

THOMAS MERCER CALIBRE TM0802 A PINNACLE OF CHRONOMETRY AND REFINEMENT

Media Information

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Revered marine chronometer manufacturer Thomas Mercer introduces a new table chronometer movement to its existing line of high-end calibres: the eight-day, spring detent calibre TM0802 with fusée and chain.

Thomas Mercer's calibre TM0802 is a sophisticated table chronometer movement aimed at keeping time according to marine chronometer standards. Embellished with the highest level of finishes, it is a true heir to a quintessentially British clockmaking tradition, one of extreme accuracy, fine craftsmanship and exquisite artistry combined.

Calibre TM0802 joins an acclaimed range of timekeepers of various formats. This range of utterly unique time pieces is now rich with a vertical format clock movement, designed and executed with the same demands as all Thomas Mercer's chronometers: absolute quality all over, be it in design, technical and aesthetic terms.

FEATURES FOR THE FUTURE

Caliber TM0802 is an evolution of calibre TM0801, the first movement Thomas Mercer introduced. Rather than horizontal and round, it is a vertical and rectangular movement, typically found in forward-facing carriage clocks. The advantage of such a configuration is the prominence it gives the escapement. The caliber's balance wheel is located at its apex, where it is most visible. As part of a relentless quest for perfection, a new function has been added: a start-stop device halts the movement on demand, allowing a perfect synchronisation with official time.

Like the rest of Thomas Mercer's contemporary calibres, TM0802 sports an eight-day power reserve, indicated at 6 o'clock. This trait is indelibly linked to Thomas Mercer's most famous chronometers. A long power reserve combined with a large size movement required to resort to a long, powerful mainspring. Such springs are known to provide a fluctuating torque, hardly compatible with the accuracy requirements of a chronometer.

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POWER IN CHECK

In order to harness such power, Thomas Mercer's TM0802 is fitted with a fusée-and-chain transmission system. The extensively polished mainspring barrel is connected to the fusée, a grooved cone with a curved profile. It acts as a gearbox, constantly changing gears in order to provide the movement with an almost constant level of torque. The amount of energy is such that they are connected by a solid, undeformable metallic chain, comprised of several dozen links and hundreds of components. The fusée-and-chain system is a major contributor to the TM0802's chronometric features. It provides the escapement with a steady stream of energy, thus stabilising the movement's frequency. This isochronism lies at the very root of accuracy.

LIVING BEAT

Thomas Mercer's TM0802 calibre ticks at the rate of 14 400 beats per hour. This is music to the ears of anyone in the vicinity: it emits a powerful, distinctive sound, that of its very special escapement. The escapement is the part of the movement that defines the elementary measure of time, which the gear train turns into seconds, minutes, hours and beyond. True to the legacy of both British marine chronometers and Thomas Mercer, it is of a very rare type. It is a spring detent escapement.

Also known as "chronometer escapement", it has proved the most accurate and reliable of all. Its unparalleled efficiency is the result of very low energy consumption, low friction and lightness. These three features further enhance the TM0802's accuracy, as well as its prestige. It is now one of the rarest features in clockmaking, the regulating of which is only mastered by a handful of experts, like those in charge of assembling and setting Thomas Mercer's timekeepers.

Chronometer making is an art beyond clock making. The very finest finish is indeed required but the matching of a hairspring to a balance over a variety of temperature is the great challenge. Setting a chronometer is a task which requires special skills, especially at the level of accuracy demanded by Thomas Mercer.

ACCURACY

The escapement works in close conjunction with a balance wheel and hairspring. The former is unique and specific to Thomas Mercer. The ovalising balance is a uncut ring of brass, fitted with regulating screws, and reinforced with a cross-bar made of invar. This reputable alloy helps it keep its shape, and therefore specific rhythm, while temperature varies. The latter is also exceptional by its shape. Instead of being flat and spiral, it takes on a cylindrical shape. It is entirely made in England, by hand, and an extremely rare occurrence in clockmaking. The manufacturing and shaping of such a spring had become a lost art. With the utmost respect for its brand heritage, Thomas Mercer is reviving this superb and demanding craft.

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Caliber TM0802's final contribution to accuracy is of an indirect nature. Its start/stop system is doubly useful. On the one hand, it launches the spring detent escapement, which needs an initial jumpstart. On the other, it blocks the balance wheel when setting the time, thus bringing it to a halt. It is then easier to set the time according to a main clock or official local time. When the hands are synchronised, one can restart the escapement and let the balance wheel resume its oscillation.

THE BEAUTY INSIDE

Thomas Mercer's TM0802 is not only a technical work of art. It is also a piece of flawless craftsmanship, with an exceptional level of finishes. True to the spirit of high-end clockmaking, not a single component of the movement goes untouched.

Like the whole TM0802 movement, these finest finishes are conducted in England. The scale of this process is peerless. The overall surface that needs decorating is far superior to that of the vast majority of time pieces. Such unique level of absolute care on so many components is exceptionally large, only found in ten times smaller movements like wristwatches'.

FOUNDING FATHERS

Demanding chronometric features, extensive finishes, Thomas Mercer is furthering the brand's legacy, and chronometry's. Once a world leader in the fabrication of marine and domestic chronometers, Thomas Mercer was a provider of high precision timepieces to the Navies of the world, and several renowned brands. The firm was awarded countless first chronometry prizes by such institutions as the Greenwich or Kew Observatories.

Up and running until the mid-1980's, Thomas Mercer has been revived and propelled into the future. With the help of former employees and engineers, continuity was ensured and genuine technical treasures like the ovalising balance, cylindrical hairspring and spring-detent escapement were rediscovered and perpetuated in the 21st century.

DEMANDING PAST, FUTURE ACHIEVEMENTS

Chronometry is at the very root of clock- and watch-making. Some may think it is a lost art. But Thomas Mercer is determined to preserve it by combining precision engineering and mechanical perfection with superb design and innovation. Thomas Mercer's timekeepers and movements have the timeless spirit and design of truly historical timepieces, all the while looking to the future. Calibre TM0802 is no exception to that quest, especially when it comes to its extraordinary chronometric achievements.

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