



Format

Формат Zone Item	Code Обозначение	Nomenclature Наименование	Qty. Кол.	Примечание
		Documentation		
		<b>Документация</b>		
		Assembly drawing		
*)	<b>сб.301-82-5СБ</b>	<b>Сборочный чертёж</b>		*) А4х4
		Parts		
		<b>Детали</b>		
		Upper bearing shell		
64	1 301-82-5	<b>Вкладыш верхний</b>	1	
		<b>Сталь 10 ГОСТ 1050-88</b>		
		Steel 10 GOST		
		Materials		
		<b>Материалы</b>		
	2	<b>Бр.ОС1-22 ОСТ 190054-72</b>		<b>0,052кг</b>
				0.052 kg

Изд. № 46006  
Лист № 16  
Всего листов 16  
Лист № 16  
Лист № 16

Fr-154  
45/59

Doc. No.	сб.301-82-5		
8 Shee	91-240	Sign.	Date
Кол. Листов	№ докум.	Подп.	Дата
Upper bearing shell		Letter	Sheet
<b>Вкладыш верхний</b>		Литр.	Листов
		16	1
Trans. & Ckd. by: M's SWYAZ			
Authenticated by:			
Approved by:			
Engine Factory, Avadi			

Format

Формат Zone Item	Code Обозначение	Nomenclature Наименование	Qty. Кол.	Примечание
		Documentation		
		<b>Документация</b>		
		Assembly drawing		
*)	<b>сб.301-83-5СБ</b>	<b>Сборочный чертеж</b>		*) А4х4
		Parts		
		<b>Детали</b>		
		Lower bearing shell		
64	1 <b>301-83-5</b>	<b>Вкладыш нижний</b>	1	
		<b>Сталь 10 ГОСТ 1050-88</b>		
		Steel 10 GOST		
		Materials		
		<b>Материалы</b>		
	2	<b>Бр.ОС1-22 ОСТ 190054-72</b>		<b>0,052кг</b>
				0.052 kg

Изд. № 45008  
Лист № 1  
Всего листов № 1  
Лист № 1  
Лист № 1

F-154  
47/59

Doc. No.	91-240	Sign.	Date
8 Sheets	№ докум.	Подп.	Дата
Trans. & Ckd. by: M: S W Y A Z			
Authenticated by:			
Approved by:			
Engine Factory: Avadi			

