#### marineshaft.com







We consider the mission fully completed, the second our client is ready to ...

... move on!



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### **MarineShaft**<sup>®</sup> FULL-SERVICE · WORLD WIDE



### This is one of our most valued tools ... His name is Finn

MarineShaft is a modern company based on classic workmanship traditions. We carry out repair and manufacturing of propeller equipment and rudder arrangements, and we are specialized in class approved cold straightening of propeller shafts and rudder stocks.

Our employees have many years of experience. A lot of our employees have been in the business for more than 20, 30 and 40 years. Our workforce is our main asset, and we have the experience to make the right decisions quickly. One of our strengths is our short decision paths that make us able to act immediately.

We have the experience and the equipment that enable us to solve any problem our customer may have with the propeller equipment or rudder arrangement. We are able to handle even very large dimensions, and when the job needs to be carried out on-site, we are able to send competent teams at short notice.





#### Moving through time

Cold straightening of propeller shafts and rudder stocks is a special technique that was developed more than 40 years ago. The technique has been completely tested and improved over the years, and is fully approved by all the leading classification societies. In 1972 Bureau Veritas in Paris was the first classification society to approve the method. Hereafter followed all the other major classification societies.





# Approved cold straightening of propeller shafts and rudder stocks with class certificate

MarineShaft is specialized in class approved cold straightening of propeller shafts and rudder stocks. With our purpose-built equipment that can press with up to 6,000 tonnes, and many years of experience, we are able to straighten shafts of all sizes - from 20 mm to more than 1,000 mm in diameter.

**Save time** - Straightening of shafts is much faster than manufacturing of new shafts. Many jobs can be completed within 24-48 hours from arrival at our workshop. When necessary we work round the clock to ensure our customer the best delivery time. We always have capacity for urgent repairs, and we have the experience to make the right decisions quickly. One of our strengths is our short decision paths that make us able to act immediately.

**Save money** - Straightening is a more economical solution than having new shafts manufactured.

MarineShaft straightens propeller shafts and rudder stocks from all parts of the world. No matter where in the world the propeller/rudder damage occurs, a straightening is often a profitable solution.





MarineShaft has the approval from all the leading classification societies for carrying out cold straightening of propeller shafts and rudder stocks. Cold straightening is fully approved and is considered to be a permanent repair without recommendation. All work is done in close co-operation with the classification societies, and a certificate is issued on each individual repair.





#### If you think that it cannot be repaired, just give us the green light to ... move on!

Even the biggest deviations can be straightened. After straightening shafts are as good as new. Often a better straightness than that of a new shaft has been achieved after straightening by MarineShaft. We often obtain a straightness of 0.05 mm or better on even very big shafts. We have straightened shafts with a diameter more than 1,000 mm and with lengths more than 25,000 mm. Some of these shafts have been bored for push/pull rod. All shafts fully approved after straightening by the involved classification society.



# Manufacturing of new propeller shafts and rudder stocks

MarineShaft is among the leading companies when it comes to manufacturing of propeller shafts and rudder stocks. Our flexible organization makes us capable of switching production at a very short notice, so new propeller shafts and rudder stocks can often be manufactured in few days.

We have a large stock of class approved steel (incl. 3.2 LRS certificate). Round bars in S355J2+N with a diameter up to 1,000 mm and length up to 14,000 mm. Plates in S355J2+N up to 150 mm. Propeller shafts with a flange diameter up to 1,300 mm and a total length up to 17,000 mm. Stainless steel round bars in 1.4404 / 316L with a diameter up to 260 mm and length up to 15,000 mm. Furthermore we have liners in stainless steel and bronze in stock.

#### Welding of shafts

MarineShaft has the equipment and the facilities for carrying out welding of shafts. Our welders are certified and specially trained and operate all sorts of black steel, stainless steel and bronze. All work is done according to the rules of the classification societies.

#### Heat treatment

MarineShaft has many years of experience in heat treatment. The work is carried out in our workshop as well as onsite. Controlled heat treatment is carried out before, during and after welding to retain the qualities of the material. Heat treatment is carried out according to approved welding procedures.



#### Micro welding

MarineShaft has achieved the certificate from all major classification societies for micro welding. Micro welding is a cold process so neither distortion nor internal stress of the part will occur. The technique is used to repair scratches and impact marks of several mm on areas that do not tolerate normal welding.



#### Coating of shafts

MarineShaft carries out coating of shafts. We have received the approval from THORDON for application of Thor-Coat, which is a coating for corrosion protection of shafts. It has been formulated for optimal adhesion, impact resistance, abrasion resistance, and tolerance for bending and torsional stresses.



## Reconditioning of rudder arrangements

MarineShaft has great experience in reconditioning of rudders and rudder arrangements. We perform the jobs in our workshop or on-site, never reducing our demands to the quality. All is as good as new after reconditioning - a quicker and more economical solution.

- Line boring of rudder bearings
- Machining of all types and sizes of cones in rudder blades
- Manufacturing and reconditioning of bearings
- Renewal of complete rudder arrangements
- In-situ and on-site machining





## Repair of Simplex rudder stocks

MarineShaft carries out cold straightening and complete repair of Simplex rudder stocks to the classification societies' full approval. Our highly experienced staff is bringing the bent, twisted or broken rudder stock back to the original measurements.

- Repair of Simplex rudder stocks of all sizes and shapes
- Fully approved by all classification societies
- Save time and money



## Reconditioning of propeller equipment

MarineShaft executes complete reconditioning of propeller equipment of all makes.

- Reconditioning of shafts
- Complete reconditioning of all kinds of marine shaft sealing systems
- Reconditioning of propeller hubs
- Machining of stern tubes on-site
- Centrifugal casting of white metal bearings
- Manufacturing of new liners and bushes in stainless steel and bronze
- Dismantling and assembling of propeller equipment





#### Repair of propeller blades and fixed propellers

MarineShaft has a wide range of equipment and many years of experience in repairing damaged propeller blades and fixed propellers. We rebuild damaged propeller blades in stainless steel and bronze, and we are able to balance the propellers statically with specially designed digital equipment. Jobs are carried out in our workshop or on-site. We have a fully equipped container, ready to be shipped out to propeller repairs world-wide.







#### Mobile machining

MarineShaft carries out all kinds of repairs to propeller equipment and rudder arrangements world-wide. We have a wide range of specially designed mobile equipment that enable us to carry out the job on-site.

We have a well educated team of service engineers, propeller specialists and certified welders, who are ready to start out wherever and whenever called.

- Boring of stern tube, rudder neck bearings, rudder horn etc.
- Machining of cones in rudder blades, cones on shafts etc.
- Laser alignment equipment
- Shaft withdrawal



### Receive a non-committal quotation with firm delivery time and total price

Send us your inquiry and we will revert within few hours with a complete quotation with firm delivery time and total price, including transportation and classification costs.

Transport and shipping world-wide is a part of our service. We deliver where it is needed and cooperate with reliable forwarding companies.

We are always at your disposal for advice, guidance or further information. **Step 1.** Send us your inquiry by e-mail or fax with as much relevant information as possible. Attach drawings and/or pictures if available.

**Step 2.** We will revert within few hours with a complete quotation with firm delivery time and total price, including transportation and classification costs.

**Step 3.** If you decide to place the order at MarineShaft, we can ensure you that we will do our utmost to carry out the work to your complete satisfaction.

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# MarineShaft<sup>®</sup>