

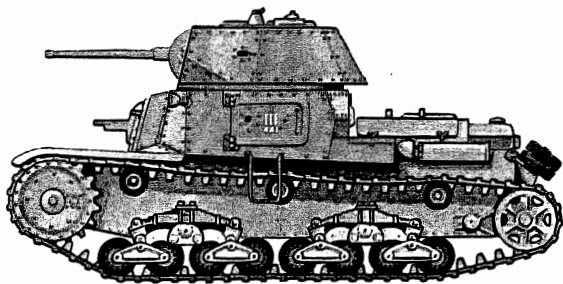
SURVIVAL OF THE FITTEST IN ARMORED WARFARE

"The armor is the core of the motorized army," said Rommel, "everything turns on it." And the desert, with its flat, open terrain, provided the setting for armored warfare in its classic form. The result was a technological race between the protagonists to equip their armies with tanks that could outshoot, outmaneuver and outlast those of the foe. The tanks—some of the most widely used of which are displayed here—ranged from fast, light models for

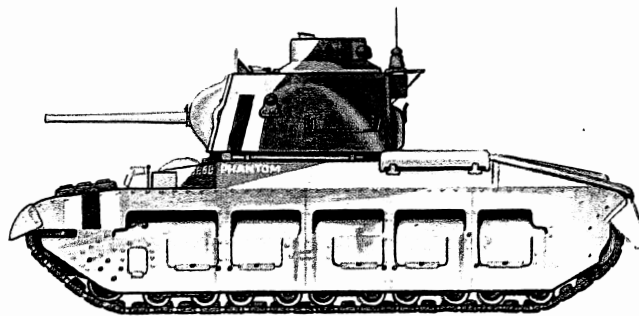
reconnaissance to heavily armored types for assaults on fortified positions.

At the start of the war, British armor, including the "Matilda," crushed the flimsy Italian M 13/40. But the balance shifted when Rommel arrived in early 1941 with his Panzer IIIs and IVs, two mobile tanks with excellent firepower. The panzers later were fitted with thicker armor and longer-barreled, more powerful versions of their already formidable guns.

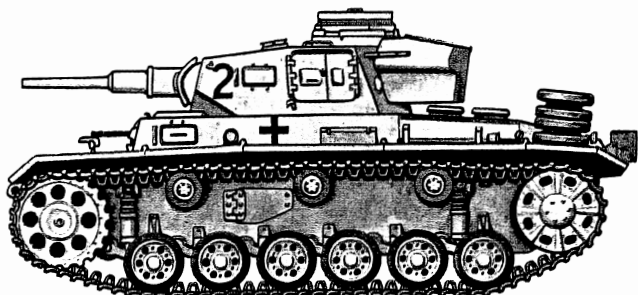
The British forces were outgunned until they received American-built M3 medium Grants in May 1942. It was said that British crews manning the Grants shed tears of joy when they first found themselves overpowering panzers. The Grant's successor, the rubber-tracked M4 Sherman, a rugged fighting machine that was possibly the finest all-round tank in the North African war, arrived in time to be a key factor in Montgomery's victory at El Alamein.



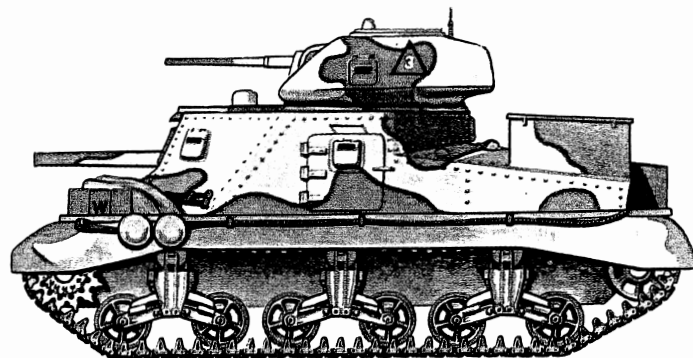
The unreliable Italian M 13/40 was dubbed the "mobile coffin" by the Axis forces because its armor plate was weak and it kept breaking down.



