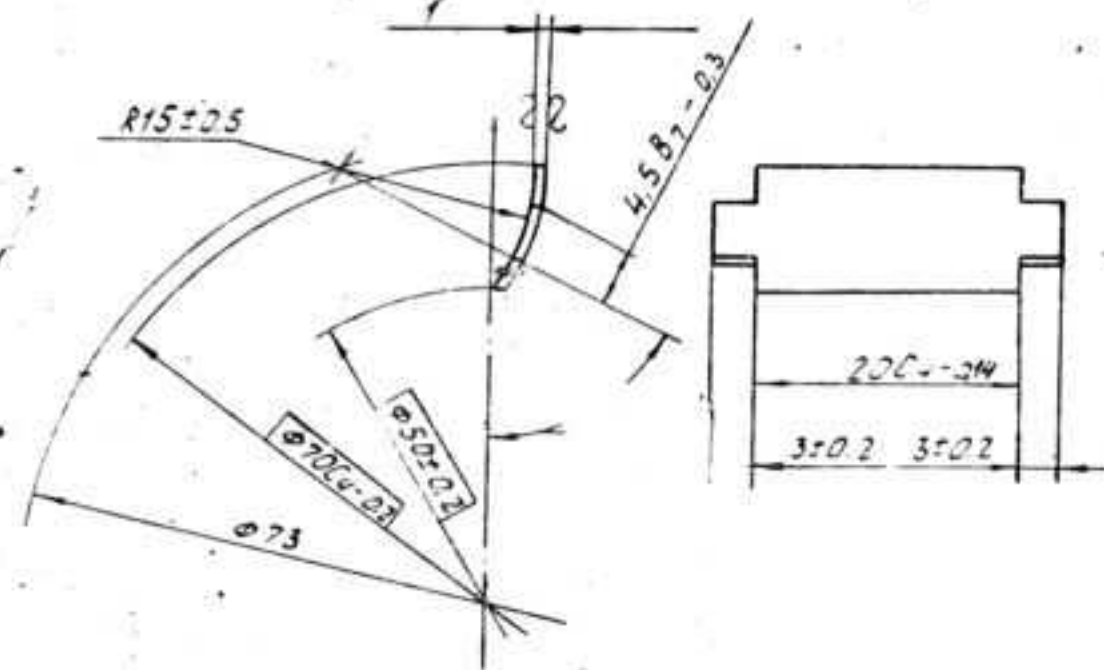


765-71-349



1. Blunt sharp edges.
2. Provide dimension given in in assembly.
3. Coating: Anodic oxidized, chromated or chemically parkerized, blue, chromated.
4. Alternate material is AMF5 or AMF2, GOST 4784-74.

765-71-349

SN	SH	DOC NO	SIGN	DATE
1	DRAWN	V.J.RAO.		22.8.8
2	EDT/CHKD	Aravind		29.08
3	F/M,DC.	S.R.NAIR		31.08
4	DIV.OFFR.	T.ROMIL		31.08

SHEET WEIGHT SCALE	
1	000000 2:1
TOTAL SHEETS	

BLADE

Plate AMF65M-1
GOST 21631-76

765-71-349

EXPLANATORY NOTES TO TECHNICAL CONDITIONS.

BLADE SHOULD BE MANUFACTURED FROM ALUMINIUM ALLOY SHEET, 1 mm THICK OF GRADE AMg 6 OR GRADE AMg 5, AMg 2 WITH TECHNOLOGICAL CLADDING B(B) ANNEALED (M) WITH NORMAL SURFACE FINISH AND NORMAL MANUFACTURING ACCURACY CONFORMING TO GOST-21631-76.

