The Omega Constellation Gene Pool

The Beginnings

Some collectors point to the 30T2 RG as the legitimate parent of the Omega Constellation. Certainly, the 30 T series through its success at Observatory competitions in the thirties and forties sparked the beginning of Omega’s stellar reputation in chronometer production, but arguably it was the creation of the early series of automatic calibres that provided the bulk of the genetic material for what is now regarded as some of the greatest production watch models in the history of horology.

The story of the automatic wrist watch dates back to the late 1770s, however the first commercially available automatic watch was created by a British horologist from the Isle of Man, John Harwood.

Harwood (pictured left) patented the design of an automatic winding movement in Switzerland in 1924. He struck up a business relationship with Fortis, ebauche maker A Schild SA and others. At the Basel Fair of 1926, it was the Fortis name, and not that of Harwood, heralding the introduction of the first mass-produced automatic wrist watch ever to grace the Basel stands.

Harwood's automatic solved a number of significant design issues, however, a confluence of manufacturing problems and the onset of the Great Depression put paid to successful exploitation of his creation.

Omega scion, Paul-Emile Brandt, fortuitously rejected entreaties by Harwood to participate in the commercialisation of his automatic movement. But, despite the later success by Rolex in producing the world’s first bi-directional winding system in the early 1930s (and an aborted in-house attempt by Omega engineers to design an automatic system using hinged lugs), Brandt continued to resist Omega’s entry into commercial automatic watch production for more than 15 years. Stubbornness overtook commercial sensibilities, reflected in Brandt’s reported and ongoing view that if people were “too lazy to wind their watches every day then we should stop producing watches”.

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By 1942, Brandt had realised, largely by observing the success of Rolex, that the automatic movement was here to stay. He commissioned Charles Perregaux to lead an Omega team in the design and production of two automatic calibres, a 28.10mm and a larger 30.10mm model. These two calibres were unveiled in July and September 1943 and marked the beginning of an extraordinary period of innovation and growth of the Omega brand.

**The 28.10 and 30.10 Calibres**

In many ways, the Rolex patent on its automatic winding system was an added fillip to Perregaux and technical director, Henri Gerber, because it led to the design of more durable and effective automatic movements. For example, in avoiding the patented bi-directional system, Perregaux's team created an oscillating weight that was stronger, heavier and thus very robust. Springs (see opposite at twenty to twenty five past) impeded the rotation of the oscillator and permitted the movement to be wound in only one direction.

Omega compensated for the recurring shocks on the movement and case caused by the oscillating weight by inventing an exceptionally sturdy means of fixing the movement. The movement slid into a lateral pin on one side and was fixed by a large screw that held a supporting tongue. This system prevented movement instability that could be caused by small screws unwinding because of the constant shocks of the oscillator.

A further benefit of the ‘bumper’ system, so named because of the gentle thud that could be felt on the wrist as the weight hit the buffers, was the seating of the rotor well down into the movement and this facilitated in the 28.10 and 30.10 movements heights of less than 5mm, comparable to the most advanced hand wind movements of the time.

The development team also made a technical decision to increase the beat rate from the standard 18,000 beats to 19,800 beats per hour, creating one of the first ever ‘fast-beat’ automatic movement series. This increase in frequency is partially responsible for the bumpers’ reputation as an extremely stable and accurate family of movements.

Omega launched both series in 1943 with the 30.10 being housed in case 2374 and the 28.10 set in case 2375, both available in various metals and price points. These models were marketed aggressively around the globe as the “thinnest automatic watch available in the world today”. Thus began Omega’s rise to the top of the production watch genre.

Overleaf is a pictorial chart showing the evolution of both calibres through to the RG versions that featured in the later Omega Centenary models.

