The Crow’s Nest

News around the Thomas Schulte Group

July 2011 Issue

New Units of the Thomas Schulte Group Bulk Carrier Fleet

Successfully Tackling Pirate Threat

CAP CLEVELAND Rescues Yacht ALCYON
Welcome to our freshly revamped summer edition of The Crow’s Nest, the news magazine of the Thomas Schulte Group.

The year 2011 clearly demonstrates that despite the recovery of the global economies, shipping markets are still in the process of finding a sure foothold. And whilst the outlook is of somewhat positive nature, even slight volatilities tend to leave their mark. That being said we remain confident that a supply and demand balance can be found in the not so distant future.

Not only because of the market fundamentals, but on the back of the industries approach to shift its focus decidedly on new, respectively ‘green’ designs that tend to offer better economies and far better efficiencies. That in itself should lead to increased scrapping activities, thereby (eventually and awaited for a long time) diminishing the overaged fleet.

Indices such as the EEDI (Energy Efficiency Design Index), in which ever form and shape to be ratified, will lead to higher standards in new buildings but at the same time set a new mark with respect to the quality of the ship management. We are glad to be at the forefront of such new standards, being the first shipping company worldwide having committed its entire fleet to the Green Ship Recycling.

Commitment of another form is required when coping with the continuous threat of piracy. Over the course of the last year the pirates’ area of activity has increased dramatically. At the same time the international community is still struggling to find ways to safeguard passage ways for the ocean bound traffic. So far, with very little to show for! Consequently, each shipping company has to decide for itself how to protect its crew, cargo and its ship.

As always we hope that The Crow’s Nest will be interesting reading.

Sincerely,
Alexander Schulte
New Units of the Thomas Schulte Group Bulk Carrier Fleet. Thomas Schulte Group has expanded its fleet by four Post Panmax Bulk Carriers, built at Taizhou Catic Shipyard, P.R. China, with a dead weight of 92,500 tons each. All ships are flying the Liberian flag. Port of registry is Monrovia.

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A Safe Ship is a Clean Ship. When implementing technologies and work guidelines onboard and ashore, security and ecological compatibility are of primary concern for Reederei Thomas Schulte. The company is exceptionally aware of the fact that conservation of our natural resources requires both, environmentally sound technology and a complementary broad catalogue of work guidelines.

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Efficiency, environment and safety play a vital role in ship operations. The topics are therefore featured prominently in this summer’s issue.

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DANIELA SCHULTE, delivered in August 2010 was first. Her sisters DAPHNÉ SCHULTE and DAVID SCHULTE followed in September and November. DORIAN SCHULTE completed the series and has been delivered in April 2011.

These extremely safe and efficient Bulk carriers are equipped with 7 cargo holds and fitted for a wide range of commodities, such as coal, grain and iron ore. They have long-term charter contracts, however the vessels do not have a fixed schedule of sailings. The bulk trades follow the cargoes, hence the ships tramp around the globe on the spot market.

Different to the containerships of our fleet, bulk carriers change trading ranges frequently. Sometimes redirection orders appear almost overnight. These market conditions are supported by our technical department, which is managing supplies and coordinating all kinds of services. With the ships switching routes so fast, this is a challenging task in day-to-day work.

DANIELA SCHULTE is currently under the command of Captain Valeri Spiridonov, who is in charge of 21 crewmembers. DANIELA SCHULTE, DAPHNÉ SCHULTE and DORIAN SCHULTE are under time charter to Daeyang Shipping Co. Ltd. DAVID SCHULTE is chartered by Perseveranza SpA di Navigazione, Napoli, and under the command of Captain Alexie Lisaniuc with 21 crewmembers. Currently she is sailing the waters of Indonesia.

### TECHNICAL DATA

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Tailored for the dry bulk business: our bulk ships reliably deliver coal, ore, grain, fertilizers and many other commodities all over the world.
A few days after godmother Mrs. Gabrielle Broschewitz, wife of our Fleetmanager Mr. Jürgen Broschewitz, had named the modern post-panmax bulk carrier DORIAN SCHULTE during a festive christening ceremony, the 92.5000 DWT ship was handed over to the fleet of the Thomas Schulte Group on April 20th, 2011.

