

DualTow

**THE TIMEPIECE SIGNED BY CHRISTOPHE CLARET,
AN EXCEPTIONAL OBJECT MARKING THE
20TH ANNIVERSARY OF THE MANUFACTURE**

CHRISTOPHE CLARET SA TURNS 20

The handful of watch companies capable of creating, developing and ensuring the reliability of totally exclusive and ultra-complex watch movements form an extremely exclusive fraternity to which Christophe Claret SA undeniably belongs. This year, the firm based in Le Locle is celebrating its 20th anniversary.

Throughout this time, the Manufacture has consistently devised some of the world's most complicated new calibres. Few brands admit to outsourcing in creating their most complex models, which explains why, beyond a select circle of connoisseurs, the name of Christophe Claret is little known to the public at large. Nonetheless, from the minute repeater – the first complication developed by this watchmaker – to the orbital tourbillon and the roller-display perpetual calendar, the Manufacture is indisputably one of the most innovative and effective companies in the watch industry.

Christophe Claret has earned this privileged position by pursuing a relentless quest for perfection. Hailing from the region of Lyon, in France, he studied watchmaking in Geneva before beginning his career as an antique watch restorer. At the 1987 Basel Fair, the owner of a major Swiss watch company asked him to develop an exclusive minute repeater movement, a commission that encouraged Christophe Claret to found in 1989 his own company in partnership with two other talented watchmakers. In 1992, his instinctive need for independence led him to become the sole owner, so he bought up his partners' shares and duly renamed the firm Christophe Claret SA. Ever since, his workshops have been constantly inventing and producing movements featuring an ideal blend of horological tradition and cutting-edge technologies.

DUALTOW – A SYMBOL OF EXCELLENCE

2009 is thus a jubilee year in the history of Christophe Claret SA, a milestone that its owner wished to symbolise by releasing an exclusive timepiece produced under the company brand name and distributed by the finest retailers worldwide. The DualTow is a faithful reflection of the watchmaking philosophy inherent to Christophe Claret. Housing several inventions including one patented innovation, this single-pusher planetary-gear chronograph with striking mechanism and tourbillon expresses a combination of technical excellence and sophisticated aesthetics. It also embodies the merging of the wide variety of skills united within the company, since almost all operations involved in making it – from movement development to the machining of the sapphire dial-bridge – have been performed in-house.

Representing a horological embodiment of power and energy, the DualTow is an ultra-refined machine for measuring time. With its original “belt” display of the hours and minutes, the model features an ultra-technical and classically elegant appearance. Technically speaking, the mechanical hand-wound CC20A movement boasts an impressive number of innovations and stylistic refinement. One particularly striking example is a gong that sounds each time the chronograph pusher is activated, in a playful allusion to the expertise of the Manufacture in the field of striking watches.

DUALTOW – THE NEW BENCHMARK

Enigmatically christened “DualTow”, the first Grande Complication timepiece bearing the signature of Christophe Claret and exclusively developed to mark the 20th anniversary of his company, vividly embodies the principles guiding the Manufacture in the pursuit of its vocation. A symbol of excellence and experience, its mechanical hand-wound single-pusher planetary-gear chronograph movement is endowed with a tourbillon and striking mechanism. Calibre CC20A is thus a faithful reflection of this spirit and a forceful expression of the shared passion driving the company’s hundred-strong workforce.

