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भारत सरकार  
Government of India  
रक्षा मंत्रालय ( गु. आ. म. नि. )  
Ministry of Defence (DGQA)  
गुणता आश्वासन नियंत्रणालय ( गोलाबारुद )  
Controllerate of Quality Assurance (Ammunition)  
खडकी : पुणे - 411 003 ( महाराष्ट्र )  
Khadki: Pune - 411 003 (Maharashtra)

आय एस ओ 9001: 2008 प्रमाणित नियंत्रणालय

संख्या : तकनिकी सेवा अनुभाग-4/20 / पत्राचार डीसी

दिनांक : 27 मार्च 2017

सेवा में,

वरिष्ठ गुणता आश्वासन अधिकारी, वरिष्ठ गुणता आश्वासन स्थापना (आयुध), चंद्रपुर महाराष्ट्र : 442 501	महाप्रबंधक, ✓ आयुध निर्माणी चांदा, चंद्रपुर महाराष्ट्र : 442 501
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**DC No. 37445 - A dated 04 March 2017**

One certified copy of the under mentioned particular duly amended as per subject DC is forwarded herewith for your reference / retention.

Sr No.	Nomenclature	Proof Schedule No.	Qty
1	Schedule of Proof and sentencing of Fuze B-15 (Filled)	CQA(A)/PS/FZ/104	01

संलग्नक - प्रुफ शेड्यूल --- 01 No.



सहायक बी एस  
(बी एस सबरवाल)  
सहायक अभियंता (गु.आ)  
उपसहायक नियंत्रक  
कृते नियंत्रक

DGM/VVP  
for std. cell  
10/4/17

Std. cell  
10/4/17

CQA(A) Kirkee Proof Schedule No FZ/104 (d)  
Based on CQA(A) Drg No 3-024043, 3B15, C0000T0

**SCHEDULE OF PROOF AND SENTENCING OF FUZE B-15 (FILLED)**

1. **Type of Proof.**

- (a) Safety from Premature (Checking Minimum Safety Distance of Non-Arming).
- (b) Reliability of Functioning.

2. **Proof Establishment.** CPE Itarsi.

3. **Lot & Sample Size.**

Type of Lot	Lot Size	Sample Size		Special Instructions
		Safety from Premature	Reliability of Functioning	
OT Lot	2000+PS	5	10@ DRP -20@	@ Samples to be jolt tested after filling as per Specn No GOST 1564-69.

**Note.**

(a) Manufacturer may either offer Pilot Lot (of limited Sample Size) for evaluation by DGQA else may offer First Lot with additional Rounds for evaluation by DGQA at his own risk / cost. Separate instructions will be issued by CQA(A) for Pilot Lot or in the following eventualities:-

- (i) First Lot of the order / contract on same Manufacturing Agency.
- (ii) Break in production for more than one year.
- (iii) Change in raw material / manufacturing / production process.
- (iv) Any other eventuality as assigned by AHSP.

(b) In addition to the normal service marking, samples will be stenciled 1P, 2P ... and so on. Jolted samples will be marked as "J" for identification.

4. **Safety From Premature (Checking Minimum Safety Distance of Non-Arming).**

4.1 **Method of Proof.**

- (a) **Charge.** Normal Charge (SCCC index 4K40).
- (b) **Shell.** Shell 125mm Tk HEAT (Filled).

(c) **Gun.** Gun 125mm type D-81 or T-90 Barrel with wear not more than 3.3 mm at 850mm from breech end mounted on Tank T-72 / T-90 or Slave carriage or on fixed mounting.

(d) **QE.** To suit Proof Officer.

(e) **Target.** Vertical wooden board of 24 to 26 mm thickness placed at 2.5m from Muzzle End.

#### 4.2 **Observations.**

(i) Premature.

(ii) Functioning of shell on hitting the target.

4.3 **General Performance Required.** Fuze should not function on hitting the wooden target.

#### 4.4 **Classification of Defects**

(a) **Critical.**

(i) Premature.

(ii) Functioning of shell on hitting the target.

(b) **Major.** Nil

(c) **Minor.** Nil

#### 4.5 **Acceptance Criteria.**

(a) **Critical Defect.** If a single defect occurs the lot will be rejected

### 5. **Reliability of Functioning.**

#### 5.1 **Method of Proof.**

(a) **Charge.** Normal Charge (SCCC index 4Ж40).

(b) **Shell.** Shell 125mm Tk HEAT (Filled).

(c) **Gun.** Gun 125mm type D-81 or with T-90 Barrel with wear not more than 3.3 mm at 850mm from breech end mounted on Tank T-72 or T-90 or on fixed stand.

(e) **QE.** To suit Proof Officer.

(f) **Target.** Rolled armour plate of thickness 200mm kept at **80m to 110m** from ME on suitable plate stand at AOA 60° to normal (or any other RHA plate at suitable angle to achieve an effective penetration of 400mm).

## 5.2 **Observations.**

- (a) Premature functioning of shell.
- (b) Blind (No penetration at all)
- (c) Penetration through armour plate.

**Note 1.** The observation "Blind" will include the following:-

- (a) Round merely breaks up on armour plate.
- (b) Deflagration on hitting the plate.
- (c) Indentation on plate by KE of the projectile.

**Note 2.** A complete penetration by jet action is characterized by a tapered hole with large entrance than exit. Lodging of copper slug in hole is not considered as failure.

5.3 **General Performance required.** Round should penetrate the 200mm RHA plate completely.

## 5.4 **Classification of Defects**

- (a) **Critical.** Premature.
- (b) **Major.**
  - (i) Blind.
  - (ii) Incomplete / Partial Penetration.
- (c) **Minor.** Nil

## 5.5 **Acceptance Criteria.**

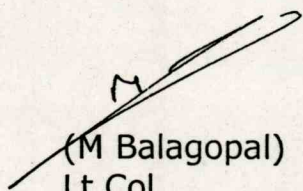
OT Lot	<b>Critical Defect.</b> If a single defect occurs the lot will be rejected.			
	<b>Major Defect.</b>			
	(a) <b>For Blind.</b>			
	<b>N</b>	<b>ΣN</b>	<b>Ac</b>	<b>Re</b>
	10	10	0	2
	20	30	1	2
	(b) <b>For Incomplete / Partial Penetration.</b>			
	<b>N</b>	<b>ΣN</b>	<b>Ac</b>	<b>Re</b>
	10	10	2	7
	20	30	6	7

6. **Sentencing Authority.**

- (a) OT Lots - CPE, Itarsi.
- (b) Pilot Lot/Other Eventualities - CQA(A).

Approved by

Date: 03 Mar 2017

  
 (M Balagopal)  
 Lt Col  
 Dy Controller  
 For Controller

Certified correct copy of approved CQA(A) Proof Schedule on this date.

Date: 27 Mar 2017

  
**BS SABHERWAL**  
 Dy. Asstt. Controller  
 For Controller
**ABBREVIATIONS**

OT	Out Turn
AOA	Angle of Attack
RHA Plate	Rolled Homogeneous Armoured Plate
QE	Quadrant Elevation
PS	Proof Samples