

# ClassNK

MAGAZINE

SEPTEMBER 2014 - 69TH EDITION

- *ClassNK in Germany*
- *Training a new generation*
- *Meeting global needs*
- *Building a partnership*



# Supporting growth through innovation



Welcome to the 69th edition of ClassNK Magazine.

Over the past few months there have been signs of increased activity throughout all maritime sectors, and classification is no exception. ClassNK has continued to see its operations expand and its register grow which, I believe, is due to the growing recognition of our high-quality services and dedication to the maritime industry.

ClassNK's priority has always been to provide the maritime industry with the best in classification services, and one such area that we are working hard to support is education and training. To maintain the high standards we have come to expect throughout the maritime industry, proper training is essential, and this is why ClassNK devotes many of its resources to supporting maritime education. From basic education to specialized training, maritime professionals are required to conform to the highest standards. In this edition we will explore why education and training is such an important topic, and outline some of ClassNK's efforts in this field.

In order to continue providing the very best service to our growing client base, we have also been expanding our operations. One key country that has recently seen even further ClassNK growth is Germany. At the beginning of June 2014, the German government granted ClassNK authorization to carry out a wider range of statutory surveys on its behalf, extending on the authorization first granted in February 2013. With this extended authorization, ClassNK can now provide an even greater variety of statutory surveys to German-flagged vessels.

Another example of our growth in this region can be seen in one of our most recently registered vessels. On 10 June 2014, ClassNK celebrated the transfer of the *Bremer Fortuna*, a 6,668gt multi-purpose cargo ship owned by Kollmar-based Rörd Braren Bereederungs GmbH & Co. KG. The *Bremer Fortuna* is the first German-flagged vessel to be registered with ClassNK, and its registration is a clear demonstration of the level of not only our growth, but also the trust we have gained from owners in Germany through our services. In this edition of ClassNK Magazine, we also discuss our operations in Germany and what we are doing to support clients in this key region.

“ *ClassNK has continued to see its operations expand and its register grow* ”

These are just a few examples of our efforts to better serve the continually expanding needs of the maritime sector. By widening our range of services and strengthening our network, ClassNK will continue to meet the high expectations of the global maritime industry.

A handwritten signature in black ink, appearing to read 'N. Ueda'.

**Noboru Ueda**  
**Chairman and President of ClassNK**

**ClassNK**

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**ClassNK**

# ClassNK news

## CLASSNK HOLDS LNG-FUELLED VESSEL TECHNOLOGIES SEMINARS

ClassNK organized seminars in Shanghai and Singapore in July 2014 to provide the latest technical information on the use of LNG as a fuel and related technology. Some 160 industry members attended the event in Shanghai and about 180 in Singapore. Speakers included Professor Koji Takasaki, Graduate School of Engineering Sciences, Kyushu University, NYK Line's General Manager of Fuel Group Yukio Matsukata, Tetsuji Yamada of Daihatsu Diesel MFG. Co. Ltd, Kei Tanaka from the Cooperative Association of Japan Shipbuilders and Takashi Unseki, Chief Engineer, Mitsubishi Heavy Industries.

With the industry looking to adopt cleaner fuels to meet new environmental regulations as well as future economic growth, the demand for LNG as a fuel is rapidly increasing. Koichi Nishifuji, Manager of ClassNK's Natural Resource and Energy Department ended the seminar with a talk about the society's ongoing activities relating to LNG-fuelled vessels.

This seminar was supported by Japanese maritime media company Kaiji Press Co., Ltd in Shanghai and Maritime and Port Authority of Singapore (MPA) in Singapore.

## CLASSNK OPERATING OFFICER NAMED IN TOP 50 TANKER LEADERS

Hayato Suga, Operating Officer and General Manager of the Natural Resources and Energy Department, has been named the 39th leading figure in Tanker Shipping & Trade's *Top 50 Tanker Leaders 2014* supplement, published in May 2014 by Riviera Maritime Media Ltd. Since beginning his career at ClassNK in 1986 in the Hull Department tanker section, Mr. Suga has contributed greatly to tanker safety, from inspecting vessel drawings to supporting the creation of technical guidelines. Mr. Suga is a long time member of the Tanker Structure Co-operative Forum, which is dedicated to improving tanker structural safety and is the current Chairman of the Forum. Mr. Suga's entry into the *Top 50 Tanker Leaders 2014* represents the growing recognition of his many contributions to improved tanker safety.



## CLASSNK COLLABORATES IN ENGINE MONITORING RESEARCH



ClassNK announced on 30 July 2014 that the Society is to participate in a joint project with Mitsui Engineering & Shipbuilding Co., Ltd and MES Technoservice Co., Ltd, supporting research into the development of condition-based engine monitoring systems for the Mitsui MAN B&W engine. The developed systems will assist in the early detection of abnormalities in electronically-controlled diesel engines in ships. The aim of the joint project is to discover ways to eliminate workloads by creating a system that automatically analyzes the engine's sensor data for performance diagnoses, to prevent failures and to extend intervals between overhauls. With this system, both safe operation of the ship and a reduction in lifecycle costs can be realized.

## CLASSNK ACQUIRES CANADA'S HELM OPERATIONS

ClassNK announced on 15 July 2014, that it has acquired Helm Operations, a leading provider of manning, maintenance, dispatch and HSQE software to the workboat and offshore industries whose software is used on some 1,000 vessels operated by companies including SVITZER, Seaspan, Blessey Marine and Florida Marine Transporters. Ron deBruyne, CEO and founder of Helm Operations said: "In ClassNK, we've found a partner who shares our vision of providing the maritime and offshore support sectors with the best software possible. By working together, we're convinced we can create a world-class software platform for the global maritime industry." Yasushi Nakamura, Executive Vice President of ClassNK said: "At ClassNK our mission has always been to ensure that global innovation is put to use for the benefit of the entire maritime industry. Commencing with the acquisition of NAPA earlier this year, and the acquisition of Helm now, we are bringing together a team of leading software companies from around the world in order to help achieve that goal. We've witnessed the impressive growth and success of Helm's software systems over the years, and have seen first hand the incredible value that Helm's software provides to workboat companies. Helm CONNECT for example makes HSQE

management a simple and intuitive process for owners and operators, and we're convinced that linking maritime companies and classification on a single, easy to use platform will be a huge contribution to the maritime industry. Through this acquisition we can provide Helm with the resources and reach to even further develop their industry-leading software systems for all aspects of ship operations, and in turn make them available for everyone in the industry around the globe. We very much believe that Helm's solutions contribute greatly to the improved safety and efficiency of shipping companies – and are excited to make these technologies available industry-wide."



