



Cape Peninsula  
University of Technology

# Maritime Studies

SOUTH AFRICAN MARITIME SAFETY AUTHORITY ACCREDITED COURSES

**FORMAL COURSES**

**MARINE NAVIGATION**

- Master Unlimited CoC
- Chief Mate CoC
- Deck Officer CoC
- Master Coastal CoC
- Mate Coastal CoC
- Master/Skipper Port Operations CoC

**MARINE ENGINEERING**

- Chief Engineer Officer CoC
- 2nd Engineering Officer CoC
- Engineer Officer in Charge of a Watch CoC
- Chief Engineer Officer (Port Operations) CoC
- 3rd Engineer Officer (Port Operations) CoC (SAC/Certificate of Competency)

**ADMISSION REQUIREMENTS: FORMAL COURSES**

The minimum admission requirements are a National Senior Certificate, with

- English First Additional Language (rating 3)
- Mathematics (rating 2) and
- Physical Science (rating 2)

OR

Nil pass with a minimum of 60% for Mathematics NA and Engineering Science NA, as well as the minimum language requirements of the University.

**CLOSING DATE FOR APPLICATIONS:**  
31 AUGUST 2012

**EXAMINATION CENTRE FOR  
SQAIMCA (UK LAP), IWCP & PRISA  
ASSOCIATIONS**

AMENC, GB TRUST, IMCC, IASST, NGR, HOYC,  
RFA, SAIMENA, SAGGA, SOMMSA, WSTA



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- Three Day Proficiency in Life Raft (PLR)
- Ten Day Able Seaman
- Ten Day Oil/Water Course
- PST One Day Basic Sea Survival including Familiarisation
- PST & PMSR (Two Day Basic Training including Familiarisation)
- Five day PSC (Officers)
- Nine day PSC (Rating)
- One Day PST/PMSR Refresher Familiarisation
- Four day Fast Rescue Craft Course
- Two day Offshore Cookswain
- One Day Offshore Cookswain (Refresher)
- One Day Fast Rescue Craft (FRC)
- Electronic Navigation Systems (ENS)
- Navigation: Radar & ARPA Simulation (NAVRES)
- Three day Ship Security Officer (SSO) Code
- Helicopter Landing Officer Course (Theory & Practical)
- Half day HMBT (Practical drill and survival training)
- One day Aviation Safety & Survival
- One day Aviation Safety & Survival (Including HMBT)
- Aviation – HMBT (Practical Drill only)
- Two Day Petrochemical Safety
- SA Law & Administrative Procedures
- Two Day Tanker Familiarisation
- Five Day Combined Specialised Oil/ Chemical Tanker Safety
- One Day Team Building (Survival format)
- Signals including Morse Code
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- One Day Cargo Management and Passage Safety
- Two Day SAIMSA Level II Assessment Course
- Ten Day GMDSS (DOC)
- Five Day GMDSS (DOC Refresher) Part-time
- International Maritime Dangerous Goods Course (IMDG)

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**December 2011**

[www.saimena.org.za](http://www.saimena.org.za)

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

**THE PRESIDENT'S REPORT 2011**

We note the sad loss of the National Secretary Dick Jenkins who passed away shortly before his 91st birthday.

Dick served tirelessly on Council for many years; he was a founder member of S.A.I.M.E.N.A. and was the only President who served two terms; Dick served this Institute tirelessly for thirty five years, always having the interest of Marine Engineers at heart. I first met Dick in the late seventies when I attended meetings in Durban, I found him to be quick witted, astute and appreciative of knowledge gained from visiting speakers at the papers which I attended. I once carried out a damage survey with Dick which involved crawling through a double bottom tank, I found him to be extremely agile and observant for a person of his age. The Annual Dinner dance at the Durban Country Club which was one of the highlights on the social calendar was organised by Dick, also the daily running of S.A.I.M.E.N.A. House.

Dick had a distinguished professional career in Marine Engineering which is difficult to describe in a short article, he served as a mentor to many marine engineers including myself. He was the Marine Manager of Unicorn Lines, before moving to Dorbyl where he was involved in ship building activities, including the building of the "Tramco" class vessels. I was fortunate to have sailed as Chief Engineer on three of the ships the "Ridge", "Range" & "Gamtoos" and found the ships to be very fine vessels. Note the picture of Dick Jenkins with our ex Prime Minister John Vorster discussing the importance of shipbuilding in South Africa in the September 2011 addition of Table Talk. Dick was truly "larger than life" and made a major contribution to the development of the ship building and repair industries in Durban.

After retiring from the ship repair & building industry he started "Jenkins Marine" working well into his old age. May he rest in peace, his contributions to S.A.I.M.E.N.A. will always be remembered.

The recent Maritime Command seminar held at Granger Bay, Cape Town was a resounding success with over one hundred delegates from all spheres of the Industry attending. Kevin Watson the vice President presented a paper on initiatives being implemented for an integrated maritime security along the South African coast. Security and Piracy remains a challenge to shipping in the African region. Tony Norton a Director at ENS law firm, introduced the challenges to rebuilding the South African flag fleet. There has been no growth in the S. A. Register, in fact there are no vessels on the register at present. Among the challenges facing the industry is a shortage of skilled South African sea farers to crew the nation's vessels.

Hopefully the sale of the “S.A. Agulhas” to South African Maritime Safety Authority (S.A.M.S.A.), for the purpose of creating a cadet training ship, will go a long way to creating berths for training seafarers in the industry.

The Government needs to make it more attractive for ship-owners to register their vessels on the S. A. ship register.

On the Maritime training front Ed Snyder’s, Head of Maritime Studies, outlined how CPUT has embarked on a new set of qualifications. A Bachelor’s Degree in Nautical Science will replace the existing National Diploma in Maritime Studies by January 2013. It is very difficult to convince academics, that what mariners do is important, so the academic components of the National Qualifications Framework (NQF) will be aligned with those of the S.A.M.S.A. certificate of competency. Ed explained the degree route was chosen because the Class 1 Certificate of Competency was seen as not having the Status of a degree, and was not recognised outside the industry.

This is good news, as in the past S.A.I.M.E.N.A and SOMMSA had meetings in this regard, hoping to make seafaring a more attractive career for young people.

