

# Sinn

SPEZIALUHREN ZU FRANKFURT AM MAIN



Twenty years of diving watches made of German submarine steel

## U15, U16, U18

DIVING WATCHES MADE OF GERMAN SUBMARINE STEEL –  
AFTER HUNDREDS OF THOUSANDS OF NAUTICAL MILES,  
REBORN AS A WATCH





**U15:** solid stainless-steel bracelet with strap-length fine adjustment. Warranty 2 years. ø 41 mm (scale: 1:1)



**U16:** solid stainless-steel bracelet with strap-length fine adjustment. Warranty 2 years. ø 44 mm (scale: 1:1)



Engraved blank from original submarine steel from the U 16 submarine. Every model comes with a matching blank in a linen bag.



**U15:** back and side views. (scale: 1:1)



**U15:** luminous design. (scale: 1:1)



Twenty years of diving watches made of German Submarine Steel

## U15 and U16

Diving watches made of German Submarine Steel – naval history for the wrist.

Limited to 1,000 pieces each

Case made of high-strength, seawater-resistant German Submarine Steel from the decommissioned U 15 and U 16 submarines, satinised

Bezel with TEGIMENT Technology and therefore especially scratch-resistant

Captive diver's bezel with minute ratcheting

Tested based on European diving equipment standards and certified by an independent institute

**U15:** water-resistant and pressure-resistant to 500 m diving depth (= 50 bar), certified by an independent institute

**U16:** water-resistant and pressure-resistant to 1,000 m diving depth (= 100 bar), certified by an independent institute

Crown at 4 o'clock to prevent pressure on the back of the hand

Crystal made from sapphire crystal

Low pressure resistant





The watches are supplied with a sustainable fine case with a solid stainless-steel bracelet with strap-length fine adjustment, a linen bag with engraved blank to match the watch, a band replacement tool, stainless-steel spring bars and a brochure.



**U18:** solid stainless-steel bracelet with strap-length fine adjustment. Warranty 3 years. ø 44 mm (scale: 1:1)

Twenty years of diving watches made of German Submarine Steel

## U18

The diving watch made of German Submarine Steel – naval history for the wrist.

Limited to 1,000 pieces

Case made of high-strength, seawater-resistant German Submarine Steel from the decommissioned U 18 submarine, satinised

Bezel with TEGIMENT Technology and therefore especially scratch-resistant

Captive diver's bezel with minute ratcheting

Tested based on European diving equipment standards and certified by an independent institute

Water-resistant and pressure-resistant to 2,000 m diving depth (= 200 bar), certified by an independent institute

Ar-Dehumidifying Technology ensures greater functional reliability and freedom from fogging

Crown at 4 o'clock to prevent pressure on the back of the hand

Sapphire crystal

Low pressure resistant



**U18:** back and side views. (scale: 1:1)



**U18:** luminous design. (scale: 1:1)



Is there anything more fascinating than wearing a piece of German submarine history on your wrist? The U15, U16 and U18 diving watches embody much more than timekeeping – they are testimonies to a key chapter in the history of the German Navy. Made of steel from the like-named U 15, U 16 and U 18 type 206 submarines, they are steeped in history and are guaranteed to delight naval enthusiasts and watch connoisseurs alike.

### Veritable legends

These underwater vessels are much more than steel giants. They are veritable legends, shaped by the challenges of nearly forty years of continuous service to Germany – longer than any other type of submarine. Their mission? To protect the Baltic Sea and its access routes. Each submarine churned through hundreds and thousands of nautical miles both above and below the water. Now decommissioned, they become the very essence of these three unique diving watches: the steel for the cases. At the same time, they give the watches their name, presenting a pure source of material and truly indelible link to an unforgotten era in the history of German submarines. After all, each of the watch models is made of steel from their eponymous submarines.



