



aircraft design

The aeroplane consists of five principal structural units namely, the power plants, the fuselage, the wings, the tail unit, and the landing gear.

The power plant is a source of power. It provides power for flight and propels the aeroplane. Thus, we may say, the function of the power plant is to provide power for flight and to propel the aeroplane.



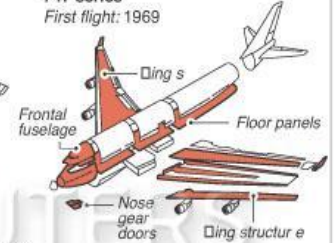
BOEING STRUCTURE SUPPLIERS

■ Parts built by the IAM union of Boeing workers

737 Classic
First flight: 1967

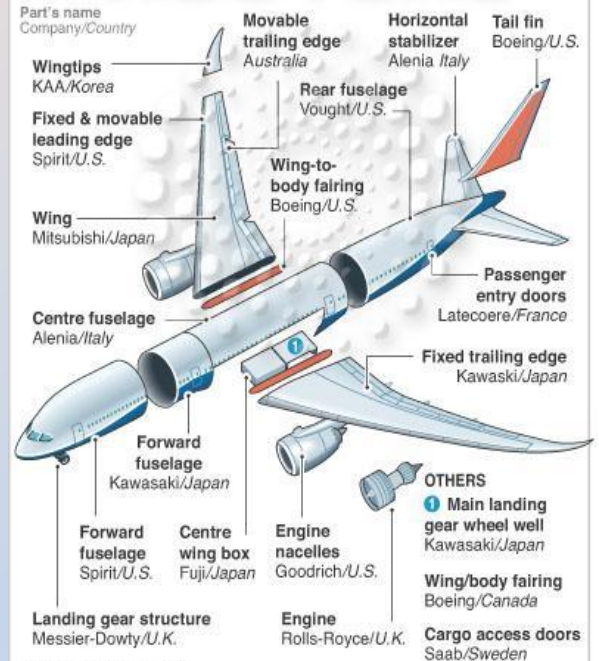


747 series
First flight: 1969



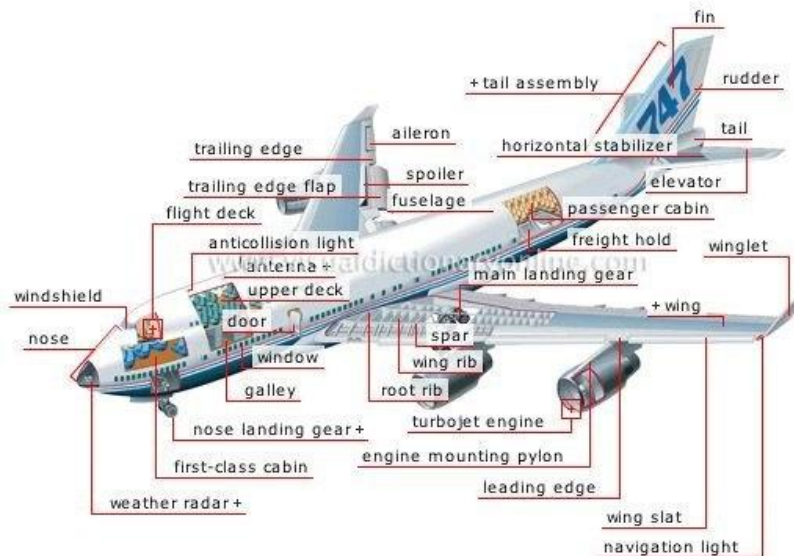
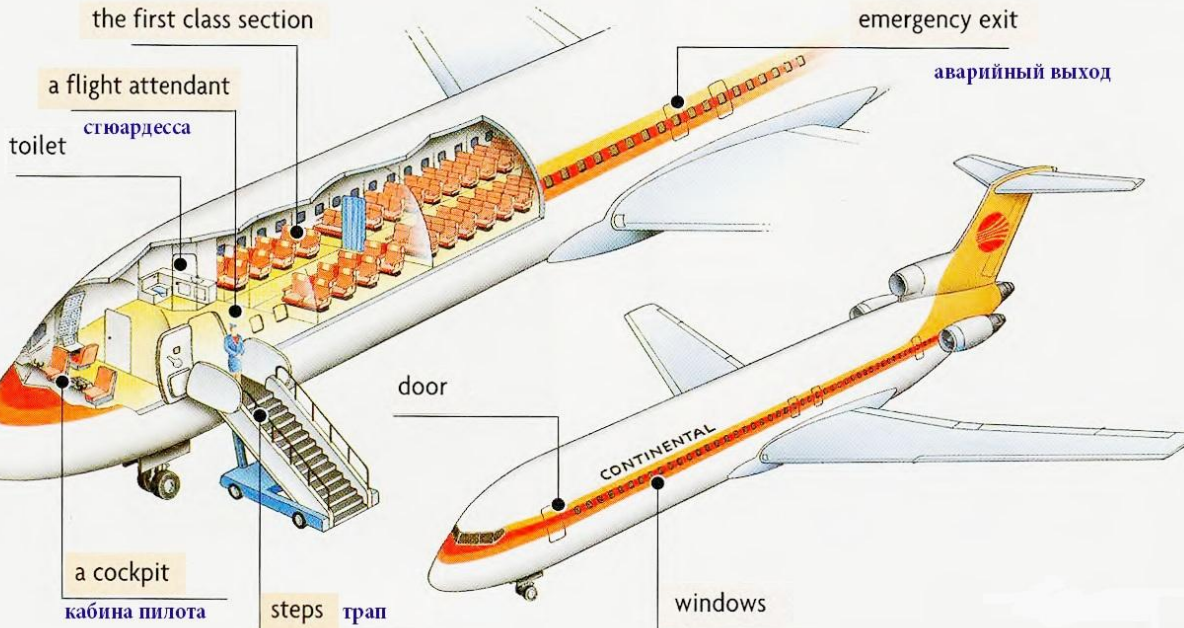
787 DREAMLINER First flight: 2009

