

DRAWING NUMBER

354-12 SHT 2 OF 2

ADDITIONAL REQUIREMENTS FOR COMPONENT NUMBERS:- 354-09, 354-09A, 354-12, 354-16, 354-15, 354-17, 354-18, 354-19, 354-28

1. SPLIT PIN MUST BE MANUFACTURED FROM LOW CARBON STEEL WITH MAXIMUM CARBON CONTENT 0.20% ON GOST 1050-74
2. BURRS, CRACKS, RUST ARE NOT ALLOWED ON THE SURFACE OF THE PIN & SHARP CUT ON THE BENDED HEAD ARE ALSO NOT ALLOWED.
3. PINS OF DIAMETER UPTO 5mm MUST WITHSTAND 3 BENDS WITHOUT ANY SIGN OF BREAKING.

(A)

EQUIVALENT MATERIAL IS: 549

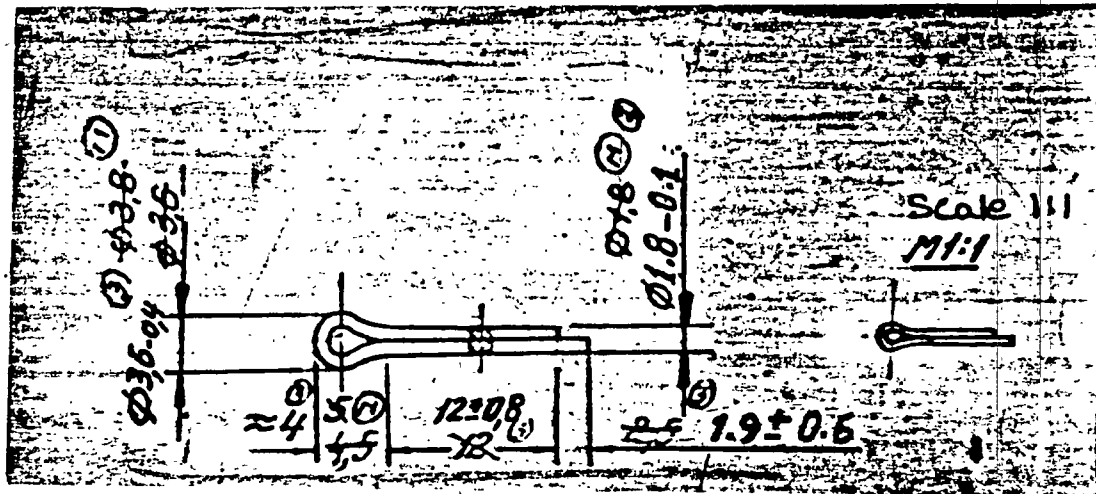
* *

- CB 20-01-00 8
- CB 20-15-663-4
- CB 20-27-00-4
- CB 20-34-12
- (B) CQA (HV) 5.06.001E

(A-11)

		EST. WT	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
B	18-03-15	Pl. 11 of 7th Alt. Comm. Meeting Dt. 11-4-12	MATERIAL USED ON ** SEE ABOVE CB 315-663-3 CB 315-663-27 CB 334-73-1
A	8-7-10	4 th ALT. COMM. MEET. MINUTES	
		POINT No 3 DT. 26-10-09	
ISSUE	DATE	NATURE OF AMENDMENTS	
DRN		SCALE	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI
CHD		DIMENSIONS IN mm	
TCD		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	TITLE COTTER PIN 2x20
APPD		ALL THREAD CONFORM TO	
DATE	11-5-10	D.S CAT NUMBER	DRAWING NUMBER 354-12 SHT 2 OF 2
SIZE A4			

DRAWING NUMBER
354-17



1. TO BE ANNEALED.
2. COATING : Cd 3, CHROMATIZING AS PER U.Y.A - 104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT
3. BURRS, CRACKS, RUST ARE NOT ALLOWED ON THE SURFACE OF THE PIN AND SHARP CUT ON THE BENDED HEAD ARE ALSO NOT ALLOWED.
4. PINS OF DIAMETER UPTO 5mm MUST WITHSTAND 3 BENDS WITH OUT ANY SIGN OF BREAKING.

EXPLANATORY NOTE:

MATERIAL QUOTED:- LOW CARBON STEEL WITH MAXIMUM CARBON CONTENT 0.20% TO GOST 1050-74. (GRADE 15 GOST 1050-74 PREFERRED).

CHEMICAL COMPOSITION: FOR GRADE 15 TO GOST 1050-74.

C O N T E N T O F E L E M E N T S %							
C	Si	Mn	Cr	P	S	Cu	Ni
M A X I M U M							
0.12 - 0.19	0.17 - 0.37	0.35 - 0.65	0.25	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES:

YIELD POINT Kg/mm ²	ULTIMATE TENSILE STRENGTH Kg/mm ²	ELONGATION %	REDUCTION OF AREA %	HARDNESS BHN
M I N I M U M				M A X I M U M
23	38	27	55	149

**

LOW CARBON STEEL WITH MAXIMUM CONTENT 0.20% GOST 1050-74.

(A)

EQUIVALENT MATERIAL IS: 549.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

EST. WT. 1000 PIECES 0.324 Kg TO BE STAMPED OR MARKED WHERE INDICATED THIS # 1 LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

DRN	<i>[Signature]</i>	MATERIAL:-	USED ON
CHD	<i>[Signature]</i>	** SEE ABOVE	CB 315-663-21
TCD	<i>[Signature]</i>		CB 322-00-45
APPD	<i>[Signature]</i>	CONTROLLER AT: OF QUALITY ASSURANCE (HEAVY VEHICLES)	
DATE	4-5-86	AVADI	
SCALE:-	2:1		TITLE
DIMENSIONS IN mm TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69			COTTER PIN 2x12
4 1/2 ALT. COMM. Mtg. MINUTES POINT No 3 DT. 26-10-09		D S CAT NUMBER	DRAWING NUMBER
ISSUE DATE	NATURE OF AMENDMENTS		354-17

KVD No: 78701

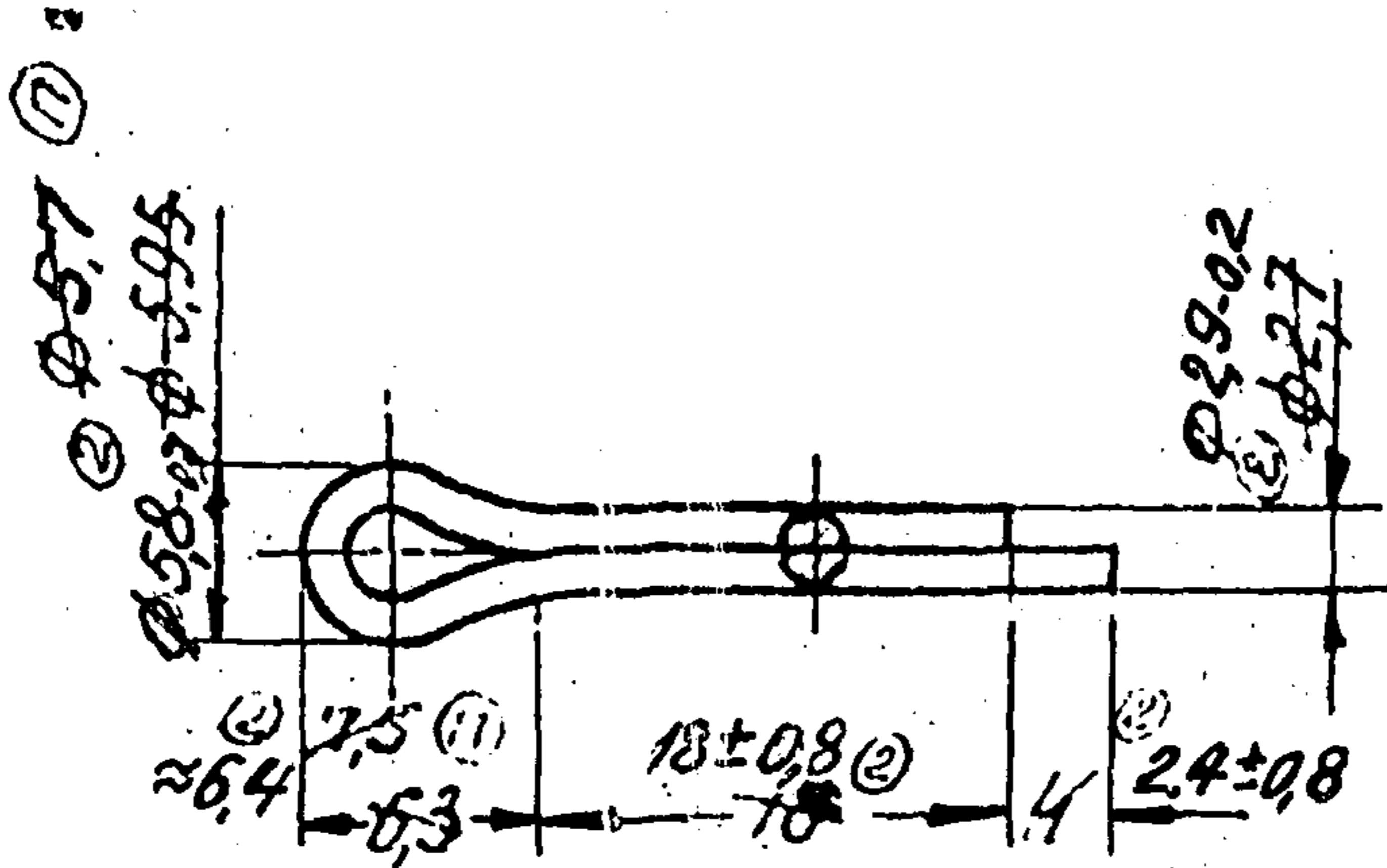
(A)
11

SIZE A3

DRAWING NUMBER

354-19 SHT 1 OF 2

EFA_19 MAR 22



Scale 1:1
M1:1

EXPLANATORY NOTE:

MATERIAL QUOTED: LOW CARBON STEEL WITH MAX. CARBON CONTENT 20% OF GOST 1050-74. (GRADE 15 PREFERRED).

CHEMICAL COMPOSITION: AS PER GOST 1050-74.

CONTENT OF ELEMENTS %							
C	Si	Mn	Cr	S	P	Cu	Ni
MAXIMUM.							
0.12 - 0.19	0.17 - 0.37	0.35 - 0.65	0.25	0.040	0.035	0.25	0.25

MECHANICAL PROPERTIES:

ULTIMATE TENSILE STRENGTH Kgf/mm^2 (min) = 38
 YIELD POINT Kgf/mm^2 (min) = 23
 ELONGATION % (min) = 27
 REDUCTION IN AREA % (min) = 55

NOTE:-

- TO BE ANNEALED.
- COATING:- Cd-3 CROMATIZING, AS PER UJL-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.

(A)

EQUIVALENT MATERIAL
IS: 549

KVD No. 76703
123797

B	8.3.22	DC(I)No.CQA(HV)/ENGV46-6/C-0001/2022 Dated 5.02.22.	EST. MASS 1000 PIECES 127 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)
A	8-7-10	4th ALT.COMM. M Eq. MINUTE PEN 3 DT 26-10-9	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL:- USED ON:- Cb 3334-00-39 (B) SEE SHEET 2 OF 2. Cb 315-663-21 Cb 3334-00-27	
DRN	SCALE - 2 : 1		CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHD	DIMENSIONS IN mm.		TITLE:- COTTER PIN 3.2 x 18	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.		D.S. CAT NUMBER	
APRO	ALL THREADS CONFORM TO		DRAWING NUMBER	
DATE	03.5.86		354 19 SHT 1 OF 2	

DRAWING NUMBER

354-19 SHT 2 OF 2

KVD NO. 78703


ADDITIONAL REQUIREMENTS FOR COMPONENT NUMBERS:- 354-09, 354-09A, 354-12, 354-14, 354-15, 354-17, 354-18, 354-19, 354-28

1. SPLIT PIN MUST BE MANUFACTURED FROM LOW CARBON STEEL WITH MAXIMUM CARBON CONTENT 0.20% ON GOST 1050-74
2. BURRS, CRACKS, RUST ARE NOT ALLOWED ON THE SURFACE OF THE PIN & SHARP CUT ON THE BENDED HEAD ARE ALSO NOT ALLOWED.
3. PINS OF DIAMETER UPTO 5mm MUST WITHSTAND 3 BENDS WITHOUT ANY SIGN OF BREAKING

(A-11)

(A)

EQUIVALENT MATERIAL
IS: 549

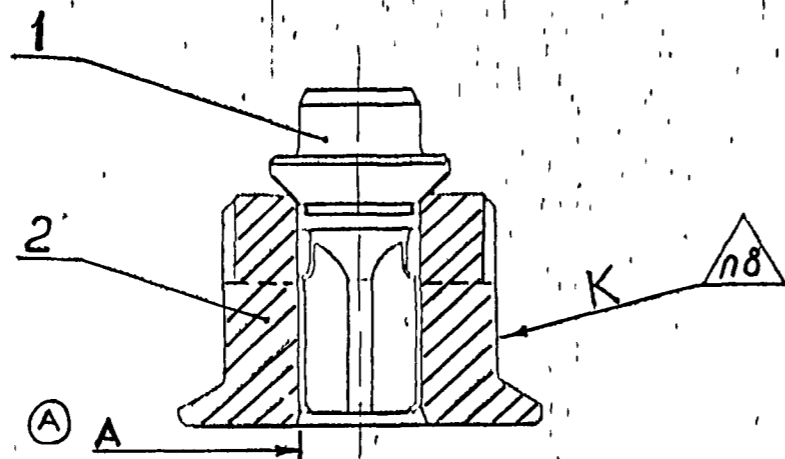
			EST. WT —	TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)
			ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
B	8.03.22	DC(I)No.CQA(HV)/ENGV46-6/C-0001/2022Dt.5.2.22	MATERIAL —	USED ON Cb 315-663-21 C5 3334-00-27 Cb 3334-00-39 (B)
A	8-7-10	4 ^{1/2} ALT. COMM. Mfg. MINUTES		
		POINT No 3 DT. 26-10-09		
ISSUE	DATE	NATURE OF AMENDMENTS		
DRN		SCALE —	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHD		DIMENSIONS IN mm		
TCD		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		TITLE COTTER PIN 3.2 x 18
APPD		ALL THREAD CONFORM TO	P S CAT NUMBER	DRAWING NUMBER 354-19 SHT 2 OF 2
DATE	14.5.14			
SIZE	A4			

CB 3327-08-1A CB

ЕСКД

COMMON TO T-90
KVP NO 78253

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE No. 2 BX85-815.



- 1) DIAMETER OF HOLE OF LAPPED VALVE SEAT SHOULD BE 8 ± 0.05 mm.
- 2) LAPPED COMPONENTS VALVE AND VALVE SEAT MAKE UP A PAIR, IN WHICH REPLACEMENTS BY ANY COMPONENT FROM OTHER PAIR IS NOT ALLOWED.
- 3) ROUGHNESS OF LAPPED SURFACES SHOULD NOT BE WORSE THAN STANDARD.
- 4) VALVE MOVEMENT IN THE SEAT AS PER STANDARD.
- 5) THE PAIR SHOULD BE PRESURE-TESTED WITH AIR AT A PRESSURE OF 4 TO 7 Kgf/cm² PRESSURE TESTING AT A PRESSURE OF 4 ... 5,5 Kgf/cm² SHOULD BE CARRIED OUT FOR 15 SECOND AND AT A PRESSURE OF 5,5 ... 7 Kgf/cm² FOR 10 SECONDS
- 6) CHECKING FOR TIGHTNESS AT CHAMFERS, SHOULD BE CARRIED OUT ON A SPECIAL FIXTURE WITH THE USE OF STANDARD PAIR IN ACCORDANCE WITH INSTRUCTIONS MB 47-1 BY A MIXTURE OF OIL AND DIESEL FUEL HAVING ANGLER VISCOSITY 1.9 ± 0.1 AT A TEMPERATURE OF 50°C.
 - a) BEFORE FILLING UP OF THE TANK THE MIXTURE SHOULD BE MIXED WELL.
 - b) BEFORE TEST THE PAIR SHOULD BE THOROUGHLY WASHED IN FILTERED DIESEL FUEL. THERE SHOULD NOT REMAIN ANY PETROLATUM OR OTHER TYPES OF LUBRICANT ON THE VALVE AND SEAT SURFACES.
 - c) THE PAIR IS CONSIDERED FIT FOR SERVICE, IN CASE, THE TIME OF LOAD FALLING IS THE SAME AS THAT OF THE STANDARD PAIR LOAD.
- 7) PRESERVATION AND STORAGE OF PAIRS IN ACORDANCE WITH INSTRUCTION T. И У. П. - 1251 ... DEPENDING ON THE TERM OF STORAGE.
- 8) TO BE MARKED WITH PANTOGRAPH.

(A) 9. ROUGHNESS OF SURFACE A OF ITEM 1 SHOULD BE 0.32 AFTER LAPPING.

