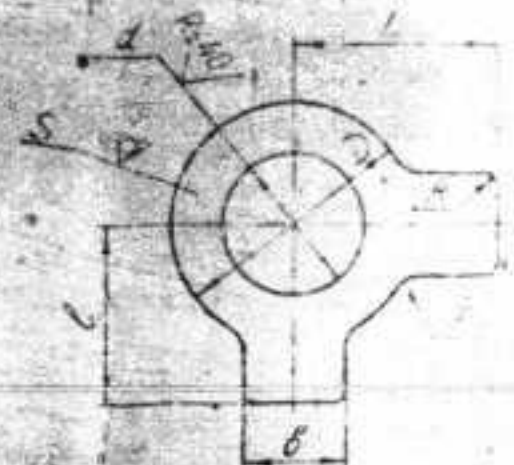


672-31-719



1. Alternative material is steel 08kp, 10kp, GOST 1050-74.
2. Unspecified limit deviations are ±0.5mm.
3. Misalignment of circumference D with respect to hole d and asymmetry of tabs with respect to axis of hole d should be 1mm.
4. Coating: Zinc-plated, 9 microns thick, chromated. Remove hydrogen embrittlement.

Designation	d, MM	D, MM	L, MM	B, MM	S, MM	R, MM	Mass in kg
672-31-71	6,4 ^{+0.36}		15	10	6		0,002
-01	8,4 ^{+0.36}	14	18	12	7	1 2	0,002
-02	10,5 ^{+0.43}	18	20	14	8		0,002
-03	13 ^{+0.43}	22	25	20	10	1,5	0,005

NO. SIGN DATE

TAB WASHER

SHEET WEIGHT

NAME SIGN DATE

Steel

TOTAL

Steel

Steel

Steel

672-31-71

EXPLANATORY NOTES TO TECH. CONDITIONS.

'TAB WASHER' SHOULD BE MANUFACTURED FROM CARBON STRUCTURAL HOT ROLLED STEEL OF GRADE 10 OR 08 KP OR 10 KP (KP - RIMMED) TO GOST 1050 - 74.

I CHEMICAL COMPOSITIONS.

STEEL GRADE	CONTENTS OF ELEMENTS. %			
	CARBON	SILICON	MANGANESE	CHROMIUM
10	0.07 - 0.14	0.17 - 0.37	0.35 - 0.65	0.15 (MAX.)
08 kp	0.05 - 0.11	0.03 (MAX.)	0.25 - 0.50	0.10 (MAX.)
10 kp	0.07 - 0.14	0.07 (MAX.)	0.25 - 0.50	0.15 (MAX.)

II MECHANICAL PROPERTIES. STEEL GRADE.

HEAT TREATMENT OF BLANK.	STEEL GRADE.	
	08 NORMALISING.	10 NORMALISING.
YIELD POINT Kgf/mm^2 (Min)	20	21
ULTIMATE TENSILE STRENGTH Kgf/mm^2 (Min)	33	34
PERCENTAGE ELONGATION. % (Min)	33	31
REDUCTION OF AREA. % (Min)	60	55
HARDNESS (WITHOUT HEAT TREATMENT BHN (MAX.))	134	143

III SURFACE FINISH.

- REPRESENTS SURFACE FINISH TO BE OBTAINED WITHOUT REMOVED OF MATERIAL.
- Rz 320 REPRESENTS SURFACE FINISH TO BE OBTAINED BY MACHINING IN Rz VALUE.
- 320 μ ON THOSE SURFACES WHERE SURFACE FINISH IS NOT SPECIFIED.

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

INSCRIBED	DRG. NOT TO BE SCALED. ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF. ALL DIMENSIONS ARE IN YMM UNLESS OTHERWISE SPECIFIED.	PERTAINS TO 672-31-71
CHECKED		
APPROVED	TAB WASHER.	
DATE	SCALE: -	
TOLERANCE UNLESS OTHERWISE SPECIFIED.	CONTROLLERATE OF INSPECTION FIRE FIGHTING EQPT. PUNE.	
GEN. DEC. ANG.		

Easy2Convert.com



1. Alternate material is steel 25,30,35,40 GOST 1050-74. When screws are made by cold upsetting, use steel 10, 10kn, 20, 20kn, GOST 1050-74.
2. Coating: Zinc-plated, 9 microns thick, chromated. Remove hydrogen embrittlement.

Designation	l, mm	l ₀ not less than	Mass, kg
672-35-3	12±0.5	10	0.0015
-01	12±0.5	12	0.0016
-02	16±0.5	16	0.0019
-03	20±0.6	16	0.0023

672-35-3

SCREW

Steel 45
GOST 1050-74

SHEET WEIGHT: 0.0015 kg

672-35-3

EXPLANATORY NOTES TO TECHNICAL CONDITIONS

SCREW SHOULD BE MANUFACTURED FROM STEEL GRADE 45 TO GOST 1050-74 OR FROM STEEL OF GRADES 10, 10KP, 20, 20KP, 25, 30, 35, 40 TO GOST 1050-74 ALSO.