Taking over the last vessel of a series means to lock up the shop of the site office team in charge. Their job is done. When the site office in Taizhou City was opened in June 2009, seven gentlemen moved in and took control of all stages of production until all our four 92.500 DWT bulk carriers were completed. From day one it was their job to make sure that the whole work cycle would run smoothly.

Managing a site office means doing a great deal of work. Men on site have to keep many irons in the fire at the same time and often need to travel thousands of kilometres for troubleshooting. Each section of the construction is managed and supervised by a specific expert responsible for hull, machinery, fitting, electric, paint and many others.

The hull surveyor for example takes care of the entire steel processing. He has to select the appropriate steel quality and has to supervise all welding work. When the construction is finished, he has to confirm that all steel parts were handled correctly.

Everybody on site has years of experience and competence in shipping industry and has performed several projects within the Thomas Schulte Group. Supported by our site office managers, Samsung Heavy Industries in South Korea, for example, successfully delivered four 4250 TEU container vessels.

The christening of DORIAN SCHULTE completed the new-building project of the Thomas Schulte Group at the yard of Taizhou Catic. We wish to thank Mr. Tony Zhou and his team for having done a brilliant job promoting and supporting the demanding construction work of our four ladies at Taizhou Catic Shipbuilding.

Site Office Taizhou City, Jiangsu Province – China

Taizhou CATIC Shipbuilding covers an area of 594,000 square meters. The shipyard runs along Yangtze River over 950 meters and specializes in building bulk carriers.
Almost one third of primary energy consumed worldwide is coal (2010). This energy source is heating homes and powering electricity generating plants. But above all, coal is keeping the **global steel industry running**. The world seems to be governed by Murphy’s law: mostly you don’t find it, where you need it, therefore coal is shipped huge distances by sea to reach markets. The newbuildings of Thomas Schulte Group have been introduced in an earlier issue of The Crow’s Nest. Modern bulk carriers are designed to deliver vast quantities of charcoal from one continent to another.

Dry bulk shipping happened to turn into a nightmare during the past centuries of coal transport. Coal can be a self-heating solid, promoting spontaneous combustion, while coal-dust might even cause explosions. Therefore today, transporting coal cargoes still presents a series of challenges to the bulkship’s command. Shipments are covered under the International Maritime Solid Bulk Cargo-IMSBC-Code and the master has to follow requirements and advice given here. Because coal reacts to open light, high temperature and pressure, the cargo has to be taken care off accordingly during the long voyage. Moreover, safety procedures have to start before loading, holds must be prepared appropriately before and after shipment: cargo care goes first.

Imagine a cargo hold capacity of 110,000 m³, preparation is time consuming. The hatches are as big as a town hall and their inner surface is not even. Enforcement frames of the hull structure, ladders, pipes and bilge sumps make it a tough task to completely remove residues of previous cargoes. To get the hatches ultra-clean needs staff taking very careful attention.
Assuming a shipping order of white soda ash or yellow sulphur after the shipment of coal, proper cleaning is an absolute requirement to deliver the commodities in perfect condition. Subsequent claims must be prevented. Contamination must be avoided by all means, in particular when it comes to safety of crew, vessel and cargo.

To prevent bulk ships from incidents, specific manuals and procedures have been compiled by our Technical Management and by our department of Bulk-operation. The Quality and Safety Management involves survey experts of the classification society and insurers. The P&I clubs regularly investigate incidents around the globe. Their experts collect information about past damages or misconduct to find causes and recognize patterns. The analysis helps to avoid future failure somewhere else in similar cases. New guidelines are based on expert knowledge, experience and technical data sheets and aim to minimise the frequency of incidents. When manuals are being updated, all questions and necessary topics are considered in order to maintain shipment of coal safe, clean and efficient.

