



**MARINE ENGINEERS AND  
NAVAL ARCHITECTS**

# **TWO OCEANS JOURNAL**

**JUNE 2011**

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**June 2011**

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The opinions expressed in this Newsletter are those of the writers and not necessarily those of SAIMENA

## **THE PRESIDENT'S REPORT MAY 2011**

Autumn is with us, we are experiencing many foggy days in the Cape as the seasons change from Summer to Winter, the National Annual General Meeting is past with ABB doing a splendid job as usual sponsoring the eats and drinks. Markus Rupp gave an interesting presentation about modern day marine engine turbo chargers. What made the paper interesting was the two turbo chargers in series on modern engines, together with variable inlet exhaust nozzles.

Modern large bore two stroke diesel engines are developing in excess of 7760H.P./ cylinder, powering large container ships with 15,000 containers on board. Large 20,000 T.E.U. containers ships are on the drawing board carrying over 10,000 tonne of bunker fuel, with the ships carrying only 13 crew.

Passenger ships are now becoming floating cities; owners are competing for the biggest and most amenities, some of the large ships are 162,000 tonnes. The environmental disasters could be quite horrific if one of these mega ships suffers a grounding or collision, most of these ships are carrying the same amount of bunkers as a small tanker used to carry as cargo a few decades ago. The Nautical Institute will be holding a command seminar series 2011, at the Cape University of Technology Granger Bay, Mouille Point, Cape Town on the 8th & 9th September 2011. Bringing together the African regions maritime professionals to discuss critical and interesting issues of the day, affecting their Safety, Competence and Professionalism along with rebuilding the R.S.A. flagged fleet, S.T.C.W (manila requirements), multi cultural crewing, and criminalisation of seafarers, C.P.D. points, and continued human capital improvement.

The organisers of the seminar are arranging interesting and knowledgeable speakers who will hopefully be able to make meaningful change and contributions to the South African Maritime Industry; I for one would like to see an increase the South African flagged fleet. S.A.I.M.E.N.A. will be supporting this seminar and I hope members will make the time to attend. More information is available on the Nautical Institute web site [www.nautinst.co.za](http://www.nautinst.co.za). The Voith propulsion simulator at S.A.M.T.R.A. in Simonstown will be commissioned later this month, which should increase quality training in the industry. I will be meeting with Glen Fisher from E.C.S.A. to look at initiatives which we hope will improve the supply of engineering skills in the country. Reader's ideas and comments on this subject are always welcome.

*Dick Shaw President*

## EDITORS PAGE

After many months of intense preparation, interested parties have now submitted their proposals for the concessioning of the NPA ship repair facilities and are waiting, with baited breath, for the outcome of these proposals which will hopefully allow the industry to develop and improve into an exciting new phase of ship repair in the Republic. With the end of the recession in sight and the increasing trade around the Cape (to avoid the pirates); there could be a substantial increase in ship repair activity, and a corresponding increase in employment opportunities.

Talking of employment opportunities I find it tragic that both the new dredger and the research vessel were built overseas at a time when we needed the work so desperately.

The situation regarding the East Coast pirates seem to be deteriorating daily with ever increasing loss of life and liberty.

The payment of ransom has now become a routine exercise with security guards, banknote verification and counting machines at airports and private jets to whisk the cash into the pirate's lairs.

There have been incidents where the entire crew of a ship have disappeared and the inhumane treatment of prisoners is commonplace.

Indian seamen held captive have been told that they will never be release because an Indian Navy killed several pirates who were attacking a ship.

All this is public knowledge and yet no one has found a solution to this horrific situation. The payment of ransoms has, to date, alleviated some of the problems but is snowballing beyond control.

I am sure that although the best minds in the business are currently focussed on the problem, our Institute has an obligation to our seafaring colleagues, to combine our talents to find a speedy solution.

In my humble opinion it must be attacked at source, on the High Seas!!

I must confess to having been smitten by the Chauncy Maples story and have suggested to council that the Institute should contribute financially to this charity. Some of our members have already freely given their time and expertise to this project.

I copy below the categories of donors: —

**Founder** by giving at least £25,000

**Benefactor** by giving at least £10,000

**Supporter** by giving at least £2,500

**Friend** by giving at least £100.

The list of donors makes interesting reading on [www.chauncymaples.org](http://www.chauncymaples.org)

Ralph Baker Hon Editor

## ENGINEERING

Is a great profession. There is the fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it moves to realisation in stone or in energy. Then it brings jobs and homes to men and women. Then it elevates the standards of living and adds to the comfort of life. This being the high privilege. The great liability of the engineer compared to people of other professions is that their works are out in the open where all can see them. Their acts, step by step, are in hard substance. They cannot bury their mistakes in the grave like the doctors ... They cannot argue them into thin air, or blame the judges like the lawyers.

