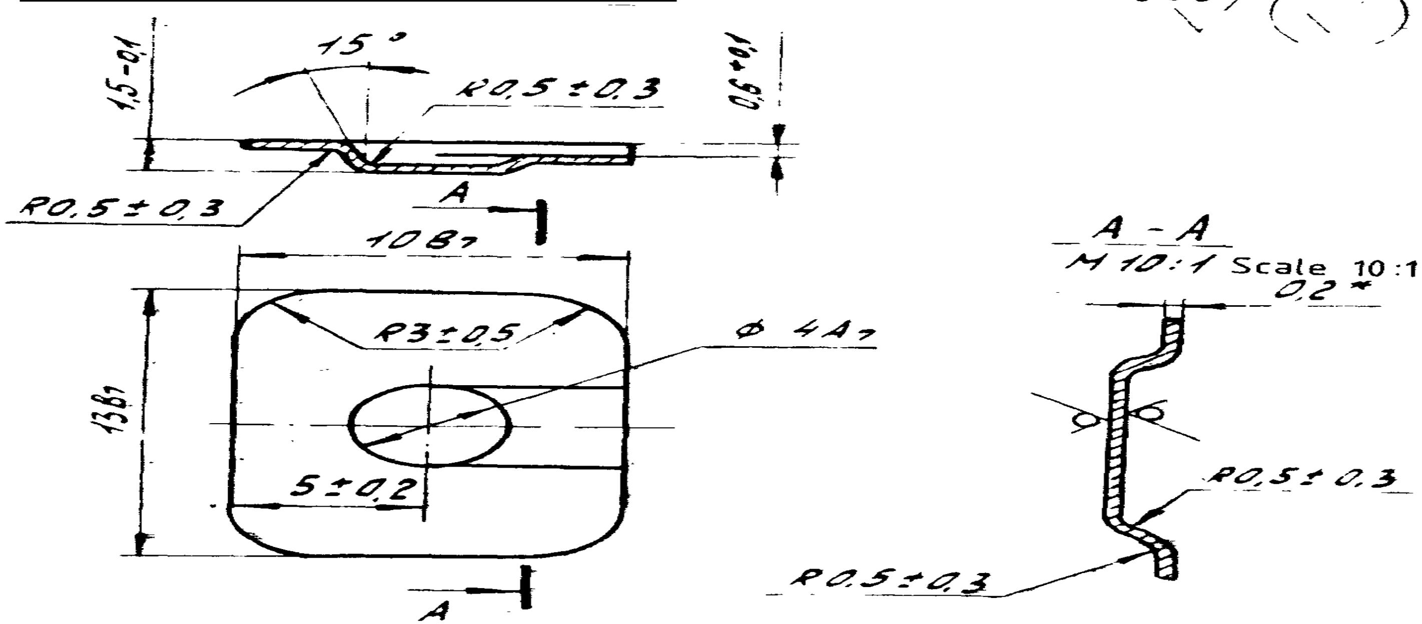
АЦ8 210 013

Восстановлен с подлинника. верно

ТНПО-1688-042

АЦ5.935.058



1. Burrs are not allowed.
2. *Dimension for reference.

1. Заусенцы не допускаются
2. * Размер для справок.

G/No413

CAT/PT. No. 5905-020255 (a)

up dated up to 31/5/89 DD (OL-F)

D.C.(I):-1231-I(P), 5421-I, 5562-I.

	(a) 27.4.92	D.C.(I):-5562-I. NOM. AMENDED & CAT/PT. No. ADDED.	
	5.10.90	D.C.(I):-5421-I. DRG. SEALED.	
	1.12.87.	D.C.(I):-1231-I(P). DRG. PROV. SEALED.	
ISSUE	DATE	REFERENCE	
APPROVED			25.5.85
CHECKED	K. Damodar		24.5.85
DRAWN	M. Manickam		13/5/85