I CHEMICAL COMPOSITION. (GOST-4784-74 AS REFERRED IN GOST-21631-76)

GRADE	ALLOYING CONSTITUENT %						IMPURITIES % (MAXIMUM)					
	ALUMINIUM.	MAGNESIUM.	MANGANESE	TITANIUM.	BERYLLIUM.	IRON.	SILICON.	COPPER	ZINC.	CHROMIUM.	TITAN.	OTHER IMPURITIES.
AMg 6	BASE CONSTITUENT.	5.8-6.8	0.5-0.8	0.02-0.1	0.0002-0.005	0.4	0.4	0.1	0.2	-	-	EACH INDIVIDUALLY. TOTAL
AMg 5	BASE CONSTITUENT.	4.8-5.8	0.3-0.8	0.02-0.1	0.0002-0.005	0.6	0.5	0.1	0.2	-	-	0.05 0.10
AMg 2	BASE CONSTITUENT.	1.8-2.6	0.2-0.6	-	0.0002-0.005	0.4	0.4	0.1	0.2	0.05	0.1	0.05 0.10

II MECHANICAL PROPERTIES. (GOST-21631-76) AMg 6 5M.

TENSILE STRENGTH. 32.0 Kgf/mm² (MIN).
YIELD POINT. 16.0 Kgf/mm² (MIN).
ELONGATION PERCENTAGE. 15.0

III CHEMICAL COMPOSITION OF CLADDING MATERIAL (GOST-21631-76).

GRADE	ALLOY ELEMENTS %	ADMIXTURES % (MAXIMUM)								OTHER ADMIXTURES		SUM TOTAL OF PERMISSIBLE ADMIXTURES.
		ALUMINIUM.	IRON.	SILICON	COPPER	MANGANESE.	ZINC.	TITANIUM	MAGNESIUM	EACH SEPARATELY.	SUM TOTAL.	
AMg 6b	99.3 (MIN)	0.30	0.30	0.02	0.025	0.10	0.15	0.05	0.02	-	0.70	

IV NOTE :-

THICKNESS OF CLADDING LAYER ON EACH SIDE OF SHEET FROM NOMINAL SHEET THICKNESS SHOULD NOT EXCEED 15%

IV TOLERANCE -

THICKNESS 1.0 TOLERANCE - 0.10

V SURFACE FINISH.

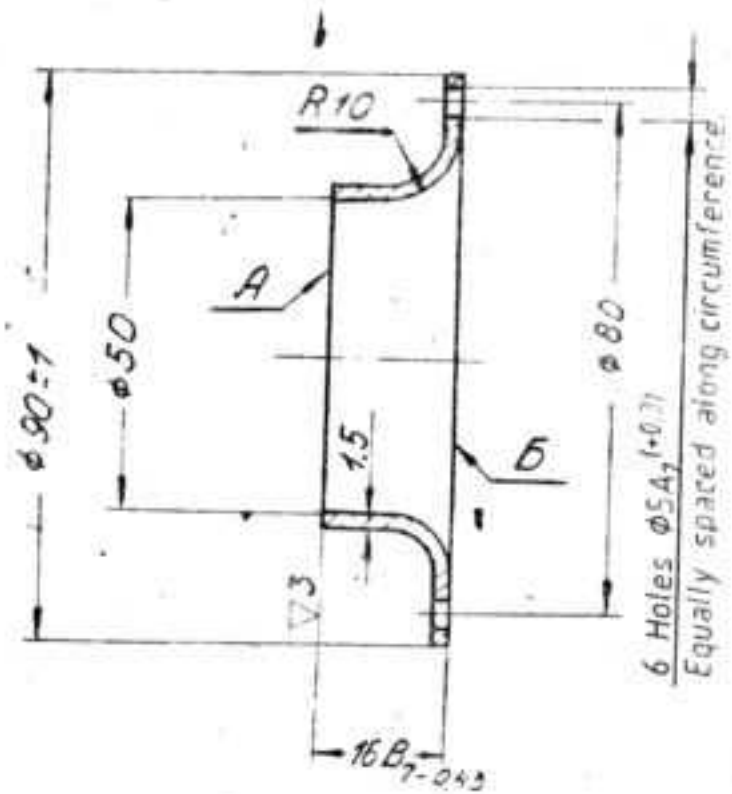
REPRESENTS SURFACE FINISH TO BE OBTAINED ON BOTH SIDE IN Ra VALUE 80 MICRONS.