1) **CHEMICAL COMPOSITION OF ABOVE STEEL GRADES GIVEN AS BELOWS**

S. No.	CONTENT OF ELEMENTS	STEEL GRADES 10	STEEL GRADES 10KP	STEEL GRADES 20	STEEL GRADES 20KP	STEEL GRADES 25	STEEL GRADES 30	STEEL GRADES 35	STEEL GRADES 40	STEEL GRADES 45
1	CARBON	0.07-0.14	0.07-0.14	0.17-0.24	0.17-0.24	0.22-0.30	0.27-0.35	0.32-0.40	0.37-0.45	0.42-0.50
2	SILICON	0.17-0.37	MAX. 0.07	0.17-0.37	MAX. 0.07	0.17-0.37	0.17-0.37	0.17-0.37	0.17-0.37	0.17-0.37
3	MANGANESE	0.35-0.65	0.25-0.50	0.35-0.65	0.25-0.5	0.30-0.80	0.50-0.80	0.50-0.80	0.50-0.80	0.50-0.80
4	CHROMIUM MAX.	0.15	0.15	0.25	0.25	0.25	0.25	0.25	0.25	0.25

2) **MECHANICAL PROPERTIES OF STEEL GRADES 10, 20, 25, 30, 35, 40, 45**

S. No.	PROPERTIES	STEEL GRADES 10	STEEL GRADES 20	STEEL GRADES 25	STEEL GRADES 30	STEEL GRADES 35	STEEL GRADES 40	STEEL GRADES 45
1	HEAT TREATMENT OF BLANKS	NORMALISING	NORMALISING	NORMALISING	NORMALISING	NORMALISING	NORMALISING	NORMALISING
2	YIELD POINT MINIMUM kgf/mm ²	21	25	28	30	32	34	36
3	ULTIMATE TENSILE MIN. STRENGTH kgf/mm ²	34	42	46	50	54	58	61
4	PERCENTAGE ELONGATION MINIMUM %	31	25	25	21	20	19	16
5	REDUCTION OF AREA MINIMUM %	55	55	50	50	45	45	40
6	IMPACT STRENGTH MINIMUM kJ/cm ²	-	-	9	8	7	6	5

3) **HARDNESS :-**

STEEL GRADE	10	20	25	30	35	40	45
BHN. MAX.	143	163	170	179	207	217	229

HEATING TEMPERATURE GRADE (NORMALISING)

10	—	320 °C
20	—	300 °C
25	—	350 °C
30	—	380 °C
35	—	380 °C
40	—	370 °C
45	—	360 °C

NOTE :- IN CASE OF NORMALISING OR HARDENING 30 MINUTES

4) **SURFACE FINISH :-**

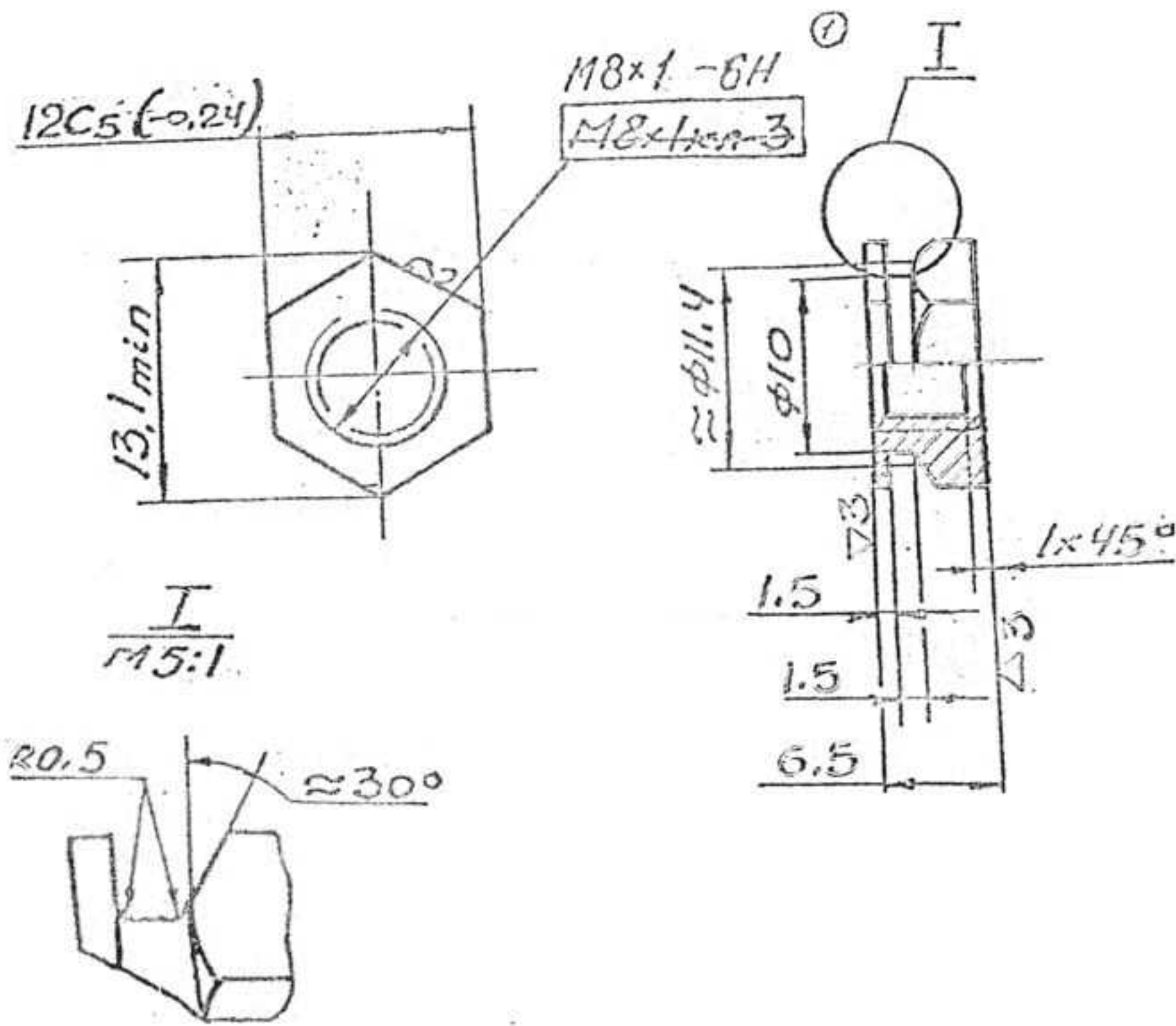
- 1) \sqrt{Rz}^{80} :- INDICATES SURFACE FINISH R_Z VALUE 80 MICRONS.
- 2) \sqrt{Rz}^{320} :- INDICATES SURFACE FINISH R_Z VALUE 320 MICRONS.
- 3) $\sqrt{0.3(M) A}$:- DISPLACEMENT OF THE INDICATED AXIS FROM THE BASE 'A' TO BE WITH-IN 0.3 MM AT MAX. METAL CONDITIONS.
- 4) $\sqrt{Rz}^{40} (V)$:- INDICATES SURFACE FINISH R_Z VALUE 40 MICRONS ON THOSE SURFACES WHERE SURFACE FINISH ARE NOT SPECIFIED.

