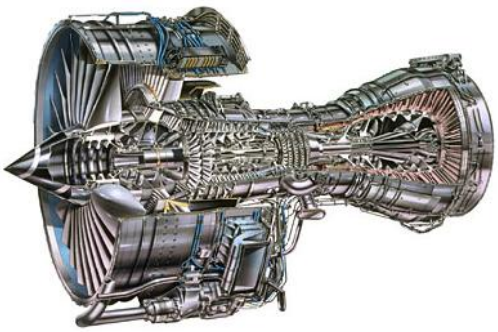
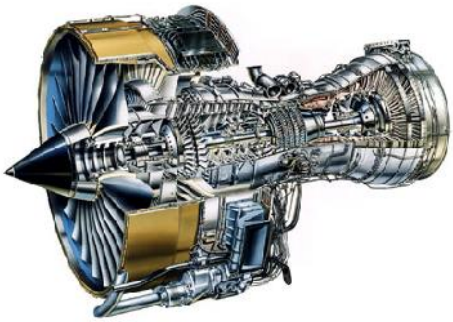


Trent 500

Airbus A340 500/600

General characteristics
Type: Three-shaft high bypass ratio turbofan engine
Length: 155 in (3.9 m)
Diameter: 97.4 in (2.5 m)
Dry weight: 10660 lb (4835 kg)
Components
Compressor: Single-stage fan, eight-stage intermediate pressure compressor, six-stage high pressure compressor
Combustors: Tiled annular combustor with 20 fuel injectors
Turbine: Single-stage high pressure turbine, single-stage intermediate pressure turbine, five-stage low pressure turbine
Performance
Maximum thrust: 56000 lbf (249 kN)
Overall pressure ratio: 36.3:1
Bypass ratio: 7.6:1
Specific fuel consumption: 0.54 lb/lbf-hr (at cruise)
Thrust-to-weight ratio: 5.25:1

O A340-500 foi apresentado como o avião comercial de maior alcance do mundo com autonomia de 16,020 km. Seu 1º voo foi realizado em 11 de fevereiro de 2002, e a 1ª empresa a utilizar este modelo foi a Emirates. Ele está equipado com quatro Rolls-Royce Trent 553. Tem capacidade de carregar 313 passageiros em 3 classes. Comparado com o A340-300, o -500 tem 4,3 metros a mais na fuselagem, a aérea das asas é maior e possui maior capacidade de carregar combustível. O A340-500/-600 possui câmeras para auxiliar o piloto no momento do taxiamento.
O A340-500HGW (High Gross Weight) é uma versão com alcance de 16,700 km (9,000nm) e MTOW de 380 toneladas. Tem algumas características do A340-600HGW, como reforços estruturais e maior capacidade de carregar combustível.
O A340-500HGW é equipado com quatro turbofan Rolls-Royce Trent 556, com empuxo de 56,000 libras (249 kN).



Trent 700

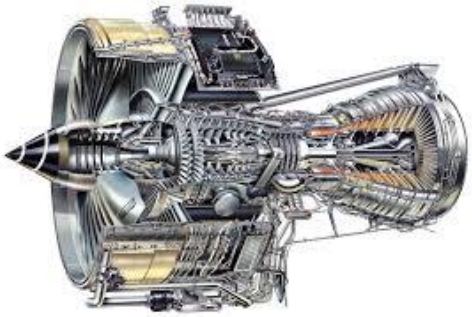
Airbus A330

General characteristics
Type: Triple-spool high bypass turbofan
Length: 3.91 m (154 in)
Diameter: 2.473 m (97.4 in) (fan[5] diameter)
Dry weight: 4,785 kg (10,549 lbs.)
Bypass ratio: 5.0:1
Components
Compressor: Eight-stage IP compressor, six-stage HP compressor
Combustors: Single annular combustor with 24 fuel injectors
Turbine: Single-stage HP turbine, single-stage IP turbine, four-stage LP turbine
Performance
Maximum power output:
Overall pressure ratio: 33.7–35.5:1
Specific fuel consumption: 0.565

The A330 Family has five members: the A330-200, A330-300, A330-200F, ACJ330 and A330 MRTT – which cover all market segments with one twin-engine aircraft type. The combination of low operating costs, high efficiency, flexibility and optimized performance makes the A330 Family popular with an ever-increasing operator base.