D.C.(I)	DATE	ZONE	BRIEF RECORD.	SIGN.

INSCRIBED.		DRG. NOT TO BE SCALED.	PERTAINS TO :-
CHECKED.	<i>sw</i>	ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF.	
APPROVED.	<i>sw</i>	ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE SPECIFIED.	765-71-349
DATE.	<i>30.08</i>	BLADE.	
TOLERANCE UNLESS OTHERWISE SPECIFIED.		SCALE :-	
GEN. DEC. ANG.		CONTROLLERATE OF INSPECTION FIRE FIGHTING EQPT.PUNE.	

Easy2Convert

www.easy2convert.com



Unless otherwise specified.

- Blunt sharp edges.
- Perform dimensions without deviations with ±0.5 mm accuracy
- Displacement of axes of holes from true position should not exceed 0.2 mm.
- Non-flatness of surfaces A and B should be maximum 0.5 mm within the size limits of part
- Coating: Anodic oxidized, chromated.
- Flange may be made of sections by butt-welding
- Non-parallelity of surfaces A and B should not exceed 0.5 mm over a length of 90 mm.
- Alternate material is AM2, GOST 4784-74.

655-11-59L

EXPLANATORY NOTES TO TECHNICAL CONDITIONS

FLANGE SHOULD BE MANUFACTURED FROM ALUMINIUM ALLOY PLATE 1.5 mm THICK OF GRADE AMT5, ANNEALED (M) OR AMG 2 OF NORMAL ACCURACY AND NORMAL SURFACE FINISH HAVING THE FOLLOWING CHEMICAL COMPOSITIONS & MECHANICAL PROPERTIES AS PER GOST 21631-76 & GOST 4784-74

I) CHEMICAL COMPOSITIONS (AS PER GOST 4784-74) (AS REFERED IN GOST 21631-76)

GRADE	CONTENTS OF ELEMENTS %											
	ALLOY ELEMENTS			IMPURITIES (MAX)								
	ALUMINIUM	MAGNASIUM	MANGANESE	IRON	SILICON	COPPER	ZINC	TITANIUM	MAGNASIUM	CHROMIUM	OTHER IMPURITIES	
											EACH INDIVIDUALLY	TOTAL
AMT5	BASE	-	1.0-1.6	0.7	0.6	0.15	0.1	0.2	0.2	-	0.05	0.1
AMG2	BASE	1.8-2.6	0.2-0.6	0.4	0.4	0.1	0.2	0.1	-	0.05	0.05	0.1

II) MECHANICAL PROPERTIES (AS PER GOST 21631-76)

GRADE	TENSILE STRENGTH	RELATIVE ELONGATION %
AMT5	9 Kg _f /mm ²	22 /
AMG2	17 Kg _f /mm ² (NOT TESTED)	18

III) TOLERANCE ON SHEET THICKNESS SHOULD BE -0.15 mm.

IV) SURFACE FINISH

- ∇^3 REPRESENTS SURFACE FINISH TO BE OBTAINED IN Ra VALUE 20 μ Max.
- ~ REPRESENTS SURFACE FINISH TO BE OBTAINED IN Ra VALUE 80 μ Max ON THOSE SURFACES WHERE SURFACE FINISH IS NOT SPECIFIED.

NO	SHT	DOC NO	SIGN	DATE
DRAWN	CHKD	CHKD	CHKD	CHKD
EDT	CHKD	CHKD	CHKD	CHKD
F/M, DC	CHKD	CHKD	CHKD	CHKD
DIV. OFFR	CHKD	CHKD	CHKD	CHKD
NAME	SIGN	DATE		

FLANGE

PLATE AM4M-15,
GOST 21631-76.

