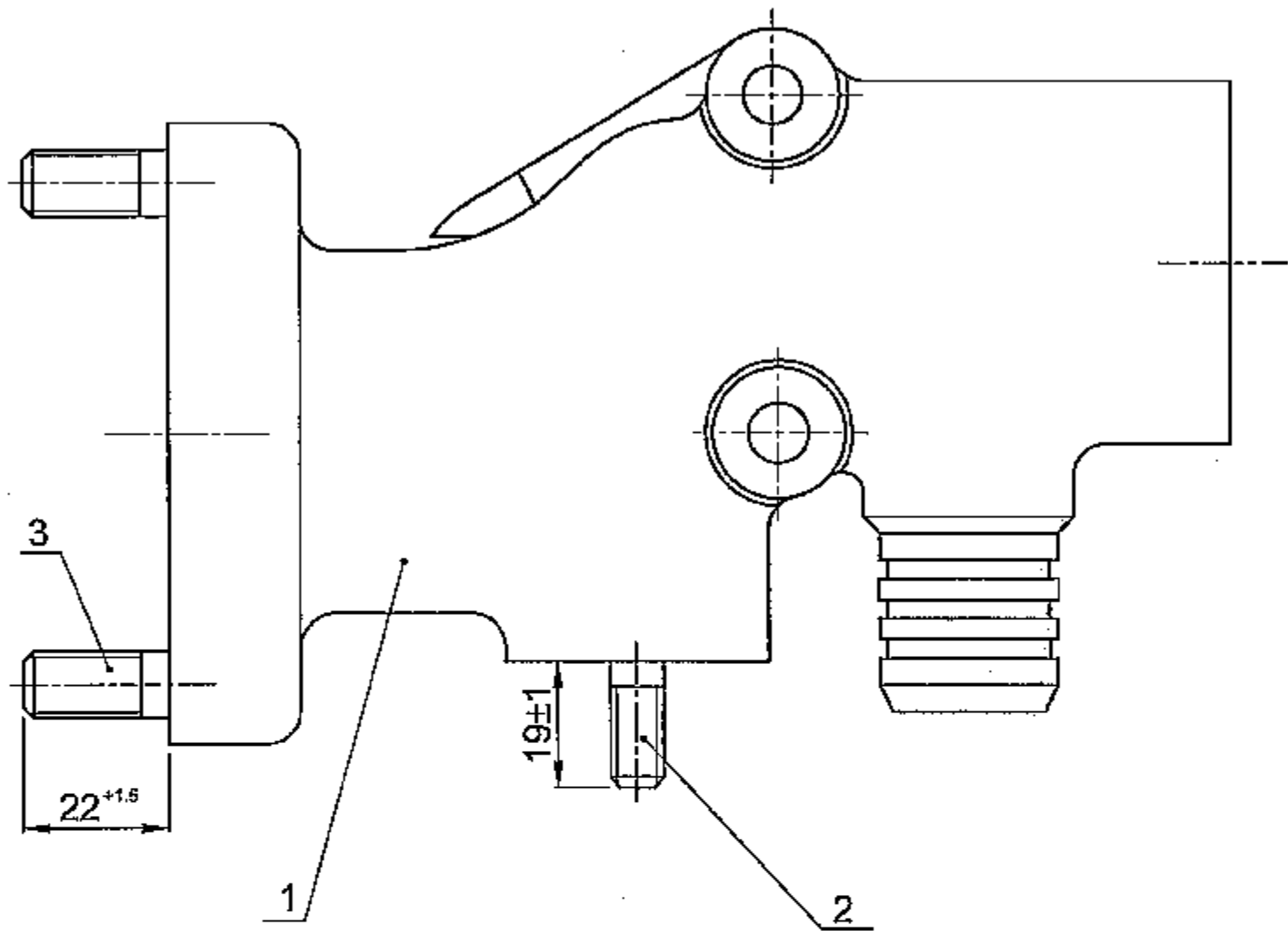


DRAWING NUMBER
Cb.3321-14-1



DRAWING INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 3

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

EST. WT.(Kg) 0.966 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.