АЦ8.210.013. A2/64

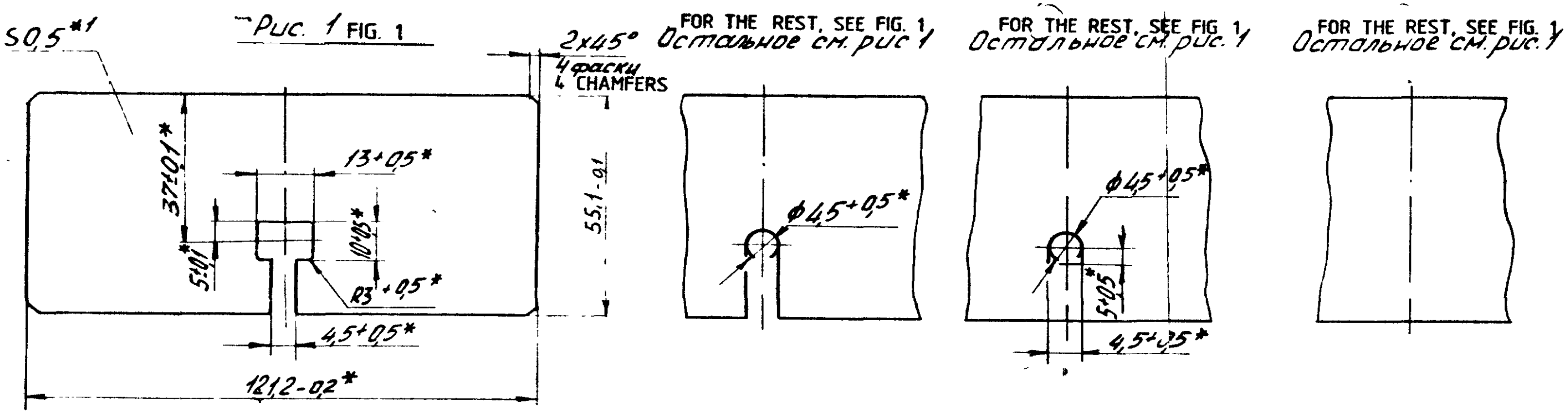
COVER, THERMAL RESISTOR. (a)

SHEET	MASS.	SCALE
1 OF 1	0.0002	5:1

MATERIAL: COPPER M1 GOST 1173-77.

HEAVY VEHICLES FACTORY AVADI

Рис. 1 FIG. 1 | Рис. 2 FIG. 2 | Рис. 3 FIG. 3 | Рис. 4 FIG. 4



ТНПО-160-016 АЦ5.935.089

CAT/PART Nos.	Обозначение PART No.	Рис. FIG.
(a) 1240-002420	АЦ7.842.056	1
1240-002421	01	2
1240-002422	02	3
1240-002423	03	4

1.* Размеры обеспеч. инстр.
2.*1 Размер для справок.
1 *Dimesions should be ensured with tool.
2.*Dimension for reference.

updated upto 31/5/89 DO(DL.F)

D.C.(I):-1231-I(P), 1475-I(P), 5421-I, 5562-I

ISSUE	DATE	REFERENCE
(a)	27.4.92	D.C.(I):-5562-I. NOM AMENDED & CAT/PT Nos ADDED
	5.10.90	D.C.(I):-5421-I DRG. SEALED
	1.8.90	(A) D.C.(I):-1475-I(P). MATL. AMENDED.
	1.12.87	D.C.(I)-1231-I(P), DRG. PROV. SEALED