The implementation to the 2010 “Manila Amendments” to the S.T.C.W convention will be applicable from January 2012 and will have far reaching consequences for Seafaring. New wide ranging amendments to the S.T.C.W. rules, agreed by governments in Manila during 2010 are intended to ensure that STCW standards stay relevant, so that seafarers can continue to develop and maintain their professional skills. In particular, numerous changes are now being introduced to take account of technical developments that require new shipboard competencies. We live in exciting and challenging times and I believe we need to combine our expert knowledge with other players in the industry to remain a premium institute in Marine Engineering & Naval Architecture.

*Dick Shaw President*

**EDITORS PAGE**

I would like to share my recent holiday with you, particularly the tourism and maritime part. For this cruise I joined the walking stick brigade aboard a small ship, the Discovery, built in 1967 but comfortable in fair weather, at any rate. The cruise started at Lisbon and finished at Dubrovnic, taking in 6 countries and 9 ports in 10 days. Very strenuous at times and always congested when ashore. If I never hear another word about Neapolian or Leonardo da Vinci I will be quite happy. We visited 20 Cathedrals 40 churches and 10 museums. What struck me was the sheer volume of tourists. They infiltrated everywhere. At Chivitavecchia, the nearest port to Rome, there were 12 cruise ships in port with an average compliment of say 2000 tourists each. In addition to this, our tour guide said that the majority of tourists came in by air. This was October at the end of the high season.

On matters maritime I found it fascinating to see these great floating blocks of flats manoeuvring into restricted berths without tugs.

At Cartagena port entrance there is the first successful naval submarine on display. This boat, built in 1880 was propelled by two electric motors and successfully fired blank torpedoes from a depth of 9 meters in a mock attack lasting 2 hours. I noticed a small propeller facing down at the stern, presumably to adjust trim. The other beauty we saw was the Royal Clipper, a five masted square rigged sailing ship. She was in magnificent condition and while we watched a Seaman unfurled a topmast sail. You can just see him in the picture. With a booming cruise ship industry its incredible that we also have a booming order book for container ships and tankers. This year there have been 52 container ships ordered. Included in this order are 20 ships of 18,000 teu capacity, 10 of 14,000 teu, 10 of 13,000 teu and 7 of 10,000 teu. In addition negotiations are in progress for 80 VLCC's.

Needless to say that the majority will go to Chinese builders and many will be for Chinese owners. I hope they have got their sums right!!

***Take Care Ralph***



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### **THE MANILLA AMENDMENTS**

The amendments, to be known as “The Manila amendments to the STCW Convention and Code” are set to enter into force on 1 January 2012 under the tacit acceptance procedure and are aimed at bringing the Convention and Code up to date with developments since they were initially adopted in 1978 and further revised in 1995; and to enable them to address issues that are anticipated to emerge in the foreseeable future.

Amongst the amendments adopted, there are a number of important changes to each chapter of the Convention and Code, including:

- Improved measures to prevent fraudulent practices associated with certificates of competency and strengthen the evaluation process (monitoring of Parties’ compliance with the Convention);
- Revised requirements on hours of work and rest and new requirements for the prevention of drug and alcohol abuse, as well as updated standards relating to medical fitness standards for seafarers;
- New certification requirements for able seafarers;
- New requirements relating to training in modern technology such as electronic charts and information systems (ECDIS);
- New requirements for marine environment awareness training and training in leadership and teamwork;
- New training and certification requirements for electro-technical officers;
- Updating of competence requirements for personnel serving on board all types of tankers, including new requirements for personnel serving on liquefied gas tankers;
- New requirements for security training, as well as provisions to ensure that seafarers are properly trained to cope if their ship comes under attack by pirates;
- Introduction of modern training methodology including distance learning and web-based learning;
- New training guidance for personnel serving on board ships operating in polar waters; and
- New training guidance for personnel operating Dynamic Positioning Systems.

## **AN OVERVIEW OF MARITIME QUALIFICATIONS IN SOUTH AFRICAN HIGHER EDUCATION AND THE CONTINUOUS PROFESSIONAL DEVELOPMENT DEBATE**

by ED SNYDERS (Assoc Prof) D Tech Educ; Master Unlimited; MNI

### 1. Introduction

In the South African context maritime education and training (MET) provision is, not limited to, in-house training facilities for the various shipping companies, private training providers and public (state subsidized) institutions. These MET providers are located mainly in the Western Cape (Cape Town) and Kwazulu-Natal (Durban) regions. The type of maritime education and training covers a broad spectrum of teaching and learning and incorporates, among others, STCW95 as amended, and non-STCW type qualifications.

See Table 1 for list of MET Providers and qualifications offered.

### 2.

South African Higher Education Qualifications Framework (HEQF) and newly proposed maritime qualifications. In terms of the newly promulgated HEQF, it is the intention of CPUT's DMS to offer the following programmes as from 2013, viz.

#### 2.1

Bachelor's Degree in Nautical Science (to replace the existing ND: Maritime Studies). This programme has been approved by CPUT's Academic Planning Committee (APC), Senate and the Department of Higher Education and Training (DHET) and awaits clearance from the Council on Higher Education (CHE) and the South African Qualifications Authority (SAQA). DHET approval was also granted for the Higher Certificate and Advanced Certificates in Maritime Studies.

#### 2.2

Bachelor's Degree in Marine Engineering (to replace the existing ND: Engineering: Mechanical: Marine). This programme has been approved by CPUT's Academic Planning Committee (APC) and Senate and awaits approval from DHET and clearance from CHE and SAQA. APC and Senate approval was also granted for the Higher Certificate and Advanced Certificates in Marine Engineering.

See Table 2 for South African National Qualifications Framework (NQF) Levels and associated qualifications

#### 2.3 Why the degree route?

We live in an era where a university education is perceived to be essential for an individual's progress. In addition it may, arguably, be considered that a career based on an apprenticeship or cadetship, albeit with practical (seagoing) or statutory (STCW) qualifications, is less worthy than one where a university degree is earned. These careers may have trouble attracting high quality entrants, a dilemma currently facing the shipping industry in

South Africa. In our context, the highest of these qualifications, viz. Class 1 Master and Chief Engineer certificates of competency (CoC) do not have the status of a degree. As a consequence, young South Africans (and perhaps their parents who are ambitious for them) will turn their back on a sea-going career, as it does not have qualifications that are recognized outside the shipping industry by, among others, South African universities (lecturing staff) and our banking industry (bonds, loans, hire-purchase agreements, (etc).