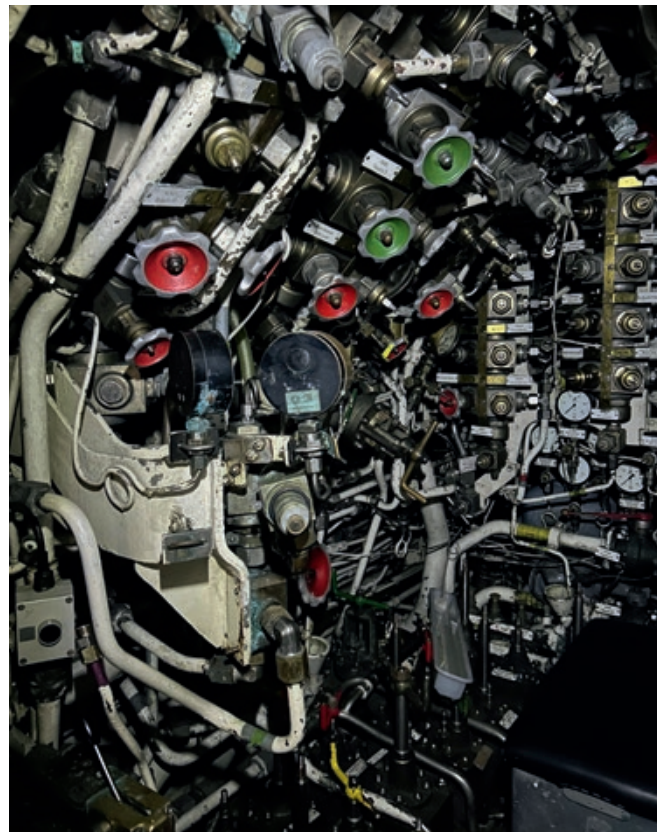
The U 15 submarine on the day of its final voyage from Kiel naval port to Kiel Osthafen, home to KSH GmbH.

### A true tribute

As a result, the watches are a true tribute to bygone times, and everyone who decides to purchase one of these unique timepieces will not only have a piece of maritime history in their hands. It also immortalises the memory of the U 15, U 16 and U 18 submarines and the generations of crew members who faithfully served on them. It is also a homage to the masterful engineering that kept these underwater titans working so reliably for decades.

### The soul of naval history: 20th anniversary

Our diving watches made of German Submarine Steel  
Looking back: We have been using submarine steel for our diving watches for two decades – and are still in awe of its extraordinary performance today. The special grade of steel developed by ThyssenKrupp for the outer hulls of the Type 206 submarine and the world's latest non-nuclear Type 212 submarines has formed the basis of all of our U series since 2005. It is supplied as a semi-finished product with the required dimensions and structural properties and is therefore free of any signs of use. This presents a key difference to the U15, U16 and U18 models – their base material had previously clocked up decades of naval use, and that's what makes it so special! This steel has felt the force of the waves, knows the strength of the storm and is no stranger to the cold silence. It has felt the pressure of the deep, the unrelenting hardness of seawater and the constant assault of fouling and mussels. In short, this steel breathes submarine history.



View of the trim system of the Type 206 A U 15 submarine. One of the tasks of the trim system was to adjust and monitor the weight of the underwater vessel.

The professional, meticulously intricate finishing by the Saxony-based watchmaking technology company Sächsische Uhrentechnologie GmbH Glashütte (SUG) ensures that it meets our stringent requirements without losing its true identity. The result? Three diving watches that definitely have wind in their sails. They bring the very soul of naval history to the wrist. For everyone who values tradition and wants to wear it with pride. An engraved steel blank from the original submarine accompanies every watch, enhancing the sensory experience further.



Engraved steel blanks from the original steel of the corresponding submarine, which is supplied with the watches, each of which is limited to an edition of 1,000 pieces.



View through the submarine's operations centre towards the bow and torpedo tubes.



Stylised air bubbles on the high-gloss dial create a unique effect.

#### All eyes on the high-gloss dial

The crystal made from anti-reflective sapphire crystal guarantees exceptional clarity and provides an optimal view of the high-gloss dial, which echoes the mesmerising blue nuances of the ocean. The dark bluish green base tone portrays the esoteric expanse of the open sea from a depth of around thirty metres, alluding to the operating range of the U 15, U 16 and U 18 submarines, which were able to dive to depths of up to 100 metres. Stylised air bubbles that symbolise the rising air bubbles underscore the three-dimensional effect with metallic blues and greens. This variance brings a unique touch to every dial and catches the eye with an intriguing stereoscopic effect. As a historical memoir of the power of submarines, the dials feature the number of nautical miles travelled and the type of each corresponding vessel. The case back is adorned with a matching silhouette of the Type 206 submarine. All three watches have undergone stringent testing and comply with the strictest standards. Such testing includes procedures based on the European diving equipment standards and certification by an independent institute. Water resistance and pressure resistance are particularly impressive and are testament to outstanding engineering.

