

HEADQUARTERS
628th Tank Destroyer Battalion (SP)
APO 230, U.S. Army.

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8 December 1944.

SUBJECT: Effect of 90 mm Gun on Enemy Tanks.

TO : Commanding Officer, 5th Armored Division Artillery, APO 255, U. S. Army.

1. In this Unit's initial experience with the M-36 in direct fire on enemy tanks in the Brandenburg-Bergstein area, the following facts were noted:

a. At a range of 1200 yards, one round penetrated the frontal plate of what was thought to be a Mark V tank, setting it on fire. This was the only round fired at this particular tank.

b. At a range of 1500 yards, an M-36 fired at what was either a Mark V or Mark VI tank; the range was too great to determine with certainty which type tank it was. The first round was observed to bounce off the frontal plate. The enemy tank continued to try to bring its gun to bear on the M-36. The second round hit the turret, apparently jamming the traversing mechanism. The enemy tank then was observed trying to maneuver the entire vehicle into a position from which it could fire at the M-36. Six more shots were poured into the enemy tank in rapid succession before it could fire a round. After the last of this series of rounds (the eighth in all), the enemy tank burst into flames.

2. Conclusion: The 90 mm gun will penetrate a Mark V at a range of 1200 yards if the shell strikes the tank at a favorable angle. A single round fired from the 90 mm gun will not penetrate the frontal plate of a Mark VI or the frontal plate of the Mark V if the slightest deflecting angle is present. However, a solid hit on the turret can jam the turret. Several rounds poured in rapid succession at the frontal plate can knock out either the Mark V or the Mark VI. It is felt that greater effect would have been obtained at shorter range, but in this particular instance in the Brandenburg-Bergstein area, the tanks which did appear were reluctant to come any closer to the friendly T/D's and tanks. Two Mark IV's which did venture closer (700-800 yds) were promptly knocked out by T/D's and American tanks. From the comparatively little tank action met by this unit in the engagement, this officer does not feel qualified to state absolutely what a 90 mm gun will or will not do. However, every officer and man of this unit who was aboard the Destroyers in this operation with CCR is convinced that, a) the 90 mm is superior to the 3 inch; that b) the 90 mm is not the final answer to the Tiger Tank at ranges beyond 500 yards, but that c) even the Tiger Tank can be knocked out either by pouring several rounds as quickly as possible into the frontal plate, or by maneuvering so as to get a shot at the more vulnerable sides or rear of the Tiger.

3. Most of the casualties sustained by this unit in the aforementioned operation were caused by mortar fire, air bursts, tree bursts and white phosphorus of enemy artillery; to all of which the T/D, by virtue of its open turret, is especially vulnerable. So intense was the artillery concentrations that in some cases the improvised log tops would be swept away by one burst; with a subsequent burst landing either on or in the turret. Consequently this unit is now devising a permanent steel top, with hatches, like those of a tank, which, it is felt, will minimize casualties from enemy artillery.

WILLIAM J. GALLAGHER,
Lt. Col., F.A.,
Commanding.

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