It is ridiculous that the Master and Chief Engineer of a giant passenger vessel is deemed to be educationally deficient on the basis that their qualifications are perceived to be inferior to those of a degree. This, however, is our reality.

Aligning and packaging the content of our seafaring qualifications into a degree programme may go a long way to the reverse current thinking. This is the route embarked by the Cape Peninsula University of Technology's (CPUT) Department of Maritime Studies. It has been a long, arduous journey (square peg in round hole) trying to persuade many, both inside of and outside CPUT, on the merits of degree programmes for our industry.

An alternative route for officers to improve their academic status is by Continuous Professional Development (CPD), with a large and growing number of suitable, distance learning courses available (Middlesex University).

Besides fulfillment for the individual, CPD may lead to better educated and more employable officers, who may migrate to other marine-related careers ashore.

In a bid to address the aging demographics in shipping, we need to devise innovative ways of attracting large numbers of high quality candidates to officer ships in the future. Additionally, we need to be mindful of the fact that talented individuals are in demand, in the support industries, ashore.

### 3. Continuous Professional Development

#### 3.1 What is Continuous Professional Development?

Continuous Professional Development (CPD) may be defined as a systematic approach for improvement and broadening of knowledge and skills, i.e. it is the means by which people maintain their knowledge and skills related to their professional lives. In terms of the stringent, international regulatory framework in which seafarers operate, it may be considered to be any education and training activity which helps to maintain, develop or increase knowledge, problem-solving, technical skills or professional performance standards with the goal of providing safer ships and cleaner seas.

CPD is generally driven by an individual's need for career progression. Associated concepts include, among others, individual development, . lifelong learning concept, knowledge transfer from generation to generation, . mentoring schemes and keeping yourself up to date.

### 3.2 Why Continuous Professional Development?

The competence of a mariner is largely dependent on,

- a good education (the gradual process of acquiring knowledge through learning and instruction),
- effective training (the development of skills or knowledge through instruction or practice),
- positive attitude and behaviour patterns,
- planned, systematic development of aptitude,
- industry (sea-going) experience,
- knowledge and understanding of the subject and ultimately
- the availability of opportunities to develop their skills.

CPD aims to,

- develop personal qualities, at different entrance levels, as a professional seafarer,
- improve standards of competence and professionalism and
- provide professional recognition.

In terms of our responsibility (STCW/ISM), it goes without saying that, competent seafarers continue to ensure that we have safer ships and cleaner seas.

3.3 Managing Continuous Professional Development Shipping is a complex, ever-evolving industry practised by a minority (seafarers) on a part of our planet (sea) of which little is understood (mysterious). Despite being central to intercontinental trade and the global economy there appears to be a disconnect between activities ashore and at sea, e.g. the maritime education (acquisition of relevant cognitive knowledge at college) and training (highly specialized psycho-motor skills required aboard) debate.

This leads to gaps in learning (GIL) which has to some extent, during the latter years, been overcome by

- sophisticated, dedicated simulators at shore-based establishments and
- competency-based training (CBT), video packages (VideoTel & Seagull) and other e-learning platforms at the coalface.

However, the biggest barrier to effective e-learning services aboard vessels remains the high costs of ship-to shore communications. It makes internet surfing aboard high impossible and dedicated shipboard applications extremely expensive.

In addition, it is imperative that lecturers at shore-based institutions keep up to date with new developments in their quest to grow new timber, e.g. lecturing staff should be encouraged to work aboard vessels, during their sabbaticals, to keep their CoC's valid.

Individual shipowners, e.g. Teekay Tankers, developed a CPD initiative named Seafarer Competency for Operational Excellence (SCOPE) which clearly defines competency requirements for each rank aboard. SCOPE, in addition, provides a structure to assist the seafarer's development throughout his/her career. Teekay is of the firm belief that employees are their greatest asset.

In this regard, their competence management system is vital for employee retention, customer confidence, developing leaders and industry leadership.

### 3.4 Engineering Council of South Africa and CPD

The following bodies play an important role in the CPD of maritime related personnel and seafarers in particular, viz.

- Engineering Council of South Africa (ECSA) and the
- South African Maritime Safety Authority (SAMSA).

ECSA is responsible for regulating the practice of engineering in South Africa.

Registered persons are required, by their Code of Conduct, to practice strictly within their area of competence and to maintain and enhance this competence, via CPD, by keeping abreast of developments and knowledge.

CPD was introduced, for all registered persons with ECSA, in order to:

- ensure, through the creation of a culture of CPD, that all registered persons maintain their competence throughout their period of registration,
- Meet the requirements of the Engineering Profession Act, Act 46 of 2000,
- Be the acceptable means for renewal and registration, . Meet the requirements for recognition of ECSA's assessment process with regard to international agreements,
- Ensure that those South African registered persons meet the requirements for their continued international registration.

#### 3.4.1 Professional categories

The ECSA, CPD Policy is applicable to all persons who are registered in the following professional categories, viz.

- Professional Engineers,
- Professional Engineering Technologists,
- Professional Certificated Engineers (Chief Engineer CoC) and
- Professional Engineering Technicians.

Table 3 outlines the requirements for ECSA registration in terms of qualifications and minimum experience.

Table 3 Requirements for ECSA Professional Registration

Table 4 depicts accredited CPD activities and maximum credit accumulation guidelines.

NB: CPD credits must be obtained from at least two of the three categories listed above, with at least 1 credit per annum from Category 1 in Table 4.

The maximum permissible credits which may be accumulated annually in each category is indicated in column 3 of Table 4.

Over the 5 year renewal of the ECSA registration cycle, a total of 25 credits shall be accumulated, i.e. 5 credits per annum.

For detailed information visit the ECSA website at [www.ecsa.co.za](http://www.ecsa.co.za) or [engineer@ecsa.co.za](mailto:engineer@ecsa.co.za) or [registration@ecsa.co.za](mailto:registration@ecsa.co.za)

#### 4. Conclusion

Some of the challenges facing MET in South Africa are, among others, the paucity of suitable cadet berths,

- the inability of DMS to attract suitably qualified lecturing staff and
- the lack of a dedicated, CPUT managed marine engineering workshop training (MEWT) facility where the academic and practical components may be integrated.

