125 years of Breitling

From 1884 to Caliber B01

Breitling crowns its 125 years of passion for chronographs with the launch of its own high-performance movement

Breitling is marking an important date in its history by unveiling Caliber B01, its first chronograph "motor" designed and built entirely in-house. It is a logical evolution for a brand that has played a major role in developing the wrist chronograph and is counted among the leading makers of this complication. It is a perfectly consistent choice for one of the last independent Swiss watchmakers, which is thereby ensuring its freedom to maneuver and loyalty to its own criteria for excellence.

Through 125 years and five generations, Breitling has tied its name closely to the development of aviation, sports, technology, sciences and industry – all of these being areas that require reliable and accurate measuring instruments. With the B01, the company is more than ever confirming its calling to accomplish challenging feats, and beginning a new chapter in a history already replete with great moments in the air, on land and beneath the seas.

Breitling specializes in chronographs and timers right from the start

A scion of a family that had been established for several generations in the Neuchâtel mountains, Léon Breitling had a passion for precision. When he opened his shop in Saint-Imier in 1884, in the Bernese Jura, he chose a specialty as exclusive as it was demanding: chronographs and timers. These were measuring instruments for use in sports, the sciences and industry. In 1892, in view of his products' increasing success, Léon Breitling decided to transform his workshop into a real watch factory and move it to La Chaux-de-Fonds, the watchmaking capital of Switzerland and the world. The "L. Breitling, Montbrillant Watch Manufactory" was set up in a large building on the heights of the town, where the workshops were to remain for over eighty years.





The Saint-Imier valley, Breitling's birthplace. La Chaux-de-Fonds at upper right









During the Belle Epoque, Breitling developed its beautifully crafted chronograph and timer collections. The brand quickly became a standard of reference in this area. It supported the rise of competitive sports, the automobile and also the early exploits of the aviation pioneers. Léon Breitling's clever mind came up with a number of inventions and patents to improve the performance and functionality of these instruments for their many professional and private users. One example is the "Vitesse" tachometer (1906), with its patented system for measuring all speeds from 15 to 150 km/h on a single scale.



Breitling invents the first separate pushpiece

In 1915, as the wristwatch was taking off, Breitling was among the first watch brands to introduce a chronograph to be worn on the wrist. In the interest of comfort and ergonomics, Gaston Breitling – who had succeeded his father a year earlier – at the same time had an ingenious idea: he would create a pushpiece, separate from the crown, to operate the three chronograph functions (start, stop, reset to zero). The first separate pushpiece was born.







Breitling patent for the separation of the "start/stop" and "reset to zero" functions, 1923

Breitling makes it possible to add several successive times

In 1923, Breitling perfected its system of chronograph controls by separating the "start/stop" functions, controlled by the pushpiece at 2 o'clock, from the "reset to zero" function activated by the crown. This patented innovation marked a significant advance for the users: it was now possible to add several successive times without having to reset the hands to zero. This feature could be used for a sports competition, flight times or a scientific process.

Breitling launches its first onboard chronograph for aircraft

In 1931, relying on its reputation for accuracy and reliability, Breitling added to its line a "specialty" item that was to make it world-famous: onboard chronographs for aircraft cockpits. These instruments were essential for safely reading the time and flight times, and had all the qualities one would expect of this type of equipment: solid construction, accurate movement, black dial with large luminescent white numbers, light yet sturdy aluminum case, etc.



Advertisement for timers, chronographs and split-second chronographs, 1933



Breitling creates the second separate pushpiece

In 1934, the company – now led by Willy Breitling, the founder's grandson – took an essential step in terms of functionality when it created the second separate pushpiece, to be used exclusively for resetting the chronograph to zero. This patented invention was the final touch in giving the wrist chronograph its modern face. It was not long before all the competitors began using it as well.





SYSTÈMES BREVETÉS SUR CALIBRES 14", 14", 15", 15", 15", 16" CHRONOGRAPHE-COMPTEUR BRACELET PERMETTANT LE CALCUL EFFECTIF DU TEMPS DE TOUTES OBSERVATIONS ARRÊT FACULTATIF DE LA GRANDE TROTTEUSE — REMISE A ZÉRO INDÉPENDANTE — PEUT SE LIVRER AVEC COMPTEUR 45 MINUTES



Planes at the start of the MacRobertson Trophy Air Race (England-Melbourne race), 1934

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with Breitling timing no dispute! CHRONOGRAPHS STOP WATCHES 6. LEON BREITLING S. A. . MONTBRILLANT WATCH MANUFACTORY LA CHAUX-DE FONDS (BUISSE)





Breitling catalogue, circa1937

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The Breitling factory in the 1930s





Breitling equips World War II fighter planes

In 1937, Breitling designed a patented system of controls parallel to the dial for its onboard chronographs. The new system significantly improved functionality. These accurate, sturdy and efficient instruments were highly successful in a number of armed forces, including the Royal Air Force, which put them into its famous propeller fighters during World War II. At the same time, the brand strengthened its ties with aviation by creating several wrist chronographs especially for pilots.