They cannot, like the politicians, screen their shortcomings by blaming their opponents and hope the people will forget.

Engineers simply cannot deny they did it. If their works do not work, they are damned ... On the other hand, unlike doctors, theirs is not a life among the weak.

Unlike the soldier, destruction is not their purpose.

Unlike lawyers, quarrels are not their daily bread.

To the engineer falls the job of clothing the bare bones of science with life, comfort and hope.

No doubt, as years go by, people forget which engineer did it, even if they ever knew. Or some politician puts his name on it. Or they credit it to some promoter who used other people's money.

But engineers themselves look back at the unending stream of goodness which flows from their successes with satisfaction that few professions may know. And the verdict of their fellow professionals is all the accolade they want.

*US President Herbert Hoover. (1874 – 1964)*



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## CHAUNCY MAPLES: THE YEARS BETWEEN

*Editors note! I have been most fortunate to have received a copy of a book by Vera Garland entitled “A life of Service” from Mr Mark Holford, the fundraiser for the Chauncy Maples Trust. This is fascinating reading and I am afraid that the following shortened version does not do justice to the ship or the book but is all that the Journal space will allow.*

The SS Chauncy Maples was Archdeacon Johnson’s delight and realisation of a dream. His plan was to take priests to evangelise and minister to the spread-out lake shore villages. At the same time it could transport personnel, stores and mail from one end of the lake to the other. The Chauncy Maples, according to Harry Partridge, one of the Brixham fishermen who came to work on her, was “*a really splendid boat, not only strong and pretty but also a good sea boat... considering her top weight, she rolls very little*”.

Archdeacon Johnson was priest in charge of this floating mission station. He was a tough ascetic man. His demands for comfort were almost non-existent and he expected other missionaries to deny themselves in the same manner. In addition to the Priest in charge there was another Priest, a Captain, an Engineer, 12 Sailors, 10 Stokers, 2 Cooks, 2 Watchmen, 5 Printers, 12 teachers and James the Cat (who really owned the ship).

The chapel was used as a classroom for teaching the students who often complained about sea sickness and the noise, especially when loading wood for fuel. Initially there was no lighting on board except for candles and hurricane lamps but eventually fan lamps were fitted to enable people to see “*independent of draughts and daylight*”.

The two priests on board worked as a team. One would be dropped off at a lake side village where he would take services, minister to the people, visit the schools, and test the pupils. He would then work his way to two or three more villages. During this time the Chauncy Maples would proceed along the coast and drop off the other priest to begin his work. The ship would then return to pick up the first priest. Inevitably one of the Priests would be forgotten and left ashore.

On arrival at a village, the ship would be greeted by crowds of children shouting “Hiplay” their version of “Hurrah”. If the village was a wooding station, the iron life boats went to and fro, sometimes twelve times with loads of wood which was paid for with calico, the calico being stretched out along the wood pile to measure the appropriate payment.

One of the functions of the ship was to act as a Post Office. There was very little space on board for this function and there were no scales to weigh the post. Consequently some letters would be returned months later marked “insufficiently paid”.

The Captain had the additional duty of receiving offertories of:-cassava, maize, pumpkins, beans, rice, eggs etc. He valued these and entered the sum in the account of that particular church. He was also the building inspector and had to check when repairs were needed, mark out sites for new buildings and find people to do the work.

The Engineers duty was to pay the teachers and monitors and give out nibs, ink, slates and books as necessary.

Every month the routine went on and the parish extended to include 60 parishes. These were really years of growth. In 1909 an accident put the ship out of commission for several months after she ran onto some rocks off Likoma and was only kept afloat by the constant use of the pumps. There was no dry dock available and men and women were employed to build a slipway and a cradle to slip the ship. No suitable trees were found to anchor the shore end of the pulling tackle, so six trees all bound like faggots were buried several feet underground and the tackle was attached to this by big chains. All the able bodied youths and men of Likoma, 540 of them, were assembled in groups with their chiefs, singing and blowing horns as they came.”*With much shouting and hallooing the ropes were seized and the pulling began; wires straightened, chains tightened and soon the steamer moved several feet*”. Then something was seen to be wrong and those on board shouted for the pulling to stop “*Easier said than done! 500 men had come to pull and pull they meant to, and they went on pulling until they could pull no more.... because the cradle had fouled the end of the slipway and pushed all before it into a tangled heap*”

It was eventually decided to endeavour to fix the hull plating afloat and this was successfully achieved. After a partial refit she resumed her good work two months later.

