D.C. NO. 36766 A
14-7-1986

CHANGE INSTRUCTION (CI)

	Issued by		Designation	Drawing/Document No.
	FGTR		Base Plate 7.8 mm	F1301-901520 (00)
	Date 86-06-17	Prepared		(CI nr 0306)
	Date	Approved	Product 84 mm HEAT FFV 651, TPT FFV 65, AT 4	Sheet 1 (2)

Reference

Copy to

D.C. NO. 36766-A

1 DESCRIPTION OF CHANGE

The specification has been rewritten.

Para. 1 Description of method F1329-016280 added.

Sampling procedures and tables for inspection by attributes MIL-STD 105D or SS 02 01 30 added.

Para. 2 "The base plate is manufactured of paper impregnated with phenolic resin." added.

Para. 3.1.1.2 Deleted.

Para. 3.1.1.2 Previous para. 3.1.1.2. "To be determined on the extract specified in para. 6.3.1." changed to "The value is determined for an extract with composition one part by weight of material and 10 parts by weight of water".

Para. 3.1.1.3 Previous para. 3.1.1.4.

Para. 3.1.1.4 Previous para. 3.1.1.5.

Para. 3.1.4 "... as specified in para. 6.3.2", changed to "... according to description of metnod stated in para. 1.".

Mean ($\bar{x}$) = 90 $\pm$ 10 kp/sq.cm changed to 8.8 $\pm$ 1 MPa.

Standard deviation (s) = $\leq$ 7 kp/sq.cm changed to $\leq$ 0.7 MPa.

Para. 4.1.1 The text changed from "A manufacturing lot consists of 16000^{+800}_{-400} base plates.".

Para. 4.1.2 The text changed from "All base plates of one manufacturing lot must be made from paper cut of the same paper roll.".

Para. 4.1.3 New para.

Para. 4.1.4 Previous para. 4.1.3.

Para. 6.1.1 "These base plates shall, for information, also be inspected in accordance with para. 6.3.2" has been changed to "For information these base plates shall also be inspected as regards bursting pressure according to description of method stated in para. 1.".

CHANGE INSTRUCTION (CI)

FFV	Issued by		Designation	Drawing/Document No.
	Date	Prepared	Base Plate 7.8 mm	F1301-901520K
	Date	Approved	Product	Sheet 2 (2)
Reference				
Copy to				

Para. 6.1.3 "Inspection to be performed in accordance with para. 6.3.2" has been deleted.

Para. 6.2 Ammonia content according to para. 3.1.1.2 deleted.

Para. 6.3 TEST SPECIFICATIONS deleted.

3 PRODUCT REQUIREMENTS

3.1 PROPERTIES

3.1.1 Material

3.1.1.1 Type of material specified in the drawing.

3.1.1.2 pH-value to be within the limits 5.0 and 8.0. The value is determined for an extract with composition one part by weight of material and 10 parts by weight of water.

3.1.1.3 After having been exposed to tropical storage for 5 days, there must be no visible delamination of the paper layers.

Remark: Tropical storage is storage in air with a relative humidity of 100 % and the temperature varying between +20 °C and +40 °C with 9 cycles per 24 hours.

3.1.1.4 The mean value, ($\bar{x}$), of the moisture absorption during the tropical storage described in para. 3.1.1.4 shall, when tested on 20 base plates, be 1,42 $\pm$ 0.88 % and the standard deviation (s) $\leq$ 0.36 %. (2.30 – 0.54)

$$s = \sqrt{\frac{\Sigma (x-\bar{x})^2}{n-1}}$$

Moisture absorption to be determined by weighing the base plates before and after the tropical storage.

3.1.2 Dimensions

Toleranced dimensions must be within the specified tolerance zones. An AQL of 0.65 % is applicable to the dimensions listed below:

Ø 78 h11
7.8 h12
1.2 H13
d (Ø 73.8 h12 or Ø 74.8 h12)
6.25 h13

An AQL of 2.5 % is applicable to other toleranced dimensions.

