Instructions for use
Mode d'emploi

Jules Audemars Watch with AP escapement

Calibre 2908
Hand-wound

AP
AUDEMARS PIGUET
Le maître de l'horlogerie depuis 1875


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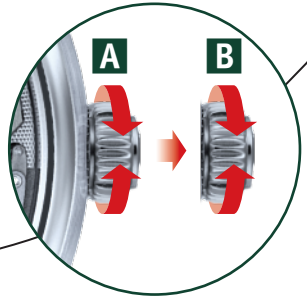
AUDEMARS PIGUET
CHRONOMÈTRE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English

Quick-link contents page (see opposite).

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Click on the white “English” to return to the main contents page.

The Manufacture Audemars Piguet

The Vallée de Joux: cradle of the watchmaker's art

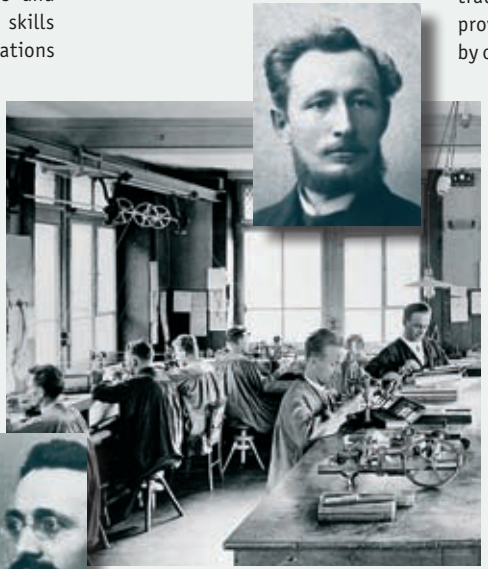
In the heart of the Swiss Jura, around 50 kilometres north of Geneva, nestles a landscape which has retained its natural charm to this day: the Vallée de Joux. Around the mid-18th century, the harsh climate of this mountainous region and soil depletion drove the farming community settled there to seek other sources of income. With their high degree of manual dexterity, inexhaustible creativity and enormous determination, the inhabitants of the valley, known as Combiers, were naturally drawn to watchmaking.

Due to their high quality, the movements they produced acquired great popularity with the Geneva firms which used them to create complete watches.

From 1740 onwards, watchmaking developed into the principal industry of the Vallée de Joux. This region was thus transformed, as an 1881 chronicle put it, "into a land of milk and honey, in which poverty has rapidly disappeared".

Two names for a great adventure

In 1875, two young men passionate about Haute Horlogerie — Jules-Louis Audemars and Edward-August Piguet — decided to pool their skills to design and produce watches with complications in the Vallée de Joux, the cradle of Haute Horlogerie. Determination, imagination and discipline led them to instant success. A branch in Geneva was their next move in about 1885 and new commercial links were forged at the 1889 Paris World Exposition, where they exhibited complication pocket watches. The Audemars Piguet factory continued to expand as the years went by. Its creations represented major milestones in the history of Haute Horlogerie, like the first minute repeater wristwatch in 1892 and the smallest five-minute repeater movement ever made in 1915.



From 1918 onwards, the founders passed the reins of the business onto their sons, who in turn perfected their expertise in manufacturing men's and ladies' wristwatches as well as designing new sophisticated, ultra-thin movements. Perseverance and initiative were the watchwords: while the Wall Street crash in 1929 was a bitter blow, the company directors were soon designing so-called skeleton watches before embarking on chronograph production.

But this new momentum was abruptly interrupted by the Second World War. Re-organisation was necessary in the aftermath of the conflict. The factory focused on creating top-of-the-range items in keeping with its tradition of innovation. A strategy that would prove its worth, especially since it was backed by outstanding creative daring.

Audemars Piguet continued to build on its now international reputation with creative designs. 1972 saw the launch of the Royal Oak, the first, immediately successful high-quality sports watch in steel, followed in 1986 by the first ultra-thin tourbillon wristwatch with automatic winding. The creative spirit of the Manufacture has not faltered since, offering aesthetically original time-keepers with outstanding movements. Thus it brought watches with complications back into fashion at the end of the 1980s, launching its extraordinary Tradition d'Excellence collection in 1999. All the signs of a bold spirit rooted firmly in tradition and auguring well for the future.