The care for coal cargo is important and time-consuming. In contrast, the individual performance has to be fast, safe and reliable in a closed cargo space of a vessel, if moored to the pier or even flexing in rough weather at sea.

We would like to take this opportunity to thank all crews of our bulk vessels for their commitment to this additional workload on top of the daily shipping business.
Reederei Thomas Schulte is committed to voluntarily follow the Hong Kong Convention and goes for green ship recycling certification for the entire fleet as first ship owner worldwide. The Convention for Safe and Environmentally Sound Recycling of Ships was adopted by the International Maritime Organisation in 2009 (see The Crow’s Nest, December 2009).

In the meantime the project has gone full steam ahead. 14 vessels have been fully certified for green ship recycling – a huge benefit for safety and the environment. In addition, another 4 vessels have been surveyed by environmental hazardous materials -HazMat- experts. Final certification is expected on short notice. All other vessels of the Reederei Thomas Schulte fleet will follow as soon as possible, reducing the ecological footprint of our business to the maximum.
A Safe Ship is a Clean Ship

When implementing technologies and work guidelines onboard and ashore, security and ecological compatibility are of primary concern for Reederei Thomas Schulte. The company is exceptionally aware of the fact that conservation of our natural resources requires both, environmentally sound technology and a complementary broad catalogue of work guidelines. By initiating preventive measures instead of responding to lately released international regulations, diligent protection of natural resources of our earth is secured. During the last years, our company policy generated a variety of work guidelines that ensure continuous improvement of environmental protection, for example restricting the use of chemicals on board and introducing environment-friendly cooling liquids.

With the average age of our fleet being only 5.4 years, the vessels are already equipped with cutting edge technology, which also improves environmentally friendly operation. Every year, as required by DIN EN ISO 14001 certification, the whole fleet’s performance regarding environmental protection is being monitored. A comprehensive report is submitted to determine areas for improvement and to provide documentation of reduced emissions. Tight emission limits are being implemented even before the
new regulations get mandatory. “A safe ship is a clean ship” – this is the benchmark of our business.

Marine pollution control has become essential, despite the fact that commercial shipping is the most efficient and environmental-friendly means of transport. It handles 90 % of world trade, causing only 3 % of worldwide CO₂-emissions. Consumers pay particular attention to products and transport chains with no or only a very small carbon footprint.

Growing SECAs, Sulphur Emission Control Areas, and the tightening regulations are forcing carriers to put environmental aspects on top of their agenda. This too is the leading top on Thomas Schulte Group’s corporate agenda and quite challenging: While today a limit of 4.5 % is allowed, until 2020 the global sulphur cap of marine diesel oil needs to be reduced to a level below 0.5 %. Therefore, sophisticated, environmentally sound propulsion systems, scrubber technologies or hull constructions are researched in order to pave the way one day.

**Blown by the Wind**

So far wind-propulsion has been reserved for sporting yachts. This freely available energy remained unexploited by commercial shipping because no design of sails met the technological requirements. Now Skysails have presented their pioneer system, which focuses on easy operation and performs starting and landing of the sail automatically. A sophisticated computer system controls height adjustment and the alignment autonomously. According to Skysails, the product is able to reduce the average annual fuel costs by 10 to 35 %. Therefore wind-propulsion seems to be a rewarding investment.

This technology works most efficiently on slow vessels. It is therefore tailor-made for bulk carriers and tankers, however, these vessels switch trading areas frequently, facing a different wind direction and force, which restrain the introduction of the system. Furthermore: Container vessels cruising at 20 knots and more will not generate additional efficiency gains from wind-propulsion.

In order to reduce fuel consumption and carbon emissions, slow steaming in long-distance sea-transport is in line with the current trend. Together with a specifically designed Tier-II-IMO-certified main engine, which fits all types of vessels and has already proven successful, fuel consumption could even be reduced significantly further. NOx emissions decrease by more than 20 % compared to Tier-I-IMO approved vessels. Reederei Thomas Schulte will equip all newbuildings with main engines of the efficacious type.

