



KONNER AIR RESEARCH
SRL

WHERE WE ARE

Airfield ultralight
Rivoli di Osoppo (Ud)

Coordinates
46° 14.06 N
13° 04.38 E

Length available
Meters 631

Frequency
122.60 Mh

AUSTRIA
Tarvisio

UDINE

SLOVENIA

GORIZIA

TRIESTE

VENEZIA

TREVISO

Aeroporto P.V. Ronchi dei Legionari

CONTACTS

Via Fratelli Solari, 18 | 33020 Amaro (UD) Italy
Phone +39 0433 468234 | Fax +39 0433 94307
info@konnerhelicopters.com
www.konnerhelicopters.com

COORDINATES

46° 22' 12.05" N 13° 4' 50.80" E





TK250

DIESEL TURBOSHAFT WITH FADEC

This is the goal Konner srl has set from the very beginning: producing a turboshaft engine with high performance, low cost, high reliability and easy maintenance. The TK-250 is one of the very few turboshaft engine for both aircrafts and helicopters, carrying from 2 to 6 people. From the very beginning the TK-250 has been developed so that it could be used, with very little modifications and software setups, for both the fixed and rotary wing industry. Reliable, easy to install and use thanks to the FADEC system, it is highly versatile and guarantees 250shp in only 50kg in weight.

TOTALCARE

Konner can provide a maintenance program to ensure competitive maintenance cost and safety for everyone who uses the TK-250. For informations and get an offer for your Total Care send an e-mail to: info@konmerturbine.com Total-care will assure a long and healthy life to your engine as well as an impeccable safety record.

RELIABILITY, SAFETY, POWER AND LIGHTNESS, you can find them ALL INSIDE TK-250

This turboshaft engine is the result of thousands of test hours both on static testbenches and flying aircraft. All the tests performed proved and demonstrated the reliability of an engine that is very powerful and easy to use. The 250 Shp turboshaft engine belongs to a new generation of turboshaft engines and provides safety, high power availability throughout the full flight envelope but especially during the most power demanding phases, landing and take-off. The TK250 runs primarily on Diesel fuel and this ensures low running costs, easy access to fuel around the globe, the possibility of flying long distances and a higher level of safety due to the low flammability of Diesel fuel.

DIESEL TURBOSHAFT ENGINE

DIESEL: The TK-250 engine is fuelled by automobile quality Diesel fuel. Thousands of flight hours burning diesel certify the reliability of the turboshaft engine installed on the K1 Helicopter. Low flammability, easy access to fuel pumps anywhere in the world and the reduced cost of diesel fuel make it the ideal combustibile for this kind of engine and its applications. The fuel circuit, nozzles, combustion chamber, filtration system, fuel preheating, pumps and FADEC control have all being designed to ensure the maximum efficiency with multiple fuel types and mixtures of the same, without the need for technical assistance or further modifications. Among the possible and broadly tested fuels that can be used by the TK-250 engine, the most interesting and widely-spread are DIESEL, BIO-DIESEL, JP-1 and JP-4.

TK250 PERFORMANCE RATINGS

	OUTPUT SHAFT (SHP)	TURBINE SHAFT (RPM)	OUTPUT SHAFT (RPM)	SPEC.FUEL CONS. max (lb/SHP-hr)	RAM POWER RATING (SHP)			EGT	
					TORQUE			°F	°C
TAKE OFF (5 min.)	250	60814 (100%)	2300	0,7281	570	773	270	1265	685
MAX. CONTINUOS	230	60814 (100%)	2300	0,74428	524	771	250	1238	670
MAX. CRUISE	214	60814 (100%)	2300	0,76046	488	662	230	1202	650
CRUISE A	193	60814 (100%)	2300	0,79282	440	592	214	1166	630
CRUISE B	164	60814 (100%)	2300	0,84945	374	507	193	1112	600
GROUND IDLE	20 MAX	47593 (78,2%)	1800					716	380

ENGINE SPECIFICATIONS

- Engine weight 110 lbs (50kg)
- Overall length 30.3 in (770 mm)
- Overall height 16,3 in (415 mm)
- Overall width 12,8 in (325 mm)
- Overhaul interval (PMI) 2.000 hours



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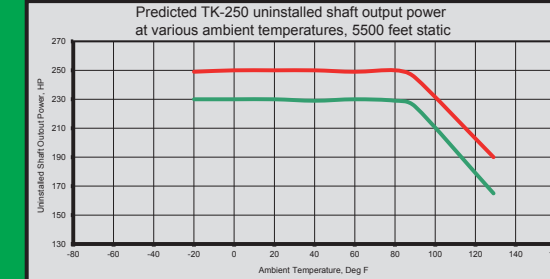
FADEC: EASY TO FLY

The TK-250 turboshaft engine is equipped with the last generation electronic systems that automatically manage the engine functionality for the pilot's peace of mind. The TK-250 is extremely simple to start-up, operate and shut-down. A simplified procedure is described below:
1) AUTOMATIC STARTING: just move the dash board selector from OFF to IDLE and the FADEC will start-up the engine automatically, in total safety for the engine and the crew, keeping the engine parameters within the safety limits and stabilizing the speed at the IDLE set-point of 80%.
2) GO TO FLY: when you are ready to lift-off, move the selector from the IDLE to FLIGHT position and the FADEC will bring the RPM in the operating range. The FADEC will keep managing the engine functionality and all of its parameters during the flight so it can be performed in total safety and the pilot won't need to worry about controlling the engine. The FADEC also serves to keep the engine within the manufactured established safe parameters at all time hence eliminating the possible human factor.
3) SHUT OFF the TK-250: if you decide to shut the engine OFF, move the selector from FLIGHT to IDLE position. The FADEC will immediately bring the RPM down to the IDLE set-point of 80%. At this point, the pilot needs to move the selector back to the OFF position and the FADEC will initiate the actual shut-down procedure and soon after the engine will automatically shut-down.

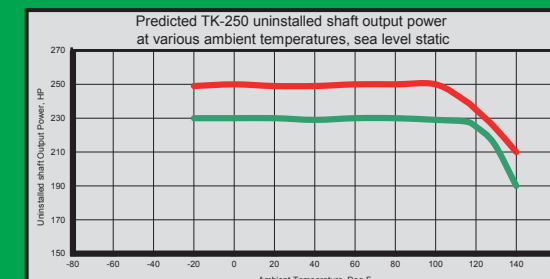
REDUNDACY: FLY SAFE

The TK 250 electronics have been developed to allow the operator to fly with a high degree of redundancy and safety as well as flexibility:
 1) Two independent ECU guarantee complete engine control in any situation;
 2) The pilot can choose at any time during the flight, whether to use the main FADEC or the back-up ECU. The FADEC ensures that all the functionality and parameters of the engine are under control and within limits at all times, while the back-up ECU ensures RPM stability and continued running of the engine in case of a fault or malfunction of the FADEC unit.
 3) TORQUEMETER: the TK 250 is equipped with a torque meter which is a high precision instrument that allows to know at any given time the used, and so forth the still available power. The margin of safety is increased and the power reserve is always very clear for the pilot.

TK 250 TURBOSHAFT DURING TESTING



TK250 POWER OUTPUT



ADVANTAGES:

- ★ Automatic engine protection against out-of-tolerance operations
- ★ Provides automatic engine starting
- ★ Better system integration between engine and aircraft
- ★ Provides engine long-term health monitoring and diagnostics
- ★ Reduces the number of parameters to be monitored by the flight crew

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