

A174113

HEAT TREATMENT & FINAL FINISH	PHYSICAL PROPERTIES			SEPT. 18, 1940		
OXIDE BLACK BEFORE ASSEMBLING BALLS.	Y. P.	RED.	SCL.	REVISIONS		
	T. S.	BR.				
	EL. 2	ROCK.				
				1 2-19-41	5 4-19-43	
				2 5-12-42		
				3 7-11-42		
				4 10-8-42		
				DRG. PERTAINS TO		
C74620			MECH. ELEVATING, ASSEMBLY.			
D 7052			MOUNT, TRIPOD, MACHINE GUN CAL..30, M2			
C74621			MECH. ELEVATING, ASSEMBLY.			
D 7135			MOUNT, TRIPOD, MACHINE GUN CAL..50, M3			
DRAFTSMAN A. ROSE			TRACER A. ROSE			
CHECKER <i>[Signature]</i>			L'D'G. DRAFTSMAN CHIEF DRAFTSMAN <i>[Signature]</i>			
SUBMITTED:- <i>[Signature]</i>			CAPT. ORD. DEPT., U. S. A.			
APPROVED BY ORDER OF THE CHIEF OF ORDNANCE: <i>[Signature]</i>			CAPT. ORD. DEPT., U. S. A.			
ORDNANCE DEPT., U. S. A.						

MADE AT ROCK ISLAND ARSENAL

A141090

SEPT. 26, 1934

HEAT TREATMENT & FINAL FINISH		PHYSICAL PROPERTIES				SEPT. 26, 1934			
Y. P.	<input checked="" type="checkbox"/>	RED.	<input checked="" type="checkbox"/>	SCL.		REVISIONS			
T. S.	<input checked="" type="checkbox"/>	BR.	<input checked="" type="checkbox"/>			1 ¹	11-23-35	5 ¹	1-31-41
EL. 2	<input checked="" type="checkbox"/>	ROCK.	<input checked="" type="checkbox"/>			2 ¹	2-19-36	6 ³	9-20-41
<p>1/64 x 45° CHAMFER</p>						REVISIONS			
						9 ¹ 12-14-41 10 ¹ 5-15-42			
						11 ² 1-11-42 14 ¹ 4-19-43			
						12 ¹ 11-30-42			
						13 ¹ 12-23-42			
						DRG. PERTAINS TO			
B108997						A142409	ELEV. SCREW JOINT PIN		
A236864 PIN, ELEV.						B109198	ELEV. SCREW JOINT PIN		
SCREW						D7052	MOUNT, TRIPOD, MACH.		
						D7135	GUN, CAL. .30, M2.		
							MOUNT, TRIPOD, MACH.		
							GUN, CAL. .50, M3		
						D7371	MOUNT, TRIPOD, MACH.		
						A174113	PIN, ELEV. SCREW		
						A141163	ELEV. SCREW, JOINT PIN		
						SYMBOL			
						GAK 45!			
DRAFTSMAN		TRACER		L D G DRAFTSMAN					
R.F.D.				R.J.L.					
CHECKER		NEW		H.S.A.		CHIEF DRAFTSMAN			
						1410			
						SUBMITTED:-			
						1ST LIEUT., ORD. DEPT., U. S. A.			
						APPROVED BY ORDER OF THE CHIEF OF ORDNANCE:			
						MAJOR, ORD. DEPT., U. S. A.			
						ORDNANCE DEPT., U. S. A.			

