YAK AIRCRAFT SALES PTY LTD

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Engine: M14PF (400HP)

Engines are overhaul to the standards of factory new engines:

- All new gaskets, rubber parts, bolts and washers, high tension wires, spark plugs and piston rings.
- Cylinders honed or new replacements
- All oil channels were washed using special chemicals
- All parts cleaned and inspected for cracks
- Micrometric measurements carried out on all moving parts. If any of the part measurements exceed factory tolerances, they are simply replaced with a new part. - it explains "replaced as necessary". It is simply impossible to mention all parts e. g. as cylinders, pistons, valves, valve guides, gears etc. All measurements are included into the Excel file and signed by engineer.
- The engine box, cylinders, rocker covers are newly painted.
- All tubes, washers and bolts are newly zinc plaited.
- We issue Lithuanian CAA approved release form one.

History and Description for M-14P/PF

Under the Soviet system of aircraft design and production, Design Bureaux had the responsibility for designing aircraft/engines, which they would test until acceptance and then manufacturing would typically, be given to a separate manufacturing plant.

The principal product of the Vedeneyev Design Bureau has been the M14 family of engines, but these were originally designed as the AI-14 by the Ivchenko Design Bureau at Zaparozhye in the Ukraine. Vedeneyev's first engine was the AI-14RF, which produced 300hp and this in turn led to the M14P, which was introduced in its Series I form in the early 1970s. This produced 360hp, and Series II came out in the early 1980s, still delivering 360hp, but with a variety of internal improvements.

The M14P family is certainly one of the World's legendry aircraft engines, to a certain extent because of its exceptional record in world-class aerobatic competitions, but also because of its charismatic noise and high-power output for its weight. As the only radial engine still in production, it also has a great deal of historical interest.

The Russian National Team began asking for more power and the result was the M14PF in which the power is increased to 400hp by changing the supercharger gearbox so that the supercharger is turned at 10.5 times engine speed rather than 8.25. This therefore uses the same supercharger and other systems, but turns the supercharger impeller at an extremely high 30,000 rpm in order to produce the higher levels of boost necessary for greater power.

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The PF engine is now well-proven after some 15 years in service. In- service testing was done with the Russian National Team and the engine was principally used in competition aircraft, such as the Sukhoi, but now has much wider application in other Yaks. The PF is now cleared up to 500 hours TBO, with the only proviso that the normal 100 hour checks are done at 50 hour intervals.

Basic specifications

- Engine Type: 9 cylinder, geared, air-cooled radial
- Rated Power: 400 HP @ 2,950 RPM
- Dry weight: 485 lbs.
- TBO: 1500 hours
- Intended Usage: Designed for reliability, well-suited for use in advanced aerobatic aircraft

Dimensions

- Diameter: 38-3/4 in.
- Length: 36-3/8 in.
- Displacement: 621 cu. in.
- Bore: 4-1/8 in.
- Stroke: 5-1/8 inch

Our Engines are guaranteed for 50 hours or three months.

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