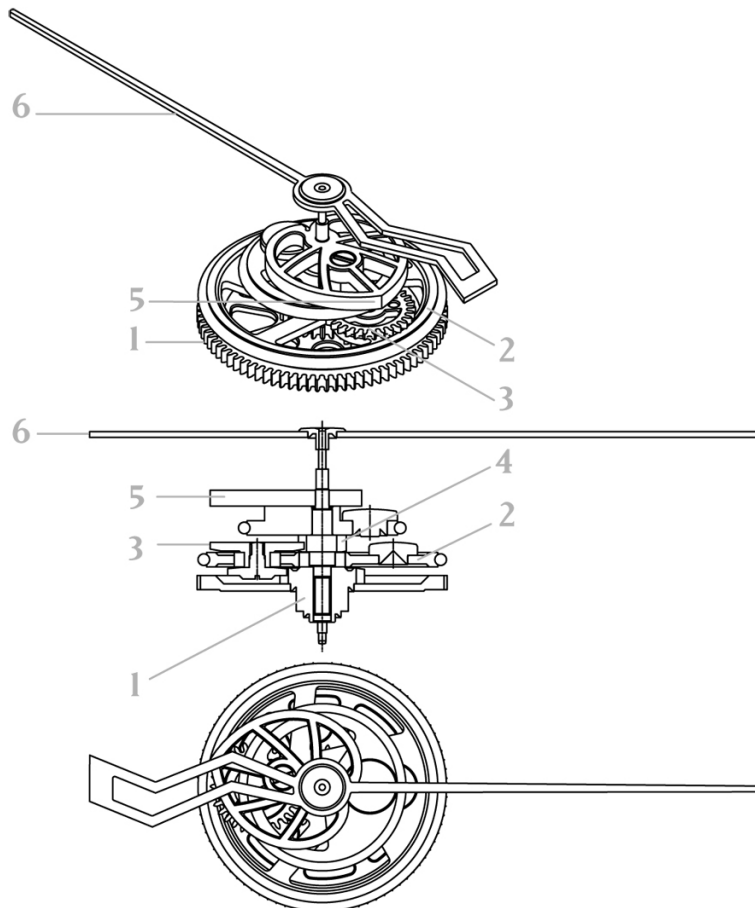
To celebrate this milestone event, Christophe Claret has chosen to use symbolism in order to endow this incomparable timepiece with unique meaning. The DualTow is a concentrated blend of the powerful values linked to this jubilee, including the enthusiasm and strength of youth, the ardent desire to live each moment with matchless intensity, and a resolutely forward-looking attitude. Expressed in watchmaking terms, this determination has resulted in a mechanism that is unique in the world and for which a patent has been filed to protect its revolutionary chronograph system. To lend an even more exclusive luxury touch, the future owner can choose from a broad range of colours to adorn his watch. A commemorative model that is both inherently provocative and unmistakably original, the DualTow is naturally available in a limited edition only, composed of 68 watches – each unique in its kind.

