{rokzoom title=|DA-42, OK-TPF|}images/stories/DA42.jpg{/rokzoom} {rokzoom title=|DA-42, OK-TPF|}images/stories/DA42_1.jpg{/rokzoom} {rokzoom title=|DA-42, OK-TPF|}images/stories/DA42_2.jpg{/rokzoom} {rokzoom title=|DA-42, OK-TPF|}images/stories/DA42_3.jpg{/rokzoom} {rokzoom title=|DA-42, OK-TPF|}images/stories/DA42_4.jpg{/rokzoom} {rokzoom title=|DA-42, OK-TPF|}images/stories/DA42_5.jpg{/rokzoom}

Main overview:

DA 42 Twin Star is twin engine, four seated plane with fully retractable landing gear, powered by two diesel engines THIELERT Centurion 1.7 with power 135 HP. Kerosene Jet A-1 or diesel can be used as a fuel. Engines actuate three blades, hydraulically automatic adjustable propellers MT 3. The engines are controlled by an electronic computer unit FADEC, which means that the engine control is carried out only by a single lever which is setting a percents of power. Diagnostics of engines is also electronic. Engines have very low fuel consumption. The plane is equipped with glass cockpit. All information's are displayed on two screens. One is used for the flight control and the second one shows the navigation data and other necessary information as are engines condition and fuel volume or consumption etc. Basic flight data are also indicated by classic instruments. The plane is also equipped with a biaxial autopilot. Take-offs and landings may be performed from asphalt or grass surfaces. The wings are equipped with winglets at the ends of them to improve the aerodynamic characteristics and in addition, positively affect the boundary layer on the end of the aileron at slow speeds. The flaps are divided into two parts on each wing.
There is a sharp nose with cargo area with capacity 30 kg and with comfortable access from both sides of the fuselage where there was an engine located at the previous type. Rudder is significantly elongated downward, below the axis of tail part of the fuselage. The landing gear is classical design with controlled front wheel and main wheels with brakes. Nose wheel retracts forward against the direction of flight, the main wheels retracts to the fuselage. Aerodynamic covers protect landing gear (excluding main wheels) in retracted position.

History:

History of this type is relatively short. The plane is based on the previous single engine plane Diamond DA-40 Diamond Star. This plane records the first ever successful serial usage of diesel engines in aviation history.

Main technical data:

Engines model	THIELERT Centurion 1.7
One engine power	100 kW / 135 HP
Maximum speed	359 km/h
Travel speed	

250 km/h at 18000 ft

304 km/h at 10000 ft

Maximum range	1661km
Service ceiling	5486 m
Max. grade ability	5,8 m/s
Empty weight	1260 kg
Max. take off weight	1700 kg
Wingspan	13,42 m
Length	8,5 m
Height	2,6 m