

COLLECTING IWC WATCHES WITH PELLATON WINDING SYSTEM.

A personal story

By: Martijn Bonthond.

Introduction

In this article I want to give some insight in my passion for IWC watches, in particular the 85x calibers, equipped with the so called “Pellaton” automatic winding system. I want to show you some of these watches and how they came one by one in my collection. I describe the watches as I see them, providing technical details about movement, case, strap and year of production. I have made standard pictures making it easier to compare the watches.

As an IWC aficionado I like to know the stories behind watches. I want to know how a collector hunts and finds a watch and why he likes a model in particular.

Maybe some of you know me from the IWC forum and maybe you have seen most of these watches posted on the forum. However the compilation of my “Pellaton” watches might be interesting to you.

Me and IWC

I came across the brand in 1989 when I saw an article on the Da Vinci in a magazine for young technicians. The article discussed how IWC played an innovative role in the renewal of watch design and function. Ceramic watches and waterproof systems were displayed and as a boy of 14 years old I could not keep my eyes off these watches.

When my father and I saw the advertising of the Mark XII, we both decided that this was the perfect watch. Seven years later, in 1996 I bought my first IWC. I got a steel Portofino while my father received a golden Portofino for his 50 th birthday. I thought that I was done with watches. However, years later I found out that the Portofino was only the start of it!



When the internet came around, I started to learn about watches and their collectors. I browsed on Timezone and later on my favorite website: the IWC forum. I initially learned about the current models and later about the vintage pieces which were more appealing to me. Because I had no on-line computer, I missed a lot of auctions where it may be critical to be around during the last minutes. I found out that the Portofino has an ETA movement and I was disappointed that it had not a in-house IWC movement. Later I learned that IWC

improves and modifies the ETA movements to a large extent and I got over the trauma. Right now I adore the Cousteau Divers, the Ocean 2000 and the Portofino Perpetual, all being superb IWC products.

But to get back to the cal. 85x, I noticed that independent watch experts qualified the “Pellaton” movement as one of the best automatic movements ever made. This ingenious bi-directional automatic winding system did not need much service. The cal.85x’s carried out what they had to do: run and be accurate. Moreover these movements were built in extra sturdy cases and the watches had a “name”. The Aquatimer line was the first that was appealing to me. Later came the Ingenieur as an icon watch.

Me and the cal. 85x

When I got interested IWC had only two watches in their current collection that had a Pellaton movement. They had gold cases so were not the watches that I was looking for. It all started with calibre 85 and moved from the calibre 852 to the calibre 8541 which is the most evaluated type. In those movements the basic mechanism of winding the movement was untouched. Parts that were changed were: regulation, the barrel, materials used for parts and finally the diameter of the movement. If you want to read more on the history and technical part of the movement I want to address to you to another classic article: [IWC's Great Automatic Movements: The Calibre 85 Family -- by Michael Friedberg](#)



Albert Pellaton

Albert Pellaton was the technical director of IWC from 1944-1966. He was a real perfectionist. It was told that he was not all the time at the drawing desk but he went twice a day through the factory to examine the work done by the watchmakers. If something was not perfect he used to wait until it was 100 % to his satisfaction. On the other hand he was described as a very human director. When he started to work for IWC, the main entrance of