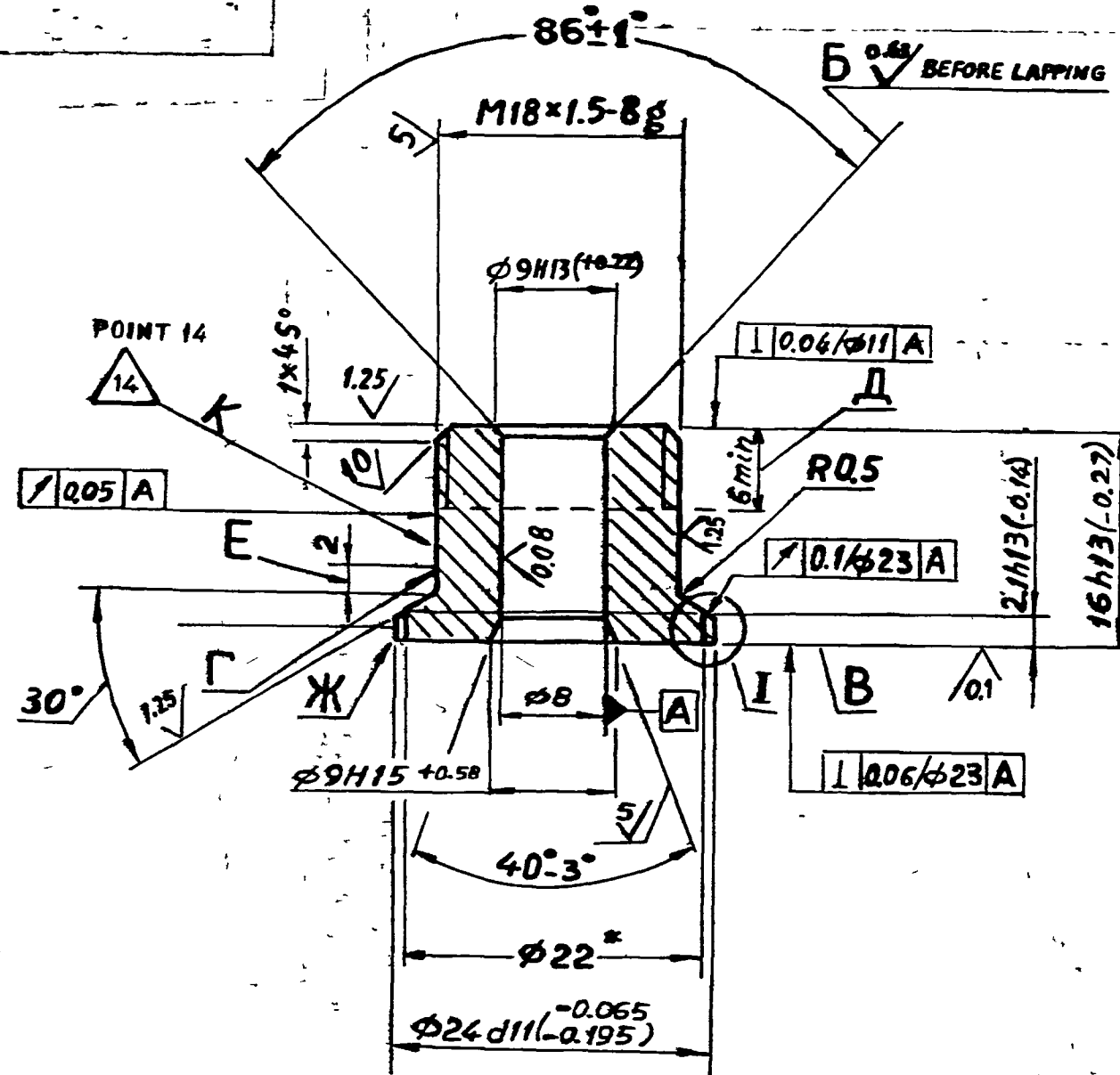
1. Диаметр отверстия доведенного седла клапана 8 ± 0.05 мм.
2. Притертые детали, клапан и седло клапана, составляют пару, в которой замена одной детали какой-либо деталью из другой пары не разрешается.
3. Шероховатость доведенных поверхностей не ниже эталона.
4. Движение клапана в седле по эталону.
5. Испытание на герметичность производить воздухом под давлением 0,4...0,7 МПа (4...7 кгс/см²). Испытание на герметичность производить под давлением 0,4...0,55 МПа (4...5,5 кгс/см²) в течение 15 с, под давлением 0,55...0,7 МПа (5,5...7 кгс/см²) - в течение 10 с.
6. Приемка на плотность по пояску производится на специальном приспособлении по эталонной паре согласно инструкции ЦВ-47-1 на смеси масла с дизельным топливом, имеющей вязкость $1,9 \pm 0,1$ по Энглеру при 50 °С:
 - a) смесь перед заливкой в бак хорошо перемешать;
 - б) перед испытанием пару тщательно промыть в профильтрованном дизельном топливе. Не допускается наличие на поверхностях клапана и седла вазелина или других видов смазки;
 - в) пару считать годной по плотности в том случае, если падение груза произойдет за время не менее показания эталона
7. Консервация и хранение пар по инструкции ЦЦЛ-1251 в зависимости от срока хранения
8. Клеить электроискровым способом.

PILOT SAMPLE SHOULD BE APPROVED BY A I S P BEFORE BULK PRODUCTION

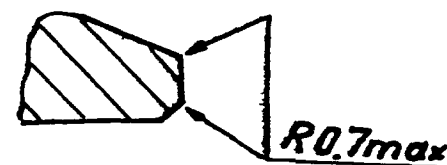
		ESC, MASS	TO BE STAMPED OR MARKED WHERE INDICATED THIS #
		0,031 Kg.	(IF ANY)
		No.	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINE CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE
B	7.5.10	USED ON ADDED	
A	3.2.97	AUTHORITY No BK 87-387	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL USED ON - 175-36-029Cb (B) CB 327-00-45
DRN		SCALE: 2 : 1	CONTROL RATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI
CHKD		DIMENSIONS IN mm	
TCU		TOLERANCE ON DIMS UNLESS OTHERWISE STATED	
APPD			
DATE: 19-2-88		ALL THREADS TO CONFORM TO	D.S. CAT NUMBER DRAWING NUMBER CB 3327-08-1A CB

DISCHARGE VALVE ASSY

3327-60-1



ALTERNATIVE M5:1



- CONTROL GROUP III ACCORDING TO TT-11.
- HRC₃ = 62 ... 64.
- UNINDICATED LIMIT DEVIATIONS OF DIMENSIONS H14, ±IT14/2.
- SURFACES A AND B ARE LAPPED IN THE ASSEMBLY UNIT.
- TRACES OF GRINDING ARE NOT ALLOWED ON THE LAPPED SURFACES A AND B, THE PRESENCE OF INSIGNIFICANT, HARDLY VISIBLE MARKS ARE ONLY ALLOWED. COMPARE WITH THE STANDARD.
- GRIND THE SCREW THREAD AND SURFACE Γ UPTO $\phi 17f9(-0.018/-0.059)$ mm. $\phi 17d11(-0.05/-0.16)$ mm. ALLOWED ALONG THE LENGTH OF THE THREAD Δ.
- CHECK THE STRAIGHTNESS OF THE FACE B BY A TOOLMAKERS STRAIGHT EDGE OF THE CLASS OF ACCURACY 0, GOST 8026-75; CLEARANCE NOT ALLOWED.
- SCUFFING FROM THE FRICTION OF THE FACE AGAINST THE MANDREL IS ALLOWED ON FACE B
- ENSURE THE TAPER OF THE SURFACE A WITHIN THE LIMITS 0.001 ... 0.003 mm AGAINST THE LARGE DIAMETER FROM THE SIDE OF THE FACE A.
- COMING OUT OF THE SCREW THREAD ON THE SECTION E IS NOT ALLOWED.
- BLUNT THE EDGE ✕ BY THE RADIUS OR CHAMFER NOT MORE THAN 0.5 mm.
- COATING OF CHEMICAL OXIDIZING WITH OIL FINISHING EXCEPT ON SURFACES A, B, B. LOCAL DAMAGE OF THE COATING IS ALLOWED DURING MACHINING.

- SPOTS OF BLACK TRACES FROM A PRECEDING OPERATION ARE ALLOWED ON THE SCREW THREAD.
- STAMPING BY PUNCHING.
- * DIMENSIONS FOR REFERENCE.

EXPLANATORY NOTE

THE COMPONENT SHOULD BE MANUFACTURED FROM HOT ROLLED CALIBERATED ROUND WITH SPECIAL SURFACE FINISH BALL BEARING STEEL GRADE WX15 TO GOST 801-78.

CHEMICAL COMPOSITION % :- AS PER GOST 801-78.

STEEL GRADE	C	Si	Mn	Cr	S	P	Ni	Cu	Ni+Cu
WX15	0.95-1.05	0.17-0.37	0.20-0.40	1.30-1.65	0.02	0.027	0.30	0.25	0.5

HARDNESS :- HB 179 TO 207 INDENTATION DIAMETER 4.5 TO 4.2mm

DRO INTRODUCED VISE NOTN NO. BK 05-814 COMMON TO T-90

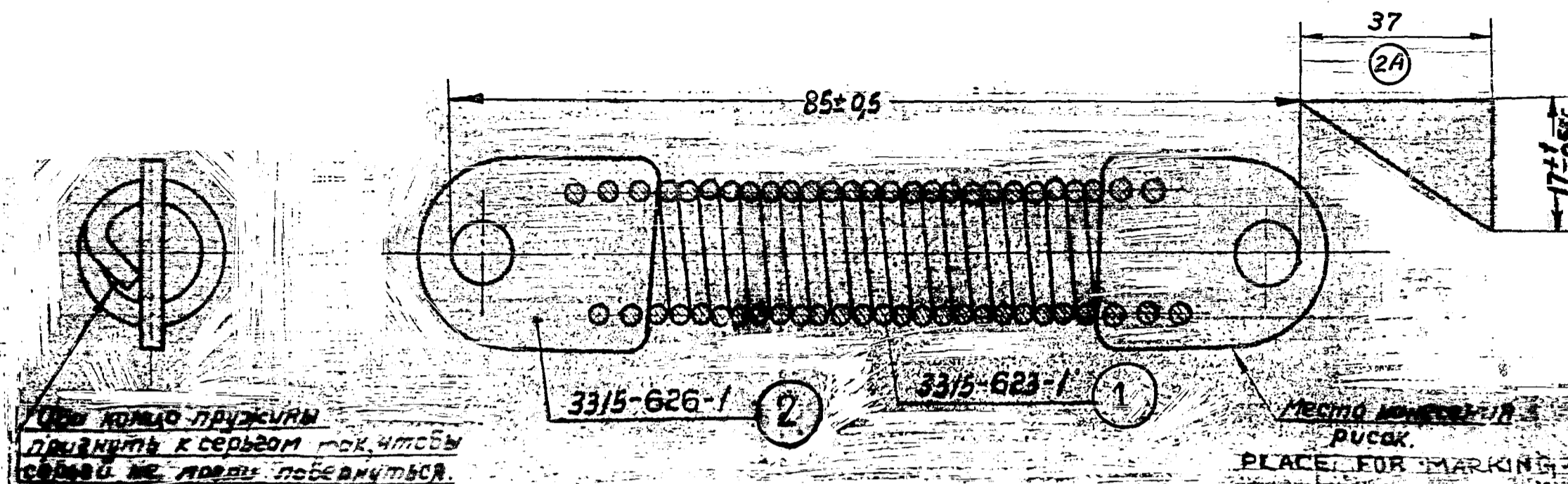
48

PRELIMINARY SAMPLE SHOULD BE APPROVED BY A.M.S.P. BEFORE BULK PRODUCTION

EST. MASS	30-35	TO BE STAMPED OR MARKED WHERE INDICATED THIS BY LETTERS
0.025 Kg		
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED FACED CORNERS TO HAVE A OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE		
ISSUE DATE	NATURE OF AMENDMENTS	MATERIAL: STEEL WX15 USED ON GOST 801-78
12		CB-327-DB-1A
CONTROLLER OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI		
SCALE	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED	TITLE: DELIVERY VALVE SEAT
2:1		
ALL THREADS TO CONFORM TO GOST 9150-78		
DRAWING NUMBER	3327-60-1	

DRAWING NUMBER
CB 3315 602 1

(2A) No. OF WORKING COILS - 23 ± 1



Обе концы пружины привинтить к серьгам так, чтобы серьги не могли повернуться.
BOTH ENDS OF SPRING SHOULD BE BENT TO THE SHACKLES SO THAT THE SHACKLES DO NOT TURN.

1. ACCORDING TO THE LOAD APPLIED THE SPRINGS ARE DIVIDED IN TO 3 GROUPS:
 - I GROUP WITH LOAD 17 ± 0.5 KGF.
 - II GROUP WITH LOAD $17^{+0.5}$ KGF.
 - III GROUP WITH LOAD $17^{-0.5}$ KGF.
2. AFTER TESTING SPRINGS UNDER LOAD, NO OF GROUP SHOULD BE MARKED ON ONE OF THE UNIT SHACKLES IN THE FOLLOWING WAY:
 - 1ST GROUP - ONE MARK.
 - 2ND GROUP - TWO MARKS.
 - 3RD GROUP - THREE MARKS.
3. IT IS PERMITTED TO ADJUST THE LOAD BY CHANGING THE NUMBER OF WORKING COILS IN UNIT.
4. BOTH SHACKLES SHOULD LIE IN THE SAME PLANE.
5. COATING: ZN 9 TO 15, CHROMATIZING AS PER INSTRUCTIONS UJ-482-82 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
6. BENT ENDS OF SPRING SHOULD BE LOCATED ON ONE SIDE OF SHACKLES.
7. THERE MAY BE NO ZINC ON THE SURFACES OF MARKINGS.

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 2

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. MASS 0.037 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

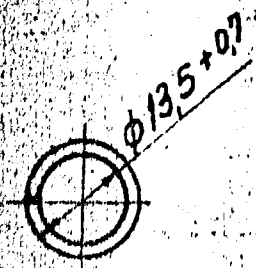
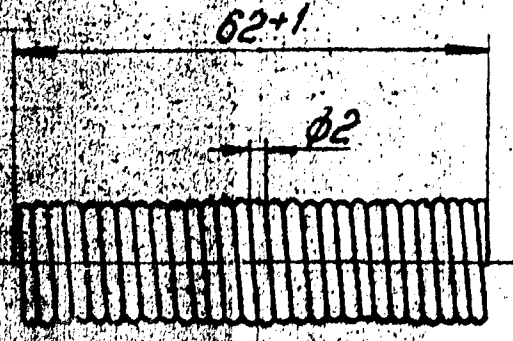
DRN	CHD	TCD	APPD	DATE	SCALE - 2 : 1	MATERIAL:-	USED ON:- CB 315 663 21
						CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
DIMENSIONS IN mm.						TITLE:- 1st SPRING GOVERNOR	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.						D S CAT NUMBER	
ALL THREADS CONFORM TO						DRAWING NUMBER CB 3315 602 1	
2A	24-29	D.O. CORRECTION.					
ISSUE	DATE	NATURE OF AMENDMENTS					

(A-6)
SIZE A2

3315-623-1

40СМ.СМТКОС 20-2
DIRECTION OF COILING R.H.
Направление навитки Правое

(1/1)
③



(A) EQUIVALENT MATERIAL
Gr. DH/DM IS: 4454-2001

1. Группе контроля - по ТУ-11. (2)
2. Пружину навить без предварительного натяжения. Обеспечивает зазора между витками не менее 0,03 мм. (2)
3. Длину подогнать в узле.
4. Острые кромки затупить.
5. Пружину проверить по чертежу сд. 3315-602-1.

2. THE SPRING SHOULD BE COILED WITHOUT PRELIMINARY TENSIONING, ENSURING CLEARANCE BETWEEN THE COILS: 0.03 MM. MIN.
3. LENGTH SHOULD BE ADJUSTED IN UNIT.
4. SHARP EDGES SHOULD BE BLUNTED.
5. SPRING SHOULD BE CHECKED AS PER DRAWING, CD-3315-602-1.

NUMBER OF COILS	28 ± 1/2
DIRECTION OF COILING	R.H.

15/6

40СМ.СМТКОС 20-2
 12/12/29

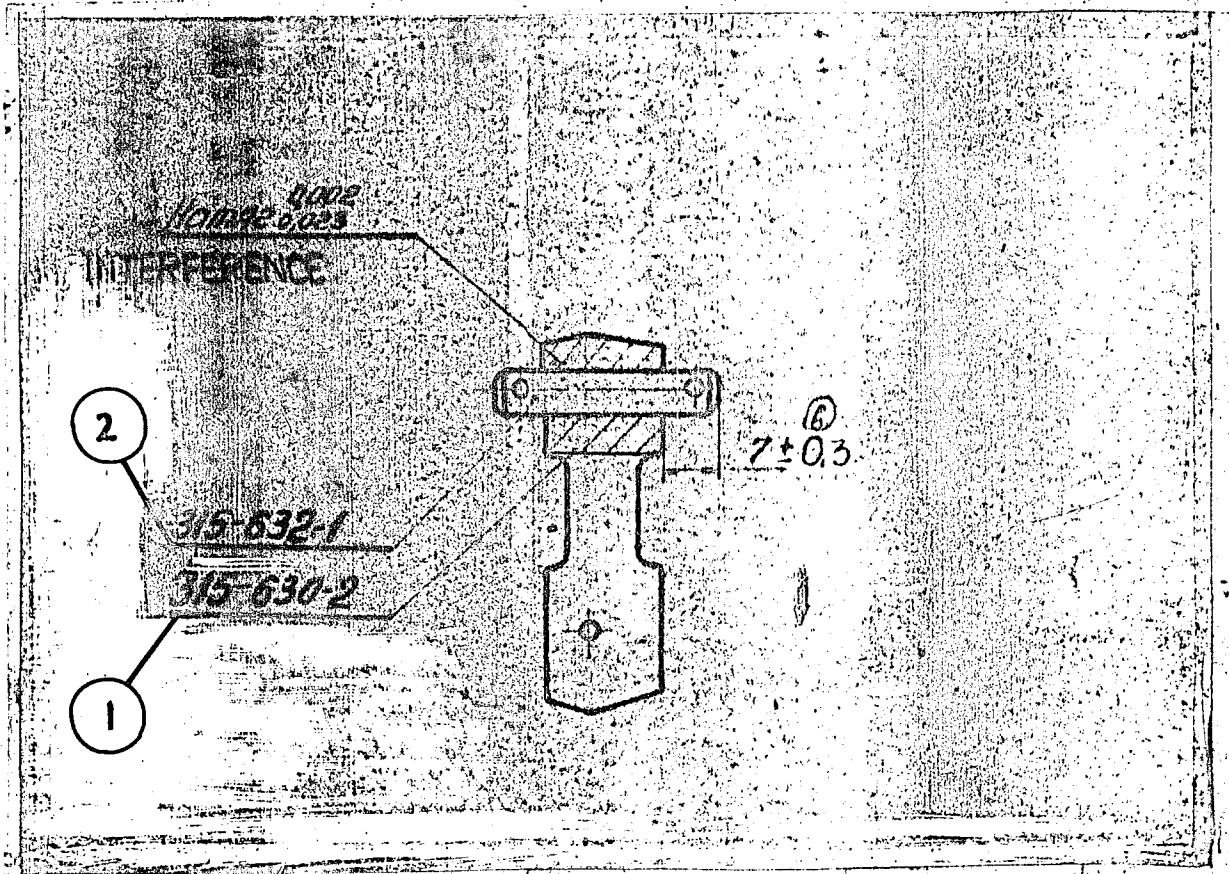
		EST. MASS 0.027 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)
A	16,8,10 4 th Alt. Comm. Meeting Minutes Point No.13 Dt: 26-10-09		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.
ISSUE DATE	NATURE OF AMENDMENTS	MATERIAL: - WIRE II A П-2 GOST 9369-75	USED ON:- СБ 3315-602-1
DRN	SCALE - 1 : 1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHD	DIMENSIONS IN mm.	TITLE:- 1 St. SPRING GOVERNOR	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	D S CAT NUMBER	DRAWING NUMBER 3315-623-1
APPD	ALL THREADS CONFORM TO		
DATE			