## CLASSNK-REGISTERED PRODUCT TANKER AL DASMA MAKES HER DEBUT

The ClassNK-registered Aframax oil and chemical tanker *Al Dasma*, constructed at Daewoo Shipbuilding & Marine Engineering Co Ltd (DSME) has been delivered to Kuwait Oil Tanker Co S.A.K. (KOTC). The 110,000dwt vessel was constructed as Hull No. 5393 under ClassNK Rules and technical supervision, and in line with KOTC's stringent stan-

dards on safety and eco-friendly performance. Mr. Koichi Murata, ClassNK Regional Manager of Middle East and Mr. Sayyed Farrukh Gilani, General Manager of Kuwait Office attended the delivery ceremony in Kuwait on 23 June 2014 and expressed ClassNK's congratulations to KOTC for the successful delivery of the vessel.



*Pictured at the registration ceremony are (right to left): Mr. S.F. Gilani, General Manager, ClassNK, Kuwait, Mr. Ali A. Shebab, Deputy CEO Fleet Operations, KOTC, Mr. Shin Boonan, H.E. The Ambassador of the Republic of Korea to the State of Kuwait, Sheik Talal Al-Khaled Al-Ahmad Al-Sabah, CEO, KOTC, Mr. Pyoung Park, General Manager DSME, Mr. Koichi Murata, Regional Manager of Middle East, ClassNK and Mr. Jamil Al-Ali, Manager, FNBPG, KOTC*



# Extending business ties

***ClassNK's long relationship with Kuwait Oil Tanker Company (KOTC) has moved to a new level as Mr. Jamil Al-Ali a key executive behind the Company's Fleet New Building Projects explains.***

Mr. Jamil Al-Ali, Manager of KOTC's Fleet New Building Projects Group, has played a leading role in many projects over the last two decades, including the most recent Medium Range (MR) Tanker *Kaifan*, and he believes the relationship between KOTC and ClassNK will continue to grow from strength to strength.

KOTC and ClassNK have cooperated closely for more than 20 years since the *Gas Al Gurain* and *Gas Al Mutlaa* were classified with the Society in 1992/93. The cooperation has been founded on mutual respect for each other's business culture, Mr. Jamil says.

"ClassNK has extensive professional resources which enable the Society to provide highly qualified technical services to KOTC as required," he says.

Mr. Jamil has enjoyed a long career at KOTC. Having started in 1985, he worked his way up through the ranks reaching the rank of Chief Engineer while sailing on all the various different types of vessels including VLCC, Product Tankers & LPG Vessels. After sailing as Chief Engineer on KOTC Fleet vessels he joined the Fleet Engineering Group at Head Office in 2002, progressing from Assistant Superintendent to Manager by 2008.

Elaborating on the company's long history of success, he explains "KOTC adheres to the highest industry standards with regard to safety and environmental performance."

The *Al Dasma Aframax* LR2, the *Kaifan* Medium Range (MR) Tanker, and the new petroleum product tanker *Buby-an* are the latest additions to the fleet. This is set to expand to a total of 30 vessels with an average age of just six years.

Following *Kaifan*, KOTC is to take delivery of two VLCCs from Daewoo Shipbuilding & Marine Engineering (DSME) and one Medium Range Tanker from Hyundai Mipo Dockyard (HMD) in Ulsan - all under ClassNK.

Mr. Jamil was a key figure in the implementation of KOTC's computerized onboard planned maintenance system *Danaos*, greatly helping to optimize the cost of repairs, maintenance and spare parts without impacting fleet safety.

"I have always stood strongly behind all projects beneficial to our fleet and have always welcomed new ideas for the benefit of the fleet and the promotion of the company's values and position, both regionally and internationally and I will continue to work for the advancement of the company and the realization of further achievements for KOTC."

# ClassNK Awards: Training a new generation

*In addition to classification work for the world's merchant fleet, ClassNK plays an important role in training and education in the maritime industry through the ClassNK Awards.*



*Signing ceremony of ClassNK Award to University of Ulsan*

Coinciding with the 100<sup>th</sup> anniversary of the founding of ClassNK, the ClassNK Awards were established in 1999 to help support the education of the maritime industry's best and brightest young professionals.

The scheme has expanded rapidly under the leadership of ClassNK Chairman and President Noboru Ueda and now includes fifteen different universities and academic institutions across India, South Korea, China, Indonesia and Taiwan, with the most recent addition of Korea Maritime University in January this year.

ClassNK Awards are given each year to final year undergraduate students and postgraduate students who have displayed academic excellence in fields including marine engineering, naval architecture and marine technology, among others. In the 15 years the ClassNK Awards have been in place, more than 250 students have received awards.

Students intending to work in the maritime industry after graduating are eligible for the awards. All nominees are nominated by the leading lecturers at each university and academic institution based on a number of criteria including overall performance and contributions at the institution as well as their academic record and final year projects.

Final year projects are reviewed by technical experts at ClassNK's Research Institute and the nominees are interviewed by staff at local ClassNK Offices. Through the cooperation of the participating institutes, ClassNK has been able

to ensure that awards are given to the brightest, enthusiastic, and most deserving students.

ClassNK Awards' ceremonies are held at participating institutes each year. Award winners are presented with a Certificate of Excellence by a ClassNK representative and are also given a monetary prize to assist them at the beginning of their career.

Recipients of the ClassNK Award have gone on to work at shipyards, ship operating companies, and other major maritime-related companies across the world.

In addition to supporting the accomplishments of individual students, the ClassNK Awards also present a great opportunity to build ties with academic institutes around the world.

In order to support the education of the industry's young professionals, the scope of the ClassNK Awards is being expanded continually. Over the course of the next few years, ClassNK plans to bring the Awards to even more institutes in various countries across the world.

In addition, ClassNK will also be bringing the Awards to various seafarer training institutes in India and South East Asia to recognize the important role that seafarers play in the industry.

In supporting the education of the industry's future professionals, ClassNK is playing a leading role in helping to ensure a brighter, safer future for the industry as a whole.

# ClassNK Academy: A global mission

*The ever-growing requirement for better maritime training, against a dearth of suitably trained personnel, has dominated the industry agenda for years and will continue to do so.*



ClassNK's commitment to global maritime training has seen the Society invest significant human resources in assisting companies to address the growing experience gap in their staff and the difficulty of training new employees.

Since its inception in 2009, the ClassNK Academy has expanded each year to better serve the growing needs of the maritime community where the program is regarded as a leading maritime training institution in the region.

By the end of 2013, just four years after inception, the ClassNK Academy program had been offered 163 times in 42 locations across the world.