DUALTOW – A COMPLEX MECHANISM

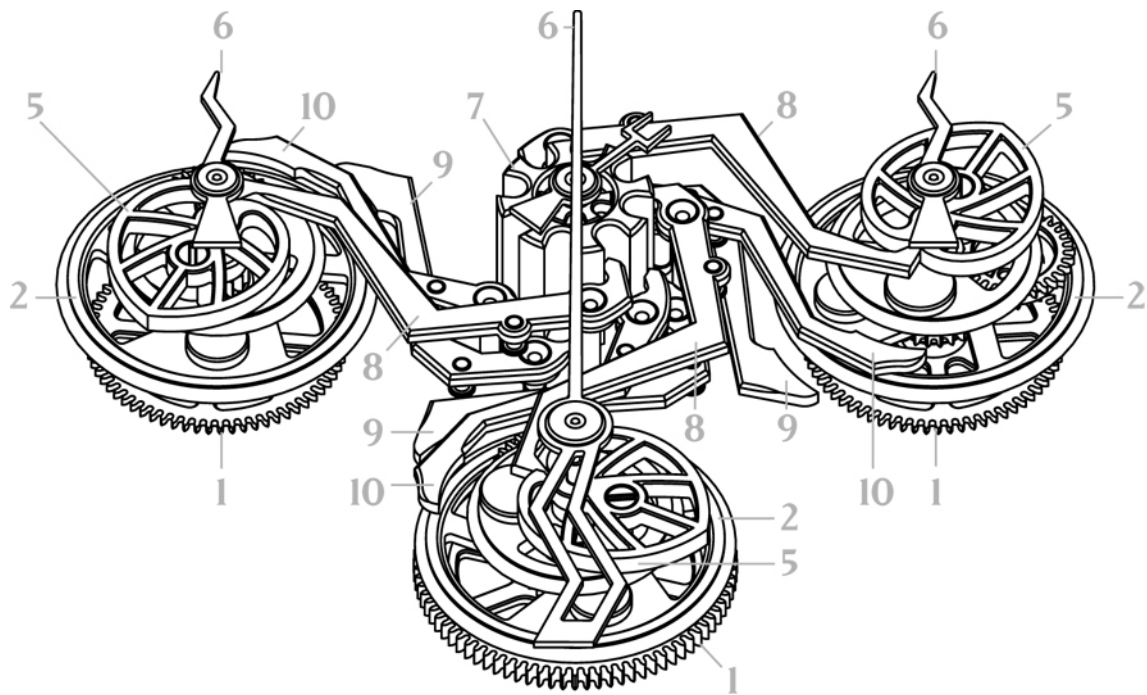
SINGLE-PUSHER PLANETARY-GEAR CHRONOGRAPH WITH STRIKING MECHANISM

The major innovation introduced in the DualTow is its single-pusher chronograph function operating by means of three identically structured planetary gears.

Directly linked to the movement, the continuously driven planetary-gear entry wheel (1) is connected to a satellite-holder (2) pivoting on the arbor of the entry wheel which bears two satellites (3) rotating in turn. Placed on an axis parallel to the entry wheel, the latter mesh with the exit wheel (4) located in the upper part of the satellite-holder. At the top, a cam (5) surmounted by a hand (6) is fixed to the same arbor as the entry wheel, connected to the exit wheel, and serves to reset the chronograph. The entry wheel transmits its movement in two different ways. When the hand rotation is blocked, it drives the satellite-holder which then spins in the void. This operation corresponds to the chronograph stop and reset positions; whereas when the chronograph is in the start position, the satellite-holder is blocked and the rotating motion of the entry wheel is transmitted to the hand.



When the chronograph is activated, the column wheel (7) moves one notch forward and raises the reset hammers (8). The start brakes (9) then drop to block the three satellite- holders (2) and the hands (6) begin turning immediately, since the energy is transmitted from the entry wheels (1) to the exit wheels (4). A second push halts the running of the mechanism. The column wheel moves another notch forward and lifts the start brakes, which releases the satellite-holders. The stop brakes (10) then drop to block a disc connected to the hands. At the third press, the column wheel moves yet another notch forward and the stop brakes lift to release the exit wheel. The hammers then drop onto the cams (5) and cause them to rotate until the hands return to zero. The chronograph cycle is thus complete and the system is ready for another measurement.



An exclusive patent has been filed for this entirely original interpretation of the chronograph, in order to defend the peerless technical qualities of the system. The operational mode of this complication ensures the regular rate of the calibre because the torque required is consistently identical, whatever the position (start, stop or reset). Contrary to a classic chronograph, the movement is thus not subject to any major variations in the amplitude of the balance liable to disturb its rating regularity, an advantage that naturally improves its precision.

Building on this successful innovation, Christophe Claret has chosen to further enhance the refinement of this calibre by adding a striking mechanism signalling the chronograph start, stop and reset operations. Enriched by the considerable expertise acquired by the Manufacture in the field of striking mechanisms and musical movements, it rings out with an exceptionally pure, clear tone. The snail-shaped gong is one of the most sophisticated and delicate to develop and produce.

Expressing their unfailing attention to each and every detail, the watchmaker and his team set the finishing touch to the mechanism by equipping it with a chronograph function indicator. The wearer can at any time keep track of its mode of operation.

Playing on a perfectly symmetrical design, the mechanism features chronograph hour and minute counters displayed on a sapphire crystal. Respectively positioned at 11 and 1 o'clock, they complement the chronograph seconds hand occupying the centre of the watch. This technical and powerful presentation leaves enough space at 12 o'clock to reveal the full chronograph activation system, composed of a column wheel surrounded by levers and hammers serving to drive the chronograph functions. The gentle motion of this flurry of chronograph levers is somewhat reminiscent of a flower fluttering in the breeze. In an ultimate refined detail, these elements are fixed to a component connected to the mainplate, specially developed and called a "barillot" in reference to its shape evoking the cylinder of a revolver.

