AMMUNITION BULLETIN Nº3

FOR INSPECTING ORDNANCE OFFICERS.

(JULY 1939)

CHIEF INSPECTOR OF ARMAMENTS,
WOOLWICH, S.E.18.

SECURITY

AMMUNITION BULLETIN NO 3

for Inspecting Ordnance Officers

JULY 1939

Issued by:-

The Chief Inspector of Armaments
Woolwich.

I.O.O.'s BULLETIN

MEDIUM ARTILLERY EQUIPMENT

17 DETAILS OF AMMUNITION

CALIBRE	APPROX. WEIGHT OF CARTRIDGE				APPROX. WEIGHT OF SHELL				APPROX. LENGTH OF SHELL INCHES		APPROX. DIAMETER OF SHELL OVER	
		LB	OZ.	DR.	NATURE	LB.	OZ.	DR.	PLUGGED	FUZED	BODY	GRUMMET
4·5 INCH B.L GUN		10 3	0 3	0 0	H.E.	55	0	0	19·4'	22·4	H 4·49	5·127
60 PR.		9	0	12	H. E.	56	0	0	16·47	19·4	4·99	5·945
					H. E.	60	0	0	19·68	21·74	4·99	5·945
					SHRAPNEL	58	0	0	16·43	18·06	4·99	5·945
6 INCH 26 C.W.T. HOW.		4	14	0	100LB.2CRH.	100	0	0	21·73	23·79	5·985	7·26
					100LB. S.L.	100	14	0	24·34	27·27	5·985	7·26
					86LB.S.L.	86	0	0	22·04	24·97	5·985	7·26
6IN. MK XIX GUN		23 22 15	10 14 11	0 0 0	H.E.	100	0	0	21·69	23·75	5·97	7·25
					SHRAP.	100	0	0	19·16	20·79	5·985	7·26

✳ CALCULATED IN ACCORDANCE WITH PARA. 23 MAGAZINE REGULATIONS PART I 1934

FOR JULY 1939

MEDIUM ARTILLERY EQUIPMENT

ESTIMATED WEIGHT & NATURE OF BURSTING CHARGE				PROPELLANT NATURE AND WEIGHT.				IGNITER	FUZE	* EXPLOSIVE QUANTITY	REMARKS
NATURE	LB.	oz.	DR.	NATURE	LB.	oz.	DR.			LBS.	
				W 124	9	13	10	1 oz.		9·9	THIRD CHARGE (SECOND CHARGE + INCREMENT.)
				W 057	3	0	0	1 oz.		3·0	FIRST CHARGE.
T.N.T.	3	14	7						117	4·2	
				W093 OR W098	8	12	0	2 oz.		8·75	
T.N.T.	3	14	6						106E OR 117	4·5	
T.N.T.	6	7	12						101 GAINE 2 OR 106 E	7·1	
R.F.G. 2		4	0						88 T & P.	·25	
								1 oz.		4·7	
T.N.T.	11	5	7	M.D. OR R.D.B.8 W.8 OR 054 OR 057	4	11	8		101 GAINE 2 OR 106E	12·6	
T.N.T.	11	14	8	W.057 W.054	4	6	4		117	13·5	
T.N.T.	9	13	11	M.D. 8 R.D.B. 8 W.057	4	10	8		117	11·65	
				MD OR MD 16 OR RD 816	23	0	0	4 oz.		23·0	FULL CHARGE
				W112	22	4	0	4 oz.		22·25	FULL CHARGE
				W·057	15	6	0	2 oz.		15·375	REDUCED CHARGE.
T.N.T.	8	6	12						106 E	9·25	
R.F.G. 2		10	6						88 T&P	·65	

I.O.O.'s BULLETIN

MEDIUM ARTILLERY EQUIPMENT

18 DETAILS OF PACKAGES FOR AMMUNITION

CALIBRE	NO. OF PACKAGE	MATERIAL & TYPE		STOWAGE DIMENSION		
		TYPE	MATERIAL	LENGTH	BREADTH	DEPTH
4·5 INCH B.L. GUN.	C224	BOX	STEEL	24·7	15·25	10·125
60 PR.	C118 (CASE POWDER METAL LINED WHOLE)	BOX	WOOD	21·625	17·625	17·0
6 INCH 26 CWT. HOW.	C224	BOX	STEEL	24·7	15·25	10·125
	C118 (CASE POWDER METAL LINED WHOLE.)	BOX	WOOD	21·625	17·625	17·0
	C1	BOX	WOOD	26·25	17·9	17·5
6 INCH MK. XIX GUN.	C118 (CASE POWDER METAL LINED WHOLE)	BOX	WOOD	21·625	17·625	17·0
	CYLINDER CARTG. No. 44 IN CASE WOOD PACKING SKELETON	CYLINDER	STEEL		26·3 x	7·5 DIA.
		CASE	WOOD	29·8	9·1	9·1
	CYLINDER CARTG. No. 34 IN CASE WOOD PACKING SKELETON	CYLINDER	ZINC		27·2 x	8·3 DIA.
		CASE	WOOD	30·875	9·5	9·5

