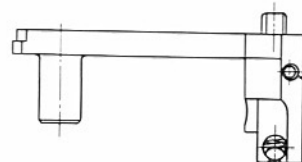
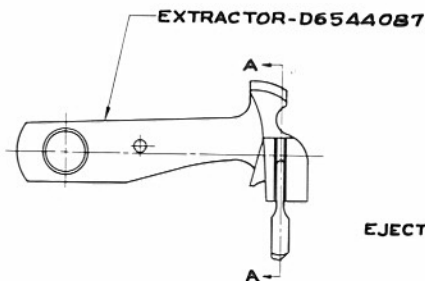


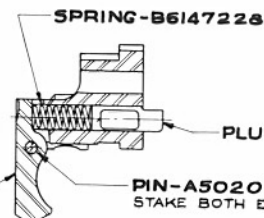
HEAT TREATMENT AND FINAL FINISH



PIN-A5020570  
STAKE BOTH ENDS



EXTRACTOR-D6544087



SPRING-B6147226

PLUNGER-B6261101

EJECTOR-B6017497

PIN-A5020570  
STAKE BOTH ENDS

SECTION A-A

EXTRACTOR, ASSEMBLY 5621076

PHYSICAL PROPERTIES		OCTOBER 30, 1942 REVISIONS	
Y. P.		3	5-10-48
T. S.			
EL. 2			
RED			
BR			
ROCK			
SCL			

DRG. PERTAINS TO

51-10-1	30 BMG M17A1(WC)
51-83-1	30 BMG M19A1(FXD)
51-84-1	30 BMG M19A4(FLEX)
51-114-1	30 BMG M19A5(FXD)
51-125-1	30 BMG M19A6

TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED

DECIMAL 2 —  
FRACTIONAL 2 —  
ANGULAR 2 —

DRAWN	TRACER	CHIEF DRAFTER
REB	ERG	
CHECKED		CHIEF DRAFTER

SUBMITTED

ORD. DEPT. U. S. A.

APPROVED BY ORDER OF THE CHIEF OF ORDNANCE

ORD. DEPT. U. S. A.

ORDNANCE DEPT., U. S. A.

MADE AT ROCK ISLAND ARSENAL

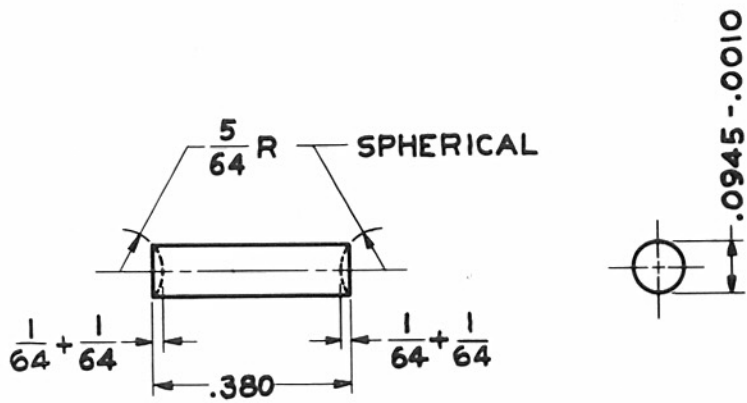
WAS C121076

DO NOT INSCRIBE PART NO.

5621076



C5621076

HEAT TREATMENT & FINAL FINISH		PHYSICAL PROPERTIES				A 5020570 APRIL 4, 1927			
HEAT TREAT TYPE II FINISH, CLASS B	Y. P.	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>	RED.	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>	SCL.	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>	REVISIONS		
	T. S.	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>	BR.	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>			14 5-10-48		
	EL. 2	<div style="border: 1px solid black; width: 20px; height: 20px; transform: rotate(45deg);"></div>	ROCK	C38-43					
 <p style="margin-top: 20px;"><b>PIN</b> <b>STEEL FS 1095</b> <b>FINISH 125/</b></p> <p style="margin-top: 20px;">SCALE <math>\frac{4}{1}</math> <span style="border: 1px solid black; padding: 2px 10px;">A 5020570</span></p>							DRG. PERTAINS TO		
							C5621076		
							30 BMG M 17A1(WC) M 19A4(FXD) M 19A4(FLEX) M 19A5(FXD) M 19A6		
							INSCRIBE PART NO. DO NOT		
							TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED DECIMAL ± — FRACTIONAL ± 1/64 ANGULAR ± —		
							DRAFTSMAN M.T.	TRACER L.R.E.	L'D'S DRAFTSMAN
							CHECKER L.S.	O.O.	CHIEF DRAFTSMAN
							SUBMITTED: <i>A.H. Roe</i> ORD. DEPT., U. S. A.		
							APPROVED BY ORDER OF THE CHIEF OF ORDNANCE: <i>Walter Aikerman</i> ORD. DEPT., U. S. A.		
							ORDNANCE DEPT., U. S. A.		