The ClassNK Academy has more than 90 lecturers around the world. Academy lecturers are fulltime ClassNK staff that have undergone special training to teach Academy courses. Lecturers are experts in their respective fields, holding advanced technical degrees in either mechanical engineering or naval architecture and an average 18 years' hands-on experience as ship surveyors and/or auditors.

The majority of Academy lecturers are management level personnel who are able to address technical matters from the perspective of both line staff and management. Academy lecturers span 18 different nationalities and, wherever possible, NK Academy courses are taught by lecturers based

at local offices. This eliminates language barriers and makes it possible to provide clear understanding of contents.

All Academy lecturers receive extensive training in Japan to ensure they are not only experts in course content, but also experts in teaching that content to students of a variety of levels and nationalities.

Academy courses are now available in 25 countries around the world. In terms of graduates, a cumulative total of more than 17,000 individuals have participated in ClassNK Academy courses since the program's inception.

ClassNK currently offers 10 courses in three separate training packages with the focus on newbuildings, existing ships and ship management. The newbuilding and existing ship packages are geared towards newcomers to the industry with a working knowledge of shipping and shipbuilding, and include courses on classification surveys and statutory issues as well as hull and machinery damage, safety equipment and Port State Control. The ship management package is directed towards ship and shore-based staff with working knowledge of ISM audits. It includes courses on risk management among others and fulfils Tanker Management Self Assessment (TMSA) requirements.

The ten courses available are:

**Classification Surveys during Construction (Hull)**

The one-day course, aimed at superintendents, shipbuilders and repair yard personnel, with up to roughly two years' experience, provides an overview of the various design and construction-related tests and surveys a newbuilding undergoes between the vessel's order and delivery.

**Materials and Welding**

This one-day course, aimed at superintendents, shipbuilders' personnel, steel manufacturers etc., with up to roughly two years' experience, covers the fabrication of steel used for ship construction, including easy-to-understand explanations of topics such as welding techniques, common errors and what inspections entail.

**Classification Society and Statutory Issues**

This one-day course, aimed at superintendents, shipbuilders and repair yard personnel etc., with up to roughly two years' experience, serves as a primer on classification societies, including their role in the maritime industry, history and core duties. It also covers outlines of ship inspections (class surveys, statutory surveys, etc.) and the major international conventions applicable to ships.

**Classification Surveys during Construction (Machinery & Electrical Installations)**

This one-day course aimed at superintendents, shipbuilders personnel etc., with up to roughly two years' experience, covers all the inspections of machinery and electrical equipment that take place over a new vessel's construction from the order being placed to the completion of construction. It also provides easily understandable explanations of each type of test and how they are carried out.

**Damage (Hull)**

This one-day course is directed at superintendents, ship officers, shipbuilders and repair yard personnel etc. with up to roughly five years' experience. It offers easy-to-understand explanations of how hull damage occurs as well as how it is dealt with using representative examples of damage to different ship categories. It also includes an introduction to the preparations that classification surveys require.

**Damage (Machinery)**

This one-day course is directed at superintendents, ship engineers, shipbuilders and repair yard personnel etc. with up to roughly five years' experience. It offers easy-to-understand information on how damage to machinery and electrical equipment occurs and how it is dealt with, using representative examples of damage to different types of machinery.

**Port State Control (PSC)**

This half-day course is directed at superintendents, ship officers, shipbuilders and repair yard personnel with up to five years' experience. It introduces participants to subjects including the international conventions relating to Port State Control (PSC) detention statistics and the primary matters that receive PSC attention.

**Safety Equipment**

This half-day course is directed at superintendents, ship officers, shipbuilders and repair yard personnel etc. with up to roughly five years' experience. In addition to an overview of safety equipment (fire fighting, lifesaving and navigation), this course also introduces applicable international treaties and examples of failures.

**ISM Internal Audits**

This two-day course is aimed at QM managers for ship owners, management companies, ship officers and superintendents with more than two years' experience. It provides general instructions for internal audits of a safety management system and outlines the International Safety Management (ISM) Code for internal auditors, both essential elements for the implementation and continuous improvement of systems.

**Incident Investigation and Analysis and Risk Management**

This two-day course is directed at QM managers for ship owners, management companies, ship officers and superintendents with more than two years' experience. Incident investigation and analysis is performed in various fields including transportation, manufacturing and medicine. Risk management is applied to fields including business management, finance, medicine, information security and occupational safety.

***ClassNK's mission is to ensure the safety of lives and property at sea and to protect the marine environment and, through the ClassNK Academy, the Society provides the maritime community with low-cost high-quality training all over the world for a safer and greener maritime industry.***

# Interview: Captain Naoki Saito

## Meeting global needs

*Captain Naoki Saito, Manager of the Certification Service Department at ClassNK Head Office in Tokyo, discusses the key elements involved in training the next generation of seafarers.*



***Captain Saito, how has your career developed and what are your particular responsibilities at ClassNK?***

*Captain Saito:* I am a Master Mariner with 15 years' sea going experience during which time I was involved with onboard training in the

National Institute for Sea Training. After coming ashore I graduated in 2004 with an M.Sc. from the World Maritime University in Sweden and in 2008, I served as Vice Chairman - Tripartite Expert Meeting to Develop Guidelines for Flag State and PSC Inspections under the Maritime Labour Convention, 2006 (MLC, 2006) (ILO), Geneva. Since 2008 I have served on the Japanese delegation - IMO/STW Sub-Committee and in 2011, I was Vice Chairman of the second meeting of the Preparatory Tripartite MLC, 2006 Committee. In 2013, I was appointed Professor at the National Institute for Sea Training and I joined ClassNK's Head Office in Tokyo as a Manager of the Certification Service Department, with responsibility for maritime education and training.

***Can you explain the challenges involved?***

*Captain Saito:* My mission at ClassNK is to contribute to safety at sea from a human element point of view. Indeed, the ClassNK register now accounts for more than 8,600 ships totaling around 225 million gross tons. It means ClassNK register ships are operated by a great number of seafarers. So far, ClassNK has focused on supporting ship safety inspections and design through construction, maintenance and management. In addition to

those roles, I would like to contribute to the quality of seafarers through certification activities.

***How do you address issues involving maritime education and training?***

*Captain Saito:* In order to promote qualified seafarers, it will be necessary to prepare three objectives. First, the instructors will be qualified as maritime instructors. Secondly, the training facilities and equipment meet the training requirements. And lastly, the training program will be approved by the required standard. If we want to maintain qualified seafarers, it is necessary to ensure that qualified training institutions satisfy those three objectives. However, due to a lack of training institutions, it is difficult to meet the shipowners' needs for qualified seafarers. We would like to provide a solution to the lack of qualified training institutions with our certification.

