

Description	Designation of document in supply	Supplier	Where incorporated (Designation)	Quantity			Remarks
				In the unit	In-ss	for equipment	
Bearings							
Bearing	6-60027 7*22*7	Ty 100/3		1			1
Bearing	6-60064 4*16*5,5	Ty 100/3		1			1
Bushes							
Bush	MTC-7U 5*5*15	Φ43.599.691	66.677.219	2	2		4
Fastening articles							
Screw	A1. M2-5g x 5.35.013	GOST 17473-80		2			2
	B1. M3-5g x 5.35.016			2			2
Screw	A1. M2-5g x 8.35.013	GOST 17473-80		2			2
	B1. M4-5g x 10.35.016		656.767.135	4			4
Screw	A. M2-5g x 8.35.013	GOST 17473-80	866.624.035	4			4
	B. M3-5g x 10.35.016			2			2

116
131

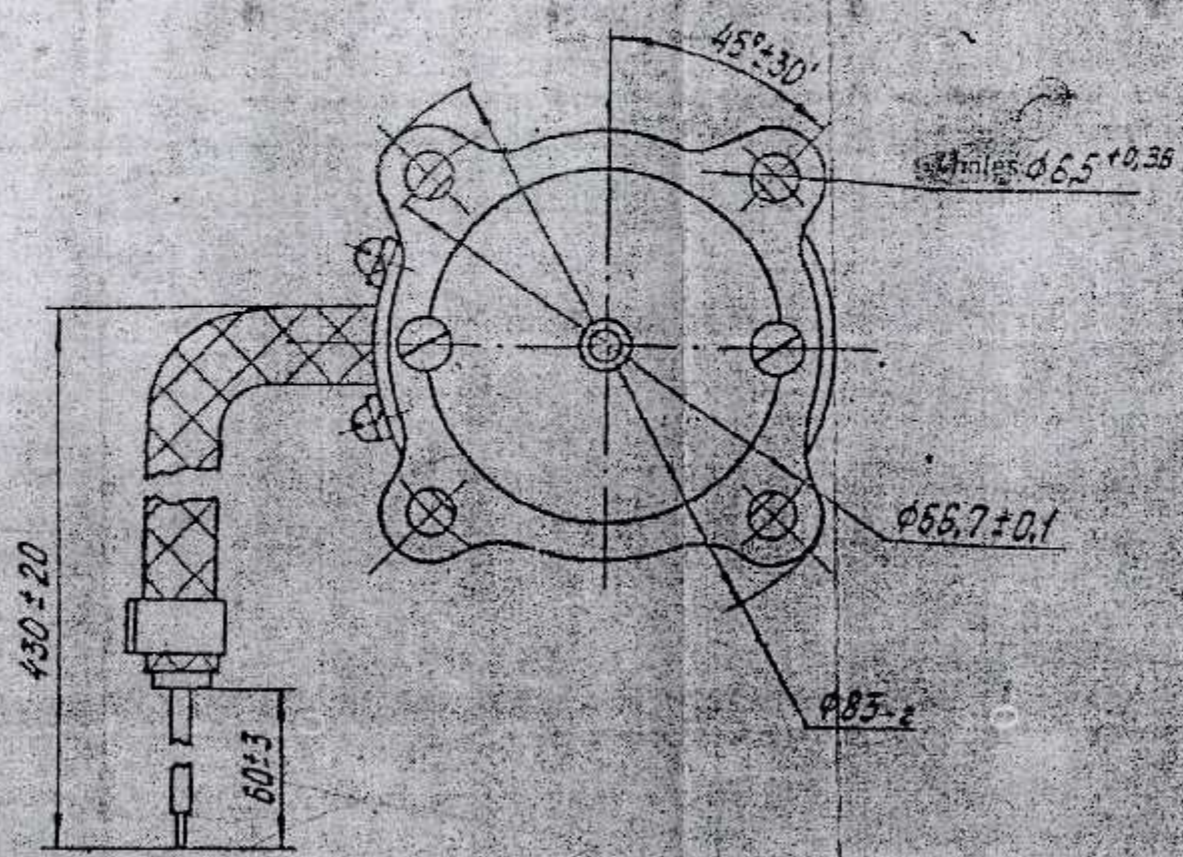
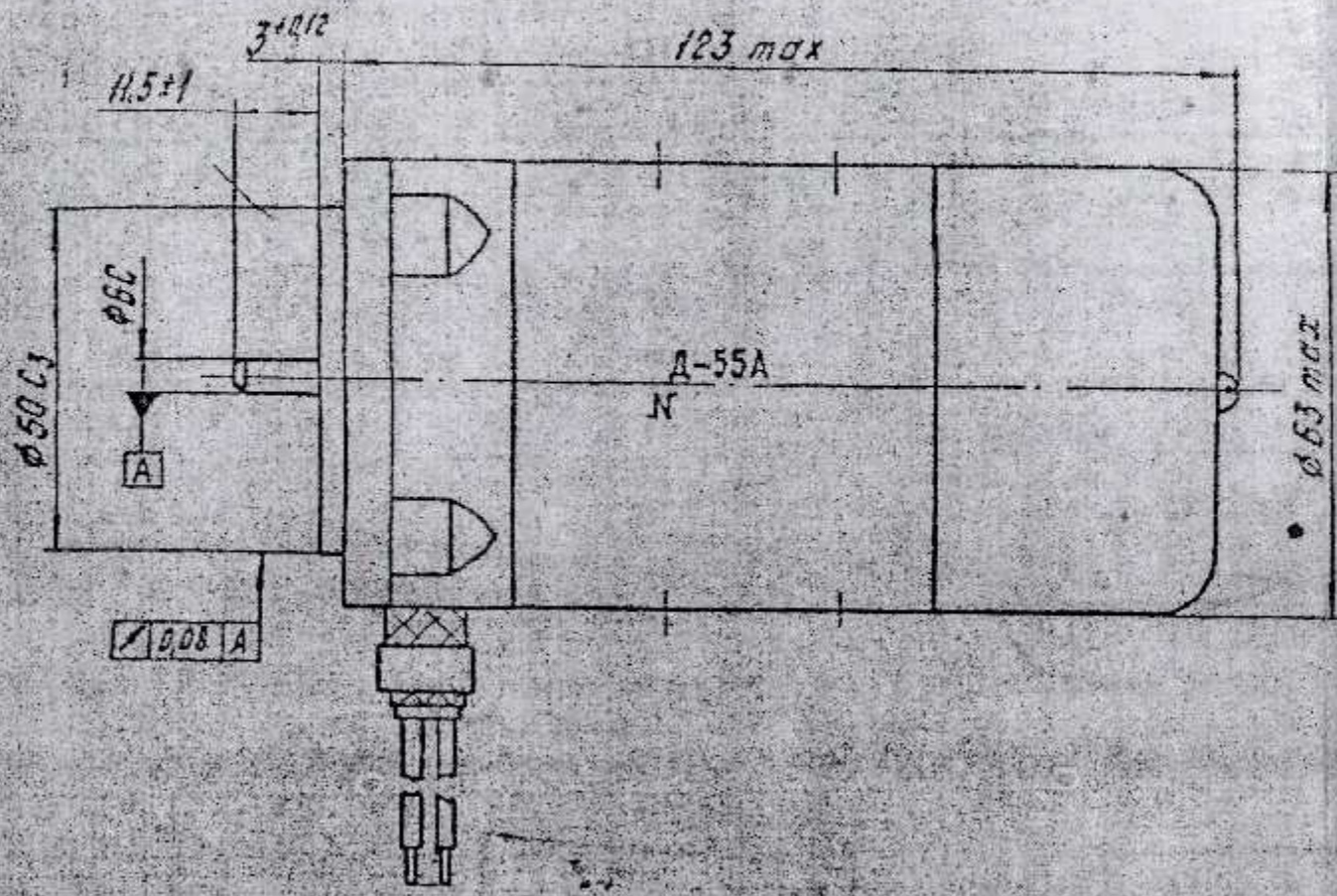
SHEET NO.	DOCD	SIGN	DATE	D.C.	ELECTRIC MOTOR L-55A	866.121.020.817
DRAWN BY	DATE	12.8.85				
EDITED AND CHECKED BY					Commercial items list	SHEETS WEIGHT SCALE
FOREMAN OF DC	S.R. No.					5 1 2
DIVISIONAL OFFICER	A. K. K. P. H.	6/1	14/85	CIFE, PUNE		TOTAL SHEETS
	NAME	SIGN	DATE			