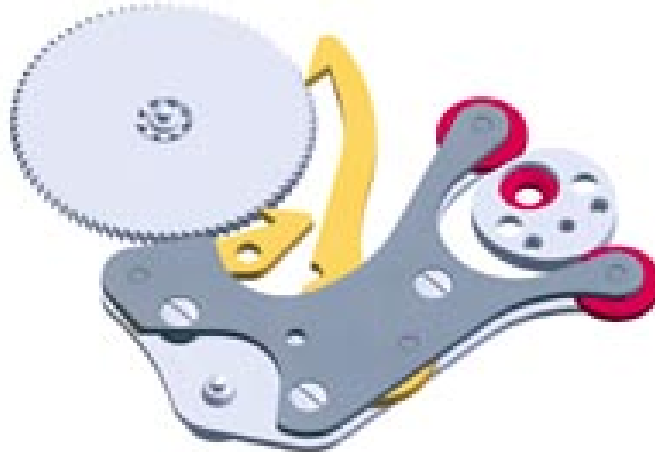
the building was reserved for the executives while the workers had to take another entrance. Albert Pellaton did not like that and the door of his own office was always open for any of the employees. So the workers came in and showed him the products they made. The first landmark movement designed by Pellaton was the legendary caliber 89 known from elegant dress watches and from the famous Mark 11. The next highlight was the almost perfect Cal.85. This watch was equipped with the “Pellaton” system. The production of cal.85 started in 1950 while the first Ingenieur was built in 1956. The first ladies “Pellaton” driven watch was cal. 44. This watch was created in 1959. Quality of the products was top priority for Albert Pellaton and I believe that the recognition of his important contribution by the watch industry is the crown on his work.



Two inventions from Albert Pellaton a cal 89 Mark XI and a Yacht club cal 8541

Pellaton movement

To explain how the movement works I want to quote Michael Friedberg, because it's difficult to explain: *'This movement used the now famous Pellaton winding system, in which rollers (shown at left in red) oscillate between an eccentric cam, which causes two clicks (shown in yellow) to ratchet against a saw-toothed winding wheel. The system had many advantages: it was easy to disassemble for service and it offered shock resistance. It also was efficient in winding, both because of the ingenious design and because two jewels could be used as bearings due to the shock resistance. While the mechanism was unique to IWC and patented, its concepts had antecedents'*



The heart of the Pellaton movement

Link to the IWC Calibre 85 Movement Family: [Calibre 85 Movement Family Chart](#)

My first Pellaton IWC: Aquatimer ref. 816 1972: cal. 8541; sold in Benguela (Angola)

I remember very well purchasing it on Ebay in 1999. In those days the Aquatimer was less popular than it is now. This one had a red dial and this dial color was not the fashion of the time. After my first IWC (Portofino) I now wanted an in-house movement. Moreover, I liked the rotating inner bezel and the 2 crowns. Already in 1999 this watch was quite rare. Purchased by me from a Canadian seller, this timepiece had traveled around the world as it was for the first time sold to a very unusual and remote place: Benguela, Angola. When it is on my wrist, I admire the depth that one can see focusing on the dial and I dream about the adventures that this watch must have been part of. It winds very smooth and although I have not serviced it.....it starts and never stops. The watch came with its original metal bracelet. The bracelet can be adjusted without any tools, making it easy to wear the Aquatimer on the bare wrist or over a diving suit. I also have for this watch a brown leather strap and I believe it gives the watch a rather modern look. For quite some time it was together with a cal.89 the only vintage watch I had. I got addicted to vintage IWC's!



The watch came with its original bracelet. It has a system that without any tools the bracelet can be adjusted before diving (so it fits over a diving suit). This was for quite some time, together with a cal 89, my only vintage. The watch got a lot of wrist time and especially the brown strap gave it a more modern look.