(A6)

DRAWING NUMBER

CB 315 661 1

D
C
B
A



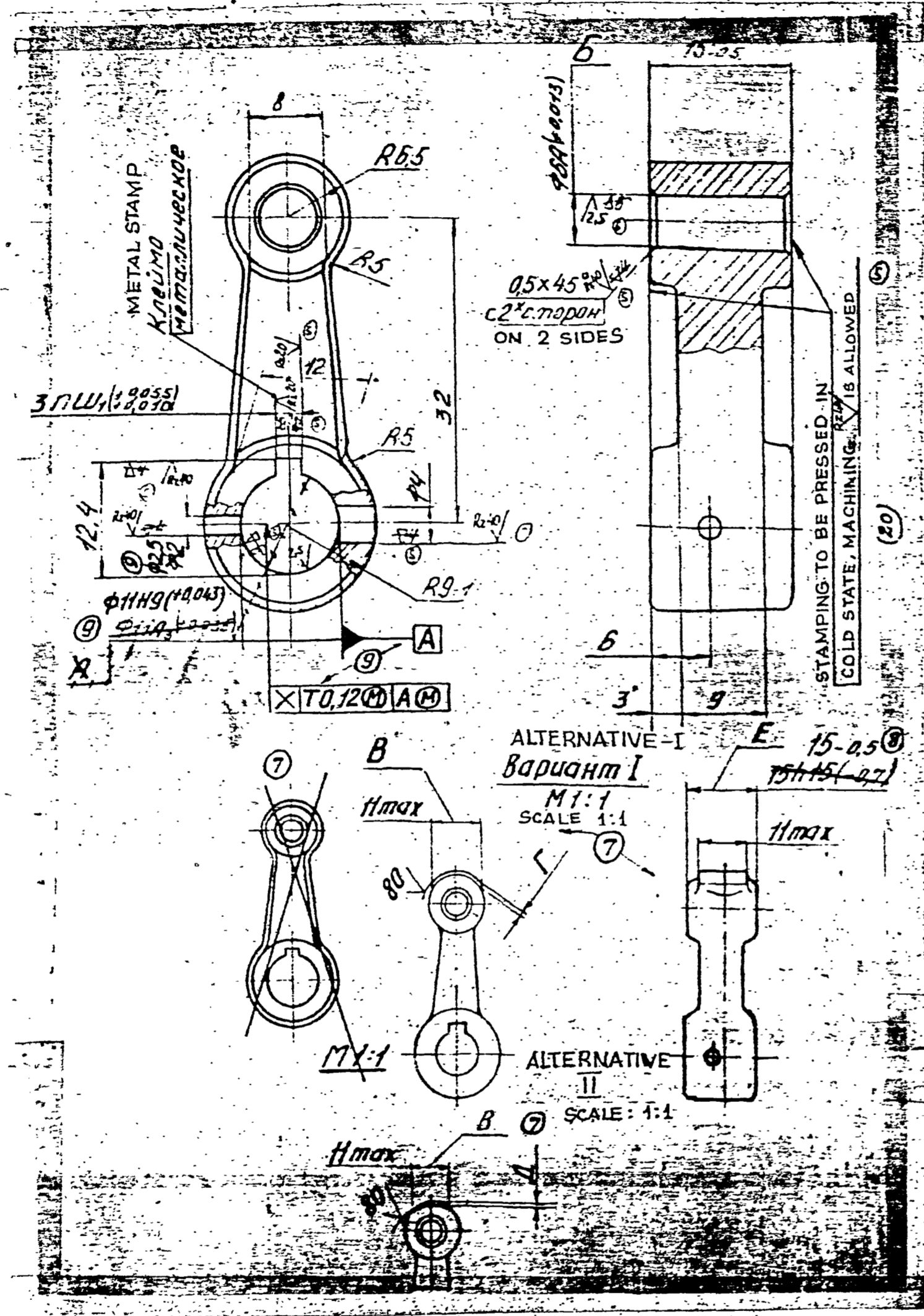
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

A-6

		EST WT	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)	
		0.046 Kg		
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE		
		MATERIAL :	USED ON	
			CB 315 663 21	
ISSUE DATE	NATURE OF AMENDMENTS	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI		
DRN	SCALE : 1 : 1			
EAD	DIMENSION IN mm		TITLE SPRING LEVER	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED :			
APPD	ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER	
DATE			CB 315 661 1	
03.5.86				
SIZE A4				

DRAWING NUMBER
315-630-2

SHEET No. 1 OF 2



NOTE:-

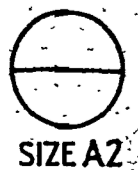
1. INSPECTION GROUP IV AS PER TT-11.
2. HRC₃ 24...30.
3. REQUIREMENTS FOR STAMPING AS PER GOST 7505-74, APPENDIX-1.
4. DEPRESSIONS UP TO 0.5mm DEEP ARE ALLOWED ON THE UNMACHINED SURFACES.
5. DIMENSIONS WITH UNSPECIFIED TOLERANCES ARE TO BE MAINTAINED AS PER A7, B7 OST 1010.
6. SHIFT OF KEY WAY RELATIVE TO THE AXIS OF SURFACE $\phi_{11} A_3$ SHOULD NOT EXCEED 0.1mm.
7. SHARP EDGES ARE TO BE BLUNTED.
8. MANUFACTURE FROM STEEL 40X GOST 4543-71 IS ALLOWED.
9. COMPONENT MAY BE MANUFACTURED BY PRECISION CASTING FROM STEELS 45A-1, 50A-1 GOST 977-75. REQUIREMENTS FOR CASTING ARE ACCORDING TO Ty BTI No.3.
10. COATING: CHEMICAL OXIDIZING; OIL-FINISHING.
11. MARKS ON THE SURFACES A AND B ARE ALLOWED AS PER STANDARD.
12. DURING DRESSING OF BLANK FEEDER ON THE SECTION B PROJECTION OF Γ 0.5mm MAX. BEYOND THE BOSS CONTOUR OR PLUNGE-CUT OF Γ 0.5mm MAX. INTO THE BOSS CONTOUR IS ALLOWED.
13. DRESSING OF MINOR DIAMETER OF BOSS BY CHANGING OF DIMENSION E UP TO 14mm MIN. IS ALLOWED FOR CHECKING HARDNESS.

DRG. REPLACES 315-630-2 ISSUE B' VIDE BK 80-157A 80-157A

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. 0.040 kg.	TO BE STAMPED OR MARKED WHERE INDICATED THUS (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED. UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R. OUT - SIDE R. INSIDE. EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

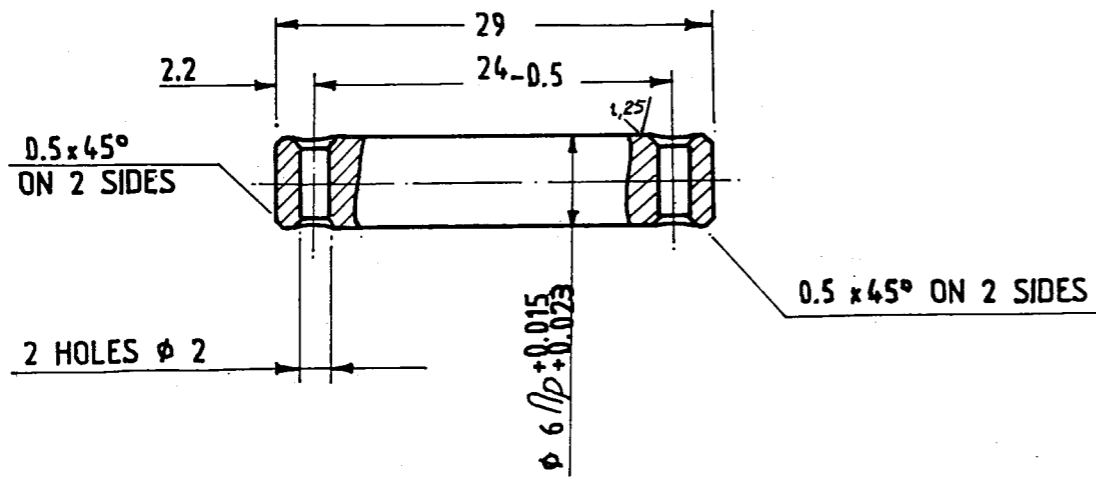
DRN	CHD	TCD	APPD	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS 2102-69	ALL THREADS TO CONFORM TO
				09.07.22	2:1			
				09.07.22	SHEET 2 CREATED.			
				4-3-94	Received vide BK 80-157A			
				ISSUE	DATE	NATURE OF AMENDMENTS		
						MATERIAL - STEEL 45 GOST 1050-74		USED ON CB 315-661-1
						CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) A V A 01		
						TITLE: SPRING LEVER		
						D S CAT NUMBER		DRAWING NUMBER Sht 1 of 2 315-630-2



SIZE A2

DRAWING NUMBER
315-632-1

SHEET No. 1 OF 2



1. INSPECTION GROUP III, TT-11.
2. TO BE CARBURIZED TO A DEPTH OF 0.4 TO 0.7mm ON FINISHED ARTICLE. HARDNESS HRA \geq 78.
3. DIMENSIONS WITH UNSPECIFIED TOLERANCES SHOULD BE OBTAINED AS PER ACCURACY CLASS 7 OST 1010.
4. IN HOLES ϕ 2 CARBURIZED LAYER IS NOT ALLOWED.
5. COATING : CHEMICAL OXIDIZING, OIL FINISHING.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

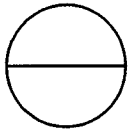
EST WT
0.006 Kg

TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE .R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

			DRN		MATERIAL: STEEL 12XH3A	USED ON
			CHD	<i>Pravin Bhanu</i>	TY 14-1 381-72	CB 315-661-1
			TCD	<i>Shamshad</i>		
			APPD	<i>B. S. M.</i>	CONTROLLERATE OF INSPECTION(HEAVY VEHICLES)	
			DATE	08-5-18	AVADI	
			SCALE 2 : 1		TITLE	SPRING PIN
			DIMENSION IN mm			
			TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		D SCAT NUMBER	DRAWING NUMBER Sht 1 of 2 315-632-1
			ALL THREADS TO CONFORM TO			
A	09.07.22	SHEET 2 CREATED.	ISSUE	DATE	NATURE OF AMENDMENTS	

SHEET 2 CREATED ISSUE-"A", BASED ON CQA(HV) NOTING No. 111909/CQA(HV)/DB/ENG/T-90/ALT.COMM dt. 05 Aug 2020 & POINT No.3 OF 14TH ACM



DRAWING NUMBER
315-632-1

SHEET No. 2 OF 2

EXPLANATORY NOTE:

Material Quoted: STEEL 12XH3A to TY 14-1-381-72.
Chromium - Nickel and Chromium - Nickel steel with boron
Steel Grade 12XH3A as per GOST 4543-71
A - High Quality Steel

CHEMICAL COMPOSITION: AS PER GOST 4543-71

CONTENT OF ELEMENTS %								
GRADE OF STEEL	C	Si	Mn	Cr	Ni	S	P	Cu
						Maximum		
12XH3A	0.09 - 0.16	0.17 - 0.37	0.30 - 0.60	0.60 - 0.90	2.75 - 3.15	0.025	0.025	0.30

MECHANICAL PROPERTIES: AS PER GOST 4543-71

GRADE OF STEEL	Yield Point	Ultimate Tensile Strength	Percentage of Elongation	Relative Reduction along	Impact Strength
	Kg/mm ²	Kg/mm ²	δ %	Cross Section %	Kg.m/cm ²
	Minimum				
12XH3A	70	95	11	55	9

Note : Any other parameters given in specification to be adhered in ToTo.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

			EST. WT. Refer Sht 1 of 2	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
			ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT- SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
			MATERIAL :- Refer Sht 1 of 2	USED ON :- Refer Sht 1 of 2
ISSUE	DATE	NATURE OF AMENDMENTS		
DRN 		SCALE :- —	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
CHD 		DIMENSIONS IN mm		
APPD 		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS : 2102 - 69		TITLE :- SPRING PIN
DATE 09 Jul 2022		ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER 315-632-1 SHT 2 of 2

SIZE A4

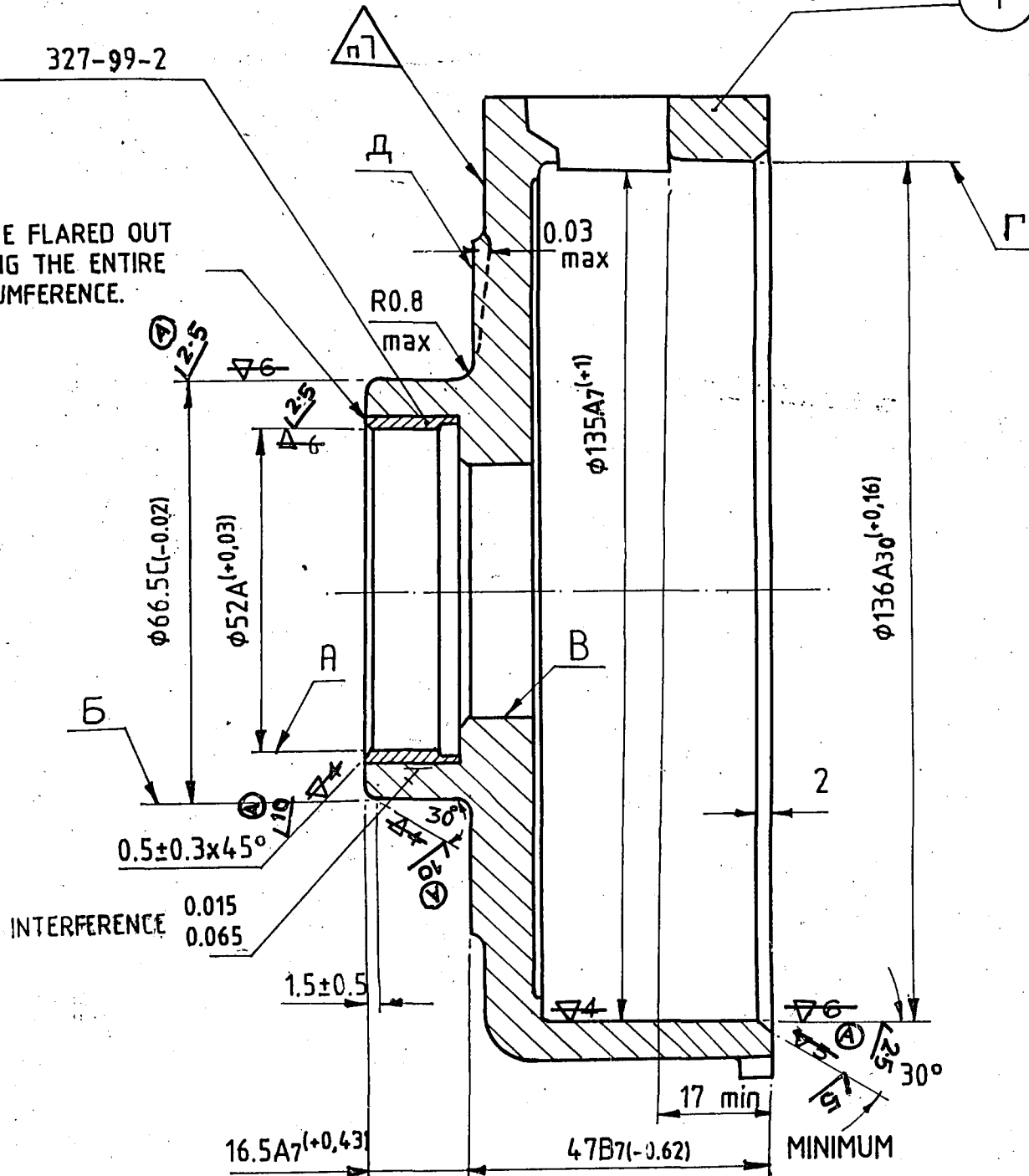
DRAWING NUMBER

CB 3327 02 8

3327-35-7

327-99-2

TO BE FLARED OUT
ALONG THE ENTIRE
CIRCUMFERENCE.



1. RUN-OUT OF SURFACE 'B' RELATIVE TO SURFACE 'A' SHOULD NOT EXCEED 0.02mm (MMC)
2. RUN-OUT OF SURFACE 'B' RELATIVE TO SURFACE 'A' SHOULD NOT EXCEED 0.05mm (MMC)
3. RUN-OUT OF SURFACE 'C' RELATIVE TO SURFACE 'B' SHOULD NOT EXCEED 0.05mm (MMC)
4. RUN-OUT OF SURFACE 'D' RELATIVE TO SURFACE 'A' SHOULD NOT EXCEED 0.03mm AT $\phi 80$ mm.
5. STRAIGHTNESS OF SURFACE 'D' SHOULD BE CHECKED BY BLUEING PAINT IMPRINT SHOULD BE UNINTERRUPTED ALONG CIRCUMFERENCE AT $\phi 70$ mm, MINIMUM. TAPER UPTO 0.03mm AS SHOWN WITH DOTTED LINE IS ALLOWED.
6. SHARP EDGES SHOULD BE BLUNTED.
7. TO BE MARKED BY PUNCHING.