Date: 1971
 No. 11/201
 Page 14
 No. 14
 No. 14

No.	Description	Designation of document in supply	Supplier	where incorporated (Designation)	Quantity			Remarks
					in the unit	in-set	for regulation total	
1								
2	Nut 13-6H.5.016	GOST. 5916-70		866.170.021	2		2	
3								
4	Washer 2651016	GOST 6402-70			2		2	
5	36510161				2		2	
6				866.170.021	2		2	
7							4	
8	Cotter pin 08-6-0.016	GOST 397-79		866.824.0371	2		2	
9							1	
10								
11								
12								
13								
14								
15								
16								
17								
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47								
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49								
50								

12/1981

853.121.020 Г4



TOLERANCE

φ 6C - REPRESENTS φ 6^{-0.08}
 φ 50C3 - REPRESENTS φ 50^{-0.05}

SYMBOLS

$\sqrt{0.08} \text{ A}$ REPRESENTS RUN OUT OF INDICATED DIMENSIONS TO BE WITHIN 0.02 mm WRT THE BASE INDICATED AS 'A'

∇
 A INDICATE BASE 'A'

(R VEERARAGHAVAN)
 SSO-T

Part installed on the output end of shaft should be dynamically balanced as per GOST 12327-79
 Permissible specific residual disbalance is 2.7

