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# DEAR CUSTOMER,

Since the company was founded in 1961, we have focused on the creation of high-quality mechanical watches. Nowadays, watch lovers associate innovation and patents with the name of Sinn Spezialuhren. And it's not just our diving watches that stand for high performance, robustness, and durability, quality and precision.

These watches do, however, constitute an outstanding example of how we repeatedly push the limits of what can be achieved physically in development.

We are driven by the question of which new technologies and materials can be used to make diving watches safer and more suitable for everyday use. It is often worth indulging in a little lateral thinking to see what is going on in other industrial sectors or fields of science. It is therefore no coincidence that the series U1, U2, U50, U212 and UX are made of high-strength, seawater-resistant German Submarine Steel. The series T1 is another example. All case parts for this mission timer are made of high-strength titanium. Both submarine steel and high-strength titanium predestine our diving watches for use in salt water.

Fittingly, we work closely with an independent company specialising in technical maritime security. The world's largest classification society DNV GL (formerly Germanischer Lloyd, Hamburg) checks and certifies the divingwatch data – including compliance with European diving device standards, which is unique in the watch industry.

I am delighted that you have decided to buy a SINN diving watch and hope that it will continue to give you pleasure for many years to come.

Yours sincerely,

L. Sect. . dr

Lothar Schmidt

### GREETING FROM JENS KOCH



Sinn Spezialuhren designed the diving watch U1 C together with Chronos. The letter 'C' in the model name stands for the watch magazine Chronos. This limited-edition model celebrates the Sinn brand's functional diving watches made from submarine steel. We tested these models during freediving and in active water caves and were impressed by the robust case and optimal readability. With its bottle-green dial, we also wanted to give it a special aesthetic appearance that would fit well with a water theme. Together with the black hard-coated case, this creates the impression of looking through the porthole of a submarine or into an underwater cave at great depth. For optical reasons, we dispensed with a date display so that the dial would have perfect symmetry. The vintage-style cowhide strap with green decorative stitching that matches the colouring of the dial complements the special design.

However, the Sinn U1 C also remains a highly functional watch that is able to withstand the harshest stresses of everyday use. The case's Black Hard Coating on a TEGIMENT Technology basis makes it extremely scratch-resistant. It is water-resistant up to 1,000 metres and resistant to low pressure. The watch is fitted with a captive rotating bezel and is seawater-resistant thanks to its submarine steel. Its abundant luminous materials and high contrasts make it easy to read in all situations.

Jan M

Jens Koch, Editor of Chronos



# SINN SPEZIALUHREN ZU FRANKFURT AM MAIN

It was back in 1961 that pilot and blind-flying instructor Helmut Sinn founded the company. Since then, we have been committed to producing high-specification mechanical watches. In 1994, the graduate engineer Lothar Schmidt took over the company. This marked the beginning of a new era for the SINN brand, because the new owner took a decisive step towards more innovation. Under his leadership, new technologies and materials were introduced, thus providing the crucial incentives for our company's evolution and gradual emergence as an insider's tip for lovers of fine watches. Today, our name stands for technical innovations – much to the delight of both the trade and our customers alike.

### **Technical innovations**

Take, for example, the absolutely condensation-free, anti-reflective, German Submarine Steel diving watch – made possible by HYDRO Technology. Other examples include a chronometer chronograph fashioned from a 22-carat gold alloy that is as hard as stainless steel and a chronometer with a magnetic resistance of up to 80,000 A/m. There are also watches with a clockwork mechanism optimally protected from aging by an inert gas and integrated dehumidifying capsule. The list would not be complete without mentioning the development of mission timers (Einsatzzeitmesser or EZM in German) for firefighters, for special police units and border patrol guards. DIAPAL is one of our most important technological developments, with oiling no longer needed for the most important functions in the watch thanks to the materials we select. This technology was first used in 2001. With the aid of TEGIMENT Technology, we achieve greatly increased scratch resistance through surface hardening.

# Ongoing advancement in technology and quality

Our top priority has always been to develop watches that offer superior performance – both in daily and in professional use. Which is why our engineers are working continually to identify which innovative methods, materials and technologies are best suited for optimising our watches. Each new development has to first undergo rigorous practical tests before being incorporated. And no watch leaves our workshops before it has been subjected to thorough checking and fine adjustment by our master watchmakers.