Disembarking when the ship had to stay 20 to 30 yards from shore was a simple, if undignified affair. Passengers were carried on stalwart shoulders, “*everybody has to come the same way – so it does not seem as ridiculous as it feels*”

Food on board was excellent, the inevitable chicken being supplemented by game, shot by the Captain on his expeditions ashore.

In 1913 serious financial difficulties were experienced by the Universities Mission to Central Africa (UMCA) and at the same time the boiler gave trouble. The Engineer at the African Lakes Company condemned the boiler. The newly appointed UMCA engineer, Mr England agreed with this finding but undertook to repair it and extend its life for another 3 years in order that a new boiler could be procured. Archdeacon Johnson was delighted and remarked "*the God-sent man was seen running down the stoke-hold steps with heated pieces of iron to make fourteen patches*"

In addition to the repairs Mr England made some alteration to the draft of the boiler resulting in a 50% fuel saving.

The good ship continued her intended work until 1914 when war was declared and she was commandeered by the Government for war service. Her chief job was as a transport. She carried troops, porters, prisoner's stores, baggage, ammunition, rice, guns, and carriages.

The early description of her capacity became laughable when the number of people and packaged increased as the war proceeded: 1817 bags of rice, 200 troops and up to 500 carriers.

The first Naval action of the war, in 1914, took place on the lake when the Guendolen attacked the Herman von Wissmann which was later left disabled at Sphinxhaven. In May 1915 to prevent the Wissmann returning to active service the Guendolen accompanied by the Chauncy Maples whose Captain Mr Shannon, acted as pilot for the Guendolen attacked the Wissmann, damaging her again. Finally in 1916 another raid took place and that year Captain Shannon was mentioned in despatches.

After the war the Chauncy Maples was returned to the UMCA and was laid up at Malindi for two years for the fitting of a new boiler and funnel and a general refit. During the war missions had been formed along the lake and the function of the Chauncy Maples became one of carrying passengers, mail and stores, what one old-timer referred to as "a diocesan errand boat". She ran up and down the lake to a printed schedule until 1925.

The new boiler was never satisfactory and leaked badly.

At this time the Government demanded "Special Qualifications for Captains and Engineers on all Lake Steamers. These requirements were fortunately waived for the ship as the experience of the Captain and Engineer since 1913 was considered qualification enough! In 1934 the ship was laid up for a year and a half in order to fit yet another new boiler.

Each month the ship made the round trip of about 700 nautical miles and consumed about 200 cubic yards of wood costing between 1 shilling and two shillings and 3 pence a cubic yard.

During the Second World War she was frequently chartered by the Government and irregularly continued her mission work.

In 1944 the boiler again had to be replaced and with limited equipment it took three years before she worked again.

In 1949 she was chartered by the Government for famine relief work transporting food to the worst hit areas. During this period she struck a rock and was out of service for three months.

In 1951 a service of thanks-giving and commemoration was held to celebrate her Golden Jubilee, although somewhat tempered by the fact that a new railways ship would be ready shortly.

By 1953 the UMCA very reluctantly decided to sell the Grand Old Lady and she was laid up at Malindi for three years until purchased by Nielson's as a fish factory ship and mother ship. Refrigeration equipment and radar were installed and the Alter was taken to "The church of Christ the King" at Soche and was still there in 1990.

She served the fishing industry for about a decade when the Government purchased her to serve as a passenger ship. This was to be a radical refit involving the removal of some superstructure, the boiler, the auxiliaries, steering gear and to replace them with a new Diesel engine, diesel generators, stern gear, steering gear, windlass and a re-designed superstructure. Mr Cork of Colchester England was appointed to design and supervise the refit which he did in a methodical manner. When completed in 1967 she became a passenger vessel and sported a saloon on the upper deck, with cabins for 44 first class passengers and benches for 180 deck passengers. There was a booking office, dispensary, tea bar, toilets, life boats and life jackets.

Some of the parts removed from the ship, including the engine can still be seen in the Lake Malawi Museum at Mangochi.

For twelve years after re-commissioning she performed faithfully and steadily. Then in 1981 a new ship, the Mtendere, began work and the Chauncy Maples was partially retired and on "stand-by" when the other ships were being repaired or refitted.

From about 1990 she was no longer maintained for service and slowly deteriorated in Monkey Bay. Before the Trust undertook her refurbishment she is reputed to have provided good service as a bar.

May her new life as a clinic prove to be as illustrious as her past. !!



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## **SA NAVY BIRTHDAY FESTIVAL: 1-3 APRIL 2011**

The much anticipated, fun-filled Navy Festival, will from this year forth, be called the “SA Navy Birthday Festival”. The SA Navy was established on the 1<sup>st</sup> April 1922. Next year's festival will coincide with the SA Navy's 90<sup>th</sup> birthday.