INSCRIBED		DRG NOT TO BE SCALED	PERTAINS TO
CHECKED	<i>[Signature]</i>	ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF.	672-35-3
APPROVED	<i>[Signature]</i>	ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED	
DATE	30.1.14	SCREW.	
TOLERANCE UNLESS OTHERWISE SPECIFIED		SCALE :-	
DC (I) DATE ZONE BRIEF RECORD SIGN		CONTROLLERATE OF INSPECTION FIRE FIGHTING	

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www.easy2convert.com

700-30-455

▽4(▽)



1. Alternate material is steel 5 GOST 380-71 and 25,30,35,40 GOST 1050-74.
2. H.B. 255 to 207 (φ3,8 to 4,2).
3. Unspecified limit deviations of dimensions are as follows: for holes-as per A7, shafts-as per B7.
4. Displacement of axis of hole from true position should not exceed 0,3mm.
5. Type of coating: Zinc plated, 9 microns thick, chromatisation. Remove hydrogen embrittlement.

Имя, Ф. И. О.
 Должность
 Подпись
 Дата

700-30-455

NUT

NO	SHT	DOC NO	SIGN	DATE
DRAWN	V.J.RAD.			10.8.84
EDT, CHKD	D.R.SAIN			29.8.84
F/M, DC	S.R.NAIR			31.8.84
DIV.OFFR.	T.K.BANERJEE			1.9.84
	NAME	SIGN	DATE	