765-71-359

SHEET WEIGHT SCALE
0.022 11

TOTAL SHEETS

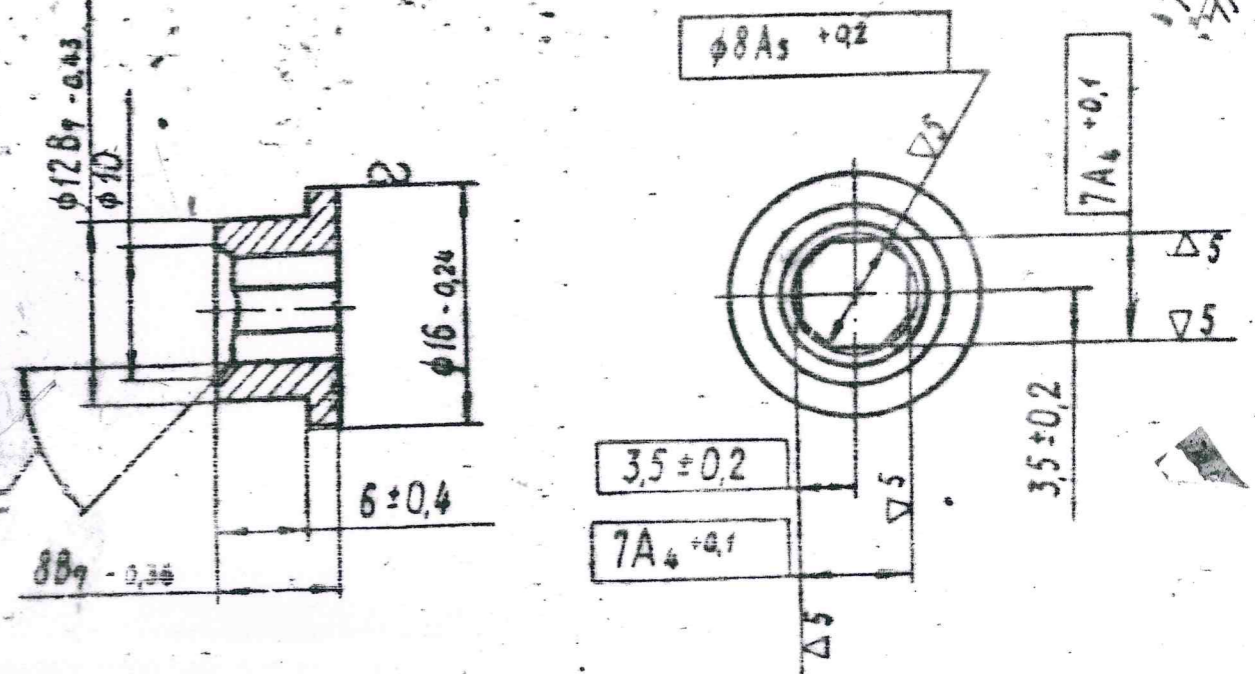
INSCRIBED	FILED	DRG NOT TO BE SCALED	PERTAINS TO
CHECKED	FILED	ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	
APPROVED	FILED	ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED	
DATE	FILED		
DC (1)	DATE	ZONE	BRIEF RECORD
			SIGN
			TOLERANCE UNLESS OTHERWISE SPECIFIED
			GEN DEC ANG
			SCALE: -
			CONTROLLERATE OF INSPECTION FIRE FIGHTING EQPT, PUNE

FLANGE Easy Convert 765-71-359

www.easyconvert.com

USED ON 675-71-08359 1 2 ① Unless otherwise specified.