APPROVED		25.5.85
CHECKED	K. Damodaran	24.5.85
DRAWN		10/5/85

АЦ7.842.056

A2 56

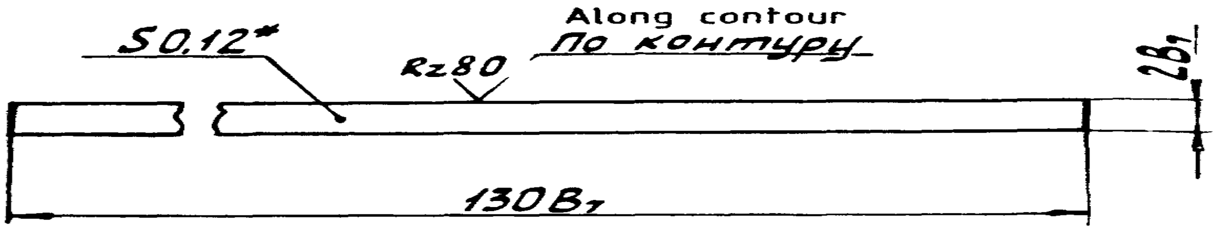
FILM GLUING

(a) SHEET	MASS	SCALE
1 OF 1	0.004	1:1

MATERIAL: (A) FILM A-17 0.5 x 1000 GOST 9438-85

HEAVY VEHICLES FACTORY AVADI

АЦ7.755.087



1. Heat treatment: Vaccum annealing Degree of annealing should be checked according to GOST 1173-77. on two specimens, 20 x 60 mm, taken from each batch.
2. Deformation and burrs are not allowed.
3. Bus-bar should be etched Thickness of bus,-bar after etching should not be less than 0.09 mm.
4. Local darkening and temper colours are not allowed
5 *Dimension for reference

(a) CAT/PT.No. 6150-000426

Up dated up to 31/5/89 DO(OL-F)

(a)	27.4.92	D C.(I)-5562-I. CAT/PT. No. ADDED	
	5.10.90	D C(I)-5421-I DRG SEALED	
	1.12.87.	D.C(I)-1231-I(P). DRG.PROV.SEALED	
ISSUE	DATE	REFERENCE	
APPROVED			
CHECKED	K. Damodaran	24.5.85	
DRAWN	M. Mathiappan.	16/5/85	

АЦ7.755.087

A2 / 52

BUS-BAR

SHEET	MASS.	SCALE
1 OF 1	0.00028	4:1

MATERIAL: COPPER BAND MT GOST 1173-77

HEAVY VEHICLES FACTORY AVADI

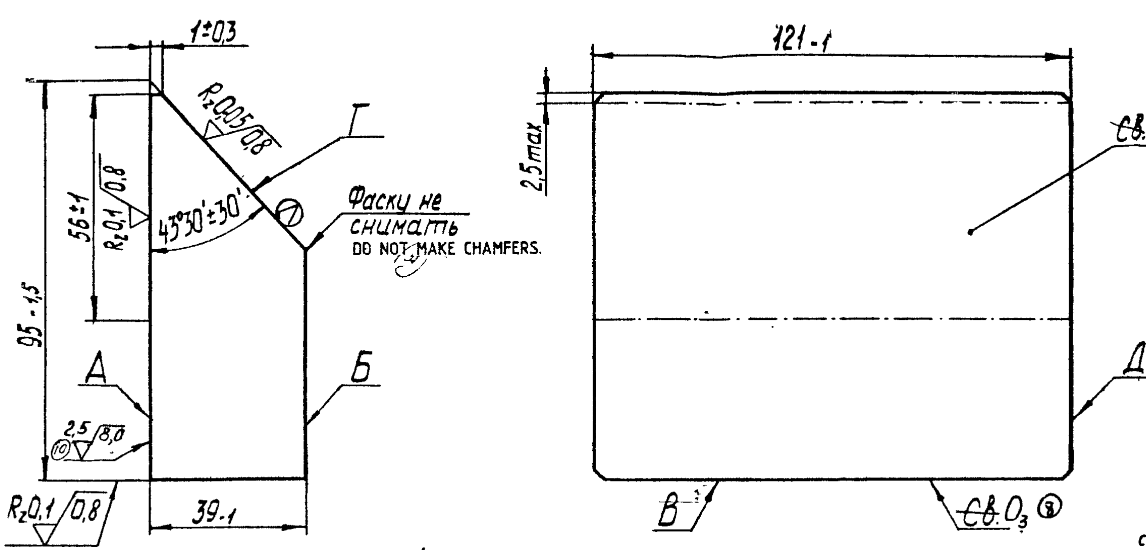
D.C(I):-1231-I(P), 5421-I, 5562-I.