Evolution of Calibre 330 - first ever 30.10 calibre through to calibre 333 which powered the second iteration of the 2500 Omega Centenary

Evolution of the Calibre 340 – first ever 28.10 calibre through to calibre 343 which powered the second release of the smaller 2499 Centenary and calibre 344 the first swan neck regulator automatic chronometer movement in the series
30.10 Series

The larger 30.10 calibres 330 to 333 were not used as extensively as their 28.10 counterpart. Calibre 330 (marked 30.10 RA PC) experienced a relatively short production run, manufacture ceasing in around 1950, although the chronometer version with RG regulator powered a sub second model up until 1958. And, of course, the JUB 30.10 RA PC “deluxe” version (calibre 331 - production of 4000 pieces only) and later RG version calibre 333 were the power source for the ‘Large Format’ Centenary models, which we will cover separately. The only versions that had the three digit calibre numbers stamped on the movement were calibre 332, released in 1950, and calibre 333.

The 30.10 calibre also featured in an early Seamaster model 2493 and a solid gold Omega Tresor (translated “treasure”) in 1951. A total of 146,200 pieces of the 30.10 family were made, a drop in the ocean compared with the prodigious 28.10 calibres.

The apex of production of the 30.10 series was the calibre 333, featuring what Omega described in technical brochures designed to appeal to watch-maker/retailers as a “luxury finish”. This calibre, as mentioned earlier, powered the later wave of Centenary models, some larger Seamasters and also a series of ‘Omega Automatic’ models that were produced into the 1950s.

28.10 Series

This famous series of movements began with the introduction of the base calibre 340 (Always stamped 28.10 RA PC) and evolved over a period of years to the final calibre in the series, calibre 355. In its various guises, more than 1,199,000 pieces of the 28.10 family were produced, a testament to Omega’s growing post-war importance as a high-value watch manufacturer.

The 28.10, at 4.8mm high, was sized ideally for the times. Larger formatted watches were not as popular as smaller watches. Standard sizes were from 30 – 34 millimetres in diameter. This fashion continued into the 1960s and even later with ultra, ultra thin dress watches on average sized at around 32mm.

The 28.10 PC RA (calibre 340) powered a range of models in all metals from 1943 to 1958, notable amongst them the early ‘no-name’ Seamaster in case 2491.
The first chronometer of the 28.10 series was the 28.10 RA JUB (seen opposite) finished to a deluxe standard and selected to power the smaller format 2499 Centenary in 1948. Known as the calibre 341, but not stamped as such, only 2000 pieces of this exposed springs model were produced.

Calibre 342 (28.10 T1 RA PC) was the first of the series with covered springs, which were inserted into rectangular apertures and secured by the bottom plate of the winding mechanism. Together with the calibre 340, it was a mainstay of Omega’s entry level and less pricey collections and powered a range of automatics and Seamasters.

The Calibre 343 “luxury Finish” chronometer movement (seen opposite below), of which only 5000 pieces were produced, was used in the second production of case 2499 Centenary models as well as Seamaster and Automatic chronometers. Calibre 343 was the first 28.10 to feature what is commonly described as an RG regulator (seen below), an import from the famous 30 T2 RG hand wound chronometer series. This regulator, combined with a particular regime of cosmetic finish, higher levels of functional finish, topmost quality control on parts used and adjustment to chronometer standard forms the basis of the ‘Luxury Finish’ definition.

Calibre 344 (28.10 T2 RA PC RG) was the first in the series to feature a swan neck regulator as seen opposite. While many collectors describe the large screw index regulator as RG, Omega nomenclature makes no such distinction and uses the term to describe any index regulator. This calibre was introduced in 1953 and a total of 140,000 pieces were produced, some of which were chronometers. This calibre was the forerunner to Constellation calibres 352 and 354.
Luxury Finish

It must be remembered that during the period of the “Luxury Finish” automatic models Omega was ramping up its post-war assault on major global markets. The cessation of hostilities brought with it a flood of orders, and to meet them the company undertook a massive expansion program of its manufacturing facilities in Bienne and an equally impressive drive to improve both the technical quality and design of its products. With such large sums of money being invested in state of the art plant and quality control systems, the company conceived an aggressive global marketing strategy to ensure it gained a good return on its investment.

The partnership of technical director, Henry Gerber, Rene Bannwart, first head of creations, and sales director, Adolphe Vallat, represented Swiss mercantilism at its best. It culminated in Omega's first fully coordinated and targeted global campaign launched in late 1947 to capitalise on its vastly increased manufacturing capacity.