***Why move into new business areas?***

*Captain Saito:* Firstly, commercial shipping fleets are expanding due to the recent increase in global seaborne trade resulting from the global economic recovery. Furthermore, navigational technology is becoming much more sophisticated and installation of Electronic Chart Display and Information Systems (ECDIS) onboard is becoming mandatory. Consequently, the need for qualified seafarers familiar with the latest maritime technology is not only important for the shipping business but also for promoting marine safety and protecting the marine environment. In addition, MLC, 2006 came into force on August 2013. Now, the maritime society is pressed to take care of the human element efficiently and effectively through management systems.

In order to provide the industry with a way to tackle this issue, ClassNK produced its PrimeManagement total management certification service in 2011. PrimeManagement comprises three specific elements. The Education and Training component is based on the STCW and SOLAS Conventions; we provide certification for ECDIS, Bridge Resource Management (BRM) and Engine-room Resource Management (ERM) training courses and maritime simulator systems. The Working Conditions component is based on MLC 2006, and ClassNK offers certification for MLC, 2006 as well as seafarer recruitment and placement services. And the Safety and the Environment component is based on standards such as the ISO9001 and 14001, OHSAS18001, ISM/ISPS Codes.

“

***My mission at ClassNK  
is to contribute to safety  
at sea from a human element  
point of view***

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There are numerous conventions and standards which can be complicated to deal with, but PrimeManagement is a one stop-service which can not only greatly simplify matters, but also help reduce users' costs. For example, if a user applies ISO9001 and certification of maritime education and training, we dispatch auditors qualified to conduct not only the ISO audit but also the maritime education and training audit, in other words, two functions at the same time.

***The certification of maritime education and training is the core part of this new business. What triggered this?***

*Captain Saito:* The trigger was the STCW 2010 Manila amendments which are due to be implemented in full in 2017. There are new training requirements for BRM, ERM, as well as modern technology such as ECDIS.

***How important is the work of IMO in maritime education and training to improve the quality of this?***

*Captain Saito:* From a certification point of view, IMO model courses are particularly important. The IMO has published some 72 model courses so far, of which 55 courses cover the STCW Convention and 17 are directed at the SOLAS Convention.

***How does ClassNK approve training courses?***

*Captain Saito:* Our procedure is quite simple. The first step is a document review followed by an on-site audit and finally certification. During the on-site audit, our procedure takes care to communicate with the training administrator from the training institutions, instructors and students. Our auditors are not only qualified under ISO9001, but are also Master Mariners or Chief Engineers.

ClassNK provides "Train the Trainer" course based on IMO model course 6.09 "Training course for instructors". ClassNK dispatches qualified instructors to carry out the course at the applicant's location.

***What are the benefits of ClassNK approval?***

*Captain Saito:* We have authorization from Liberia and the Marshall Islands. We approve the training course, and trainees receive a certificate on completion and apply to the Liberia or Marshall Islands maritime authorities to receive a certificate of ECDIS competence. ClassNK focuses on delivering the highest quality classification services by the highest quality personnel while maintaining its totally independent third party, non-profit status. We have earned an outstanding reputation for dedication to safeguarding life and property at sea and preventing marine pollution.

In maritime education and training, we would like to provide the qualified training institutions with our credibility to facilitate inspections of competence of seafarers by Port State Control and oil majors. From Head Office to the local office staff, our experts are highly regarded for their quality, experience and their ability to respond quickly to a client's request. To date we have offered certification for 60 training courses including ECDIS, BRM and ERM to 25 organizations and have conducted 12 courses for over 100 trainee maritime instructors. As a leading global classification society, ClassNK is dedicated to providing even better services to all our clients around the world.

# ClassNK in Germany

***ClassNK elaborates on sustained success in Germany as it continues to invest in Europe's largest maritime market.***

## ***How long has ClassNK operated in Germany?***

ClassNK has had a presence in Germany since the establishment of its Hamburg Office in 1982 and, in 2011, the Society's strategy to enhance operations and provide even better support to the shipowning community in Northern Europe was signaled by the addition of a Survey Operations Headquarters representative from its Head Office in Tokyo to its operations in Germany. This move has paid dividends for ClassNK, which has since set new records for the number of vessels and total tonnage added to its register.

## ***Can you explain ClassNK's main operations in Germany?***

The Hamburg Office provides clients with survey and certification services for ClassNK registered ships; staff provide technical expertise related to vessel surveys and port/flag state queries, and can issue certificates in line with a variety of international conventions.

Also, since posting a representative for the Survey Operations Headquarters in Europe in 2011 and further expanding this operation in 2014, senior staff with decision-making authority are now available to oversee and clarify all class-related matters both in Germany and throughout Europe, in addition to local staff at the Hamburg Office providing regular classification services. This marked the first time that such

decision-making capability was made available outside Japan and previous problems of communication and time differences are no longer encumbrances to efficient operation.

This addition has ensured that ClassNK's services are available to customers in Germany and the rest of Europe, and delivered in an efficient and timely manner.

## ***Can you elaborate on other functions undertaken in Hamburg?***

ClassNK is also authorized by the German government to carry out statutory surveys on German-flagged vessels throughout its service network of some 130 exclusive survey offices. In June 2014, the Society received an expansion of authorization to carry out surveys on behalf of the German government, allowing ClassNK to provide German-flagged vessels with an even wider range of statutory surveys.

## ***Have there been any important events recently?***

June was a particularly eventful month for ClassNK in Germany. ClassNK received an expansion of authorization from the German government allowing us to provide audits and certification for German-flagged vessels in line with the ISPS Code. In addition, ClassNK also saw the first German-flagged vessel to join its register. The transfer of the vessel, a multi-purpose cargo ship (MPP) owned by Kollmar-based Rörd Braren Breederungs GmbH & Co. KG, marks the first time ClassNK has pro-



vided classification services for a German-flagged vessel, a major achievement for our operations both here in Germany and around the world.

***In another major service initiative, ClassNK has established an office in Würzburg on the River Main. Why?***

Würzburg and the surrounding regions are home to a variety of machinery and equipment manufacturing companies, and we saw an opportunity to establish ourselves within the region to provide these companies with the relevant product approval and certification services. This has allowed ClassNK to offer Approval in Principle (AIP) among many other services to a variety of new and innovative solutions created by the German, Swiss and Czech maritime industries in a timely fashion, in addition to classification services provided through the Hamburg Office.

The ClassNK Würzburg Office operates on a smaller scale to the Hamburg Office, specializing in product certification. This allows the Würzburg Office to deal directly with manufacturers, providing a swift response time and efficient overall service.