### Innovations in endurance testina

The world's largest classification society for maritime safety DNV GL (formerly Germanischer Lloyd, Hamburg), has been testing our diving watches for pressure and water resistance since 2005. As part of DNV GL's official certification process, our diving watches have been treated as part of diving equipment since 2006 and tested and certified in accordance with European diving equipment standards. This is unparalleled in the watch industry. Selected pilot watches are tested and certified by independent institutions according to the DIN 8330 Horology - Avigtor watches in an extensive and



complex type and unit verification process. This ensures that a DIN 8330-compliant pilot watch is not only a suitable all-round replacement for the on-board timekeeping instruments available to pilots, but is also capable of remaining unaffected by the physical stresses of flight, posing no risk potential for the crew or aircraft, and demonstrating compatibility with other on-board instruments.

The Temperature Resistance Technology keeps mechanical watches performing at temperatures ranging from -45 °C to +80 °C. This technology has proven its worth in the EZM 10 TESTAF, for example, used as part of the official approvals procedure for Airbus Helicopters (formerly Eurocopter) EC 145 T2 high-performance helicopter. The 303 KRISTALL is impressive proof of the functional reliability of our watches under the toughest climatic conditions. Equipped with Temperature Resistance Technology, the chronograph passed the acid test at the Yukon Quest, the world's most demanding dogsled race. The 203 ARKTIS passed its Arctic endurance test on the wrist of extreme diver Mario M. Weidner, withstanding all dives in the freezing cold waters of the Arctic Ocean above 81 degrees latitude. Both watches were worn on top of protective clothing. The real test was in the extreme temperature fluctuations between water and land – a test that the 303 KRISTALL and the 203 ARKTIS passed with flying colours.

Image: All of the technical details of our watches are documented by tests. This system of assessment has been specially designed for certification of the pressure resistance of our diving watches by DNV GL (formerly Germanischer Lloyd, Hamburg), the world's largest classification society for maritime safety.

# Workshop modifications

From the robust case and the polished crystal to the exquisitely decorated movement, we make sure that each and every detail in our watches is fit for purpose. In addition to our technology, the heart of any SINN watch is the fascinating mechanical movement. That is why we rely only on selected renowned manufacturers.

"SZ movements" is the name given to our movement modifications. The results are high-quality calibres characterised by impressive features. An example of this is the SZ04 with regulateur for the 6100 REGULATEUR series.

The model series 140 and EZM 10 uses our proprietary chronograph development, the SZ01. It was modelled on the Lemania 5100 calibre used in the EZM 1. One of the biggest differences between the SZ01 and the Lemania 5100 is the former's stopwatch minute display. This feature now makes it even easier and quicker to record stop times more accurately. This development is based on the Valjoux 7750 calibre. The aim of this modification was to significantly improve the readability of the chronograph function.

The SZ calibres 02, 03, 05 and 06 are a modification of the SZ01 movement, characterized by an off-center 60-minute counter. The 60-minute scale of the stopwatch minute counter is much simpler and more intuitive to read than the 30-minute scale commonly found in other watches.



# DNV GL CERTIFIES SINN DIVING WATCHES

So what does DNV GL (formerly Germanischer Lloyd) have to do with a watch manufacturer from Frankfurt am Main? The renowned company tests and certifies our diving watches according to a variety of criteria. One test focuses on water resistance and pressure resistance, while a second test procedure covers something never done before in the watchmaking industry: certification in accordance with the European standards for diving equipment!

### Testing for water resistance and pressure resistance

In each dive, time plays a crucial role in survival on every dive. Diving watches must therefore be water-resistant, reliable and durable, and guarantee perfect readability in all lighting and water conditions. The information we provide about our diving watches is thus not merely captured in words, but proven in practice as well. Since 2005, DNV GL has been testing our diving watches for water resistance and pressure resistance. In accordance with these certification standards, the 206 ARKTIS II and 206 St Ar are pressure-resistant to 30 bar, the U50, EZM 3 and EZM 13 are pressure-resistant to 50 bar, the T1, U1, U212 and the U1000 series are pressure-resistant to 200 bar and the UX series is actually pressure-resistant to any accessible diving depth. For this series, DNV GL has confirmed the pressure resistance of the case to 12,000 m and of the movement to 5,000 m diving depth. The tests are repeated at regular intervals on all of these watches in order to document the consistency of the quality.

### **Test Certificate**

No. 56345-18 HH N141KAAH

This is to certify that at request of the manufacturer, Hessel. Sino-Specialishers on Frankfurt are Main, Williams-Fay-Strabe 21, 65936-Frankfurt are Main, a two-related

#### hydraulic pressure test

on 4 diving watches of type line

Sinn U1

representing the lutof serial numbers

#### 1010,19001 - 1010,21000

has been performed at North 19th, 2018 with a recoval divisioner of 1600ar, corresponding to a division speech of 1000m for a terminal stems due to a Control Control

There were no watch case deformations noticed. The proper function of the watches has been determined and a subsequent examination has proofed the leak hightness of the tested specimen.