As usual, the South African Navy once again opened its doors to the people of South Africa to come and explore the navy culture and environment at the East Dockyard in Simon's Town.

Entrance to the festival was free and gates opened daily from 10am until 6pm. There were various events in the main arena and around the dockyard that both young and old found entertaining.

Some of the standard attractions that were available during the festival:  
Ships and Submarines open to the public, Tug Rides, Flea Market,  
entertainment for children and tea garden



The following events took place in the Arena area:

Gun Run Display, Navy Band performance, Fire Fighting Display Competition

Dog Display by the SA Navy's Dog Unit, Mast Display, SA Navy Precision Drill

The Sea Cadets Precision Drill, Izivunguvungu Youth Band.

A Dog demonstrating how the Navy dogs are trained to attack perpetrators.

A Firefighter demonstrating how to use a fire hose.

There were various Live and Static Displays such as:

Ship boarding display by the Maritime Reaction Squadron

Lynx & Oryx Helicopters Display, Live Canon Firing

South African Navy Diving Display, Tug ‘ballet’

Silver Falcons, Coca Cola SA Navy Talent Show

Coca Cola SA Navy 5-a-side Soccer Tournament

Diver’s Exhibition and Divers Tank, Submarine Museum SAS Assegai



Other major events took place during the Navy Birthday Festival

Right of Entry Parade through Simon’s Town

Dry Dock Concert at East Dockyard

Navy Choir performance in SAS

SIMONSBERG Cinema Hall



Night Gunnery Shoot from Lower North Gun Battery

Navy Remembrance Parade, Fleet Command HQ

Retreat Ceremony, East Dockyard, Arena area

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## LNG-HFO DUAL FUEL ENGINE

Bit Viking is 25,000 dwt product tanker operating in Norwegian waters on time charter to Statoil, Norway's state-owned oil and gas company.

In a turnkey contract, Wartsila will be converting the vessel to liquefied natural gas (LNG) propulsion with dual-fuel (DF) engines and also supplying a Wartsila LNGPac system for onboard LNG storage and processing.

Based in Kinna on the island of Tjorn Tarbit Shipping has been transporting bitumen, petroleum products and chemicals since 1962 and currently operates six ships under the Swedish flag and another nine under the Dutch flag through its subsidiary company Theodora Tankers BV.

High levels of environmental protection are important to the company and the conversion project is fully in line with this philosophy.

"This is the first order for a Wartsila LNGPac system," says Soren Karlsson, General Manager, Gas Systems, Wartsila.

"Benefits of the conversion to allow the use of gas as the vessel's primary fuel include a significant reduction in the level of emissions from the engines.

Equipped with a double-engine installation, propellers, steering gear, rudders and duplicate control systems., the conversion will make the Bit Viking one of , world's safest and most environmentally-sound product tankers in its class."

### **SWITCHING TO LNG REDUCES EMISSIONS AND COSTS**

The two LNGPac storage tanks being installed On Bit Viking will each have a capacity of approximately 500 cubic meters, allowing the vessel 12 days autonomous operation on 80% load, with the option to switch to HFO fuel if an extended range is required. "In addition to being able to operate on gas rather than costly marine gas oil (MGO) when visiting EU ports which have a 0.1% limit on sulphur emissions, Bit Vikings owners and operator will benefit from the advantages of a DF installation which requires minimal capital investment and ensures the highest levels of performance," says Karlsson.

In addition to being partially financed by Norway's Naeringslivets Hovedorganisasjon (the Confederation of Norwegian Business and industry), the conversion work on Bit Viking will also allow the vessel to qualify for reduced NO<sub>x</sub> emission payments under the Norwegian government's NO<sub>x</sub> Fund scheme. Established in 2008, the fund's objective is to reduce Norway's overall NO<sub>x</sub> emissions by financing concrete NOx-reduction measures in ships, offshore installations and land-based industries - members pay NOK 4 per kilogram of NOx emitted and are exempted from the Norwegian tax of NOK 16 per kilogram of NOx emitted. NOx emissions from vessels which switch to using LNG as fuel are typically reduced by 85-90%.

Designed by Wartsila Ship Design, built by Edwards Shipbuilding in Shanghai and launched in 2007, Bit Viking has twin-screw propulsion with each propeller currently powered by 'Wartsila 6L46 engines running on heavy fuel oil (HFO).

The conversion project involves modifying these to Wartsila 6L50df dual-fuel engines capable of operating on both LNG and HFO and installing a Wartsila LNGPac system to allow the safe and convenient onboard bunkering, storage, process and utilisation of gas fuel.

When work is completed in May this year, Bit Viking will be the first vessel in the world to be equipped with a fully mechanical propulsion system powered by Wartsila DF engines using gas as the primary fuel.

