Crankshaft definition

Crankshaft definition

A crankshaft is a mechanical part that transforms the reciprocating movement of the piston into rotational motion and turns the vehicle wheels. It is connected to the piston through a connecting rod. The main...

Definition of crankshaft. 1 : a shaft driven by or driving a crank. 2 : a shaft consisting of a series of cranks and crankpins to which the connecting rods of an engine are attached.

Britannica : Encyclopedia article about crankshaft

Crankshafts can be in welded, semi-integral, or one-piece structures. This part of the engine attaches the output section of the engine to the input section.

Read More: Working of Connecting Rod?Construction of CrankshaftThe crankshaft design varies according to the engine type, but maximum crankshafts contain multiple main bearing journals, counterweights, and crank throws. The counterweight assists in balancing the rotational forces, while the main bearing journals ensure the smooth rotation of the crankshaft within the engine block.

Read More: Different Types of EnginesParts of CrankshaftThe parts of the crankshaft are given below: Main JournalCrankshaft PulleyOil PasswaysBalance HoleCounterweightCrankshaft Lubrication1) Main JournalThe main bearing journal is attached to the engine block. All crankshaft journals are very hardened, rounded, and smooth. The main journal is settled in the saddle, where a replaceable bearing insert can be placed. The bearing is softer compared to the main journals, and these can change when it wears. The bearing designs are used to capture a small volume of impurities (if any) to prevent the crankshafts from damage.

Read Also: Different Types of Internal Combustion (IC) Engines2) Connecting Rod JournalThe connecting rod journal is offset from the axis of rotation and connected to the larger end of the piston rod.

Read Also: Bad Oil Pan Symptoms and Causes7) Crankshaft PulleyThe crankshaft pulley is also known as a crankshaft sheave or harmonic balance. It is a grooved, wheel-shaped unit that directly couples with the crank of the car. It links to other parts of your vehicle through the accessory belt. What are the reasons of a damaged Crankshaft?The most common reasons for the crankshaft break are given below:

Read Also: Working of Camshaft Camshaft Vs CrankshaftThe major difference between a crankshaft and a camshaft is given below:

There are two types of engines

The reciprocating engines are designed in such a way that they can"t work without a piston and crankshaft.

Crankshaft definition

While a Wankel engine works with the help of a rotor, and doesn"t need a piston and crankshaft.

The crankshaft is connected to the camshaft via a chain or timing gear. The crank transfers its motion to the camshaft via this timing gear. As the camshaft receives rotary motion from the crankshaft, it uses this motion to open and close the inlet and exhaust valves.

Contact us for free full report

Web: https://www.kary.com.pl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346