Перв. примен. АЦ6.459.038

Справ. № ТНПО-160-072

11215-80

АЦ 7.200.076 | -51-



Rz 20 2,5 / 0,8 (√)

Δ Пе	5
Δ(пF'-пC')	5
HOMOGENEITY Однородн	5
DOUBLE REFERACT. Двулучепр	5
Ослабление	7
NONSTRIATION Бессвильн.	*
BUBBLING. Пузырность	8Г
р	VII

сорт 1

1. SUBSTITUTE MATERIAL: GLASS K110 OST 3-28-77, GLASS K100 GOST 3514-76.
2. ANGLE BETWEEN SURFACE Д AND А, Д AND Б, Д AND В, Д AND Г SHOULD BE 90° ± 30'.
3. CHAMFERS AT EDGES 1±0.5X45° EXCEPT PLACES SPECIALLY SPECIFIED , AT CORNERS 2+1.0 X45°
4. ⊘ 25 P2E-72 П AS PER OST 3-1901-85.
5. COATING SILVER AND ON DULL SURFACE BACKALITE VARNISH БС-1 GRADE 1 GOST 901-78 WITH FILLERS:CARBON BLACK GOST 78 85-77 TALE TPH П GOST 19729-78 AND THAN BACKALITE VARNISH БС- GRADE WITH FULLERS:TITANIUM DIOXIDE P-02 OR A-1 GOST 9808-84 AND TALCTP П H..
6. RESISTANCE OF INSULATION OF VARNISH COATING INRELATION TO COPPER SHOULD NOT BE LESS THAN 20 m Ohm.
7. NONSTRIATION AND REMAINING TECHNICAL REQUIRMENTS AS PER Ty 3-3-834-78.

стекло К110 ОСТ 3-28-77,

⑨ 1. Заменитель материала: стекло К100 ГОСТ 3514-76.
2. Угол между поверхностями Д и А, Д и Б, Д и В, Д и Г 90°±30'.
3. Фаски на ребрах 1±0,5×45° кроме мест указанных особо. Фаски на углах 2+1,0×45°.
4. ⊘ - зеркальн. 25Р. 3Е. 72П по ОСТ 3-1901-75 85.
⑧ 5. Покрытие серебряной и матовых поверхностей -

(a) CAT/PT.No 1240-002433

13		АЦ 637-87	Удел.	24.06.87
12		АЦ 870-86	Удел.	26.11.86
11		АЦ 594-86	Удел.	16.10.86
10		АЦ 479-84	Удел.	8.08.84
9	1	АЦ 768-83		8.12.83
8		АЦ 279-83		4.05.83
7	1	АЦ 604-81		5.08.81
6	Зам	АЦ 344-80		29.04.80
Изм	Лист	№ докум.	Подп.	Дата
Разраб.	Протасов			7.01.80
Провер.	Удачин			
Т контр.	Чугунова			13.02.80
Н контр.	Царькова			

GROUP I 41315 KD — FOLDER/SHEET No 40/51

DRG No. АЦ 7.200.076

(a) PRISM, OPTICAL; INSTRUMENTS	SHEET	WEIGHT	SCALE
		0.7	1:1

MATERI. GLASS K-108 IST 3514-76.

OPTO ELECTRONICS FACTORY DEHRADUN

(a) D.C.(I):-5562-I NOM. AMENDED & CAT/PT No. ADDED.		27.4.92	
D.C(I):-5421-I DRG. SEALED			5.10.90
D.C(I):-1475-I(P) UPDATED DRG. PROV. SEALED IN SUPERSESSION OF EXISTING ONE.			1.8.90
AMENDMENTS		SIG.	DATE

Перв. примен. АЦ 5.935.088
Справочный № ТНПО-160-017
Инв. № подл. 17215-48
D.C.(I)-1231-I(P), 1475-I(P), 5421-I, 5562-I.

SIZE	ZONE	REF. NO	PART NUMBER	NOMENCLATURE	QTY. USED ON ASSY. АЦ6 439 038										REMARKS
					-	01	02	03	04	05	06	07	08	09	
				DOCUMENTS											
22			АЦ6 439 038СБ	Assembly Drawing.	X	X									
				COMPONENTS											
11		1	АЦ7.755.087	Bus-bar	2	2									
12		2	АЦ8 640.153	Plate	1	1									

D.C(I)-1231-I(P),5421-I

LETTER	CODE

D C(I)-5421-I PT LIST SEALED — 5.10.90 — up dated up to 31/5/89 DD (O.L.F)