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Onboard chronographs and instruments for pilots, Breitling catalogue, 1941



Breitling creates the first watch with a circular slide rule

In 1942, Breitling expanded its line of "watch instruments" by creating the Chronomat, the first timepiece with a circular slide rule. Based on a patent filed in 1940, this system was capable of quickly and easily solving a wide range of mathematical operations: tachometer, telemeter and pulsometer functions; multiplication, division and rule of three problems; production calculations, etc. It rapidly found multiple uses in sports, industry and the technical professions.



"Quality produced in series" advertisement, 1946. This slogan remains equally timely today






At the beginning of the 1950s, Breitling was the official timer for many bicycle and auto races.



Breitling introduces the famous Navitimer

In 1952, Breitling created a "wrist instrument" designed especially for pilots and aviation professionals. The Navitimer chronograph had two logarithmic scales for solving all air navigation calculations in a trice: average speed, distance traveled, fuel consumption, rate of climb or descent, conversion of miles to kilometers or nautical miles, etc. It did not take long for the Navitimer to become Breitling's most iconic model – and an object of veneration for all aviation enthusiasts.







Fournisseur attitré de l'aviation mondiale ...











DOUGLA

Breitling vous apporte un temoignage massif de toutes ces preuves de confiance!

Cest en produciant des montres de bord et des stremm-graphes compliqués pour les plintes d'aviation que lecriting a mis au polait ése trois merveilles de l'hordingeris; l'Unisme, le Navidimer et le Chromonal — les chromos

graphes les plus étomants de noire époque! L'exploience des plèces compliquées est un excellent entrainement! Breitling/Genère vous offre aujourd'hui la quintessence de la montre de tons les jours -- la marcelle Breitling Automatic avec calcudrier, dédiée aux hommes de partout qui sont fiers de partre une montre de précision.

Similerment & vous,



GENEVE

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Le Navilimer (Rocanas aviatents par l'Aircraft Owners' and ta' Association AOPA.)

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Le Chronomat

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Breitling, "Official Supplier to world aviation"

During the 1950s and 1960s, Breitling supported the rise of commercial aviation by putting its onboard chronographs in the propeller aircraft, and later the jets, of many manufacturers and airlines. In particular, the brand gained entry to the cockpits of Boeing 707s, DC-8s and the Caravelle. That is how it became the "Official Supplier to world aviation."

Cockpit of a Boeing 707. On the captain's side (at left), the fourth dial from the left on the lower row is a Breitling onboard chronograph















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Catalogue of industrial and sports timers, early 1960s

Confering a



In 1962, a Navitimer with a special 24-hour scale accompanied Scott Carpenter on his orbital flight in the Aurora 7 capsule, becoming the first wrist chronograph to travel in space.



BREITLING FÜR DIE WELTLUFTFAHRT FÜR DIE WELTRAUMFAHRT BREITLING





NAVITIMER Der berühnte Chronograph mit Nevigstions-Corrouter. 17 Ru-bine, dietiterer Glasring, Leuch-afflerbiatt, Zchlwein iss 20 Mi-anten und 12 Stunden, stoßsicher 17 Rubine, robustes Gehäuse Mod. 896 S. Edelstahl. CM 385.-* Mod. 896 P. Goldplaque DM 385.-* Mod. 896 G. Gold 18 Kt. DM 786.-* Gebrauchsammelisiong auf Anlorderung

SPEZIALCHRONOGRAPH FUR FLIEGER

SPEZIALCHRONOGRAPH FUR FLIEGER

C O S M O N A U T -N A V I T I M E R Mod. 109 Edecashi DM 405.-* Spezialaustibrung des Newi-Immers mit 24-Spezieden-Ziffartilati

Diese Uhr hat den amerikanischen Raumflug mit Lt. Commander Scott Carpenter im Mai 1962 erfolgreich bestanden.

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Breitling Datora square chronograph, late 1960s



Sean Connery, a.k.a. James Bond, with the Navitimer and TopTime in *Thunderball*, 1965

Formula1 champion Jim Clark with his Breitling TopTime, 1966



Breitling introduces the first selfwinding chronograph

Breitling took up one of the great watchmaking challenges of the 20th century when in 1969 it introduced the first automatic winding chronograph movement, the "Chrono-Matic" Caliber 11 developed in cooperation with Dubois Dépraz, Heuer-Leonidas and Hamilton-Büren. To mark this important turning point, the brand created an entire collection of "Chrono-Matic" chronographs with an innovative design, recognizable by their crown on the left side of the case.





