



Turbo-Union RB199 Aero Engine

The RB199 is an aircraft turbofan jet engine designed and built in the early 1970s by Turbo-Union, a joint venture between Rolls-Royce, NTU and Fiat Avio to power the Panavia *Tornado*. All the versions are of 3 spool design and are fitted with thrust reversers for braking. The engine's compact design gives high thrust-to-weight and thrust-to-volume ratios while giving good handling characteristics and low fuel consumption. The RB199 has amassed over 5 million flight hours since entering service with the RAF, Luftwaffe, German Navy, Italian Air Force and the Royal Saudi Air Forces.

General characteristics

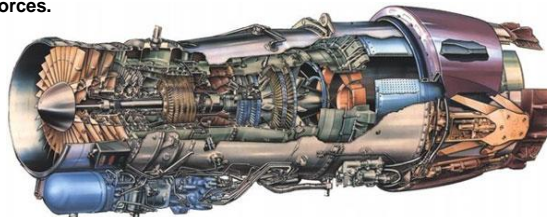
Type: Turbofan
Length: 3,600 millimetres (142 in)
Diameter: 720 millimetres (28.3 in)
Dry weight: 976 kilograms (2,151 lb)

Components

Compressor: 3-stage LP, 3-stage IP, 6-stage HP
Turbine: Single stage HP, Single stage IP, 2-stage LP

Performance

Maximum Thrust Dry: 9,100 lbf, (40 kN)
Maximum Thrust with Reheat: 16,400 lbf, (73 kN)
Overall Pressure Ratio: 23.5:1
Bypass Ratio: 1.1:1
Thrust-to-Weight Ratio: 7.6:1 (with reheat)



This engine is on loan from the Rolls-Royce Heritage Trust