KVP NO 1841Z

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

EST WT 0.793 Kg TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

			DRN	<i>None</i>	MATERIAL:	USED ON:
			CHD	<i>None</i>		CB3327 03 6
			TCD	<i>None</i>		
			APPD	<i>None</i>		
			DATE	09-5-86	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)	
			SCALE:	1:1	AVADI	
			DIMENSIONS IN mm		TITLE:	
			TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69			BALL BEARING BOX
			ALL THREADS TO CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
			A 22-9-87 AUTHY. NOTN.NO BK 83-11			CB 3327-02-8
			ISSUE DATE NATURE OF AMENDMENTS			

SIZE A3

8

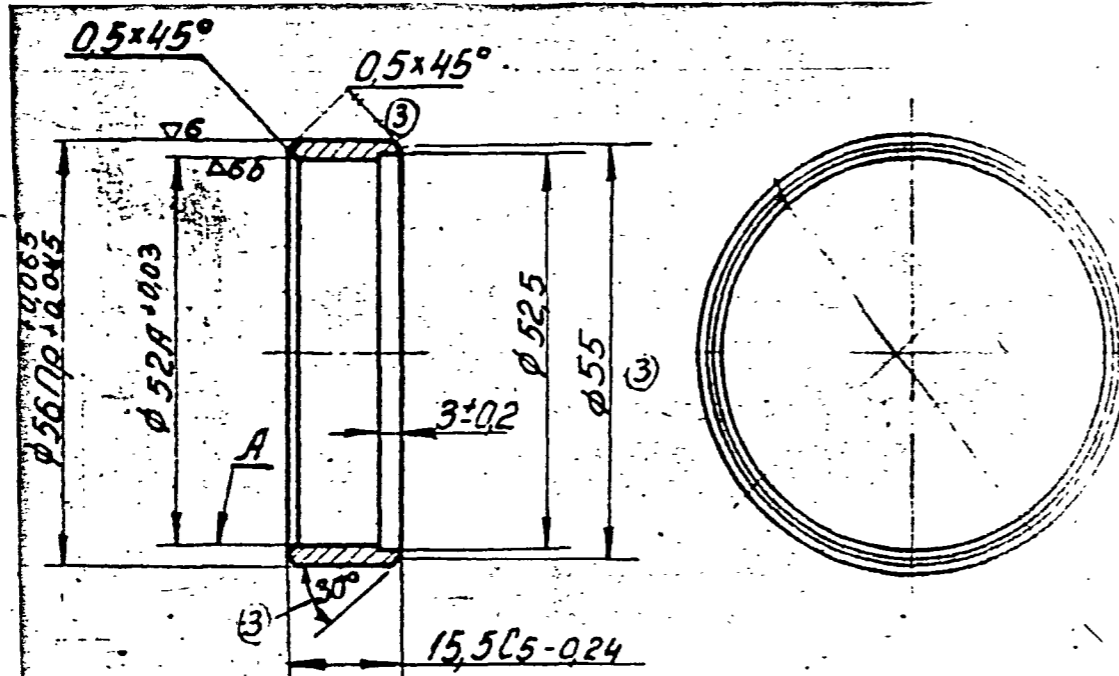
7

6

DRAWING NUMBER

327-99-2

▽ 4 UNLESS OTHERWISE SPECIFIED



EXPLANATORY NOTE :

8. MATERIAL QUOTED : STEEL 10 GOST 1050-74.

CHEMICAL COMPOSITION : %

GRADE OF STEEL	CONTENT OF			ELEMENTS %				
	C	Si	Mn	Cr	P	S	Cu	Ni
10	0.07-0.14	0.17-0.37	0.35-0.65	0.15	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES :

GRADE OF STEEL	TENSILE STRENGTH Kgf/mm ² (min)	YIELD POINT Kgf/mm ² (min)	ELONGATION % (min)	REDUCTION IN AREA % (min)	IMPACT STRENGTH Kgf/cm ² (min)
10	34	21	31	55	-

1. DELETED.
2. DIMENSIONS WITH UNSPECIFIED TOLERANCES MAINTAINED AS PER ACCURACY CLASS 7 OST 1010.
3. SURFACE 'A' SHOULD BE FINALLY MACHINED ON ASSEMBLED COMPONENT.
4. SHARP EDGES SHOULD BE BLUNTED.
5. THE COMPONENT MAY BE MANUFACTURED FROM STEEL 35 GOST 1050-74.
6. GROVE WITH DIMENSIONS ϕ 52.5 AND 3 ± 0.2 MAY NOT BE DONE.
7. ALTERNATE MATERIAL: STEEL, GRADES 15,20,35, AND 45, GOST 1050-74.

Ⓒ EQUIVALENT MATERIAL
040A04 (EN 2A) BS:970

KVD No: 78472

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

EST. WT. (A) TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)

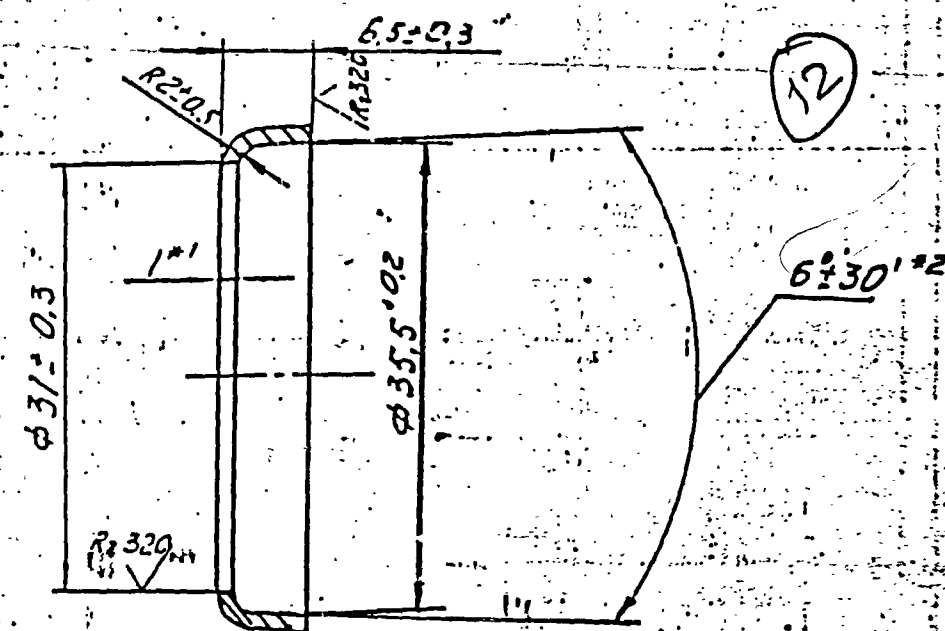
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R - OUT SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	<i>W. D. W.</i>	MATERIAL:-	USED ON
CHKD	<i>W. D. W.</i>	STEEL 10 GOST 1050-74	CB 3327-02-8
TCD	<i>W. D. W.</i>		CB 315-601-9
APPD	<i>W. D. W.</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
DATE	8-5-86	AVADI	
SCALE:-	1:1	TITLE	BUSH (B)
DIMENSIONS IN mm			
TOLERANCE ON DIMMS		D S CAT NUMBER	DRAWING NUMBER
UNLESS OTHERWISE STATED IS:2102-69			
ALL THREADS TO CONFORM: .0			327-99-2
ISSUE	DATE	NATURE OF AMENDMENTS	
C	1-7-10	4 1/2 ALT. COMM. Mtg. MINUTES POINT No. 2. DT 26-10-09	
B	20.01.10	D.O CORRECTION	
A	21.9.93	BK 86-441	

Ⓐ
8
SIZE A3

DRAWING NUMBER
327-48-2

(2)



TECHNICAL REQUIREMENTS - TRANSLATED

1. INSPECTION GROUP V AS PER TECHNICAL REQUIREMENTS II.
2. * DIMENSION FOR REFERENCE.
3. * DIMENSIONS SHOULD BE ENSURED BY TOOL.
4. COMPONENT IS TO BE MACHINED WITH SHOT TEST ACK-0.5, 545 GOST 11964-81 OR SAND BLAST.
5. ON EXTERNAL SURFACE OF THE COMPONENT THE PRESS TOOL MARK UP TO 0.25 mm DEEP AND 3 mm WIDE IS PERMISSIBLE.
6. ALTERNATE MATERIAL :- STEEL 10 GOST 1050-74.
7. THE REST OF THE REQUIREMENTS AS PER TY.005216-75 (APPENDIX).
8. PRESERVATION SHOULD BE MADE ACCORDING TO GOST 9.014-78, PROTECTION VERSION B3 -14, INHIBITOR PAPER VERSION, YHU.22-8a.

EXPLANATORY NOTE :-

- MATERIAL QUOTED : SHEET A1 GOST 19904-74
5-II-10 gost 16523-70
- COLD ROLLED SHEET, THICKNESS 1mm AS PER GOST 19904-74.
- A = ACCURACY OF ROLLING - HIGH. (± 0.07)
5 = CATEGORY OF STEEL.
II = SURFACE FINISH (HIGH FINISH)
- 10 = GRADE OF STEEL AS PER GOST 1050-74
- a) CHEMICAL COMPOSITION : AS PER GOST 1050-74.

C O N T E N T OF E L E M E N T S %							
C	Si	Mn	Cr	P	S	Cu	Ni
0.07-0.14	0.17-0.37	0.35-0.65	0.15-max	0.035-max	0.040-max	0.25-max	0.25-max

- b) MECHANICAL PROPERTIES :- AS PER GOST 16523-70

TENSILE STRENGTH = 28 - 40 Kgf/mm²

RELATIVE ELONGATION = 24 % (min)

(A) EQUIVALENT MATERIAL
Gr. D IS:513-1994.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. 0.0072 kg.	TO BE STAMPED OR MARKED WHERE INDICATED THIS # LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

DRW	CHD	TEC	APPO	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS 2/02-69	MATERIAL - SHEET A1 GOST 19904-74 5-II-10 GOST 16523-70	USED ON :- CB 327-18-1A
				4-5-89	2:1			CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
								TITLE STIFFENING RING	
								D S CAT NUMBER	DRAWING NUMBER 327-48-2
ISSUE	DATE	NATURE OF AMENDMENTS							
A	28.4.10	6 th Alt. Comm. Mt. Minutes Pt. No. 2 Dr. 26.10.09							

KVD NO 78480

(A-B)
26

ZE A2

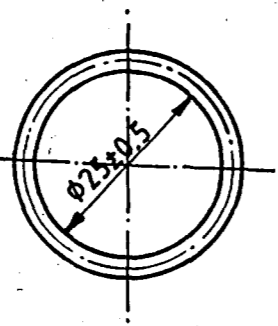
8

7

6

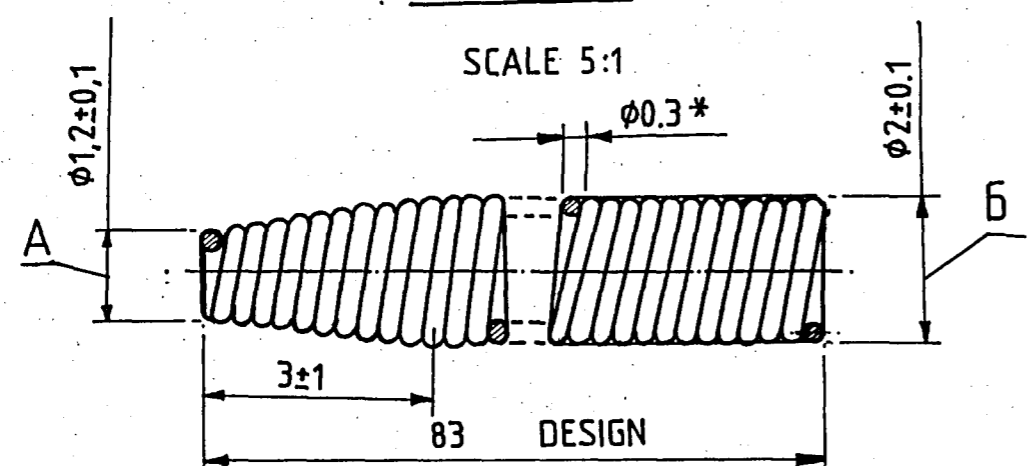
DRAWING NUMBER

327-49-2



DEVELOPMENT

SCALE 5:1



1. DIRECTION OF SPRING COILING RH.
2. COATING: CHEMICAL OXIDIZING OIL FINISHING.
3. RELIABILITY OF LACK OF A SPRING COILED TO FORM A RING SHOULD BE CHECKED BY PUTTING THE SPRING ON MANDREL φ30mm. DURING THIS, THE END OF THE SPRING SHOULD BE RETAINED IN THE SCREWED IN POSITION.
4. DIMENSION FOR REFERENCE.

TRANSITION FROM A TO B TAPER.

EXPLANATORY NOTE :-

5. REFERENCE MATERIAL QUOTED:- CARBON STEEL SPRING WIRE COLD DRAWN CATEGORY II, NORMAL ACCURACY, AND MANUFACTURED IN ACCORDANCE WITH STEEL GRADE KT-2 OR SK-7 GOST 9389-75.

a) CHEMICAL COMPOSITION:-

GRADE OF STEEL	CONTENT OF ELEMENTS %							
	C	Mn	Si	S	P	Cr	Ni	Cu
	M A X I M U M							
KT-2	0.86 0.91	0.20 0.40	0.17 0.37	0.20	0.020	0.05	0.05	0.10
SK-7	0.68 0.76	0.50 0.80	0.17 0.37	0.030	0.020	0.05	0.05	0.04

b) MECHANICAL PROPERTIES:-

WIRE DIA mm	TENSILE STRENGTH Kgf/mm ²
0.3	230 - 275

ⓑ EQUIVALENT MATERIAL
Gr. DH/DM IS:4454-2001

KVD 63199

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

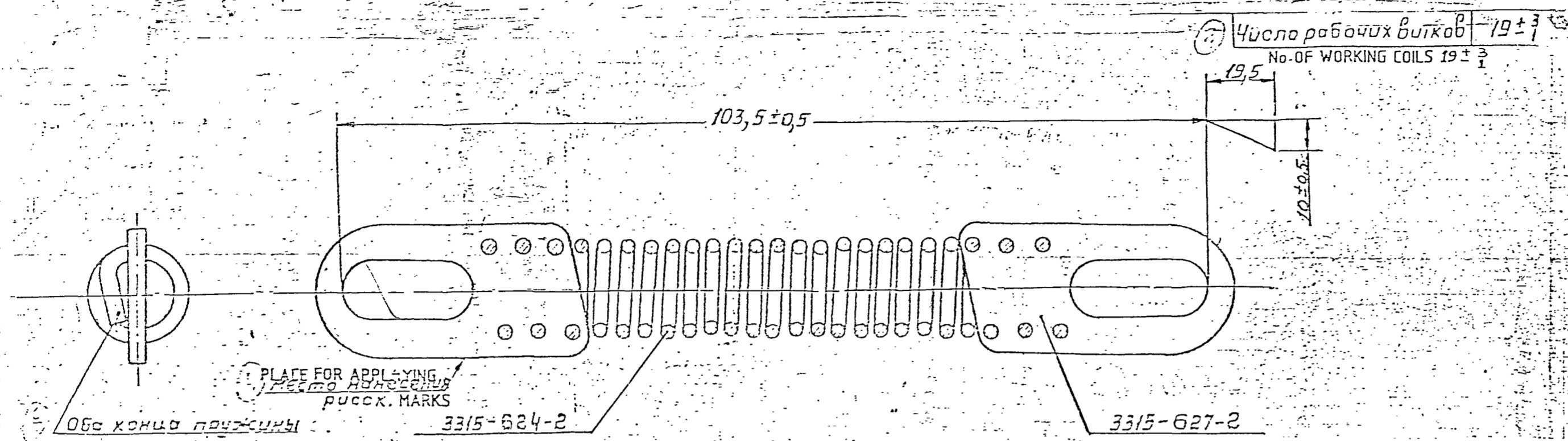
EST WT (A) TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
0.0034 kg
0.00073 kg

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

			DRN	<i>[Signature]</i>	MATERIAL:	USED ON:
			CHD	<i>[Signature]</i>	WIRE II-0.3	CB 327 18 1A
			TCD	<i>[Signature]</i>	GOST 9389-75	
			APPD	<i>[Signature]</i>	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)	
			DATE	08-5-86	AVADI	
			SCALE:	1 : 1		
			DIMENSIONS IN mm		TITLE: SPRING	
			TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69			
			ALL THREADS TO CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
			ISSUE	DATE		327-49-2
				NATURE OF AMENDMENTS		

B	16-8-10	4 th Alt. Comm. Meeting Minutes
A	24.9.83	Point NO.13 Dt.26.10.09
		BK86-441

Ⓐ-8
SIZE A3



PLACE FOR APPLYING MARKS
 Место нанесения
 русск. MARKS

Оба конца пружины
 придать к серьгам так,
 чтобы серьги не могли
 повернуться.

BOTH ENDS OF SPRING SHOULD BE BENT TO SHACKLES IN SUCH A WAY THAT SHACKLES DO NOT TURN.

Цинк-золь на толщину слоя 0,007-0,015 мм с последующим удалением водородной хрупкости и паспортированием по ЦЧ 9-154.

Допускается освобождение нагрузки изменением числа рабочих витков в узле.

Пружинны по нагрузке делить на 3 группы:

I группа с нагрузкой $10 \pm 0,5$ кг
 II группа с нагрузкой $10 \pm 0,2$ кг
 III группа с нагрузкой $10 \pm 0,2$ кг

После испытания на нагрузку на одной из серг узла метить № группы рисками:

1^{ая} группа - одна риска
 2^{ая} группа - две риски
 3^{ья} группа - три риски

Обе серьги волжны лежать в одной плоскости.

Покрытие ц. золь по ЦЧ 9-154 с удалением водородной хрупкости.

Допускается отсутствие цинка на поверхности рисок.

THE FOLLOWING LOADS MAY BE PROVIDED WITH CHANGES IN WORKING COILS IN THE ASSEMBLY.

SPRINGS WITH LOAD MAY BE DIVIDED INTO 3 GROUPS:

I GROUP WITH LOAD $10 \pm 0,5$ Kg.
 II GROUP WITH LOAD $10 \pm 0,2$ Kg+
 III GROUP WITH LOAD $10 \pm 0,2$ Kg.

AFTER THE LOAD TESTS, MARK THE GROUP NUMBER ON ONE OF THE SHACKLES OF ASSEMBLY: 1st GROUP - ONE MARK.
 2nd GROUP - TWO MARKS.
 3rd GROUP - THREE MARKS.

BOTH THE SHACKLES SHOULD BE LAID ON A SINGLE PLANE.

COATING: Zn.9 TO 15, CHROMATIZING AS PER УЛ 483-82 REMOVING HYDROGEN EMBRITTLEMENT.

THERE MAY BE NO ZINC COATING ON SURFACES OF MARKS.