DNV-GL

Hamburg, 2018-06-11

D. Say Standard Nov.

DNV GL has confirmed and certified the pressure resistance.

# A premiere: certification in accordance with European diving device standards

In a standardised test situation, will a diving watch deliver the same reliable performance as, say, a breathing apparatus? To answer this question, we were the first who have watches tested and officially certified according to the European standards for diving equipment. Also these tests are performed at regular intervals for all these watches. The testing and certification according to the European standards EN250 and EN14143 was completely new territory for both sides. This was the case because the standards for diving equipment cannot be applied to watches without modification. The experts at DNV GL thus adapted the standards appropriately and defined two series of tests. In the first of the two, they put the timepieces in a test cabinet for three hours at -20 °C, then for three more hours at +50 °C. The timepieces were subsequently checked for accuracy and functional reliability at both temperatures. In a second test, the watches had to withstand three hours at -30 °C and 3 hours at +70 °C with 95 % humidity. The result: Temperature resistance and perfect functioning were documented and certified for the watches in the U1, U1000 (since 2007), U2, U200 (since 2009), T1, T2, U212 (since 2013), EZM 13 (since 2014), 206 (since 2019), U50 (since 2020) and EZM 3 series after both tests. The UX series watches were also certified; however, these were subjected to a modified test involving temperatures between -20 °C and +60 °C due to their battery operation and oil filling.

No. 56346-18 HH N141KAAH

This is to certify that at request of the manufacturer, Messra. Sins Specialshown zu Frankfurt are Main, Wilhelm-Fay-Strafe 21, 65936 Frankfurt on Main, a type related

> temperature resistance and functional tests

> > on 4 diving watches of type line

Sinn U1

representing the lot of serial numbers.

#### 1010/19001 - 1010/21000

wern finalised on Play 3°1, 2018. The proper function of the matches has been determined directly after 3 hours conditioning at -30°C and at +70°C and 95% relative burndby, respectively.

Examinations were based on the requirements of the European shandorship BR250-2014 and EN14143-2003, applied for ELT Type-Examination of diving epigenesis, and performed at the Zentrum für Sicherhellssinivsk of the BC Basi in Halan, Germany.

DNV-GL Hamburg, 2018-06-11 To Jone Maghain May

DNV GL has confirmed and certified the type-based test of temperature resistance and functionality in accordance with the European diving device standards EN250:2000 and FN14143:2003.



### U<sub>1</sub>C

With specialist watch magazine Chronos, we're presenting the U1 C special edition with dark green dial and Black Hard Coating, which is limited to 100 pieces.

We use this coating exclusively for cases featuring surface hardening with TEGIMENT technology. It's this combination alone that ensures the high quality of the colour coating.

With the striking form, reduced displays and clear readability, the U1 C focuses on key details. The stylish dark green dial is especially eye-catching and really comes into its own in combination with the black case, whilst the dark green gradient centred around the midpoint of the dial creates an exciting play of colour. The vintage-style black cowhide strap with green accents completes this design to perfection.

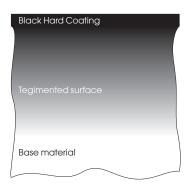
The U1 C case is made from high-strength German Submarine Steel, which is highly resistant to saltwater and boasts outstanding non-magnetic properties. The diver's bezel with minute ratcheting has a captive connection to the case, preventing the rotating bezel from detaching as a result of hard knocks.

DNV GL has verified and certified the U1 C's pressure resistance to a diving depth of 1,000 metres and its temperature resistance and functionality in accordance with the European diving equipment standards.



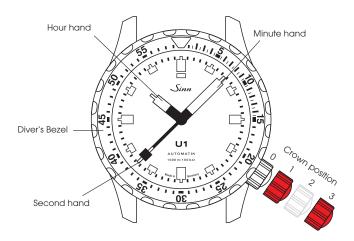
### **TEGIMENT Technology and the Black Hard Coating**

With the aid of TEGIMENT Technology, we achieve greatly increased scratch resistance through surface hardening. TEGIMENT Technology increases the level of hardness of the base material, such as submarine steel, many times over. To achieve this, we do not apply any coating. The material itself is hardened in the surface area. The hardened surface is far better protected against scratching than the surface of the base material. The tempering with the TEGIMENT Technology forms the basis for the application of the Black Hard Coating – a high quality PVD coating.



Schematic diagram showing the hard coating on a surface hardened with TEGIMENT Technology.