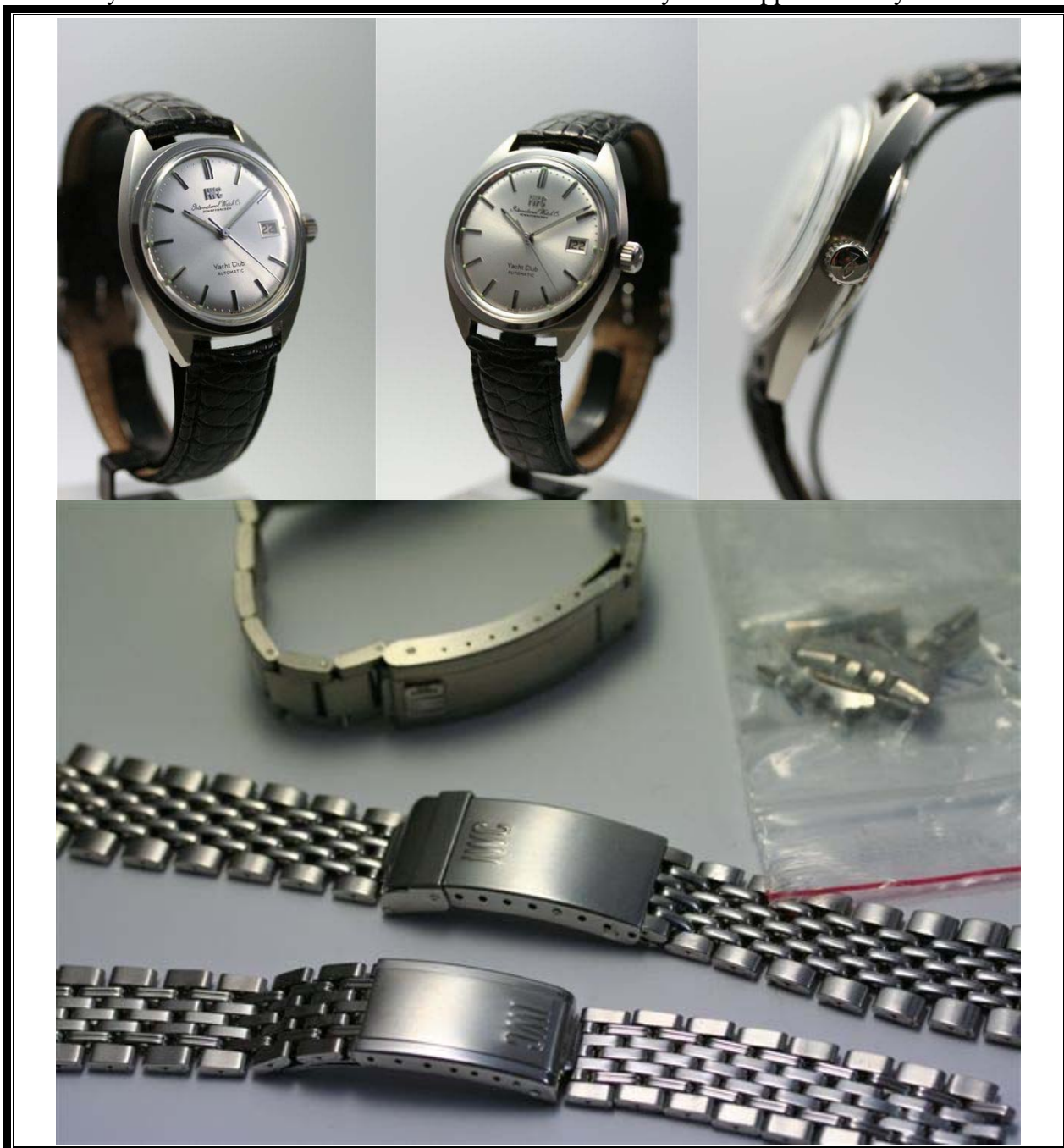
[Dealer sheet Aquatimer](#)

My second Pellaton IWC: Yacht Club 1811 1975: cal 8541; sold in Sydney (Australia)

This watch also came from Ebay but from the other end of the world: Australia. It took me several years to find one that I liked but its condition was not good. Previously, I had experienced that a watch serviced in Schaffhausen came back as if it was brand new. So, I bought it and also this one has been restored in a perfect way. It is very comfortable on the wrist. Later I purchased a NOS bracelet and I believe that this strap gives the watch a perfect look.

The Yacht Club is famous and loved for its sturdiness. The movement is protected by a metal ring in early copies while in later models rubber buffers were applied. The original dial was

grey but this was not longer available. IWC contacted me whether I wanted a silver or a blue dial but than I preferred to keep the original grey dial until I perhaps bump in to a grey one. The way collectors are contacted from Schaffhausen is very much appreciated by me.



Some bracelet variants: Rice beads and Oyster.