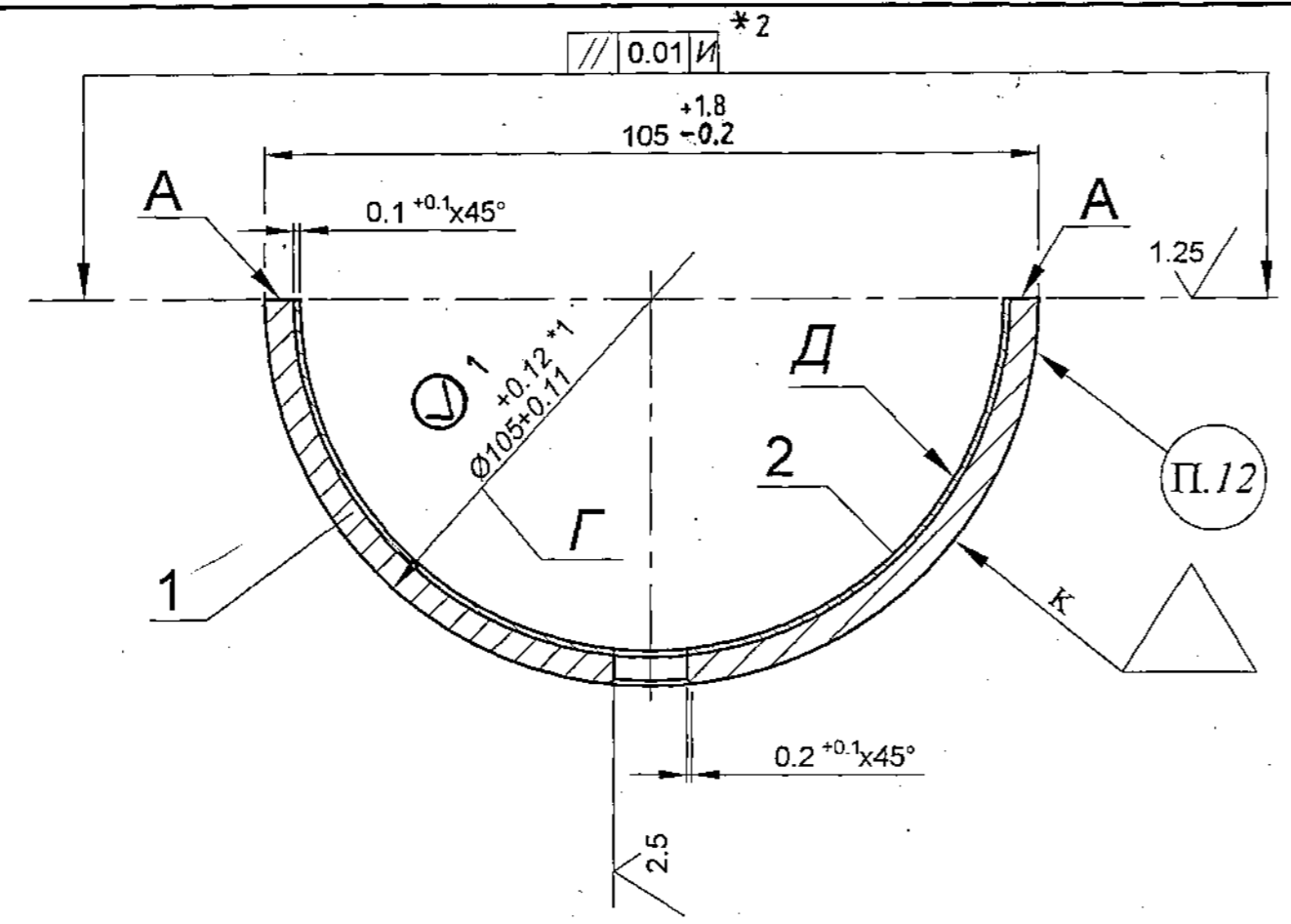
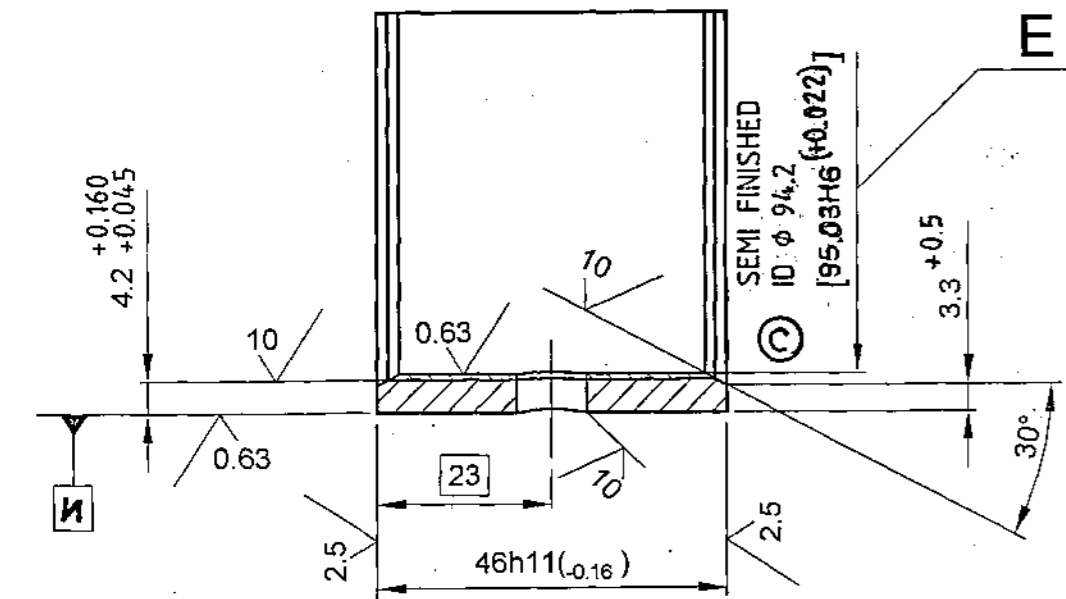
Lower bearing shell **сб.301-83-5**