To gain substantial increases in market share Omega had to win over both retailers and consumers. In the 1940s to the 1960s the vast majority of retailers were family establishments of watchmakers and jewellers who retailed a number of different watch brands. It was important for Omega to be able to impress such technical specialists with both movement aesthetics and technical excellence. It followed that winning over watchmaker/retailers would convert into recommendations to the buying public.

As far as I can establish, “Luxury Finish” was as much about aesthetics and product differentiation as it was about technical excellence and functional finish. In promoting luxury finish to the retail sector, Omega was essentially creating a unique selling proposition as part of its strategy to gain an edge over the competition. And so, it could be argued, that “Luxury Finish” (first appearing in the 30 T2 RG) was designed to make a visual statement about the inherent quality of its product to those who had inspection access to the movements, namely watchmaker/retailers and others who knew their way around competing brands.

In comparing a calibre 344 (left) with a calibre 343 RG (right) the key differences are in cosmetic finish of the ratchet wheel and the presence of the so-called RG regulator. In later versions of the deluxe finish 28.10 such as the calibre 354, both the crown and ratchet wheels were snailed. The earlier luxury finish ratchet wheels featured a black polished centre and a beautifully machined outer rim, while the crown wheel was two tone. However, functional finish is where it counts. The functional finish on the luxury calibres from 344 onwards is top rate and, given Omega's transition into its new 'high-tech' factory in 1948, one argument that has found favour in some quarters is that precision, functional finish, parts selection and overall quality improved. Basically, while the earlier luxury finish movements were prettier, they certainly weren't any better.
**RG Regulators**

As mentioned above, RG regulators were also associated post-war with Omega’s luxury finish positioning, having first appeared on the 30 T2 RG IN 1943. There is no doubting the aesthetic appeal of the large screw index regulator and this may have driven many a collector to own one. Movements with RG regulators are well sought-after both in the 30T line and the automatic calibres. They fetch a premium, and in many cases the premium is justified owing to the scarcity of such calibres in some Omega models.

The combination of deluxe finish and RG regulator is most alluring particularly if one’s collection is based on models featuring what had been described as the “Omega System”. Given that most of the Omega system is cosmetic and believed to have been designed as an aesthetic and product differentiation statement to those technicians who had easy access to the power plant, the question remains as to whether they add anything of technical significance to a movement. I posed that question on watch forums, to specialist watchmakers and to a small network of Omega agents over a period of months and I could find no expert or indeed informed amateur who would claim that RG regulators contributed to the technical performance of a watch in any significant way over other methods.

While a number of experts waxed lyrical on the design of both the 28.10 and 30 T2, citing quality of construction, ease of assembly and amazing robustness (in the 30T2s case, there was general agreement that it was one of the best designed hand wound production movements of all time), no-one cited the RG regulator as worthy of particular mention. In fact, the general consensus was that, given Omega used a simple regulator arm on all of its competition chronometers, the RG regulator was superfluous to overall performance.

There was a general view that RG regulators were not as efficient as swan neck regulators. It was argued that swan neck regulators allow for much finer adjustment and less chance of the adjustment going “out of whack” because of end shake of the adjustment screw thread. RG regulators were generally considered the ‘cruder’, albeit more visually appealing option and there was quite enthusiastic support amongst the Omega agents and specialists I consulted for the idea that the calibre 354 chronometer with swan neck regulator represented the pinnacle of functional finish, precision and technical excellence in the 28.10 family of calibres.
**Omega Centenary**

The Omega Centenary Collection was the first series of chronometer grade production automatic movements produced by Omega. The concept and case design came from René Bannwort, Omega’s Head of the Creation department. Originally intended as a limited edition to celebrate 100 years of Omega history (1848 – 1948), the success of this series with retailers, knowledgeable collectors and watch enthusiasts caused Omega to reconsider. The upshot was that Omega trialled a second ‘batch’ of 28.10 and 30.10 centenary models in a luxury finish format, again to great acclaim.