KEY, ELEVATING SCREW JOINT PIN

STEEL WD1045

FINISH f

MANUFACTURING COMPONENT

SCALE 2/1

A141090

A141091

HEAT TREATMENT & FINAL FINISH			DRG. PERTAINS TO		PHYSICAL PROPERTIES		SEPT. 26, 1934					
PHOSPHATE BLACK			B144239	PIN JOINT, ASSY.	Y. P.		REVISIONS					
			D33136	MT. MACH. GUN A.C. CAL. 50 M2A1			10	7-12-43				
			D38522	MT. PED. A.A. M. G. CAL. 50 M2A1								
A234701	MED. TANK, M7	A156442										
		A171573										
		B108997										
		C62258										
<p><u>SPRING, ELEVATING SCREW, JOINT PIN</u> <u>SPRING STEEL WIRE WD1085 (SPECIAL) CLASS A</u></p> <p>OUTSIDE DIAM. SOLID, NOT MORE THAN — $3/16$ INSIDE DIAM. FREE, NOT LESS THAN — $1/8$ ASSEMBLED HEIGHT — $7/32$ LOAD AT ASSEMBLED HEIGHT — $1.7 \text{ LB.} \pm 5\%$ SOLID HEIGHT, NOT MORE THAN — $.138$ DIAM. OF WIRE (APPROX.) — $.023$ FREE HEIGHT (APPROX.) — NUMBER OF COILS (APPROX.) — 6 ENDS CLOSED AND GROUND FLAT.</p> <p>SUPERSEDES OLD TRACING A141091 UNDER REVISION DATE OF 7-12-43.</p> <p>MANUFACTURING COMPONENT</p>					<p>DRG. PERTAINS TO</p> <p>BR. A142409 ELEV. SCREW, JOINT PIN</p> <p>SCL. B109198 ELEV. SCREW, JOINT PIN</p> <p>C. C. D7052 MT. TRIPOD MACH GUN CAL. 30 M2</p> <p>D7135 MT. TRIPOD MACH GUN CAL. 50 M3</p> <p>A174113A PIN, ELEV. SCREW</p> <p>A141163 ELEV. SCREW JOINT PIN</p> <p>D7371 MT. TRIPOD, M1917A1</p> <p>A174113 PIN, ELEV. SCREW</p> <p>SYMBOL</p> <p>PAS 667</p> <table border="1"> <tr> <td>DRAFTSMAN R.F.D.</td> <td>TRACER Cms.</td> <td>L'D'G DRAFTSMAN HAR</td> </tr> <tr> <td>CHECKER see.</td> <td>CHECKER</td> <td>CHIEF DRAFTSMAN</td> </tr> </table> <p>SUBMITTED:- A.W. Roe</p> <p>APPROVED:- Chas. L. Rubin CAPT. ORD. DEPT., U. S. A.</p> <p>ORDNANCE DEPT., U. S. A.</p>		DRAFTSMAN R.F.D.	TRACER Cms.	L'D'G DRAFTSMAN HAR	CHECKER see.	CHECKER	CHIEF DRAFTSMAN
DRAFTSMAN R.F.D.	TRACER Cms.	L'D'G DRAFTSMAN HAR										
CHECKER see.	CHECKER	CHIEF DRAFTSMAN										
A141091					MADE AT ROCK ISLAND ARSENAL							

HEAT TREATMENT & FINAL FINISH		PHYSICAL PROPERTIES				A174112 SEPT. 18, 1940	
HEAT TREAT OXIDE BLACK AFTER ASSEMBLY		Y. P.	<input checked="" type="checkbox"/>	RED.		SCL.	<input checked="" type="checkbox"/>
		T. S.	<input checked="" type="checkbox"/>	BR.			<input checked="" type="checkbox"/>
		EL. 2	<input checked="" type="checkbox"/>	ROCK.	C 25-30		<input checked="" type="checkbox"/>
		REVISIONS					
		1' 2-20-41 5' 10-8-42 2' 4-10-41 3 ² 9-20-41 4 ⁴ 5-12-42					
		DRG. PERTAINS TO					
		A174113 PIN, ELEVATING SCREW, ASSY. D7052 MT., TRIP OD, MACH. GUN CAL..30, M2 D7135 MT., TRIP OD, MACH. GUN CAL..50, M3					
		DRAFTSMAN A. ROSE CHECKER TRACER A. ROSE L'D'G. DRAFTSMAN CHIEF DRAFTSMAN					
		SUBMITTED:- CAPT. ORD. DEPT., U. S. A.					
		APPROVED BY ORDER OF THE CHIEF OF ORDNANCE: CAPT. ORD. DEPT., U. S. A.					
		ORDNANCE DEPT., U. S. A.					

