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COMMUNICATIONS ZONE ETOUSA (FORWARD)
OFFICE OF THE CHIEF ORDNANCE OFFICER
APO 887



7 October 1944.

ETO ORDNANCE TECHNICAL INTELLIGENCE REPORT NO. 28.

SUBJECT: Translation of German Bazooka Manual D 1864/1 dated 7 June 1944.

1. The following is a translation, received from the Ordnance Technical Intelligence Team attached to the First United States Army, of the new German Manual D 1864/1 dated 7 June 1944, covering the use and maintenance of Bazooka "PANZERSCHRECK 8.8 cm R.PzB 54" and the rocket "8.8 cm R.PzBGr 4322".

TRANSLATION OF TEXT

A. WEAPON:

1. What is the "Panzerschreck"? It is a recoilless hand weapon for the attack of all, even the heaviest, armor at distances up to 150 m.

2. The weapon and its parts (picture 1). The protective shield protects the firer against flying powder parts which are expelled after the discharge of the rocket. For the protection of the right hand a hand protector is fastened to the bazooka by the firer himself (Appendix 3). The small holes on the outer edge of the protective shield are for the fastening of the camouflage cover.

3. Directions for the weapon. The bazooka has to be protected against all dents. If it is laid down care should be taken not to bend the sight. Before firing the bazooka check it to see whether the tube is clear. A makeshift wiper should be pushed through it. A small amount of dirt does not matter since the grenade has sufficient play. Holes in the tube do not interfere with projection either as long as they are on the opposite side of the tube from the firer. Bent or otherwise damaged tubes should only be used if the grenade can freely pass through the tube. (Check this by letting the grenade actually slide through the tube). Small dents can be eliminated in any improvised way.

B. AMMUNITION:

4. What is the 8.8 cm R. Pz. B. Gr 4322? The bazooka round is a fin-stabilized rocket with percussion fuze. It is used only against armor; it is not used as a high explosive anti-personnel grenade because its fragmentation effect is small. The armor-piercing quality is based upon its hollow charge.

5. The grenade and its parts (figure 2). Note: ammunition having "Arkt" stencilled on the rocket motor is Winter ammunition. It should only be used at outdoor temperatures from -40° C. to plus 30° C. Ammunition boxes of Winter ammunition are marked by black rings.

The marking of Summer ammunition is a black cross on top of the cover of the ammunition box. This is only to be fired at outdoor temperatures from -5° C to plus 50° C.

6. Treatment of ammunition. Ammunition should be stored dry and not exposed to temperatures of more than plus 50° C or to direct sun rays. Care must be taken to note the markings on ammunition boxes indicating temperatures.

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If at the time of firing the propelling charge is warmer than permissible, the motor of the rocket may burst. This may be deadly. Grenades which have a higher temperature than permitted can, however, be used after they have cooled off. In cold weather the range will be less. However, the effective penetration of the round will not change. The most accurate shooting can be done at 20° C. In Winter ammunition should be stored in shelters or dugouts up to the time it is used. Firing is in such case even promising up to 180 m.

Slightly dented but still serviceable ammunition should only be used for practice.

When the tail fins are bent a round is completely inaccurate. Badly bent ammunition should be destroyed (see figure 15).

7. Treatment of the percussion fuze. The fuze is made safe for shipment and against dropping by a safety pin. This pin should only be pulled out shortly before loading (see also figure 10). After the pin is pulled the grenade must not be dropped; the rocket might go off, but even if it didn't the first dropping is extremely dangerous because of the increased liability of its detonation at a second dropping (or even shock). The fuze is bore-safe, i.e. it is safe to about 3 m. after it leaves the end of the tube.

Grenades (rounds) which have either been delivered without safety pins or have been maltreated after the pin was pulled are not to be transported and must not be used for firing. They are liable to detonate prematurely. They must be destroyed.

8. Other kinds of ammunition.

Practice round 8.8 cm R. Pz. B. Gr 4320 Bl - reduced (?)
propellant and inert body.

Dummy round 8.8 cm R. Pz. B. Gr 4329 Ex - blank.

C. OPERATION:

9. Preparation for firing. Fire only with protective shield (see paragraph 2). Remember camouflage. Put cotton in your ears.