In January 2011, the SAMSA Cadet training project was initiated. The project aims to fully sponsor the experiential (work integrated learning) component of cadet training. This shall, in particular, include the costs incurred for training berths that may encourage third-party shipping companies to come aboard.

A SAMSA subvention of salaries shall be finalized and a memorandum of understanding (MoU) signed between SAMSA and CPUT during the next few days. The SAMSA subvention aims to top-up the salaries of current and aspirant lecturing staff to the same levels of a SAMSA surveyor (holders of a Master Unlimited and Chief Engineer CoC). This shall, in all probability, make it more attractive for appropriately qualified and experienced sea-going personnel to take up the challenge of a lecturing position ashore.

South African shipping, and CPUT in particular, is extremely indebted and appreciative of the innovation and willingness, on the part of SAMSA, to be a part of a South African solution.

In conclusion, countries that aspire to have a strong merchant fleet should investigate the advantages of having a training ship dedicated to education.

Training students on a dedicated training ship is an absolutely necessary link in their programme of maritime education. Arguably, the costs of an accident or incident far outweigh the costs of running a training ship.

To diversify the risk, capital, operational and manning costs may be divided if the venture is borne by neighbouring nations with an interest in shipping. This may be realised by signing a memorandum of Agreement/ Understanding, e.g. at South African Development Countries (SADC) or African Union (AU) level.

TABLE 1

MET Provider	Region	Provider Type	Maritime Related Qualifications Awarded
Cape Peninsula University of Technology (CPUT): Department of Maritime Studies (DMS)	Western Cape	Public HE	- STCW <sub>95</sub> as amended, aligned formal courses for Deck & Engineer officers - National Diploma (ND): Maritime Studies & ND: Engineering: Mechanical (Marine) - Under & Postgraduate Degrees in Maritime Related Studies pending
CPUT: Offshore Survival Centre (joining the existing offices of a sea & maritime industrial)	Western Cape	Public: Self-supporting	Non-formal STCW <sub>95</sub> related and other short courses for officers & ratings
Durban University of Technology (DUT): Department of Maritime Studies (DMS)	Kwazulu-Natal	Public HE	- STCW <sub>95</sub> as amended, aligned formal courses for Deck & Engineer officers - National Diploma (ND): Maritime Studies & ND: Engineering: Mechanical (Marine)
Project Maritime Training (PMT)	Western Cape	Private FET	STCW <sub>95</sub> , STCW <sub>95</sub> related and other courses
Simon's Town School	Western Cape	Public/Private FET	National Senior Certificate (Maritime Studies)
South African Maritime Training Academy (SAMTRA)	Western Cape	Private	STCW <sub>95</sub> related, non-formal simulator and other training for Deck & Engineer officers & ratings
Transport National Ports Authority (TNPA): School of Ports	Kwazulu-Natal	Private: In-house FET	Non-STCW <sub>95</sub> port operations related training courses
Unicom Training School	Kwazulu-Natal	Private: In-House	Non-formal STCW <sub>95</sub> related short courses for officers & ratings
University of Cape Town (UCT): Faculty of Law: Shipping Law Unit	Western Cape	Public HE	PGD, Masters & Doctorates: Shipping Law & Marine & Environmental Law
University of Kwazulu-Natal: Faculty of Law	Kwazulu-Natal	Public HE	PGD, Masters & Doctorates: Maritime Law
University of Stellenbosch (US): Unit for Maritime Studies (Logistics) - Faculty of Engineering - S.A. Naval Academy	Western Cape	Public HE	- PGD, Masters & Doctorates: Transport Economics - Masters & Doctorates: Naval Architecture - B Mil (South African Naval Academy, Stellenbosch Bay)

TABLE 2 South African National Qualifications Framework (NQF) Level and associated qualifications.

NQF Level	NQF Band	HEQF Type of Qualification (DHET)				Equivalent STCW <sub>95</sub> , as amended, Qualifications aligned to HEQF (NDoT / SAMSA)	
10	HE Post-graduate	Doctoral Degree					
9		Masters Degree					
8	HE Under-graduate	Professional Bachelor's Degree	Bachelor Honours Degree	Post-graduate Diploma	Non-graduate Diploma	Master Unlimited CoC (min 24 months see service)	Chief Eng CoC (min 24 months see service)
7			Bachelor's Degree	+ 12 months work-based learning	Advanced Diploma	Chief Mate CoC (min 12 months see service)	2 <sup>nd</sup> Eng CoC (min 12 months see service)
6		Minimum NSC Rating 4 (50-59%)	Minimum NSC Rating 4 (50-59%)	Current National Diploma (S1 to S4)	Advanced Certificate	Semester 3 + Semester 4 (Acad Chief Mate & Master)	Semester 4 (Acad Chief Eng)
5	HE Under-graduate	Minimum NSC Rating 3 (40-49%)	Minimum NSC Rating 3 (40-49%)	Higher Certificate Minimum NSC Rating 3 (40-49%)	Deck Officer CoC (min 12 months see service)	Engineer Officer CoC (min 12 months see service)	
					Semester 1+Semester 2 (Acad Deck Officer CoC)	Semester 1+Semester 2 (Acad Engineer Officer CoC)	
4	FET	- National Senior Cert (NSC) - National Certificate Vocational (NCV)					
3	GET	General Education and Training Certificate (GETC): Senior Phase, Grades 7-9; Intermediate Phase, Grades 4-6 & Foundation Phase, Grades 1-3					
2							
1							

**Table 3 Requirements for ECSA Professional Registration**

CATEGORY	ACADEMIC QUALIFICATION	MINIMUM EXPERIENCE
Professional Engineer <i>(Pr Eng)</i>	B Sc (Eng) / B Eng <i>(4 Years - NQF 8)</i>	3 Years
Professional Engineering Technologist <i>(Pr Tech Eng)</i>	B Tech (Eng) <i>(3 Years - NQF 7)</i>	3 Years
Professional Certificated Engineer <i>(Pr Cert Eng)</i>	Government Certificate of Competence (CoC) for <ul style="list-style-type: none"> <li>• Engineers,</li> <li>• Mine Managers,</li> <li>• Marine,</li> <li>• Electrical &amp;</li> <li>• Mechanical Engineers</li> </ul> <i>(2 Years - NQF 6)</i>	3 Years in responsible position -  1 year must be as the engineer appointed in terms of an Applicable Act, e.g. MSA Act, Act 57 of 1951, as amended.
Professional Engineering Technician <i>(Pr Techn Eng)</i>	National Diploma <i>(2 Years - NQF 6)</i>	3 Years

Table 4 depicts accredited CPD activities and maximum credit accumulation guidelines.