ЕКД

10
 D-151

853.121.020 Г4

SHEET NO	DOC NO	SIGN	DATE
DRAWN			
EDT/CHKD			
DIV. OFFR			
NAME	SIGN	DATE	

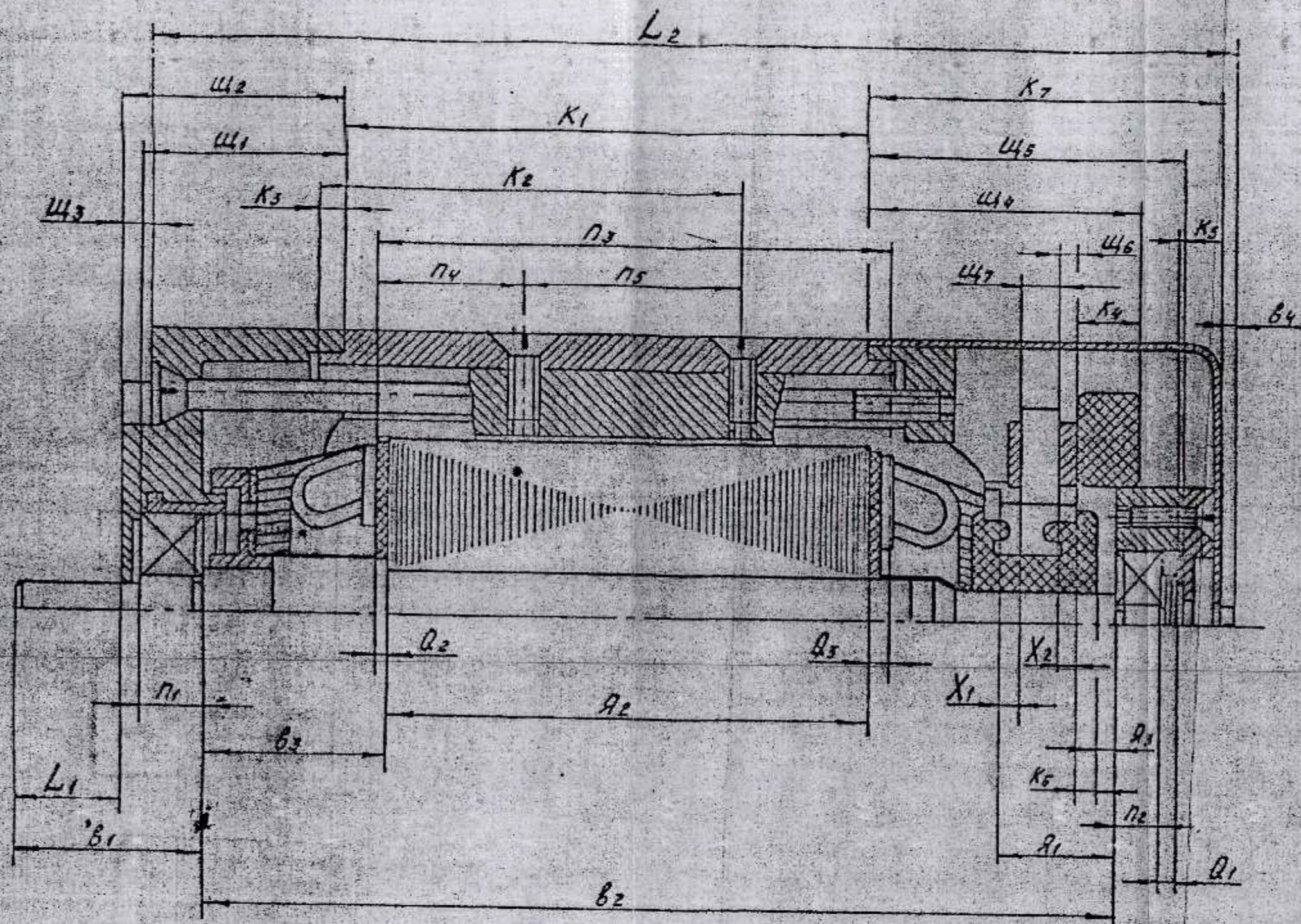
DC ELECTRIC MOTOR
 (OUTLINE DRAWING)

CIFE, PUNE

SHEET	WEIGHT	SCALE
15	1/1	
TOTAL SHEETS		
ORDNANCE FACTORY PROJECT HYDERABAD		

853.121.020 PP

Чертеж
С. 1
С. 2
С. 3
С. 4
С. 5
С. 6
С. 7
С. 8
С. 9
С. 10
С. 11
С. 12
С. 13
С. 14
С. 15



15
0-13

ЕККД

853.121.020 PP

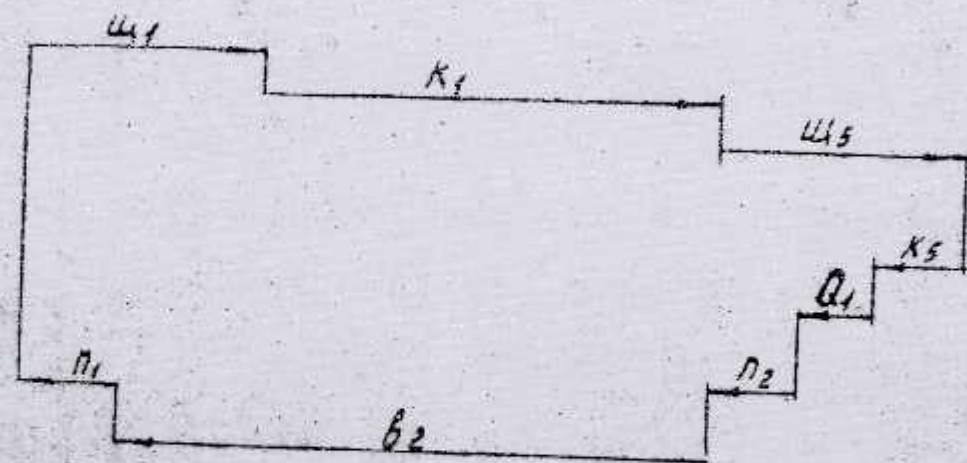
СНОСКИ	ДОС. NO	СІГН	ДАТЕ
DRAWN	N. Yeardas		12.5.85
EDT,CHKD			
F/M,DC	S.R. Nair		
DIV.OFFR			
	NAME	SIGN	DATE