45 OCT 1050-74

SHEET	WEIGHT	SCALE
	9,003	
TOTAL SHEETS		
ORDANANCE FACTORY PROJECT HYDERABAD		

Easy2Convert

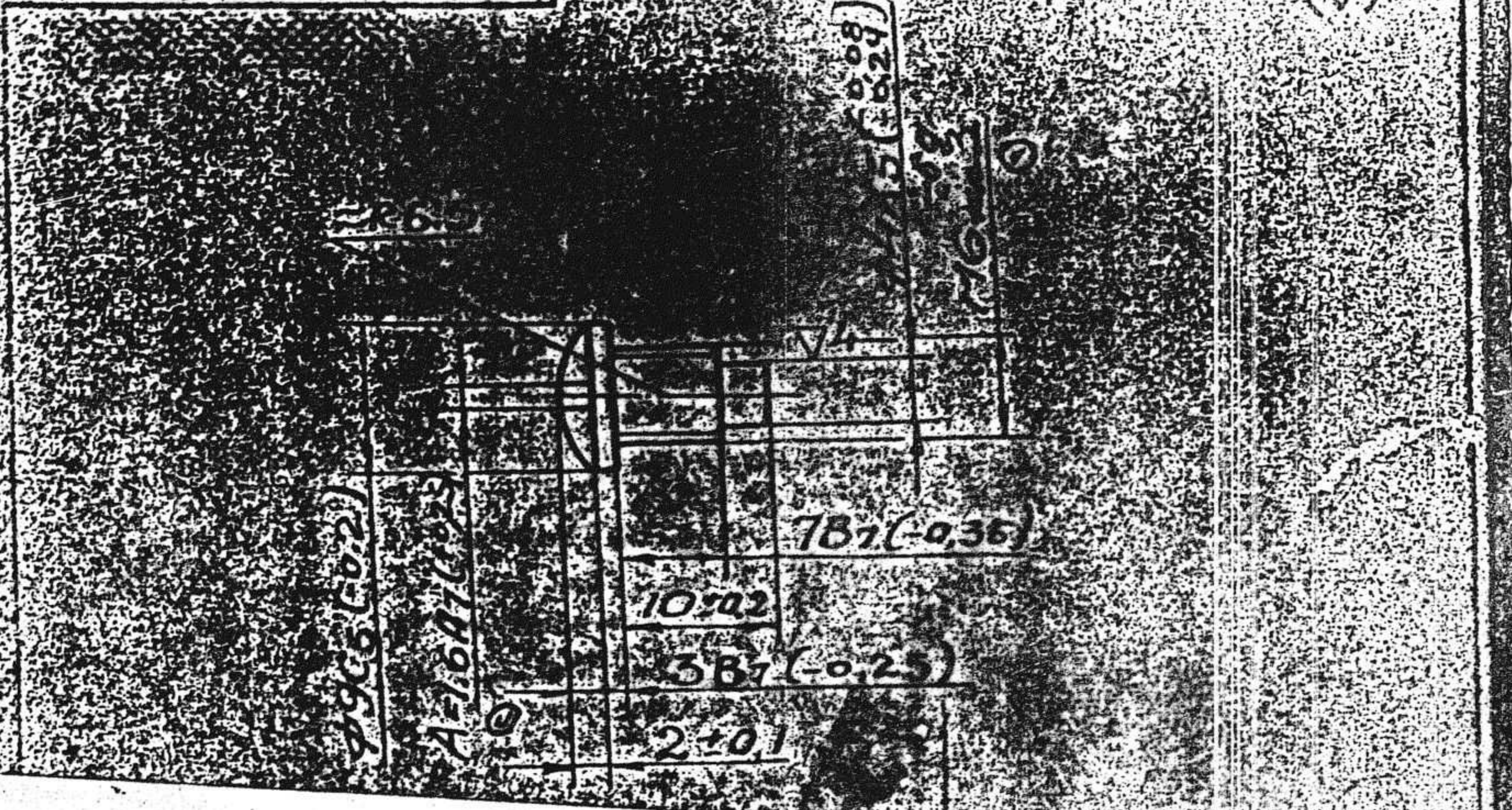
www.easy2convert.com

D82

1-3-2

100-35-368

▽3(▽)

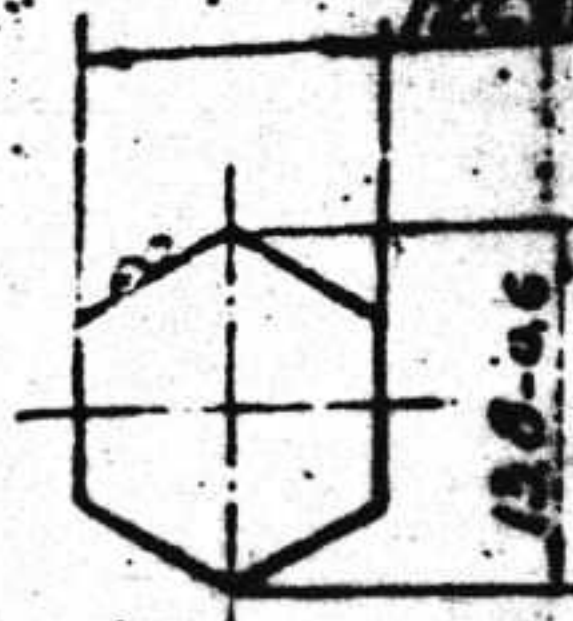
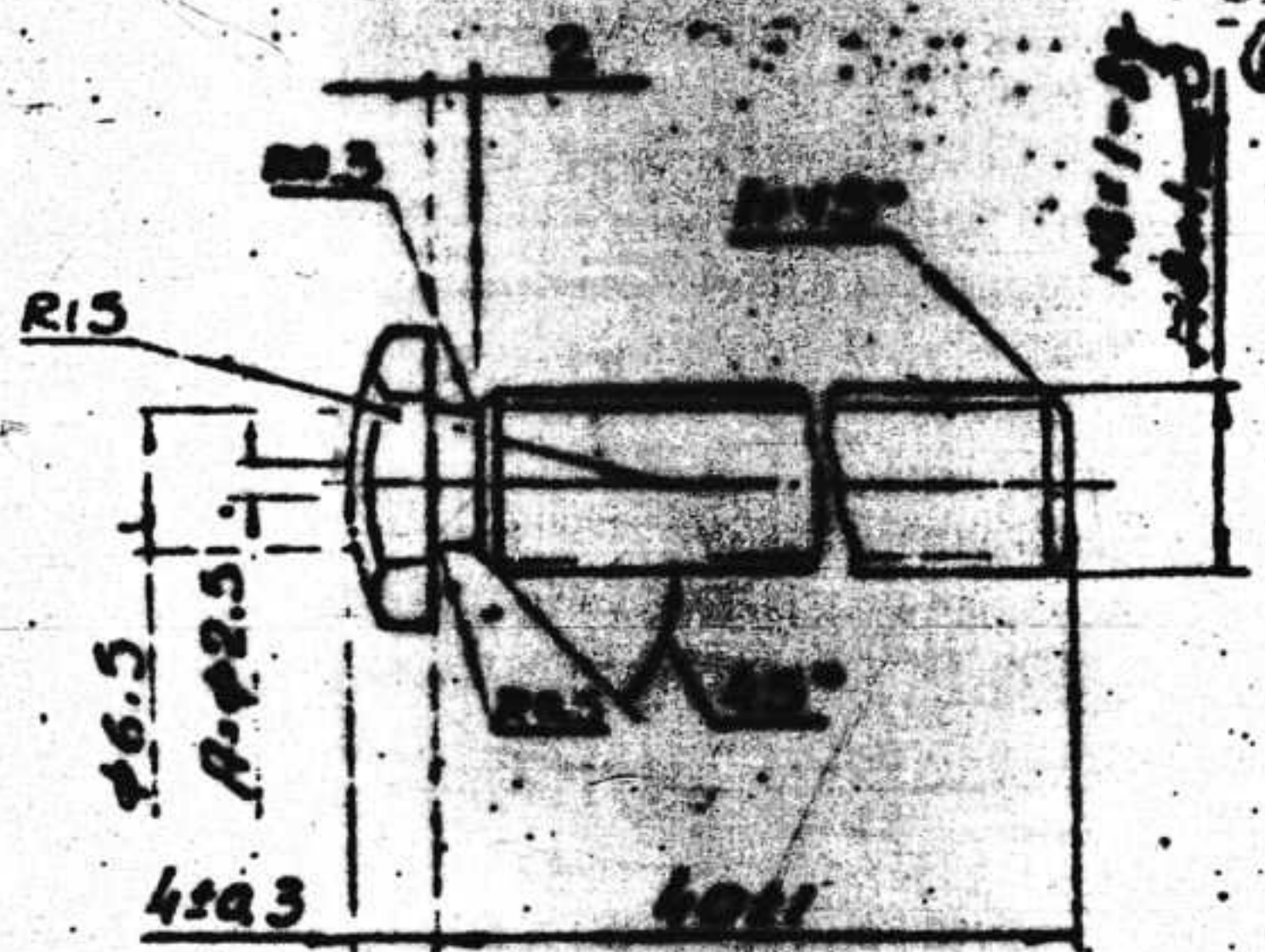