## The original – the U 15 submarine propeller

The connection between our company and the fascinating history of the Type 206 submarine class finds a striking expression through a truly unmistakable and authentic symbol: the original propeller of a decommissioned legend, the U 15 submarine. With a weight of around 1.1 tonnes, this impressive component made of naval bronze reliably moved the U 15 submarine forward both above and below water for decades. Today, this formidable propeller proudly sits outside our headquarters. Naval bronze is a special alloy that is highly valued and widely used in naval construction. Its excellent properties include corrosion resistance, high strength, durability, exceptional thermal conductivity and a comparatively low weight, which make it the perfect material for highly demanding applications.

Limited to an edition of 1,000 watches each, the new U15, U16 and U18 diving watches made of German Submarine Steel therefore constitute our latest homage to the Type 206 submarines. After their decommissioning, we acquired the material from the outer hulls of the submarines and used it to build our watch cases. As a symbol of appreciation and recognition, the model names emphasise the direct link between the watch and the eponymous submarine.



The original propeller from the decommissioned U 15 submarine, made of naval bronze. Today, it proudly sits outside our headquarters.

## The landing of the U 15, U 16 and U 18 submarines

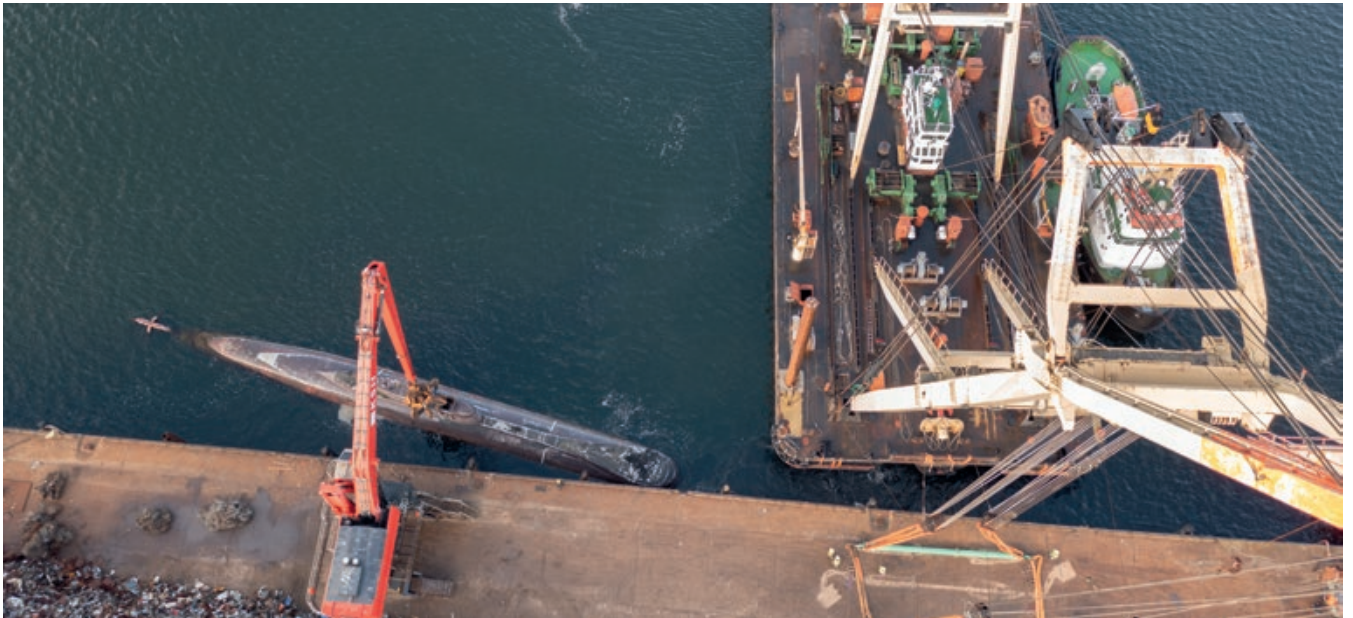
Designed in the 1960s and constructed between 1968 and 1975, the Type 206 submarines formed the very centrepiece of the German Navy. With their compact design and effective operation, they presented the perfect solution for West Germany's defence requirements during tense times. In order to meet the ever-increasing technical requirements, some of these vessels were later updated to the cutting-edge Type 206 A standard. Thanks to these modifications, the submarines not only extended their service life, but also kept their pole position at the forefront of technological development. The Type 206 submarines are a remarkable example of German engineering. Their influence on the progress and performance of the modern German submarine fleet remains evident today – proof of the extraordinary innovative spirit that flowed into their construction.