**Table 4 CPD activities and credit accumulation guidelines**

Categories	Activities	Maximum Credits pa	Weighted Hours
Category 1	<b>Developmental Activities</b> <ul style="list-style-type: none"> <li>• Conferences</li> <li>• Congresses</li> <li>• Large group work shops</li> <li>• Lectures</li> <li>• Seminars</li> <li>• Refresher courses</li> <li>• Colloquiums</li> </ul>	4 credits	40 hours (10 hrs/1 credit)
Category 2	<b>Work-based activities</b> <ul style="list-style-type: none"> <li>• Engineering related work</li> <li>• Mentoring candidate practitioners</li> </ul>	2 credits 1 credit	800 hours (400 hrs/credit) 60 hours (50 hours/credit)
Category 3	<b>Individual activities</b> <ul style="list-style-type: none"> <li>• Membership of a recognised voluntary association</li> <li>• Other activities                             <ul style="list-style-type: none"> <li>✓ Part-time lecturing (UG)</li> <li>✓ Supervision of students (PG)</li> <li>✓ Oral examinations: Final yr / PG</li> <li>✓ Evaluation of M &amp; PhD theses</li> <li>✓ Papers presented at conferences</li> <li>✓ Participation in approved committees</li> <li>✓ Evaluation of HE programmes</li> </ul> </li> </ul>	1 credit 3 credits	(Not linked to hours) 30 hours (10 hours/credit)

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**TRANSNET BACKS AWAY  
FROM PRIVATISATION LEAVING SHIP REPAIR FACILITIES IN  
DISREPAIR; POTENTIALLY COSTING JOBS.**

The stop-start effort of Transnet National Ports Authority to privatise the operations and management of its ship repair facilities at SA ports has ground to a halt; almost 18 months after the process began. The ship repair industry submitted proposals to concession Transnet's ship repair facilities in June 2010. The problem appears to be the fact that the port authority and the industry cannot agree on the terms of the deal.

In addition, in the current political climate of nationalisation, Transnet CEO Brian Molefe is treading carefully. The discussion on whether to outsource these facilities or abandon the plan entirely will reportedly be discussed at the Transnet board meeting in November. A vibrant and rejuvenated ship repair sector will have a positive spin-off on job creation. The biggest constraint to growth appears to be the misalignment of the current business model. Transnet National Ports Authority (TNPA) owns and operates the docks, while the ship repair companies conduct the repairs. But the two parties do little strategic planning together. "Dry dock bookings operate on a first come first served basis," says Brian Gowans, MD of Marine Technology a specialist marine engineering consulting firm. This means that a Russian shipping vessel could occupy a berth for a week, at the expense of another potentially higher income generating shipping client.

The problem is that managing the dry docks has not been a priority for Transnet which earns less than 0.5% of its revenue from these facilities. In fact it would rather move the ship repair yards to Saldanha Bay and Richards Bay to make more space for cargo, which is where it makes its money.

As a result the ship repair facilities have fallen into disrepair, which disadvantages the companies that make use of the facilities as it drives costs up and efficiencies down. "I would estimate that each facility requires a capital investment of several hundred million over the first five years," says Louis Gontier, CEO of SA Shipyards. This is without factoring in the cost of maintenance.

This appears to be one of the stalling points in the negotiations. "Who will pay for these upgrades?" he says. "If it is the private sector they will require a long term leasehold as well as possibly a zero-rental concession. Right now Transnet is expecting the ship yards to pay a monthly rental of R2m to R4m per dry dock p/month."

Other issues include how to ensure that those who do invest in the upgrade get the return warranted; and how does one achieve this while protecting the smaller shipyards who may not have invested in new facilities. SA Shipyards did not participate in the request for a proposal. “We did not see the business model as viable,” Gontier says. The SA Transport and Allied Workers union (SATAWU) has publicly opposed the move. “We remain opposed to the privatisation of the dry docks which should be retained under state ownership as part of the promotion and growth of a vibrant maritime sector,” SATAWU announced in their reaction to Transnet’s financial results in June.

While government is announcing emergency measures to prop up the manufacturing industry, here is an industry with massive employment potential.

“It is enormously labour intensive. For every one person directly employed, another four are employed in support industries,” Gowans says. He believes a rejuvenated industry could quadruple current employment levels.

TNPA CEO Tau Morwe has recognised the economic potential of the industry.

In recent public statements he has stated that the TNPA is working with local industry to ensure that Cape Town and Saldanaha become service hubs of choice for the energy sector. He estimated the average economic spinoff from each rig repair at around R400m.

The industry provides the full spectrum of services. It repairs ships damaged around SA’s coastlines and in her ports; it carries out vessel modifications and performs scheduled dry docking repairs and maintenance. It also provides services to West African oil rigs and ships. However, considering SA’s strategic location on global shipping routes and just south of the booming West African oil industry, it could be much more. Cape Town is losing oil rig repair projects to Walvis Bay in Namibia or, alternatively the rigs bypass Africa altogether and are repaired in Asia.

Faced with choice in an increasingly competitive industry, owners of ships that call in at SA ports are opting for the likes of the Dubai dry docks, one of the world’s largest repair facilities.

However, this is not to say it is the fault of TNPA. “The TNPA is often unfairly blamed for the industry short-comings, for the poor infrastructure conditions and dry dock bookings,” Gowans adds. “The problem is that the operating model is incorrect. Government needs to consider the total revenue outcome for the SA economy.” While it deliberates SA is losing market share and opportunities. Moneyweb approached TNPA for comment as well as a number of companies involved in the ship repair industry. TNPA did not respond and the industry is unwilling to comment publically.

*Source : Moneyweb*



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### THE SS GAIRSOPPA

She was a British steam merchant ship that saw service during the Second World War. She sailed with several convoys, before joining Convoy SL 64. Running low on fuel, she left the convoy and headed for Galway, Ireland, but was torpedoed and sunk by a German U-boat in the Atlantic.