# INSTRUCTIONS FOR USE



### Winding the watch (crown position 1)

The crown is screwable (crown position 0). To loosen the crown, turn it counterclockwise (crown position 1). The movement is wound by turning the crown clockwise. About 40 winds of the crown are generally enough to ensure reliable functionality. Under normal circumstances, simply wearing the watch every day should suffice to keep the self-winding mechanism wound. The power reserve allows you to take off your watch overnight without having to re-wind it.

### Time adjustment (outer crown position 3)

In order to reach crown position 3, you must pull the crown out in its entirety. In the process, the crown should snap twice into place. In crown position 3, the motion is paused. This helps you to set the watch precisely. Afterwards you attempt to set the time. We recommend moving the hands past the desired minute marker and then adjusting it backwards. The movement restarts as soon as the crown is no longer in position 3.

Please take care to fasten the crown after making adjustments.

# USING THE DIVER'S BEZEL TO MEASURE TIME

The diver's bezel is a rotatable bezel that can be set to the minute and only be rotated in one direction to prevent accidental adjustment. It has a luminous main marker which can be used in various ways. It can be used to highlight important time periods. Use it, for example, to mark the start of a period of time; the elapsed time can then be read off at a glance at any time.





### TECHNICAL DETAILS

### Mechanical Movement

- ETA 2824-2
- Self-winding mechanism
- · 25 bearing jewels
- 28,800 semi-oscillations per hour
- · Seconds stop function
- Anti-magnetic as per DIN 8309

### **Tests and Certification**

- Tested based on European diving equipment standards EN 250 / EN14143 and certified by DNV GL
- Pressure-resistant up to 1,000 m diving depth (= 100 bar), certified by DNV GL
- According to the technical demands for the diving norm DIN 8306
- Meet the technical requirements for waterproofness, as set out in standard DIN 8310
- · Low pressure resistant

### **Functions**

- Hours, minutes, seconds
- Diver's bezel with minute ratcheting and luminous key mark

### Case

- German Submarine Steel
- Black Hard Coating on a TEGIMENT Technology basis
- Crown screwable
- Sapphire crystal glass in front, anti-reflective on both sides
- Case back screw-fastened
- Captive bezel
- Case diameter 44 mm
- Band lug width 22 mm



### **ADVICE**

### Water resistance

In its original condition, your watch fulfils the technical requirements of water resistance according to DIN 8310. The static compressive stress of your watch is given in bar. Each and every one of our watches is tested for water resistance. However, in everyday use it is important to note that seals can suffer from wear and ageing over time due to a wide range of factors which arise when wearing a wristwatch. We therefore recommend having the water resistance checked at least once a year. To ensure your watch retains its water resistance for as long as possible, rinse it with tap water if it comes into contact with seawater, chemicals or the like. Continual mechanical stress in the form of shocks and vibrations can also not only reduce water resistance, but also increase wear and tear of the movement. Care should therefore be taken to protect your watch from unnecessary impacts.

### Accuracy

The measured results of the watch's rate are always "snapshots" taken under laboratory conditions. For this reason, we also take each owner's individual movements into account when making a specific regulator correction. It is therefore only possible to judge the accuracy of your watch after it has been in operation for approximately eight weeks. In the event of a deviation, please keep a daily record of its timekeeping over an extended period, for example one week.

# Do you have any questions? Our employees will be pleased to advise you.

Telephone: +49 (0)69/97 84 14-400 Telefax: +49 (0)69/97 84 14-401

E-mail: service@sinn.de



### SERVICE

Does your SINN watch need an inspection, repair, retrofitting or reconditioning? If possible, please use our service order form. For information about our service order form, please refer to the section entitled "Customer Service" on our website www.sinn.de/en and to the section entitled "Servicing and repairs" in our general terms and conditions at www.sinn.de/en. We would be happy to send you a copy of the general terms and conditions.

Our international partners generally offer on-site service. However, should they be unable to provide a certain service, they will organise the safe dispatch and return of the SINN watch to our manufactory in Germany. Please be aware that our partners will wait until they have a sufficient number of SINN watches before they post a shipment, in order to keep transport costs and customs duties to a minimum. This will increase the processing time.

Alternatively, you can send your SINN watch to us directly. You will be required to cover the postage costs for the delivery and return shipment, which vary depending on the country. For insurance reasons, we strongly recommend sending us any return goods by registered parcel post. We regret that we are unable to accept deliveries with unpaid postage!

In case you have a chance to drop off your watch directly at our office in Frankfurt am Main we look forward to your visit. Please make a note of our opening times.

For information about our service, please refer to the section entitled "Customer Service" on our website www.sinn.de/en or +49 (0)69/97 84 14-400.



SPEZIALUHREN ZU FRANKFURT AM MAIN

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Auflage / 1st Edition
10 2020
Technische Änderungen vorbehalten.
Technical specifications are subject to changes.

