

TOM COPELAND ON “TANK DESTROYER UNITS”



Little has been written about the formation, training, equipping, execution and expectations of Tank Destroyer Units. The following explanation may help at this point.

Early in the war, or even before the U.S. was involved, the military recognized that the U.S. troops were no match for Hitler's Panzer tanks. The German tanks were bigger, faster, and more maneuverable and carried a bigger gun than anything we had in our arsenal. To put it mildly, our infantry was no combat match for a well equipped, diversified German infantry unit that was assembled at that time. The German tanks could literally run us over without fear of being immobilized or destroyed. The armor on the German tanks simply could not be pierced by any gun we had in the field available to U.S. troops.

Infantry troop commanders were painfully aware of this shortcoming and were anxious to have a chance to address the terrible imbalance. So the tank destroyer units were conceived and activated in early 1942. To create a unit that could go head-to-head with the German tanks would require months of equipment development and personnel training. But it simply “had to be done.”

The first gun assigned to tank destroyer units was the 75 mm cannon left over from World War I.—a design of the French and quite up-to-date in 1917. The muzzle velocity was extremely slow compared to 1942 standards. [] The projectile was heavy and carried little explosive power. The ability of one of these rounds to pierce a German tank was next to impossible. But that was all that was available at that time. So it just had to do and the very first units trained with this equipment.

This gun—or cannon, whatever you wanted to call it—was mounted in two fashions:

Towed: A 75 mm gun tube was mounted on two wheels with two long, foldable legs that could be pulled together and hooked on the back end of a truck or some other type of power unit. This gun was strictly “man-handled” by the crews. It was rolled, pushed, shoved by the brute strength of the crew into place before it could be effective. Its lateral travel (swinging from left to right) was about 20 degrees. The gun tube was about three feet above the ground. The gun had a steel plate that covered a small portion of the front section but gave little or no protection for the crew against incoming small arms fire. When required to be used as a “direct fire” gun, it was just a matter of slugging it out with the enemy. And in a vast majority of cases, it was no contest.

Track mounted: A 76 mm long gun tube mounted on the running gear of a Sherman M4 tank. This 76 mm was a Navy gun modified to fit a turret application. This was the M10 tank destroyer. The turret and upper portion of the Sherman chassis had been redesigned to handle this much larger gun tube. The turret could be traversed 360 degrees by a series of manual operated wheels, cranks and gears—not smooth, but it could be done. There were no small arms available on this vehicle as on the M4 Sherman tank, which had a bow gun and coaxially mounted 30-caliber machine gun in the turret. The armor on this tank destroyer was adequate for small arms protection. The open-top turret gave the crew better visibility, but at the expense of exposure to enemy hand grenades and various types of incoming projectiles. The muzzle velocity of the 76 mm was vast improvement over the 75 mm and the ACP (armor piercing round) gave us the first opportunity to have a gun that could indeed knock out a German tank at a reasonable distance.

Few of the track-mounted vehicles saw any action during the African campaign. Their first action was in Sicily. By this time, the Army was assembling tank destroyer battalions and assigning them to combat units. Generally, there would be one tank destroyer battalion attached to an infantry division or an armored division. All tank destroyer battalions were under the direct control of the Army commander. This alignment allowed the Army commander to assign tank destroyer battalions to any division or task force within the Army command. It was up to the Army command how these tank destroyer units were to be deployed.

Now, it was recognized that any division did not want to be committed to combat, either defensively or offensively, without tank destroyer support. Every unit “on line” wanted tank destroyers and probably more than what was assigned. Tank destroyers were in exceptionally high demand. They were seldom taken “off line” or placed in reserve. This was very tiring for the tank destroyer troops and a condition we just had to live with from day to day and week to week. If we were on the offensive, tank destroyers were the lead elements. If we were on the defensive, tank destroyers were in direct fire position, covering areas of possible German tank movements. The tank destroyer units were always “on line” and most of the time in “direct fire” positions.

It was February 1945 that we got the new M-36. This was a tank destroyer on the same Sherman chassis but with the big 90 mm gun. Now, the muzzle velocity on this was [] feet per second. The ammunition was much larger and far more variable: high-explosive instant-fuse or delayed fuse; HEAT (high-explosive anti-tank) round that could take out virtually any German tank; a magnesium-burning round that would detonate in flight and slowly come to the ground on a parachute, illuminating the area or creating fires; we also had smoke rounds. These improvements were welcomed by all the combat troops, and needless to say, the new equipment lived up to our expectations.

