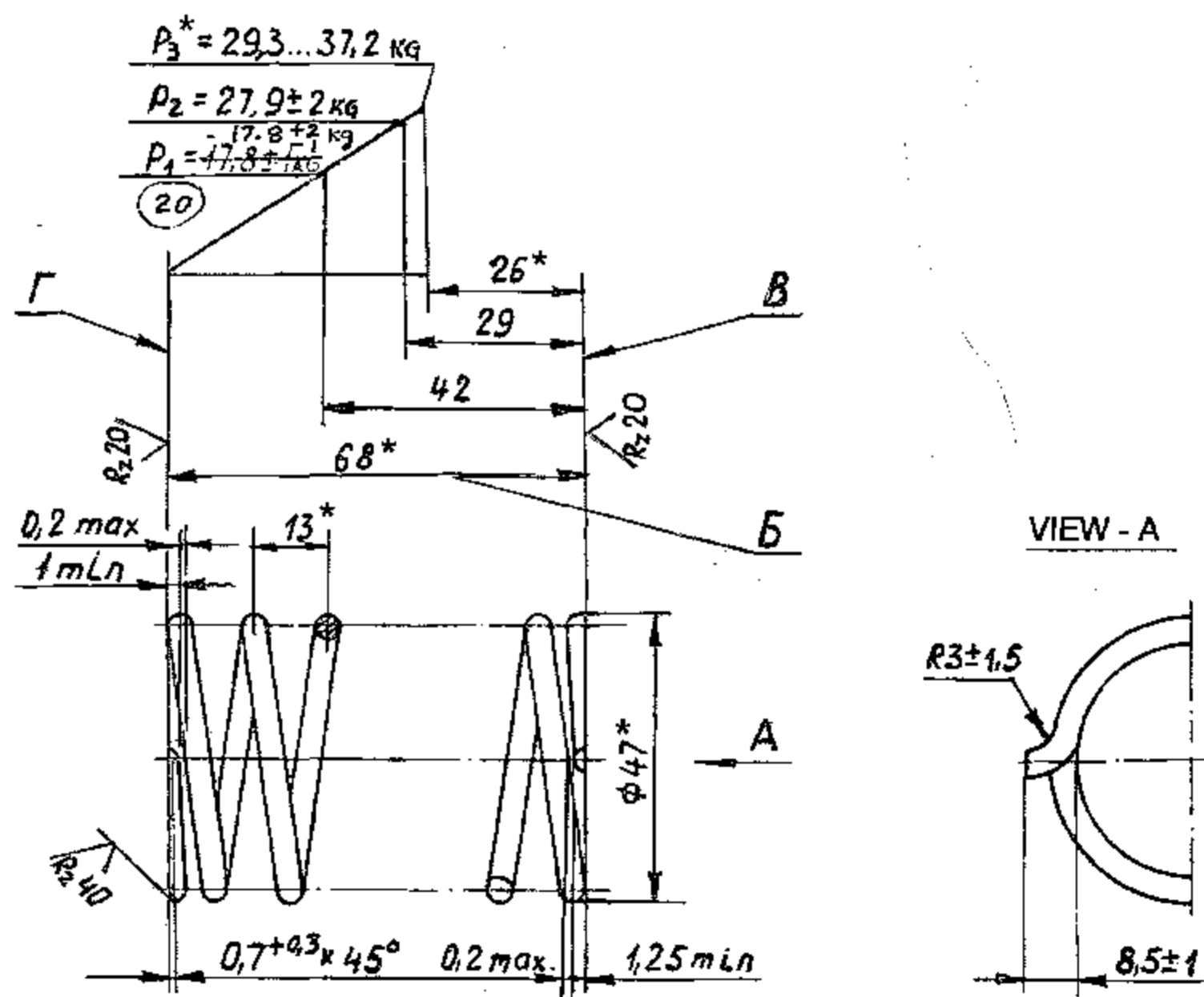


DRAWING NUMBER
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✓ (✓)