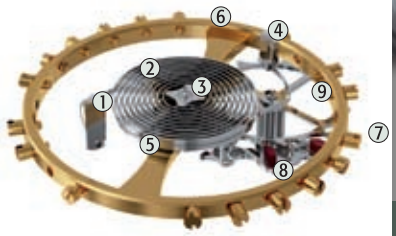
Jules Audemars watch with AP escapement

The most striking thing about the new Jules Audemars watch with AP escapement is the design, featuring a transparent dial that reveals the outstanding mechanism of the new Calibre 2908 with its white-gold mainplate. The watch's three-dimensional aesthetic leads the eye straight to the small seconds display, then to the hours and minutes and the two barrels. The escapement is the nerve centre of the new calibre and appears to reach out from the plate in a bid to stamp its unique authority on the watch. Everything is contained in a large case made of 950 platinum twinned with a sapphire-crystal back to further reveal the impressive mechanism. Waterproof to 20 metres, the new Jules Audemars watch with AP escapement comes with a crocodile-leather strap and folding clasp, also made of 950 platinum.

The new hand-wound design with its 274 components represents a return to the roots of watchmaking. The AP escapement boasts exceptional frequency and bears the hallmark of an ongoing quest for accuracy. The small seconds display is placed firmly in the foreground to provide clear proof of the philosophy behind the timepiece.

New Audemars Piguet escapement

The new Audemars Piguet escapement system takes its inspiration from the mechanism proposed by Robin. This direct-impulse escapement has a large number of advantages, including full shock resistance. Its innovative design and outstanding performance render this patented system a minor revolution in watchmaking mechanics. It heralds the new generation of Audemars Piguet movements and furthers the performances of the watches produced by the Manufacture. The new escapement will shortly be fitted to the brand's complication movements and ultimately, in a few years time, to all the Audemars Piguet mechanical movements.



① Stud 1
② Balance-spring 1
③ Shell
④ Stud 2
⑤ Balance-spring 2
⑥ Balance
⑦ Inertia blocks
⑧ Pallet fork
⑨ Escapement wheel

The new AP design hosts a number of technical features far superior to the traditional (Swiss lever) escapement:

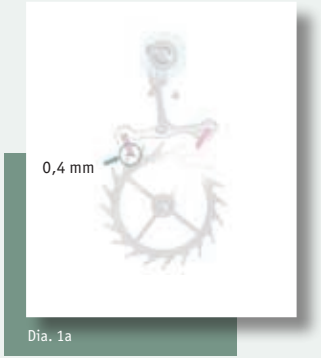
- **Detached pin-pallet escapement:** a single impulse corresponds to two vibrations, causing fewer setting disturbances and very high efficiency.
- **Improved chronometry:** the spring balance isochronism may be adjusted by moving the quiescent point with respect to the impulse given to the balance; reducing mechanical disturbances at the escapement increases movement accuracy.
- **Optimum long-term stability:** tests performed over the last five years have shown that this escapement has excellent operational stability.

- **High efficiency:** with the conventional Swiss lever system, the escapement absorbs around 70% of the energy; the new AP system reduces this figure to 50%, enabling a significant boost in efficiency over traditional designs.

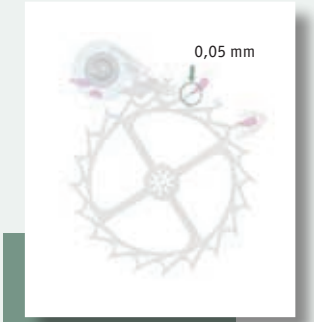
- **No lubrication on the lifts (Dia. 1a and 1b):** the special geometry of the Audemars Piguet escapement means no lubrication - a watchmaker's dream! - which facilitates maintenance and prevents greasy paste build up after oil evaporation.

- **Direct impulse on balance (Dia. 2a and 2b):** energy is transmitted directly from the escapement to the balance without passing through a pallet fork, which limits energy losses by improving efficiency.

