

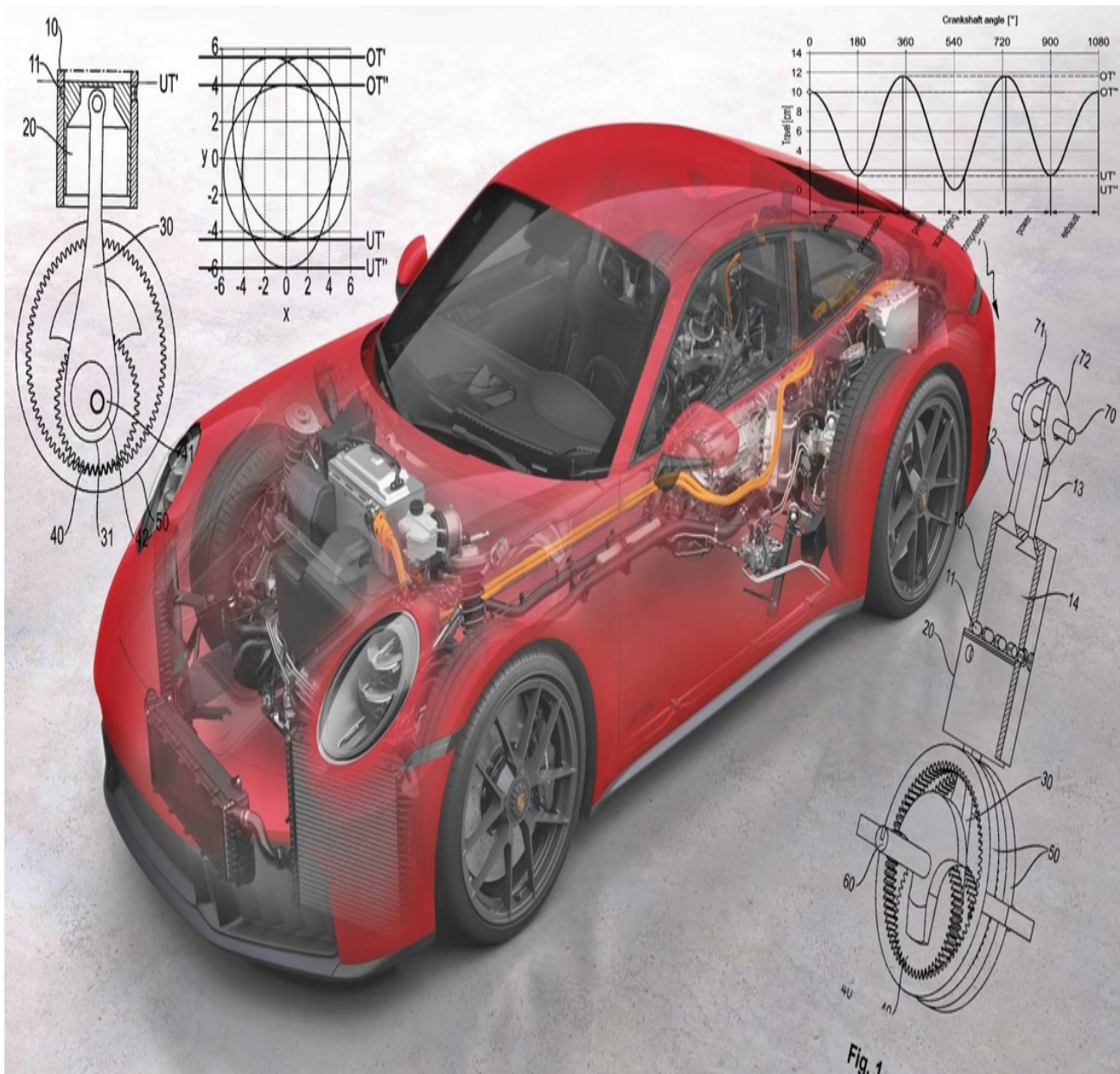
Porsche develops new 6-stroke engine

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Porsche's new patent application has got the rumor mill going:

The two-stroke engine has been history in the automotive world for many years.

The four-stroke engine is state of the art and has been the standard in automobile mass production for decades.



A series of patent applications are currently pending in which Porsche has submitted plans for a six-stroke engine to the patent office.

In contrast to the currently common four-stroke engines, the new Porsche six-stroke engines have two additional strokes, namely an additional compression stroke and a power stroke.

The new six-stroke engine is powered by six individual strokes, each of which can be divided into two three-stroke sequences.

The new engine's working principle, described on 81 pages, uses a new type of crankshaft that rotates around two concentric circles. The previous power strokes developed by Otto: intake, compression, power and exhaust, are thereby fundamentally changed.

From a purely technical point of view, the following happens with the Porsche 6-stroke engine:

When the engine rotates, 2 cycles with 3 strokes are mechanically linked together in a 6-stroke engine.

This happens by rotating the crankshaft via a planetary gear. This modified planetary gear changes the relative length of the connecting rod to which the piston is attached.

This change in the connecting rod length creates 2 top and 2 bottom dead centers (OT',OT'',UT',UT''), which are the stroke-related reversal points of the piston.

Porsche describes the 6 strokes as follows:

Intake (180 degrees)

Compression (360 degrees)

Power (540 degrees)

Compression (720 degrees)

Power (900 degrees)

Exhaust (1,080 degrees).

Analogous to a normal 4-stroke engine, the new Porsche 6-stroke engine adds the strokes:

"Compression" at 720 degrees and "Power" at 900 degrees.

This is where the second bottom dead center (BDC) comes into play.

The result is then: instead of generating "fresh" energy every fourth stroke, this new design then generates "fresh" energy every third stroke, and as a result, yes, more power!

This new engine concept will in any case enable a much more efficient use of the air-fuel mixture and also more power. It remains to be hoped that the rather complex mechanical part of the installed engine components can be made solid in series production, because here I personally still see the "catch" that needs to be eliminated taking production costs into account.

But for now, calm is called for, a patent application does not necessarily mean that the new six-stroke engine will also be built. The current political situation in Germany is programmed for electric mobility.

But one thing must be clear in any case: "Writing off the combustion engine, which has now been built billions of times, as is currently happening in our desolate political society, is, in my opinion, much premature in view of such a highly innovative new development.

We can only hope that the Porsche engineers can prevail against the GREEN ideologists and that ideology will be replaced by innovation. Then things will work out again for Germany as a business location.

In this sense: "We're staying on the ball!"

Text: Jürgen Albert

Drawings: Porsche