УЛ 483-82-207

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

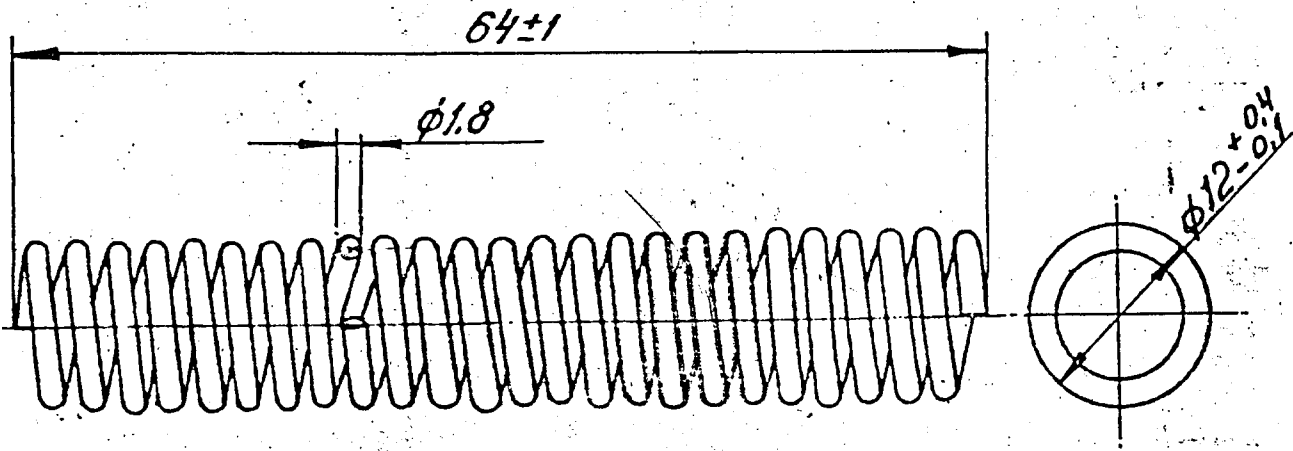
EST. WT. 0,027 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R. OUTSIDE-R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

DRN	CHD	TCD	APPD	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2102-69	MATERIAL	USED ON
				3-3-88	2:1				СБ 315-663-21
CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)								A V A D I	
TITLE								REGULATOR SPRING SECOND ASSY	
D.S. CAT NUMBER								DRAWING NUMBER	
								СБ 3315-603-2	
ISSUE	DATE	NATURE OF AMENDMENTS							

COILING

по распределению нагрузки

✓ R.H.
C



1. Грубая контроля по ТУ И. ②
2. Неравномерность шага не более 0,2 мм.
3. Пружину проверять по чертежу сб. 3315-603-2.
4. Острые кромки затупить.
5. Длину подогнать в узле.

2. IRREGULARITY OF PITCH SHOULD NOT EXCEED 0.2 MM.
3. SPRING SHOULD BE CHECKED AS PER DRAWING CB 3315-603-2.
4. SHARP EDGES SHOULD BE BLUNTED.
5. LENGTH SHOULD BE ADJUSTED IN UNIT. (A-6)

(A) EQUIVALENT MATERIAL

Gr. DH/DM IS: 4454-2001

PILOT SAMPLE SHOULD BE APPROVED BY AHS P BEFORE BULK PRODUCTION

			EST. MASS 0.0175 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THIS IN LETTERS)
A.	16.8.10	4 th Alt. Comm. Meeting Minutes Point No.13 Dt: 26-10-09	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL WIRE 1-П-18 GOST 3217-75	USED DN:- CB 3315-603-2
DRN		SCALE: 2:1	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) A V A D I	
CHDS		DIMENSIONS IN mm	TITLE: REGULATOR SPRING SECOND	
TCO		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		
APPD			TITLE: REGULATOR SPRING SECOND	
DATE	7-4-88	ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER 3315-624-2

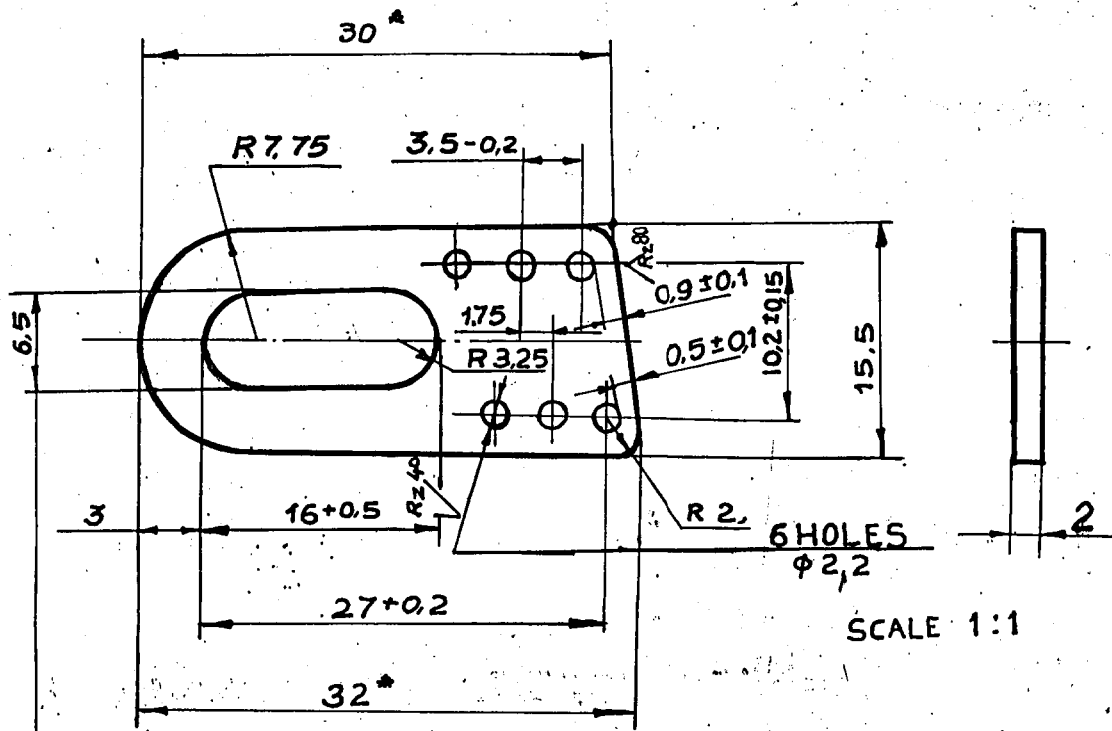
17.08.09
 17.08.09
 17.08.09

DRG INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE NO. (NIL)

3315-627-2

(V) A

DRAWING INDIANISED BASED ON ISSUE 5



TO BE DRESSED

(B)

EQUIVALENT MATERIAL

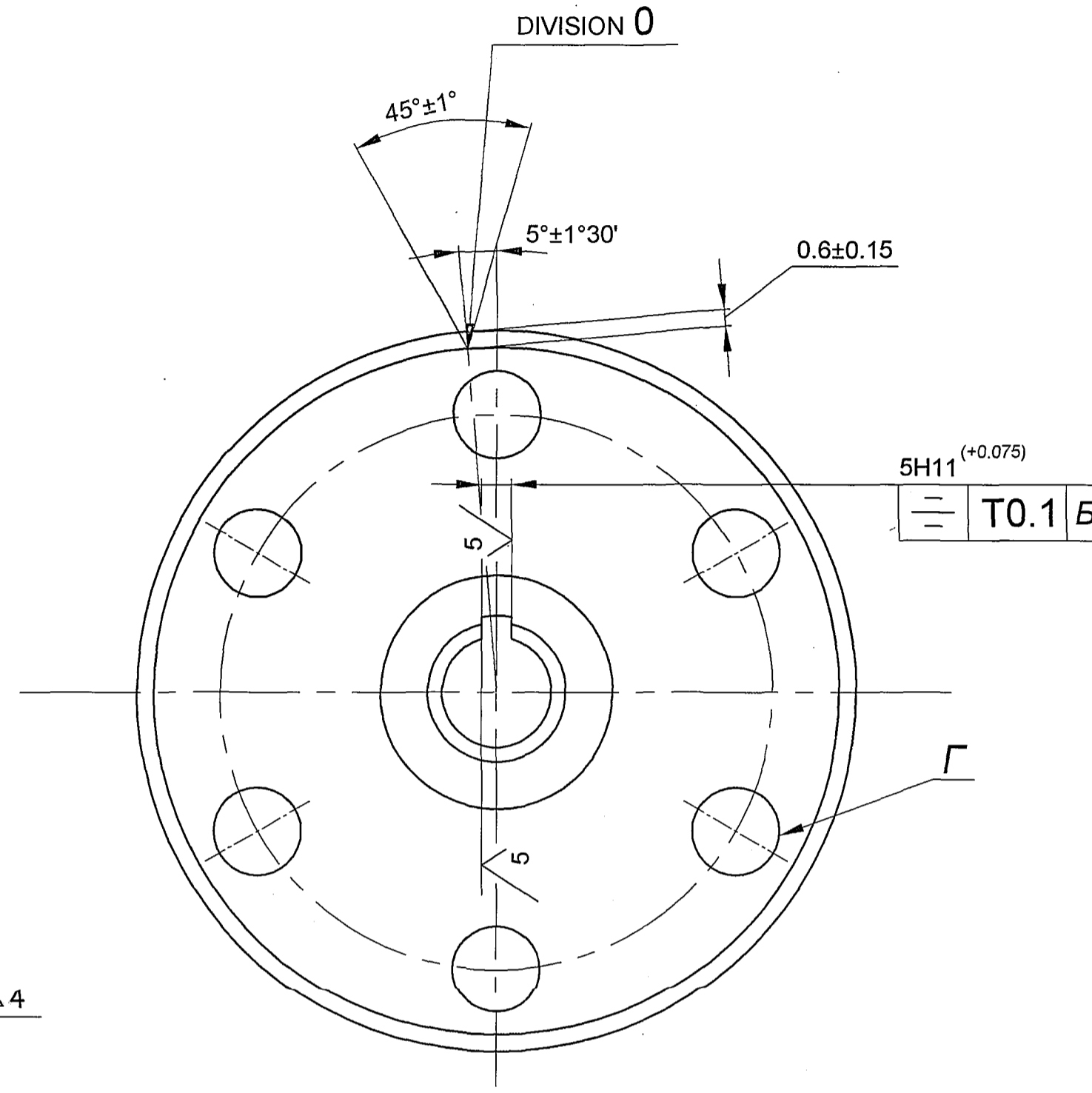
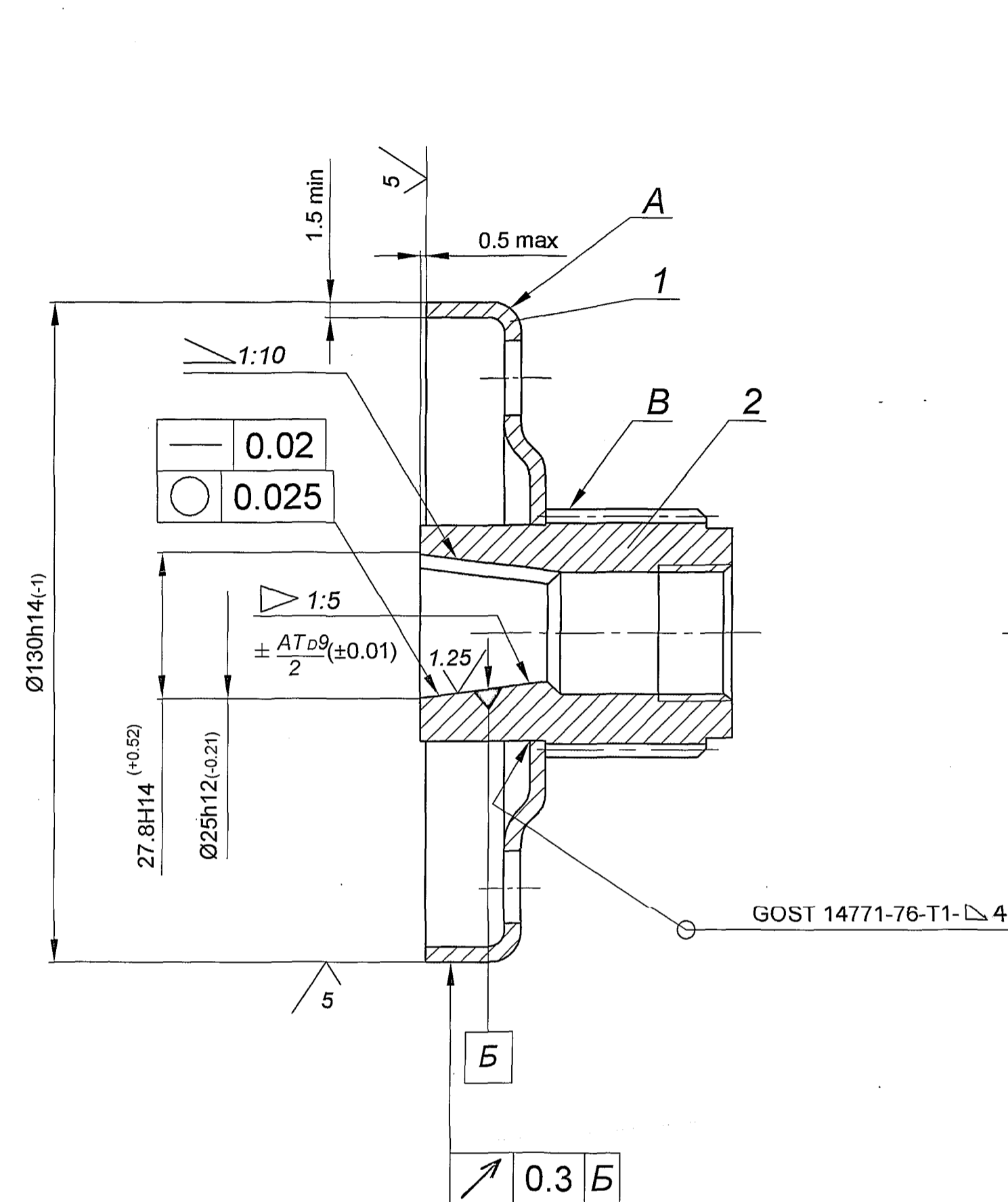
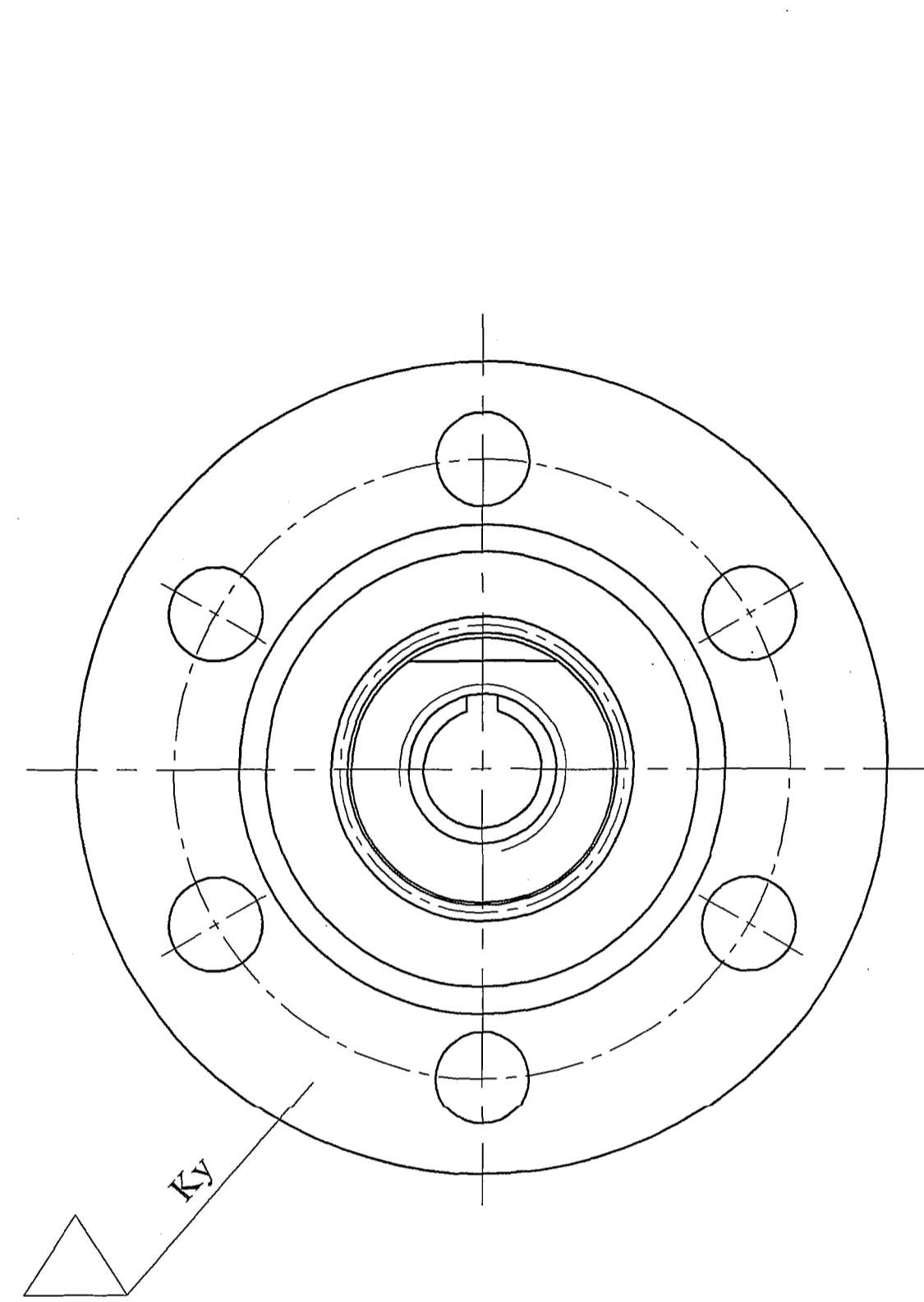
Gr. 0 IS:513-1994

1. Inspection group III, T T - 11.
2. To be casehardened by cyaniding all over to depth of 0.1 to 0.2 mm. ~~HRC ≥ 48~~. To be checked with hardness-test file. HRC ≥ 49
3. Requirements for stamping as per standard 82050-16
4. Dimensions with unspecified tolerances for machining should be obtained as per A7 B7 OST 1010.
5. After stamping the component should be straightened, the fins should be fettled.
6. *Dimensions for reference.
7. Face is allowed in the place of transition of inclined surface into radius R 2 mm.