USED ON 765-71-08359 1 3



1. Blunt sharp edges.
2. Provide dimensions given in in assembly.
3. Alternate material is 10 and 15 GOST 1050-74.

ENGLISH	DOC NO	SIGN	DATE
DR	VN	V.J.RAO	22.8.84
EDT, CHKD	B. Sankar	Redant	22.8.84
T/M, DC	S.R.NAIR	82	24.8.84
DIV. OFFR	T.K. BANERJEE	82	31.8.84
	NAME	SIGN	DATE

BUSH

765-71-391

SHEET WEIGHT SCALE	
0.006	2:1
TOTAL SHEETS	
ORDNANCE FACTORY PROJECT HYDERABAD	

20 GOST 1050-74

ICE-14-59L

EXPLANATORY NOTES TO TECHNICAL CONDITIONS.

1) BUSH SHOULD BE MANUFACTURED FROM STEEL GRADE 20 OF GOST 1050-74. THE CHEMICAL COMPOSITIONS IS AS GIVEN BELOW.

CARBON %	0.19 - 0.24 %
SILICON %	0.14 - 0.37 %
MANGANESE %	0.35 - 0.65 %
CHROMIUM %	0.25 % (MAXIMUM)

2) MECHANICAL PROPERTIES OF STEEL GRADE 20 OF GOST 1050-74 IS AS GIVEN BELOW.

HEAT TREATMENT OF BLANKS	NORMALISING
YIELD POINT (MIN)	25 KGF/MM ²
ULTIMATE TENSILE STRENGTH	42 KGF/MM ²
PERCENTAGE ELONGATION (MIN)	25 %
REDUCTION OF AREA (MIN)	55 %

HARDNESS WITHOUT HEAT TREATMENT
BHN - 163 (MAXIMUM)

3) ALTERNATE MATERIAL IS STEEL GRADE 10 AND 15 OF GOST 1050-74. THE CHEMICAL COMPOSITIONS IS AS GIVEN BELOW.

CHEMICAL COMPOSITION	GRADE	
	10	15
CARBON %	0.07 - 0.14	0.12 - 0.19
SILICON %	0.14 - 0.37	0.17 - 0.37
MANGANESE %	0.35 - 0.65	0.35 - 0.65
CHROMIUM (MAX)	0.15 % (MAX)	0.25 % (MAX)

4) MECHANICAL PROPERTIES OF STEEL GRADE 10 AND 15 OF GOST 1050-74 ARE AS GIVEN BELOW.

MECHANICAL PROPERTIES	GRADE	HEAT TREATMENT
HEAT TREATMENT OF BLANKS	10	NORMALISING
YIELD POINT	10	21 KGF/MM ² (MIN)
ULTIMATE TENSILE STRENGTH	10	34 KGF/MM ² (MIN)
PERCENTAGE ELONGATION	10	31 % (MIN)
REDUCTION OF AREA	10	55 % (MIN)
HARDNESS WITHOUT HEAT TREATMENT	10	143 BHN (MAXIMUM)
STEEL GRADE	15	149 BHN (MAXIMUM)

5) HEATING TEMPERATURE -

THE RECOMMENDED HEATING TEMPERATURE DURING HEAT-TREATMENT OF BLANKS (SPECIMEN) FOR CARRYING OUT THE TESTS OF MECHANICAL PROPERTIES IS AS FOLLOWS.

- Δ3 - REPRESENTS THE SURFACE FINISH OF Δ3 (IE RAZO) (MICRONS) ON THOSE SURFACES WHERE SURFACE FINISH IS NOT SPECIFIED.
- Δ5 - SURFACE FINISH VALUE R_a 5 MICRONS
- Δ6 - SURFACE FINISH VALUE R_a 80 MICRONS