She was 399 feet 3 inches long, with a beam of 52 feet 2 inches, depth of 28 feet 5 inches and a draught of 25 feet 8 inches. She was propelled by a 517 nhp triple expansion steam engine driving a single screw propeller. The engine was built by Palmers and it could propel the ship at 10.5 knots.

Ordered by the British Shipping Controller as SS War Roebuck from Palmers Shipbuilding and Iron Company of Newcastle, she was taken over during construction by the British-India Steam Navigation Company, and completed in November 1919 as SS Gairsoppa.

Attached to convoy SL-64 under Master Gerald Hyland, she was returning from India to Britain in 1941 with a cargo of silver ingots, pig iron and tea. Joining the 8 knot convoy in Freetown, Sierra Leone, while in a heavy storm and running low on coal off the coast of neutral Republic of Ireland, Gairsoppa split off from the convoy and set course for Galway harbour.

She was circled by a German Focke-Wulf Fw 200 aircraft at 08:00 on 16<sup>th</sup> February and at 22.30 was spotted by U-101, under the command of Ernst Mengersen. Late that night she was torpedoed on the starboard side in No. 2 hold, and sank within 20 minutes, 300 miles southwest of Galway Bay. The wreck lies (15,400 ft) below the surface.

It was thought that three lifeboats launched, but only that in charge of the second officer R.H. Ayres with four Europeans and two Lascars on board made it away; the rest of the crew was lost.

The lifeboat set sail for Ireland in rough seas and icy conditions. With little water and hard biscuit rations, after two days they were unable to swallow the biscuits as their mouths were so dry. Four men died of hypothermia on passage.

Ayres and his boat reached the Cornish coast two weeks later at Caerthillian Cove. Two died trying to get ashore; they are buried at St. Wynwallow, Church Cove, Landewednack.

Ayres was the only survivor and was made an MBE for his attempts to rescue his fellow sailors, and lived until 1992.

Eleven crew are commemorated on Tower Hill Memorial, Panel 51. Seventy lascars are commemorated on the Chittagong War Memorial.

#### Recovery

After a competitive tender, in January 2010 the government awarded a US company, Odyssey Marine Exploration, a two-year contract to find and salvage

the 7,000,000 ounces of silver, which was worth £600,000 at the time of sinking, but hundreds of times that amount now.

Footage of the Gairsoppa was provided by the Odyssey Marine Exploration Company on September 26th, 2011 and published at the NYTimes.com It was reported that the silver to be recovered from the ship could have a value of £150 million at 2011 prices. Odyssey Marine indicated that the operation to recover the bullion would begin in the spring of 2012. Odyssey will retain 80% of the value of any recovered cargo, with the remainder going to HM Treasury.

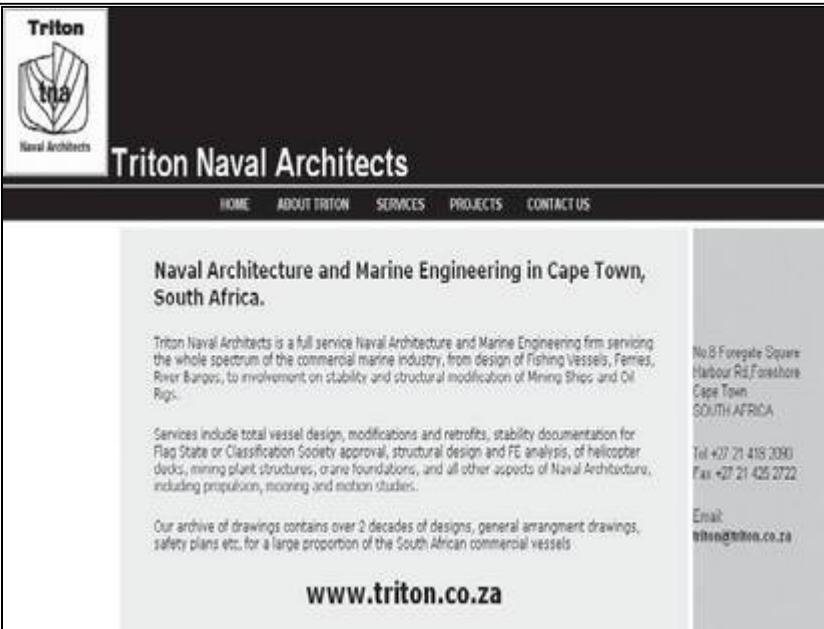
### THE CHAUNCY MAPLES

The Council agreed at the last Council meeting that, SAIMENA would contribute £1000 towards the Chauncy Maples trust fund.

Other magnanimous sponsors have contributed to ensure that she is completed and will remain in service for several years.

This remarkable ship built in Glasgow, disassembled and shipped to Malawi in 1912 is being refitted as a floating Clinic to serve the isolated communities surrounding Lake Malawi. She is distinguished by the fact that all the individual shell plates, frames and machinery etc. were transported on the heads of porters from the coast to the lake. The 7 ton boiler, that could not be dis-assembled, was mounted on a traction wheeled trolley and hauled up to the lake by 300 tribesmen.

( If you have not read the story in previous issues I want to know why).



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## POTENTIALLY HAZARDOUS SHIPPING CONTAINERS

The ITF is acting to secure the health and safety of port workers and seafarers amid concern over potentially dangerous refrigeration containers still being operational. Maersk has quarantined some 900 units after three fatalities earlier this year were linked to maintenance work carried out on reefer containers in Vietnam. Although as yet unconfirmed, it's thought that some reefers may have been topped up with contaminated gas causing them to be potentially explosive under certain conditions. The ITF has informed dockers, seafarers and road and rail affiliates of the safety concerns and advised them to follow up with their local health and safety authorities. General safety advice includes not connecting the reefer units for recharging and keeping them in isolated zones where there are no people or crossing vehicles. ITF dockers' section secretary Frank Leys said: "We are pleased to see that big shipping lines like Maersk have reacted quickly to this situation and we would join our US affiliate, the International Longshore and Warehouse Union, in urging any companies or organisations who haven't already taken steps to alleviate this risk, to follow suit now. Where there are possibly contaminated containers still at large, we are calling on port authorities and shipping companies to issue clear guidance on how they should be handled." He continued: "The health and safety of workers is paramount and in no instance should commercial or productivity issues be allowed to supersede the welfare of workers." Seafarers' section secretary Jon Whitlow added: "We are extremely concerned for the welfare of those workers on ships who may be unaware that a defective container is being carried on board.