**Closing the Loop**

The Closed Loop Scrubber is the newest air pollution control device to be used in the commercial maritime sector.

A scrubber system removes harmful particles from exhaust gases in a liquid phase. In shipping the process is primarily used to eliminate sulphur, dissolving it in water. The “washing” water and sulphur react to form sulphuric acid, which is neutralised in the seawater. Filters separate particles and oil from the mixture. The cleaned water is given back into the sea and does not meet pollution control demands. This process reduces the emitted sulphur content by 90 to 95 % and has so far been the only method to reduce
sulphur emissions. The disadvantage of this scrubber technology is its relatively large space requirements on board, making it eligible for only 10% of all ships.

Closed Loop Scrubber technology allows a modern treatment process, which circulates the water in a way that it can be reused. It is as efficient as the former type, but needing less space without using a storage tank. The wastewater is separated, kept in the standard sludge tank of the ship and disposed at the next port.

In order to minimize sulphur emission while maintaining the full cargo capacity, Thomas Schulte vessels have been bunkering low sulphur fuel and Marine Gas Oil, MGO, up to now. All vessels are ready to comply with upcoming low sulphur limits as required by tightening SECA regulations.

**Lubricating by Air Cavity**

In order to reduce water resistance of the ship during cruise, Thomas Schulte Group applies low friction antifouling paints to the hull of their ships. Antifouling paints are 100% biodegradable and are considered to be the best choice in the maritime sector for the time being.

An Air cavity system could reduce the water resistance of the hull significantly and is a high-tech option of modifying the hull construction in order to reduce energy consumption and limit CO₂ emissions. Various research programmes are under way, involving laboratory and tank testing of ship models, however, practical applications for cargo vessels remain to be tried.

The concept envisions that compressors near the bow inject air into a big cavity under the specially designed vessels’ bottom, reducing the wetted hull area and therefore the hydrodynamic resistance. The air-pad works like a “lubricator” and allows the ship to glide. The compressors would require about 1% of the ship’s available power but would reduce fuel consumption by about 10 to 15%, even a 20% increase of efficiency might be achievable as latest research results indicate. A vessel of 300.000 DWT would therefore allow to safe fuel costs of EUR 500.000 per year and reduce about 6000 tons of CO₂ emissions.
Marine pollution control has become essential. Growing Sulphur Emission Control Areas and tightening regulations put environmental aspects on top of Thomas Schulte Group’s corporate agenda. Efficient ship-operation and environmental protection do not exclude each other but work together for the benefit of both.
Piracy has been an extremely worrying threat to the wellbeing of our crews and safety of our ships within the last years. Still, every ship that leaves the afflicted regions safely causes relief. Our ships trade in high-risk areas every day. Therefore, we are extremely glad to state that no serious incident had to be reported to date.

However, the threat is escalating because of increasing sophistication in equipment and range of pirate gangs. All crews must be well prepared and ready to protect themselves permanently, because they can be attacked at any moment.

Using ever larger captured motherships, which provide their small speed-boats, skiffs, with fuel and weapons, Somali pirates manage to extend their operations from the Gulf of Aden, the Somali Basin and the Gulf of Oman to the Arabian Sea and major parts of the Indian Ocean. Here areas from the north-south line off the southern tip of India and east-west off the northern tip of Madagascar are under threat.

Our crews tackle the situation by clear awareness and by being well prepared through in depth discussions of appropriate defense barriers. Fortunately, up to now nothing serious has happened. Meanwhile, our ships are fully equipped with necessary protective equipment, communication was enhanced, response plans are ready for operation – wanted or not, partially similar to military defense tactics, however, up to now without on board deployment of weapons.

First defense line

Primary objective of all defense actions is avoiding pirates to enter the ship’s close-up range. In this respect, speed is the key. Our container ships employed in endangered areas are capable to run at a speed range of 22 to 24,5 knots. Pirate skiffs, although running at up to 30 knots, in several occasions refrained from approaching containerships with a high cruising speed of 20 knots or more.