1. Alternate material is steel cm5, GOST 380-71, steel 40: 50, GOST 1050-74, and steel 40Г, GOST 4543-71.
2. HB 255 to 207 (φ3,8 to 4,2).
3. Incomplete thread should not exceed 2 mm.
4. Displacement of slot with respect to axis of rod should not exceed 0,4 mm,
- 5, coating: MH 9.
6. It is allowed to perform dimension A equal to $16^{+0.25}_{-0.08}$.

2	75A25206								
1	75A25206								
1	75A25206								
SNO SHT DOC NO SIGN DATE DRAWN P.R.BABU 2.7.84 EDT,CHKD A.KOUBEY 4.7.84 F/M,DC S.R.NAIR 4.7.84 DIV.OFFR A.K.KUNDU 11.7.84					SHEET WEIGHT SCALE 1 100,28 2/1		100-3-368		
NAME SIGN DATE A.K.KUNDU Atk. 11.7.84					TOTAL SHEETS 1		ORDNANCE FACTORY PROJECT HYDERABAD		

SCREW

1050-1050-6874



- 1) Alternate material is steel 40 GOST 1050-74.
- 2) HB 255 to 207 (ϕ 3.8 to 4.2).
- 3) Unspecified limit deviations of dimensions of holes are as per A7.
- 4) Presence of area A is allowed on the face of sphere.
- 5) Coating :- Zinc plated , 9 microns thick, chromated, Remove hydrogen embrittlement.

700-35-408

NO	DATE	SIGN	DATE
DRAWN	Y.R. Ganes	[Signature]	2.7.8
EDT, CHKO	K. JIN	[Signature]	9.7.8
FM, DC	S. R. MAIR	[Signature]	1.7.8
APPROV	A. K. SINGH	[Signature]	11.7.8
NAME	SIGN	DATE	