DCD	D.T. ZONE	BRIEF RECORD	SIGN

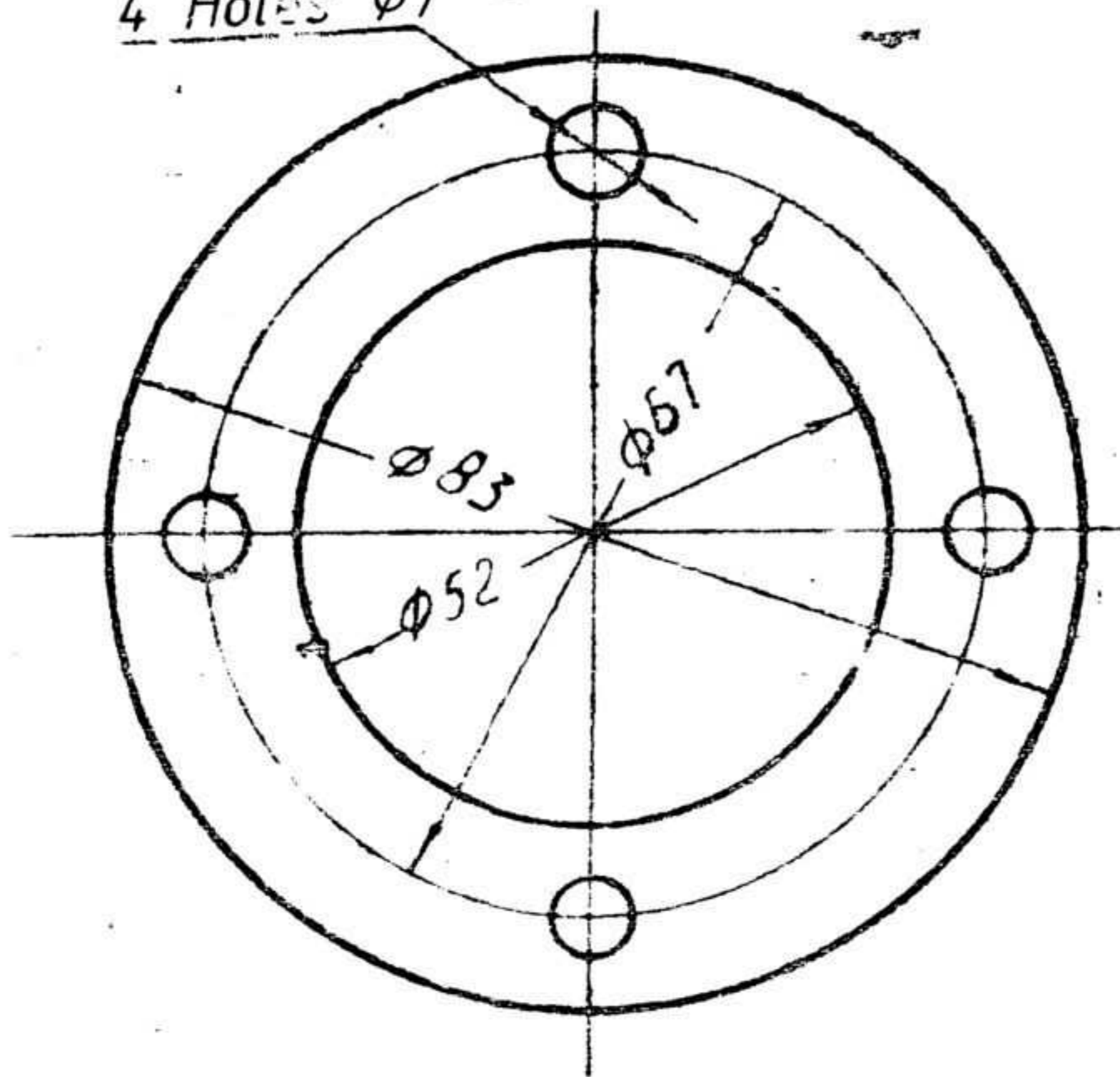
INSCRIBED	SAI	DRG NOT TO BE SCALED	PERTAINING TO
CHECKED	SAI	ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	
APPROVED	SAI	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED	
DATE	31.1.84		
TOLERANCE UNLESS OTHERWISE SPECIFIED			
GENL. DEC 1 AND 2			

BUSH 765-71-391

CONTROL RATE OF INSPECTION: FIRE FIGHTING 50%

765-71-551

4 Holes $\phi 7$



1) Provide dimensions without deviations with an accuracy of $\pm 0,5$ mm.