In order to prevent pirates from approximating from astern or by the sides, high speed must be accompanied by vigilant lookout and enhanced radar surveillance on board. The combined tactics also avoid running into frontal attacks by skiffs lurking ahead.

Our ships’ commands and watch officers receive helpful piracy alerts released by the international supporting bodies. The Maritime Security Center Horn of Africa, MSCHOA, EU NAVFOR and the International Maritime Bureau of the International Chamber of Commerce at Kuala Lumpur give prompt notice of any assault reported. They enable masters to plan shipping routes and deviation if pirates are detected.

Second defense line

In case the ship fails to escape the assault and skiffs manage to get close, precautionary measures are in place. To prevent the pirates from boarding, razor wire is fixed on the perimeter of the ship and harsh jets of water are shot overboard. These barriers will give the crew more time to alert navy forces, avert attacks until naval forces or helicopters can come to their rescue and seek shelter in the citadel on board.

Third defense line

All our ships are equipped with a secret citadel, where crews are safe of violent hostage-taking until military assistance arrives.

Bulk carriers do not transit piracy areas up to now. Any slow bulker could be easy prey for the criminals because this type of ship is designed for cruising speed below 15 knots. To be on the safe side however, our ships are well prepared and fully equipped as is the containership fleet. In case needed in future, armed security guards on board would protect the more susceptible ships.

It has to be understood that piracy involves a very different kind of risk compared to other risks we are exposed to. Dealing with piracy threat is not routine like managing gale risk for instance. Compared to other risks, one cannot talk about a full manageability of piracy.

Although we have provided information, training and high-level technical precautions to impede pirate attacks, the situation remains threatening to crews on board and the staff of shore organizations. We urge nations and international organizations to immediately take the imminent and drastic steps to protect people working on board, in order to achieve sustained results in the interest of the crews’ wellbeing, to ensure that maritime trade returns to normal and to restore freedom of the seas.

Successfully Tackling Pirate Threat
The Thomas Schulte Group is a fast growing company. Therefore managing existing knowledge and making it available when needed, are essential. When building a new ship, North Star Marine Consultants as part of the Group offer a full-scale service package for the whole construction period, as you were able to read in our last issue of The Crow’s Nest. Smooth building operations play a crucial role in ensuring the success of the project. Shipbuilding starts with up to half a thousand single drawings, making the approval process highly time consuming. In the past, drawings were checked and revised conventionally. Adjusting the large amount of drawings needed personal experience and skills. Sometimes old comments in a hard copy filing system had to be investigated. It took about 6 to 8 months of intense work until a project could be completed.

Over the last two years, North Star has developed a new software system to streamline the administration process and to improve approval quality to maximum standards. North Star’s Drawing Approval Management Base, NDAB, is easy to handle and raises quality standards continuously.

The NDAB is a Microsoft Access® based program that offers fast and simple access to all relevant data one needs to approve drawings and documents. The NDAB’s integrated knowledge management system saves information about daily work and monitors all previous projects. Information is assigned automatically and knowledge can be shared in a structured, highly efficient way. Current and future project teams can access all technical data and use all relevant information at any time.

Letters and amendments of drawings are stored. They can be printed or sent electronically to the yard department in charge, in order to speed up a prompt modification. The database can be complemented and improved permanently according to specific corporate needs and wishes. The NDAB is an integrated all-in-one database, able to manage the entire approval process, reducing working time radically.
Computer aided approval, away from paper drawings: the all-in-one database is able to manage the entire approval process, reducing working time radically.
May 4th, 2011, 09:55hrs (UTC +11hrs), off New Zealand coast near Three Kings Islands, good visibility. MV CAP CLEVELAND is on her course to Botany Bay, when watchkeeping Chief Officer Vladimir Petrov, Chief Engineer Volodymyr V. Fedukin and 3rd Officer Eduard P. Gopo hear the pan-pan call on VHF simultaneously. They recognize white smoke and red flare signal on starboard side, showing yacht ALCYON in distress. Without delay the Chief Officer gives order to slow down the main engine to manoeuvring mode. Captain Kostyantyn O. Kostin arriving that minute on the bridge stops the main engine, starts a Williamson turn towards the portside and carefully approaches the yacht.

