M53-P2

MILITARY AIRCRAFT ENGINES

Snecma
SAFRAN Group

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The M53-P2 engine, the latest version in the M53 family, powers the Mirage 2000 combat aircraft.

This reliable, high-performance engine displays excellent handling characteristics and has proved itself in active combat.

ENGINE FEATURES	M53-P2
• A/B thrust (lb)	21,400
• Dry engine thrust (lb)	14,500
• A/B specific fuel consumption (kg/daN.h)	2.10
• Dry engine thrust specific fuel consumption (kg/daN.h)	0.90
• Air flow rate (kg/s)	94
• Turbine Inlet Temperature (K)	1 600 (2,420°F)
• Pressure ratio	9.80
• Bypass ratio	0.36
• Length (in)	199.60
• Inlet diameter (in)	31.33
• Weight (lb)	3,340

The M53-P2 engine powers all the Mirage 2000 fighter aircraft, including the most recent multirole versions Mirage 2000-5 and Mirage 2000-9. Chosen by 8 air forces on 4 continents, the M53-P2 is appreciated by the pilots for its exceptional handling characteristics due to full authority digital engine control (FADEC).

Its extensive flight range – from unrestricted flight at very low speeds up to Mach 2.2 – makes it the ideal engine for modern combat aircraft missions. Over the last few years, Snecma has introduced new technologies into the M53-P2 in order to reduce the number of engine removals and maintenance costs. Additional improvements currently on the drawing board will reduce operating costs still further.

Having logged more than 1,110,000 flight hours, the M53-P2 engine has demonstrated its exceptional dependability and performance in projected force operations.

DESCRIPTION

- Single-shaft, bypass turbofan engine
- 3-stage LP compressor
- 5-stage HP compressor
- Annular combustion chamber
- 2-stage cooled turbine
- Annular A/B chamber
- Variable-section convergent flap-type nozzle
- Full authority digital engine control (FADEC)
- Modular on-condition maintenance (12 modules)

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