D.C. ELECTRIC MOTOR
D. 55A
 Calculation of dimension chains
CIFE, PUNE

SHEET	WEIGHT	SCALE
1	-	-
TOTAL SHEETS		

853.121.020 PP

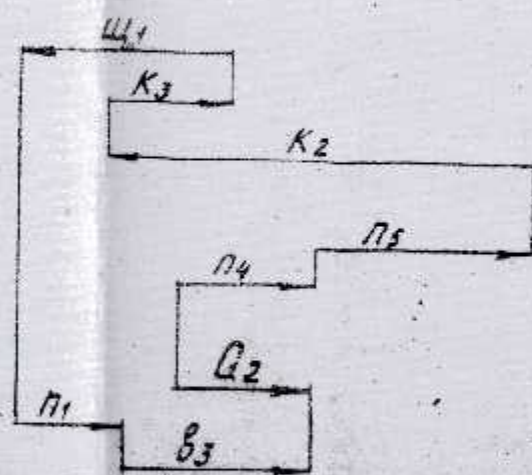
853.121.020 PP



$$Q_1 = U_1 + K_1 + U_5 - K_5 - P_2 - B_2 - P_1 =$$

$$= 23^{+0,14} + 58_{-0,22} + 35_{-0,17} - 0,5^{+0,14} - 5,5_{-0,1} -$$

$$- 102_{-0,14} - 7_{-0,1} = 1^{+0,57}_{-0,51}$$

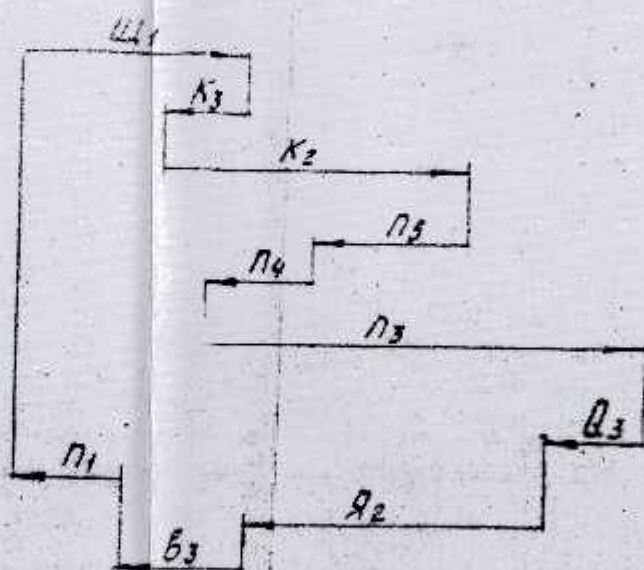


$$Q_2 = P_1 + B_3 + P_4 + P_5 + K_3 - K_2 - U_1 =$$

$$= 7_{-0,1} + 20,5_{-0,28} + 16 \pm 0,1 + 24 \pm 0,1 +$$

$$+ 3^{+0,12} - 47 \pm 0,1 - 23^{+0,14} =$$

$$= 70,5^{+0,32}_{-0,58} - 70^{+0,24}_{-0,1} = 0,5^{+0,42}_{-0,32}$$



$$Q_3 = U_1 + K_2 + P_3 - K_3 - P_5 - P_4 - Q_2 - B_3 - P_1 =$$

$$= 23^{+0,14} + 47 \pm 0,1 + 56 \pm 0,3 - 3^{+0,12} - 24 \pm 0,1 -$$

$$- 16 \pm 0,1 - 53 \pm 0,4 - 20,5_{-0,28} - 7_{-0,1} = 2,5^{+1,52}_{-1,12}$$

20
0-131

853.121.020 PP

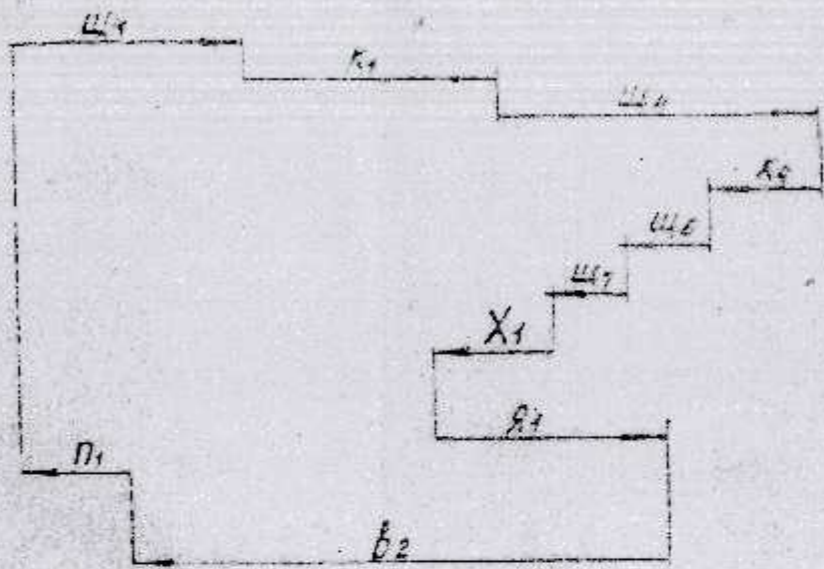
3

863 121 020 pp

Итого: 863 121 020

863 121 020

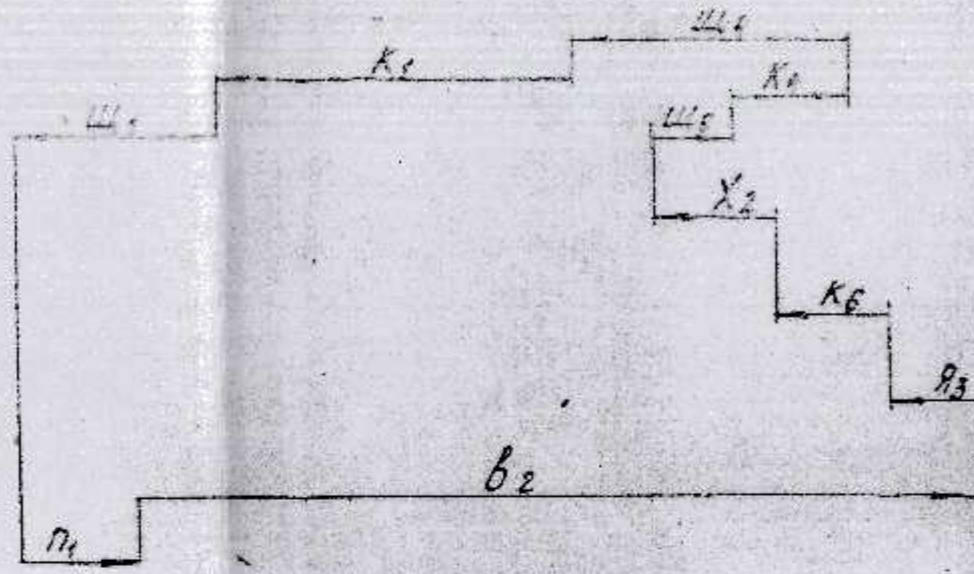
Стор. №



$$X_1 = U_1 + K_1 + U_4 + R_1 - K_4 - U_5 - U_7 - b_2 - n_1 =$$

$$= 23^{+0,14} + 58_{-0,2} + 30_{-0,14} + 13^{+0,24} - 6,5_{-0,2} -$$

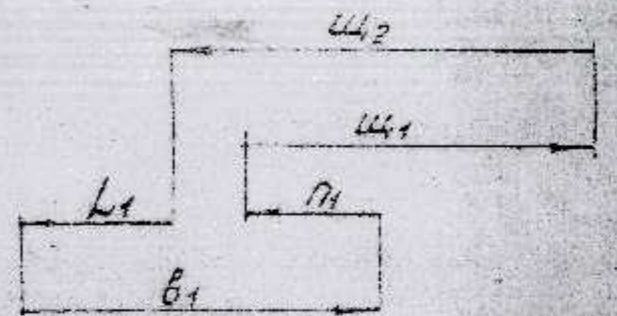
$$- 1,5_{-0,12} - 5^{+0,16} - 102_{-0,14} - 7_{-0,1} = 2^{+0,94}_{-0,50}$$



$$X_2 = n_1 + b_2 + U_5 + K_4 - R_3 - K_6 - U_4 - K_1 - U_1 =$$

$$= 7_{-0,1} + 102_{-0,14} + 1,5_{-0,12} + 6,5_{-0,2} - 1,8^{+0,12} - 3^{+0,25} -$$