TOURBILLON

In the history of the Manufacture Christophe Claret, the tourbillon is the second major complication to have been developed and incorporated within extremely complex calibres. To highlight this mastery of one of the most spectacular technical expressions of horological tradition, it is positioned in a clearly visible manner at 6 o'clock. Performing a complete rotation in 60 seconds, it is graced with the distinctive carriage featuring the back-to-back double C motif – the initials of Christophe Claret which have become an immediately recognisable signature of his tourbillon movements.

BELT-TYPE DISPLAY WITH INTEGRATED WINDING SYSTEM

Inspired by caterpillar-track vehicles, Christophe Claret has devised a mechanism enabling an unprecedented display of the hours on the left and the minutes on the right. Placed on either side of the watch, two rubber belts specially developed for the Manufacture feature numerals with a decidedly high-tech design. Above them, a coloured fork fixed to the tourbillon bridge and fitted with a tiny pointer creates a symbolic framework serving to read off the time.

These notched belts are driven by cylinders placed on either end. To intensify the impression of motion, the design of their sides is directly inspired by the wheel rims of the Bugatti T35. Inside, a screw-tightening module enables ultra-precise adjustment ensuring optimally smooth operation. In addition to this mechanism, the minute belt houses a fully integrated winding and time-setting system.

ENERGY

The mechanical hand-wound Calibre CC20A is endowed with an over 50-hour power reserve supplied by two barrels. Lined up in parallel in the centre of the movement, the barrel ratchet-wheels are also reminiscent of Bugatti T35 wheel rims with their eight iconic spokes. An indicator visible on the back of the watch signals the remaining energy available.

FINISHING

Like all the movements developed, fine-tuned and produced by the Manufacture, each part of Calibre CC20A is crafted in accordance with the principles of fine watchmaking. Confirming the prestigious stature of the DualTow, they are bevelled, hand-drawn, mirror-polished and coloured in keeping with the noblest traditions of hand workmanship. Depending on the colours chosen by the customer for his own particular model, the parts are blued, anodised or treated by electroplating.

DUALTOW – UNDENIABLE AESTHETIC APPEAL

DESIGN

The shapes of the DualTow stemmed from a constant flow of sketches and ideas circulating between Christophe Claret and his team. Far from having been elaborated by a single person, this timepiece stems from a creative approach all the more original in that it emanates from a company specialised in movement construction. In this case, an initial fairly classical sketch evolved into a version with a stronger and more virile character. As the sketches were successively adjusted, the early rounded curves gave way to sharper angles and more powerful lines of force, as the very essence of the DualTow gradually emerged.

FRONT

In a stunning alliance between the finest expression of the watchmaking art and a bold projection of the future, the DualTow embodies a wealth of design references. First of all, there are nods to the world of powerful heavy machinery such as diggers and lunar modules with their caterpillar tracks: these vehicles convey an image of rugged strength that is evoked through the belt-type displays.

The concepts of speed and energy are concentrated within the chronograph hands. Featuring sharp, abrupt angles, they appear like bolts of lightning counting off short times, whereas the hour and minute indication is subtly reminiscent of a robot, with the frame displaying the numerals evoking the pincer hand of a futuristic automaton.

An authentic feat of horological architecture, the DualTow reveals its entire interior. On the upper part of the movement, a sapphire dial serves to indicate the chronograph hour and minute count-off, which ensures that no exterior element disturbs the delicate inner workings of the DualTow. This complete transparency affords a striking vision, but also eloquently expresses a sense of life through the palpitations of the tourbillon and the intricate interaction of the brakes and levers when the chronograph is activated.

Representing the culmination of in-depth research, the DualTow features extensive use of sapphire. While this material is extremely hard to work with and constitutes the unique field of activity of certain specialised companies, all the parts used in the DualTow were made in-house, since Christophe Claret has developed his own production tools in order to be able to machine the material. This additional step towards integrating a maximum of operations relating to watch production remains an exception among movement inventors.

Thanks to a perspective effect in the design of the hour-markers, the flange intuitively guides the observer's gaze to the very heart of the watch. Meanwhile, the markers indicating five seconds are cut from gemstones so as to be in harmony with the rest of the watch.

BACK

The case-back is fitted with a sapphire crystal to reveal the under side of the movement. It is secured to the case by dedicated screws. Thanks to this configuration specific to the DualTow, Christophe Claret guarantees the exclusivity of any operations on the heart of the watch, since only his company has the necessary tools.