3.1.3 Surface Quality

3.1.3.1 Colour as specified in the drawing.

3.1.3.2 Cracks and scratches are not permissible.

3.1.4 Functioning

When testing 100 base plates in a pressure testing device according to description of method stated in para. 1, $\bar{x}$ and s shall be as follows:

Mean ($\bar{x}$) = 8.8 $\pm$ 1 MPa OR 79·56 Kg/cm² to 99·96 Kg/cm²

Standard deviation (s) = $\leq$ 0.7 MPa OR $\leq$ 7·14 Kg/cm² (6)

$$s = \sqrt{\frac{\Sigma (x-\bar{x})^2}{n-1}}$$

No individual value should below 75 Kg/cm² (6)

3.1.5 Marking

The base plates shall be marked with lot designation and FFV article number inside the circle 68. The designation shall consist of manufacturer's symbol, year of manufacture and lot number (example 13764001). The FFV article number is stated in the order. "F1301-" in the FFV article number may be omitted when marking.

4 MANUFACTURE

4.1 PLANNING AND FOLLOW-UP

4.1.1 A manufacturing lot consists of 5 000 ± 500, ~~10 000 +800 -400~~ or ~~16 000 +800 -400~~ pcs. ~~Unless otherwise stated in the order, the base plate shall be delivered in the largest lot size stated here. Larger lot size than stated here is not permissible.~~ larger lot size.

4.1.2 In a manufacturing lot, paper from only one manufacturing lot is permissible.

4.1.3 In a manufacturing lot resin from only one resin batch may be included.

4.1.4 A manufacturing journal shall be kept and be shown on request. The journal shall give information on used material. Further, the journal shall state the results of analyses made during manufacture as well as essential alterations in the manufacturing process.

5 DELIVERY

5.1 PACKING

The package shall protect the base plates from scratches and other damage during transport, handling and storing. The different lots to be kept strictly apart.

5.2 TRANSPORTATION MARKING

The package shall be marked with the name of the product, FFV article number, number of parts and lot number.

6 INSPECTION

6.1 VENDOR'S INSPECTION

The inspection shall comprise the requirements of para. 3. Where an AQL is specified, the sample size must not be less than 200 base plates.

6.1.1 At least 20 base plates per lot shall be inspected as regards the requirements of paras. 3.1.1.4 and 3.1.1.5. For information, these base plates shall also be inspected as regards bursting pressure according to description of method stated in para. 1.

6.1.2 The requirement of para. 3.1.3.2 shall be inspected by means of 100 % visual inspection. Special attention to be paid to transverse cracks and scratches. Defective base plates to be removed.

6.1.3 100 base plates per lot shall be inspected as regards the requirement of para. 3.1.4. If the requirements are not met, the result shall be submitted to the purchaser for decision (firing test).

6.2 CERTIFICATES

Inspection as specified in para. 6.1 of the requirements below shall be accounted for by means of test certificates.

pH-value	in accordance with para.	3.1.1.3
Tropical storage test	" -	3.1.1.4
Test of moisture absorption	" -	3.1.1.5
The following dimensions	" -	3.1.2
Ø 78 h11		
d (Ø 73.8 h12 or Ø 74.8 h12)		
Ø 73.35 h12		
Ø 72.5 h12		
Ø 77 h12		
7.8 h12		
8.5 h13		
6.25 h13		
1.2 H13		
$1\ ^{+0.1}_{0}$		
Surface quality	in accordance with para.	3.1.3
Functioning	" -	3.1.4

FFV

Base Plate 7.8 mm

F1301-901[illegible]

Sheet 1 (6)

Issue	Date	Prepar-ed	Check-ed	Appd	Issue	Date	Prepar-ed	Check-ed	Appd	Issue	Date	Prepar-ed	Check-ed	Appd
K	86-06-17	LN		TE										

The information contained in this document is the property of FFV. All unauthorized use thereof will be prosecuted.

1 RELEVANT DOCUMENTS

In addition to this specification:

Drawing	F1301-015080
Description of method for static bursting hydraulic pressure test	F1329-016280
Sampling procedures and tables for inspection by attributes	MIL-STD-105D or SS 02 01 30

2 DESCRIPTION OF PRODUCT

The base plate is used to the igniter 506 for 84 mm ammunition. Since the base plate closes the rear end of the round, it is essential that the variations in its bursting pressure are as small as possible.