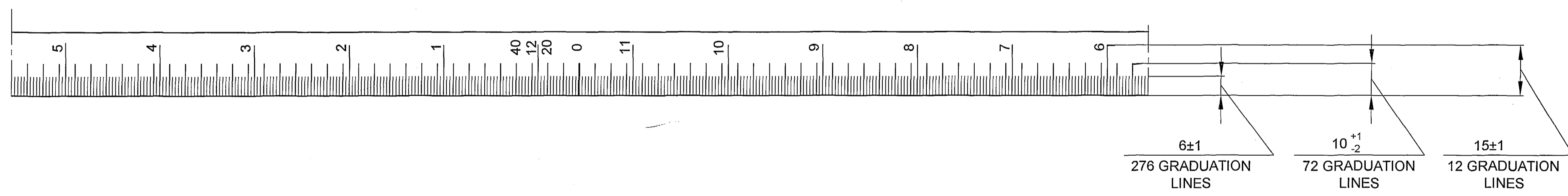
(A-6)

		EST. MASS	TO BE STAMPED OR MARKED WHERE
		0.0048 Kg	INDICATED THUS #
			LETTERS)
B	1-7-10	4 1/2 ALT. COMM. Mtg. MINT	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.
A	7-12-87	PDINT No 2 DT. 26-10-09	
		AUTHY BK 82-394, 83-126	
ISSUE	DATE	NATURE OF AMENDMENTS	
DRN		SCALE - 2 : 1	MATERIAL :- 10-BH-2-0-2 (A) USED ON:-
CHD		DIMENSIONS IN mm.	STRIP GOST 503-71 81
TCD		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI
APPO		ALL THREADS CONFORM TO	TITLE: SECOND SPRING SHACKLE
DATE	23.5.88		D S: CAT NUMBER
			DRAWING NUMBER
			3315 627 2

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.



EXPANSION OF SURFACE 'A'



1. Surface 'B' is nitrated h 0.3...0.6 mm HRA ≥ 78 .
2. Apply coating zinc 15 microns thick, 1 micron chromium as per instruction ИП-483-82 by removing hydrogen embrittlement except the surface of taper and gear ring.
3. Position of hole 'Г' with respect to key groove is random.
4. It is allowed to nitrate with circumference.
5. Stamp the letter by punching method.
6. Scaling and lettering are done by rolling method.
7. Inspection of cone is allowed by blueing, Matching should be uniform and should cover minimum 70% of area.
8. Welding GOST 14771-76-T1-Δ 4 -33Z66 or GOST 14771-76 T1-Δ 4-15Z44 is allowed.
9. Letter ПО - 4 for Number O and ПО - 2.5 GOST 2930-62 for remaining number.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. (kg) 0,972 TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

| | | | | | | | | | |
|-------------|------|----------|----------------------------|------------------|---|---|----------------|------|-------------------------------------|
| DRN | APPD | DATE | SCALE | DIMENSIONS IN mm | TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69 | ALL THREADS TO CONFORM TO | ISSUE | DATE | NATURE OF AMENDMENTS |
| | | 29.01.08 | 1:1 | | | | | | |
| MATERIAL :- | | | USED ON :- Cb 327-00-47-01 | | | CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI | | | |
| | | | | | TITLE :- FLYWHEEL ASSY | | D S CAT NUMBER | | DRAWING NUMBER Cb.3334-07-15 |

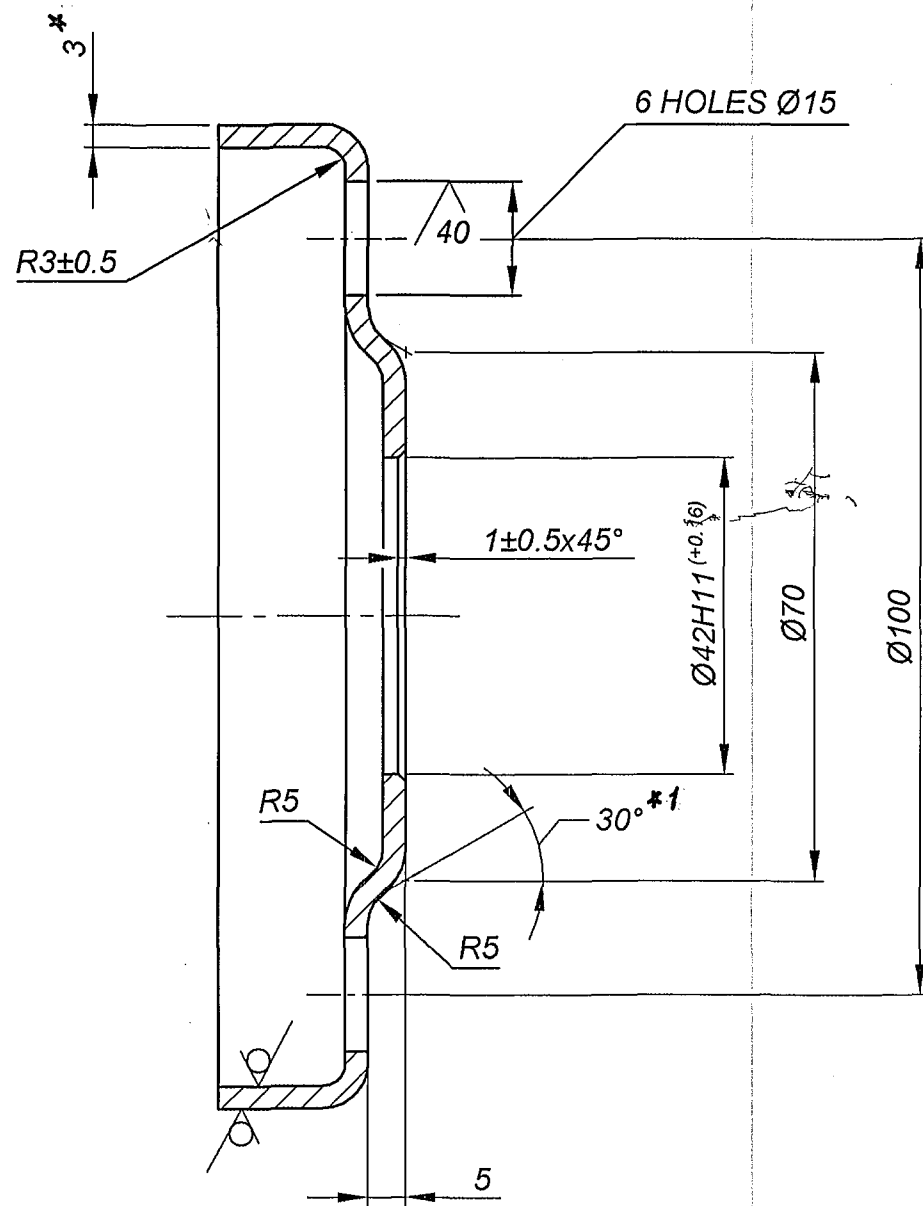
DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 6 DRG. REPLACES Cb 3334-07-13 ВИДЕ NOTN. NO: 92-238

DRAWING NUMBER

3334-17-12

SHEET No. 1 OF 1

10 ✓ (✓)



1. Unspecified limit deviations of dimensions are ± 0.3 mm.

2. * Dimension for reference.

3. *¹ Dimension should be ensured by tool.

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 6
DRG. REPLACES 3334-17-10 VIDE NOTN. NO: 92-238

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. **0.627 Kg** TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

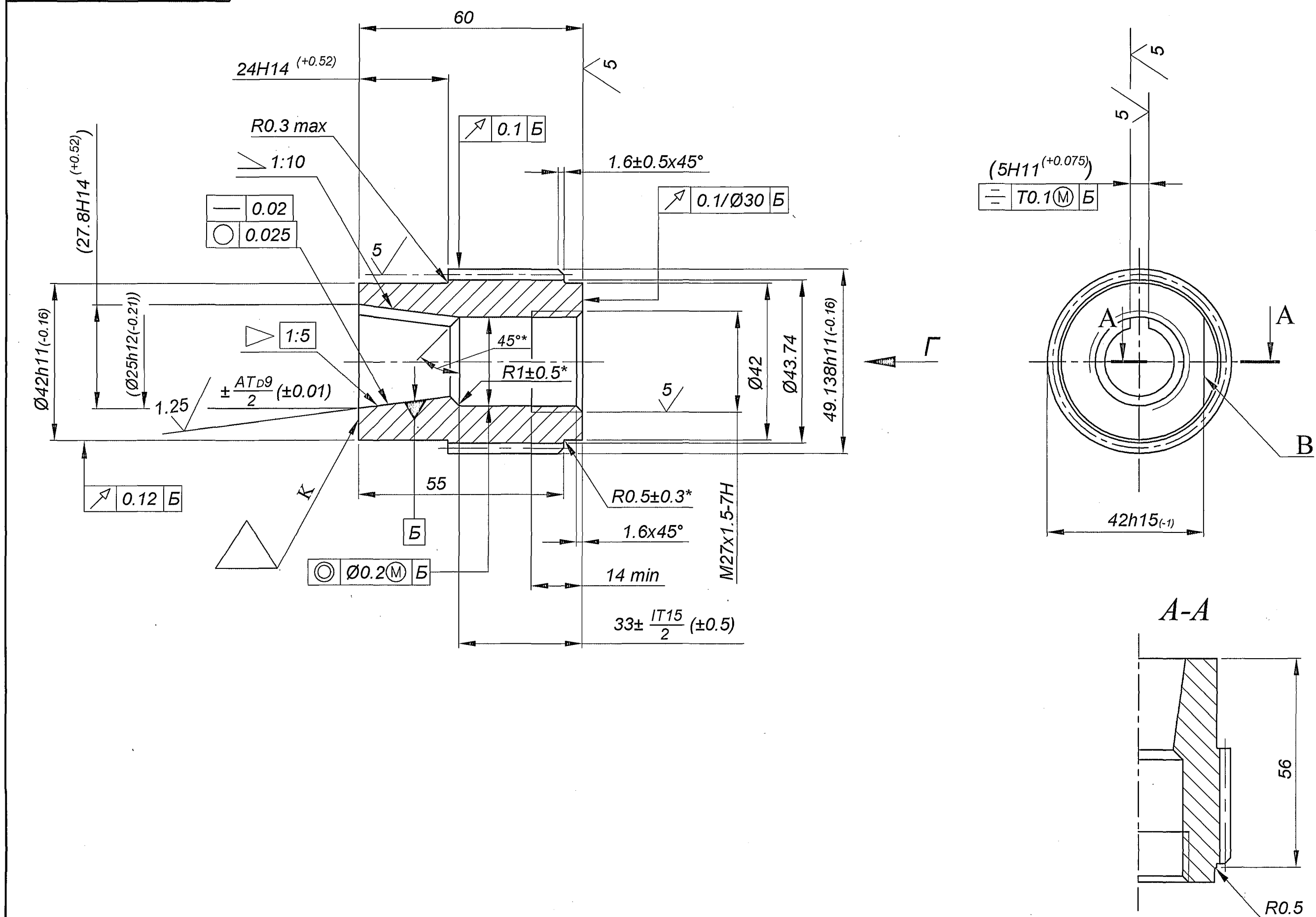
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

| | | | | | | | | | |
|--|--|--|--|--|--|---|----------|---|-------------------|
| | | | | | | DRN | | MATERIAL :- SHEET | USED ON :- |
| | | | | | | CHD | | A3 GOST 19903-74 | Cb 3334-07-15 |
| | | | | | | APPD | | K270B6-III-F-10-eb GOST 16523-89 | |
| | | | | | | DATE | 29.01.08 | CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) | |
| | | | | | | SCALE:- | 1:1 | AVADI | |
| | | | | | | DIMENSIONS IN mm | | TITLE :- | FLY WHEEL |
| | | | | | | TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69 | | D S CAT NUMBER | DRAWING NUMBER |
| | | | | | | ALL THREADS TO CONFORM TO | | | 3334-17-12 |
| | | | | | | ISSUE | DATE | NATURE OF AMENDMENTS | |

F-157
54
69
SIZE A3

DRAWING NUMBER
3334-18-5

SHEET No. 1 OF 1



1. Inspection group III as per TT-11.
2. Core Hardness 255...302 HB.
3. Gear tothing to be nitrated for h 0.3...0.6 mm HRA ≥ 78. Nitrating is allowed with circle in the unit.
4. Unspecified limit deviations of dimensions : Holes H14, Shafts h14, Remaining - $\pm \frac{IT14}{2}$.
5. Unspecified tolerances of surface layout as per GOST 25069-81.
6. Position of the surface 'B' with respect to the key slot is random.
7. Dimension in brackets - after assembly.
8. It is allowed to carry out hole under the thread $\varnothing 25.6H13^{(+0.33)}$ mm.
9. Checking of the conical shape is allowed by bluing, joining should be uniform and bluing should cover minimum 70 % of area.
10. Combined inspection of gear tothing is carried out by mating with gear tooth and is fulfilled with minimum dimension (checked specimen).
11. * Dimensions are ensured by tool.
12. It is allowed to check the thread before nitrating.

| | | |
|---|--------------------------------------|---|
| MODULE | m | 1.5 |
| NUMBER OF TEETH | Z | 31 |
| SLOPE | β | 5°47' |
| DIRECTION OF TOOTH LENGTH | - | LEFT |
| BASIC RACK | ANGLE OF PROFILE | α 20° |
| | CO-EFFICIENT OF ADDENDUM | f' 0.8 |
| | CO-EFFICIENT OF DEDENDUM | f'' 1 |
| | TOOTH THICKNESS ALONG THE PITCH LINE | SCP 2.356 |
| | FILLET RADIUS OF CURVE-TOOTH PASSAGE | R 0.45 |
| ADDENDUM MODIFICATION | X_m | 0 |
| REFERENCE DIAMETER | d | 46.74 |
| THICKNESS OF TOOTH | S | 2.356d9 ^(-0.063) _(-0.103) |
| BASIC(TOTAL) DEVIATION OF TOOTH THICKNESS | es | -0.04 |
| BASE TANGENT LENGTH | W | 16.159 ^{-0.059} _(-0.096) |

10 ✓ (✓)

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 9
DRG. REPLACES 3334-18-4 VIDE NOTN. NO: 92-238

F-157
55
69
SIZE A4 x 4

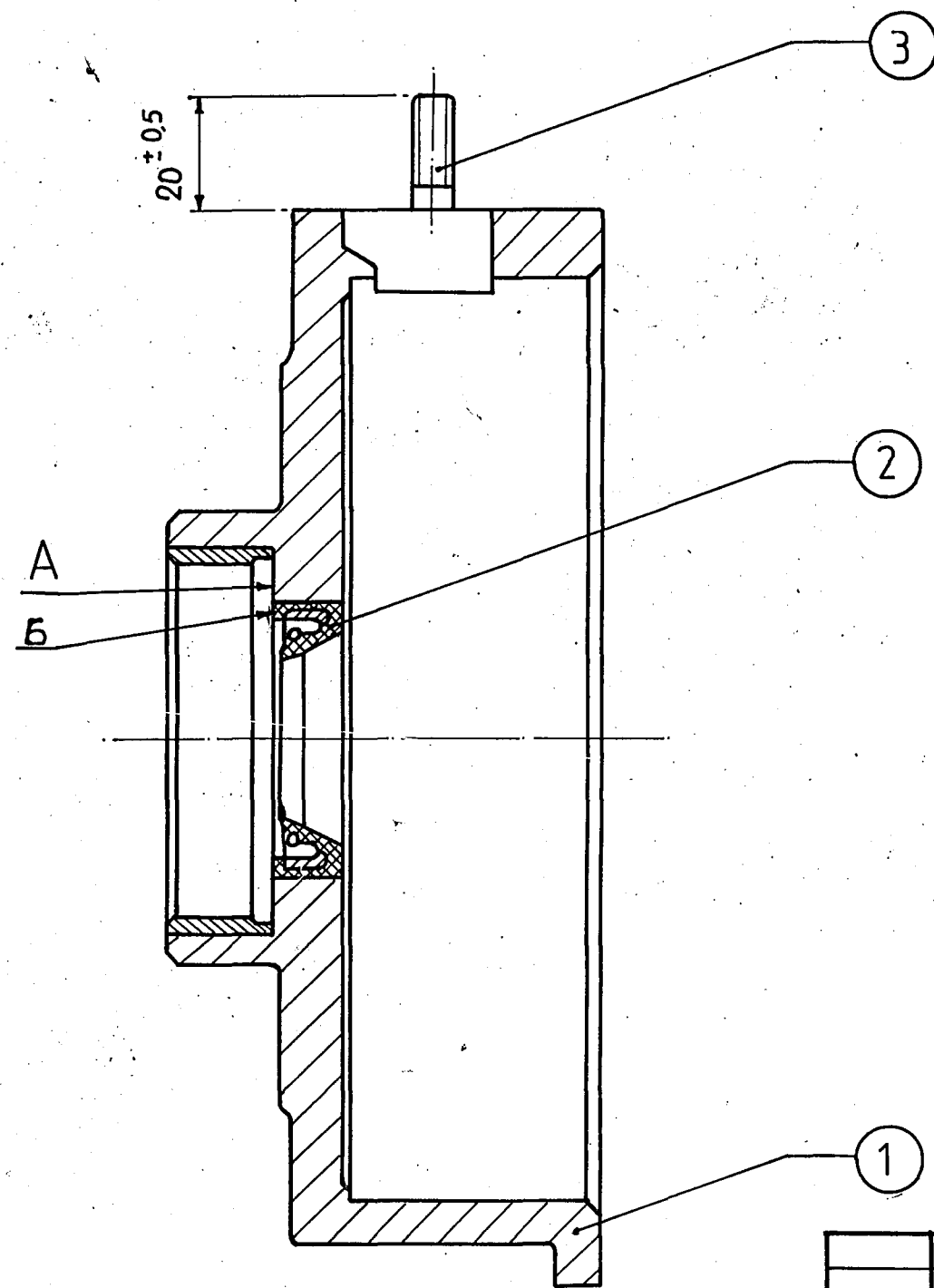
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. (kg) 0.345 TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

| | | | | | | | |
|---|------|----------------------|----------|--------------------------|------------------|---|---------------------------|
| DRN | CHD | APPD | DATE | SCALE:- | DIMENSIONS IN mm | TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69 | ALL THREADS TO CONFORM TO |
| | | | 29.01.08 | 1:1 | | | |
| MATERIAL :- STEEL 38X2MIOA GOST 4543-71 | | | | USED ON :- Cb 3334-07-15 | | | |
| CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI | | | | TITLE :- BUSH | | | |
| D S CAT NUMBER | | | | DRAWING NUMBER 3334-18-5 | | | |
| ISSUE | DATE | NATURE OF AMENDMENTS | | | | | |