7.30 a.m.: Commissioned in 1974, the U 15 sets off on its final voyage. After clocking up 200,045 nautical miles (approximately ten circumnavigations of the world), the submarine is pulled by a tugboat from the naval port in Kiel to the KSH dock.



7.45 a.m.: The tugboat approaches the KSH premises.



8.15 a.m.: The tugboat leaves. A crane with a large material grab keeps the U 15 stable while the floating crane is prepared with hoisting gear.



9.00 a.m.: The floating crane lowers the U 15 - which weighs some 450 tonnes - into the so-called cradle. Here, the submarine is kept stable until the hull is dismantled.

### Naval history for the wrist

Logged by a former crew member, the U 15 submarine proudly clocked up a total of 200,045 nautical miles over the course of 36 years. A truly impressive number and equal to ten circumnavigations of the world! But this is not the only reason why we responded so enthusiastically when, thanks to our long-standing connections and experience with submarine steel, we learned that the U 15, U 16 and U 18 submarines were to be sold via a public bidding process by VEBEG, a federally owned company that sells surplus equipment for public bodies. The idea of using the steel from these legendary submarines exclusively for three unique diving watches came naturally to us – and the decision to implement it quickly followed.

When the submarines finally arrived at Ostuferhafen port in Kiel, it was impossible to ignore the special magnitude of the moment. A deep sense of admiration and respect for their incredible service to the defence of Germany spread through the crowd. Making three exclusive timepieces using the steel from these historic submarines means far more than just honouring the art of watchmaking. It is a tribute to time itself; a unique opportunity to wear naval history on the wrist. With every virtually silent tick, the fascination of the underwater world and the legend of these submarines lives on.



The first step in the recycling process at KSH: A flame cutter is used to cut out steel plates from the U 15's hull.



The inner wall thickness of a Type 206 submarine is much thinner than you might think thanks to a sophisticated stiffening structure.



Cut-out plates of non-magnetic German Submarine Steel, which still need to be straightened for further processing.





Statistics on the nautical miles travelled by the U 15 submarine recorded by a former crewmate. This is equivalent to ten circumnavigations of the world in 36 years.



Straightened steel plates from the U 15 submarine and the resulting blanks in various dimensions.



A water jet cutter is used to cut out the blanks for the case back and middle and the rotating bezel from the straightened plates of German Submarine Steel.



Optimal material utilisation thanks to CAD-controlled water jet cutting system. The leftover pieces are also recycled.

## SUG: Next-level case manufacturing

The formidable challenge of making the required components using the original steel from the three submarines went to SUG – and for good reason. After all, Sächsische Uhrentechnologie GmbH Glashütte is a renowned watch case manufacturer, and embodies the rich heritage and meticulous craftsmanship associated with the Glashütte name. SUG has been supplying our cases since its foundation. Based in Saxony, the company has grown from small beginnings into one of the leading manufacturers. SUG manufactures at a technological level that can be compared to the best in the industry in terms of solution expertise and manufacturing quality – throughout all of Europe! This success is proof of the exceptional expertise that SUG has acquired over the years and which continues to yield unique solutions. This not only requires ample experience, but also creativity and passion. Both are in abundance at SUG; after all, the company has even managed to bring the most complex case designs to series production. The construction of the cases for the U15, U16 and U18 adds yet another success to the company's portfolio.



From historic blank to finished watch case.



The illuminated triangle of the rotating bezel is set and bonded by hand.



An almost finished case middle on an automatic processing machine at SUG.



A case receives its components, such as the rotating bezel, middle, back, sapphire crystal, crown, seal, snap and spring rings.