CAP CLEVELAND at very slow speed over ground, enabled the yacht to safely moor on her starboard side. Relieved from his unfortunate situation, Olivier Rogier, skipper of the boat, used the pilot ladder and climbed on board for an interview. “We got in a storm three days before,” Rogier explained. “ALCYON was on her way to the coast of New Zealand, when the storm damaged the mast and most of the GMDSS equipment on board.” Even worse, the crew in distress was running out of fuel and fresh water.

Captain Kostin ordered his staff to supply ALCYON with provision, fresh water, diesel fuel and a portable VHF, so that the yacht was able to continue her voyage safely. Two days later, she arrived at Marsden Point near Whangarei. There the yachtsmen handed the borrowed VHF to the nominated local agency who will return it to CAP CLEVELAND on their next call.

The ship’s command informed Maritime New Zealand about the incident and procedure, a government agency which “is responsible for maintaining VHF and HF radio services for New Zealand’s coastal waters and the South Pacific” and provides around-the-clock monitoring of VHF and HF distress channels.

We thank Captain Kostin, Chief Engineer Fedukin, Chief Officer Petrov, 3rd Officer Gopo and all other crew involved for their efforts and immediate action.

Skipper Olivier Rogier on the bridge of CAP CLEVELAND.

On May 23rd while our guests were arriving, final preparations were made in our office. On the next day, we picked up the crew members at their hotel. Our Fleet Managers Mr. Jürgen Broschewitz and Mr. Jan Paninka welcomed our guests at headquarters in Zürich Haus, Domstrasse, in the City Centre of Hamburg. Being guided through, Captains and Chief Engineers met their office colleagues and enjoyed the modern working atmosphere of our building. Our fleet management started the programme discussing on-board-performance and addressed recent incidents, non-conformities and dismissals.

Afterwards the group members followed individual agendas. Captains attended an Electronic Chart Display and Information System workshop at Furuno head quarter in Rellingen near Hamburg. Chief Engineers took the opportunity to be informed about purifier systems and toured Alfa Laval in the city of Glinde, near Hamburg as well. During the afternoon Mr. Lutz Wesemann, member of our Quality Department, presented on-board health, safety and environment policies. This important topic ended the first day’s working programme.

On Wednesday morning our chartering and operation department took over command. External expert, Mr. John Murkett, Britannia Steamship, London, highlighted the day with his presentation of P&I issues.

Mr. Jens Koslowski, representative of Sauer & Sohn, was on the agenda after lunch and provided information about compressors to Chief Engineers. In a parallel session, Fleet-manager Mr. Jürgen Broschewitz and our DPA/CSO and internal auditor Mrs. Britta Jahn met the Captains for a discussion on paint and deck maintenance and accident investigation, followed by a briefing.

Crewing issues were on top of the 3rd day’s agenda. Mr. Jens Hansen, Seagull AS, Hamburg, introduced Seagull computer based trainings, including some special features for users. Later on, representatives of our crew manager Bernhard Schulte Shipmanagement addressed the important issue of proper rescheduling planning. The session ended in a discussion about proper appraisal and dismissal procedures. Our DPA/CSO Mr. Oliver Kautz dedicated the morning meeting to issues of environmental management under ISO 14001.

In the afternoon Mr. Jörg Heuckerath, BG Verkehr, made a presentation about MARPOL 73/78 Annex I and how a non compliance could be avoided. During the final meeting participants reviewed the 9th SFO in a lively debate, which took until the joint dinner of all officers, hosts and moderators. All participants benefitted from presentations, workshops and open discussions and agreed that the extensive exchange of information and experience have been a great success. Everybody enjoyed the meetings and the time spent together in the fine restaurant.

We thank our Captains and Chief Engineers for being our guests. We thank our external speakers for spending time and commitment – it has been a great pleasure to welcome you all.