

ON CONTROLLED COPY

NOTE:-  
\* - SAME AS 14.5mm BOLT COMPRS.

DRG. PROVISIONAL

Design & Development Office  
Ordnance Factory,  
Tiruchirappalli-620016

CERTIFIED CORRECT COPY  
OF APPROVED DRAWINGS  
AT THIS DATE  
14/05/20

PART NO.	DESCRIPTIONS	NO OF	MATERIAL	TREATMENT	REMARKS
THREADED	20mm BOLT ASSEMBLY	1			
DRAWN	DATE				
CHECKED					
DESIGNED					
APPROVED					
DATE					
APPROVED ON					
DATE					
DA NO. 001/19					
SL. NO. 01					
20.05.19					
09/2005					
DRG. NO. 44P 03000 *					
OF : 14.5/20 mm. AMR					
ORDNANCE FACTORY					
TIRUCHIRAPPALLI-16					
OPERATION NO.					
SHEET NO. 1					











DIMENSIONS ARE IN mm.

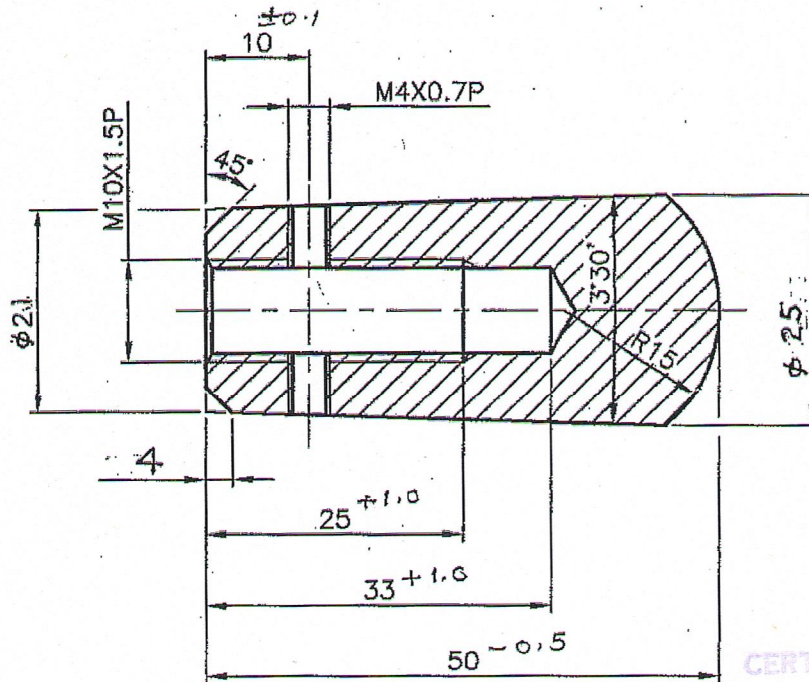
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UNTOLERATED DIMNS. AS PER IS : 2102 (MED)

SHARP CORNERS SHOULD BE BLUNT TO R 0.2 mm.

COATING:--

BLACK ANODISING TO THICK 0.04.



