

### Types of Aircraft Engines

Exercise 1. Read and learn the words.

advanced technology	передовая технология
axial-flow	осевой, 3 осевым
by-pass engine	двухконтурный
combustion	двигун
cylinder	горіння, згорання
differ	циліндр
drive	відзнятися
	привод, передача,
	тяги; приводити в рух
divide	двигун
exhaust cone	конус реактивного
fan	двигун, розподіляти
internal combustion	двигун внутрішнього
engine	згорання
jet	реактивний; струмінь
liquid propellant	рідинний ракетний
rocket engine	двигун
obtain	отримувати; досягати
piston	поршень
propeller	повітряний гвинт
ram jet engine	прямоточний
reliability	надійність; безпека
rocket	ракета
shaft	вал
solid propellant	ракетний двигун на
rocket engine	твердому паливі
	на твердом топливе

specific fuel

питома витрата

consumption

палива

subdivide

ділити; розділяти

делить; разделять

thrust

тяги; створювати тягу

тяги, создавать тягу

turbofan engine

турбовентиляторний

турбовентиляторный

turbojet engine

турбореактивний

турбореактивный

turboprop engine

турбогвинтовий

турбовинтовой

turboshaft engine

турбовальний

турбовальный

weight

вага

вес

### Types of Aircraft Engines

Exercise 2. Read, translate and retell the text.

A source of power in an airplane is the power plant. The power plant consists of an engine or engines and different systems.

There are two main types of aviation engines: piston or internal combustion engines and jet engines. Jet engines are divided into three main groups: gas turbines, ram jets and rocket engines.

The first to be considered is a piston or reciprocating engine. The piston engines are also called internal combustion engines as combustion takes place inside the cylinder. Gas turbine engines are widely used nowadays. They are subdivided into turbojet, turboprop, turbofan or by-pass and turboshaft engines.

Turbojet engines operate on the jet thrust. If a gas turbine engine has a propeller on the same shaft as the compressor it is called a turboprop.

A turbofan differs little from a turboprop. Instead of the propeller the turbofan engine has an axial-flow fan driven at the speed. Unlike the turboprop engine, the turbofan obtains additional energy from the gases passing through the exhaust cone. Usually all turbofan engines are called by-pass engines.

Turboshaft engines are used in helicopters where the turbine connected to a drive shaft drives, in addition to the compressor, helicopter rotors. Rocket engines are subdivided into two basic types: liquid propellant and solid propellant rocket engines.

The last generation of jet is advanced technology engines.