HEAT TREAT  
TYPE II FINISH, CLASS B

APRIL 4, 1927

17	5-10-48
----	---------

C 39-45

C5621076

.30 BMG  
 M17A1(WC)  
 M19A4(FXD)  
 M19A4(FLEX)  
 M19A5(FXD)  
 M19A6

INSCRIBE ~~PART NO.~~

TOLERANCE ON DIMENSIONS  
NOT OTHERWISE SPECIFIED  
DECIMAL  $\pm .005$   
FRACTIONAL  $\pm 1/64$   
ANGULAR  $\pm 5^\circ$

DRAFTSMAN E.L.U.	TRACER Z.C.	L'D'G DRAFTSMAN
CHECKER S.E.	Q.Q.	CHIEF DRAFTSMAN

SUBMITTED:

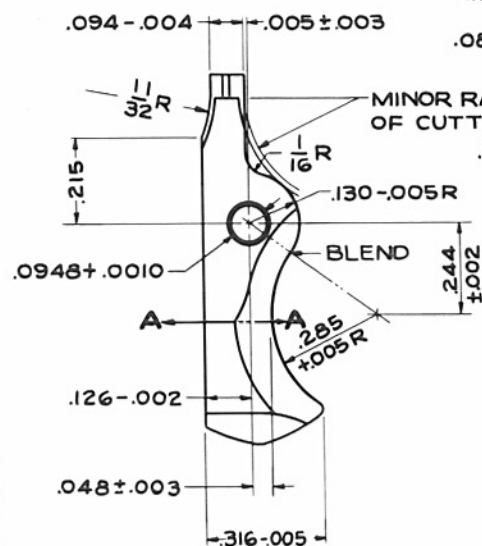
APPROVED BY ORDER OF THE CHIEF  
OF ORDNANCE:-

ORD. DEPT., U. S. A.

ORDNANCE DEPT., U. S. A.

A quarter-circle sector of a circle with radius  $R$ . The area of the sector is labeled as  $.195 R^2$ .

