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COMMUNICATIONS ZONE, ETOUSA

OFFICE OF THE CHIEF ORDNANCE OFFICER

APO 867

10 April 1945

ETO ORDNANCE TECHNICAL INTELLIGENCE REPORT NO. 217

SUBJECT: German Semi-Tracked Tractor, SWS, with Armored Cab

Observations by: Lt. R. L. Englert and T/5 H. Jacobsen, Ord. Tech. Intell. Team No. 3

1. GENERAL:

A German 8 ton semi-tracked military tractor (Schwerer ermachtschlepper) with an armored cab replacing the open cab and provision for mounting an AA gun on the body has been encountered in Germany. The unarmored tractor is described in ETO Ordnance Technical Intelligence Report No. 175. Additional information on the chassis has been obtained and paragraphs 5, 6 and 7 of this report apply to both the armored and unarmored vehicles.

2. DATA:

a. The following information was obtained from the vehicle nameplate:

Type	V	SWS	
Chassis No			
Motor No		534859	14.
Horsepower		100	(1,.
R.P.M		3000	0,
Piston displacement		4198 c.c (246)	cu.in.)
Weight empty		10700 kg. (23.	6 U.S. tons)
Payload		3400 kg. (6.5	U.S. tons)
Front axle load		2000 kg. (4.4	U.S. tons)
Track load			
Trailer load		8000 kg. (17.6	U.S. tons)
Trailer load		8000 kg. (17.6	U.S. tons)

o. Overall dimensions

3. ARMORED CAB:

a. The engine, radiator and driver's compartment are protected by a cab made of light armor plate (Photo 1). The engine compartment deck consists of two flat plates hinged at the outer sides, the left plate having ventilation louvers built into the rear half. The entire top of the engine compartment is bolted in place whereas the rest of the cab is of welded construction. The dashboard separating the engine and driver's compartment is made of 16 mm (5/8 in.) armor plate providing additional protection from frontal attack. Two shuttered vision ports, 9 in. wide by 2-1/2 in. high, are provided in the driver's front plate and are fitted with replaceable glass vision blocks. An opening, 12 in. high by 9-3/4 in. wide, in the left side plate and one 7 in. square in the right side plate permit side vision. Their cover plates are pivoted at the lower rear corner and may be opened and closed from inside the cab.

A rectangular hatch, 17-1/2 in by 22-3/4 in., is located in the cab top above the assistant driver's seat and is closed by two half-doors (Photo 1).

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b. Armor thickness and angles are as follows:

N	Thickness Ang	gle to vertical
Nose plate1	.6 mm (5/8 in.)	150
Engine compartment deck	8 mm (5/16 in.)	800
Driver's front plate 1		300
Side plates 1		150
Cab top	8 mm (5/16 in.)	horizontal

BODY:

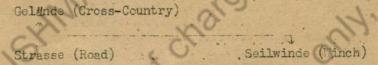
The body of the vehicle consists of a flat bed covered with steel plates and fitted with hinged sides. A compartment, the height of the sides, extends across the rear of the body. Fittings for mounting a gun carriage and leveling jacks of the type used with the 3.7 cm Flak 43 and 2 cm Flakvierling are provided (Photo 2).

A seat for the gun crew is located at the rear of the cab and is protected by an extension of the side armor and a folding canvas top (Photo 2).

5. DRIVER'S CONTROLS:

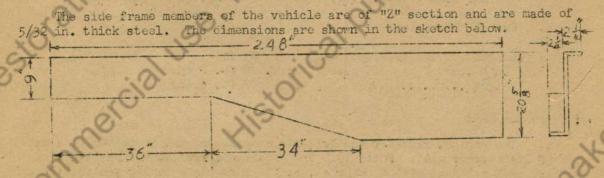
The arrangement of the driver's controls is shown in Photo 3. The left lever of the box at the left of the steering wheel applies the track steering brakes, permitting steering by the tracks independently. The center lever controls the radiator shutter and the right lever is a hand throttle control.