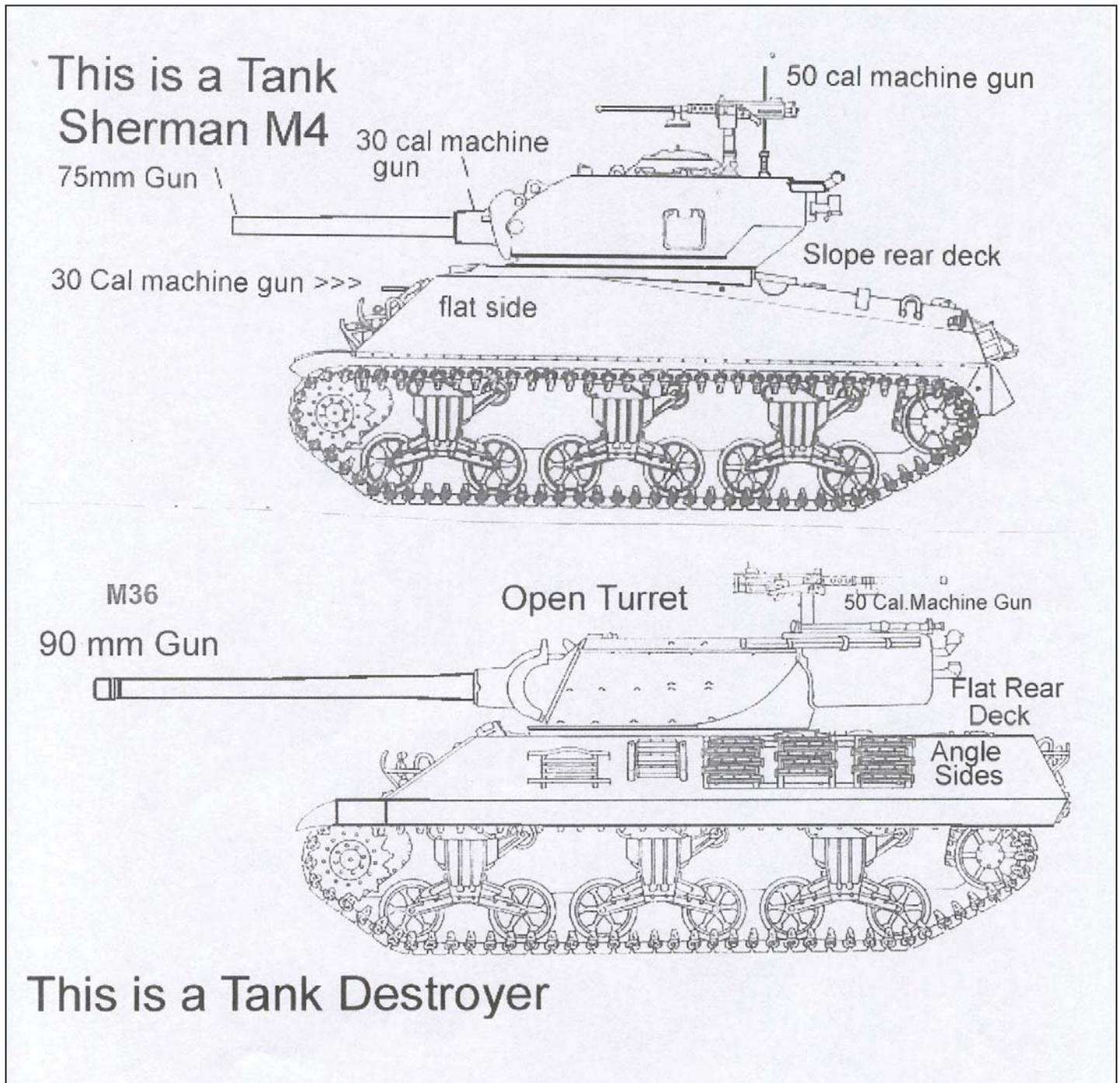
That was the equipment and mechanical side of the story. Now for the personnel side.

When someone spotted a German tank and hollered for help, we were expected to be ready. It was at this moment that the gunner was tested. Was he a cool dude, or could he only fire wildly, missing every round? You have assembled all of this equipment, moved it to the correct location, made available a selection of types of ammunition, and now it was down to a few seconds to see if this gunner can really produce.

The first round you fire will expose your position to the Germans, soon to be followed by incoming rounds. Will this gunner be successful on his first round or will a second round be necessary? If a second round is necessary, will that one be “on target?” Most of the time, our gunners were a bunch of “real cool dudes:” calm, deliberate, well trained, and showing little or no emotion. After hitting the target, they would have comments like, “Okay, we got that one. Where is the next one?” Or, “Jesus, look at all that black smoke!” I always appreciated the uncanny accuracy of our gunners, but I appreciated even more their calm, unflappable execution of the few seconds of such great importance to all the troops in the area.

Later in the war, when the offensive, the tank destroyers would be called upon to hold the fighting to greater distances. For instance, we would be approaching a town several miles away and would be asked if we could engage targets at a mile away. "Sure, that's easy." On several occasions I would place tank destroyer guns on high ground in a hull defilade condition with a line of sight to target a mile away. I would explain to the tank commanders that we needed to take out the tallest buildings in town and assign a target to each with orders of, "Don't fire until I give the order." Once cleared with my immediate superior, I would start the firing. In the majority of engagements of this type, the fire was so devastating to the town that the German troops would run away or simply come out carrying white flags. This was done one mile away and the infantry troops had not been fired upon. The effect was most significant and more than welcomed by the infantry troops on the ground.

Difference between a tank and a tank destroyer:



World War II Tanks and Tank Destroyers

	MAIN GUN	Weight of Projectile	Muzzle Velocity <i>Feet per sec.</i>	Armor Penetration in inches at the following distances			Tank Weight	Top Speed	Road Speed	Crew
				500yds	1000yds	2000yds				
TANK M 4 Sherman	75mm	6.8	1600	2.4	2.2	1.8	30 tons	30 mph	12 mph	5
M 10 Tank Destroyer	76mm	6.8	2600	3.7	3.5	3	32 tons	25 mph	12 mph	4
M 36 Tank Destroyer	90mm	10.94	3500	4.7	4.4	3.7	32 tons	25 mph	12 mph	4
German Panther	75mm	7.2	3570	4.8	4.4	4.2	50 tons	34 mph	10 mph	5
German Tiger	88mm	11	2648	5.6	5.2	4.1	62 tons	12 mph	4 mph	5
		<i>Speed of sound</i>	1100							