The base plate is manufactured of paper impregnated with phenol resin.

CHANGE INSTRUCTION (CI)

FFV	Issued by: FGTR	Designation: Base Plate 7.8 mm	Drawing/Document No.: F1301-901520	
	Date: 85-08-21 / Prepared: LN			
	Date: / Approved:	Product: 84 mm HEAT Round FFV 651 and TPT FFV 65	Sheet:	

Reference

Copy to

DESCRIPTION OF CHANGE

Para. 3.1.2 and para. 6.2	Ø 74.8 h12 has been changed to d (Ø 73.8 h12 or Ø 74.8 h12)
Para. 6.3.2	Drawing No. F1301-012340 has been added.

00.1069.2 200 8212

130 135

METODBESKRIVNING (MB) 25

FFV

Static bursting hydraulic pressure test of base plate for ignition system to 84 mm am.

Nr F1329-016280

Blad 1(2)

Utgåva	Datum	Utf	Gr	Godk	Utgåva	Datum	Utf	Gr	Godk	Utgåva	Datum	Utf	Gr	Godk
A	851220	AA												
B	860901													
C	881227													

Uppgifter som upptas i denna handling är FFV egendom. Allt obehörigt utnyttjande därav kommer att beivras.

1. TEST PURPOSE

Control of the static bursting hydraulic pressure strength according to technical report.
Valid for all base plates for 84 mm am.

2. MATERIAL SPECIFICATION

Hydraulic pressure device	F1324-101760
Lower part	F1301-012340

3. PERFORMANCE OF THE TEST

The base plate is placed with the chamfer downwards in the fixture, which is installed in the hydraulic jack. The fixture is provided with 2 o-rings to get necessary sealing against the top fixture-half.

The hydraulic jack is raised against the top fixture-half, air flows in and the hydraulic pressure is increased until the bottom plate is fragmented. The value is read off on the manometer in kp/cm² and is registered in the report.

When the hydraulic pressure is released, the hydraulic jack returns to starting position and after that the fragmented pieces from the previous bursting are blown out from the lower fixture, a new bursting can be started. The remaining fragmented pieces from the bursting are blown out through an exhaust pipe under the device.

Explanatory sketch see page 2.