D C(I)-1231-I(P) PART LIST PROV. SEALED. — 9-12-87

NO	REVISIONS OF DOCUMENT	SIGNATURE	DATE
DESIGNED			
CHECKED BY		A. Damodar	24.5.90
INSPECTOR			
APPROVED			25.5.90

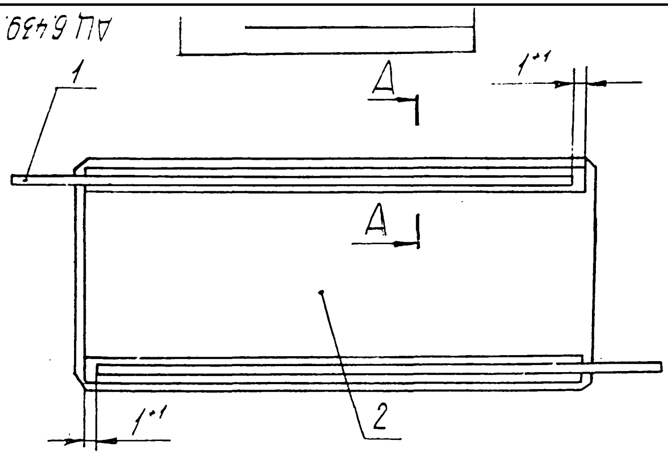
АЦ6.439.038

A2 48

HEATING PLATE

LETTER	SHEET	No. OF SHEET
		1

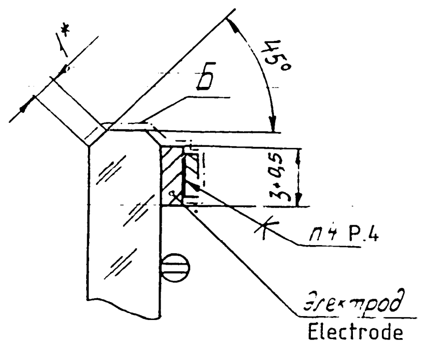
HEAVY VEHICLES FACTORY AVADI



1. (1) 101 Ω AS PER OCT 3-1901-85 B (2)
2. (A) Silicate-silver electrodes having a thickness of 0.01 TO 0.03mm should be applied to the current conducting coating along the whole length.
3. Plate with electrodes should be hardened. Degree of hardening should not be less than 0.7 N/cm.
4. Busbars 1 should be glued with current-conducting adhesive with nickel filler. ТУ 6-05-041-805-83 (1)
5. Sublayer ПС-4 ~~ТУ6-05-1163-75~~ should be applied to surface Б along the whole length of plate.
6. Dimensions for reference.
7. The rest of the technical requirements are according to (A) ТУ 6-05-041-805-83

A - A

М5 : 1 Scale 5:1



PART. No:	Resistance of current conducting coating, ohms.
АЦ5. 439. 038 ВБ	Requirements of point 1 of drawing АЦ5. 935. 088 СБ should be observed.
- 01 СБ	Requirements of point 1 of drawing АЦ5. 935. 088 СБ should be observed.

(a) CAT/PT. No. 1240-002435

25

41315KC- AL-2

Up dated up to 31/5/89 DO(O.L.F)

	DATE	REFERENCE
(a)	27.4.92	D.C. (1):- 5562-I NOM. AMEDED & CAT/PT No. ADDED
	5.10.90	D.C.(1):- 5421-I. DRG. SEALED.
	1.8.90	(A) D.C. (1):- 1475-I(P) NOTE No 1,2&7 AMENDED
	1.12.87.	D.C.(1):-1231-I(P). DRG. PROV. SEALED.
2 (1)	25/6/87	АЦ 435-86
1 (1)	25/6/87	АЦ 674-85
ISSUE	DATE	REFERENCE

APPROVED		25.5.85
CHECKED	K. Damodar	24.5.85
DRAWN	Mariappan	10/5/85

АЦ6.439.038СБ

A2 49

PLATE, HEATING (a)

ASSEMBLY DRAWING

SHEET	MASS	SCALE
1 OF 1	0.05	1:1

MATERIAL:

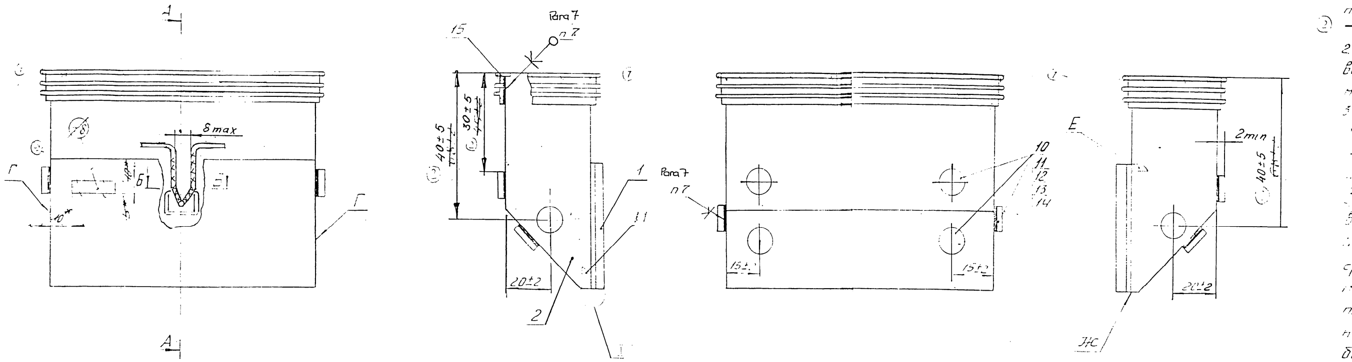
HEAVY VEHICLES FACTORY AVADI.

D.C(1):-1231-I(P), 1475-I(P), 5421-I, 5562-I.

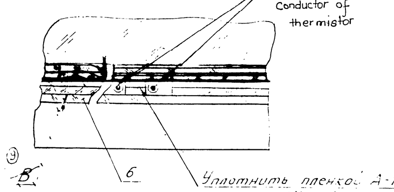
D.C(I)-1231-I(P), 5421-I.

SIZE	ZONE	REF No	PART No	NOMENCLATURE	Qty	REMARKS
11		9	АЦ8 684. 121– 02	Gasket	1	
11		10	АЦ8. 683. 234– 01	Gasket	6	Selection.
		11	– 02	Gasket	6	Selection
		12	– 03	Gasket	6	Selection
		13	– 04	Gasket	6	Selection
		14	– 05	Gasket	6	Selection
12		15	АЦ8. 687. 026	Gasket	1	
				OTHER ITEMS		
		16		Thermistor ТОС-Д		
				АВ4. 681 025/028 ТУ	1	

D.C(I)-5421-I PT LIST SEALED			5.10.88	up dated up to 31/5/89 DO(OL-F)	
		D.C(I)-1231-2(P) PART LIST PROV. SEALED		12.87	АЦ5.935.089 (12) A2 42 SHEET 2
ALT	SHEET	No. OF DOCUMENT	SIGNATURE	DATE	

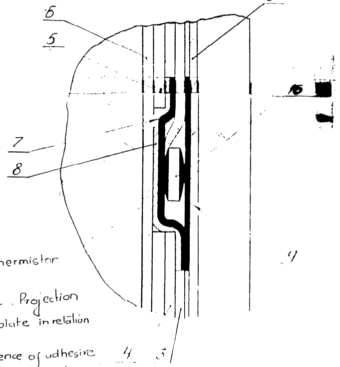


Б - Б
М 5:1
Before pressing
до прессовки

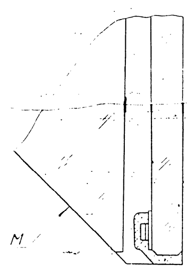


Уплотнить пленкой А-17
Seal with film A-17

А - А
М 10:1
Before pressing
до прессовки



I
М 5:1



Under layer
подслой ПС-4

1. Resistance of current conductive coating of plate 1, measured with leads U and E — 21,5 +1 Ω.
2. Insulation resistance between current carrying and varnish coatings and thermistor item 16 should not be less than 100 MΩ.
3. Affix the plate to prism, with current conducting layer inside. Projection of plate from surface Ж & Г of prism 1mm max. Sinking of plate in relation to surface Ж is not permitted.
4. After pressing cut the excess film along the plate and prism. Presence of adhesive film on surface M, with thickness 0,5mm max., is permitted if the total area does not exceed 5 cm².
5. Projection of gaskets item 7, 9 beyond the overall dimensions of machine 8 should not exceed 2 mm.
6. Centering of prism in body of device is insured by one of the packings item 10...14.
   It is permitted to install set of packings.
7. Glue 88H ТУ 38-105 1061-76.
8. Make technological markings with black marking ink ТУ 6-15-458-76 on surface B of adhesive film item 6.
9. Local projection of underlayer ПС-4 above the silver electrodes in light zone should not exceed 1 mm.
10. Before affixing, the resistance of thermistor at temp. plus 20°C should be from 5500 to 6500 Ω. Resistance of thermistor of prism should conform to the values specified in table.