$$- 30_{-0,14} - 58_{-0,2} - 23^{+0,14} = 1,2^{+0,34}_{-1,07}$$



$$L_1 = b_1 + U_1 - n_1 - U_2 =$$

$$= 20,5^{+0,28} + 23^{+0,14} -$$

$$- 7_{-0,1} - 25_{\pm 0,2} = 11,5^{+0,72}_{-0,2}$$

Итого: 863 121 020

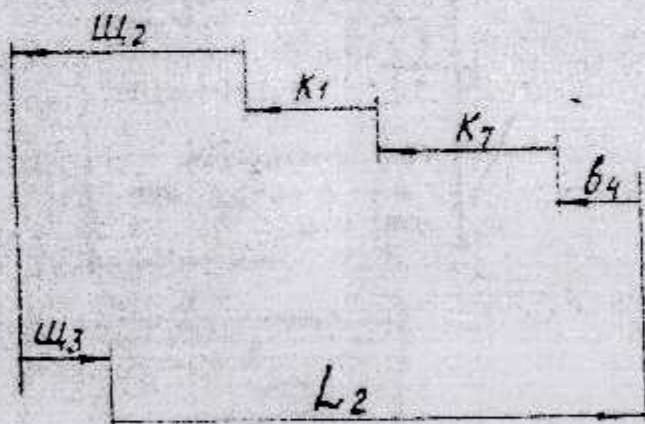
Итого: 863 121 020

Итого: 863 121 020

Итого: 863 121 020

Итого: 863 121 020

Итого: 863 121 020



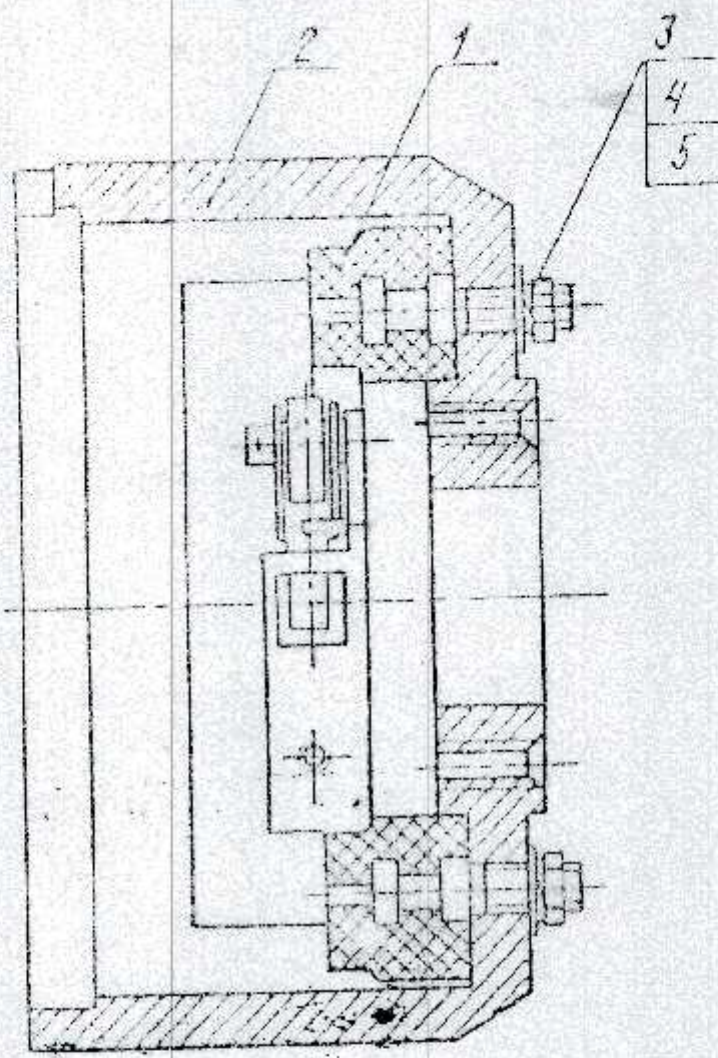
$$L_2 = U_2 - U_3 + K_1 + K_7 + b_4 =$$

$$= 25_{\pm 0,2} - 3^{+0,12} + 58_{-0,2} + 40_{-0,52} +$$

$$+ 2,5_{\pm 0,25} = 122,5^{+0,45}_{-0,30}$$

863 121 020 pp

B56.170.021CB



ЕККД

B56.170.021CB

NO.	DESCRIPTION	SIGN.	DATE
1	DR. V. N. P. B. B. H. I.		
2	ED. M. H. R. C. L. S. S. I. N. I.		
3	T. P. D. L. S. I. M. M. A. N.		
4	D. V. O. P. T. R. A. S. S. I. S. T. A. N. T.		

SHIELD.

Assembly drawing

CIFE, PUNE

SHEET	WEIGHT	SCALE
1	81,3 gm	2:1
TOTAL SHEETS		

№ п/п	Кол-во	Наименование	Единица измерения	Примечание
13		Documentation		
		Assembly drawing		
		Parts		
14	1	Bushing		
		Materials		
	2	Alloy AK7 GOST 2685-75		

№ п/п	№ листа	Подпись и дата	Взам. инв. №	Изм. №	Лист	Получен и дата																														
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SLNO	SHEET	DOCNO	SIGN	DATE																																
DRAWN BY	PRBABI			13.65																																
EDITED AND CHECKED BY	A. R. ...	B. ...																																		
FOREMAN OF DC	S.R.NAR.																																			
DIVISIONAL OFFICER	A. ...			24.65																																
NAME	SIGN	DATE																																		