***Does the Würzburg Office work in tandem with the Hamburg office?***

As part of ClassNK's German service network, the Würzburg Office operates under the Hamburg Office, providing an additional service to a separate sector of the maritime industry, rather than directly support the survey operations being carried out at the Hamburg Office. However, both offices operate in close contact with each other to ensure that operations continue smoothly as well as to consolidate any administrative activities.

ClassNK's German register is currently dominated by tankers, containers ships and other ocean-going ves-

sels. However, with the recent expansion of our operations in the region, particularly with an office on the River Main, ClassNK is well equipped to begin to further diversify its operations in the region.

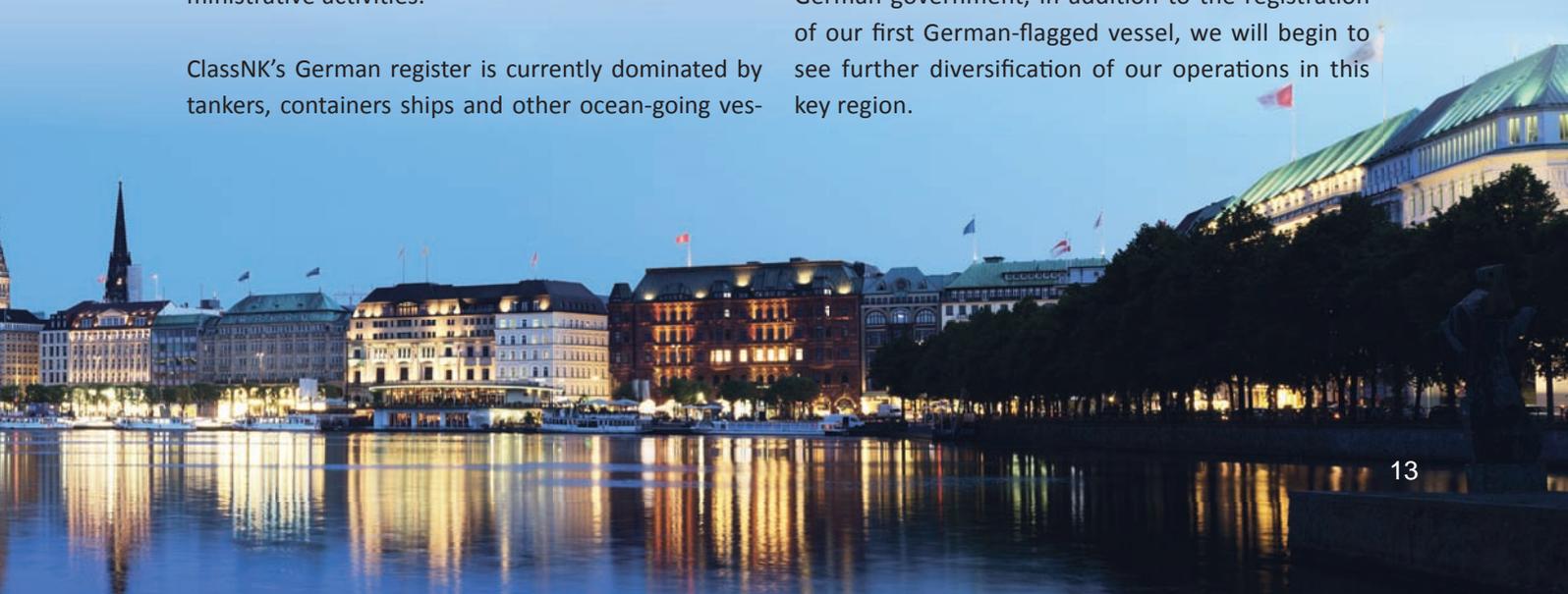
***Does the Würzburg Office work closely with local German companies and, if so, in which particular fields?***

The Würzburg Office provides product certification to a variety of manufacturers in Germany, Switzerland and the Czech Republic. The Würzburg Office is strategically positioned to offer Europe's inland maritime sector with high-quality and timely certification services. While the Würzburg Office currently operates on a smaller scale to that of our Hamburg Office, we expect our Würzburg operations to expand over the coming years.

***In Germany, 2014 has been described by ClassNK as the year of the container. What else is in store for ClassNK in Germany?***

We have seen numerous new additions to our German register over recent months, and as operations in the region continue to grow and diversify, we expect the ratio of vessels on our German register to gradually reflect this over time. While tankers and container ships remain a high priority for ClassNK in Germany, we also have the opportunity to provide the local industry with a wider variety of services as well as to intensify our brown water operations in Germany.

With our recent expansion of authorization from the German government, in addition to the registration of our first German-flagged vessel, we will begin to see further diversification of our operations in this key region.



# Nautitec: Trainees in safe hands

***Nautitec Shiphandling Simulator and Training Centre was founded by Hermann Buss and Alfred Hartmann in Leer, Germany in 2007. Nautitec's enduring mission is to support maritime education in Leer and students aiming to work at sea.***

Nautitec cooperates closely with the University of Applied Sciences Hochschule Emden/Leer's Faculty of Maritime Studies with regard to training and research projects. Individual training programs are devised for companies, and the company also offers combined training programs with masters and pilots as well as tug masters.

In 2010 Nautitec installed its first DP system integrated in the visual system and incorporated it into the training program. In 2011 the company employed a naval architect for virtual ship and sea area design, and installed an ice training module, allowing Nautitec to provide Scandinavian style ice training for the first time.

A number of consultancy projects were initiated, including assistance in the development of a Quality Management system for yard trials in cooperation with Meyer Werft. Nautitec also convened its first offshore ship handling and resource management course to give participants an understanding of anchor handling operations while working as part of a team.

2012 saw Nautitec continue to expand the range of its services, installing tug winch and operating consoles and undertaking a major update of its Transas software. The first common training for handling ULCCs was held for Bremerhaven pilots and URAG tug masters, a research study covering the Jade fairway and the new Jade Weser port was undertaken for Wasser- und Schifffahrtsdirektion Nordwest.

The first ERS-based courses were held on the Transas engine room simulator, and Bundesamt für Seeschifffahrt und Hydrographie (Federal Maritime and Hydrographic Agency) accreditation was achieved for ECDIS IMO model courses, new SAM ECDIS 1100 and Platinum editions

were installed for type specific ECDIS training, and a visual system was installed in NAVLAB 3, giving Nautitec three wheelhouses for common training.

In 2013 the Nautitec Tugmasters Academy was inaugurated. Today Nautitec offers training on all common propulsion systems for tug boats, using well experienced tug masters as trainers.