#### **FIRST EVER ONBOARD CONVERSION OF A MARINE ENGINE**

This onboard conversion of marine engines is a world-first," says Kai Alavillamo, Project Manager, Services, Wartsila." It's a natural step.

We have more than two decades of experience with dual-fuel technology and converting land-based power plant engines from running on HFO to run on gas is a well established procedure world-wide, but no company has carried out this type of work on board until now."

"Our scope of supply for converting the Bit Viking's main engines to dual-fuel operation with gas as the primary fuel includes all related design work, modification of the existing Wartsila L46 engines to the 50DF configuration (honing out the cylinder bores from a diameter of

46 cm to 50 cm, replacing the cylinder heads, installing new cylinder liners and anti-polishing rings, fitting new upper sections to the engine's connecting rods and installing dual-needle injection valves), new engine turbo chargers for DF operation, installing camshaft components for DF Miller-valve timing and installing and commissioning a new UNIC engine control system." says Alavillamo.

## **YANGTZE CARGO TOPS THE WORLD**

BY the end of 2010, Yangtze River's navigation capacity has been raised by more than 50 per cent, while cargo movement of the river has stayed as the world's largest for the six consecutive years, Xinhua reports.

Last year, the river recorded a cargo movement of over 1.5 billion tonnes. Ports along the river handled 1.4 billion tonnes of cargo. Deadweight tonnes of the ships on the river increased to 850 tonnes from 600 tonnes in year 2000.

Director of Yangtze River Waterway Bureau Xiong Xuebin said the lower part of the river has been deepened to 10.5 metres at the Nanjing-Taicang section and 12.5 meters at the section from Taicang to the river's estuary, allowing 30,000 tonne ships to sail to Nanjing and 30,000 tonne ships to sail to Taicang at all time round the year. The middle reaches have been deepened to 3.2 meters from 2.9 meters, while the upper reaches have been deepened to 2.7 meters from 1.8 meters. Now 2,688 kilometers of the river's trunk stream is navigable.

The lower reaches are the busiest. Cargo movement of this section accounts for more than half of the whole. In 2010, ship movement below Nanjing was as high as 3,000 ships, generating a cargo volume equal to eight Shanghai-Ningbo railways and six Shanghai-Ningbo expressways.

During the period from 2006 to 2010, the navigable capacity of the Yangtze increased by 41.7 million tonnes on the upper reaches! 23.6 million Tonnes at the middle reaches and 135.5 million tonnes at the lower reaches, generating CNY4.7 billion (US\$715.1 million) to the economy, and contributing CNY53.6 billion in GDP growth along the river.

According to Yangtze River Shipping Administration Bureau director Tang Guanjun, China spent CNY7.9 billion on river development from 2006 to 2010, three times of the sum in the earlier five-year period from 2000 to 2005.

*Source Schednet*

### **ADVERTISING**

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## **ABRIDGED MINUTES OF THE AGM**

**Breakwater Lodge, Cape Town on Tuesday 1st March 2011**

The meeting was opened at 17:45 by the SAIMENA National President, Dick Shaw.

There were 25 members and 14 guests present, and 14 apologies

**President's Address.** Dick Shaw delivered his address:

“ Dear Chairperson of Cape Town, honorary secretary, council members, members and guests.

My first year in office as president has gone quickly. Firstly I would like to thank the members of the outgoing council for their many hours of voluntary work which they put into this association.

I would like to thank the two Branch chairpersons of both Durban and Cape Town, the outgoing chairman of Cape Town Emina Dzinic & the incoming Chairman Kevin Watson. Louis Gontier remains chairman of the Durban Branch. Thank you to the council members who represent S.A.I.M.E.N.A. on the various statutory and educational bodies in Durban and Cape Town. I would like to thank the editor of the “Two Oceans Magazine” Ralph Baker who does a sterling job in producing and editing the magazine, please support Ralph with the contribution of articles which are always welcome. Not to forget Bill Rice who writes interesting monthly articles for our web site, those for you who have not seen it I believe it is one of the better web sites that I have seen. Peter Meredith is our E.C.S.A. representative and also sits on the E.C.S.A grading committee.

S.A.I.M.E.N.A remains in a strong position with a membership well in excess of 400 members, financially the bank balance remains healthy as can be seen from the financial report. S.A.I.M.E.N.A. House in Durban was leased out during the world cup, and it now requires some maintenance.

What happened in S.A.I.M.E.N.A. last year? The Durban and Cape Town branches have both been active, averaging a paper every month mostly having quality speakers. Attendances have mostly been good, about thirty attending a meeting. On the sports front we have had over- subscribed golf days, beat the master mariners at cricket, socially popular events include the Dinner / dance at the Durban country club and the Cape Town lunch.