**SECTION A-A**



— MINOR RADIUS  
OF CUTTER

.010 X 45°

.166-.004

.088-.004

.065-.0

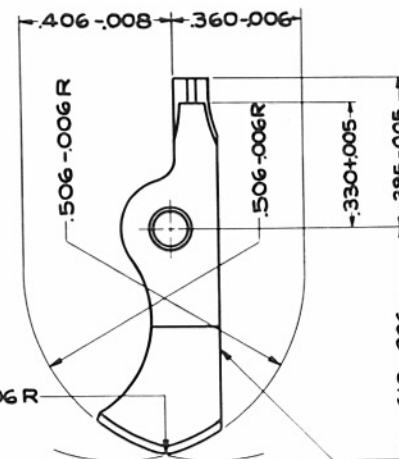
**EJECTOR**  
**STEEL FS 4140**

FINISH 125 ✓

6017497

.015 R

## SECTION B-B

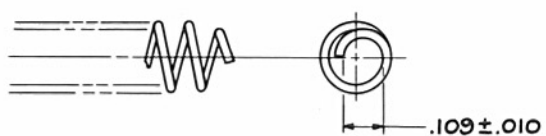


INSCRIBE MANUFACTURERS-  
IDENTIFICATION  $\frac{1}{16}$  HIGH

WAS B17497

SCALE  $\frac{4}{1}$  B 6017497

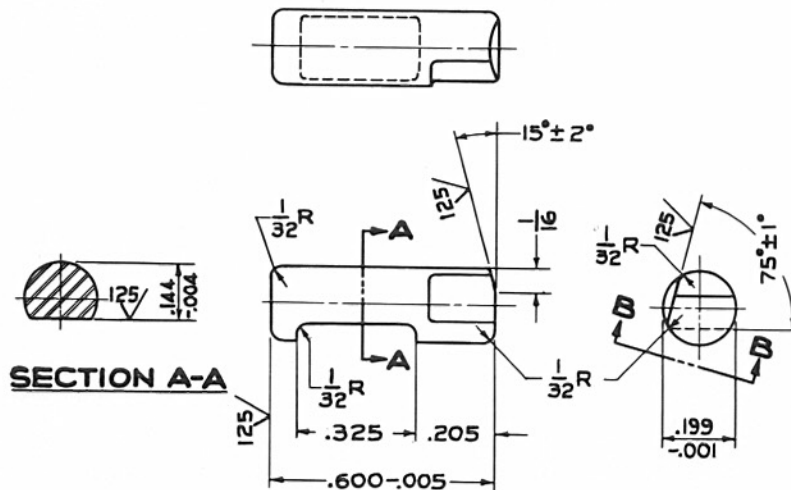
B6017497

HEAT TREATMENT AND FINAL FINISH		FEBRUARY 1, 1938																																																																																						
<b>DRAW AT 450°F.</b> <b>TYPE I FINISH, CLASS OSC</b> <b>BAKE ONE HOUR AT 300-350°F.</b>		REVISIONS																																																																																						
<div style="text-align: center; margin-bottom: 20px;">  </div> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 60%;">DIAMETER OF WIRE</td><td style="width: 40%;">.020</td></tr> <tr><td>TOTAL NUMBER OF COILS</td><td>9 1/2</td></tr> <tr><td>OUTSIDE DIAMETER, FREE</td><td>.187 ± .004</td></tr> <tr><td>MAX. OUTSIDE DIA AT MIN. OPERATING HEIGHT</td><td>.195</td></tr> <tr><td>FREE LENGTH</td><td>.68 ± .02</td></tr> <tr><td>TYPE OF ENDS</td><td>FORM AS SHOWN (BOTH ENDS)</td></tr> <tr><td>WOUND</td><td>R. H.</td></tr> <tr><td>MEAN ASSEMBLED HEIGHT</td><td>.362</td></tr> <tr><td>MIN. LOAD AT MEAN ASSEMBLED HEIGHT</td><td>1.58 LB</td></tr> <tr><td>MIN. OPERATING HEIGHT</td><td>.321</td></tr> <tr><td>MIN. LOAD AT MIN. OPERATING HEIGHT</td><td>1.69 LB</td></tr> <tr><td>LB PER INCH OF SPRING DEFLECTION</td><td>4.9</td></tr> <tr><td>SPRING FUNCTIONS IN HOLE</td><td>.200</td></tr> <tr><td>CALCULATED MAX. SOLID HEIGHT</td><td>.190</td></tr> </table> <p style="text-align: center; margin-top: 10px;">CAUTION: DO NOT COMPRESS SOLID</p> <p>NOTE:  .5% OF SPRINGS WILL BE FATIGUE TESTED  BETWEEN ASSEMBLED HEIGHT AND MINIMUM  OPERATING HEIGHT FOR 25,000 CYCLES. THE  LOAD AT ASSEMBLED HEIGHT, AFTER TESTING,  SHOULD NOT BE LESS THAN 1.25 LB</p>		DIAMETER OF WIRE	.020	TOTAL NUMBER OF COILS	9 1/2	OUTSIDE DIAMETER, FREE	.187 ± .004	MAX. OUTSIDE DIA AT MIN. OPERATING HEIGHT	.195	FREE LENGTH	.68 ± .02	TYPE OF ENDS	FORM AS SHOWN (BOTH ENDS)	WOUND	R. H.	MEAN ASSEMBLED HEIGHT	.362	MIN. LOAD AT MEAN ASSEMBLED HEIGHT	1.58 LB	MIN. OPERATING HEIGHT	.321	MIN. LOAD AT MIN. OPERATING HEIGHT	1.69 LB	LB PER INCH OF SPRING DEFLECTION	4.9	SPRING FUNCTIONS IN HOLE	.200	CALCULATED MAX. SOLID HEIGHT	.190	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">Y. P.</td><td rowspan="6" style="text-align: center; vertical-align: middle; font-size: 2em;">X</td></tr> <tr><td style="text-align: center;">T. S.</td></tr> <tr><td style="text-align: center;">EL. 2</td></tr> <tr><td style="text-align: center;">RED</td></tr> <tr><td style="text-align: center;">BR.</td></tr> <tr><td style="text-align: center;">ROCK.</td></tr> <tr><td style="text-align: center;">SCL</td><td></td></tr> </table>	Y. P.	X	T. S.	EL. 2	RED	BR.	ROCK.	SCL		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">12</td> <td style="width: 10%; text-align: center;">5-10-48</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	12	5-10-48																																														
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12	5-10-48																																																																																							
DRG. PERTAINS TO		<div style="display: flex; justify-content: space-between;"> <span>C5621076</span> <span>30 BMG M17A1 (WC) M19A4 (FXD) M19A4 (FLEX) M19A5 (FXD) M19A6</span> </div>																																																																																						
DO INSCRIBE PART NO.		TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED																																																																																						
DO NOT		DECIMAL ± — FRACTIONAL ± — ANGULAR ± —																																																																																						
<small>DRAFTERMAN</small> <b>W.L.M.</b>		<small>TRACER</small> <b>M.C.</b>																																																																																						
<small>CHECKER</small> <i>[Signature]</i>		<small>CHIEF DRAFTERMAN</small> <small>G.D.</small>																																																																																						
SUBMITTED:		<small>ORD. DEPT., U. S. A.</small> <i>A.H. Roe</i>																																																																																						
APPROVED BY ORDER OF THE CHIEF OF ORDNANCE:		<small>ORD. DEPT., U. S. A.</small> <i>[Signature]</i>																																																																																						
ORDNANCE DEPT., U. S. A.		<small>ORD. DEPT., U. S. A.</small> <b>WAS B147228</b>																																																																																						
<b>B 6147228</b>		<b>B 6147228</b>																																																																																						