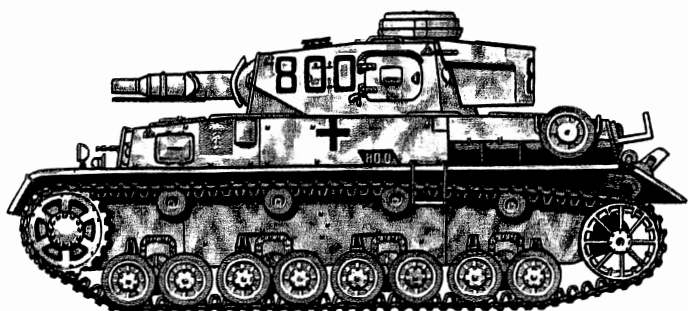
The 30-ton British Matilda, with a 2-pounder turret gun and a top speed of 15 mph, could withstand heavy fire because of its 78mm-thick armor.



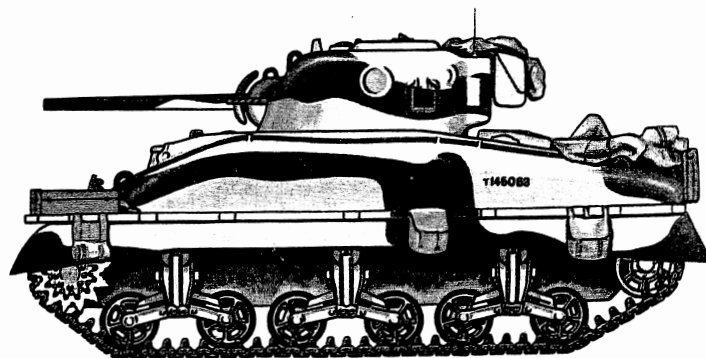
The Panzer III, speedy and maneuverable, was highly effective in tank duels. Plated with 30mm armor, the 22-ton tank carried a 50mm gun.



The Grant tank boasted both a 37mm turret gun and a 75mm gun, but the larger weapon was mounted on the hull, which restricted its arc of fire.



The 25-ton Panzer IV, a general-purpose medium tank, took on machine-gun nests, tanks, infantry and antitank guns with its 75mm turret gun.



Although the M4 Sherman tank had 62mm armor and weighed 36 tons, it could travel at 25 mph and had a 75mm gun in a power-driven turret.

THE WORKHORSE OF THE WEHRMACHT'S STABLE

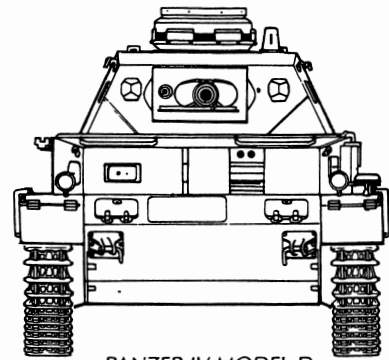
The fast, maneuverable medium tank shown here was the cutting edge of the German sword that sliced through the Low Countries and France in May 1940. With its 75 mm gun, the Panzer IV could easily stand off and destroy more lightly armed Allied tanks. Against the better Allied tanks, such as the French Char B—which also carried a 75 mm gun—and the more heavily armored but slower British Matilda, the Panzer IV's speed was a distinct advantage.

The Panzer IV, with a large fuel tank, could go 125 miles without filling up. The driver and a radio operator, who was also a machine-gunner, sat in the hull up front. The turret housed the commander, the gunner for the 75, and a loader.

However, the Panzer IV's were in scarce supply at the start of the war. Because of production problems, there were only 278 of the new tanks available for the Western campaign, which forced tank commanders to use the versatile weapons sparingly. The record for applying this stinginess probably