11. * Dimensions for reference.
12. Other technical requirements as per ТУ3-834-73

Сопротивление токопроводящего покрытия пластины поз 1, измеренное с выводов И и Е — 21,5 +1 Ом

2. Сопротивление изоляции между токопроводящим и лаковым покрытиями и термистором поз 16 не менее 100 МОм.

3. Пластину клеить к призме, токопроводящим слоем внутрь. Выступание пластины за поверхности Ж и Г призмы не более 1 мм.
Западание пластины относительно поверхности Ж не допускается.

4. После прессовки вытекшую пленку срезать по контуру пластины и призмы. Допускается наличие клеящей пленки на поверхности М толщиной не более 0,5 мм общей площадью не более 5 см²

5. Выступание прокладок поз. 7, 9 за габариты стакана поз. 8 не более 2 мм

6. Центрировку призмы в корпусе прибора обеспечить одной из прокладок поз. 10 ... 14.
Допускается установка набора прокладок.*

7. Клей 88Н ~~МРТУ38-5-880-66~~ ТУ38-105 1061-76.

8. Технологическую маркировку наносить тушью черной ТУ6-15-458-76 на поверхности В пленки клеящей поз 6.

9. Местное выступание подслоя ПС-4 за серебряные электроды в световую зону — не более 1 мм.

10. Перед склейкой сопротивление термистора при температуре плюс 20 +2°/−1° C должно быть от ~~5000~~ 5500 до ~~7000~~ ~~6800~~ 6500 Ом. Сопротивление ~~термисторовой цепи~~ термистора призмы должно соответствовать указанным в таблице значениям.

Temperature Температура, °C	19	20	21	22
Resistance Сопротивление, Ом Ω	From от 5450 / 5175 до 7950 / To [illegible]	From от ~~5300~~ 5000 до ~~7800~~ To 7500	From от ~~5150~~ 4825 до ~~7650~~ To 7300	From от ~~5000~~ [illegible] до ~~7500~~ To [illegible]

11. * Размеры для справок

12. Остальные технические требования по ~~ТУ3-3.834-74~~ ТУ3-3.834-73.

UPDATED ON 6.4.92

(19)

WM/DO SOV/SPL

9	2	АЦ605-81	[illegible]	5.08.81
8	1	АЦ604-81	[illegible]	5.08.81
7	3	АЦ203-81	[illegible]	[illegible]
6	1	АЦ346-80	[illegible]	[illegible]
5	1	203-80	[illegible]	[illegible]
4	2	138-79	[illegible]	[illegible]
3	1	785-78	[illegible]	[illegible]
2	4	583-78	[illegible]	[illegible]
1	4	[illegible]	[illegible]	[illegible]
Изм.	Кол.	№ докум.	Подп.	Дата

41315 KD/AL2

АЦ5.935.089СБ

HEATING PRISM
~~Призма обогревная~~
~~Electrically heated prism~~
~~Сборочный чертеж~~
Assembly drawing

Лит. | Масса | Масштаб
1:1
Лист | Листов

D.C:-5829-I· UPDATED DRG. SEALED IN SUPERSESSION OF EXISTING ONE	[illegible]	12.3.94
AMENDMENTS	SIG	DATE

D.C:- 1231-I(P), 1475-I(P), 5421-I, 5829-I

D.C(1)-1231-I(P), 5421-I.