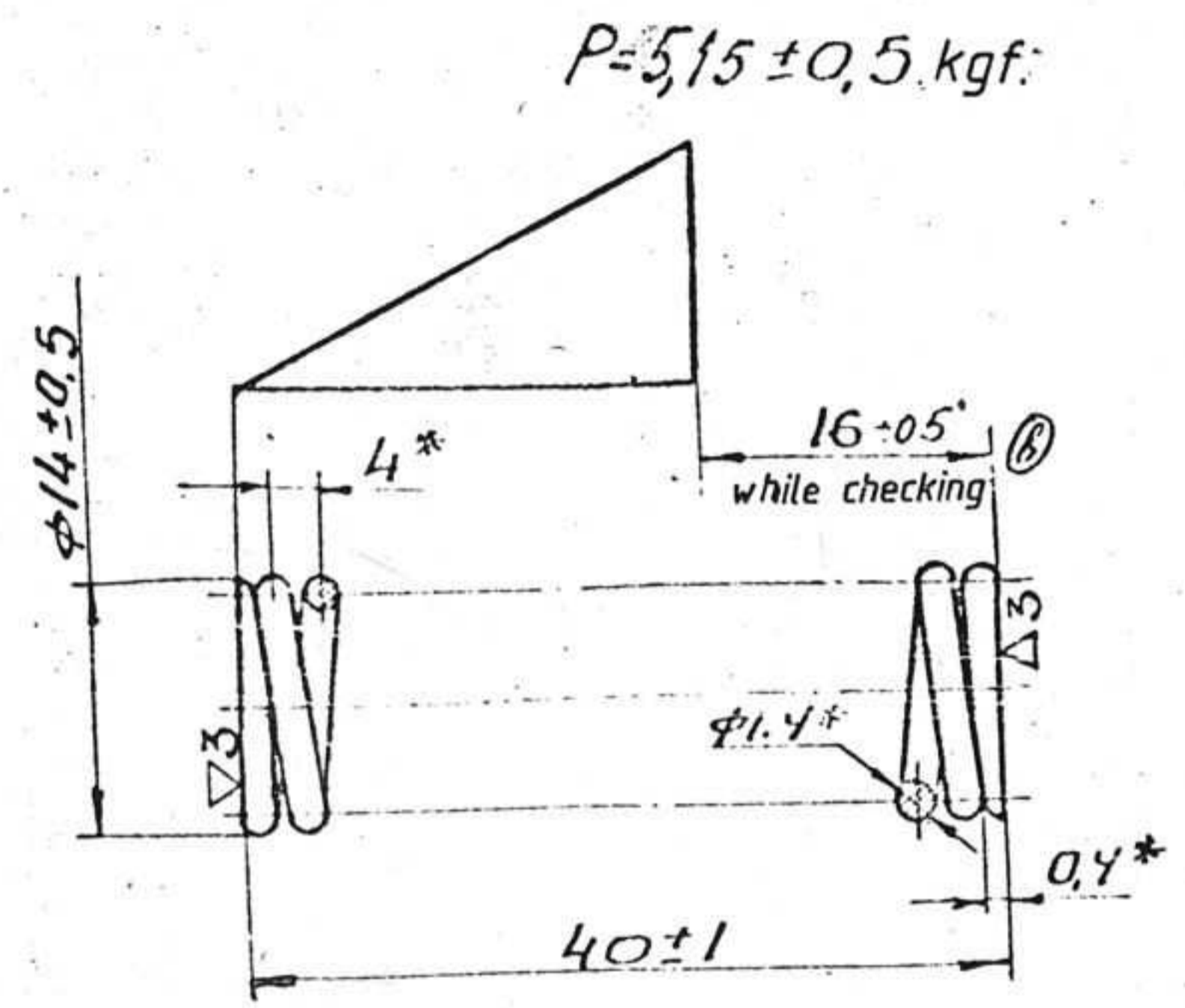
SCREW

SHEET NO.	
402	2/1
HYDROGEN	
ORDNANCE PROJECT	
HYDERABAD	

45 OCT 1050-74

100-38-1495

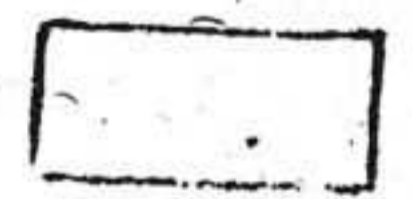
(2) (V)



- 1) Shear modulus is $G^* = 8,10^3 \text{ kg/mm}^2$, max.
- 2) Tangential twisting stress $\tau_3^* = 73 \text{ kg/mm}^2$, max.
- 3) Total length of spring is $L^* \approx 450 \text{ mm}$.
- 4) Number of working coils $n = 9$.
- 5) Complete number of coils is $n_1 = 11 \pm 0.5$.
- 6) Direction of winding is arbitrary.
- 7) *Dimensions are given for reference.

8) Coating : Chemically parkerized, chromitized, accelerated, oiled, with preservation oil k-17 GOST 10877-76 as per instructions 053,25289,00002 or with varnish k0-815 GOCT 11066-74.

9) Coating : chemically parkerized, chromitized, accelerated, oiled with varnish k0-815, GOST 11066-74.



1	-	765.237-82	Jyoti	21.4.82
1	-	765.237-76	Ucpos	11.5.76
2	1	765.415-75	Jyoti	5.2.75
1	1	804/166		21.76
1	1	53/773		11.78