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CERTIFIED CORRECT COPY OF APPROVED DRAWING AT THIS DATE

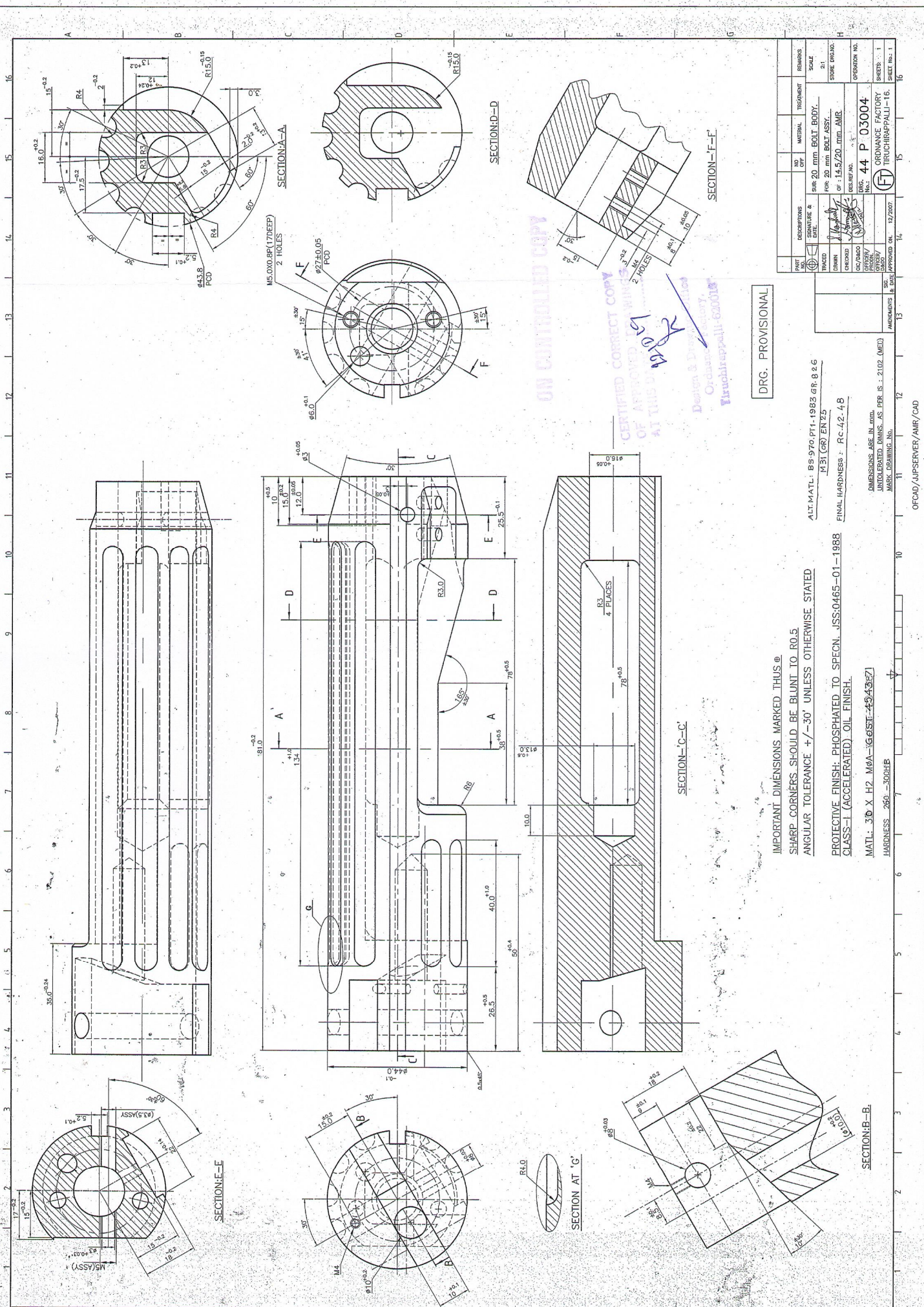
22/10/19  
 Design & Drawing Office  
 Ordnance Factory  
 Tiruchirappalli-620002

MATERIAL : ALUMINIUM ~~(COMMERCIAL)~~  
 IS: 733-1983, Gr. 24345

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PART NO.	DESCRIPTIONS	NO OFF	MATERIAL	TREATMENT	REMARKS
①	SUB: 20mm BOLT KNOB FOR: 20mm BOLT ASSY. OF: 14.5/20 mm AMR				SCALE N.T.S
②	DESIGNER: P. Murugesan				STORE DRG.NO.
③	CHECKED: [Signature]				OPERATION NO.
④	OIC/D&DO: [Signature]				
⑤	OFFICER/PRODN.				
⑥	OFFICER/D&DO				
⑦	AMENDMENTS				
⑧	SIG. & DATE				
APPROVED ON. 08/2005					
ORDNANCE FACTORY TIRUCHIRAPPALLI-16.					SHEETS: 01 SHEET No.: 01





PART NO.	DESCRIPTIONS & DATE	NO. OF	MATERIAL	TREATMENT	SCALE
					2:1
DRG. NO.	SIGNATURE & DATE	FOR: 20 mm BOLT BODY			STRENGTH
44 P 03004		OF: 14.5/20 mm AMB			
		DRG. NO. 44 P 03004			OPERATION NO.
		ORDNANCE FACTORY			TRICHURAPPALI-16
		APPROVED ON: 12/2007			SHEET NO. 1
					16

ALT. MATL: BS 970, PT-1, 1983 GR. 8.2 & 121 (CR) EN 25

FINAL HARDNESS: Rc. 42-48

DIMENSIONS ARE IN mm. UNTOLERATED DIMS. AS PER IS: 2102 (MCD) MARK DRAWING NOS.