On the educational front we continue to have a close relationship with the many Maritime training organisations, we have an initiative with E.C.S.A. called Ingenius a national campaign to increase the number and quality of learners entering the engineering profession. Durban University of Technology

now have an engine room simulator which has proved a sound investment and a Voith propulsion simulator has been commissioned at S.A.M.T.R.A. in Simons Town.

S.A.I.M.E.N.A. & the Master Mariners have formed a sub- committee to raise the level of the masters and chief marine engineer's certificates of competency with SAQA.

Some of the challenges which we face in 2011 are a shortage of Marine Engineering lecturers in Durban and Cape Town educational institutions and limited practical sea time for aspiring marine engineers.

What is disturbing to note is a steady decline in the Registration of Engineers with E.C.S.A. over the past 5 years . I would like to appeal to all of you who qualify and are not registered with E.C.S.A. to make the effort to apply.

With your permission S.A.I.M.E.N.A. will be creating a new student grade at very nominal fee to attract younger marine engineers into the organisation.

Transformation remains a challenge.

We have a very dedicated and experienced council this year with two highly motivated Branch chairman, therefore I believe we can only move on to better things.

Lastly we have a proposal from members of council to donate to the "Chancery Maple" Trust, those of you who do not know what this is, it is a steamer built in 1897 on Lake Malawi, and the ship was originally fired by wood from the surrounding shore to feed the boilers. She has since been re-engined and there is a proposal to re-engine the vessel again with a C.A.T. engine which can run on bio fuel grown by the locals. The hull is in sound condition and the ship will be used as a floating clinic as there are very few roads in the area and using this method makes it more accessible to the local public. The P & I Club has officially underwritten this project.

I would like to mention two of our members have already given of their services probono to assist with the repairs to the ship.

Thank you to Richard Oberzaucher of ABB for the evening of our National A.G.M., the informative paper and for sponsoring the drinks and snacks. "

### **Incoming Council**

Dick Shaw announced that nominations for the 2011 Council were called in accordance with Clause 3.6.3 of the Constitution.

The nominations were readout and confirmed by the AGM. The full list is attached to these minutes. This was proposed by Emina Dzinic and seconded by Malcolm Lyness.

**Appointment of new Auditor.** It proposed to retain the services of the existing auditors, Harold Levy and Associates, this was accepted by the AGM. Proposed by Dick Shaw and seconded by Ian Armstrong.

**Appointment of Legal Advisors.** It was proposed by Dick Shaw to change the service of SAIMENA's current legal advisors to Webber Wentzel, this was accepted by the AGM. Seconded by Paul Coxon.

**Other Business.** No other matters were raised.

**Meeting Closure.** Dick Shaw thanked everyone for attending and closed the AGM.

The meeting was to be followed with the Cape Town Branch presentation by MARKUS RUPP of ABB on TURBO CHARGING SYSTEMS TODAY AND TOMORROW.

Dick Shaw  
National President



The Ex German Bite Pilot ship "Kommodore Ruser" arrived in Cape Town after the long voyage on the 27th May . She has been renamed OMS Heidleburg for use as a guard ship for the upcoming oil field operations off East Africa.

Photo's Godfrey Needham- Offshore Maritime services

## **MERCHANT NAVAL OFFICER SHORTAGE**

Aiming to increase the global share of Indian Merchant Navy Officers to 9% by 2015 in the wake of shortage of personnel, the government plans to acquire four training ships. India is the fifth largest supplier of officers globally at present having a share of 6.3% out of 550,000 officers. "The acquisitions will be made through state-owned Shipping Corporation of India (SCI) and, each dedicated training vessel is likely to carry 400 trainees. The cost for four vessels to be acquired is estimated at Rs 500 Million," a Shipping Ministry official told PTI.

There is acute shortage of trained manpower in the space in view of increasing fleet size and the number of officers globally is likely to swell to 660,000 by 2015, he said. "Shortage of officers is likely to become acute by 2013 and India can very well aspire to increase its market share to 9%, the official said adding it will have to supply 65,000 additional officers by 2015.

In this regard, the Ministry is planning to increase the on board training slots from 4,000 at present to 16,000 in the next few years. Also, the Ministry plans to undertake promotional campaigns, including mass media advertising, direct marketing, school and college contact programmes etc at an estimated expenditure of Rs 20 Million. Earlier this year, Shipping Minister GK Vasan while unveiling the maritime agenda for shipping sector that envisaged Rs 5 Billion investment in the space by 2020, also stressed the need for grabbing more market share by the Indian seafarers.