REFER TO DRG. NO. 675-71-245 FOR EXPLANATORY NOTES OF PARONITE.

(B.VEENARAGHAYAN)
650-5

CIFE PUNE

765-71-551

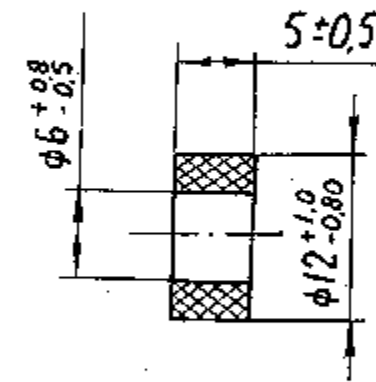
SNO	SHT	DOC NO	SIGN	DATE
	DRAWN	Y.R.Ganesh		30.7.74
	EDT,CHKD	D.K. JAIN		30.7.84
	F/M,DC.	S.R.NAIR		31.7.84
	DIV.OFFR	T.K.BANERJEE		31.7.84
		NAME	SIGN	DATE

GASKET

SHEET	WEIGHT	SCALE
	0.004	1:1
TOTAL SHEETS		

PARONITE noH 1.0 FOCT
481 - 80.

765-71-552



1. Specific weight of the finished part should be $0.34 \begin{matrix} +0.02 \\ -0.01 \end{matrix} \text{ gms/cm}^3$
2. Other requirements are as per GOST 6308-71.

765-71-552

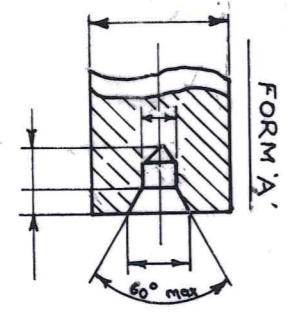
NO	SHT	DOC NO	SIGN	DATE	SHEET WEIGHT	SCALE
DRAWN						2:1
EDT:CHKD					TOTAL SHEETS	
F/M, DC.						
DIV. OFFR.						
					SEMI-ROUGH WOOLEN INDUSTRIAL FELT (OCT 6308-71)	

375
7/1/76

765-71-816

VALVE

- (III) SURFACE FINISH
- ∇5 -REPRESENTS SURFACE FINISH TO BE OBTAINED IN Ra VALUE 50 MAX
- ∇3 (∇) -REPRESENTS SURFACE FINISH TO BE OBTAINED IN Ra VALUE 200 max ON THOSE SURFACE WHERE SURFACE FINISH IS NOT SPECIFIED.



STEEL GRADE	CONTENTS OF ELEMENTS %						
30x13	CARBON 0.26-0.35	SILICON 0.8(MAX)	MANGANESE 0.8 (MAX)	CHROMIUM 12.0-14.0	IRON BASE	SULPHUR 0.025(MAX)	PHOSPHORUS 0.030 (MAX)
20x13	0.16-0.25	0.8(MAX)	0.8 (MAX)	12.0-14.0	BASE	0.025(MAX)	0.030 (MAX)

(III) REFER NOTE 6-CENTRE HOLE A2 AS PER GOST 14034-74 IS GIVEN BELOW.