The company announced a cooperation agreement with the new marine engineering laboratory at the Leer Nautical Academy, the development of a concept for an offshore simulation center in Leer and cooperation regarding training with Lotsbetriebsverein Hamburg, AS Bremerhaven and Emden.

In addition, Nautitec convened the first common trainee pilot tug handling course of the LBS 1, Weser/ Jade and Ems and the first workshop, 'Students manoeuvre with pilots', was held with the Academy.

This year, Nautitec has provided onboard tug training for different propulsion systems to various companies worldwide and the company is cooperating with Bremer Schiffsmeldedienst (Ship Reporting Service) in various training and research projects. A recent partnership with ClassNK has also paved the way for further innovation at Nautitec.

Nautitec's programs cover a wide range of areas including ECDIS training, medical care, engine room and bridge resource management, ship to ship transfer operations, anti-piracy training, tug boat handling and operation, barge handling and towage, offshore ship handling and resource management, tanker training resource management and ship handling, among a variety of others.



**INTERVIEW: Georg Haase, Managing Director, Nautitec, says industry partnerships are a crucial element of the company's work**



**How did you come to work with Nautitec? Did you start at sea and come ashore or was this through a different process?**

**Georg Haase:** I was at sea as a master on chemical tankers and immediately afterwards spent 15 years as a river and

docking pilot on the River Ems. Nautitec was initially something of a hobby but over time it has developed into what it is today.

**How has Nautitec evolved and how many people work at the company?**

**Georg Haase:** Nautitec started out with two permanent employees. Today we are six, with access to a pool of specialized trainers. Nautitec is currently in the process of converting from a pure training provider to a consultancy company. We are addressing customer issues,

evaluating their needs and concerns and offering our assistance in the development of tailor-made training solutions based on their individual quality management systems with measures to monitor the success of their training programs.

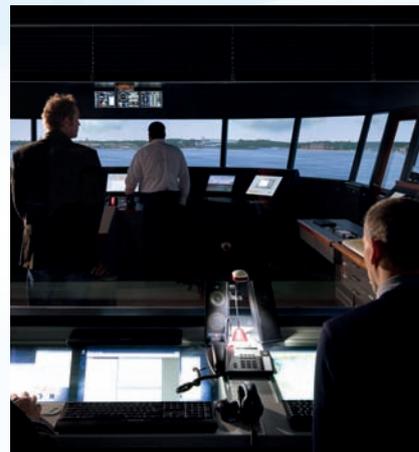
**Leer is renowned as a major center for German ship-owners but is this recognized internationally and, if so, by whom? Are your students mainly "local" or do they come from other countries?**

**Georg Haase:** It is often forgotten, that Leer is a major center for German ship owners but our activities with MARIKO GmbH and the shippers association Reederverein Ems-Dollart e.V, whereby we all work under the umbrella of the Maritime Centre of Competence are becoming more and more public.

We enjoy contact with our neighbor, The Netherlands, and we should not fail to mention either that Leer lies between Hamburg and Rotterdam and is therefore a shipping center in its own right.



“ Our main focus is to build up long term partnerships with our customers and serve them with individual training and consultancy ”



Our students originate mainly from Germany and many have made a career as ship owners after coming out of our academy. I studied for my master's license in Leer and I feel there is always something to give back and to support today's students as they start out on their careers from Leer.

**Can you elaborate on Nautitec's work with Meyer Werft?**

Georg Haase: My relationship with Meyer Werft started when I served as a member of the sea trial team for cruise liners, organized by the Lotsenbrüderschaft Emden. We retained contact and this summer we have undertaken the first simulation contract with Meyer Werft. We try our best to maintain good relations with one of the region's major shipping players by being a reliable partner and meeting their business needs.

**Can you describe the key classification society elements and requirements involved in your training programs?**

Georg Haase: In addition to certification, classification societies are a valuable partner with regard to technical issues involved in making our models better and more realistic as well as transferring classification society needs into practical training. Last, but not least, class societies open the door for us to upcoming rules, regulations and technical developments. Practical solutions including the development of procedures and training must be on the market before a new regulation comes into force.

**Does Nautitec Shiphandling Simulator and Training Centre enjoy cooperation with ClassNK?**

Georg Haase: Our cooperation is relatively recent and it is still growing. We have gained valuable knowledge from the certification of selected training elements and we believe Nautitec is on course to become a German point of competence and a platform for ClassNK's customers for practicable consultancy and training solutions.

**Similarly, does Nautitec Shiphandling Simulator and Training Centre enjoy cooperation with NAPA?**

Georg Haase: It is our aim to find overlapping interests, for instance in implementing ClassNK-NAPA GREEN into simulation exercises for environmental issues as a vital and important aspect of training. NAPA is a partner in offering training for its programs and can use Nautitec as a platform for access to our network of users on both sides of the River Ems and elsewhere.

**Nautitec covers a wide range of training courses. In your experience, are any of these being given greater attention or proving more popular in light of customer demand and requirements?**

Georg Haase: At first sight we offer a standard training program to meet international rules and regulations. But our main focus is to build up long term partnerships with our customers and serve them with individual training and consultancy solutions. The main focus for us is to satisfy customer demands and always pay utmost attention to their interests. In this respect a medical first aid course has the same importance as a dynamic positioning course.

# Interview: Gerald Hadaschik Setting the design agenda



*Germany's largest ship design company, Neptun Ship Design, the successor to Neptun Shipyard, which was established in 1850, was set up in 1992 following unification between West and East Germany, which opened the way to the creation of a new venture employing a team of 120 highly qualified engineers.*

The new company was set up in Rostock with a team of 17 engineers. Through the merger of Neptun-Stahlkonstruktionen GmbH Rostock, Wismarer Ingenieurgesellschaft mbH Wismar and Neptun Engineering GmbH Rostock in 2010 the company increased in size to 120 engineers.

In 2004 it won its first order for the delivery of a complete design package for the 18,300dwt, 1,284 teu capacity MGO-fuelled CV *Neptun 1200* from a Chinese shipyard. This was followed by a series of CV *Neptun 1500*, CV *Venus 5300*, MPC *Neptun 30* and different multipurpose carriers ranging between 6,000dwt and 31,000dwt.

Since 2004 Chinese yards have delivered around one hundred vessels, each adhering to the principle *Design in Germany, Construct in Asia*. Neptun prepared the complete basic/class package and the coordinated 3D model as the source for the yard production design for each of these vessels.

Over the course of the last three and a half years the company has designed a number of vessel types including handy and Kamsarmax size bulkers *Emerald 37* and *Emerald 82*, project cargo and module carriers, heavy lift vessels, sophisticated offshore vessels for deep sea pipe



laying and semi-submersible dock vessels. In addition, Neptun designed the *CV Topaz 1700* series and the *CV Sapphire 4800* series.