BODY, PIN, ELEVATING SCREW
STEEL WD 1045
MANUFACTURING COMPONENT

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

SUPERSEDES OLD TRACING A142161
UNDER DATE OF SEPT. 18, 1940. SCALE 1/1

A174112


MADE AT ROCK ISLAND ARSENAL

A174113

HEAT TREATMENT & FINAL FINISH	PHYSICAL PROPERTIES			SEPT. 18, 1940
OXIDE BLACK BEFORE ASSEMBLING BALLS.	Y. P.	RED.	SCL.	REVISIONS
	T. S.	BR.		1 2-19-41 5 4-19-43
	EL. 2	ROCK.		2 5-12-42
			3 7-11-42	4 10-8-42
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>* KEY-A141090</p> <p>* BODY-A174112 *</p> <p>* BALL-CCAXIB</p> </div> <div style="text-align: center;"> <p>PEEN EDGE OF HOLE</p> <p>* SPRING-A141091</p> <p>SECTION A-A</p> <p>SCALE $\frac{2}{1}$</p> </div> </div> <p>NOTE: FOR ALT. CONSTRUCTION SEE A174113A</p>			DRG. PERTAINS TO	
			<p>C74620 MECH. ELEVATING, ASSEMBLY.</p> <p>D 7052 MOUNT, TRIPOD, MACHINE GUN CAL..30, M2</p> <p>C74621 MECH. ELEVATING, ASSEMBLY.</p> <p>D 7135 MOUNT, TRIPOD, MACHINE GUN CAL..50, M3</p>	
<p><u>PIN, ELEVATING SCREW, ASSEMBLY</u> (A174113)</p> <p>* WILL NOT BE ISSUED FOR FIELD MAINTENANCE EXCEPT AS COMPONENTS OF AUTHORIZED ASSEMBLIES.</p> <p style="text-align: center;">SUPERSEDES OLD TRACINGS B109198 AND A142409 UNDER DATE OF SEPT. 18, 1940.</p>			<p>DRAFTSMAN A. ROSE TRACER A. ROSE L'D'G. DRAFTSMAN</p> <p>CHECKER <i>[Signature]</i> CHIEF DRAFTSMAN <i>[Signature]</i></p> <p>SUBMITTED: <i>[Signature]</i></p> <p style="text-align: center;">CAPT. ORD. DEPT., U. S. A.</p> <p>APPROVED BY ORDER OF THE CHIEF OF ORDNANCE: <i>[Signature]</i></p> <p style="text-align: center;">CAPT. ORD. DEPT., U. S. A.</p>	
<p>TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED</p> <p>DECIMAL \pm -</p> <p>FRACTIONAL \pm -</p> <p>ANGULAR \pm -</p>			<p>0 1 2 3 IN.</p> <p style="font-size: 2em; font-weight: bold;">A174113</p>	

MADE AT ROCK ISLAND ARSENAL

SUPERSEDES OLD TRACING CCAXI UNDER REVISION DATE OF 12-14-44

BALL, STEEL												CCAXI	
ORDNANCE STANDARD (COMMERCIAL)												<div style="display: flex; justify-content: space-between;"> H-B-H 4-3-28 </div> <div style="display: flex; justify-content: space-between;"> APPROVED DATE </div>	
													