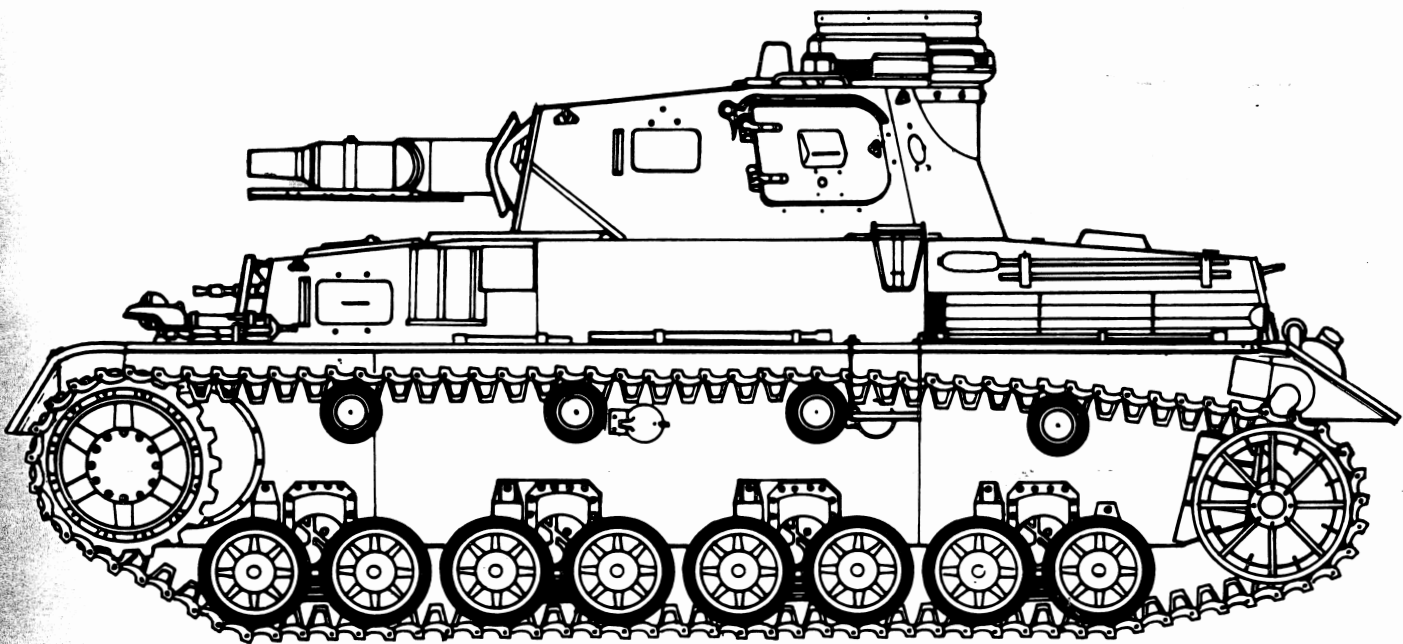
belongs to General Erwin Rommel, a brilliant tactician and Germany's greatest tankman. When one of his columns was stalled in a village by a detachment of heavier French tanks, he ordered just one Panzer IV to attack the French rear. Firing at a furious rate, the Panzer knocked out 14 of the French machines, which were too ponderous to maneuver in the narrow village streets.

Not even Rommel could make the Panzer IVs invincible, however. When caught by surprise—as they were near Arras when the British and French armor fell on the flank of Rommel's advancing column—they showed a streak of vulnerability. French shells, which were fired from close range, penetrated the Panzer's armor, knocking out three of them. Soon after, the Germans modified the Panzer IV, giving it thicker armor and a more powerful gun. Thus improved, it became the workhorse tank, better than a match for most Allied armored fighting vehicles throughout the War.



PANZER IV MODEL D

*Weight: 20 tons
Length: 19 feet
Width: 9 feet
Height: 8 feet
Maximum speed on roads: 25 mph
Maximum speed cross country: 12 mph
Maximum radius on roads: 125 miles
Maximum radius cross country: 80 miles
Fuel supply: 120 gallons
Trench-crossing capacity: 7 feet
Gradient-climbing capacity: 30 degrees
Fording depth: 3 feet
Crew: 5
Armament: one 75mm gun, two 7.92mm machine guns
Front armor thickness: 1.2 inch
Side and rear armors: .8 inch
Roof armor: .4 inch*



The original Panzer IV hull, designed in 1934, was used for all subsequent models, allowing mass production of more than 8,000 of these tanks.