

## Radial engine



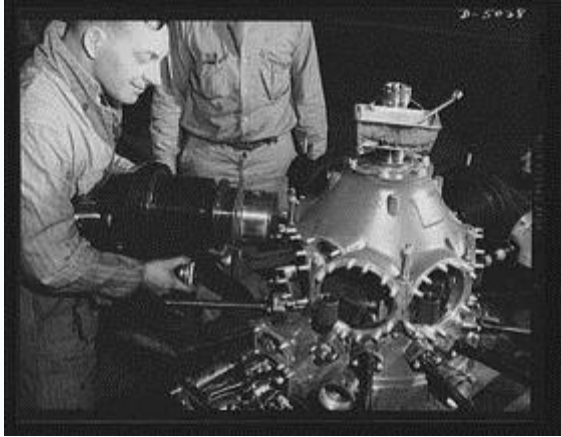
Radial engine of a [biplane](#).



Radial engine with cut-away housing.



A radial engine from [Continental engine](#) is ready for installation, 1944



A radial piston engine from [Continental engine](#) is torn down after testing, 1944

The **radial engine** is a [configuration](#) of [internal combustion engine](#), in which the [cylinders](#) are arranged pointing out from a central [crankshaft](#) like the spokes on a wheel. This configuration was formerly very commonly used in [aircraft](#) engines before being superseded by [turboshaft](#) and [turbojet](#) engines.

The cylinders are connected to the crankshaft with a master-and-articulating-rod assembly. One cylinder has a master rod with a direct attachment to the crankshaft. The remaining cylinders' [connecting rods](#) have pinned attachments to rings around the edge of the master rod (see animation below). [Four-stroke](#) radials almost always have an [odd number](#) of cylinders, so that a consistent every-other-[piston firing order](#) can be maintained, providing smooth running.

For [aircraft use](#) the radial has several advantages over the [inline](#) design. With all of the cylinders at the front of the engine (in effect), it is easy to cool them with airflow. Inlines require a cooling fluid to remove heat or complicated baffles to route cooling air, as the rear-most cylinders receive little airflow. Air cooling saves