SHIELD			856.170.129																																	
CIFE PUNE			<table border="1" style="width: 100%;"> <tr> <td>SHEETS</td> <td>WEIGHT</td> <td>SCALE</td> </tr> <tr> <td>8</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">TOTAL SHEETS</td> </tr> </table>				SHEETS	WEIGHT	SCALE	8			TOTAL SHEETS																							
SHEETS	WEIGHT	SCALE																																		
8																																				
TOTAL SHEETS																																				

866 237 1465

СРОКОВИЙ М

СРОКОВИЙ М

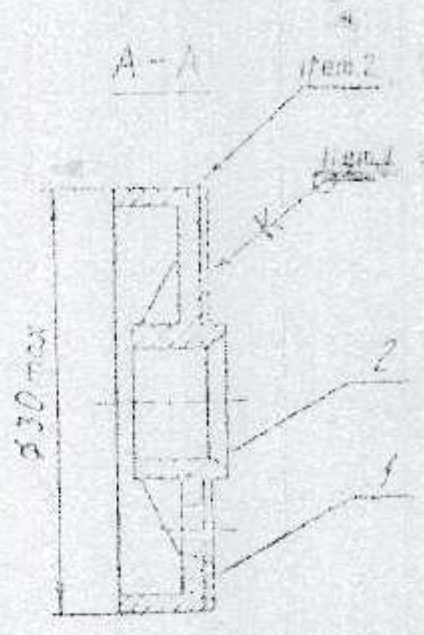
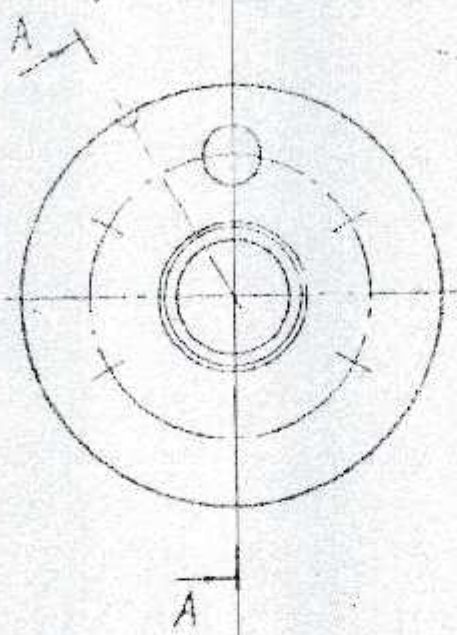
СРОКОВИЙ М

СРОКОВИЙ М

СРОКОВИЙ М

СРОКОВИЙ М

СРОКОВИЙ М



- 1 Adhesive БФ-4, grade 1, GOST 12172-74
- 2 Align the graters

27
D.F.M

866 237 1465

№ КРИТ	DOC NO	SIGN	DATE
DRAWN	N. Vesulas		02.85
EDT & CHKD	20.11.17		17.0
F/M, DC	SR Naiv		
DIV. OFTR	AK KONDEN	AV	20.4.85
	NAME	SIGN	DATE

LABYRINTH
ASSEMBLY DRAWING

SHEET WEIGHT SCALE		
5	52	2-1
TOTAL SHEETS		

09160
250182133

Имя, М. пода. 189468 Подпись и дата 11.06.79 BLS

Взам. инв. № Имя, № дубл. Изданы в дата

Справ. № Перв. пример. 853.21.383

11	1	858.220.424	Bushing	1
11	2	858.652.218	Union	1
			Parts	
			Documentation	
			Assembly drawing	
			Materials	
			Braid ПМЛ-6x10	
			l = 370	
			TY22-3700-76	1

2.8
D-131

SHEET	DOCNO	SIGN	DATE
DRAWN BY	K. Yesudas		12.4.85
EDITED AND CHECKED BY	D.K. JAIN		15.4.85
FOREMAN OF DC	S.R. Nair		
DIVISIONAL OFFICER	A.K. KONDU		12.6.85
NAME	SIGN	DATE	

SCREEN

CIFE, PUNE

858430232

SHEETS	WEIGHT	SCALE
6111		1/1
TOTAL SHEETS		

CODES: No.
 Includes: A DATA
 DRAW. NO.
 DATE
 SHEET NO.