A NOMINAL DIAMETER WEIGHT (LB. PER 1000) NUMBER OF BALLS PER LB.	1/16 .06 27904	3/32 .121 8264	1/8 .288 3400	5/32 .562 1770	3/16 .972 1030	7/32 1.543 640	1/4 2.300 434	9/32 3.280 300	5/16 4.500 223	11/32 5.950 165	3/8 7.770 128	13/32 9.88 101	
ORDNANCE PART NUMBER													
GRADE NUMBER 1 (MICRO CHROME)	189773	145624	145625	145626	145627	145628	145629	145630	145631	145632	145633	145644	
GRADE NUMBER 2 (STANDARD)	214434	145634	145635	145636	145637	145638	145639	145640	145641	145642	145643	145654	
GRADE NUMBER 3 (A-GRADE)		147480	147481	147482	147483	147484	147485	147486	147487	147488	147500	147490	
COMMERCIAL (GRADE A)		169063	169064	169065	169066	169067	169108	169109	169110	169111	147489	169112	
COMMERCIAL (GRADE B)													
A NOMINAL DIAMETER WEIGHT (LB. PER 1000) NUMBER OF BALLS PER LB.	7/16 12.34 80	15/32 15.18 66	1/2 18.43 54	9/16 26.20 36	5/8 36.00 28	21/32 41.70 24	11/16 47.90 21	3/4 62.20 16	7/8 98.70 10	1 147.00 6.78	1-3/16 247.00 4.05		
ORDNANCE PART NUMBER													
GRADE NUMBER 1 (MICRO CHROME)	145645	145646	145647	145648	145649	217961	145650	145651	145652	145653	217962		
GRADE NUMBER 2 (STANDARD)	104921	112712	104922	104923	104924		104925	104926	104927	120949			
GRADE NUMBER 3 (A-GRADE)	145655	145656	145657	145658	145659		145660	145661	145662	145663			
COMMERCIAL (GRADE A)	147491	147492	147493	147494	147495		147496	147497	147498	147499			
COMMERCIAL (GRADE B)	169113	169135	169158	169159	169162		169163	169164	169167	169172			
TABLE 1 REQUIRED ACCURACY													
GRADE	SPHERICAL WITHIN		MAX. VARIATION IN A CARTON (PLUS OR MINUS)		MAX. VARIATION IN A SHIPMENT (PLUS OR MINUS)								
GRADE NUMBER 1 (MICRO CHROME)	.000025"		.000025"		.0001"								
GRADE NUMBER 2 (STANDARD)	.00005"		.00005"		.0002"								
GRADE NUMBER 3 (A-GRADE)	.0002"		.0002"		.0005"								
COMMERCIAL (GRADE A)	.0002"		.0005"		.0005"								
COMMERCIAL (GRADE B)	.001"		.001"		.001"								
TABLE 2 DEPTH OF CASE													
BALL DIAMETER	CASE DEPTH	BALL DIAMETER	CASE DEPTH	BALL DIAMETER	CASE DEPTH								
1/16	.020	9/32	.045	1/2	.070								
3/32	.025	5/16	.045	9/16	.075								
1/8	.025	11/32	.045	5/8	.075								
5/32	.025	3/8	.055	11/16	.075								
3/16	.030	13/32	.055	3/4	.080								
7/32	.035	7/16	.065	7/8	.080								
1/4	.045	15/32	.065	1	.080								
<div style="display: flex; justify-content: space-between;"> <div> <p>STEEL BALLS - GRADES NO. 1, 2, & 3.</p> <p>MATERIAL - ALLOY STEEL, COMMERCIAL.</p> <p>HARDNESS - BRINELL 625-700 HARDENED THROUGHOUT.</p> <p>ACCURACY - AS SPECIFIED IN TABLE 1.</p> <p>CRUSHING STRENGTH - (STANDARD 3 BALL TEST METHOD) 1000 A² MIN. WHERE A IS THE DIAMETER OF THE BALL IN EIGHTHS OF AN INCH.</p> </div> <div> <p>STEEL BALLS - COMMERCIAL GRADES A & B.</p> <p>MATERIAL - CARBURIZING STEEL, COMMERCIAL.</p> <p>HARDNESS - FILE HARD - CARBURIZED TO DEPTH OF CASE SPECIFIED IN TABLE 2, ROCKWELL C60 MIN. FOR SIZES 3/16" AND LARGER.</p> <p>ACCURACY - AS SPECIFIED IN TABLE 1.</p> <p>CRUSHING STRENGTH - (STANDARD 3 BALL TEST METHOD) 1200 A1.5 MIN. WHERE A IS THE DIAMETER OF THE BALL IN EIGHTHS OF AN INCH.</p> </div> </div> <p>EXAMPLE FOR ORDERING - BALL, STEEL 1/4", GRADE A, DRG. CCAXI, PART NO. 147485.</p>													
DIMENSIONS IN INCHES.													