**Вкладыш  
нижний**

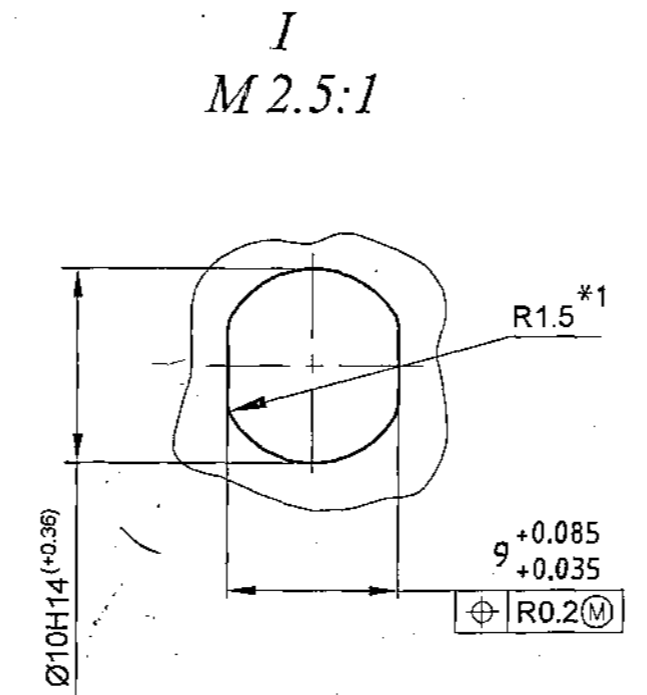
Letter	Sheet	Sheets
Лит	Лист	Листов
1	1	1

DRAWING INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 19  
DRG. REPLACES Cb.301-83-5, ISSUE-12 VIDE NOTN. No.-2003-283.  
COMMON TO V-92S2 ENGINE.