Form	Zone	Ref No	Designation	Description	Qty	Remarks
				<u>Documentation</u>		
12			866.617.103CB	Assembly drawing		
				<u>Parts</u>		
11	1		867.726.259	Commutator segment	33	
				<u>Materials</u>		
				Moulding material AF-4B GOST 20437-75		

30
D-131

SINO	SHEET	DOCNO	SIGN	DATE
DRAWN BY	N. Yeudas			12.4.65
EDITED AND CHECKED BY				
FOREMAN OF DC	S.R. Naz			
DIVISIONAL OFFICER	A.K. Vaidya			24.7.65
NAME	SIGN	DATE		

COMMUTATOR
CIFE

56.617.103

SHEETS	WEIGH	SCALE
1111		
TOTAL SHEETS		

Order #	Qty	Designation	Description	Qty	Remarks
			Documentation		
12		855.624.036 CB	Assembly drawing		
			Assembly units		
11	1	855.624.037	Bush noider	2	
12	2	855.670.003	Base	1	
			Parts		
11	3	858.942.544	Washer	4	
			standard articles		
	4		Screw A. M2-6gx8.36.013		
			GOST-1491-80	4	

32
0.131

Dept. Name: 555.170.007
 Order # 19215
 Date: 18.12.85
 Qty: 1
 Price: 11.450.805
 Total: 128.100.805

NO	SHEET	DOCNO	SIGN	DATE
DRAWN BY				18.12.85
EDITED AND CHECKED BY				18.12.85
FOREMAN OF DC		S.R. Naik		
DIVISIONAL OFFICER		A. Kulkarni		18.12.85
NAME	SIGN	DATE		

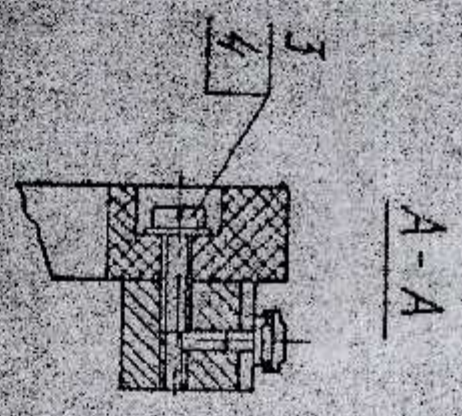
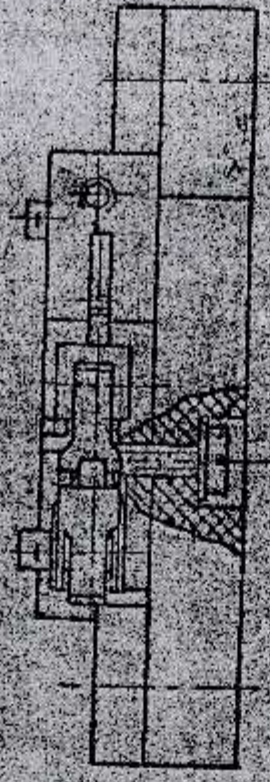
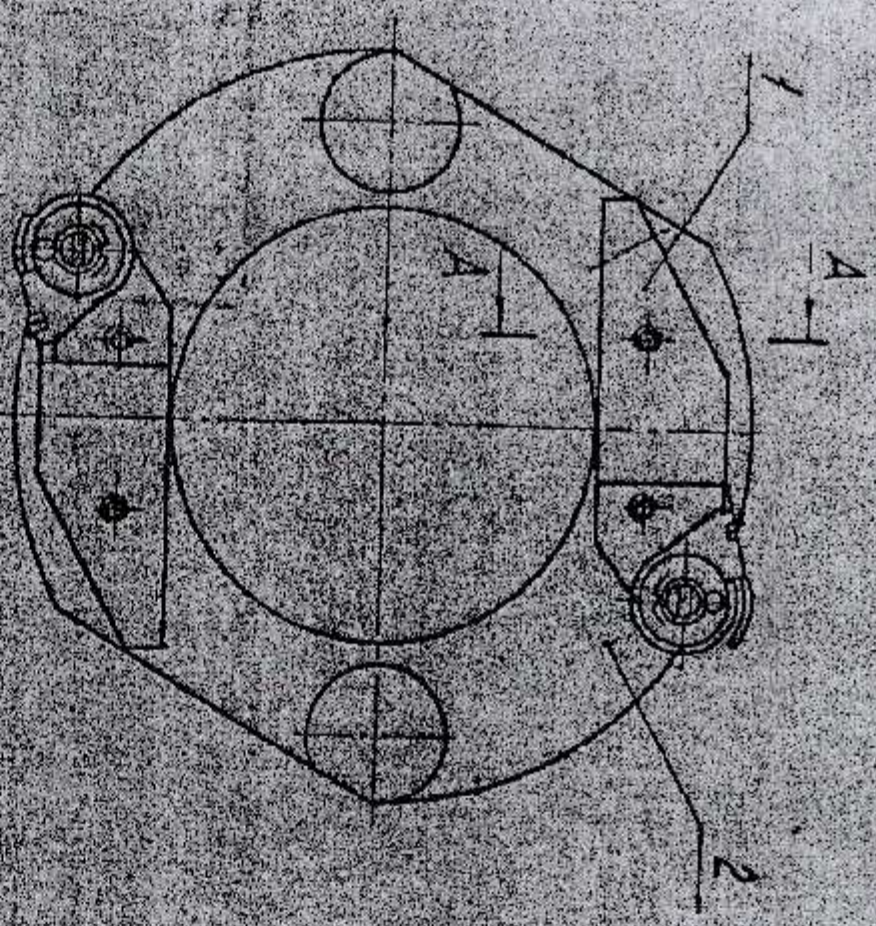
ROCKER ARM