“The most important technical issues, challenges and solutions Neptun Ship Design has been involved with are the development of optimized hull shaped vessels with very low fuel oil consumption,” says Managing Director Gerald Hadaschik. “All our projects have optimized hull lines, propulsion sets consisting of a very slow running two stroke main engine with large diameter, high efficiency propeller, rudders and fins.

“The requirements for larger and heavier project cargo increases to more than 15,000 t for loading and unloading in one operation circle. Our designs can load and unload heavy weights of about 15,000 t under the condition of +/- 3.5m tide in harbor conditions. We have created new designs for the new generation of LNG-driven vessels in Sulphur Oxide Emission Control Areas (SECA) and Emission Control Area (ECA) zones.”

### ***Neptun Ship Design has used NAPA solutions since 2004. Why and how did the group come to use NAPA solutions?***

“The use of NAPA software was made on the decision to develop own (Neptun) Ship designs and to use state of the art tools to get the full acceptance of owners and classifications societies,” says Mr. Hadaschik.

### ***How has this cooperation benefitted the global maritime industry and what can be expected given the merger between NAPA and ClassNK?***

“From our point of view it is a benefit to use software which is approved by a classification society,” says Mr. Hadaschik. “As an independent designer we think the selection of classification society and naval architecture software should be independent (normally decided by the ship owner). If there are no restrictions for the independent use of NAPA it is an advantage for the designer to use software which is influenced by the technical support of a classification society.”

### ***How does Neptun Ship Design use NAPA solutions in its First Initial Design (FID) process?***

“For each new ship design we use NAPA Software for the hull surface modelling as input data for resistance calculation with CFD. Intact and damage stability checks are done by NAPA,” he says.

ClassNK is not currently involved in Neptun’s basic design procedure although the Society cooperated in the preliminary class approval process for the FID project of an OC 65 wide beam bulk carrier for the Lübeck headquartered company Oldendorff Carriers.

ClassNK prepared the exclusive, free of charge cargo hold FEM calculation for Oldendorff Carriers and Neptun to ascertain weight saving. This special service was different to those offered by other classification societies and, asked whether ClassNK’s involvement brought greater experience or services to the relationship Mr. Hadaschik responds: “We think in the field of highly sophisticated bulk carrier design ClassNK has great experience.”



Asked whether there are other points, specifically with regard to technical issues, that Neptun cares to highlight involving working with ClassNK and NAPA Mr. Hadaschik says: “Yes, there are modules of the NAPA system for which we want more information covering steel and hull form performance, performance prediction tools integrated in hull design evaluation, power prediction using empirical methods or CFD, sea-keeping analysis: 6. d.o.f. response in irregular waves, sea keeping criteria, downtime, wave added resistance and maneuvering simulations according to IMO resolution A.751(18).

“The list also includes circle, zig-zag, crash stop, man over board and station keeping calculations, wave resistance calculation based on an integrated CFD viscous flow or potential flow solver, optimum floating position and trim curves with the CFD Manager tool, panel model generation and transfer option to external CFD systems and multi-objective genetic algorithms to handle any kind of optimization task.”



**NAPA SHIP DESIGN TOOLS USED BY NEPTUN:**

- ◆ Hull form design
- Compartments and internal geometry
- ◆ Hydrostatics and stability
- Loading conditions
- ◆ Stability criteria check
- Longitudinal strength
- ◆ Weight and cost estimation
- Freeboard and tonnage calculation
- ◆ General purpose optimization tools
- Drawings and reporting
- ◆ Inclining test
- NAPA Statutory Compliance Intact and damage stability evaluation for required regulations including SOLAS 2009 and SPS Code
- ◆ Flooding Simulation tool for cross flooding calculations according to Resolution MSC.245(83)
- Revised Annex 1 of MARPOL 73/78 (also Regulation 12A) Generation of limiting GM/KG curves
- ◆ IACS longitudinal strength including shear force corrections
- Grain stability
- ◆ Freeboard and tonnage
- Document generation, such as booklets for Intact and Damage Stability

# Interview: Rörd Braren Building a partnership



***Rörd Braren Bereederungs GmbH & Co KG was established in 1990 by Captain Rörd Braren and in the intervening years the German company has come to be recognized on the international maritime stage for its advanced environmental technologies and sustainable business principles.***

The Kollmar-based group's fleet comprises eleven geared multi-purpose vessels, ranging in size from between 4,400 to 28,500dwt, with an average age of nine years. Nine people work at its Head Office and some 180 crew are employed on the vessels.

Two vessels, the *Cellus* and the *Timbus* have been deployed continuously with the Swedish wood products, biomass fuels and forestry services group SÖDRA Skogsägarna since their commissioning, and five vessels are in service with Bremer Reederei E&B in the Mediterranean, the North Sea and the Baltic. Three other vessels are engaged with BOCS Bremen Overseas Chartering and Shipping in liner services between Northern Europe and West Africa.

In June this year Rörd Braren announced that he had registered his first vessel, the 2012-built *Bremer Fortuna* with ClassNK. The announcement of the transfer of the 6,668 gross ton multi-purpose vessel was made at a ceremony at Hamburg's prestigious Hafen-Klub and it marked the first time that ClassNK had provided classification services for a German-flagged vessel.

During the ceremony, Rörd Braren was joined by ClassNK Chairman and President Noboru Ueda to celebrate the new partnership. Mr. Ueda said ClassNK was "deeply honored to be chosen to provide classification services for the *Bremer Fortuna*" and gave his assurance that the Society would put full resources into its safe, secure and effective operation.

The registration of the vessel marked an important step forward for ClassNK and its growth in Germany, which has seen more than 170 German-owned newbuildings and existing vessels apply for registration with the Society since it opened its Survey Operations Headquarters in Hamburg at the end of 2011.

Why did Rörd Braren select ClassNK?

“ClassNK has a good reputation in the shipping industry for excellent competences in ship technology and straight forward and quick action-taking processes, meeting ship owner’s demands,” says Captain Braren.

“The Society’s biggest advantage is the fact it gives all necessary competences to the Hamburg Office. We also highly appreciate the famously competent and precise Japanese culture of conduct.”

Asked to comment on what he considers the most important element that ClassNK brings to Rörd Braren’s business and the way in which the group operates, Captain Braren says: “The balance between prices and performance is seen as a strong advantage. Fast and competent decisions round up this pattern. This provides a clear structured and fast interaction process between class and the ship owner.”