More:
http://www.airbus.com/aircraftfamilies/passengeraircraft/a330family/a330-200/

http://www.airbus.com/aircraftfamilies/passengeraircraft/a330family/a330-300/



Trent 800

Boeing 777

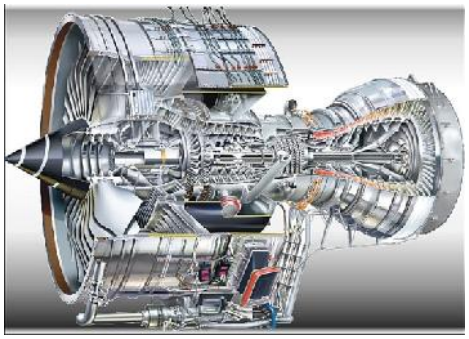
General characteristics
Type: Three-shaft high bypass ratio (6.2-5.7) turbofan engine
Length: 4.37 m (172 in)
Diameter: 2.79 m (110 in)
Dry weight: 16,500 pounds
Components
Compressor: Eight-stage IP compressor, six-stage HP compressor
Combustors: Single annular combustor with 24 fuel injectors
Turbine: Single-stage HP turbine, single-stage IP turbine, five-stage LP turbine
Performance
Maximum thrust: 93,400 lbf (415 kN)

O Boeing 777 é um avião widebody de longo alcance, projetado e fabricado pela companhia norte-americana Boeing. É o maior avião bi-jato do mundo, com o motor mais potente já produzido.

Velocidade máxima: 950 km/h
Velocidade de cruzeiro: 905 km/h
Tipo de motor: Rolls-Royce Trent 800

More:

http://www.boeing.com/boeing/commercial/777family/specs.page?



Trent 900

Airbus A380

General characteristics
Type: Three-shaft high bypass ratio (8.7-8.5) turbofan engine
Length: 5,477.5 mm (215.65 in) tip of spinner minus rubber tip to Tail Bearing Housing Plug Mount Flange
Diameter: 3,944 mm (155.3 in) around centre line, inc. VFG Cooler, not including drains mast
Dry weight: 6,246 kg (13,770 lb)
Components
Compressor: Single stage LP (CCW), Eight-stage IP compressor (CCW), six-stage HP compressor (CW)
Combustors: Single annular combustor
Turbine: Single-stage HP turbine, single-stage IP turbine, five-stage LP turbine
Performance
Maximum thrust: 334–374 kN or 75,000–84,000 lbf take-off (5min)
Overall pressure ratio: 37-39
Thrust-to-weight ratio: 5.46-6.11 (assuming 6,246 kg (13,770 lb) mass / weight of engine and certified to 334–374 kN or 75,000–84,000 lbf of thrust)

The Airbus A380 is a double-deck, wide-body, four-engine jet airliner manufactured by Airbus. It is the world's largest passenger airliner; many airports have upgraded their facilities to accommodate it because of its size. Initially named Airbus A3XX, Airbus designed the aircraft to challenge Boeing's monopoly in the large-aircraft market; the A380 made its first flight on 27 April 2005 and entered commercial service in October 2007 with Singapore Airlines.
The A380's upper deck extends along the entire length of the fuselage, with a width equivalent to a wide-body aircraft. This gives the A380-800's cabin 478 square metres (5,145.1 sq ft) of floor space, which is 40% more than the next-largest airliner, the Boeing 747-8,[4] and provides seating for 525 people in a typical three-class configuration or up to 853 people in an all-economy class configuration. The A380-800 has a design range of 15,700 kilometres (8,500 nmi; 9,800 mi), sufficient to fly nonstop from Dubai to Los Angeles, and a cruising speed of Mach 0.85 (about 900 km/h or 560 mph; 490 kn at cruising altitude).

