



Figure 103.—Pz. Kpfw. "Tiger", Model E (Sd. Kfz. 181).

b. *Pz. Kpfw. TIGER (1) General*. This tank, originally the *Pz. Kpfw. VI*, first was encountered by the Russians in the last half of 1942, and by the Western Allies in Tunisia early in 1943. Its colloquial name, Tiger, was adopted officially in February 1944. The current version is Model E.

Unlike the Panther, the Tiger is designed on familiar German lines, but all the dimensions are increased. The main armament is the 8.8 cm *Kw.K. 36*, which is essentially the 8.8 cm *Flak 36* adapted for turret mounting. The mounting of such a heavy gun has raised considerable problems of rigidity, and consequently the hull is constructed of large plates entirely welded together. The superstructure is made up in one unit, and welded to the hull. The turret wall is made from a single large piece of armor, 82 mm thick, bent into a horseshoe shape. Further, all the armor plates are interlocked, in addition to being welded. The armor of the Tiger, at the time of its appearance, was the thickest ever to be fitted on any German tank, the front vertical plate being 102 mm thick and the hull sides 62 mm.

The suspension, which employs interleaved, Christie-type bogie wheels with a very wide track, is reasonably simple and is an effective solution of the suspension problem for such a large and heavy vehicle.

The Tiger engine requires very skilled driving and maintenance to get the best performance, and in the hands of insufficiently trained crews mechanical troubles are apt to appear. This characteristic has been the tank's principal disadvantage.

*Pz. Kpfw.
Model E*

Specification number...	<i>Sd. Kfz. 181</i>
Weight in action.....	62.75 short tons.
Crew	5 men.
Armor, Front nose plate	102 mm at 20°.
Front glacis plate....	62 mm at 80°.
Lower nose plate.....	62 mm at 60°.
Driver's front plate..	102 mm at 10°.
Hull sides	62 mm vertical.
Superstructure sides..	82 mm vertical.
Rear plate.....	82 mm at 20° (undercut).
Turret front	100 mm at 0° to 11°.
Turret sides and rear.	82 mm vertical.
Armament (coaxially mounted in turret).	One 8.8 cm <i>Kw.K.36</i> (<i>L/56</i>). One <i>M.G.34</i>
In hull	One <i>M.G.34</i> .
Dimensions, Length ...	20 feet 8½ inches. (excluding gun)
Width with wide com- bat track	12 feet 3 inches.
Width with narrow transport track	10 feet 4 inches.
Height	9 feet 4¾ inches.
Gun overhang	7 feet ½ inch.
Ground clearance	1 foot 5 inches.
Performance,	
Trench crossing	10 feet.
Step	2 feet 6 inches.
Gradient	30°.
Fording	Submersible to 13 feet.
Road speed	15 miles per hour.
Cross-country speed .	5 to 10 miles per hour.
Maximum speed	25 miles per hour.
Range on roads	87 miles.
Range cross-country.	53 miles.
Engine, Type	Maybach HL 230 P45.
Cylinders	V-12.
BHP	690 HP at 3,000 rpm.
Fuel	Gasoline.
Fuel capacity	150 gallons (approximately).

Transmission: Maybach-Olvar preselective gearbox, hydraulically operated with eight forward speeds and four reverse.

Suspension: Front driving sprocket and rear idler. Eight load-carrying axles each with three large bogie wheels. Bogie wheels are interleaved. Torsion-bar suspension, one torsion bar per axle.