*Source: PTI*

## ***OBITUARY***

*We regret to advise that Mr Reginald George died after a long illness on the 2nd June 2011.*

*Reg was a member of SAIMENA for many years and many of our members will remember him from the days of Safmarine and the Shipyards in Durban*



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## **EXHAUST GAS RECIRCULATION**

For low-speed engines, our engineers have developed a system known as exhaust gas recirculation (EGR) that can reduce nitric oxide emissions in ships by up to 80 per cent. In 2010, a prototype is set to demonstrate its practical suitability on a ship owned by the major Danish shipping company A. P. Møller-Mærsk. Following successful testing in Copenhagen, our engineers have high expectations of this maiden voyage. EGR is currently also undergoing pilot testing for medium-speed engines.

By recirculating exhaust gas into the charge air, the oxygen content in the cylinder is reduced and the specific heat capacity increased. Both cause lower combustion temperatures and therefore fewer NOx emissions. The sulphur content of heavy fuel oil, however, can lead to soiling and the corrosion of components.

Our specialists are solving this problem with an exhaust gas scrubber, the first stage of the complex recirculation system. It cleans the exhaust gas to remove sulphur and particles. The unit is linked to a water purification plant, which neutralises the resulting sulphuric acid with caustic soda and collects the solid residues in tanks, so that they can be disposed of on land. After the scrubber follows a cooler, which reduces the exhaust gas temperature to no more than 100 degrees Celsius.

A “drip catcher” in the next stage removes the final traces of humidity from the exhaust gas. A fan then increases the pressure of the re-circulated exhaust gas by 0.4 - 0.7 bar, before the gas is returned to the charge air. The exhaust gas recirculation function can be switched on or off depending on where the ship is being used and the environmental regulations that are applicable. Our engineers have designed the system in a way that it can be operated easily by on-board crews. In the event of a fault, it automatically takes itself out of service.

© MAN Diesel & Turbo Green Technology 2011

## **WHERE ARE THEY NOW?**

The following members correspondence has been returned to the sender by the Post Office:-

Mr HH Wilmot of Pinetown

Mr A C Mc Farlane of Forest Hills

Mr F R Joubert of Simon'sTown

Mr C J Handley of Port Elizabeth

Mr J R M De Freitas of Maydon Wharf

If any member knows the whereabouts of any of these members please contact the Secretary or myself at [ralph.baker@telkommsa.net](mailto:ralph.baker@telkommsa.net) or 031 3126929

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## **SAIMENA vs SOMMSA (CAPE TOWN)** **CRICKET MATCH 2011**

The 22nd Annual cricket match was held at Theo Marais Park Cricket Ground in Milnerton on Sunday 29th March 2011.

SOMMSA won the toss and elected to bat first.

The SAIMENA team lost two of its members due to pulled muscles while fielding shortly after the start and thanks go to Teppo Suominen and Kevin Watson who stood in for them at short notice.

SOMMSA scored 113 runs all out in 21 overs.

The main run scorers were as follows:

Craig Hermanus: 32 runs

Garth Hansen: 21 runs

Gary Walsh; 16 runs (not out)

The best bowling performances for SAIMENA team were Richard Armstrong who took 3 wickets for 5 runs in 3 overs, and Gareth Hermanus who took 2 wickets for 14 runs in 3 overs.

SAIMENA were skittled out for 59 runs in 19 overs!

The main runs scorers were as follows:

Richard Armstrong: 22 runs

Dave Kerrich-Walker: 14 runs

The best bowling performances for the SOMMSA team were Vernon Keller who took 2 wickets for 8 runs in 3 overs, Basson who took 2 wickets for 7 runs in 2 overs and Jon Klopper who took 2 wickets in a maiden over.

The final result was that SOMMSA beat SAIMENA easily by 54 runs and won the trophy back. The Dorbyl Trophy was presented to SOMMSA skipper Roland Webb by Jan Flockhart.

The prizes presented for the best performances were as follows:

Man of the match: Richard Armstrong - SAIMENA

Best Batting performance: Craig Hermanus - SOMMSA

Best Bowling performance: Vernon Keller - SOMMSA

Best Fielding performance: Gareth Hermanus - SAIMENA

Best run out/stumping: Roland Webb - SOMMSA

### **A BIG thank you goes to all the sponsor as follows:**

#### Cash donation towards drinks:

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## Simulator Training

On Wednesday 23 February 2011 we were pleased to welcome the Durban branch of SAIMENA to the Department of Maritime Studies at the Durban University of Technology. The reason for hosting this meeting at DUT was in order to present and demonstrate the use of the ERS4000 Transas Engine Room Simulator. This simulator programme was installed and commissioned last year following two years of motivating for such equipment in order to upgrade our teaching and training for marine engineers at all levels of competency.

It should be emphasized that such programmes do not provide the equivalent of the experience acquired from actual watchkeeping service in the engine room of a merchant ship. However simulation can provide knowledge and skills to operate, supervise and monitor the safe operation and control of a ship's machinery installation in accordance with provisions of the STCW Code.