Breitling gives the mechanical chronograph a boost

In 1984, Breitling celebrated its centennial by bringing out the famous Chronomat, created in close cooperation with the elite Frecce Tricolori aerobatics team. This exceptional model triggered the renaissance of the mechanical chronograph prior to becoming the collection's best seller. Revived in 1979 by Ernest Schneider, a microelectronics specialist and experienced pilot, the company also established itself at the forefront of electronics by developing a whole line of high-tech instruments intended mainly for aviators, such as the multi-function Aerospace chronograph (1985) and the Emergency, the first wristwatch with a built-in emergency transmitter (1995).



COMPASS

In every realm of technology, equipment is now extremely costly and highly sophisticated, but if your timing is out, sometimes by only a split secand, even the most aduanced technology may become completely useless. The watch is the nerve centre of the equipment, the key to the success of the operation. The BRETILING COMPASS Whitch is built to the most exacting military and scientific requirements. Waterproof to 300 ft, and capable of withtanding severe climatic conditions (-20° to +50°), it is on all-purpose instrument for

52

night and day, designed for diving, rescue operations and underwater maintenance work.

Shown on the mirror base of the compass: distress signals. On the patented data-code strap: graduated scales (decimetre and feet) and morse code.



Breitling patent for the Emergency's antenna deployment system, 1995





Breitling goes "all chronometer"

To guarantee the quality of its "instruments for professionals," Breitling decided to subject its entire production (mechanical and quartz movements) to the merciless tests of the COSC (Swiss Official Chronometer Testing Institute), the highest standard of reference for accuracy and reliability. In doing so, the company became the only major watch brand in the world to offer chronometer-certified movements for all models in its collection. To help meet this challenge the company – now directed by Théodore Schneider, Ernest's son – created Breitling Chronométrie in La Chaux-de-Fonds. This unit specializes in developing and manufacturing mechanical chronograph movements. In 1999, Breitling Orbiter 3 achieved one of aviation's greatest challenges: a non-stop round-the-world balloon flight

REITLING DRBITER 3



In 2001, Breitling introduced thermally compensated SuperQuartz[™] movements in all its electronic models. These are ten times more accurate than ordinary quartz movements.



The Breitling Chrono Avenger M1 (2001), with its patented system of magnetic pushpieces, is the only chronograph in the world that is watertight and operational at a depth of 3,300 feet (1000 meters)



The Breitling Jet Team, the world's only civilian jet patrol

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BREITLING




2003

Breitling introduces the Breitling for Bentley line

In 2002, Breitling made the dashboard clock for the Continental GT, the most powerful Bentley model ever made. A year later, the brand supported the British maker's triumphant return to the Le Mans 24 Hours by sponsoring Team Bentley. This partnership was to lead to a new collection of chronographs and watches called Breitling for Bentley, powered exclusively by chronometercertified mechanical movements and distinguished by various special technical features.

Breitling for Bentley, Bentley Motors chronograph, 2003



Breitling Chronomat Evolution, 2004



Breitling sponsors the Reno Air Races, one of the world's largest aviation events

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View of the entire Caliber B01 and its chronograph mechanism

2009

Breitling's B01 takes wing

To guarantee its long-term independence and ensure that it has complete control over quality, Breitling is launching its own mechanical chronograph movement. The accurate, reliable, sturdy and efficient B01 is directly in line with the philosophy of excellence that the brand has been pursuing for 125 years. This new caliber has a column wheel, a vertical-trigger mechanism and a power reserve exceeding 70 hours, which ensures that the movement has a more regular rate. It was designed to maximize functionality and safety when in use. Breitling also gave it some assertively innovative features intended to increase its ease of manufacture and use, including a patented mechanism for auto-centering the reset hammers and an exclusive index regulator system that allows the watch's timing to be quickly customized to the wearer. The B01's intelligent architecture also offers significant advantages in terms of maintenance.

With its entirely new architecture, Caliber B01 marks the apotheosis of Breitling's unceasing 125-year quest for quality and high performance. It also gains the company entry into the highly exclusive circle of watchmakers that have their own in-house mechanical chronograph movement.



Breitling revolutionizes the traditional assembly of movements

Its original construction is not the only reason the B01 stands out. In making its first proprietary chronograph movement, Breitling also chose to follow unusual paths. Drawing its inspiration from an avant-garde concept used in other high-tech sectors, and adapting the idea to watchmaking, the company developed a formula for an industrial production line that is revolutionizing the traditional assembly of movements. Each movement is tracked individually by highly sophisticated software that automatically sends it to the appropriate station along a route where completely automated stations alternate with those requiring manual intervention. All adjustment stages are also incorporated into this process, and as each B01 movement leaves the line it is ready for extremely rigorous testing by the COSC. This is how Breitling guarantees authentic reliability for its "instruments for professionals" on a large scale.



High-resolution images of Caliber B01 can be downloaded from

http://www.breitling.com/media

User: media Password: b01

Photo credits

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