DRG. PROVISIONAL

IMPORTANT DIMENSIONS MARKED THUS @ SHARP CORNERS SHOULD BE BLUNT TO R0.5 ANGULAR TOLERANCE +/- 30' UNLESS OTHERWISE STATED PROTECTIVE FINISH: PHOSPHATED TO SPECN. JSS:0465-01-1988 CLASS-I (ACCELERATED) OIL FINISH. MATL: 30 X H2 M0A-1G08TE-454271 HARDNESS 260-300HB

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 OF APPROVED DRAWING  
 AT THIS OFFICE  
 15/07/07  
 Design & Development  
 Ordnance Factory  
 Trichurappali-630018

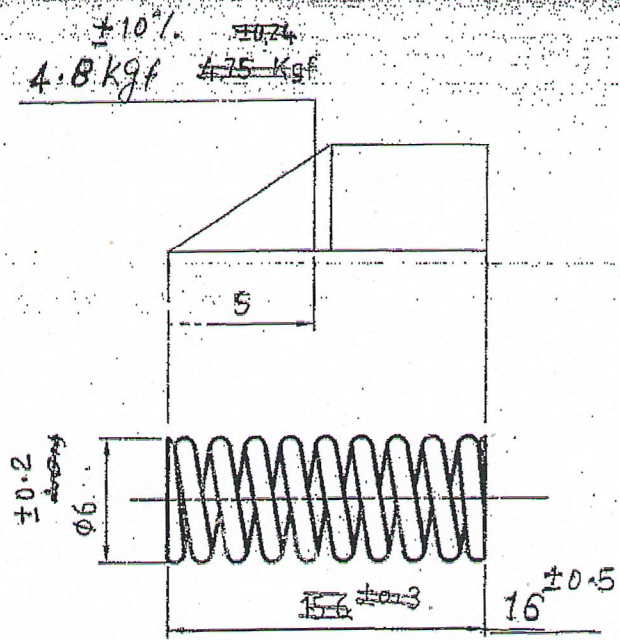


DRG NO. 44P 03005 \*2

DIMENSIONS ARE IN mm.  
 UNTOLERATED DIMS. AS PER IS : 2102 (MED)  
 IMPORTANT DIMS. MARKED THUS 'T'

  
 SCALE: 1:1

MARKING ON TAG: YEAR OF MANUFACTURING:  
 MANUFACTURER'S CODE &  
 DRG. NO.  
 WIRE DIA: 1mm  
 WOUND: R.H.  
 NO. OF EFF. COILS: 8  
 NO. OF COIL/S: 10  
 MEAN  $\phi = 5.0 \pm 0.2$   
 SOLID LENGTH - 10.0



STRESS RELIEVED  
 ONE COIL AT EACH END TO BE  
 CLOSED IN AND GROUND SQUARE  
 TO THE AXIS OF THE COIL LEAVING  
 3/4 OF THE COIL AT EACH END  
 NON-EFFECTIVE

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 OF APPROVED DRAWINGS  
 AT THIS OFFICE  
 22/10/19  
 Design & Drawing Office  
 Ordnance Factory,  
 Tiruchirappalli-620016.

THE SPRING TO WORK FREELY IN ITS LOADED AND UNLOADED  
 CONDITION IN THE HOLE DIA 6.5mm  
 CRAMP TEST: THE SPRING TO BE COMPRESSED TO A LENGTH  
 OF 5mm FOR A PERIOD OF 12 HOURS BEFORE GAUGING.