- **Excellent shock resistance:** the meticulous shape of the various components (especially the guard pin) and their ultraprecise cut out provide maximum security against tripping and overbanking.

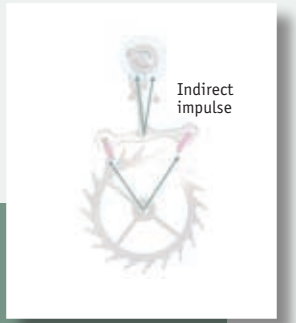


Dia. 1a



Dia. 1b

The need for oiling is eliminated by shortening the sliding



Dia. 2a

Dia. 2b

Fewer moving parts in the transmission equals greater efficiency

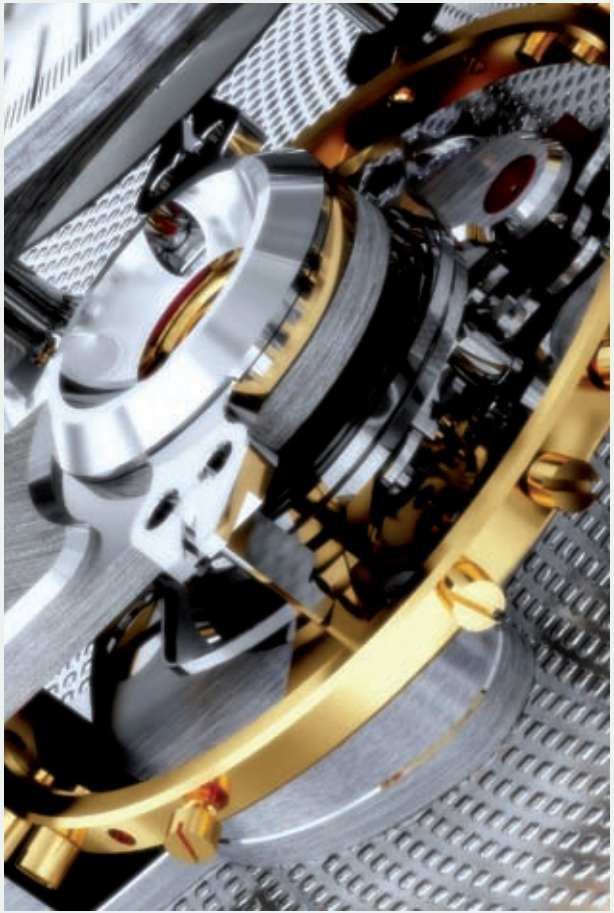
Dual balance-spring

The calibre 2908 also stands out for its totally new regulator component. Two balance-springs positioned one on top of the other, offset by 180°, automatically compensate for any balancing defects.

Undoubted advantages

The system of dual "opposing" flat balance-springs has many advantages :

- no more balance-spring "end curves" pioneered by Breguet and Phillips, which require painstaking construction, and thus the end to defects caused by the slight asymmetric balance-spring development.
- automatic compensation for any balance-spring balancing defects, thus improving accuracy.
- prevents errors caused by the watch's vertical position.



High frequency and precision

In addition to the intrinsic advantages of the AP escapement, the new Calibre 2908, which powers this latest addition to the Jules Audemars collection, offers exceptional frequency hitherto unseen in the world of fine watchmaking. It is twice as efficient as conventional designs, boasting 43,200 vph (6 Hz), and marks a major milestone in the AP watchmakers' long-standing quest for improved accuracy. The increase in balance oscillation—with its variable inertia system—significantly enhances timekeeping, making the watch more resistant to impact and other factors that can affect balance. The two parallel barrels provide a power reserve of at least a 72 hours, amply offsetting the extra power needed for the 43,200 vph frequency.

