

= Polikarpov VIT @-@ 1 =

The Polikarpov VIT @-@ 1 (Russian : Vozdooshny Istrebitel ' Tahnkov ? Flying Tank Destroyer) was a Soviet twin @-@ engined multi @-@ purpose aircraft developed before World War II . One prototype was built in 1937 , with an extremely heavy armament for ground attack duties . That was the only example built as it was decided to revise the design with more powerful engines as the VIT @-@ 2 .

= = Development = =

The Polikarpov design bureau (OKB) was ordered , in 1936 , to begin development of a fast twin @-@ engined aircraft that could be used for ground attack duties and as a heavy fighter . It delivered the ground attack version the following year for evaluation , although it could be modified as necessary for other roles . The VIT @-@ 1 was reasonably successful , but it was decided to give it more powerful engines and modify its structure . The improved aircraft was designated as the VIT @-@ 2 .

The VIT @-@ 1 was a low @-@ winged , twin @-@ engined aircraft with a mixed structure . The monocoque fuselage was made in halves of ' shpon ' , molded birch plywood . The wing and tail structures were built from a mix of steel tubes and duralumin with a duralumin skin . The VIT @-@ 1 had the first metal @-@ skinned control surfaces in the USSR . The main legs of the conventional landing gear retracted aft into the engine nacelles , but the tailwheel was fixed . The nose was extensively glazed to give the bombardier / navigator good visibility and he was armed with a 20 mm (0 @. @ 79 in) ShVAK cannon with 10 ° of vertical travel . The rear gunner / radio operator sat behind the pilot in a manually operated turret armed with a 7 @. @ 62 mm (0 @. @ 300 in) ShKAS machine gun . Two 37 mm (1 @. @ 5 in) Shpitalnyi Sh @-@ 37 cannon were mounted in the wing roots with very prominent barrels . Up to 600 kg (1 @, @ 300 lb) of bombs could be carried internally in the fuselage or a pair of 500 kg (1 @, @ 100 lb) FAB @-@ 500 bombs could be carried under the wings . It used a pair of 716 kW (960 hp) Klimov M @-@ 103 inline engines driving 3 @-@ bladed propellers .

= = Specifications = =

Data from Gordon , Soviet Airpower in World War 2

General characteristics

Crew : 3

Length : 12 @. @ 7 m (41 ft 8 in)

Wingspan : 16 @. @ 5 m (54 ft 2 in)

Wing area : 40 @. @ 4 m² (435 sq ft)

Airfoil : Clark YH

Empty weight : 4 @, @ 013 kg (8 @, @ 847 lb)

Gross weight : 6 @, @ 453 kg (14 @, @ 226 lb)

Powerplant : 2 x Klimov M @-@ 103 liquid @-@ cooled V12 engines , 716 kW (960 hp) each

Propellers : 3 @-@ bladed

Performance

Maximum speed : 530 km / h (329 mph ; 286 kn) at 3 @, @ 000 metres (9 @, @ 843 ft)

Range : 1 @, @ 000 km (621 mi ; 540 nmi)

Service ceiling : 8 @, @ 000 m (26 @, @ 247 ft)

Armament

Guns :

2 x 37 mm Sh @-@ 37 cannon

1x 20 mm ShVAK cannon

1x 7 @. @ 62 mm ShKAS machine gun

Bombs : up to a total of 1 @, @ 000 kg (2 @, @ 200 lb)