B6147228

HEAT TREATMENT AND FINAL FINISH

HEAT TREAT  
TYPE II FINISH, CLASS B



PHYSICAL  
PROPERTIES

Y. P.	
T. S.	
EL. 2	
RED	
BR.	
ROCK.	C44-52
SCL.	

OCTOBER 30, 1942

REVISIONS

4 5-10-48

DRG. PERTAINS TO

C5621076 30 BMG  
M17A1 (WC)  
M19A4 (FXD)  
M19A4 (FLEX)  
M19A5 (FXD)  
M19A6

INSCRIBE PART NO.  
DO NOT

TOLERANCE ON DIMENSIONS  
NOT OTHERWISE SPECIFIED  
DECIMAL ± .005  
FRACTIONAL ± 1/64  
ANGULAR ±

DRAFTSMAN J.B.M.	TRACER E.B.	L.D.'S DRAFTSMAN
W.B.	G.O.	CHIEF DRAFTSMAN

SUBMITTED:

*J.H. Roe*

APPROVED BY ORDER OF THE CHIEF  
OF ORDNANCE:

*Walter C. ...*  
ORD. DEPT., U. S. A.

ORDNANCE DEPT., U. S. A.

PLUNGER, EXTRACTOR CAM

DRILL ROD

FINISH  $\sqrt[63]{}$  OTHER SURFACES, AS SPECIFIED

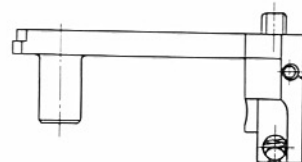
6261101

WAS B261101

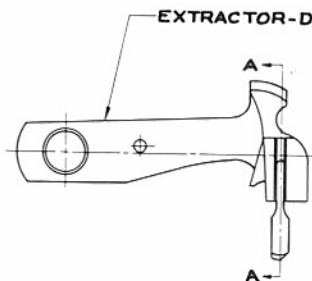
SCALE 4 B 6261101

B6261101

HEAT TREATMENT AND FINAL FINISH

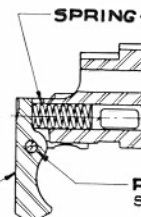


PIN-A5020570  
STAKE BOTH ENDS



EXTRACTOR-D6544087

EJECTOR-B6017497



PLUNGER-B6261101

SPRING-B6147226

PIN-A5020570  
STAKE BOTH ENDS

SECTION A-A

EXTRACTOR, ASSEMBLY 5621076

PHYSICAL PROPERTIES		OCTOBER 30, 1942 REVISIONS	
Y. P.		3	5-10-46
T. S.			
EL. 2			
RED			
BR			
ROCK			
SCL			

DRG. PERTAINS TO

51-10-1	30 BMG M17A1(WC)
51-83-1	30 BMG M19A1(FXD)
51-84-1	30 BMG M19A4(FLEX)
51-114-1	30 BMG M19A5(FXD)
51-125-1	30 BMG M19A6

TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED

DECIMAL 2 —  
FRACTIONAL 2 —  
ANGULAR 2 —

DRAWN	TRACED	CHECKED	BY
RHB	ERG		
INCHES	FEET		

SUBMITTED

ORD. DEPT. U. S. A.