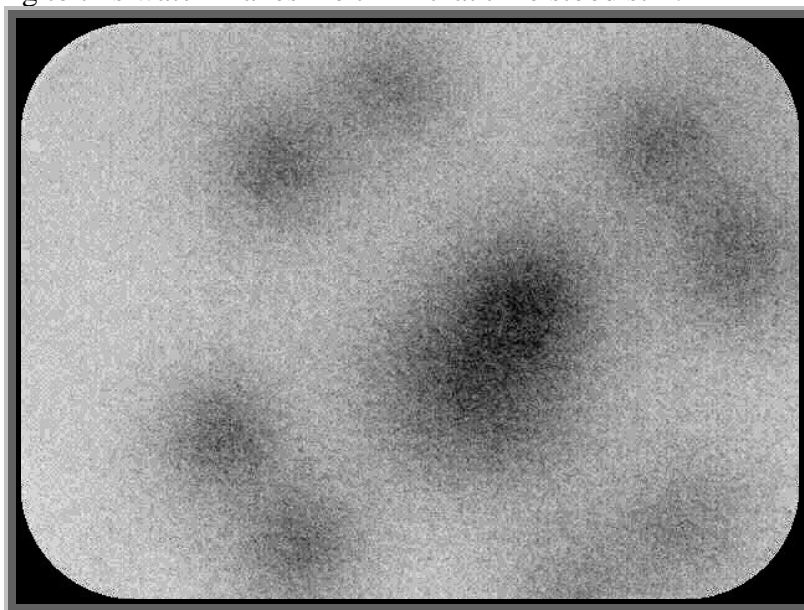


This is how it came from Australia..... Before restoration.

[Dealer sheet Yacht club](#)

My third pellaton IWC: Ingenieur ref. 766A 1956: cal. 852; no further details available

I ran into this Ingenieur when I visited a well-known dealer of vintage watches. I needed no time to consider. It has a very rare dial and relatively short hands. It has been pictured in an old brochure on Ingenieurs but it is the only one that I have seen in reality. I thought that the dial had Radium dots. After 1968 IWC never used Radium on their dials. This proves this is an unrestored dial. An X-ray exposed to the dial, shows radiation effect which is nearly impossible for a Tritium dial. The watch has a 14 KT golden case and it has never been polished. Looking to this watch makes me think that time stood still.



Developed x-ray. Dark is where the radium dots/ hands are





[Folder of the Ingenieur same dial](#)

My fourth pellaton IWC: Yacht club ref. 811 AD; 1967:cal. 8541; Sigg Zurich (Swiss)

Having one Yacht Club which was rather recent, the wish remained to own one from the early versions with a slate grey dial. This grey dialed Yacht Club dates from the year it debuted: 1967. Here you can see the older way of protecting the movement against shocks: a metal ring around the movement. In later models the same principle has been used but with a much smaller ring. I have noticed that this ring is also present in the Golf Club, the Polo Club and the Ingenieur ref. 1832. It took only a few years for the Yacht Club to become the best selling IWC ever. I consider this a typical IWC no nonsense watch with a timeless design. Later I found a NOS oyster IWC bracelet to make it complete.





First generation Yacht club movement



'second edition, small ring'



'first edition, large ring' see red circles

[Dealer sheet Yacht club](#)

My fifth pellaton IWC: Golf Club ref. 1829; 1980: cal. 8541; Moliver Sidney (Australia)

After these 4 watches I was still hungry. Via the internet more and more vintage articles showed up. I learned that the designer of the Ingenieur 1832(Jumbo) was Gerald Genta and that he also developed the outlook for the Golf Club and the Polo Club. While the Polo is much rarer and more expensive, the Golf Club is the most beautiful in my opinion. For me the case from the Jumbo and the Golf Club are equally appealing. Stefanie, my wife, considers the Golf Club as one of the nicest watches. I bought it in Germany and the seller claimed that this piece had been owned by an employee of IWC. The watch was in Mint condition and came with a lovely white leather box but without papers.