As outlined in previous pages, it was the earlier 28.10 calibres that were direct antecedents to the first Omega Constellation models. So it can be said with some authority that the bulk of the genetic material for the first Omega Constellation models came from calibre 341, the chronometer version of the base calibre 340. While the 30.10 calibres 331 and 333 series did their job in promoting Omega chronometers to the world, they were selected out and ultimately died a peaceful and highly respectable death.

Below is a table that details the influence of the 30.10 and shows the 28.10 as the winner of the quest for honours as Omega’s Ambassador of Precision, Reliability and Aesthetics under the Constellation banner.

<table>
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<tr>
<th>Calibre</th>
<th>Calibre Number</th>
<th>Springs</th>
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<th>Chronometer</th>
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<tr>
<td>30.10 RA PC AM JUB</td>
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**Collectibility**

Any Omega Centenary is collectible; however it appears that the most sough-after Centenary models are the calibre 331 and calibre 341, most particularly the 28.10 RA PC JUB AM (calibre 341) because of the limited numbers produced. These are the scarcest of all of the Centenary models. There is real interest and support in calibres 333 and 343 because of the RG regulating system and, again, given attrition and demand these latter calibres can be considered to be at least decidedly uncommon.

Calibre 30.10 JUB and 333 Centenary models that have the engraving on the outer case back (see opposite) are in high demand because of the engraving, its highly wearable 35mm case and the RG system of regulation. No 28.10 model features the Centenary engraving. Some may consider the 33mm case of the 28.10 models a little small, however even on a 7 ½” they are not overwhelmed, in my opinion.

Most but not all Omega Centenary models came with a sterling silver presentation box. Some of the first release versions came with a wooden box covered with red leather (seen overleaf housing a 30.10 JUB). Many of the silver boxes were produced by the Swiss manufacturer, Jezler, and all originally came with a rating certificate (overleaf also)
Jezler silver box and Omega Chronometer Testing Certificate showing results of testing in five positions. Courtesy Douglas Gravina
The silver presentation box housed an inner soft box with a padded lid, both of which were covered with a bone coloured silken material. The box was lined with a soft velvet pad featuring a slot where the watch band was inserted and under which watch papers could be stored.
Dials, Hands and Markers

As deluxe execution models, all 28.10 and 30.10 dials are solid 18k gold. This offers benefits, apart from the obvious luxury of a gold dial. Quite often the dial lacquer degrades and discolours, and, being unaware of other options, some collectors consider refinishing the dial. With many gold Omega dials, the chapter ring and lettering was first embossed (a raised form of printing) on to the polished or brushed dial surface. Then, a layer of lacquer was applied over the printing and left to dry. The final part of the process was to carefully hand rivet the dial furniture and machine each rivet on the underside of the dial to eliminate any microscopic particles that could potentially fall into the movement.

By reversing the above procedure and carefully removing the dial furniture, the old lacquer may be removed with special chemicals that do not eliminate the embossed lettering and chapter ring. A new coat of lacquer may then be applied and the markets and Omega symbol can then re-riveted by hand without the use of any form of glue. There are a number of bona fide restorers who can complete this process, perhaps the most notable is Sonny Dewan of Miami Beach in Florida.

2500 Dial Style

The standard dial furniture for case 2500 is Omega symbol, polished gold Arabic numbers at 12 and 6 o’clock, diamond shaped and faceted hour markers and thin polished arrowhead markers at 3 and 9 o’clock. The chapter ring is double lined with the minute indices contained within the lines. Swiss Made will usually appear set between the chapter ring and the sub dial, as shown in the examples that follow. I have seen a 2500 with Swiss printed below the 6 o’clock marker and the example in the French advertisement on the following page appears to confirm that it was a bona fide variation.

Overall, there appears to be quite a degree of consistency in the dials of the earlier 30.10 JUB models and the later calibre 333 models. The accent over the E in the word chronometre, however, varies, and there appears to be no noticeable rule that can be applied, save that the accent may have been reserved for Swiss and French speaking countries.

2499 Dial Styles

The earlier 28.10 JUB dials more than often feature Arabic numerals at 12 o’clock, diamond shaped and faceted hour markers, arrowhead markers at 3 and 9 o’clock and the Omega symbol. The earlier models usually feature a two line chapter ring very similar to those found on the 2500 dials. The sub-dial is circular guilloche and each minute is usually marked out. Swiss will normally appear below the chapter ring at 6 o’clock.