Firer: If the protective shield is missing use a gasmask (without filter). Use gloves. Protect the ears with a hood, shelterhalf or similar material.

Adjust the front sight according to temperature and type of ammunition (see figure 10 and Appendix 2). While using summer ammunition always use the lower sighting mark.

Firing position: Lay the bazooka with the arm rest loosely on the upper part of the arm, holding the bazooka as far forward as possible. (Greater accuracy results when the distance between eye and rear sight is at the maximum). Do not hold the bazooka to the rear. Get a firm grip on the hand grip with the left hand, keeping the hand directly under the tube to avoid burns from the rocket blast. When firing in the prone position keep the legs away from the rear end of the tube (see figures 3 and 4).

Loader: Take a position well to the left of the tube behind the firer.

Preparation of Ammunition: Take the round out of the ammunition box. Remove the protective piece of wood on the rear and check it for cleanliness and possible damage (snow and ice must be removed from the tail assembly). The adhesive stripes must be removed entirely, especially the ends.

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10. Loading:

a. Firer: To cock and apply the safety pull the cocking handle back until the safety snaps in place (see picture 5). Then report "Ready".

b. Loader: Pull safety pin but do not throw it away (see picture 14). Push grenade into the tube. To do this hold the round in the center, depress the locking lever and push the grenade into the tube until the hand touches the guiding (see picture 5). Then grasp the end of the motor of the rocket round and gently push it forward (see picture 6), until the round contacts the retaining lug. Release the locking lever and pull the round back until it contacts the locking lever catch (for the position of the tail assembly see pictures 7 and 8). Finally, plug the pin into the contact block being careful to keep the hands away from the rear of the tube. Report "Ready" and get away from the rear of the tube to prevent being caught in the blast. After the weapon is loaded and the pin inserted in the contact block be sure to keep the hands clear. Turn the face away at the time of firing. If the grenade does not load easily do not use force. Check the possible cause. If the round is faulty unload and destroy the damaged round.

11. Firing:

a. Release safety catch by depressing safety in cocking handle, allowing the cocking handle to go forward (see picture 9).

b. Aim, using both rear and front sights (see picture 10). The front sight is adjustable and is set at the proper range according to the type of ammunition being used. In case of repeated misses (too short or too long) correct sight setting; either raise or lower the front sight (see Appendix 2).

c. Aiming points: At distances of less than 75 m. the aiming point is higher than normal. If the firing is either up hill or downhill the aiming point will have to be lower. For example, at a 30° angle and at 120 m. distance the target has to be just above the sight (aiming point right below the target).

d. Lead: For firing at moving tanks a wider rearsight has to be used and fastened to the bazooka according to Appendix 3 #27. For aiming see picture 12.

e. Range finder: In case the armored vehicle appears in the sight as in picture #13 it will be 150 m. away (i.e., if the tank is a T 34).

f. Firing: Use slow trigger squeeze.

g. In case of change of position with a loaded bazooka it should be cocked but safe.

12 Process of firing. The squeezing of the trigger pushes a rod back which in turn hits a generator causing an electrical current which ignites the propelling charge. Circuit is: Generator, cable on weapon, contact block, plug and wire, ignition system (bridge fuze with filament wire), jet with soldered wire, iron parts of the projectile (insulating coat is scratched off by contact plug), contact plug, iron parts of weapon, generator.

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13. Faulty Ignition. Check contacts. Is insulating coat of lacquer scratched off from tail assembly by contact pin?

Loader: Watch out for your own safety. Delayed ignition is possible. Wait at least 2 minutes. Then check the ignition and fire again. If the ignition is still faulty destroy the round. If this happens repeatedly the bazooka is unserviceable, and a new one should replace it.

14. Unloading. Take plug out, depress locking catch, extract the round, replace safety pin being careful not to drop the round.

15. Duds and unserviceable rounds should be exploded by qualified personnel.

16. Note, a blast leaves the rear of the tube carrying with it the ignition mechanism. The latter is projected to the rear up to 30 m. Loader, be careful while the firer is changing aim or position. Stay clear of the rear of the tube. Remove all inflammable material from behind the tube. Keep all ammunition to the side of the tube.