Part's name
Company/Country



Note: diagrams not to scale
Sources: International Association of Machinists, Boeing

REUTERS



The fuselage

The fuselage is the central body of the aeroplane. It houses all the passengers, crew, cargo, and equipment. It supports the tail unit and wings. The function of the fuselage, therefore, is to house all the passengers, crew, cargo, and equipment, and to support the tail unit and wings.





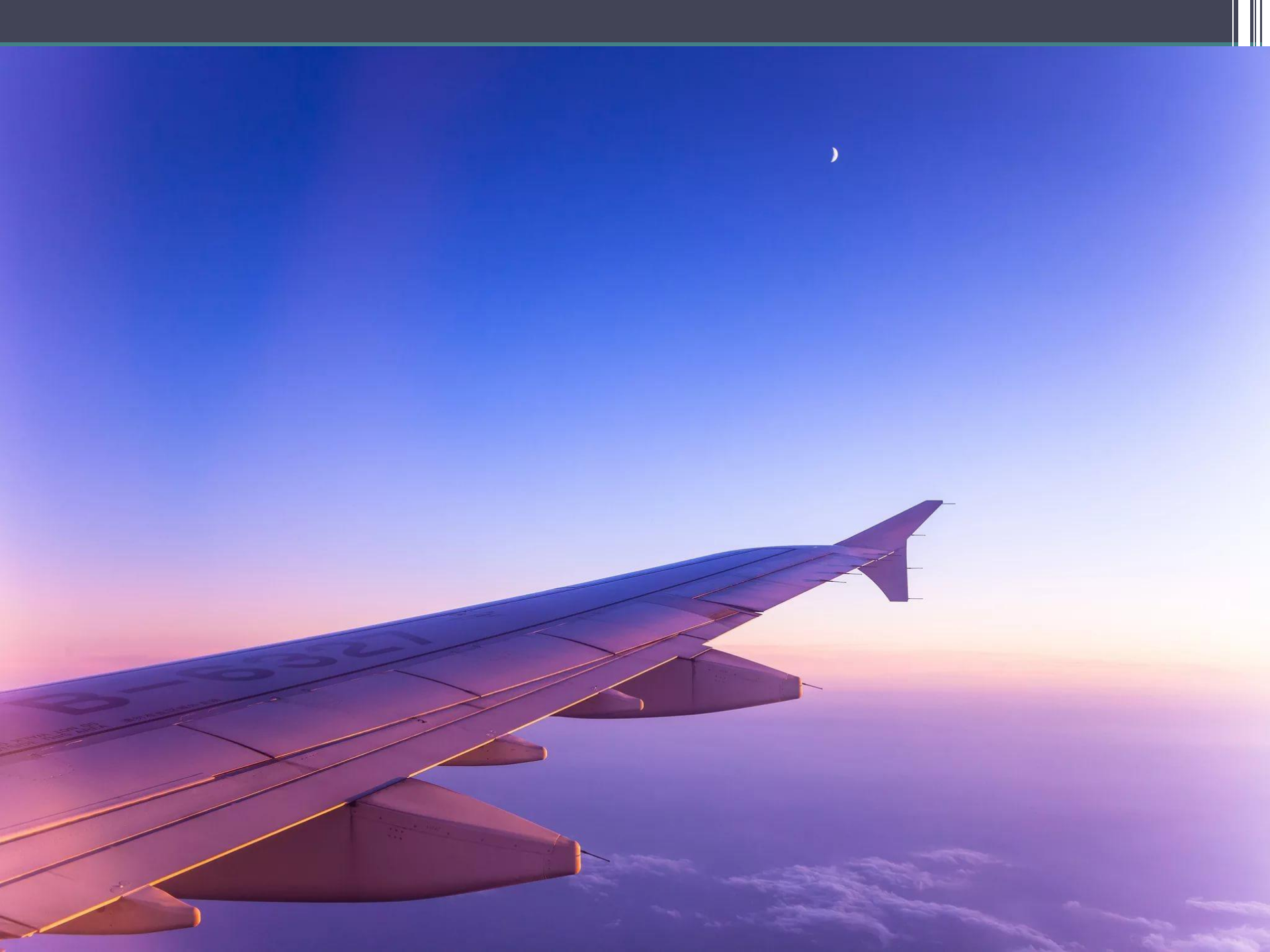
BOEING 777-300ER

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wings



The wings are the supporting and lifting surfaces of the aeroplane. The function of the wings is to support the aeroplane in the air.



TAIL



The tail unit provides stability and control of the aeroplane. Hence its function is to provide stability and control of the aeroplane.





Landing gear

The landing gear is a structure which supports the aeroplane on the ground. Its function is to support the aeroplane on the ground and to reduce shocks of landing.