The intricate engraving on the screwed back, made using a precision laser system.

### First-class examples of technical design

Embedded in the legendary history of the Type 206 submarines, these three watches are masterful examples of superlative technical design. Since their material came from the outer hulls of submarines, completely different geometric requirements emerged, which posed new challenges compared to a conventional manufacturing process. The main issue here was that due to the shape of the submarine's outer hull, the material sheets to be used as the raw material for water jet-cut blanks had a radius of curvature. Unlike the conventional manufacturing process of turning a bar of steel, both for the case middle and back, every blank had to be fed into the machine individually by hand. An increased chip volume due to the different base shape and the higher wear of tools as a result of the water jet cutting edge layer, coupled with more intense inspection effort, led to a 40% increase in machining time. Even during the final case finishing process, new difficulties arose due to the recycled base material. In light of their military use, the steel sheets used in submarine construction were subject to strict quality controls. However, this functional context did not consider aspects of the metallurgical structural properties that matter for the creation of a highly decorative surface finish. The significantly more complex case finish compared to the standard models in our U series also required special material processing.

The execution of such a project was and is only possible with SUG, which is part of our group of companies. The passion for making this unique project reality motivated everyone involved, ultimately enabling an extraordinary idea to be transformed into the final product.



The curved sheet material of the submarine hull placed unusual demands on the production process for the rotationally symmetrical casing blanks.

### Impressions of the U 15, U 16 and U 18 submarines

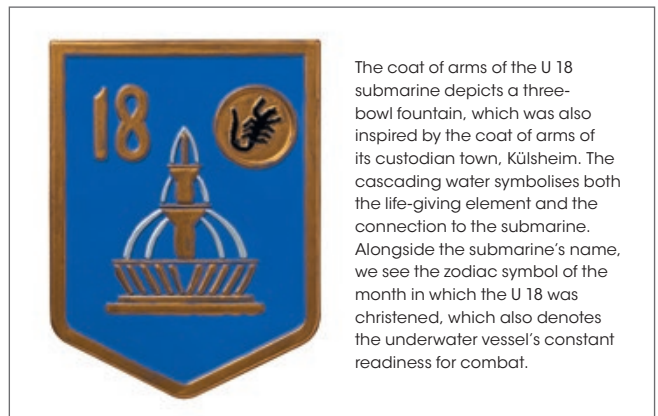
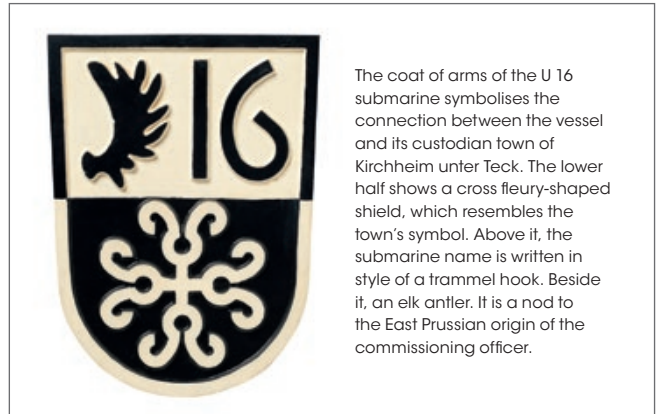
Numerous military artefacts from the U 15, U 16 and U 18 submarines also serve as a window to history – especially because they are all originals. They were given to Sinn Spezialuhren by Jörg Wiest, member of the German Submariners Association, chairman of the U 15 Submarine Veterans and former electrician's mate on board the U 15 submarine. These military items were previously stored in the archives of the U 15 submarine's custodian town, Leinfeld-Echterdingen. When, for various reasons, the archive could no longer store the items, Jörg Wiest expressed the desire to ensure they remained in good hands and continued to be honoured and appreciated in the future. And so they found their way to Frankfurt, where they have become part of a temporary special exhibition at our headquarters.



This leather suit was only worn by bridge crew on special occasions.



Further information.



The submarine flag was hoisted on the conning tower during surface voyages. Traditionally, it was never washed and was only replaced when completely worn out by constant exposure to the wind, sun and seawater. Serving as a proud symbol of the achievements, experiences and hardships that the submarine and its crew had endured, washing it would have erased these valuable traces.