DRAWING NUMBER
CB 3327-03-6



1. COMPONENT 2 SHOULD BE PRESS - FITTED FLUSH, MISMATCH OF SURFACES 'A' AND 'B' SHOULD NOT EXCEED 0.3mm TO EITHER SIDE.
2. STUD SHOULD BE SECURED WITH WHITE ZINC PASTE.
3. DELETED.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

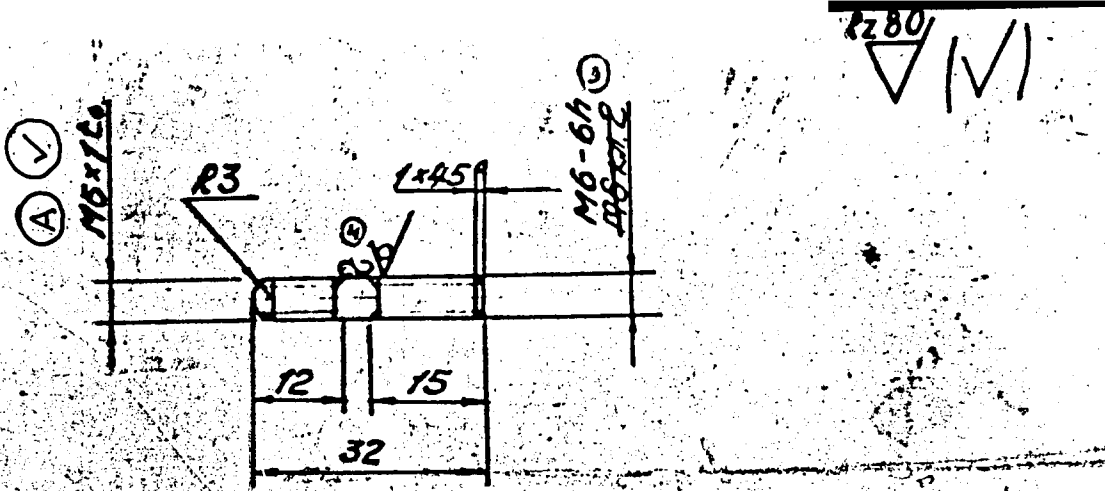
EST WT 0.813 Kg TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

| ISSUE | DATE | NATURE OF AMENDMENTS |
|-------|------|----------------------|
| | | |
| | | |
| | | |
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| | | |
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| | | | |
|--|---------------------|---|-------------------------|
| DRN | | MATERIAL: | USED ON: |
| CHD | <i>Devita Bhanu</i> | — | CB 327 00 45 |
| TCD | <i>Naraini Puri</i> | | |
| APPD | <i>Bhanu</i> | CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI | |
| DATE | 09-5-86 | | |
| SCALE: 1 : 1 | | | TITLE: |
| DIMENSIONS IN mm | | | BALL BEARING BOX |
| TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69 | | D S CAT NUMBER | DRAWING NUMBER |
| ALL THREADS TO CONFORM TO | | | CB 3327-03-6 |

SIZE A3



1. Inspection group IV TT-11.
2. HRC, 28-----35
3. Technical requirements for threads as per Standard 82021-00.
4. Dimensions with unspecified tolerances and the rest of the requirements - as per standard 82052-00.
5. Coating :- Cadmium 3, Chromating as per UG 104 with elimination of Hydrogen embrittlement.
6. The thread may be made by rolling with the diameter of unthreaded portion within the pitch diameter of thread.
7. Mechanical damages of Cadmium coating such as scratches, nicks and dents are allowed on assembly units; Provided the steel is not exposed.

* PILOT SAMPLE SHOULD BE APPROVED BY A HSP BEFORE BULK PRODUCTION.

| | |
|--|--|
| EST. MASS
0.005 Kg | TO BE STAMPED OR MARKED WHERE INDICATED THIS # LETTERS |
| Authy: 3 rd Alt. Comm. Min. Pt. 2
Dated 27-02-09 | ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED. MACHINE CUT CORNERS TO HAVE A OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. |
| ISSUE DATE NATURE OF AMENDMENTS | MATERIAL: GOST 7417-75
ROUND BAR 38XA GOST 1051-73 |
| DRN
SCALE: 1:1 | USED ON: Cb 3301-15-30, Cb 3301-15-44 |
| CNO
DIMENSIONS IN mm | CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
A V A D I |
| TEC
TOLERANCE ON DIMS UNLESS OTHERWISE STATED | TITLE
STUD M6x32 |
| APPD | D/S CAT NUMBER |
| DATE 31/3/09 | DRAWING NUMBER
350-16A |
| ALL THREADS TO CONFORM TO | |

8. EXPLANATORY NOTE:-

MATERIAL QUOTED:- ROUND BAR GOST 7417-75.
38XA GOST 1051-73

ROUND BAR GOST 7417-75 AS PER REQUIRED DIAMETER.
38XA = GRADE OF STEEL.

CHEMICAL COMPOSITION:-

| C O N T E N T O F E L E M E N T S % | | | | | | | |
|-------------------------------------|-----------|-----------|-----------|---------------|------|-------|-------|
| C | Si | Mn | Cr | Cu | Ni | P | S |
| | | | | M A X I M U M | | | |
| 0.35-0.42 | 0.17-0.37 | 0.50-0.80 | 0.80-1.10 | 0.25 | 0.30 | 0.025 | 0.025 |

MECHANICAL PROPERTIES:-

- ULTIMATE RUPTURE STRENGTH Kg/mm² (MIN) = 95.
- YIELD POINT Kg/mm² (MIN) = 80.
- % RELATIVE ELONGATION (MIN) = 12.
- RELATIVE REDUCTION IN AREA % (MIN) = 50.

(A) REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED. THUS (✓), BASED ON OVERHAUL SPECIFICATIONS PART III REPAIR DRAWINGS.

| Sl.No. | R | REMARKS |
|--------|--|----------------------|
| 1. | M6 X 1.25 to | ALL OTHER CONDITIONS |
| 2. | P.C.D = 7.188 ^{+0.152}
_{+0.082} | AS PER STD. DRG. |

(C) Alt. Material: STEEL 709M40 (EN-19) TO BS-970 Pt-1-1983

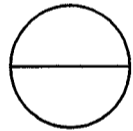
Cb 3338-403-2
Cb 306-01-20
Cb 306-02-20

USED ON:- (B)
Cb 3327-03-6-01
Cb 3338-403-2
Cb 3338-404-7
Cb 3327-03-6
Cb 306-01-20
Cb 306-02-20

KVD 63590

COMMON TO V-92S2 ENGINE

SHEET 2 CREATED ISSUE-"A", BASED ON CQA(HV) NOTING No. 111909/CQA(HV)/DB/ENG/T-90/ALT.COMM dt. 05 Aug 2020 & POINT No.3 OF 14TH ACM



DRAWING NUMBER
315-44-1

SHEET No. 2 OF 2

EXPLANATORY NOTE:

Material Quoted: Square Bar 12-5 GOST 8559-75
45 GOST 1051-73

Alternate Material as per TR Point 9 - 40 and 50 to GOST 1050-74
12 - Side of Square in mm
5 - Class of Accuracy
Grade of Steels 40, 45 & 50 as per GOST 1050-74.

CHEMICAL COMPOSITION: AS PER GOST 1050-74

| CONTENT OF ELEMENTS % | | | | | | | | |
|-----------------------|-------------|-------------|-------------|---------|-------|-------|------|------|
| GRADE OF STEEL | C | Si | Mn | Cr | S | P | Cu | Ni |
| | | | | Maximum | | | | |
| 40 | 0.37 - 0.45 | 0.17 - 0.37 | 0.50 - 0.80 | 0.25 | 0.040 | 0.035 | 0.25 | 0.25 |
| 45 | 0.42 - 0.50 | 0.17 - 0.37 | 0.50 - 0.80 | 0.25 | 0.040 | 0.035 | 0.25 | 0.25 |
| 50 | 0.47 - 0.55 | 0.17 - 0.37 | 0.50 - 0.80 | 0.25 | 0.040 | 0.035 | 0.25 | 0.25 |

MECHANICAL PROPERTIES: AS PER GOST 1050-74

| GRADE OF STEEL | Yield Point
Kg/mm ² | Ultimate
Tensile Strength
Kg/mm ² | Percentage of
Elongation
σ ₅ % | Reduction of
Area
ψ % | Impact Strength
Kg.m/cm ² |
|----------------|-----------------------------------|--|---|-----------------------------|---|
| | | | | | |
| 40 | 34 | 58 | 19 | 45 | 6 |
| 45 | 36 | 61 | 16 | 40 | 5 |
| 50 | 38 | 64 | 14 | 40 | 4 |

Note : Any other parameters given in specification to be adhered in ToTo.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

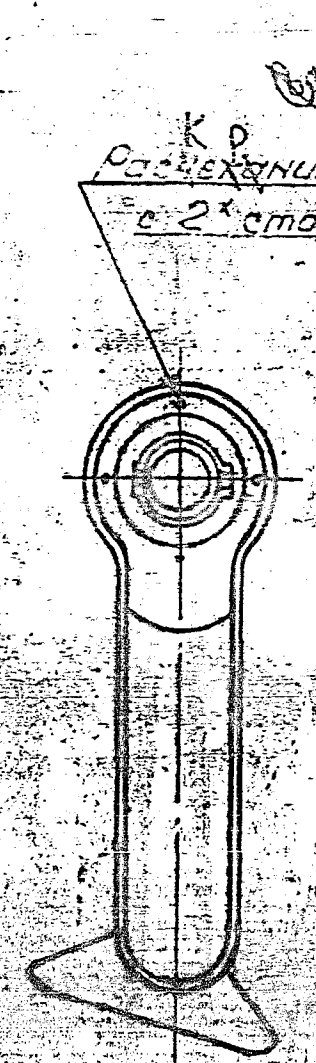
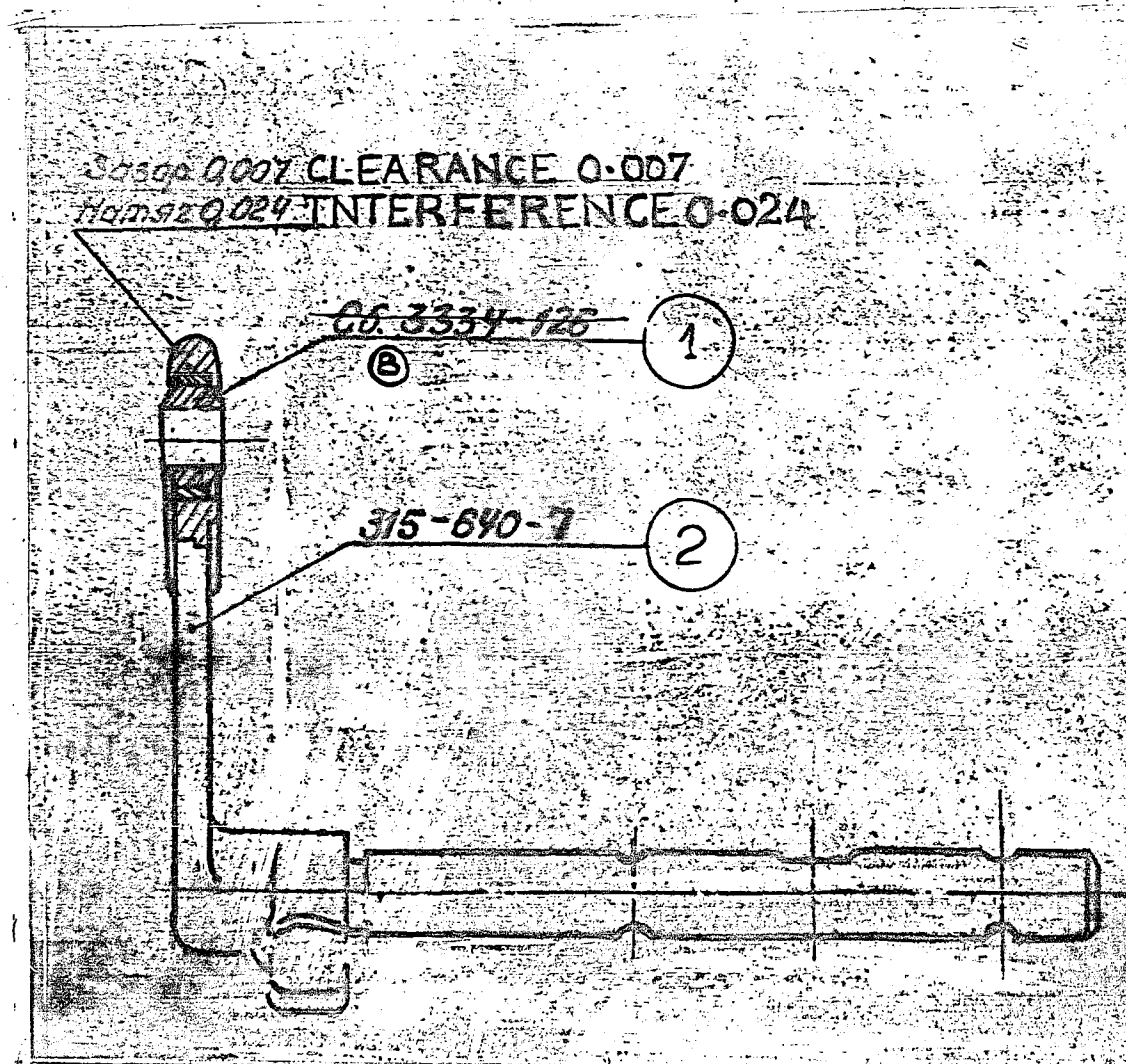
| | | | |
|-------------|------|--|---|
| | | EST. WT.
Refer
Sht 1 of 2 | TO BE STAMPED OR MARKED WHERE
INDICATED THUS # (LETTERS) |
| | | ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS
OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-
SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. | |
| | | MATERIAL :-

Refer Sht 1 of 2 | USED ON :-

Refer Sht 1 of 2 |
| ISSUE | DATE | NATURE OF AMENDMENTS | |
| DRN | | SCALE :- — | CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADI |
| CHD | | DIMENSIONS IN mm | |
| APRD | | TOLERANCE ON DIMENSIONS
UNLESS OTHERWISE STATED
IS : 2102 - 69 | TITLE :-
HINGE LINK |
| DATE | | ALL THREADS TO
CONFORM TO | D S CAT NUMBER |
| 09 Jul 2022 | | | DRAWING NUMBER
315-44-1
SHT 2 of 2 |

SIZE A4

DRAWING NUMBER
 СБ 315 608 1



TO BE PUNCH LOCKED AT 4 POINTS
 ON 2 SIDES

- 1. THERE MAY BE NO ZINC AT THE PLACE OF PUNCH LOCKING.
- 2. IT IS ALLOWED TO COAT THE PLACES OF PUNCH LOCKING AND FACES OF BEARING RACE WITH GRAY-BLUE ENAMAL ПФ-223 ГОСТ 14923-78

1. Допускается отсутствие цинка в местах расчеканки.
 2. Допускается покрывать места расчеканки и торцы ободов подшипника сероголубой эмалью ПФ-223, ГОСТ 14923-68, 78

3. For assemblies in tropicalised construction components provided with notation † T. in parts list of the given drawing (in column remarks) should have tropicalized construction envisaged by shop drawing.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

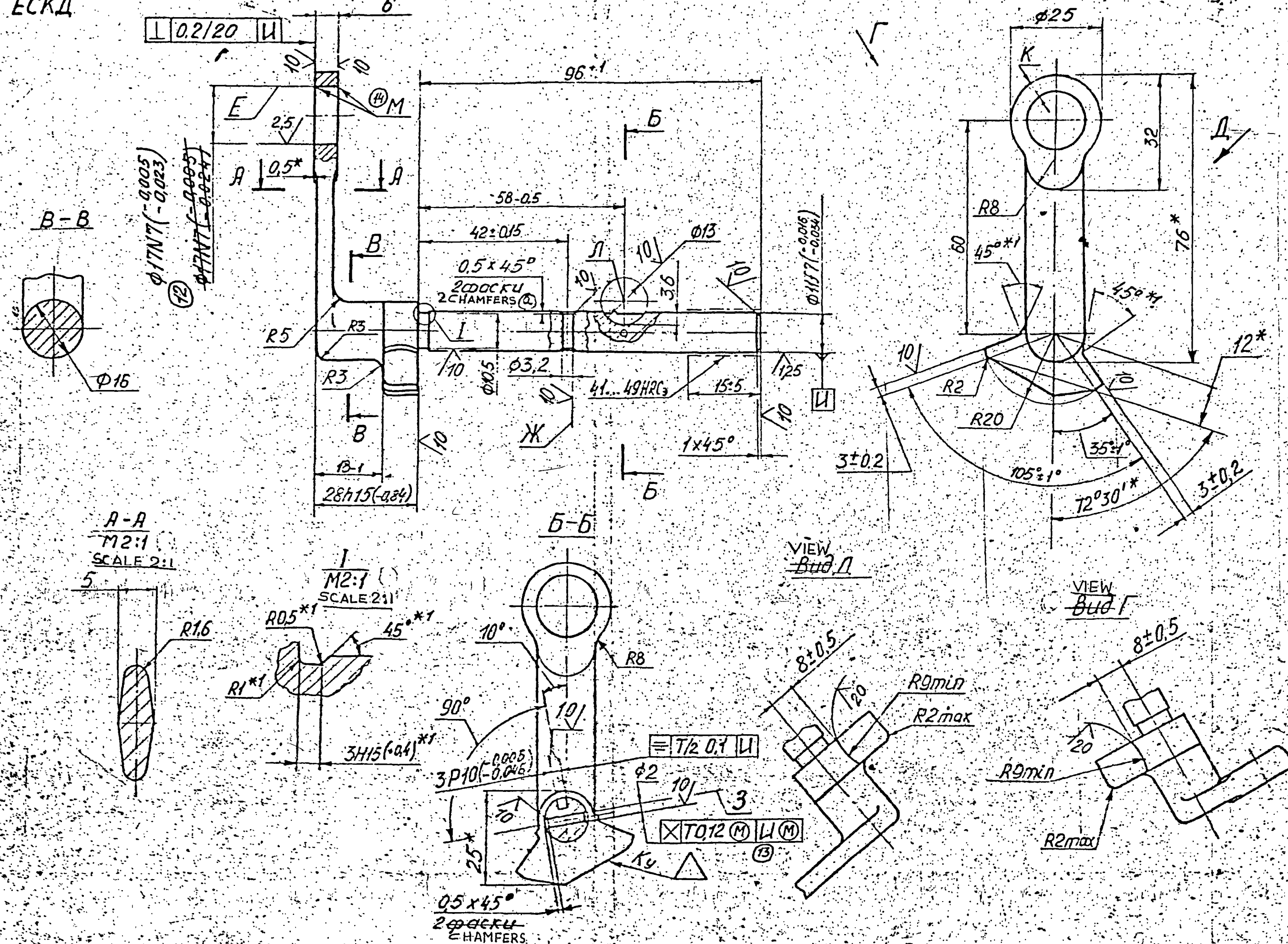
| | |
|--|---|
| EST. MASS
0.167 Kg | TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS) |
| ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. | |

| | | | | | | | | | | |
|-----|-----|-----|------|------|--|-------------------|---|------------------------|----------------------|----------------|
| DRN | CHD | TCD | APPD | DATE | SCALE - 1 : 1 | DIMENSIONS IN mm. | TOLERANCE ON DIMNS UNLESS OTHERWISE STATED. | ALL THREADS CONFORM TO | D S CAT NUMBER | DRAWING NUMBER |
| | | | | | | | | | | СБ 315 608 1 |
| | | | | | MATERIAL :- | | USED ON :- | | СБ 315 608 21 | |
| | | | | | CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI | | TITLE :- | | LEVER, ROLLER | |
| | | | | | AUTHY. NOTN. NO. BK 87-597 | | AUTHY. BK 83-48 | | | |
| | | | | | ISSUE | | DATE | | NATURE OF AMENDMENTS | |