The transfer of the *Bremer Fortuna* sent an important message to the market as a whole. “Our company is a leading shipping company with regard to environmental matters and innovation,” says Captain Braren. “This is well-known and it is recognized by the German maritime community, and our decision to make the move to ClassNK will have a significant impact in terms of awareness and on future decisions taken by ship managers in this country.”

And asked whether his company plans to register further tonnage with the Society, Captain Braren responds: “Yes indeed, another vessel will follow at the end of this summer.”

In addition to the registration of its first German flagged vessel, ClassNK also announced that it had earned expanded authorization from the German government to carry out surveys and audits for German flagged vessels.

“This is a required and key element in offering both full statutory and classification services for a vessel registered under the German flag, and therefore a key component in executing all class-relevant services with one classification society,” says Captain Braren.

Since its foundation in 1990, the company has continued to adhere to the philosophy ‘Small but Good’, specializing in vessels that match the needs of its charterers, such as ice class ships for transport across northern seaways and ‘tweendeckers for the transport of general cargo. Flexibility and high efficiency are the main fleet characteristics and while Rörd Braren has developed special competence in transporting raw material for the paper and timber industry, it is also recognized for its expertise in testing and establishing new technology for ship operation and environmental protection.

“

*The Society’s biggest advantage is the fact it gives all necessary competences to the Hamburg Office. We also highly appreciate the famously competent and precise Japanese culture of conduct*

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The company’s standard services cover the North and Baltic Seas and the company has close contact with Scandinavian paper and timber industries who account for a large volume of cargo. All the vessels are able to operate in particularly challenging ice conditions. In the Mediterranean the company carries timber and wood products and other bulk cargoes. The third major operating area is the Atlantic Ocean along the coast of Western Africa, where new modern multi-purpose ‘tweendeckers equipped with shipboard cranes guarantee high flexibility and independence in every aspect of sea transport.

Rörd Braren has long been involved in technology which makes it possible to clean ballast water onboard ship without using chemicals. The method destroys potentially invasive organisms in two stages – the first ultrasonic process produces a cavitation bubble with high temperatures and pressures which allow biomass and bacteria to be destroyed in huge volumes. The second component is the use of UV radiation which deactivates germs and predispositions. This sonic-light-coupling requires little energy input but offers extremely efficient germ reduction and sterilization of ballast water.

Rörd Braren has also been at the forefront of initiatives to counter nitrogen oxide ( $\text{NO}_x$ ) emissions and has equipped three ships with an effective selective catalytic reduction (SCR) system. In order to reduce  $\text{NO}_x$  emissions, a watery urea nitrogen dilution is injected into the exhaust in front of the reactor. The urea nitrogen decomposes to ammonia gas which reduces the  $\text{NO}_x$  to water/steam and harmless nitrogen in the downstreamed catalyst. Up to 90% of the  $\text{NO}_x$  in the exhaust from main machine operation is disarmed by using this method.

As environmental standards rise and legislative demands become ever more stringent, Rörd Braren is adamant that there is no conflict whatsoever between clean ships and economic efficiency. Having pioneered environmentally-friendly shipping operations since it was founded, the company promotes the use of low sulphur fuel, abandoning anti-fouling aids containing Tributyltin (TBT) and avoiding climate-endangering refrigerants.

The 6,349dwt *Cellus*, built in 1998, was the world's first merchant vessel equipped with an anti- $\text{NO}_x$  catalyst system and,

in recognition of this, was awarded the 'Blue Angel' environmental seal of quality in 2002.

The 'Blue Angel' is the oldest of such seals in Europe and is a particularly sophisticated maritime environmental certificate covering ship administration, maintenance, ship equipment and human resource management. Environmental criteria are developed by the GAUSS Institute for Environmental Protection and Safety in Shipping, the autonomous and charitable company involved in many research and development projects.

Two years after 'Blue Angel' the company received the European Union 'Clean Marine Award' for its pioneering work and other vessels have subsequently been recognized with Blue Angel awards.

The 6,389dwt *Timbus*, built in 1999, was the first ship ever to encompass a dry exhaust cleaning system to counter sulphur oxides and particles onboard. Heavy oil can contain up to 4.5% sulphur which is transformed into sulphur-oxide while burning. This is toxic and when diluted in water, forms an aggressive acid.

International Maritime Organization member states have agreed reductions of sulphur oxide emissions in Sulphur Emission Controlled-Areas (SECAS) in the North and Baltic Seas by January 2015 and elsewhere by 2020.

ClassNK is proud to provide Rörd Braren with the highest quality services for their innovative and environmentally-friendly operations.



# *ClassNK events in 2014*

- ◆ **DIGITAL SHIP JAPAN, TOKYO 2ND – 3RD SEPTEMBER**

Please visit ClassNK at booth 04

- ◆ **SMM, HAMBURG, 9TH – 12TH SEPTEMBER**

Please visit ClassNK at booth B2.EG.208

- ◆ **IMPA, LONDON 17TH – 18TH SEPTEMBER**

Please visit ClassNK at booth 107

- ◆ **NAVEGISTIC, ASUNCION, PARAGUAY, 1ST – 3RD OCTOBER**

Please visit ClassNK at booth O3

- ◆ **TECHNO-OCEAN, KOBE, JAPAN, 2ND – 4TH OCTOBER**

Please visit ClassNK at booth B-3

- ◆ **SHIPTEC CHINA, DALIAN, CHINA, 21TH – 24TH OCTOBER**

Please visit ClassNK at booth 1D12

- ◆ **SEATRADE MIDDLE EAST MARITIME, DUBAI, 28TH – 30TH OCTOBER**

Please visit ClassNK at booth K7

- ◆ **ME SHIPTECH, DUBAI, 17TH – 18TH NOVEMBER**

- ◆ **MARINTEC INDONESIA, JAKARTA, 26TH – 28TH NOVEMBER**

Please visit ClassNK at booth A1

- ◆ **EXPONAVAL, VALPARAISO, CHILE, 2ND – 5TH DECEMBER**

Please visit ClassNK at booth 327-T

- ◆ **INTERNATIONAL WORKBOAT SHOW, NEW ORLEANS, 3RD – 5TH DECEMBER**

Please visit ClassNK at booth 748

- ◆ **INMARCO-INAVATION, MUMBAI, 11TH – 13TH DECEMBER**

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# For ClassNK, No detail is too small.



ClassNK's unrivalled reputation for quality and technical excellence has made us the world leader in ship classification. With roughly 20% of the world's merchant fleet under class, we offer a complete range of survey, inspection, certification and technical services for every type of ship. To learn more about how our focus on quality has earned the trust of clients worldwide, visit us at [www.classnk.com](http://www.classnk.com)

## Global Authority in Maritime Standards

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