- 1 INSPECTION GROUP IV AS PER TECHNICAL REQUIREMENTS TT-11 HRC 40 TO 47
- 2 * $G = 8200 \text{ KGf/mm}^2$
- 3 * $E = 21000 \text{ Kg/mm}^2$
- 4 * $\epsilon_s = 56 \text{ Kg/mm}^2$
- 5 $n = 4.5$
- 6 $m = 7$
- 7 SPRING COILING DIRECTION IS RIGHT-HAND
- 8 $\Delta_{1c} = 38.5 - 0.05 \text{ mm}$
- 9 $\Delta_{1g} = 47.5 + 0.05 \text{ mm}$
- 10 RESIDUAL DEFORMATION IS NOT ALLOWED AFTER COMPRESSING THE SPRING TILL THE COILS MEET EACH OTHER
- 11 NON-SQUARENESS AT SURFACES B AND Γ RELATIVE TO THE AXIS OVER LENGTH B SHOULD NOT EXCEED 0.7 mm
- 12 NON-FLATNESS OF GROUND SURFACES B AND Γ SHOULD NOT EXCEED 0.2 mm OVER THE LENGTH OF 1/8 OF CIRCUMFERENCE
- 13 NON-FLATNESS OF GROUND SURFACES B AND Γ SHOULD NOT EXCEED 0.2 mm OVER THE LENGTH OF 1/8 OF CIRCUMFERENCE, CHECK UNDER LOAD OF 0.60.....0.74 Kg.
- 14 PITCH-VARIATION SHOULD NOT EXCEED 0.4 mm.
- 15 SURFACES B AND Γ SHOULD NOT BE LESS THAN 3/4th OF LENGTH OF COIL
- 16 PERFORM SHOT-BLASTING SURFACES B AND Γ MAY BE GROUND AFTER SHOT-BLASTING
- 17 CHECK THE PART BY USING A MAGNETIC FLAW DETECTOR PERFORM ACCEPTANCE AS SPECIFIED INSTRUCTIONS UB-20-70
- 18 COATING VARNISH $\Gamma \phi - 95$ BROWN, GOST 8018-70 IV C₁ NO COATING IS ALLOWED AT POINTS WHERE THE BEARING COILS COME IN CONTACT WITH EACH OTHER
- 19 APPLY STAMP ONTO THE TAG (PART 540-551) BATCH OF PARTS AND SEAL.
- 20 * DIMENSIONS AND PARAMETERS ARE GIVEN FOR REFERENCE.

EXPLANATORY NOTE.

REFERENCE MATERIAL QUOTED.

ALLOY STEEL SPRING WIRE GRADE SIX ϕA WITH SPECIAL SURFACE FINISH POLISHED GROUP "A" OF HIGHER ACCURACY "П" FOR COLD SPRING COILING " XH " WITH DIAMETER OF 4.0 $\left(\begin{smallmatrix} +0.03 \\ -0.02 \end{smallmatrix} \right) \text{ mm}$ TO GOST 14963-78 AND MANUFACTURED IN ACCORDANCE WITH ALLOY STEEL GRADE SIX ϕA TO GOST 14959-79.

a) CHEMICAL COMPOSITION AS PER GOST 14959-79

GRADE OF STEEL	CONTENTS OF ELEMENT %						
	C	SI	Mn	Cr	V	P	S
51 X ϕA	0.47	0.15	0.30	0.75	0.15	0.025	0.025
	0.55	0.30	0.60	1.10	0.25		

b) MECHANICAL PROPERTIES AS PER GOST 14963-78

ULTIMATE RUPTURE STRENGTH Kg/mm^2 MIN ---- 105
REDUCTION IN AREA % MIN ----- 40

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

EST. WT. (Kg) 0.09 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.

(21A) * ALTERNATE MATERIAL:-
WIRE GRADE OTEVA 70 SC (OR)
GRADE VDSICr TO IS: 4454 (Pt.-2):2001.

(21B) CQA(HV)5.06.606E
CQA(HV)5.06.610E

DRN	Sd/=	MATERIAL:-	USED ON:- **
CHD	Sd/=	WIRE 51 X ϕA *	Cb 20-06-12-6
APPD	Sd/=	A-П-XH 4 GOST 14963-78	
DATE		CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
SCALE:-	1 : 1		
DIMENSIONS IN mm		TITLE:-	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69		LARGE VALVE SPRING	
21B	15.7.15	Pt. 11, 7 th Alt. Comm. Meeting Dt. 11.6.12	
21A	11-02-08	AUTHY-ALT. COM. MEET. MINUTES POINT No. 3.1 Dt- 18-12-07	
21	14.7.89	NOTN.No. 503-86	
20	14.7.89	NOTN.No. 825-83	
ISSUE	DATE	NATURE OF AMENDMENTS	
D S CAT NUMBER		DRAWING NUMBER	
		20-06-65	

G. THIRUGANAM, JTO(D)
11-02-2008

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SIZE A2