DRAWING NUMBER
315-640-7

✓(CB)

ЕСКД



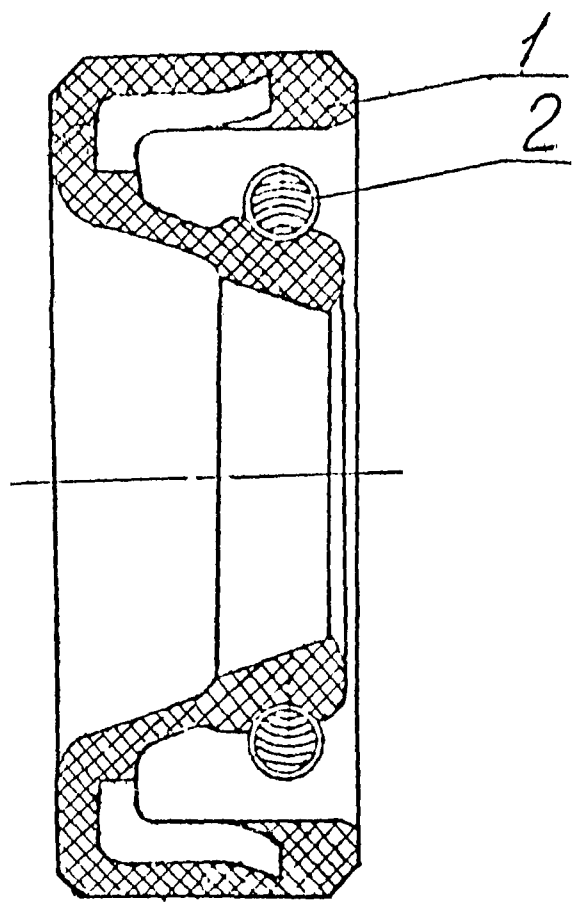
1. GROUP OF INSPECTION III AS PER T.R. - 11
2. 28...35 HRC EXCEPT THE PLACE, DESIGNATED SPECIALLY.
3. REQUIREMENTS GIVEN FOR DIE-FORGING ARE AS PER GOST 7505-74.
4. LOCAL RECESSES UP TO 0.5 mm ARE ALLOWED ON UN-MACHINED SURFACES.
5. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS: $H14, h14 \pm \frac{IT14}{2}$.
6. COATING: - Zn6 Cr AS PER U/L - 483-82 WITH REMOVAL OF HYDROGEN EMBRITTLEMENT.
7. IN TROPICAL MAKE, COATING cdg Cr AS PER U/L - 569-84 WITH REMOVAL OF HYDROGEN EMBRITTLEMENT.
8. ABSENCE OF COATING IS ALLOWED ON SURFACE U IN KEY SLOT, HOLES E, X, 3 AND PARTIALLY IN CENTRE HOLES.
9. LOCAL DAMAGES OF COATING IS ALLOWED WHEN CLAMPING THE COMPONENT IN FIXTURE.
10. IT IS ALLOWED TO DRILL HOLES IN ASSEMBLY.
11. IT IS ALLOWED TO INCREASE DIAMETER U UP TO 14 mm.
12. DIMENSION K IS ALLOWED AT LEAST 2.8 mm.
13. DIMENSIONS ARE FOR REFERENCE.
14. DIMENSIONS ARE ENSURED BY TOOL.
15. EDGES M ARE TO BE BLUNTED WITH RADIUS OR CHAMFER NOT MORE THAN 0.2 mm. SHARP EDGES WITHOUT BURRS ARE ALLOWED.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

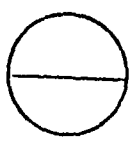
| | |
|--|---|
| EST. WT.
0.16 | TO BE STAMPED OR MARKED WHERE INDICATED THUS
(LETTERS) |
| ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT - SIDE R. INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. | |

| | | | | | | | | | | | |
|---|-----|-----|-------|---------|-------|--------------------------|---|---------------------------|-------|------|----------------------|
| DRN | CHD | TCD | APPD. | DATE | SCALE | DIMENSIONS IN mm | TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2102-69 | ALL THREADS TO CONFORM TO | ISSUE | DATE | NATURE OF AMENDMENTS |
| | | | | 30-9-93 | 1:1 | | | | | | |
| MATERIAL -- STEEL 45X GOST 4543-71 | | | | | | USED ON CB 315-608-1 | | | | | |
| CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) | | | | | | A V A D I | | | | | |
| TITLE : | | | | | | ROLLER WITH LEVER | | | | | |
| D S CAT NUMBER | | | | | | DRAWING NUMBER 315-640-7 | | | | | |

DRAWING NUMBER
CB 315-668

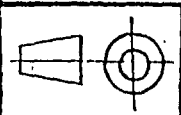


KVD NO 63410



PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

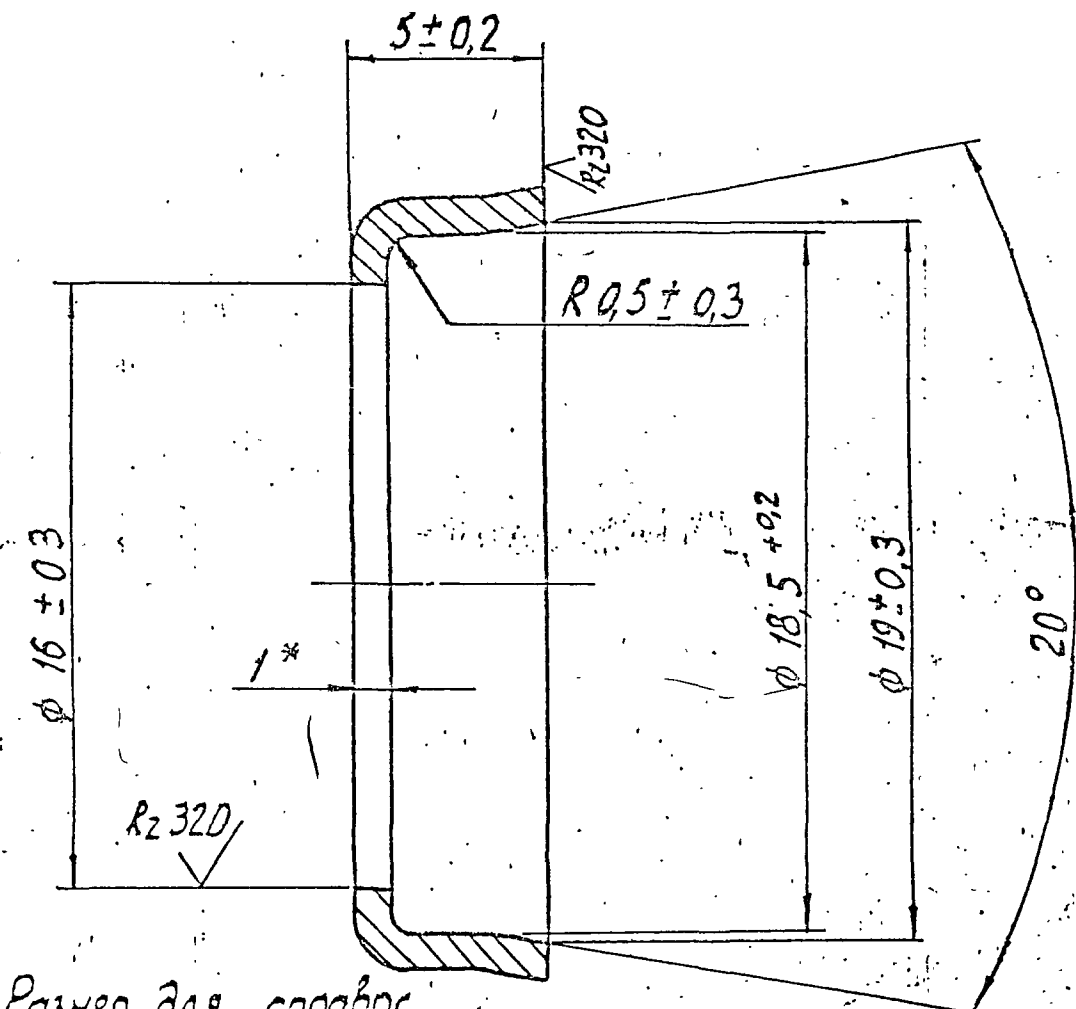
| | | | |
|-------|--------|---|---|
| | | EST. WT.
0,0047Kg | TO BE STAMPED OR MARKED WHERE INDICATED THUS ≠ (LETTERS) |
| | | ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. | |
| | | MATERIAL :- | USED ON
CB 315-663-21
CB 20-15-663-4 |
| ISSUE | DATE | NATURE OF AMENDMENTS | |
| DRN | llj. | SCALE:- 5:1 | |
| CHD | Amr | DIMENSIONS IN mm | |
| TCD | Parv | TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69 | |
| APPD | | ALL THREADS CONFORM TO | |
| DATE | 4-5-87 | D S CAT NUMBER | DRAWING NUMBER
CB 315-668 |



SEALING RING ASSY

✓(✓)

DRAWING NUMBER
315-667



- 1) * DIMENSION FOR REFERENCE.
- 2) ALTERNATE MATERIAL : STEEL 10 GOST 1050-74.
- 4) ON THE EXTERNAL SURFACE STRIP UP TO 0,25 mm DEEP AND UP TO 2mm WIDE IS ALLOWED FROM DIE LAP.
- 5) THE REST OF THE REQUIREMENTS AS PER Ty-005216-75 (APPENDIX - 1)
- 6) COMPONENT IS TO BE MACHINED WITH SHOT TEST ДСК 0,5 545 GOST 11964-81 OR BY SAND BLAST.
- 7) PRESERVATION IS TO BE CARRIED OUT AS PER GOST 9.014-78 PROTECTIVE ALTERNATIVE БЗ - 14 ZINCIBEROL PAPER уНИ 22 - 80 .

1. * Размер для справок.
 2. Заменитель материала сталь 10. ГОСТ 1050-74.
 3. ~~Ветрые~~ ~~кромки~~ ~~затупить~~ ~~радиусом~~ ~~не~~ ~~менее~~ ~~0,3~~ ~~мм.~~
 4. Допускается на наружной поверхности поясок глубиной до 0,25 мм и шириной до 2 мм от зажима штампа.
 5. Делать ~~обрабатывать~~ ~~дробью~~ ДСК-0,5 545 ГОСТ 11964-81 или песком.
 6. Консервацию производить по ГОСТ 9.014-78; вариант защиты БЗ-14, бумага цинкированная ЧНН 22-80.
 7. Остальные требования по ТУ-005216-75 (приложение 1).

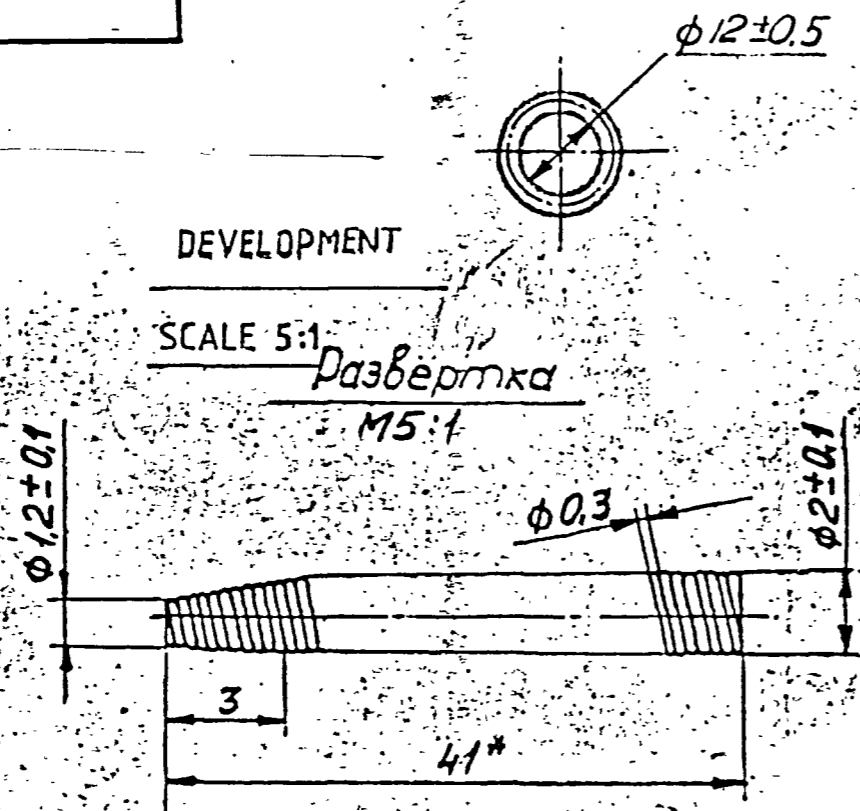
| | | | | |
|-----|------|---------|-------|----------|
| 4 | 2 | Б84-561 | Хвост | 12/10/88 |
| 3 | 1 | БК78-46 | Хвост | 21/10/88 |
| 2 | | 76-426 | | |
| 13M | Лист | № Докум | Подп | Дата |

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE 4 (BK84-561)

| | | | | | | | |
|---|-----------|--|----------|--|---|---|------------|
| PLOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION | | DRN | 9.014-78 | MATERIAL SHEET | A1 GOST 19904-74
5-II-10 GOST 16523-70 | USED ON | CB 315-666 |
| EST. WT. | 0,0023 Kg | TO BE STAMPED OR MARKED WHERE INDICATED THUS $\#$ (LETTERS) | APPD | DATE | 3-3-88 | CONTROLLERATE OF QUALITY ASSURANCE(HEAVY VEHICLES)
AVADI | |
| ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT SIDE INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE. | | SCALE:- 5:1 | | DIMENSIONS IN mm
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS:2102-69
ALL THREADS TO CONFORM TO | | TITLE
STIFFENING RING | |
| D S CAT NUMBER | | DRAWING NUMBER | | 315-667 | | | |
| 8 | | 1 | | 7 | | 6 | |
| ISSUE DATE | | NATURE OF AMENDMENTS | | | | | |

A-6
SIZE A3

DRAWING NUMBER
315-669



EXPLANATORY NOTE:

MATERIAL QUOTED: WIRE II 0.3 GOST 9389-75
 CARBON STEEL COLD DRAWN WIRE USED FOR FABRICATING SPRINGS. CATEGORY-SECOND (II). WIRE DIA = 0.3.
 WIRE SHOULD BE FABRICATED FROM CARBON STEEL GRADES KT-2 OR SK-7.

CHEMICAL COMPOSITION: %

| | KT-2 | SK-7 |
|------------|---------------|---------------|
| CARBON | 0.86 - 0.91 | 0.68 - 0.76 |
| MANGANESE | 0.20 - 0.40 | 0.50 - 0.80 |
| SILICON | 0.17 - 0.37 | 0.17 - 0.37 |
| SULPHUR | 0.020 (max) | 0.030 (max) |
| CHROMIUM | 0.05 (max) | 0.05 (max) |
| PHOSPHORUS | 0.020 (max) | 0.020 (max) |
| NICKEL | 0.05 (max) | 0.05 (max) |
| COPPER | 0.10 (max) | 0.04 (max) |

MECHANICAL PROPERTIES

TENSILE STRENGTH Kgf / mm² = 200-240

COILING DIRECTION IS RIGHT HAND.

THE LOCK TIP SHOULD ENTER THE HOLE OF THE OPPOSITE SPRING END EASILY WITHOUT SEIZING.

CHECK STRENGTH OF LOCK OF SPRING COILED INTO RING BY INSTALLING IT ONTO A MANDREL, 15mm IN DIAMETER. IN THIS CASE THE SPRING ENDS SHOULD BE KEPT IN THE SCREWED IN POSITION.

COATING: CHEMICALLY OXIDIZED, OILED.

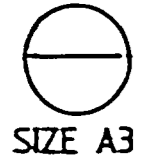
* GIVEN IS DESIGN DIMENSION.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P. BEFORE BULK PRODUCTION

EST. WT. 0.0002 Kg TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R- OUT SIDE R- INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

| | | | |
|--|----------------------|--|------------|
| DRN | <i>Devi</i> | MATERIAL:- WIRE II -0.3 | USED ON |
| CHK | <i>Devi</i> | GOST 9389-75 | CB 315-668 |
| TCD | <i>Devi</i> | CONTROLLERATE OF QUALITY ASSURANCE(HEAVY VEHICLES) | |
| APPO | <i>Devi</i> | AVAD. | |
| DATE | 4-8-89 | TITLE | |
| SCALE:- | 1:1 | CUP SPRING | |
| DIMENSIONS IN mm | | D S CAT NUMBER | |
| TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS:2102-69 | | DRAWING NUMBER | |
| ALL THREADS TO CONFORM TO | | 315-669 | |
| ISSUE DATE | NATURE OF AMENDMENTS | | |



SIZE A3