ISSUE	DATE	NATURE OF AMENDMENTS
3A	13.08.08	D.O.CORRECTION

DRN	<i>me</i>	MATERIAL :-	USED ON :- CE 3321-00-26
CHD	<i>R. S. Singh</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
APPD	<i>[Signature]</i>		
DATE	17/2/07	TITLE :- RH, BRANCH PIPE ASSY (3A)	
SCALE:-	1:1		
DIMENSIONS IN mm		D S CAT NUMBER	DRAWING NUMBER Cb.3321-14-1
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69			
ALL THREADS TO CONFORM TO			

F-4
134
253

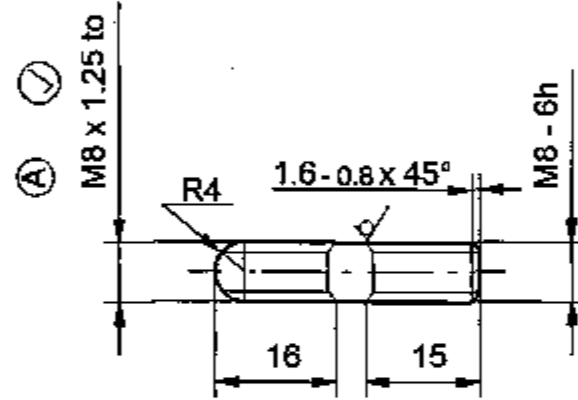
SIZE A3





DRAWING NUMBER
350 - 15

SHEET No. 1 OF 1



2. TECHNICAL REQUIREMENTS FOR THREADS AS PER STANDARD 82021-00.
3. DIMENSIONS WITH UNSPECIFIED TOLERANCES AND THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD 82052 - 00.
4. COATING : CADMIUM 3. CHROMATIZING AS PER II.II-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
5. THE THREAD MAY BE MADE BY ROLLING WITH THE DIAMETER OF UNTHREADED PORTION WITHIN THE PITCH DIAMETER OF THREADS.
6. MECHANICAL DAMAGES OF THE CADMIUM COATING SUCH AS SCRATCHES, NICKS AND DENTS ARE ALLOWED ON ASSEMBLY UNITS, PROVIDED THE STEEL IS NOT EXPOSED.
7. ALTERNATE MATERIAL : STEEL, GRADES 40 AND 50 GOST 1050-74.
8. HARDNESS :- 27 - 32 HRC.

8. EXPLANATORY NOTE :-

MATERIAL QUOTED :- ROUND BAR GOST 7417-75
45 GOST 1051-73

ALTERNATE MATERIAL QUOTED :- 40, 50 GOST 1050-74
PERTAINS TO SIZED COLD ROLLED OR COLD DRAWN STEEL WITH ROUND SECTION
40, 45 AND 50 ARE GRADES OF STEEL GOST 1051-73

CHEMICAL COMPOSITION :

GRADE OF STEEL	CONTENT OF ELEMENTS IN %							
	C	Si	Mn	Cr	P	Cu	S	Ni
40	0.37-0.45	0.17-0.37	0.50-0.80	0.25	0.035	0.25	0.04	0.25
45	0.42-0.50	0.17-0.37	0.50-0.80	0.25	0.035	0.25	0.04	0.25
50	0.47-0.55	0.17-0.37	0.50-0.80	0.25	0.035	0.25	0.04	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/mm ² (min)
40	58	34	19	45	6
45	61	36	16	40	5
50	64	38	14	40	4

9. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED THUS BASED ON OVER HAUL SPECIFICATION PART III REPAIR DRAWINGS.

SL.No.	R	REMARKS
1	M 10 x 1.5 to	ALL OTHER CONDITIONS AS PER STD. DRG.
2	+0.170 PCD = 9.026+0.095	

- * MATERIAL :- STEEL 709 M40 (EN-19) TO BS: 970 PT. -1-1983.