"Although we acknowledge that the maritime community is moving fast to provide the necessary information and advice on how to handle the contaminated containers in ports, we hope the same approach and priority is given to adequately inform the on board safety officers in order to protect the integrity of seafarers and ships." He went on to say: "Whilst of course the explosion of a container ashore is a tragic event, we think that a similar explosion on board a vessel could have potentially catastrophic effects on workers, ships and the environment." Additionally, inland transport section secretary Mac Urata commented: "This is not just an issue for seafarers and dockers, workers right across the supply chain are potentially at risk. We are looking now for a swift and thorough investigation into how these tragedies came about and information on what happens next to ensure workers' safety.

*Source : ITF*



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## CAN WE REDUCE HARMFUL EMISSIONS?

Other than CO<sub>2</sub> ships also produce a number of atmospheric emissions which are considered harmful. They are products of combustion, and the most significant are sulphur oxides (SO<sub>x</sub> and nitrous oxides (NO<sub>x</sub>), along with tiny waste particles known as particulates. All are now being limited by international, regional and national laws and will be subject to increasing severity of regulations over the next few years. Emission Control Areas, where these limits apply, might be expected to spread around the world in the future. What practical means can be undertaken to reduce, or even prevent any of these emissions entering the atmosphere? In the case of sulphur, the quality of the fuel that is used can be changed to low sulphur oil or distillates, which will make a marked difference. Alternatively, the emissions can be scrubbed to clean them before they pass into the atmosphere. Or it might be feasible to use liquefied natural gas which burns cleanly, or even bio fuels, although there are issues about the use of products which would otherwise have been available for food, and objections to the felling of tropical rainforests for the planting of oil palms. Engine manufacturers have been working hard to address these problems, coincidentally producing very much more efficient marine engines which, by burning less fuel in the first place, go some way to solving emission problems. The problem of NO<sub>x</sub> can be reduced substantially by means of exhaust gas recirculation, a system which, rather than pumping the exhausts straight into the atmosphere cleans, cools and recirculates the gases back into the engine. This reduces the amount of NO<sub>x</sub> that is generated in the combustion chamber. Tests have confirmed that if just 20% of the exhaust gas is recirculated, there is a 50% reduction in the amount of NO<sub>x</sub> produced. Waste heat recovery, (which in Seascapes No. 104 we saw reduced CO<sub>2</sub>) also reduces other emissions, and increases engine efficiency. The big challenge is less to do with the design of new ships and new engines, but with the existing fleet, ships which were built according to all the regulations that obtained at the time, and with the expectation of a 20-25 year life. In the past, such as when fuel prices quadrupled in the 70s making steam turbine ships uneconomic, it was possible to re-engine, but this is obviously vastly expensive. It is however possible to “retrofit” exhaust gas cleaning systems to existing machinery, that will enable tighter emission controls to be complied with. And while ships built before certain dates may be allowed to operate to the term of their natural lives without modification, it is possible that pressure from the users of ships who might wish to be seen using “cleaner” and greener ships might encourage changes.

*Source: Bimco*



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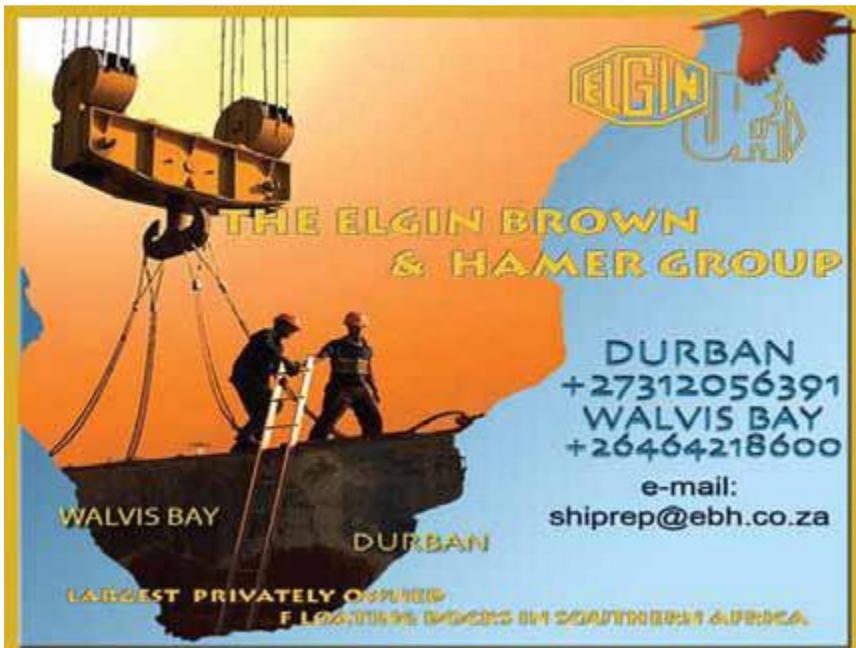
### WELCOME TO THE NAUTICAL INSTITUTE

Following the very successful Command Seminar in September in Cape Town which attracted many participants in the maritime industry, including politicians, it was decided to form a local branch. We wish them every success. Established in the UK 40 years ago with branches throughout the world, a local branch can only be beneficial to the South African maritime industry.

The Southern Africa Branch was formally established on the 9th September 2011 at a meeting held at the Cape Peninsula University of Technology in Cape Town. Present at the meeting was the Nautical Institute President Capt. James Robinson and Chief Executive Mr. Phillip Wake as well as more than 20 RSA resident Nautical Institute members.

The meeting elected Rob Whitehead MNI as Branch Chairman, Capt. Allen Brink FNI as Branch Treasurer and Simon Pearson MNI as Honorary Secretary.

The meeting further agreed that the branch should represent all Southern African countries and adjacent islands in the region.



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### WELCOME TO THE FOLLOWING NEW MEMBERS:-

Mr G M Gilbert of Belville

Mr J G Kruger of Kraaifontein

Mr M Q Abrahams of Lansdown

Mr JA Cotton of Clairmont

We are unable to contact the members listed below due to incorrect addresses. Will any member who knows the where-about's of any of these members please advise Admiral Watson Mr Deyzel or myself

Mr J LAUBSCHER, DURBAN,4063.