Berlin 7.6.1944

General Hqs. Ordnance Office
Department for Development
and Tests.

For the Commanding Officer:

KITTEL.

APPENDIX I OF THE MANUAL D 1864/1.

Directions for mounting the protective shield, hoop and adjustable front sight with cover plate for older models.

17. Protective Shield:

a. Mounting: Fasten the protective shield to the housing lock in front of the rear sight. Fix the shield firmly to the tube in such a way that it gives the firer an unobstructed view through the window. The protective shield remains on the tube at all times except when packed for shipment.

b. Insertion and exchange of window glasses: Before firing remove plates (safety glasses) from the small container on the lower part of the shield and fasten either adhesive tape from ammunition box or other tape around their edges. Then insert one glass plate in the window and put the other back into the container. If the taping is omitted, the plates will break.

Broken and blurred glasses are to be replaced. Spare glasses are requisitioned through prescribed channels under the heading: "Spare glasses for protective shield Panzerschreck".

18. Hoop: The hoop keeps sand or snow out of the muzzle end of the tube while the bazooka is being placed in position for firing. It is fastened immediately behind the front sight (see picture 1). The ends are bent and pressed together on top of the tube. A clamp is necessary to do the job of fastening the hoop.

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19. Adjustable front sight: The front sight is adjustable because changing temperatures require elevation changes. A wing screw facilitates such adjustment.

Mounting: Remove old front sight. Take new front sight consisting of front sight frame, clamp plate, and wing screw, apart and insert pieces in the right angular cut-out of the front sight frame. Check and adjust line of sight according to directions in Appendix II. Mark down upper and lower marks (for Winter ammunition plus 25° to -25° C).

Coverplate: The coverplate protects the glass window in the protective shield. As can be seen in picture 15 it is fastened to the front sight holder by a screw, washer and nut which in turn is secured by staking.

APPENDIX II - TESTING AND ADJUSTING OF LINE OF SIGHT:

Testing and adjusting of line of sight should be done whenever possible, preferably by Ordnance personnel.

21. Make an aiming chart (target) as shown in picture 16.
22. Set target up vertically at a distance of 10 m from the front sight.
23. Using a triangular file, make four grooves in the rim of the front and rear openings of the tube in such position that there will be two pairs of grooves facing each other at a 90° angle. (The grooves should be approximately 1 mm deep).

Put wither threads or horse hair in these grooves to form cross hairs and fasten them either with wax or string. The reticule center must be exactly in the center of the tube (bore).

24. Axis of the bore is to be aimed at the aiming point S (Center).
25. Move the adjustable front sight up and sideways (in newer models the rear sight is movable also) until the line of sight hits the lower edge of the aiming point V. This applies to Winter ammunition at plus 20° C.

Match upper mark on front sight with the marking on the sight plate (see picture 10). Adjust lower marking (for Winter ammunition at -25° C) accordingly.

While doing this check be sure that the axis of the bore stays in alignment with the aiming point S.

APPENDIX III - FIRST ECHELON IMPROVEMENT - SUGGESTIONS.

26. A hand protector should be made out of sheet metal according to the directions in picture 17. It should be fastened to the upper part of the shield with a screw and nut, and clamped to the lower part. The protective shield, however, must be removable.

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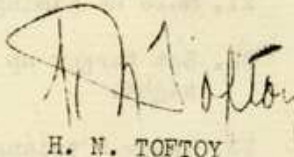
27. Manufacture and fastening of wider rear sight plate. A wider rear sight plate should be made according to the directions in picture 18 out of 1.5 mm sheet metal. The rear sight holder should be shortened 4 mm on top. The wider rear sight plate is fastened with screws and nuts and replaces the older one (directions for use are at 11, d).

In case older models are held which have not been equipped with rear sight plates at all, long holes have to be punched into the rear sight holder.

28. Guiding ramps should be attached to the locking lever and to the rear guide ring to facilitate loading (see pictures 19 and 20).

END OF TRANSLATION

For the Chief Ordnance Officer:


H. N. TOFTOY
Colonel, Ord. Dept.

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