

# Hull

Petrol gauge marked: 310L. Master switch for electrical circuit (on rear bulkhead) Two petrol taps. (See Fig. 9)

### 21. COLLIUNICATION

Spring loaded mounting for antenna on off-side of superstructure. A lever actuated on a can automatically lowers antenna to allow passage of gun.

### 22. OUTSIDE STOWAGE

Light metal box on off-side track guard. Stowage bin attached to rear of turret. Usual variety of clips for de-ditching gear etc.

### 23. RECOGNITION POINTS

Front sprocket drive. Six equal size bogies. No visible springing by reason of torsion bar suspension. Particularly squat turret, pear-shaped with circular cupola well set to rear. Machine gun in ball mounting on right of driver.

### 24. VUINERABLE POINTS

### Air Intakes and Outlets

Intakes on three engine cover plates. One intake on each side of engine compartment, protected by metal grill beneath which are plates operated by manual control in fighting compartment. These intakes would probably be fairly vulnerable, particularly if plates were open. Two brake cooling intake cowls on nose plate. Air outlet is at rear of tank. All air intakes and outlets are fairly well protected.

## 25. SPECIAL EQUIPMENT

A five chambered smoke candle device is mounted at the rear under the upper tail plate. Release mechanism is operated by wire rope from remote control in rear of fighting compartment.

### Low Gear ratio

No. of turns of gunner's handwheel for 360° 246.5 Ratio 1.46°/turn

No. of turns of loader's handcrank for 360° 247 Ratio 1.46°/turn

A traverse lock of plunger type is fitted on top of the turret ring, forward on the nearside, which locks the turret in the 12 o'clock position. Fittings are provided in front of the driver for a "QUERABSCHALTER" or "Broadside" indicator for the gun, but the lamps are deficient. As there is no need for this instrument with so short a gun, it would appear to be a standard fitting on the Pz. Kw. III hull which is not used with this gun.

#### CO-AXIAL M.G.

The cradle is of similar type to that normally fitted to the Pz. Kw. III. The firing gear is of rod and lever type, operated by a foot pedal above the gunner's footrest.

### AUXILIARY MACHINE GUN

This M.G. is mounted on the offside of the front vertical plate in a standard type of ball mounting (KUGELBLENDE 50).

# SIGHTS

#### Main Armament

Two means of sighting are provided - telescope and open sight. Both are deficient, but it is assumed that the telescope is the T.Z.F.5(f) normally used with the 7.5cm. gun and M.G.34.

### Auxiliary M.G.

The telescope is deficient but is believed to be the K.Z.F.2 usually used in German M.G. ball mountings with the M.G. 34.

A clinometer (deficient) is mounted on two studs on the left deflector guard side plate. The top stud is on an adjustable rotary cam mounting similar to that on the Pz. Kw. VI described in S.T.T. Preliminary Report No. 19, giving varying adjustments between the angles of elevation of gun and clinometer.

# FIRE CONTROL

A single dial target position indicator, graduated from 1 - 12 in clock hours and driven off the turret race is mounted on the turret ring to the left of the gunner.

The usual graduated target position ring is fitted in the cupola.

# AMMUNITION CARRIED

Total number of rounds:

7.5cm. 7.92mm. 56 rounds 23 belt bags (each containing one 150 rnd

Signal Smoke generators belt) = 3450 rnds.

6 in dischargers

24 rounds

-3-

Through an arc of approximately 30° at the rear of the vehicle depression of the 5cm. gun is not possible owing to the barrel fouling the structure erected at the tail for the stowage of water containers.

It is also worthy of note that if this structure were not present depression would be limited to  $6^{\circ}$  at the rear owing to the fouling of the air inlet cowls on the engine compartment by the spaced armour structure on the gun mantlet.

# 6. AMMUNITION CARRIED



STOWAGE FOR 5cm. AMMUNITION (Fig. 2)

Note - the section of bin behind the engine bulkhead is provided with a hinged folding door which isolates the amunition in this portion of the bin from that stowed vertically in the outer section.

FIG.2

78 rounds of ammunition are carried for the 5cm. gun and are stowed as follows:

22	rounds	in	a	box	at	the	rear	of	the	hull	on	offside
24	tt	11	11	11	11	tt	11	11	11	11	17	nearside
2	11	11	11	=	on	the	engin	ne T	bulk	nead		
14	"	an.	11	"	in engine compartment on nearside (accessible through bulkhead)							
8	11	11	11	11	on	the	near	sid	e of	figh	ting	g compartment
8	n		TT.	11	for	ming	g com	nand	ler's	s maa	t	·

### STOWAGE OF S.A.A. (Fig. 3)

4950 rounds of 7.92mm. ammunition are carried and are stowed in belt bags each containing 150 rounds in the following positions:

On the left wall of the fighting compartment:

3 rows of bags -1 row containing 7 belts 1 row containing 8 belts 1 row containing 5 belts

On the right wall of the fighting compartment:

2 rows of bags -1 row containing 7 belts 1 row containing 4 belts.



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## (a) ACCESS HATCHES



FIG. 1

The engine access hatches in the rear superstructure are bolted down in the normal manner on to rubber seatings. The air intake apertures in these hatches are sealed by flat rectangular plates with circular section rubber jointings fitted in grooves around the edge of their lower faces. These plates are fitted under the armoured cowls and are each secured to a central plunger which moves vertically in a bracket welded to the underside of the hatch cover. Double concentric compression springs are fitted between the surface of the sealing plate and the plunger guide bracket and the plate is normally held in the open position by the reaction of these springs. (Fig.1)

To prepare for wading, the sealing plates are depressed by the application of manual pressure to the plunger heads. When the plunger is fully depressed, a pawl at its lower

end engages a spring loaded locking bar and the closure of the seal is retained. Tightening of a hexagon head clamping screw in the plunger head compresses the rubber seal and renders the joint watertight. The sealing plates may be opened from the fighting compartment by rotation of the locking

bar through the medium of a cable taken through the engine bulkhead and secured to a lever at the end of the bar. (Fig.2). Six separate cable controls are fitted, three on the offside and three on the nearside of the engine bulkhead. They operate respectively locking bars for the following sealing plates:

### Nearside

- 1. Two sealing plates in engine cover hatch.
- 2. Che sealing plate in fan compartment hatch
- 3. One sealing plate for air intake louvres at the side of the engine superstructure.

### Offside

- 1. One sealing plate in engine cover hatch.
- 2. One sealing plate in fan compartment hatch
- 3. One sealing plate for air intake louvres at the side of the engine superstructure.



FIG. 2