APPROVED BY ORDER OF THE CHIEF OF ORDNANCE

ORD. DEPT. U. S. A.

ORDNANCE DEPT., U. S. A.

MADE AT ROCK ISLAND ARSENAL

WAS C121076

DO NOT INSCRIBE PART NO.

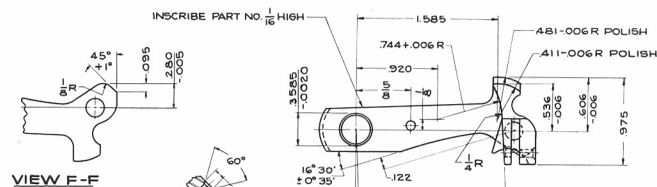
5621076



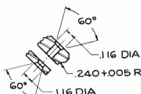
C5621076

HEAT TREATMENT AND FINAL FINISH

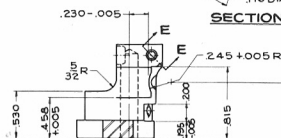
HEAT TREAT  
TYPE II FINISH, CLASS B



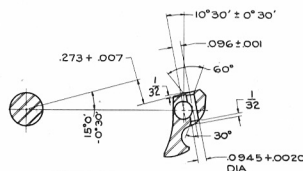
VIEW F-F



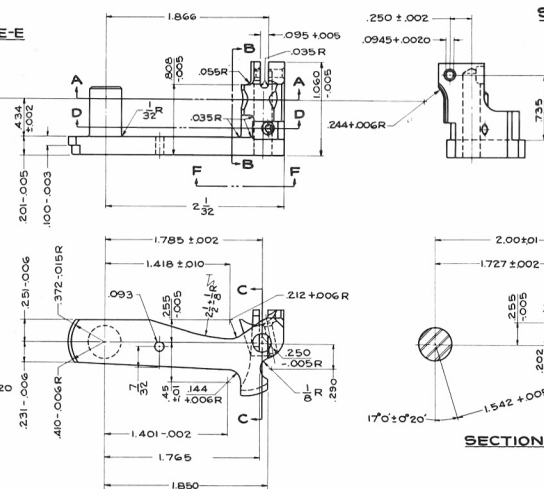
SECTION E-E



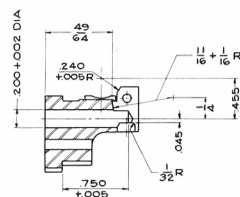
SECTION B-B



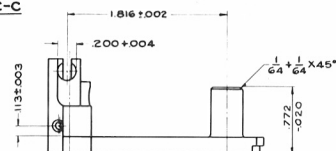
SECTION D-D



SECTION A-A

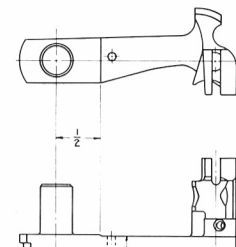


SECTION C-C



PARTIAL SECTION A-A

SCALE 2/1



VIEWS SHOWING ALTERNATIVE  
METHOD OF MANUFACTURE

DO INSCRIBE PART NO.

OCTOBER 30, 1942		CLASS	DIVISION	DRAWING	FILE
REVISIONS					
5-10-46					
TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED					
DECIMALS .005					
FRACTIONAL 1/64					
ANGULAR 1/2°					
DRG. PERTAINS TO C5621076					
SUBMITTED					
EXAMINED					
APPROVED BY ORDER OF THE CHIEF OF INSURANCE					
ORD. DEPT. U.S.A.					
ORD. DEPT. U.S.A.					

WAS D44087

SCALE 2/1

D6544087

ORDNANCE DEPT. U.S.A.

MADE AT ROCK ISLAND THERMAL

PHYSICAL PROPERTIES	
YPT	
T-5	
EL 2	
RED.	
BR	
ROCK	C-48-54
SCL	

D6544087

EXTRACTOR  
STEEL F54140  
FINISH 1/16

6544087