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MEDIUM ARTILLERY EQUIPMENT

ESTIMATED WEIGHT POUNDS.		CONTENTS.
EMPTY	FILLED	
18 1/2 LBS.	80 1/2 LB. 56 LB.	6 (9 LB. 13 oz. 10 DR. CHARGE) IN 6 CONTAINERS No 4. 6 (3 LB. CHARGE) IN 6 CONTAINERS No. 4 WITH PACKING PIECES.
50 LB.	141	10 CARTRIDGES.
18 1/2 LB.	80 LB.	10 (4 LB. 6 oz. 4 DR. CHARGE) IN 10 CONTAINERS No. 11 & 1 PACKING PIECE)
50 LB.	150 LB.	20 CARTRIDGES
46 LB.	171 LBS.	25 CARTRIDGES.
50	133 3/4	5 (CARTRIDGES REDUCED CHARGE)
10 1/4	33 3/4 (CYLINDER ONLY)	1 CARTRIDGE (FULL CHARGE)
10	43 3/4 (CYLINDER IN CASE)	
14 1/2	38 (CYLINDER ONLY)	1 CARTRIDGE (FULL CHARGE.)
10	48 (CYLINDER IN CASE)	

19. Reference Bulletin No.1. para. 2.

Packages for A.A. Ammunition

The following should be added to the 40 m.m. packages:-

Unnumbered.	Wood with zinc lining	21.5 x 17.25 x 15.0.	Estimated weight. Empty 35 lb.	Filled. 173¾ lb.	25 in. rolled paper container.

Sunlight on Ammunition packages

20. In Para. 50(e) Magazine Regulations it is laid down, that, in the construction of buildings for explosives, care should be taken to prevent the possibility of sunlight falling directly on ammunition packages. This is applicable to Magazines, explosives Storehouses, laboratories and gun recesses. It should also be observed in the transport or temporary storage of ammunition.

The reasons for the regulation are three-fold, firstly, the hot sun will blister paint, causing it to flake and fall off; thereby, in the case of steel packages, rendering them liable to rust. Rust, is of course, a source of danger in any building containing explosives: secondly, the rise in temperature caused by the heat is deleterious to many explosives, particularly so in the case of cordite and detonators; and, thirdly, as the sunlight can only reach certain packages in a stack, its effect is confined to those packages, so that the thermal homogeneity of the stack is destroyed and periodical tests, such as the heat test for Cordite, may fail to indicate the general condition of the Lot.

During the present emergency conditions, use has had to be made of buildings, for storing explosives and ammunition, which are fitted with windows. In such cases, the windows should be well painted to exclude the sunlight from the packages and screens should, if possible, be fitted on the outside in addition.

Ammunition at gun positions should be carefully protected from the direct rays of the sun at all times.

21. Testing Fuzes

The brass fuze covers of fuzes Nos. 199 and 221 should never be tested for tightness, by hand, using a twisting motion. The cover should be tested by pulling only.

In hot climates, where tension tends to relax, the twisting movement of the cover may turn the time ring, move the setting from safety and break the waterproof seal.

Should any cases come to light where the fuze ring has been turned in this way, they should be sentenced for use at Practice as soon as possible. Meanwhile, the fuzes should be kept in a dry atmosphere, as the waterproofing protection is probably inoperative.

22. Deployment of 4.5 inch Ammunition

Referring to item 15 in the June Bulletin, a deployment trial of 4.5 inch Ammunition has now been carried out with the following results:-

p.t.o.

The loading party consisted of 8 men: 2 working in the bin, 2 working on the runways, 2 on the platform and 2 in the Lorry. Six sleighs were supplied. The Lorry was loaded with 60 cartridges in 5 minutes, and it is computed that, allowing for the movement of the Lorries to and from the platform, there should be little difficulty in deploying the ammunition at the rate of four such Lorries per hour from each platform. With four platforms in use the storehouse should be emptied in less than four hours. It contains 3,200 rounds.

The men in the bin stand at opposite ends of the cartridge which they pick up and swing direct on to the sleigh, two cartridges to each sleigh. The sleigh is then pushed; not pulled, along the runway by the men allotted to this task, the platform men pass the cartridges into the Lorry, where they are stowed by the two men working there. The empty sleigh is returned by the runway men through the building, and placed on the runway ready for receiving the cartridges from the bin men.

This trial proved that no difficulty is experienced in returning the sleighs from platform to bin down the passage way, consequently there is no need to consider their movement down the outside of the building, through an opening in the wall above the runways.

Special attention should be paid to stowage in the Lorries in order to avoid damaging the packages in transit.

23. Reports on defective ammunition

(a) Batched ammunition.

To facilitate identification of the ammunition the following points should be observed in all such instances.

The batch number should be quoted. In addition to this, a certified (by I.O.O) true copy of the packers label - stuck inside the lid of the box - should be forwarded. This label gives the signature of the Factory operative and the stamped work mark of the C.I.A. examiner. If the ammunition has been unpacked and it is no longer possible to identify the boxes, then the C.I.A. examiners work mark can be found near the stencilled batch number on the cartridge case. On some rounds two work marks will be found, one near the base of the case, and one near the neck of the case, both should be reported.

Every effort should be made to locate the boxes so that the responsible factory operative can be identified.

(b) Unbatched ammunition.

Full particulars of all relevant components should be quoted. The procedure otherwise is the same as for batched ammunition.

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Erratum.

Reference Bulletin No. 1 para. 1.

3" 20 cwt. Amend length of shrapnel cartridge to read 29.175 inches.

Reference Bulletin No. 2 para. 14.

Cordite Bofors.

Ingredients:-

for "Diarylphthalate"

read "Diamylphthalate"

for "(Methyl Centiolite)"

read "(Methyl Centralite)"

for "Dipherylamine"

read "Diphenylamine"