SIZE	ZONE	REF No	PART No	NOMENCLATURE	Qty	REMARKS
				DOCUMENTS		
24			АЦ5 935 089 СБ	Assembly Drawing		
				ASSEMBLY UNITS		
11		1	АЦ6 439 038- 01	Heating plate	1	
				COMPONENTS		
12		2	АЦ7 200 076	Prism	1	
12		3	АЦ7 842. 056	Gluing film	1	
12		4	-01	Gluing film	1	
12		5	-02	Gluing film	1	
12		6	-03	Gluing film	2	
11		7	АЦ8. 684. 121	Gasket	1	
11		8	АЦ8 210 013	Cup	1	

D.C(1)-5421-I PT LIST SEALED — 5.10.90

up dated up to 31/5/89 DO (0.2.F)

D.C(1)-1231-I(P) PART LIST PROV. SEALED — 1.12.87

Alt	Sheet No	No. OF DOCUMENT	SIGNATURE	DATE
DESIGNER				
CHECKED BY				21.5.90
QUALITY DEPARTMENT				
INSPECTOR				
APPROVED				25.5.90

АЦ5.935.089

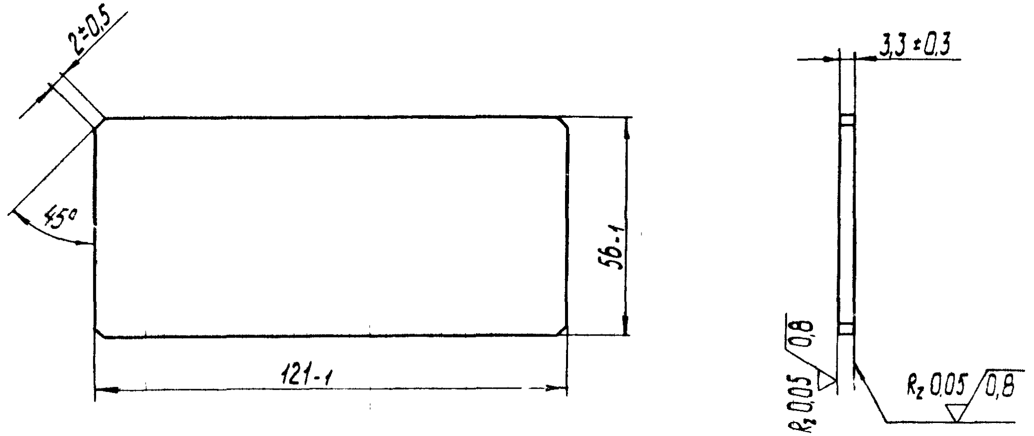
AZ 41

HEATING PRISM

LETTER	SHEET	No. OF SHEET
	1	2

HEAVY VEHICLES FACTORY
AVADI

АЦ8.640.153



(A)

Δ пе	5
Δ(пF' - пC')	5
Однородн (HOMOGENITY)	5
Дв. лучепр. (Double refraction)	4
Ослабление (WEAKENING)	8
Бессвильн. (Non-striation)	*
Пузырность (BUBBLING)	7E
р	VII

'NA'

1. Фаски на ребрах $0{,}5^{+0{,}5}\times 45°$ кроме мест, указанных особо.

2. Бессвильность* и остальные технические требования по ТУ 3-3.834-78.

1. Chamfers on ribs $0.5^{+0.5}\times45°$ unless otherwise specified.

2. Nonstriation* and the rest of the technical requirements are according to ТУ3-3.834-78.

up dated up to 31/5/89 DO(OL.F)

ISSUE	DATE	REFERENCE
	5.10.90	D.C(I):-5421-I. DRG. SEALED
	1.8.90	(A) D.C.(I):-1475-I(P). MARK 'NA' ADDED.
	1.12.87.	D.C(I):-1231-I(P). DRG. PROV. SEALED

APPROVED		25.5.85
CHECKED	K. Damodaran	24.5.85
DRAWN		20/5/85

АЦ8.640.153 A2 / 69

PLATE

SHEET	MASS	SCALE
1 OF 1	0.06	1:1

MATERIAL: GLASS ЛК105 GOST 3514-76

HEAVY VEHICLES FACTORY AVADI.

D.C(I):-1231-I(P), 1475-I(P), 5421-I-

Инв. № подл.	Подп. и дата	Взам. инв. №	Инв. № дубл.
17215-66а			17215-66

ТНПО-160-071

Перв. примен. АЦ 6.439.038