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## GENERAL INDEX

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# SYSTEMS

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## Landing gear

Modern aircraft are usually fitted with a retractable landing gear in order to reduce drag and improve aircraft performances.

Three common types of landing gear:

- Conventional or taildragger: Two wheels forward and a third small wheel at the tail (used for older light aircraft).
- Tricycle: Two main wheels and a nose wheel (used for light aircraft).
- Tandem: Two sets of wheels located one behind the other on the fuselage (used for large aircraft).

A manual extension on the center pedestal allows the flight crew to extend landing gear in case of hydraulic or electric failure occurs.

Normally the landing gear consists of:

- 2 main landing gear.
- 1 nose landing gear.

Landing gear main functions:

- Support the aircraft on the ground.
- Absorb the landing load and kinetic energy.

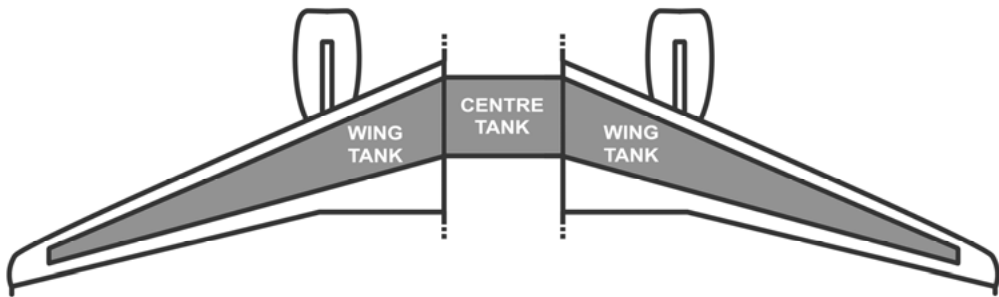


## Fuel and tanks

The fuel system supplies and controls the fuel flow to the engine, stores the fuel in the tanks, and controls the transfer of fuel between the tanks.

Generally, fuel is stored in the wings and in the centre tank, when installed (depending on the aircraft size and structure).

The cross-feed valve allows to use all of the fuel on board and to maintain a balanced fuel load.



## Ram Air Turbine (RAT)

The Ram Air Turbine is a propeller connected to a small hydraulic pump, or an electrical generator, which deploys automatically (or it can be deployed manually) in the event that all electrical power is lost or both engines fail.

It is driven by the airflow stream and generates power due to the speed of the aircraft.