Some of the Golf Clubs have their name engraved on the case back while others have a plain case back. The Golf Club is not a large watch but it is quite thick making it a nice time piece

to wear. It has not must wrist time as I want to preserve its pristine condition, but I wear every watch I own.

Ref. 1929 [dealer sheet Golf club](#) and ref. 1829 [dealer sheet Golf Club](#)



My sixth pellaton IWC: Aquatimer ref. 1812; 1976: cal. 8541; Frankfurt am Mein (Germany)

This gem was on top of my priority list. I failed to buy one on eBay in 1999 due to the limitations of my computer as described previously. As time passed I saw occasionally one come by .They were offered by respected dealers at fast rising prices. This watch still intrigues me as it did from the start. The case design, dial and huge crowns make this watch the ultimate sports watch. From every angle that I look at to this watch: it never bores me. I was really lucky that a fellow collector wanted to sell it. I am still grateful for that.

This Aquatimer has a submarine engraved on the case back. The dial looks as new and the outer ring has radioluminescent material that lights up perfectly in the dark. Needless to say: that it runs flawlessly.





[Dealer sheet Aquatimer](#)

My seventh Pellaton IWC: Ingenieur ref. 1832; 1979:cal. 8541; Frankfurt

After the introduction of the new Ingenieur in 2005, I realized that I needed a Jumbo. At the SIHH 2005, there were quite a number of collectors wearing this famous IWC icon watch. Less than 600 pieces have been made. I am sorry to not be able to show more pictures now. This is because the Jumbo is for restoration in Schaffhausen for the moment.



[Dealer sheet Ingenieur 1832](#)

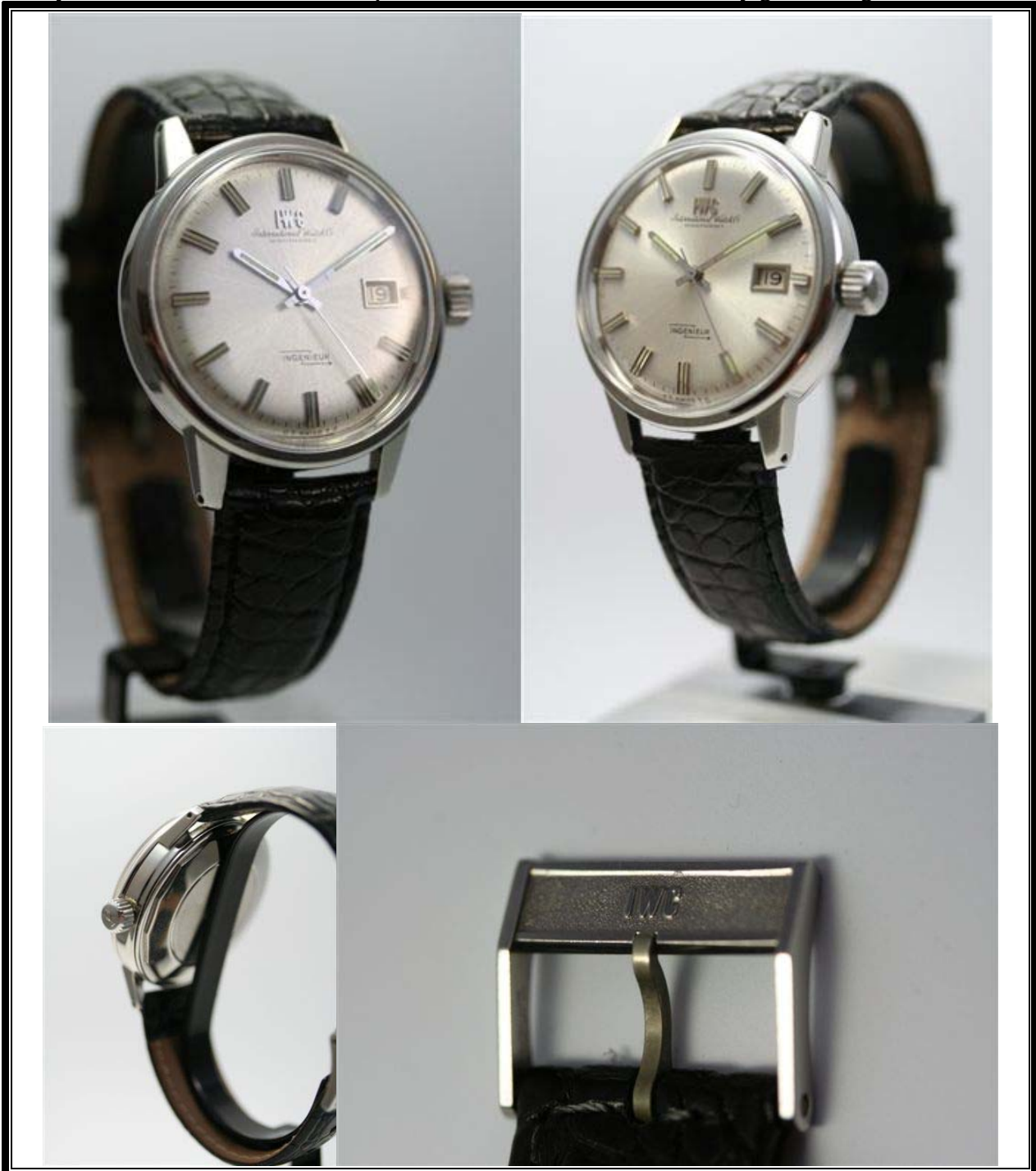
My eight Pellaton IWC: Ingenieur ref. 866; cal. 8541