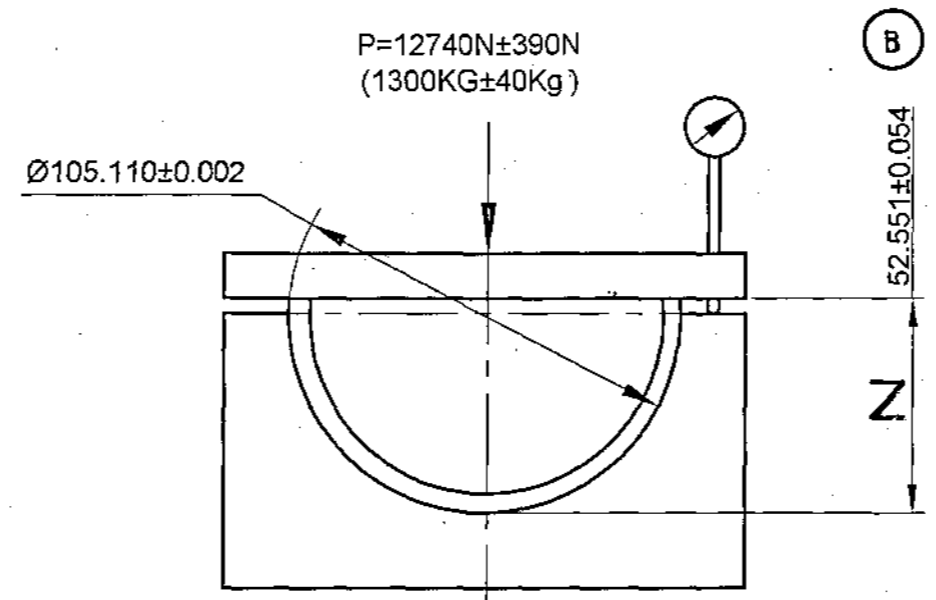
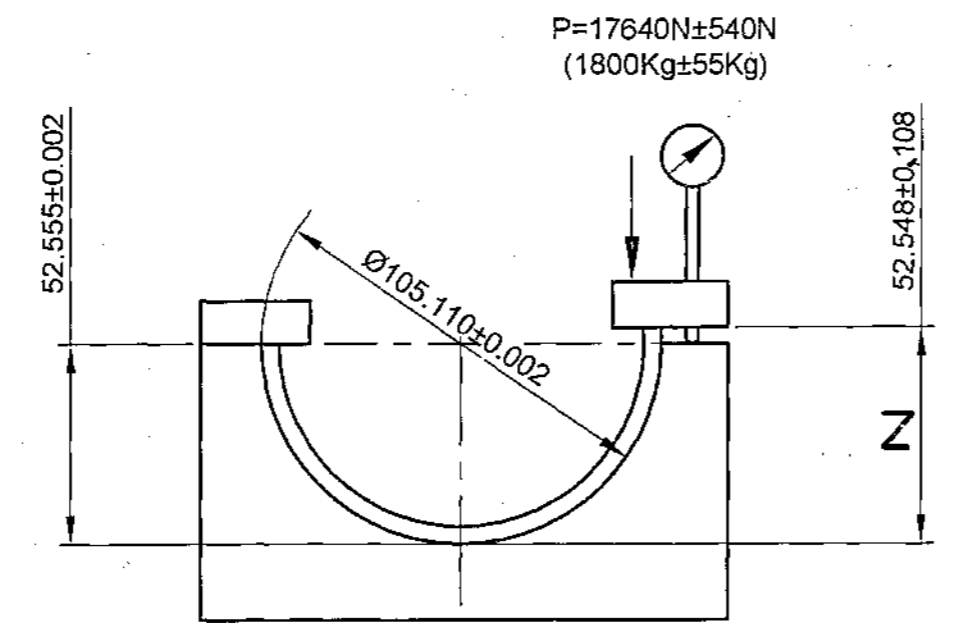
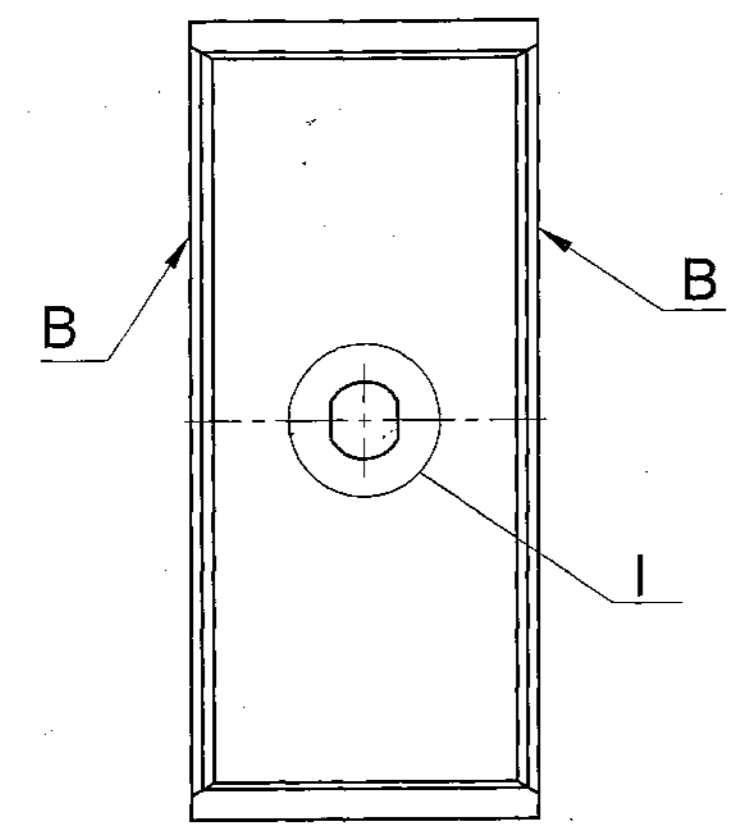
DRAWING NUMBER **Cb.301-83-5** SHEET No. OF



SKETCH 1 (1:2)



SKETCH 2 (1:2) ALTERNATIVE



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

EST. WT. (kg) **0.283** 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.