Advantages of the parallel barrel system

- Reduced pressure in the gears
- Friction in the barrels used to cancel out the variations

Parallel system (AP)

Series system

Views of the movement

Calibre 2908

Bridge side

Dial side

Movement technical data

Basic thickness : 8,11 mm

Total diameter : 39,80 mm

Fitting diameter : 39 mm (17 ⅔ lines)

Frequency : 43'200 vibrations/hour (6 Hz)

Number of jewels : 33

Power reserve : at least a 72 hours

Manual winding

Audemars Piguet lubrication-free escapement

Variable inertia balance

Flat dual balance springs

Stop-seconds function

Number of parts : 274

Case technical data

Diameter : 46 mm

Total height : 12,64 mm

Case water resistance : 20 m (2 bars)

Case in 950 platinum

Sapphire crystal caseback

Watch indications and functions
(see figure on the inside cover)

1. Hour hand
2. Minute hand
3. Small second hand
4. Power reserve indicator hand

Your watch is fitted with a two-position crown :

A Crown in manual winding position

B Crown in time-setting position

Setting the time

Pull the crown to position **B**. The stop-seconds arresting lever is automatically activated when the crown is pulled to ensure precision time adjustment.

You may now set the time by winding in either direction without risk of damaging the movement.
Recommendation : make sure to set the time precisely by carefully moving the hands forward to the time desired.

Winding the watch

Your watch is fitted with a mechanical hand-wound movement.

We recommend that you wind the watch fully every two days or at least once every three days at regular intervals.

The crown features a disconnecting-gear system to prevent damage to the barrel mechanism caused by over-winding (the crown turns freely).

Power reserve

When the watch has been wound to a maximum, the hand which shows the power reserve will be at the outside of the indicator. The watch has a power reserve of at least 72 hours at this point.

Once the needle reaches the red area, the watch has a power reserve of around 12 hours. At this point, we recommend that you wind the watch fully to ensure optimal timekeeping.

If your watch stops

Normally if your watch stops, simply winding it with the crown is enough to start the movement. However, sometimes the movement does not start again automatically.

This is because the escapement is no longer receiving an impulse, as the impulse-pin and pallet fork remain fixed in this position (Fig. 1). No impulse is being sent to the balance.

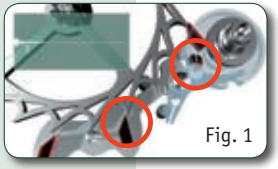


Fig. 1

Turning the case a few times to turn the balance is enough to reactivate it (Fig. 3). This means that the escapement wheel sends the necessary impulse to the balance (Fig. 2).

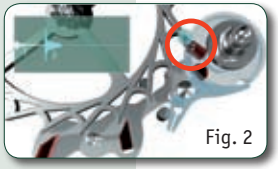


Fig. 2

Winding the watch until the end stop (crown in position **A**) ensure that the watch functions correctly during approximately 70 hours.

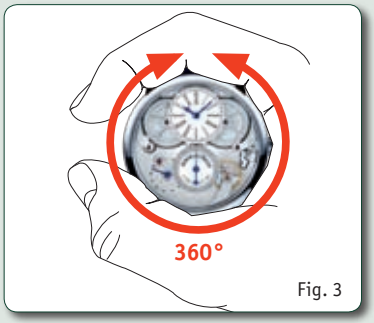
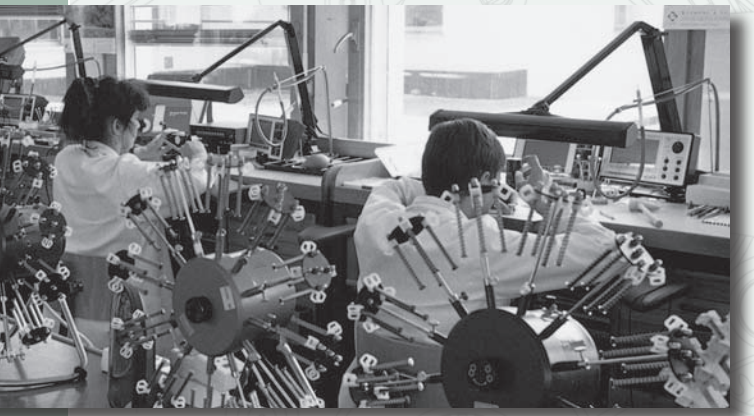


Fig. 3



Guarantee and care

All details concerning the guarantee and instructions on caring for your watch are provided in the enclosed certificate of origin and guarantee.