RB211-524

Boeing 747

The Rolls-Royce RB211 is a family of high-bypass turbofan engines made by Rolls-Royce plc and capable of generating 37,400 to 60,600 pounds-force (166 to 270 kilonewtons) thrust.

Triple-spool high-bypass-ratio 4.3 - 4.1
Single-stage wide-chord fan
Seven-stage IP compressor
Six-stage HP compressor
Single annular combustor with 18 fuel burners (24 on the G/H-T)
Single-stage HP turbine
Single-stage IP turbine
Three-stage LP turbine

Boeing 747 specifications:

http://www.boeing.com/boeing/commercial/747family/index.page?

RB211-535

Boeing 757

Triple-spool high-bypass-ratio 4.3 - 4.4
Single-stage wide-chord fan
Six-stage IP compressor
Six-stage HP compressor
Single annular combustor with 18 fuel burners (24 on later versions of E4)
Single-stage HP turbine
Single-stage IP turbine
Three-stage LP turbine

As well as a featuring a destaged IP compressor, the -535E4 was the first engine to incorporate a hollow wide chord, unsnubbered fan to improve efficiency. It also featured the use of more advanced materials, including titanium in the HP compressor and carbon composites in the nacelle. Later engines incorporate some features (e.g. FADEC) from improved models of the -524.

The Boeing 757 is a mid-size, narrow-body twin-engine jet airliner that was designed and built by Boeing Commercial Airplanes.
The 757 was produced in two fuselage lengths. The original 757-200 entered service in 1983; the 757-200PF, a package freighter (PF) variant, and the 757-200M, a passenger-freighter combi model, debuted in the late 1980s.
Production of the 757 ended on October 28, 2004, after 1,050 had been built for 54 customers. The 757-200 was by far the most popular model, with 913 built. Diminished sales amid an airline industry trend toward smaller jetliners led Boeing to end production without a direct replacement, in favor of the 737 family.
All 757s are powered by Rolls-Royce RB211-535.

AE3007

The AE 3007 turbofan engine is a high bypass, two shaft engine featuring a wide-chord single-stage low pressure (LP) compressor, 14-stage high pressure (HP) compressor followed by an effusion-cooled annular combustor, two stage high pressure (HP) turbine and a three stage low pressure (LP) turbine.

The AE 3007 turbofan core is derived from the AE 1107C-Liberty engine and is in the 8,000lbf thrust class. It was initially developed to create a turbofan member of the AE common core family for the growing regional jet and medium/large business jet markets, but has subsequently been developed as a growth version for military aircraft applications.

ERJ 145 Family

The Embraer ERJ 145 family is a series of regional jets produced by Embraer, a Brazilian aerospace company. Family members include the ERJ 135 (37 passengers), ERJ 140 (44 passengers), and ERJ 145 (50 passengers), as well as the Legacy business jet and the R-99 family of military aircraft. The ERJ 145 is the largest of the group. Each jet in the series is powered by two turbofan engines. The family's primary competition comes from the Bombardier CRJ regional jets.

Citation X

The Cessna Citation is a long-range medium business jet aircraft. The Citation X is powered by two Rolls-Royce AE3007C turbofan engines and is built by the Cessna Aircraft Company in Wichita, Kansas. The Citation brand of business jets encompasses six distinct "families" of aircraft. Although based on the earlier Citation III, VI and VII models, the Citation X is significantly different, differing in its wing design, avionics, and engines. The New Citation X, currently under development, sees upgraded engines and avionics.

Legacy 600

More details:
http://en.wikipedia.org/wiki/Legacy_600

EMB145 -AEW&C

More details:
http://en.wikipedia.org/wiki/Embraer_R-99

IAE V2500 A1/A5

The IAE V2500 is a two-shaft high-bypass turbofan engine which powers the Airbus A320 family (A320, A321, A319 and the Airbus Corporate Jet), and the McDonnell Douglas MD-90. International Aero Engines is a consortium backed by four aero-engine manufacturers, formed in 1983 to produce the engine. FAA flight certification for the V2500 was granted in 1988.