10. The Lower bearing shell is to be paired with the Upper bearing shell sb.301-82-5, as per height 'Z'. The total height of the paired halves should be within 105.08...105.112 mm. Parallel drift of joining surface 'A' of paired bearing shells from the axis of surface 'I' should not exceed 0.05 mm.
11. Assembly units sb.301-83-5 and sb.301-82-5 are to be marked with one serial number and to be used together (as a pair).
12. The pairing serial number of shells to be marked.
13. Dimension 'E' before lead plating.
14. Dimension 'B' in free condition.
15. \* Dimension is given for reference.
16. \*1 Dimension to be ensured by tool.
17. \*2 Measure with the help of fixture in compressed condition.
18. Alternative Material: EpC30 GOST 493-79 for Item 2.

NOTE: 'R2' SIZE IS 'APPLICABLE ONLY' FOR V46-6 ENGINE.

SL No.	R1	R2	REMARKS
1	+0.12	+0.12	1. FINISH SURFACE 'K' WITH THE CRANKCASE ASSERTED BORE INSERTS Cb301-83-5 DIMENSION OF 94 <sup>+0.022</sup> TO 95 <sup>+0.022</sup>
OUTSIDE DIA.	105 <sup>+0.11</sup>	107 <sup>+0.11</sup>	
INSIDE DIA.	96.5 <sup>+0.2</sup>	96.5 <sup>+0.2</sup>	2. FOR OTHER SIZES, ROUGHNESS OF SURFACE, TECH. REQUIREMENTS & MATERIAL REFER TO DRG. No. Cb301-83-5
DIMN 'E' DIA. BEFORE LEAD PLATING.	93.5 <sup>+0.07</sup>	93.5 <sup>+0.07</sup>	3. REPAIR SIZE CATEGORY R1 & R2 TO BE MARKED BY USING AN ELECTROGRAPH.

1. Requirement for the Material and the quality of plating should be as per instruction TTM-43-87.
2. Coating : O<sub>1</sub> or 3microns -zinc, 1micron -Chromium as per instruction ИЛ 749-88, after pairing the shells to be used as spare parts.
3. Surface 'D' should be lead plated, with layer thickness of 0.015±0.005 mm as per instructions ИЛ 702-87. Blisters, down flows, stripes, places not coated with lead are not allowed. On all other surfaces except the surface A, I and surface B, at the places of engraving figures, down flows and lead coating are permitted.
4. Instead of lead plating of surface 'D' it may be plated with the alloy of 88...96% - of Lead and 12...4% - of Tin.
5. The difference in total thickness (steel+bronze) should be 0.1mm maximum. This is to be checked before final machining.
6. It is allowed to have maximum 3 numbers of dents upto  $\phi$ 1.5 mm, depth upto 0.2 mm on the surface I.
7. Check the surface "I" by bluing in the region embracing the shells. The imprint should cover minimum 80 % of the shell surface area.
8. Carryout the machining as per the dimension given in the square brackets together with the assembly units sb.301-82-5.
9. Dimension of 'Z' (before coating) to be checked by measuring fixtures as per sketch 1 or 2.

DRN	CHD	APPD	DATE	MATERIAL :-	USED ON :-
			10-01-08		Cb 3301-15-30
20.8.10				CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
4 <sup>th</sup> Alt. Comm. Meeting Minutes Point No.20 Dt.26.10.09				SCALE:- 1:1	
12-06-09				DIMENSIONS IN mm	
Authy:- i)EFA Lt.No.EFA/P/RDS/020 Dt:25-05-09 & (ii) 82847/OH/QAS/ED Dt: 20-03-95. iii)EFA/P/PDO/023 Dt.6.11.98				TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69	
31-12-07				TITLE :-	
REPAIR SIZE DIMENSIONS ADDED. AUTHY:- LIA. MEET. MINUTES POINT No.- 2.5 Dt.- 18.12.07				D S CAT NUMBER	
ISSUE	DATE	NATURE OF AMENDMENTS		DRAWING NUMBER	
				Cb.301-83-5	

F-154  
48  
59  
SIZE A4 x 4