The shift lever of the high-low ratio gear box has three positions as follows:



No winch was fitted to the vehicle examined but German documents indicate that winches are fitted by special order.

6. FRAM:



7. TRACK:

A sketch of a traction link of the track is attached as Aprendix "A".

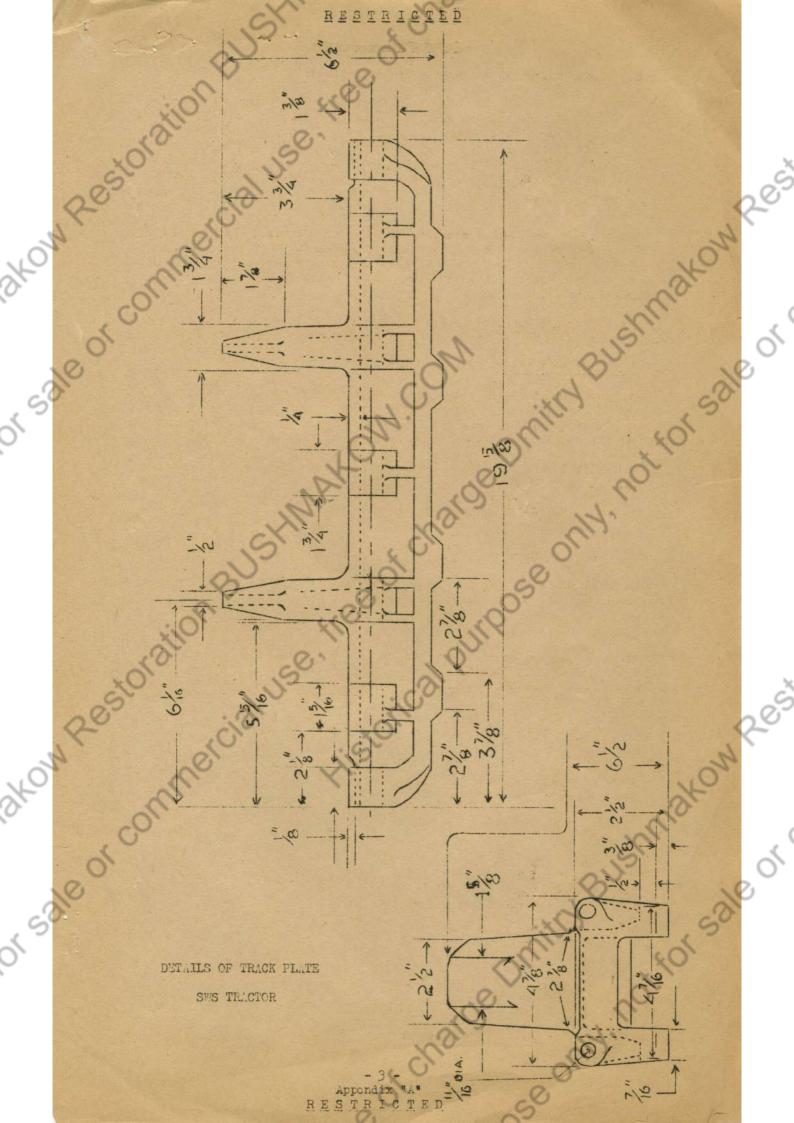
For the Chief Ordnance Officer:

/ H. N. TOFTOY J Col., Ord. Dept., Assistant.

Incl.

Appendix "A" - Sketch of a Traction Link of the Track Appendix "B" - Photos 1 thru 3.

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Photo No. 1.
SWS tractor with armored cab.
Escape hatch in top of cab and vision ports are shown opened.



Photo No. 2.
Body and crew seat. Note the tubular uprights for mounting an AA gun and the gears and pinions for the leveling jacks.

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Photo No. 3.
Driver's controls.

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