More details:
http://en.wikipedia.org/wiki/IAE_V2500#Specifications

A320 Family **(excluding A318, and the neos)**

http://en.wikipedia.org/wiki/Airbus

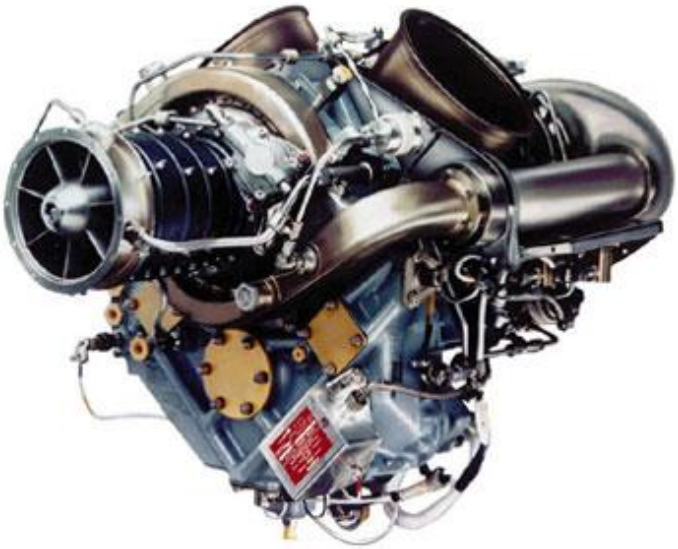
McDonnell-MD90

http://en.wikipedia.org/wiki/McDo

EMB KC-390

The Embraer KC-390 is a medium-size, twin-engine jet-powered military transport aircraft under development by Brazilian aerospace manufacturer Embraer. It is able to perform aerial refueling, transport cargo and troops, and to receive fuel in-flight. It will be the heaviest aircraft that the company has made, and will be able to transport up to 21 tonnes (23 tons) of cargo, including wheeled armored vehicles.

http://en.wikipedia.org/wiki/Embraer_KC-390



The Allison Model 250, now known as the Rolls-Royce M250, (US military designations T63 and T703) is a highly successful turboshaft engine family, originally developed by the Allison Engine Company in the early 1960s. The Model 250 has been produced by Rolls-Royce since it acquired Allison in 1995.

http://en.wikipedia.org/wiki/Allison_Model_250

Rolls-Royce M250 series

Rotary wings main applications:

Agusta A109A	**Bell 206B/L/L**	**Bell 407**
Bell 222SP	**Bell 230**	**Bell 430**
Bell OH-58 Kiowa	**Bell YOH-4**	**Boeing AH-6**
Cicaré CH-14	**Enstrom 480**	**Eurocopter AS350 Soloy**
Eurocopter AS355F	**Fairchild Hiller FH-1100**	**Hughes OH-6 Cayuse**

MBB Bo 105 **MD Helicopters MD 500** **MD Helicopters MD 600**

MD Helicopters MH-6 Little Bird **Northrop Grumman MQ-8 Fire Scout**

PZL Kania **PZL SW-4** **Schweizer 330/330SP**

Schweizer S-333 **Sikorsky S-76** **Kamov Ka-226**

Bell 230

Bell 407

McDonnell MD500

McDonnell MD600

Rolls-Royce Tay 611-8

Originally designated 610-8, all but one training engine have now been converted to 611-8 standard. The newest variant is the 611-8C which has a modified high pressure nozzle box, cast HP1 turbine blades, larger fan from the 650-15, structural by-pass duct and FADEC.

All Tays consists of a twenty-two blade titanium fan, 3 stage Intermediate pressure compressor (Same spool as the fan.), 12 stage High pressure compressor, 2 stage high pressure turbine, 3 stage low pressure turbine.

Thrust: 13,850 lbf (62 kN)
Aircraft: Tay 611 entered service in 1987 on the Gulfstream IV/IV-SP, for which it is the exclusive powerplant.