In the ranking of my dearest “Pellatons”, I place after the Aquatimer ref. 1812 this Ingenieur ref. 866. This watch has all the elegance that you can expect from a watch. I realize that a discussion on the “perfect” watch is useless, but for me this one comes close. I do not have the provenance of this watch but I will send it to Schaffhausen for identification and an

excerpt of the archives. I found it in a shop in Germany. This Ingenieur ref. 866 was introduced in 1964.

It was never a best seller and this is maybe why it is so rare today. The Yacht Club introduced in 1967 was more successful and the ref. 866 was discontinued to be replaced by the Jumbo Ingenieur. Also about the Jumbo it is said : “right watch, wrong time!”

On the ref. 866 I like very much the dial and the big crown. The dial is an example of the second generation. The first dials did not have the capitals IWC but a written logo: ”International Watch Co”. Also the so called “Prior” sign was not present. This is a small round mark applied nearby the T SWISS T. The numerals are made of white gold as well as the dial. The hands are made of steel. The indices are the same as in the Aquatimer 1812 and they contain Tritium. There is a “paddle” on the second hand. A truly great design.





[Catalogue image Ingenieur ref. 866](#)

Stefanie' first pellaton IWC: Lady Golf club ref. 4409; cal 402; Frankfurt 1977

As said previously, my wife is a great fan of the Golf Club. When looking in old catalogues, I noted that there was a female version of the Golf Club. It is just great that the watch has also the "Pellaton" winding system. This ref. 4409 is quite rare. After a service by IWC it is keeping great time. When we were expecting a baby, I thought that this watch could be a great present and it was. Stefanie wears this watch quite often. Her other watches are Lady Mark XII and Portofino Chrono.



[Dealer sheet lady Golf Club](#)

The tenth Pellaton IWC: Polo club: cal. 8541; 1977; Frankfurt am Main, Germany

Because I nearly had finished my project of special cased Pellaton movements I had to find the one that was missing. Only this is the hardest to find. But again with some help I found this example. It's not the prettiest watch that I have but one of the most interesting ones. It's designed by Mr. Genta. He designed it after the Jumbo Ingenieur. As we know the Jumbo Ingenieur SL didn't sell well (only less then 600 were made) and the Polo club did even worse. A lot of the collectors I spoke to found only a handful of this watch during their search for rare IWC's.

