



PATEK PHILIPPE
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Patek Philippe Ref. 5270

Perpetual Calendar Chronograph Ref. 5270: a new complicated wristwatch with a rich 70-year heritage of tradition and innovation

While Patek Philippe concentrated on the launch of new chronographs from November 2009 to the end of 2010, the emphasis is now on other complications. But to the delight of many watch lovers, the year of chronographs has not quite ended yet. One example is the new Ref. 5270, which for the first time combines the functionality of a perpetual calendar with the new classic chronograph caliber that is crafted entirely in-house and had its global debut in 2009.

Seventy years ago, in 1941, Patek Philippe added chronographs with perpetual calendars to its range of regularly produced timepieces. Since then, they have ranked among the manufacture's most popular Grand Complication wristwatches. They unite two degrees of difficulty that require many manual steps, mastered to the required degree of perfection only by the most experienced specialists. This is one of the main reasons why complicated Patek Philippe watches are available only in limited quantities. This will also apply to the new Ref. 5270, which embodies all the features and qualities a connoisseur would expect from a future cult object.

The Perpetual Calendar Chronograph – with the typical personality of a complicated Patek Philippe timepiece

The face of the Ref. 5270 follows one of the most venerable traditions of this type of watch: The day and the month in apertures at 12 o'clock, an analog date with an integrated moon-phase display at 6 o'clock, the seconds subdial at 9 o'clock, and the 30-minute counter at 3 o'clock. For seven decades, this has been the classic layout of Patek Philippe's perpetual calendars with chronograph mechanisms. Nonetheless, there are a few characteristics that distinguish it from all of its predecessors. The seconds subdial and the 30-minute counter are positioned beneath the horizontal centerline, and two small, round apertures between the analog date and the subsidiary dials accommodate the day/night indication on the left and the leap-year indication on the right. The new chronograph caliber with column wheel control and a horizontal clutch that ticks under the classic Patek Philippe dial was entirely developed and crafted in the workshops in Geneva.

Classic chronograph for the 21st century

The new manually wound chronograph caliber with a perpetual calendar CH 29-535 PS Q; probably incorporates more innovative optimization features than any other traditional chronograph mechanism. For example, the engagement and disengagement action takes place in the traditional manner with the driving, clutch, and chronograph wheels, but instead of the conventional triangular teeth, these wheels



have newly calculated and patented tothing profiles that reduce wear, boost efficiency, and prevent tooth tip collisions. Moreover, the engagement of the wheels is not adjusted with customary eccentrics but instead with the slightly eccentric shape of the polished column-wheel cap that very precisely defines the position of the clutch lever at its outermost point. Further optimization features include self-setting hammers pivoted between jewel bearings, the synchronization of the brake lever with the clutch lever, and the slotted minute-counter cam that prevents the excessively abrupt deceleration of the wheel in response to a reset command. Thanks to this group of six patent-pending inventions, the new caliber is decidedly the most advanced of all traditional chronograph movements. It is also the perfect choice for driving the perpetual calendar, one of the most popular Patek Philippe complications. Indeed, the eternal calendar is of particular significance for the workshops in Geneva.

Perpetual is nearly everlasting

In 1925, Patek Philippe created the world's first wristwatch with a perpetual calendar: the Ref. 97'975 always correctly displayed day of the week, the month, and the date for months with 31 and 30 days and, depending on the leap-year cycle, February with either 28 or 29 days. But regular production of perpetual calendars did not begin until 1941, precisely 70 years ago. These timepieces, incidentally, were Ref. 1518 chronographs with perpetual calendars featuring display apertures for the day and month as well as rectangular pushers, just like the new Ref. 5270. At international auctions, these watches regularly fetched top prices and still repeatedly break world records.

To add a perpetual calendar to the manually wound basic chronograph caliber CH 29-535 PS it was necessary to develop a totally new mechanical calendar module. It took two years to perfectly match the 1.65-mm high traditional cam-controlled calendar mechanism with 182 parts to the chronograph ensemble. Thus, the perpetual calendar of the Ref. 5270 demonstrates Patek Philippe's competence in dealing with complex components such as large levers, date, day and month stars, year cams with planetary leap-year wheels, jumper springs, and other intricate parts. Additionally, the many steel parts in the going train and the calendar mechanism stand out not only as regards their precision but also with respect to the artistic finishing that turns them into tiny, aesthetic masterpieces. They exhibit manually satin-finished flanks and straight-grained surfaces as well as carefully chamfered and polished edges – and as opposed to plain flat 45° bevels, the chamfers are slightly convex, a typical Patek Philippe detail. The steel wheels and pinions are also meticulously finished: all teeth and leaves are individually polished by hand using a rotating hardwood disk. This work is done not just for the sake of beauty. Smoothly polished surfaces generate less friction, reduce wear, and transmit kinetic energy more efficiently. The owner of a Ref. 5270 cannot admire the craftsmanship invested in the interest of reliability because it is concealed beneath the dial. But it manifests itself over the years and decades when the buyer of the watch and the generations to which it is handed down have the privilege of experiencing how the value of their timepiece is preserved if not substantially increased.