** Cb 306-01-36 Cb 306-01-20
Cb 306-02-36 Cb 306-02-20
Cb 3301-15-44 Cb 406-05-3
Cb 3308-04-24 Cb 3301-15-30
Cb 3321-14-1

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

EST. WT. (Kg) TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
0.012

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

DRN	Sd/=	MATERIAL :- ROUND BAR	USED ON :-
CHD	Sd/=	GOST 7417-75	Cb 3338-402-4 **
APPD	Sd/=	45 GOST 1051-73	
DATE	02.05.87	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
SCALE:- 1 : 1		TITLE :-	
D	20-05-09	Authy: Third Alt. Comm. Minutes Point: 5	STUD M8 x 35
C	25.8.08	USED ON NUMBERS ADDED	
B	11.01.08	AUTHY:-MIN. OF ALT. COM. MEET POINT	D S CAT NUMBER
A	06.9.95	No. - 2. 12 Dt. 07.02.07	
ISSUE	DATE	REPAIR SIZE DIMNS. ADDED.	DRAWING NUMBER
		NATURE OF AMENDMENTS	350 - 15

DRG. RE-INDIANISED BASED ON 350-15 ISSUE 'B' COMMON TO V-9252 ENGINE

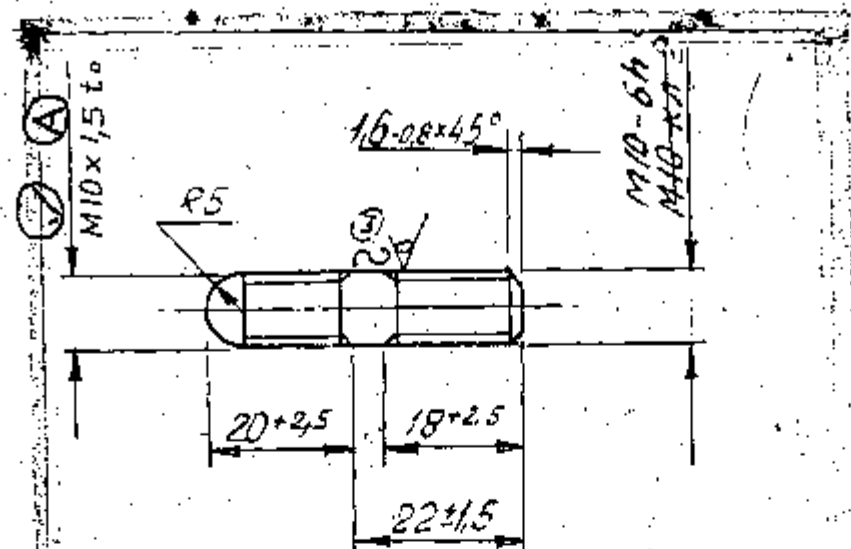
F-11
SIZE A2

DRAWING NUMBER

350 94

RZ80/ (✓)

8. EXPLANATORY NOTE



1. INSPECTION GROUP IV TT-11
 2. HRC \Rightarrow 28 ----- 35
 3. TECHNICAL REQUIREMENTS FOR THREADS AS PER STANDARD 82021-00.
 4. COATING: CADMIUM 3, CHROMATIZING AS PER UUA-104 WITH SUBSEQUENT ELIMINATION OF HYDROGEN EMBRITTLEMENT.
 5. MECHANICAL DAMAGE OF CADMIUM COATING SUCH AS SCRATCHES, NICKS AND DENTS ARE ALLOWED ON ASSEMBLY UNITS, PROVIDED THE STEEL IS NOT EXPOSED.
 6. DIMENSIONS WITH UNSPECIFIED TOLERANCES AND THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD 82052-00.
 7. THE THREAD MAY BE MADE BY ROLLING WITH THE DIAMETER OF UN-THREADED PORTION WITHIN THE PITCH DIAMETER OF THREAD.
 9. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED
- (A) THUS \odot BASED ON OVERHAUL SPECIFICATIONS PART III REPAIR DRAWINGS. **