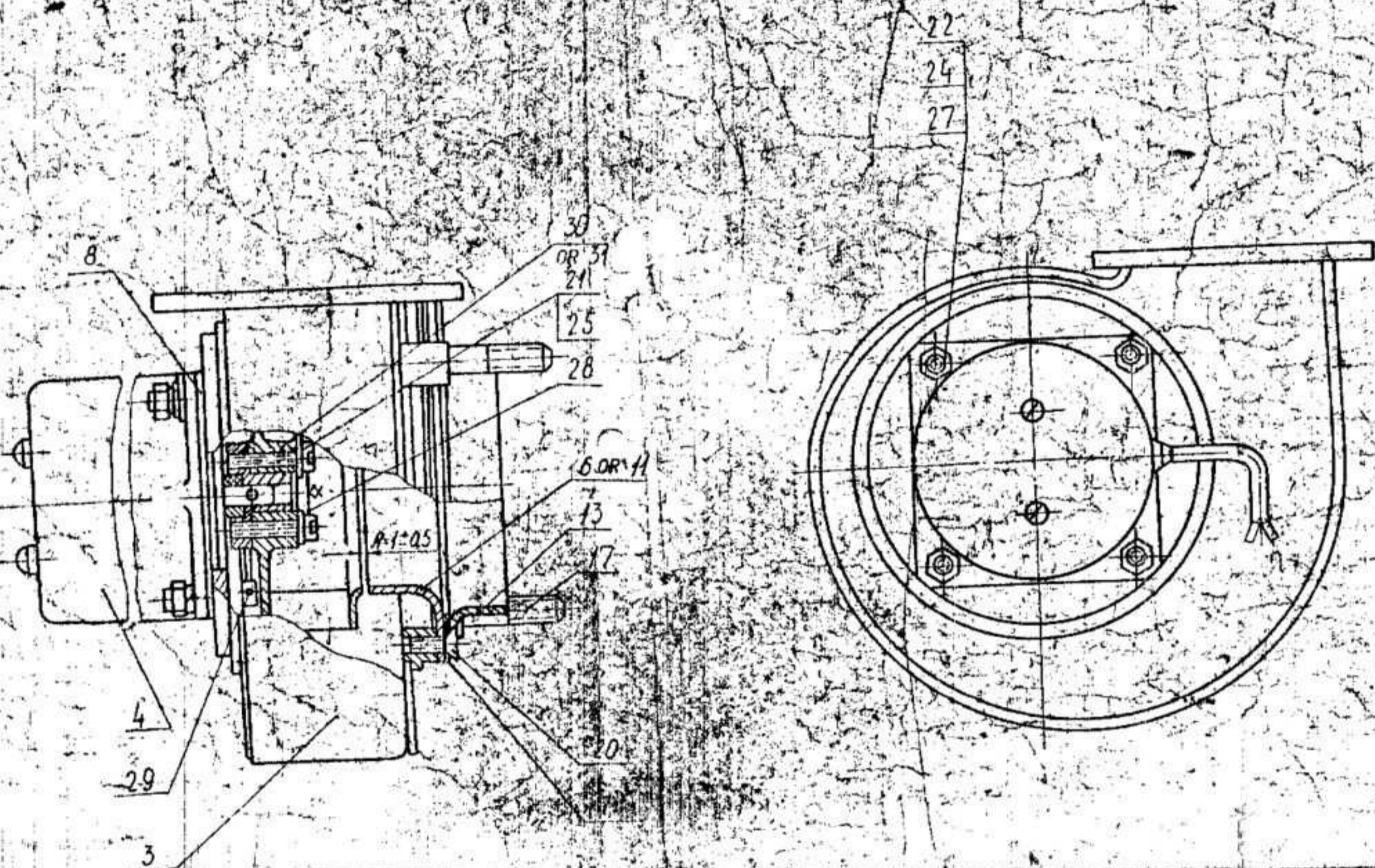
700-38-1495

DRW	DOC NO	SIGN	DATE
DRAWN	Y.R.Ganesh	YR	2.7.84
EDT.CHKD	D.K.JAIN	DK	4.7.84
F/M,DC	S.R.NAIR	SR	4.7.84
L.V.OFFR.		AK	11.7.84
	NAME	SIGN	DATE

SPRING

WIRE II - 1,4 GOCT 9389-75

SHEET	WEIGHT	SCALE
	0,0053	2:1
TOTAL SHEETS		
ORDNANCE FACTORY PROJECT HYDERABAD		



1. All bolted joints should be tightened and locked.
2. Rotor should be freely rotated without jamming.
3. Clearance 'A' is to be adjusted by selecting spacers Ref.7.
4. Install studs on iron minimum GOST 8866-76.
5. Blower should be tested at a voltage of 27 ± 0.5 V for three minutes. Current consumption is 4A max. Rotor should not catch with the non-moving parts.
6. Threaded joints should be smeared with lubricant LITOL-24 GOST 21150-75 or MC-70 GOST 9762-76 before the unit is assembled.
7. Requirements for power supply of the test stand are as per 765-C64, TY-2.

REFER NOTE 6
LUBRICANT LITHOL-24 (GOST 21150-75)
REFER TO DRG. NO. 675-71-C6 6 CD

REFER NOTE 7
COPY OF 765-C64, TY-2 ENCLOSED.

NOTE :- IRON MINIMUM
IRON MINIMUM IS A SUSPENSION OF PIGMENT (IRON OXIDE) GROUND WITH DRYING OIL WITH OR WITHOUT ADDITIVES.

PILOT SAMPLE
THREE SAMPLES SHALL BE SUBMITTED TO CIFE, PUNE, FOR THEIR TEST AND APPROVAL BEFORE COMMENCEMENT OF BULK SUPPLY.

(R. VEERARAGHAVAN)
ERO-II

REF. NO.	Designation	Description	QNT.	Remarks
21	672-35-3-02	Screw	2	Pieces when 765-71-C6425 and 765-71-1706 is used.
	Or			1706 is used.
	672-35-3-03	Screw	2	Pieces when 765-71-C6564 is used.
22	672-35-4-01	Screw	4	
		Thick iron minimum.		
17	700-29-621	Stud	2	
24	Nut M6.6 019 GOST 5927-70		4	
25	Washer 4.01019 or 4.02019 GOST 11371-78		2	
29	Wire KO1 GOST 792-67 $\phi=320$		1	
28	Wire KO1 GOST 792-67 $\phi=60$		1	
27	Washer 6 T 65F06 GOST 6402-70		4	
31	765-71-C6564	Rotor	1	1 Piece in set with parts 765-71-1507, 672-35-3-02 may be used.
30	765-71-C6425 or 765-71-1706 or 765-71-1710	Rotor	1	1 Piece in set with parts 765-71-359, 672-35-3-03. It is permitted to replace by 765-71-C6564 in set with part 765-71-1507.
20	Screw M4.8h6h x10.48.016 GOST 17475-72		6	
13	765-71-1089	Flange	1	1 Piece when 765-71-C6425 or 765-71-1706 or 765-71-1710 is used.
6	765-71-359	Flange	1	
11	765-71-1507	Flange	1	1 Piece when 765-71-C6564 is used.
8	765-71-551	Spacers	1	
7	765-71-362	Spacers	5	5 max.
4	765-82-C6283	Electric motor A-55A (Modification)	1	
2	765-71-C6456	Body	1	
3	765-71-C6627	BODY	1	