EXPLANATORY NOTES TO TECH. CONDITIONS

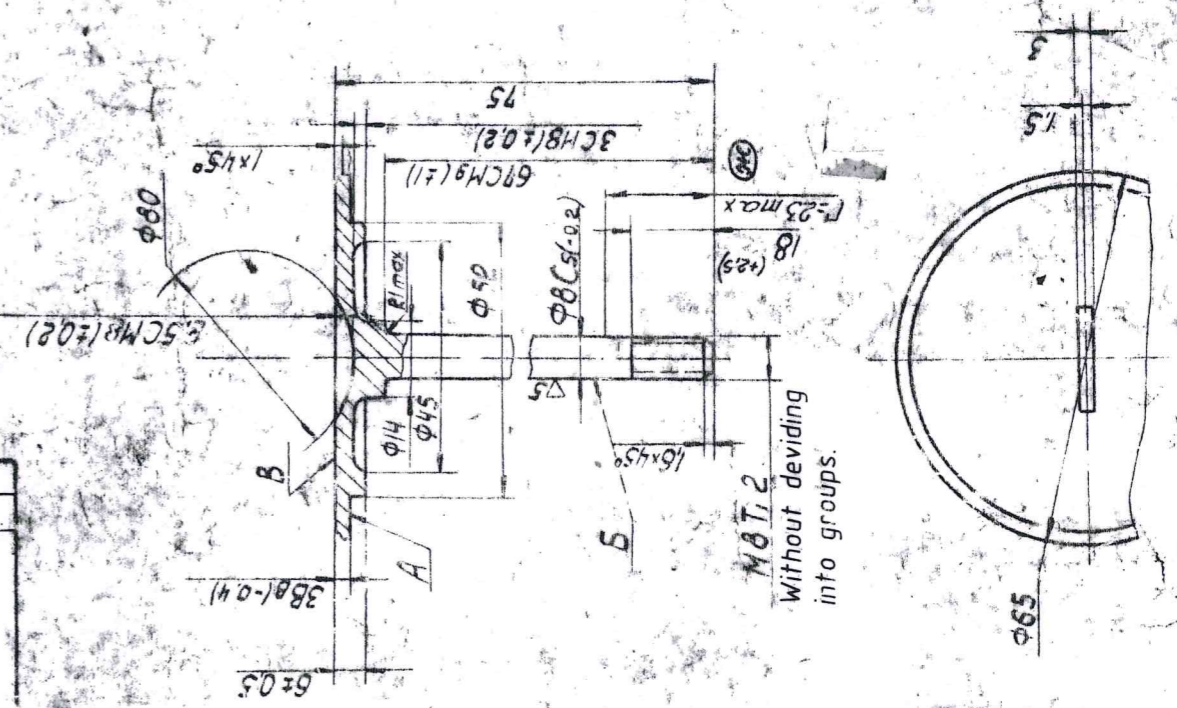
(II) VALVE SHOULD BE MANUFACTURED FROM MARTENSITIC CLASS STEEL OF GRADE 30x13 OR GRADE 20x13 AS PER GOST 5632-72. HAVING THE CHEMICAL COMPOSITION AS FOLLOWS.

918-17-591

USED ON
765-71-816-357

USED ON
765-71-816-357

1. HB 302 to 552 (φ3.5 to 3.8).
2. Alternate material is 20x13, GOST 5632-72.
3. Unspecified limit deviations of dimensions are:
For holes - as per A7 and for shafts - as per B7.
4. Unspecified radii are 5 mm.
5. End play of surface A with respect to the axis of surface B should not exceed 0,2 mm.
6. Centre hole A2, GOST 14034-74, on surface B is allowed.
7. It is allowed to make thread by rolling. In this case, diameter of part of stem over length F should be equal to the angle diameter of thread.



SNOSH/DOC NO	SIGN	DATE
DRAWN	CHKD/PAD	26.7.86
EDIT/CHKD	APPROVED	30.7.86
FW/DC	S. R. MANI	30.7.86
DIV/OFFR	T. C. BANERJEE	18.8.87
NAME	SIGN	DATE

VALVE

30x13 GOST 5632-72

SHEET WEIGHT	SCALE
TOTAL SHEETS	
ORDNANCE FACTORY	
PROJECT	
HYDERABAD	

765-71-816