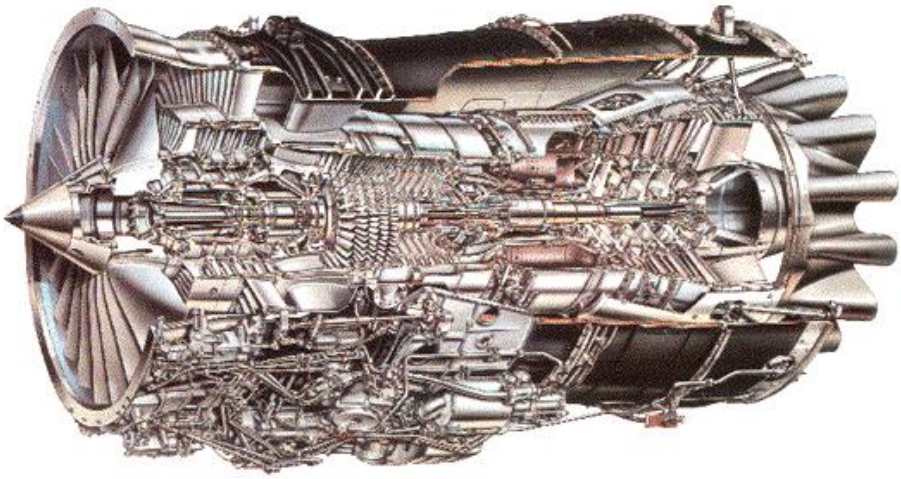
Gulfstream IV

Gulfstream G350/G400/G450

Gulfstream X-54

More details:

http://en.wikipedia.org/wiki/Gulfstream_IV



Rolls-Royce Tay 620-15/650-15/651-54

The Rolls-Royce RB.183 Tay is a turbofan engine, developed from the RB.163 Spey, using scaled down low-pressure components from the RB.211 to produce versions with a bypass ratio of 3.1:1 or greater. The engine was first run in August 1984.[1] The Tay family is used on a number of airliners and larger business jets, including the Gulfstream IV family, Fokker 70 and Fokker 100, with a later version being used to re-engine Boeing 727-100s.

Tay 620-15
Rolls-Royce Tay on a Fokker 70/100
The 620-15 is internally identical to the 611-8 and externally similar to the 650-15.
Thrust: 13,850 lbf (62 kN) Aircraft: Fokker 70 from 1994, Fokker 100 from 1988

Tay 650-15
Thrust: 15,100 lbf (67 kN) Aircraft: Originally designed to re-engine the BAC One-Eleven (650-14, only two made, both have since been converted to 650-15 standard.), the 650-15 entered service on the Fokker 100 in 1989.

Tay 651-54
The 651-54 is internally identical to the 650-15. The thrust increase comes solely from an adjustment to the Fuel Flow Meter.
Thrust: 15,400 lbf (69 kN) Aircraft: Boeing 727-100 from 1992. Conversion from three JT8D-7 to three Tay 651-54 was done by the now defunct Dee Howard Aircraft Maintenance Company in San Antonio Texas for the United Parcel Service but all aircraft are currently grounded. Only one private 727 was converted.

Boeing 727 repowered

Fokker F70

727-100QF

QF stands for Quiet Freighter. A cargo conversion for United Parcel Service, re-engined with Stage III-compliant Rolls-Royce Tay turbofans.

More details:

http://en.wikipedia.org/wiki/Fokker_70

Fokker F100

The Fokker 100 is a medium-size twin-turbofan airliner from Fokker. Low operational costs and scant competition in the 100-seat short-range class led to strong sales when it was introduced in the late 1980s, but sales fell as competition increased. Production ended in 1997 with 283 airframes delivered. In July 2012, 156 Fokker 100 aircraft remained in airline service with 30 airlines around the world.

http://en.wikipedia.org/wiki/Fokker_100

Rolls-Royce Spey 511-8

http://en.wikipedia.org/wiki/Rolls-Royce_Spey

Gulfstream GII/GIII

http://en.wikipedia.org/wiki/Gulfstream_III

CFM56 family

http://en.wikipedia.org/wiki/CFM56

Boeing 737

http://www.boeing.com/boeing/commercial/737family/background.page