Later 2499 calibre 343 models will often have a singular line chapter ring in which the indices are divided equally by the line. Later models also appear to consistently feature beautifully wrought Gothic style numerals at 12 o’clock, hexagonal faceted hour markers, faceted boat-shaped markers at 3 and 9 o’clock with no marker at 6 o’clock. The circular guilloche sub second dial is only marked at five minute intervals. Swiss will appear consistently at under the chapter ring at 6 o’clock.

The hands on all Centenary models are consistently faceted dauphine style hands with an index hand on the sub-dial.

Featured on the ensuing pages are a range of models in various states of condition, along with advertisements of the time. Some are from my collection and others are from the collections of PhilC, MikeN, SteveG, BobG and others. My thanks to all who agreed over the past couple of years to my requests to use their pics. This essay has been a long time coming, largely owing to the fact that I wanted to confirm various avenues of research, particularly that pertaining to the technical aspects of various regulation systems.
Les deux célèbres modèles Omega, le chronomètre 30 mm, et l'Automatic, ont servi de base à la création de ce chef-d'œuvre de la technique horlogère. D'un modèle exclusif, manufacturée en nombre limité, sa précision est digne de ses qualités techniques : boîtier en or 18 ct., cadran en or massif couleur naturelle, chiffres et aiguilles en or massif à facettes lapidées, boucle en or 18 ct. Chaque Omega Centenary quittant nos usines est accompagnée d'un bulletin de marche attestant ses hautes qualités de précision.

Un siècle à la recherche de la perfection

La maison Louis Brandt – aujourd'hui Omega Louis Brandt et Frère S. A. – commémore cette année le centième anniversaire de sa fondation. À cette occasion, elle se fait un plaisir de vous présenter ses quatre plus célèbres modèles qui ont fait la renommée de la marque Omega et contribué au prestige dont jouit l'industrie horlogère suisse.
The rarest Centenary of all. 18k pink gold twisted lug model 2657 produced for the Philippines only Calibre 30.10 JUB. Courtesy Omega Museum
Case 2499 28.10 Series First Generation

Celebrating a century of distinguished watchmaking

Only one man in 100,000 can own an Omega

CENTENARY

the world’s finest self-winding chronometer

Newest marvel of Omega watchmaking skill—the Centenary... significant symbol of Omega's first century of achievement. For the Centenary combines remarkable features of two world-famous timepieces...the Omega Automatic, the thinnest highly precise self-winding wristwatch made today... and the Omega Chronometer, whose amazing movement consistently since 1933 has held the world's highest awards for wristwatch accuracy! This movement now holds highest accuracy awards simultaneously at the British National and Geneva Observatories... and recently won highest honors at the 1948 Neuchâtel International Centenary Contest.

Little wonder that jewelers everywhere are acclaiming the Centenary the most exciting wristwatch available today!

There are just 750 of the Omega Centenary in the country... a watch destined to be prized by men who are leaders of our time.

As befits such a treasure, the Omega Centenary has been wrought in 18K gold... case, dial, lapped numerals, hands—even the symbolic ornament buckling the strap is of 18K gold. Encased in a silver presentation box, itself a lasting possession. Complete, $450, Federal tax incl.

1848 1948

Official, exclusive timer of the 1948 Olympics

OMEGA

FIFTH AVENUE • NEW YORK

Case 2499 Calibre 343 Second Generation Series

Watch with a Pedigree

Centenary

Only a limited number of these fabulous watches have been made, incorporating every improvement known to the watchmaking art for beauty, accuracy and endurance. The Centenary is automatic, and contains the Omega chronometer movement, unchallenged holder of the world’s accuracy record. Each bears its own rating certificate – proof that it has successfully passed incredibly grueling tests with flying colors.

Each wonderfully thin case is of 18K gold, with 18K gold face and applied figure dial. The Centenary is shock-resistant and anti-magnetic. In magnificently designed sterling silver presentation box, $450, Federal tax included.

Ω
World Renowned Symbol of Accuracy

Omega