A. I./PATTERN OFFICE,
ORDNANCE FACTORY, KHAMARIA.
Received on.....
under letter No.....
.....dt.....

00.1074.1 1000 8502

METODBESKRIVNING

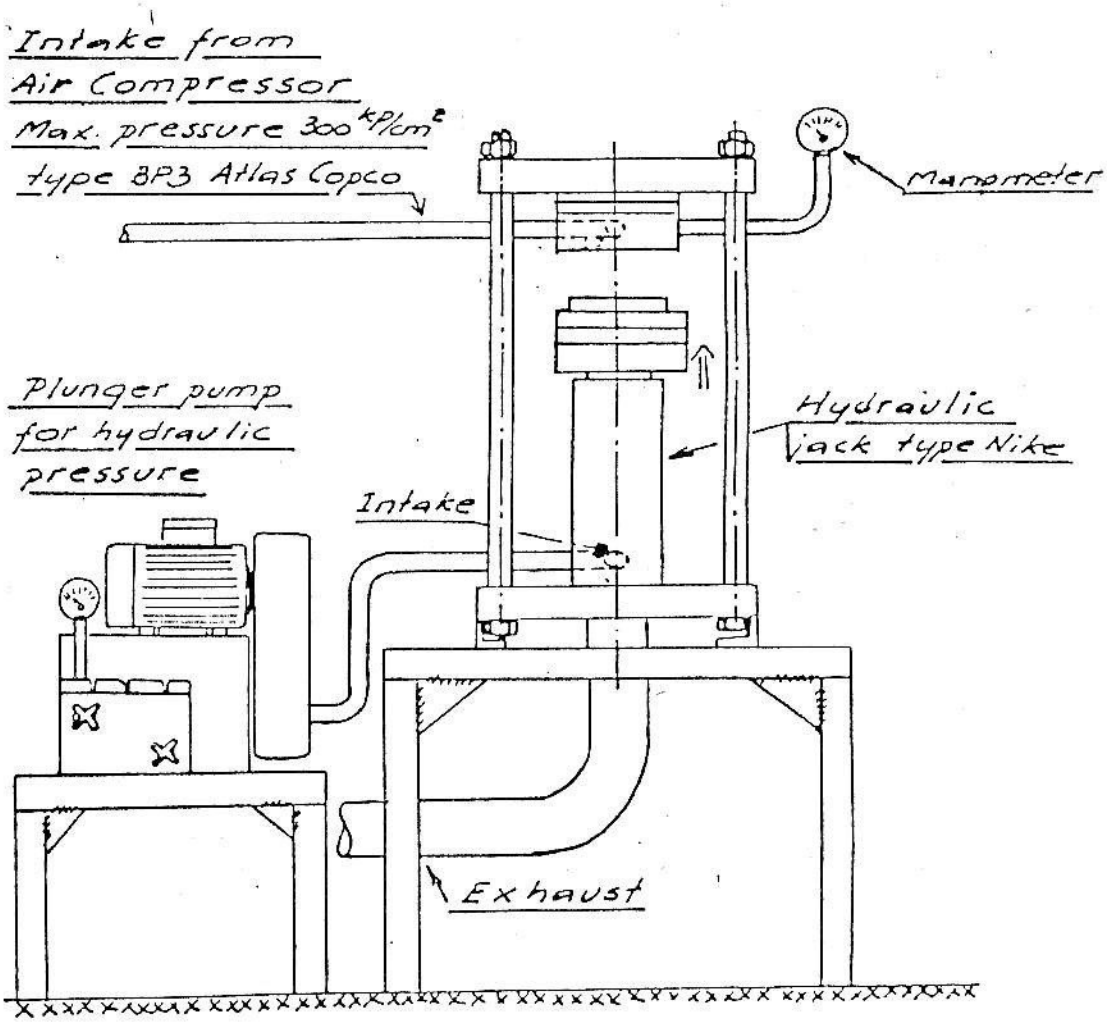
FFV Försvarsmateriel
Zakrisdalsverken
Kvalitetssektionen

Static bursting hydraulic pressure test of base plate for ignition system to 84 mm am.

