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ETO ORDNANCE TECHNICAL INTELLIGENCE REPORT

NO.....286

SUBJECT: New German Light Armored Full-Track Carrier.

Observations by: Capt. G.D. Drury, Ord. Tech. Intell. Team No.1.

1. GENERAL:

A new type of light armored full-track carrier was encountered in the First Army area. There was no nameplate on the vehicle and its designation is not known. The general layout of the vehicle indicates that its probable use is an ammunition carrier and prime mover. In appearance the vehicle somewhat resembles a Panther tank without a turret, having similar sloping armor and suspension. Maximum armor thickness is 3/4 inch. The top of the superstructure is open.

2. DIMENSIONS:

Overall length	13 ft. 10 ins.
- width	7 ft. 4 ins.
- height	4 ft. 9 ins.
Width of hull	4 ft. 8 ins.
- superstructure, top	4 ft. 9 ins.
, bottom	7 ft. 3 1/4 ins.
Track centers	6 ft. 1 in.
Ground clearance	1 ft.

3. ARMOR:

	Thickness	Angle to Vertical
Glacis plate	1/2 in.	60°
Nose plate, upper	not obtained	20°
, lower		55°
Hull side plates	3/4 in.	Vertical
Superstructure side plates	5/8 in.	45°
Tail plate	3/4 in.	30°
Belly plate	not obtained	horizontal

4. ARRANGEMENT OF HULL COMPARTMENT:

The hull is divided by bulkheads into three compartments:

- a. The driver's compartment, extending across the front of the vehicle and containing the transmission, steering gear, and seats for the

driver and assistant driver. A machine gun mount and vision hatch are provided in the glacis plate.

- b. The engine compartment at the right rear, extending half-way across the vehicle.

- c. The cargo compartment, consisting of the remainder of the hull space. Access to the cargo compartment is through a large door in the tail plate (Figure 4, Appendix "A").

5. ENGINE AND POWER TRAIN:

The engine is a Maybach 6-cylinder, water-cooled, valve-in-head engine of normal design. The radiator is mounted to the rear of the engine. Four gasoline tanks are located in the sponsons, three on the left and one on the right. Fuel capacity is approximately 60 U.S. gallons.

A drive shaft extends from the engine through a tunnel in the cargo compartment to a gear box in back of the driver's compartment bulkhead. The gear box transfers the drive from the right side to the center of the vehicle.

The transmission is of the automotive type and has four forward speeds and one reverse. The steering mechanism is a clutch and brake system.

6. SUSPENSION:

- a. There are five single, steel-tired, resilient bogie wheels sprung on torsion bars. The bogie wheels overlap, three of them running on the outer half of the track and two on the inner half (Figures 1 and 2).

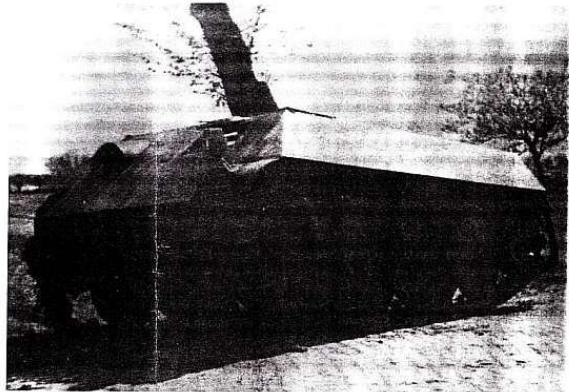


Photo No. 1. Left front view. Note M.G. mount and driver's vision hatch on glacis plate and driver's vision slit in superstructure plate.

The front drive sprocket is of the fabricated type and drives on the traction links of the track (Figures 1 and 2). The rear idler is the self-cleaning type similar to the later type used on the Panther tank. The steel track is similar to that of the Tiger II tank, having traction links with two chevroned sole bars, and connecting links. There is a single hollow guide horn at the center of each traction link. (Figure 5).

b. Data:

Diameter of bogie wheels	27 1/2 ins.
Width	1 1/2 ins.
Pitch diameter of drive sprocket	25 ins.
Number of teeth	11
Diameter of rear idler	23 ins.
Width of track	13 ins.
Pitch of track	3 5/8 ins.
Number of double links/tracks	46
Length of track in contact with ground	6 ft. 4 ins.

FOR THE CHIEF ORDNANCE OFFICER,

H.N. Toftoy
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Inclosure:

Appendix "A" - Photos 1 thru 5.



Photo No. 2. Right front view. Note construction of sprocket (outer part on ground) and assistant driver's vision slit in side plate.