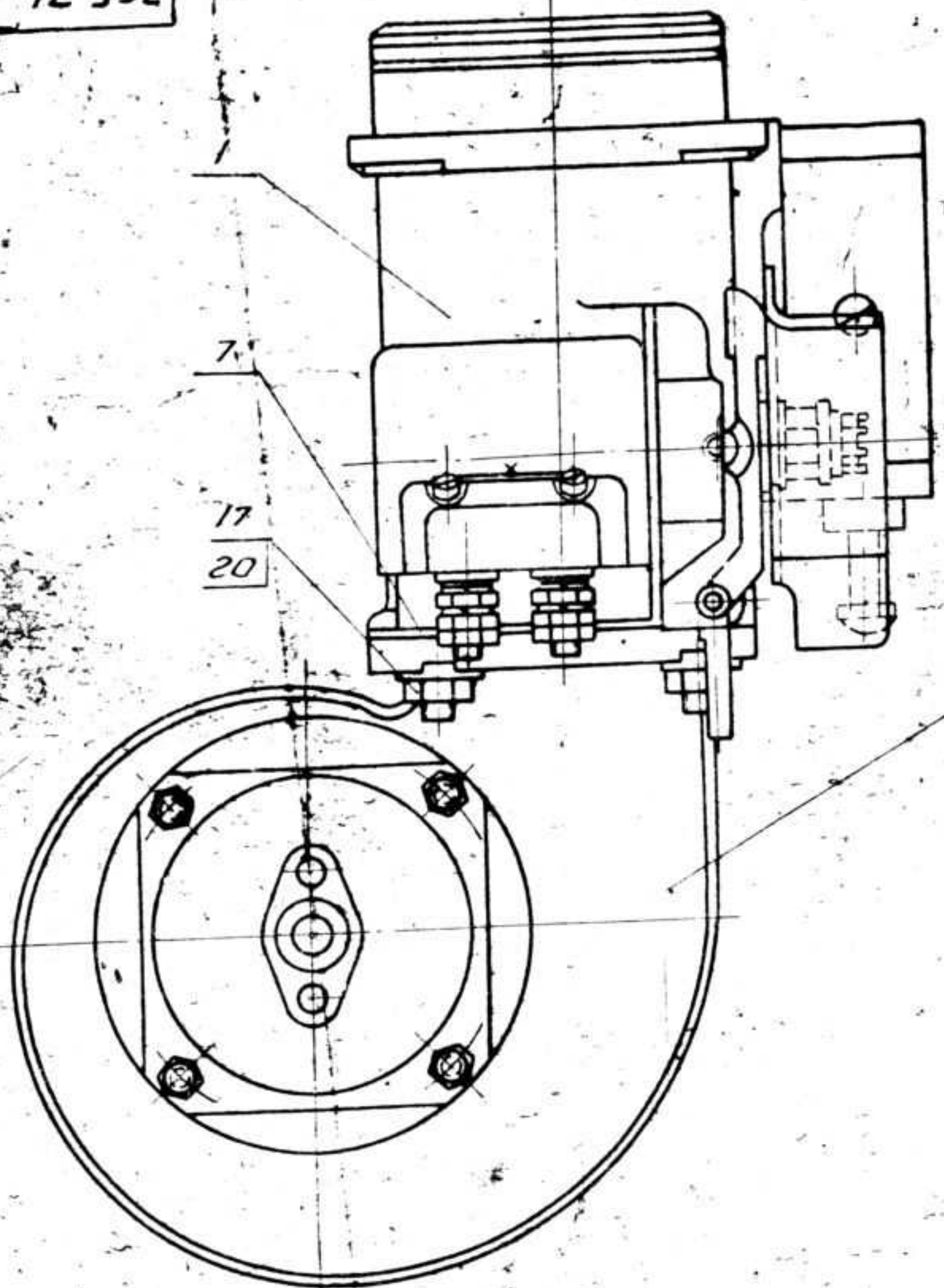
765-71-C6497

SHEET WEIGHT SCALE

BLOWER

DESIGNED BY	DATE	SIGN	DATE
DRAWN	P.R.BABU		25.8.84
EDT, CHKD			
R/M, DC	R. NAIR		25.8.84
DIV. OFF. R.	J. K. BANERJEE		25.8.84
NAME	SIGN	DATE	

765-71-591



1. All bolts and nuts should be tightened fully and locked where ever mentioned.
2. Threaded joints should be smeared with this layer of lubricant Lythol-24, GOST 21150-75 or MC-70 GOST 9762-76, before the unit is assembled.

REFER NOTE NO 2

LUBRICANT LYTHOL-24, (GOST 21150-75) OR MC-70 (GOST 9762-76); GREASE LYTHOL-24 IS MADE BY THICKENING MINERAL OIL WITH LITHIUM SOAPS OF 12-OXYSTEARIC ACID AND ADDING AN ANTIOXIDISING OR A VISCOUS DOPE. GREASE MC-70:- GREASE MC-70 IS MANUFACTURED BY THICKENING MBP (MVP) GRADE INSTRUMENT OIL WITH BARIUM AND ALUMINIUM STEARIC ACID SOAPS AND ADDING GRADE 80 CERESINE AND POLYISOBUTYLENE OF GRADES P-200N, P-200, P 155N AND P-155.

PILOT SAMPLE

THREE SAMPLES SHALL BE SUBMITTED TO CIFE, PUNE, FOR THEIR TEST AND APPROVAL, BEFORE COMMENCEMENT OF BULK SUPPLY.

(R VEERARAGHAVAN)
 ११० II

REF. NO.	DESIGNATION	DESCRIPTION	QTY	REMARKS
20	672-31-71	Tab washer	4	
19				
18				
17	Nut M6.6.019 GOST 5927-70		4	
16				
15				
14				
13				
12				
11				
10				
9				
8				
7	765-71-1429	Gasket	1	
6				
5				
4				
3	765-71-c8497	Blower	1	
2				
1	765-71-c8356	Box	1	

SLNO	SHEET	DOCNO	SIGN	DATE
4		1765700-80		30.7.84
3		165222-80		30.7.84
2		165316-80		31.7.84

BLOWER, RIGHT
 CIFE, PUNE

765-71-c8546		
SHEETS	WEIGHT	SCALE
3	3.5	1:1
TOTAL SHEETS		