8. REFERENCE MATERIAL QUOTED:

COLD ROLLED SIZED STEEL ROUND ϕ 10mm, CLASS OF ACCURACY 4 (-0.100)
TO GOST 7417-75 FROM HIGH GRADE STEEL 38XA GOST 1051-73 AND MANUFACTURED IN ACCORDANCE WITH CHROME ALLOY STEEL 38XA HIGH QUALITY A TO GOST 4543-71.

a) CHEMICAL COMPOSITION:

GRADE OF STEEL	CONTENT OF ELEMENTS %						
	C	Si	Mn	Cr	P	S	NI
38xA	0.35-0.42	0.17-0.37	0.50-0.80	0.80-1.10	0.025	0.025	0.30
	MAXIMUM						

b) MECHANICAL PROPERTIES

GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	YIELD POINT Kgf/mm ²	ELONGATION %	REDUCTION IN AREA %	IMPACT STRENGTH NGT ² Kgm/cm ²	HARDNESS BHN MAX
38xA	95	80	12	50	9	207

(C) EQUIVALENT MATERIAL
STEEL 709M40 (EN19) TO BS:970
40Cr4Mo3 TO IS:1570

Sl. No	R	REMARKS	**
1	M 12 x 1.5 to	ALL OTHER CONDITIONS AS PER STD DRGS.	(B) Cb 3301-15-30 Cb 3301-15-44 Cb 3308-04-24 Cb 3321-14-1
2	PCD = 11.026 \pm 0.170 \pm 0.095		

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

EST WT 0.026 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.

ORN	<i>[Signature]</i>	MATERIAL: ROUND BAR	USED ON: **
CHD	<i>[Signature]</i>	10-4 GOST 7417-75	Cb 3311-05-1
TCO	<i>[Signature]</i>	38xA GOST 1051-73	820-01-02-9
APPD	<i>[Signature]</i>	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
DATE	25-3-86	TITLE: STUD M10x42	
SCALE:	1:1	D S CAT NUMBER	
DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69	DRAWING NUMBER	
C	15-7-10 4 1/2 ALT. COMM. Mfg. MINUTES POINT No. 10 DT. 26-10-09	350 94	
B	25.8.08 USED ON NUMBER ADDED.		
A	2-11-95 REPAIR SIZE DIMNS ADDED.		
ISSUE	DATE	NATURE OF AMENDMENTS	

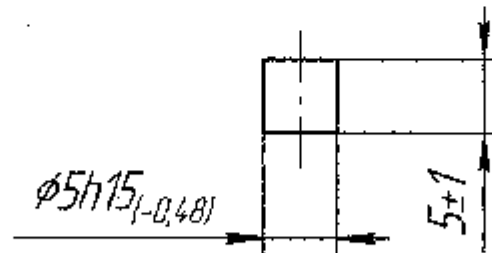
COMMON TO V-92S2 & UTD-20 ENGINES

(A-11)

E A3



3321-17



1. Phthalic anhydride (melting point 130.8 degree C) GOST 7119 - 77.
2. Substitute of material glycol anhydride, gidrogerberin (melting temp. 132 degree C) GOST 7119 - 77.

1. Фталевый ангидрид (тпл. 130,8°C) ГОСТ 7119-77.
2. Заменитель материала Гликолевый ангидрид, Гидрогерберин (тпл. 132°C) ГОСТ 7119-77.

Инд. № подл. 43963
 Подп. и дата
 Взам. инв. № Инв. № д/фил
 Подп. и дата

A 2003-23 Dt.23-09-08

3321-17
 Weight

Scale

Trans. & Ckd. By:
 M/s Swyaz
 Authenticated By:

MELTING INSERT
 Плавкая вставка

Лист	Масса	Масштаб
5	0,002	2:1

Approved By:
 Engine Factory, Adavi

Ref. to point TT.1
 см. пункт ТТ.1

Лист	Листов
Sheet	Sheets

Копировал

Формат А4