Pratt & Whitney's JT8D and JT8D-200 series

Pratt & Whitney’s JT8D and JT8D-200 series engines are the most popular modern commercial engines ever made. More than 14,000 of them have been built, amassing more than half a billion hours of reliable service since 1964.

The JT8D is the workhorse powerplant for the airline industry. More than 350 operators use the JT8D to power more than 4500 aircraft - nearly a third of the world's commercial fleet.

By setting the industry standard for low maintenance cost, the JT8D helps make Boeing 727's, 737-200's, and McDonnell Douglas DC-9's and MD-80's the most economic aircraft to own and operate.

The eight models that make up the JT8D family cover a thrust range from 14,000 to 17,000 pounds. The newer JT8D-200 series offers 18,500 to 21,700 pounds of thrust, and is the exclusive power for the popular MD-80 series aircraft. The JT8D-200 builds on the family’s excellent reliability and low maintenance costs while meeting noise and emissions regulations. It entered service in 1980.

**Engine Characteristics**

- Fan tip diameter: 54.0 inches
- Length, flange to flange: 168.6 inches
- Takeoff thrust: 21,000 pounds of thrust
- Flat rated temperature: 84 degrees F
- Bypass ratio: 1.74-to-1
- Overall pressure ratio: 18.2 to 19.4
- Fan pressure ratio: 1.91

**Program Milestones**

- February 1964 - JT8D/Boeing 727 revenue service
- December 1965 - JT8D/DC-9 revenue service
- February 1968 - JT8D/Boeing 737 revenue service
- October 1980 - JT8D-200 revenue service
- September 1996 - FAA approval of JT8D-200 re-engined Boeing 727
November 1996 - Commercial Boeing 707 re-engine program begins
July 1999 - Certification begins for 707 re-engining
December 1999 – Environment Kit (EKIT) certified

**Engine Models**
JT8D-standard
JT8D-217/219

**Airplanes Powered**
Boeing 727
Boeing 737-100/-200
McDonnell Douglas DC-9
Boeing MD-80
Super 27 Re-engining program