The dial as an expression of family ties

On the occasion of the 70th anniversary of its first wristwatch with a perpetual calendar and a chronograph, it is not surprising that Patek Philippe wanted to present a successor that reflects the genetic code of the original. These family ties are apparent in the aperture displays for the day of the week and the month at 12 o'clock. The analog date dial at 6 o'clock features an integrated moon-phase display which is so precise that it deviates from the true lunar cycle by merely one day every 122 years. The seconds subdial on the left and the instantaneously jumping 30-minute counter on the right are slightly below the horizontal centerline: this is a characteristic feature of the new manufacture



caliber. As was the case 70 years ago, the black-oxidized gold hands for standard time are leaf-shaped, as in the Ref. 1518 presented in 1941, while the chronograph hand with its counterweight has a slender lancet-style silhouette. The applied baton hour markers in black-oxidized gold are framed by a railway-track minute scale and the chronograph scale. The two small, round apertures for the day/night indication (between 7 and 8 o'clock) and for the leap-year indication (between 4 and 5 o'clock) are hallmarks of the modern perpetual calendar. The fact that the silvery opalescent dial with a visible diameter of 32.4 mm accommodates a total of eleven indications in a well-organized and legible way, testifies to the unique competence and uncompromising timepiece design philosophy of Patek Philippe.

Tradition lives on with a white-gold case of classic beauty

The case of the Ref. 5270 sets a worthy stage for the complicated caliber CH 29-535 PS Q movement and the clear dial. With a diameter of 41 mm, it is distinctly larger than its predecessors and radiates contemporary generosity and elegance. Crafted from 18K white gold, it is a classic three-part construction manufactured in-house with the traditional cold-forming technique. Placed in high-precision dies, the solid white-gold blanks assume their final shape while being subjected to the force of heavy-duty, high-tonnage presses. Cold-forming is followed by many hours dedicated to machining the bores for the crown, chronograph pushers, correction push pieces, and strap bars as well as for deburring, precision grinding, and mirror polishing; after these operations, the case with the concave bezel and the elegantly curved lugs is finished. The 18K white-gold chronograph pushers exhibit the same slightly rounded rectangular shape as those that adorned the first Patek Philippe wristwatch chronographs with perpetual calendars of the 1940s and 1950s. The strap lugs with the slightly concave flanks were also inspired by these earlier models. The screwed display back with the sapphire-crystal window showcases some of the most attractive elements of mechanical watchmaking artistry: the large Gyromax balance as well as the key levers and wheels of the chronograph mechanism. These beautifully crafted movement parts are among those that can be admired in action. The watch is worn with a hand-stitched matt black alligator strap secured with an 18K white-gold foldover clasp.

A closer look at the new Ref. 5270 verifies that it is a very complete synopsis of all the experience, technical expertise, and style competence accrued by Patek Philippe in its 172-year manufacture tradition and the history of its chronograph wristwatches with perpetual calendars that began with the Ref. 1518 seventy years ago.

PRESS

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Technical data

Grand Complication Ref. 5270 in 18K white gold Perpetual Calendar Chronograph

Movement:	Caliber CH 29-535 PS Q Manually wound mechanical movement, column-wheel chronograph, chronograph hand, instantaneously jumping 30-minute counter, and subsidiary seconds. Perpetual calendar with day, month, leap-year cycle and day/night indication in apertures, analog date. Moon phases.
Diameter:	32 mm
Height:	7 mm (of which 1.65 mm for the perpetual calendar)
Number of parts:	456 (of which 182 for the perpetual calendar)
Number of jewels:	33
Power reserve:	65 hours
Balance:	Gyromax®
Frequency:	28,800 semi-oscillations/hour (4 Hz)
Balance spring:	Breguet
Functions:	Two-position crown – Pushed in: To wind the watch – Pulled out: To set the time and stop the seconds hand
Displays:	Center hour and minute hands Chronograph hand (trotteuse) from the center Subsidiary dials: – 30-minute counter between 3 and 4 o'clock – Subsidiary seconds between 8 and 9 o'clock – Date at 6 o'clock Apertures: – Day and month on an axis beneath 12 o'clock – Moon phase at 6 o'clock – Day/night indication between 7 and 8 o'clock – Leap year cycle between 4 and 5 o'clock Corrector push pieces: – Day corrector between 1 and 2 o'clock – Month corrector between 12 and 1 o'clock – Moon-phase corrector between 6 and 7 o'clock – Date corrector between 11 and 12 o'clock Delivered with correction stylus in ebony and 18K white gold



Chronograph pushers: – Start and stop at 2 o'clock
– Reset at 4 o'clock

Hallmark: Patek Philippe Seal

Features:

Case: 18K white gold, sapphire crystal, screwed display back with sapphire-crystal window
Water-resistant to 30 meters

Case dimensions: Diameter: 41 mm
Height: 12.40 mm
Width between lugs: 21 mm

Dial: Silvery opalescent
Twelve applied hour markers in black-oxidized gold
Leaf-shaped hour and minute hands in black-oxidized gold
Counter-balanced chronograph hand from the center

Subsidiary dials, off-center, circular guilloché pattern

- Subsidiary seconds between 8 and 9 o'clock. Leaf-shaped hands in black-oxidized gold
- 30-minute counter between 3 and 4 o'clock: Leaf-shaped hands in black-oxidized gold

Strap: Alligator leather with square scales, hand-stitched, matt black, foldover clasp in 18K white gold