MATL:- STEEL IS:4454 PART I 4983-GRK  
 2001 DHD

DRG. PROVISIONAL

DA No. 12/19  
 DR. 3/7/19  
 DA No. 001/19  
 2.16.16  
 3/7/19  
 25.9.3.19  
 SIG.  
 & DATE

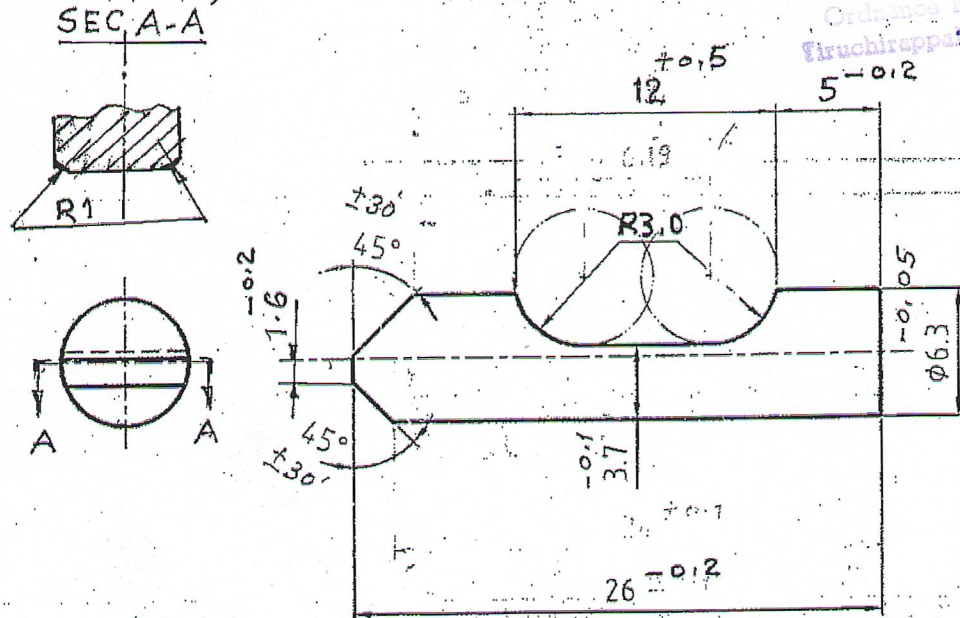
PART NO.	DESCRIPTIONS	NO OFF	MATERIAL	TREATMENT	REMARKS
	SIGNATURE & DATE.		SUB: <u>EXTRACTOR SPRING</u>		SCALE NTS
TRACED			FOR: <u>20mm BOLT ASSY.</u>		
DRAWN	R. J. [Signature]		OF: <u>14.5mm/20mm AMR.</u>		STORE DRG. NO.
CHECKED	[Signature]		DES. REF. NO.		OPERATION NO.
OIC/D&DO	[Signature]		DRG. No.: <u>44P 03005 * 2</u>		SHEETS: 1
OFFICER/PRDN.			 ORDNANCE FACTORY TIRUCHIRAPPALLI-16.		SHEET No.: 1
OFFICER/D&DO					APPROVED ON. 08/2005



DRG NO. 44P 03006\*2

DIMENSIONS ARE IN mm.  
 UNTOLERATED DIMNS. AS PER IS 2102 (MED)  
 MARK DRAWING No.  
 SHARP CORNERS TO BE BLUNT TO R0.2

22/10/19  
 Ordnance Factory,  
 Tiruchirappalli-620019.



CHROME FLASH 0.01mm MAX.

PROVISIONAL DRG.

MATL: IS: 6527-1995, DESIGN. X C4 Cr 18 Ni 10

HARDNESS: 390-450 HV

MATERIAL: ~~17/14 SS (Cr=17%, Ni=4%, C=0.06 to 0.08%)~~

ALT. MATL: EN 19

CHROME PLATED. THICKNESS 5.0

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① On  
20/3/07

PART NO.	DESCRIPTIONS	NO OFF	MATERIAL	TREATMENT	REMARKS
	SIGNATURE & DATE	SUB: <u>EJECTOR</u>			SCALE NTS
TRACED		FOR: <u>20mm BOLT ASSY.</u>			STORE DRG.NO.
DRAWN	R. [Signature]	OF: <u>14.5mm/20mm AMR.</u>			OPERATION NO.
CHECKED	[Signature]	DES. REF. NO.			
OIC/D&DO		DRG. No.: <u>44P 03006*2</u>			
OFFICER/PRODN.		ORDNANCE FACTORY TIRUCHIRAPPALLI-16.			SHEETS: 1
OFFICER/D&DO					SHEET No.: 1
AMENDMENTS	SIG. & DATE	APPROVED ON. 07/05			

DA NO  
006/07

DA No. 0043/19  
18/7/19

DA No. 06/19  
Sl. No. 1.

