

# A Date to Remember

IWC's new Portuguese Perpetual Calendar shows the long-term potential of the calibre 5000 movement

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The Portuguese has long been a mainstay of IWC, and is the brand's most instantly and unmistakably recognisable design. Unlike the pilot's watches, whose functional look was adopted as standard by the industry, there are very few watches that could be mistaken for a Portuguese. With the perpetual calendar being something of a signature for IWC, it seems strange that the two have never been combined before. *QP* celebrates the launch of what might be thought of as the most "IWC" IWC yet.





The Portuguese 2000, with its 7-day power reserve, was the first watch to be based on the calibre 5000.

Some years ago IWC invited groups of watch journalists to visit their workshops at Schaffhausen a little in advance of the annual Basel and Geneva shows. The premise was that IWC were about to launch the first watch in a new collection and wanted to give the writers time to appreciate their new timepiece away from the hustle and bustle of the shows. The watch in question was unveiled as the Portuguese 2000, an undeniably attractive but, on the face of it, otherwise unexceptional take on the Portuguese model that had been released

a few years earlier in near-original form (the original Portuguese was designed in the mid-1930s as a large-format watch that used pocket-watch movements of exceptional quality). Being popular with collectors, no one was particularly surprised that IWC had turned again to this particular design. However, it was then revealed that the new Portuguese contained an entirely new movement, IWC's first for many years. This was naturally the point at which everyone started paying serious attention, which was lucky as the podium was then taken by IWC's technical

staff, who explained the 4.5-year genesis of the movement in great detail.

The calibre 5000 was clearly a major achievement and was of great significance for IWC. The majority of the briefing was concerned with the automatic Pellaton winding system and the linked power-reserve system. The system was invented by Albert Pellaton, an IWC technical director in the 1950s and 1960s, and is still the most efficient winding system around as it is able to draw energy from even the slightest move-

the perpetual calendar module designed for the Da Vinci watches is key to maintaining IWC's reputation as a technical, engineering-led watch house. So it was not an enormous surprise when news leaked that IWC were to unveil the Portuguese Perpetual Calendar at the 2003 SIHH in Geneva. What was a surprise was quite how different the watch looked from earlier perpetual calendars such as the GST. The design proved an instant hit among journalists and visitors alike, and it is clear to see why. The extra size of the Portuguese case and its 44-mm dial mean that



ment of the rotor. Allied to this is a large spring barrel capable of holding up to 200 hours' running time, and a device to stop the escapement after 186 hours (intended to prevent inaccurate running as the spring winds down). The movement has also been fitted with various refinements such as a Breguet balance spring.

As interesting as the new movement was in itself, the new calibre 5000's real significance was in what it revealed about IWC and their future plans. It was not long before speculation mounted as to what would be fitted to the new calibre in the future. Two years later, IWC introduced the Big Pilot's Watch, a relatively simple date watch that also had a central seconds hand as opposed to the Portuguese 2000's subsidiary dial. It was the date wheel that was the clue to the next stage in development.

### Portuguese Perpetual Calendar

With its effective and easy-to-use design that takes a daily impulse from its base movement,

there is plenty of clear space for the calendar information to be nicely integrated within the design – it is still something of a feat to maintain the recognisable Portuguese look under the weight of indicators for power reserve, seconds, date and moon phase.

The moon phase is one of the more noticeable features of the watch and is worth a little more explanation as it departs from the norm quite substantially. The difficulty is that the moon takes 29 days, 12 hours, 44 minutes and 3 seconds to complete its full phase cycle, which is a difficult period to cope with within the confines of a wristwatch movement. The usual practice is to round the period down to 29.5 days, meaning that a 59-toothed wheel can be used to cover two lunar cycles. The time left over builds up relatively quickly however, amounting to 1 day every 32 months – acceptable in a date watch that needs to be changed at the end of each month that is shorter than 31 days, but not in a perpetual calendar that is supposed to run for centuries

The patented Pellaton winding system with its dual ratchet arrangement and heart-shaped cam means that even small movements of the rotor wind the mainspring.

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An "under the dial" view of the Portuguese Perpetual Calendar and the moon-phase discs.

without needing any special adjustment. Suffice to say, the differential equation refining the deviation to one day in 577 years in a mechanism activated once a day is too complex to go into here, but the solution is made possible by the added space inside the Portuguese case rather than any mathematical brilliance. Nevertheless, the thoroughness is satisfying.

More interesting is the way in which the display is organised. A disc with two opposing circular windows rotates above a yellow surface with two black circular areas of identical size to the



windows. The result is two moon-phase displays that are constantly in motion. Above the centre, the position of the moon can be seen as it appears to an observer of the night sky in the northern hemisphere, and below the centre, as it appears to an observer in the southern hemisphere. Again, it is the style rather than the substance of the solution that is attractive.

The Portuguese Perpetual Calendar is available in yellow gold with a white dial, and in rose gold with a black dial. There is also a limited edition of 250 platinum-cased watches. ○