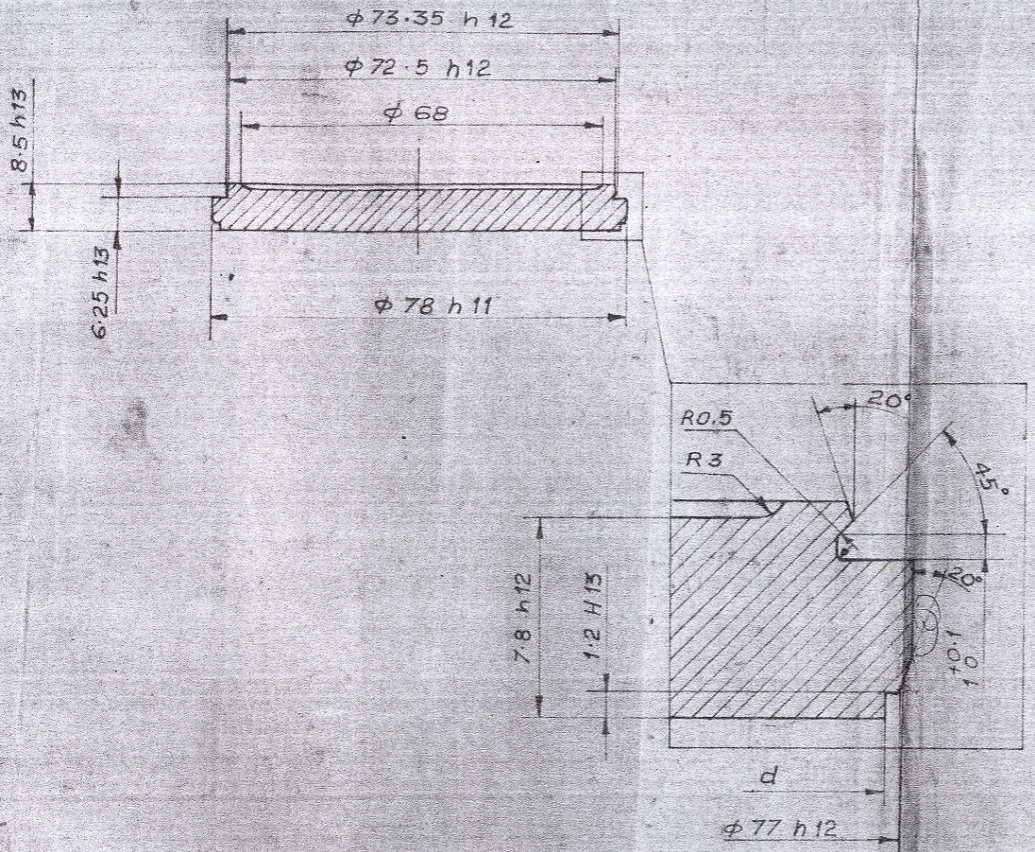
Nr F1329-016280

Blad 2(2)

Utgåva	Datum	Utf	Gr	Godk	Utgåva	Datum	Utf	Gr	Godk	Utgåva	Datum	Utf	Gr	Godk
A	8512	AA												



71.5294.1



	ARTICLE Nº	d
*	F 1301 - 015083	φ 74 . 8 h 12
	F 1328 - 112850	φ 73 . 8 h 12

* FOR INDIGENOUS PRODUCTION.

INDIGENOUS MATERIAL:-

IS 2036 : ~~1974~~ 1995 ~~SUITABLE~~ GRADE PL WITH AMONIA CONTENT LESS THAN 0·02 %, PH VALUE 5·0 TO 8·0 & SATISFYING REQUIREMENTS AS PER CLAUSE 3.1.4, 3.1.1.3 & 3.1.1.4 OF SPEC. F 1301 - 901520 L.

NOTE : " TESTS FOR 'DENSITY' AND 'MOISTURE CONTENT' MAY BE CARRIED OUT AND RECORDED FOR GENERATING DATA. "

D.S. CAT Nº ~~NOT TO BE ALLOTTED~~ ~~1315-000378~~

Perstorp PF 714, Colour : brown
Other requirements See Spec. F 1301 - 901520

R.Nº	DATE	AUTHORITY	REVISION
	11·11·02	36862-A	INDIGENEOUS MATL. SPECN. AMENDED & NOTE ** ADDED
	23·9·99	36598-A	D.S. CAT NO. DELETED
	3-2-95	D C 35901-A	INDIGENOUS MATERIAL AMENDED.
	21-3-94	D.C 35843-A	INDIGENOUS MATERIAL AMENDED.
	18-4-94	D C 35691-A	BOX GAUGE SCHD ADDED & SS SPEC WAS SPECN.
	30-1-92		TRACED WITHOUT CHANGE.
			PREVIOUS D C^S Nº S:- 34214-A, 34314-A, 34803-A & 35201-A.

AHSP D.C
SIG
DRN.

Där ej annat anges gäller Tolerans ± IT 15/2	Ytjämnhet 12·5	Gradning ≈ R 0·3 eller Fas 0·3 X45	Färe Mått Ytbeh efter
Konstr/Rittad L.J IP	Kop	Granskad K.J.O	Godk UM
Datum 65-09-02		B.O	

Ytbehandling

GAUGE SCHD:- K 1630 | Vyplacering | Skala 1 : 1

BASE PLATE 7·8 mm

Art. Nº See table.

FÖRENADE FABRIKSVERKEN
HUVUDKONTORET ESKILSTUNA

F 1301-015080 K

Blad

CHD. | TRD. RCD | COMP. | AHSP:- CQA (A) KIRKEE

14192