4-10-07  
19/7/19  
[Signature]

SIG. & DATE



DRG. NO. 44P 03007 \* 2

DIMENSIONS ARE IN mm.  
 UNTOLERATED DIMNS. AS PER IS : 2102 (MED)  
 IMPORTANT DIMNS. MARKED THUS : †



SCALE : 1:1

MARKING ON TAG :  
 YEAR OF MANUFACTURING :  
 MANUFACTURER'S CODE :  
 DRG. NO. :

WIRE DIA: ~~4mm~~ 1.1mm

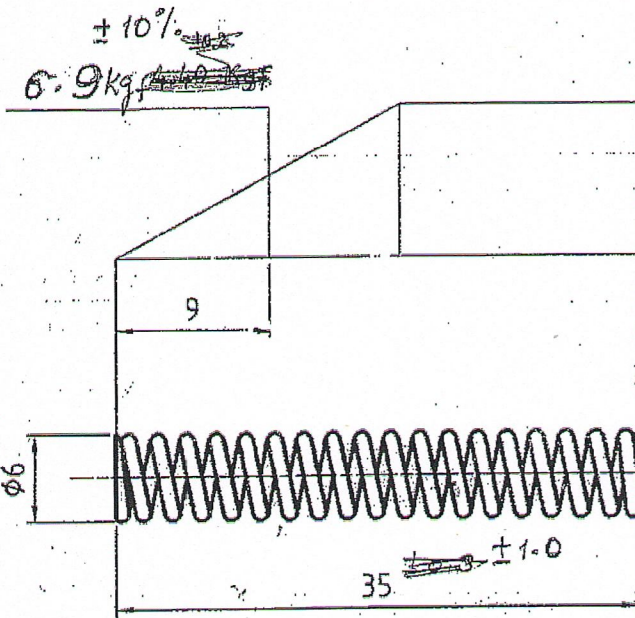
WOUND : R.H. <sup>+0.5</sup> 16.5

NO. OF EFF. COILS : ~~17~~

No. of coils - 18 <sup>+0.5</sup>  
 MEAN  $\phi$  - 4.9  $\pm$  0.2  
 SOLID LENGTH - 18

STRESS RELIEVED

ONE COIL AT EACH END TO BE  
CLOSED IN AND GROUND SQUARE  
TO THE AXIS OF THE COIL LEAVING  
3/4 OF THE COIL AT EACH END  
NON-EFFECTIVE



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CERTIFIED CORRECT COPY  
 OF APPROVED DRAWINGS  
 AT THIS DATE 22/01/19

Design & Drawing Office  
 Ordnance Factory,  
 Tiruchirappalli-620016.

THE SPRING TO WORK FREELY IN ITS LOADED AND UNLOADED  
CONDITION IN THE HOLE DIA 6.35mm

CRAMP TEST: THE SPRING TO BE COMPRESSED TO A LENGTH  
OF 9mm FOR A PERIOD OF 12 HOURS BEFORE GAUGING.

MATL:- STEEL IS:4454 PART I 1983 GR. <sup>2001 DM</sup> ~~4~~ - 0

DRG. PROVISIONAL

PART NO.	DESCRIPTIONS	NO OFF	MATERIAL	TREATMENT	REMARKS
	SIGNATURE & DATE.	SUB: <u>EJECTOR SPRING</u>			SCALE NTS
	TRACED	FOR: <u>20mm BOLT ASSY.</u>			STORE DRG.NO.
	DRAWN <i>R. P. Linga</i>	OF: <u>14.5mm/20mm AMR.</u>			OPERATION NO.
	CHECKED <i>[Signature]</i>	DES. REF. NO.			
	OIC/D&DO <i>[Signature]</i>	DRG. No.: <u>44P 03007* 2</u>			
	OFFICER/ PRODN.	ORDNANCE FACTORY TIRUCHIRAPPALLI-16.			SHEETS: 1
	OFFICER/ D&DO				SHEET No.: 1
AMENDMENTS	SIG. & DATE	APPROVED ON. 08/2005			

\* DA No. 13/19  
 Dt. 2/7/19  
 DA No. 00/19  
 Dt. 29.3.19