CASE

The rectangular, curving case provides a magnificent stage-setting for the movement. It is fitted with exclusive mobile lugs enabling fine adjustment to the shape and size of the wearer's wrist, a guarantee of optimal comfort. The right-hand side is graced with a partially rubber-moulded chronograph pusher and the crown. The edges are bevelled and the surfaces satin-brushed or polished to create a shimmering effect. On the left-hand side, a wide opening enables one to admire the set of pulleys driving the hour display belt, whereas a smaller window on the right, between the pusher and crown, affords the same fascinating view.

STRAP

The crocodile leather or rubber strap of the DualTow is equipped with an exclusive adjustable clasp. Composed of three blades, decorative covers and two mobile parts, it enables the wearer to extend it easily by as much as one centimetre. This comfort-enhancing feature proves particularly user-friendly when the wrist is slightly swollen at the end of the day and makes it easy to adjust to ensure the fit is "just right".

UNLIMITED COLOURS

The DualTow shows a different face on each of these unique watches. In step with current demand and the new luxury codes that give customers the freedom of inventing their own version of an object, Christophe Claret offers them a chance to personalise their own DualTow. Thanks to a “configurator” available on the dedicated www.dualtow.ch website, all prospective clients can play with a large range of colours and express their own version of the model. The mainplate, for example, is available in a choice of rhodium-plated, 4N gold-plated or black gold-plated versions. The hands, the tourbillon bridge and the screws holding the sapphire dial, the hour and minute display forks as well as the differential gear elements are all available in a wide variety of colours. The components featuring rubber – meaning the belt strips, the pusher and the crown – all offer the same possibilities. From pistachio green to bright red, midnight blue or ivory, each DualTow is thus totally and unmistakably unique.

DUALTOW

SINGLE-PUSHER PLANETARY-GEAR CHRONOGRAPH WITH STRIKING MECHANISM

MOVEMENT:

Dimensions: 32.60 x 40 x 10.70 mm

Number of parts: 568

Number of jewels: 65, 8 ball-bearings

Power Reserve: Around 60 hours

Barrels: Twin barrels placed in parallel

Tourbillon:

- Swiss lever escapement
- Balance oscillation frequency: 3 Hz (21,600 vph)
- Tourbillon rotation frequency : 1 revolution/minute

Functions:

- Hour and minute display on belts
- Single-pusher planetary-gear chronograph
- Mechanical striking mechanism sounding each change of function (start, stop and reset)
- 12-hour, 60-minute and 60-second chronograph counters
- Operating mode indicator of the chronograph
- Mechanical hand-wound movement
- Power-Reserve display

DUALTOW

SINGLE-PUSHER PLANETARY-GEAR CHRONOGRAPH WITH STRIKING MECHANISM

EXTERIOR:

| | |
|----------------------------|--|
| Case: | <ul style="list-style-type: none">- Watch glasses specially designed and manufactured to ensure an ergonomic fit- Rectangular, curving; fitted with exclusive mobile lugs enabling a perfect fit on the wrist- Dimensions : 42.75 x 48.20 x 15.85 mm (not counting the lugs)- Water Resistant: 3 ATM or 30 metres |
| Display belts: | In rubber with transferred hour and minute numerals |
| Flange: | Flange with chronograph 5 seconds markers cut from five different stones |
| Dynamometric crown: | Crown fitted with an unclicking device at the end of the winding process, which serves to preserve the movement from excessive tension |
| Pusher: | Partially rubber-moulded |
| Dial: | Sapphire crystal serving as a bridge for the chronograph counters and featuring transferred chronograph hour and minute counters, chronograph operating mode, Christophe Claret brand name and 'Swiss Made' indication |
| Buckle: | Triple-blade folding clasp with decorative covers and an innovative system enabling comfort-enhancing 10 mm wrist extension |
| Quantity: | Limited edition of 68 timepieces; each unique |

The majority of components such as the case, bridges, mainplate, hands, display belts, pusher and wristband can be personalised using the "DualTow Configurator" on www.dualtow.ch.