The bracelet is as the same design as later Ingenieurs as the 500,000 in steel with a mechanical movement. The watch is made from solid blocks of stainless steel and wears very comfortable. The watch has a quit big diameter 38 mm same as the Ingenieur ref. 866. One collector once wrote that this watch is a pre-Ocean 2000. I must say I see some style elements; though we must assume that Porsche made his own independent design.



[Dealer sheet Polo club](#)

The eleventh Pellaton; IWC's 120th IWC jubilee ref. 1850; cal. 8541; Wurzburg, Germany

After all these watches I was enthusiastic about collecting special cased calibre 85x's. One reference that was made as a tribute to IWC and to the special 8541 automatic movement is the ref. 1850. It has a sapphire back to show this calibre. It is also the last wristwatch that featured the cal. 8541. The finish of the movement is more luxurious than the watches shown above.

As said the model's introduction was for the 120th celebration from IWC in 1998. It's depicted in the 1998 catalogue and there is also a special catalogue that said: 'The calibre 8541 watches from IWC. The ingenious harmony of 18 karat gold cases and legendary movement'. In this catalogue is of course the ref. 1850 and its square sister ref. 1876 (no sapphire back) but there is also a story about its predecessors: Ingenieur ref. 666AD, Aquatimer ref. 1812, Yacht club ref. 1811 (made from 1966 – 1981) and Jumbo Ingenieur ref. 1832.

[The calibre 8541 brochure](#)

The watch itself has a very rich character. Very well made and this example is from 1991 and was never worn (there were box, papers and 2 croc original straps). The movement has a gold plating and the screws are blued. I've read in other articles that these decorations are not functional but only for aesthetic reasons. And I must say; as being the only model with a see through back... it's a really great view! The dial is off-white and has applied Roman numerals. It really looks like an enamel dial. The buckle is solid gold. The spring back closes softly and can be opened quite easily. Real "Probus Scafusia". It's great to see the Pellaton system really work! The watch is a recent addition to my collection and I wear it only on special occasions.





The 12th Pellaton in a special case: Ingenieur ref. 3227 calibre 80110; 2005 Antwerp

This is a watch we all had to wait for. After a few years designing Kurt Klaus and the IWC design team made a new icon. It's not a vintage watch but I think it has a place here in this article. I wrote together with Peter Nievaart an article on an IWC event and some details on this wristwatch. Please follow the link:

[IWC Collectors Ingenieur event](#)





Packaging and papers

Original boxes, papers and an excerpt from the archives belong to the hobby and they bring extra value to the watch. I was lucky to receive the original papers from the Polo Club, Yacht Club and Jumbo Ingenieur SL.

The boxes depicted here belong to the Ingenieurs and Golf Club.



Conclusion

My hobby of collecting wristwatches has crystallized in collecting IWC automatic watches. The “Pellaton” system is a very appealing example and a milestone in the Swiss watch making industry for automatic watches. Besides innovative improvements and numerous patents for the movements, IWC has played an important role in the design of cases, dials and bracelets in the Swiss high-end watch industry. The current success of the company underlines IWC’s great capacity to manufacture watches that appeal to selected clients who appreciate a great watch in every sense. I like these watches, vintage and new, and I wear them with great joy. I hope you enjoyed reading this overview.

Acknowledgments

I have assembled this article with the assistance of many collectors throughout the world. This article would not have been possible without their help. I would like to personally thank following persons for their invaluable assistance, including the use of links: Michael Friedberg, Greg Steer, Larry Seiden, Marco Schönenberger, David ter Molen, Stefan Weeber, Peter Nievaart, Adrian van der Meijden and Bob Bunnik.

Other IWC recourses

[International Watch Company, Schaffhausen](#)

[IWC's Ingenieur: An Incomplete History -- by Michael Friedberg](#)

[IWC's Great Automatic Movements: The Calibre 85 Family -- by Michael Friedberg](#)

[International Watch page by Cellar](#)

[The IWC Ingenieur - Dial Variations in Vintage Models: Part 1](#)