

Propeller blade area.—Area of the blade face, exclusive of the boss and the root, that is, of a portion which is usually taken as extending 0.2 of maximum radius from axis of the shaft.

Propeller-camber ratio.—Ratio of maximum thickness of propeller section to its chord.

Propeller efficiency.—Ratio of thrust power to power input of propeller. Its symbol is η .

Propeller, pusher.—Propeller mounted to rear of engine or propeller shaft. (It is usually behind the wing cell or nacelle.)

Propeller rake.—Mean angle which the line joining the centroids of the sections of propeller blade makes with a plane perpendicular to the axis.

Propeller section.—Cross section of propeller blade made at any point by a plane parallel to axis of rotation of propeller and tangent at the centroid of the section to an arc drawn with the axis of rotation as its center.

Propeller thrust.—Component parallel to propeller axis of the total air force on the propeller. Its symbol is T .

Propeller torque.—Moment applied to propeller by engine shaft. Its symbol is Q .

Race rotation.—Rotation produced by action of propeller of stream of air passing through or influenced by propeller.

Reynolds number.—Name given the fraction $\rho \frac{Vl}{\mu}$ in which—

ρ =density of the air.

V =relative velocity of the air.

l =linear dimension of the body.

μ =coefficient of viscosity of the fluid.

Revolutions, maximum.—Number of revolutions per minute corresponding to maximum horsepower.

Revolutions, normal.—Highest number of revolutions per minute that may be maintained for long periods.

Righting moment (or restoring moment).—Moment which tends to restore aircraft to its previous attitude after any small rotational displacement.

Rudder.—Movable auxiliary airfoil function of which is to impress a yawing moment on aircraft in normal flight. It is usually located at rear of aircraft.

Skin friction.—Tangential component of fluid force at point on surface.