In particular, the student will gain:

Familiarisation with the use of instrumentation and controls used in the engine rooms of modern merchant ships.

Awareness of the need for proper pre-planning, the use of checklists and of the

timescales involved in machinery start-up procedures.

Understanding and awareness of correct watchkeeping procedures.

Experience in identifying operational problems and trouble-shooting them.

The ability to make decisions, which promote the safety and efficiency of an operational plant.

The student's watchkeeping experience at sea in the engine room of a merchant ship will be enhanced and consolidated by the structured activities undertaken on the simulator. The simulator system incorporates basic units found in the engine room of a modern merchant ship and the system is certificated by DNV classification.

We have two ships simulated in our six cubicle facility at DUT:

A slow-speed main-propulsion turbocharged engine providing propulsion for a large containership via a FPP.

Medium speed main propulsion turbo-charged engine providing propulsion for a Ro-Ro ship via a CPP.

Each engine room has in addition to the main engine and its associated equipment and systems:

A waste-heat steam boiler

Auxiliary machinery and equipment to support the main engine and operate the engine room and ship. This includes diesel alternators plus a shaft alternator and associated switchboards and instrumentation.

All typical safety alarms monitoring and safety equipment is provided.

Safety is a fundamental aspect of machinery operation and this is stressed during an exercise briefing, throughout the exercise and the following debrief session. The use of pre-planning, checklists and safe working procedures are stressed. Before the students proceed with any simulation, they shall have prepared themselves by pre-planning, working out check lists and safe working procedures for the exercise in question. Exercises start with simple activities, in which students gain familiarisation of systems by using simple elements such as valves, pumps, fluid systems or tanks. Step by step they proceed towards more complex activities.

The simulator is designed to provide training for normal and faulty machinery operation. Exercises reflect realistic situations in order to provide students with the impression of actually being in an engine room or control centre aboard a ship. For this reason, the simulator's sound system is activated also, external activities, such as on-going maintenance and support, accommodation systems, deck requirements and safety aspects are included in exercises. Trouble-shooting scenario used in the simulator is designed to provide the student with experience in identifying malfunctions and applying safe and proper remedial procedures.

Besides providing teaching and training exercises the simulator may also be

used for making an assessment on aspects of competency regarding the safe operation of engine room machinery and systems. We can also set-up for engine room team management exercises, when a student has an opportunity to supervise and co-ordinate an emergency such as an engine room fire.

By the end of their visit I think our guests saw the value and quality which this new modern simulator equipment and programme was providing for our marine engineer students at all levels. We were grateful for the sponsoring of refreshments for the evening provided by “Radio Holland” who is the Transas agent in Southern Africa who also provided technical advice and assistance during the acquisition and commissioning of this simulator.

**Edward Pines**

## **Queen Mary 2 saves fuel after switching to Intersleek 900**

Cunard has confirmed significant savings on its flagship cruise liner Queen Mary 2 since converting from a silyl-based TBT-free self-polishing copolymer antifouling in November 2008 to International Paint's fluoropolymer foul release coating Intersleek 900.

From its own detailed studies on the propulsion efficiency of Queen Mary 2, Cunard has confirmed that since the application of the Intersleek 900 system to the vertical sides, vessel efficiency has improved by over 10 percent. Mr.

Ronnie Kier, Chief Engineer of Queen Mary 2, explains how this was calculated: "Prior to the drydocking, in order to achieve the necessary speeds to meet our demanding schedule, we would need to utilize all four 14.5 MW diesel generators and supplement that with our 8 MW gas turbine running on gas oil. After the drydocking we only required the four diesel generators, which gave us a direct saving of approximately 36 tonnes of gas oil per day or around \$30,000 per day at today's prices. What is more important to us is that those initial efficiency improvements have been effectively maintained over the 30 months since application."

The lower fuel consumption seen on Queen Mary 2 since the application of Intersleek 900 represents a reduction in CO<sub>2</sub> emissions of over 50,000 tonnes - equivalent to taking 16,000 cars off the road for 12 months.

Cunard's parent Carnival Corporation is committed to reducing the environmental impact of vessel operations through "practices which set a high standard for excellence and responsibility." The decision to switch to Intersleek(R)900 was an integral part of a strategic initiative to reduce fuel usage and associated CO<sub>2</sub> emissions whilst still maintaining operational schedules. The fact that Intersleek is biocide-free was also an important part of the decision. Carnival first applied Intersleek in 1999 and 50 vessels in the group are coated with Intersleek products. Going forward, the intention is to convert the remainder of the fleet to biocide-free schemes.

*Source: Marine Log*