CIFE, PUNE

55.624.036

SHEETS	WEIGHT	SCALE
1		1
TOTAL SHEETS		

07900420050



- 1 Eccentricity of bush holder cavities with respect to the common axis should not exceed 0.1 mm
- 2 Lock screws, Ref.No.3, as per BB0045 602 TU, view 2 with green enamel K0-822

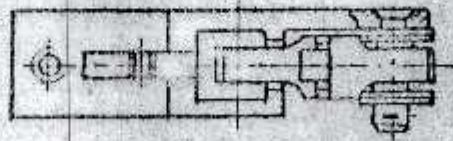
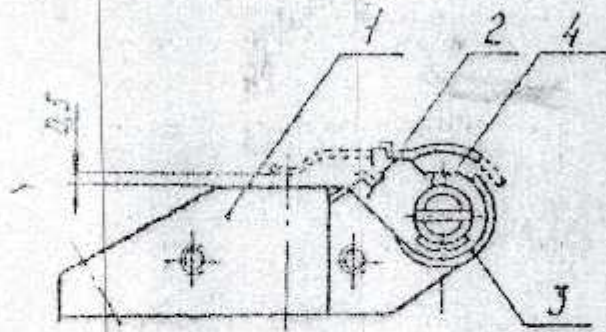
ECKM

856.624.036CE

SKOSHTI DO CND	SIGN	DATE
DRAWN		
EDITCHKO		
F/M, D.C.		
DIV/PPFR		

ROCKER ARM	ASSEMBLY DRAWING	SHEETWEIGHT SCALE
CHE, PLANE <td></td> <td>4,5/1 21</td>		4,5/1 21
		NOTA SHEET

856.624.037C5



1. Adjust the force of spring, Ref No. 3 by turning the brush holder pin upto the value of $130 \pm 1 \text{vgf}$ when the clip is set to the position specified with dotted line
2. After adjusting the pin, should be expanded finally and soldered by solder noc-40, GOST 21931-76. Soldered joints should be ground and coated with green enamel k0-822, TY6-10-848-75.

ЕКД

35
D.131

856.624.037C5

856.624.037C5
 1-4-1

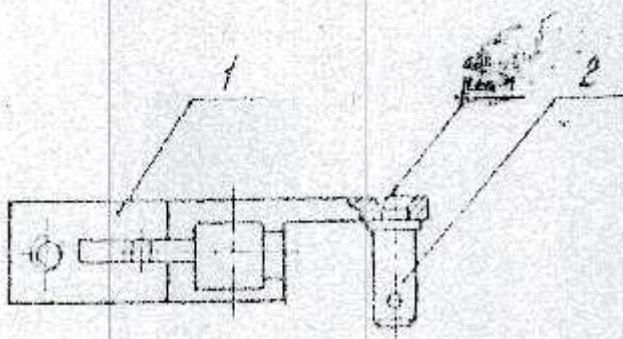
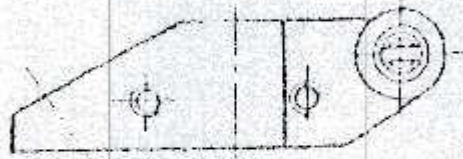
NO	SHEET	DOC NO	SIGN	DATE
1	DRAWN	A. Yesudav		22.4.75
2	EDT/CHKD	A. Venkatesh		25.4.75
3	F/M, D.C.	S.R. Nar		
4	DIV. OFFR	A.K. Kundu	AK	23.4.75
		NAME	SIGN	DATE

BRUSH HOLDER ASSEMBLY DRAWING CIFE, PUNE	SHEET	WEIGHT	SCALE
		5.92	2:1
	TOTAL SHEETS		

1-4-1

856 624 038

856 624 038



36
D.C

1. Expand to provide hard rotation

Ref. No.	Designation	Description	Qty.	Remarks
2	B58.327.261	Pin	1	
1	B67.736.002	Bush-holder	1	

856.624.038

DESIGNER	NAME	SIGN	DATE
DRAWN	NAME	SIGN	DATE
EDT,CHKD	NAME	SIGN	DATE
SP/M,DC	S.R. NAME		
DIV/OFFR	A.K. KUNDU	AK	24.11.11
	NAME	SIGN	DATE

R
BUSH HOLDER
CIFE, PUNE

SHEET	WEIGHT	SCALE
	5.8g	2:1
TOTAL SHEET		

Formal. (code)	Ref. No.	Designation	Description	Qty	Remarks
	7		band p-20-61 l = 1400mm GOST 4514-78	2	
	8		Varnished fabric /WML-105 GOST 2214-78 0.05x15x1600	2	
	9		0.06x20x20	2	
	10		0.06x25x30	2	
	11		Wire nW 0.16 l = 15mm GOST 9125-74	4	

Сборка в яву

Ква. М. 2101.

Сум. числ. №

Кодовый № 84.518 арт.

№ 1258

38
12.21

10 Jan 1978

856.643.123

35 2