Mr C R DELDERFIELD, ,HILLCREST, 3650

Mr S RAATH ,BLUFF 4036

Mr H VAN NIEKERK, GLENASHLEY, 4022

Mr J H VOOGSGEERD, ZANDVOORT, 2014.

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Mr R FITZGERALD, SCOTTBURGH, 4189

Mr S A YOUNG, PINETOWN 3610

### A Dog's Eye View

Most dogs are content with a plot of land behind their house, walks through the neighbourhood and the occasional romp on the beach when the weather is nice, but I'm not most dogs. I am Marina, a six-year-old Golden Retriever, and I consider the Atlantic Ocean my backyard and Dockwise Yacht Transport (DYT) the most appropriate vehicle for making outings at sea with my caretaker Cliff Rome (Kodiak, Alaska). Cliff has been my best friend since puppyhood, teaching me how to walk the cat-walk, swim off the back of the ship and help him on the boat when DYT is underway. Before me, Cliff took care of another Golden Retriever who logged 80,000 nautical miles at sea. Currently I have about 30,000 under my collar and room for much more. The reason we like using DYT is because we can predict our time of arrival to a given destination and there is no time wasted having to do maintenance when we get there. Instead, once our boat is situated, I jump right in to the dingy and eye Cliff until he gives in and takes me ashore. Offshore expeditions are no easy task and a canine lacking sea legs will not fare well during the long journeys from port to port. In 2008, during a DYT passage, onboard the Super Servant 4, I went 53 hours underway without stopping to go ashore and on the same trip injured my knee aboard our boat, but nothing will stop me from making these voyages. Cliff once told me that about 15 to 20 years ago, the Russian commercial boats brought dogs along as companions for the crew and that, like them, I am a true dog of the sea. Two to three times a day, I hike up several flights of stairs to visit with the officers on duty and play in the mess hall with the crew. From the treats they feed me when I make a visit, I have a good feeling that my company is appreciated. Sometimes it can be lonely in the middle of the ocean, and I miss stalking down squirrels, rolling around in the dirt, and playing with other dogs, but travelling aboard DYT is the life for me due to my ear condition which prevents me from flying; I wouldn't trade it for all the treats in the sea. Source : Dockwise Yacht transport



**GERMANISCHER LLOYD**

Has revised its environmental passport (EP), which it says has become recognised as a useful mechanism for operators to signal the advanced environmental features of their vessels.

According to GL, the process of protecting the environment is one of continual improvement, there is always more that can be done to reduce the impact from industry on the environment. Regulations do not stand still and forward thinking ship owners and managers are increasingly looking for concrete ways to demonstrate their commitment to reducing environmental impacts, and demonstration of environmental compliance is emerging as a key factor in maintaining competitive fitness in an increasingly crowded market.

GL points out that the EP is a voluntary class-notation and certification process.

All mandatory and voluntary environmental features of a vessel are compiled in a single, easy to use document including flag state certificates, compliance certificates, NOx emission diagrams and the EP certificate itself. The class society believes that the EP has become one of the most successful voluntary class notations offered by GL, with nearly 10% of its fleet in service having opted for this class notation.

IMO has recently announced that the EEDI is to be introduced as a mandatory standard for new build ships.

Anticipating these changes, GL has made significant additions to the requirements of its environmental passport, helping to keep ship-owners ahead of the regulatory curve.

The following new requirements have been introduced for the 2011 edition of the EP, which comes into effect on 1 August 2011:

1. Discharge of bilge water permitted only if the oil content is below 5ppm. Vessels are also required to have a monitoring and stopping device installed;
2. An approved ballast water treatment system must be installed;
3. The attained energy efficiency design index (EEDI) value to be certified (through a statement of compliance) by GL; and
4. An inventory of hazardous material (IHM) to be certified (also through a statement of compliance) by GL.

Also from 1 August 2011 the order date of the EP will now determine which edition of the EP will apply, not, as in previous editions, the date of the building contract.

*Source Motorship August 2011*

## SUSTAINABLE SHIPPING INITIATIVE

Some of the biggest names in shipping met at Lloyd's Register's London office and urged the industry to take far-reaching action to create a socially and environmentally responsible and profitable maritime sector.

The Sustainable Shipping Initiative (SSI), a coalition from across the shipping sector, was launched at a packed meeting at our Fenchurch Street auditorium. Its first initiative is a Case for Action which analyses the global trends shaping shipping's future.

The SSI wants to see greater scrutiny in the industry and more emphasis on customer demand; to build and convert ships to the highest standards of energy efficiency to pre-empt higher and more volatile fuel prices and low carbon performance demands; to develop legislation that rewards sustainability; and to draft business models that encourage long-term investment with social and environmental obligations. Tom Boardley, Lloyd's Register's Marine Director, emphasised the importance of commercial interests working with technical expertise. "One of the real strengths of this initiative is the marriage of ship operating and ship engineering capability – we all need to work together to help make shipping more sustainable," he said.

Soren Stig Nielsen, Maersk Line's Head of Sustainability, said: "By creating a shared vision for sustainable growth, we can plot a new and ambitious course. A course where shipping is viewed as a key enabler of responsible and sustainable economic development."

The SSI's next aim is to create a shared vision of an industry in 2040 that is resilient, socially and environmentally responsible and profitable, and to forge a set of actions to achieve this. Its ultimate objective is to mobilise industry support for an action plan embracing engineering and technical initiatives, policy proposals, and marketing and communications plans.

Jonathon Porritt, SSI Chairman and Founder Director of Forum for the Future, a non-profit-making organisation that advocates sustainability, said: "The leaders involved in this Initiative understand that success and sustainability must go hand in hand. These practical actions which they will help deliver will not only make their businesses more robust, but will ensure a more secure future for all of us."

*Source Horizons 9/2011*

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## **Breakthrough for Large Engine Manufacturing in China**

The new super long-stroke MAN B&W S90ME-C9 engine to be built in China Seaspan Corporation has placed an order for 7 + 18 newbuildings of 10,000 teu container ships at Jiangsu YangZiJiang Shipbuilding. These will be powered by the new super long-stroke engine type MAN B&W 10S90ME-C9, which will be built by the Chinese engine builder CMD.

Traditionally, MAN Diesel & Turbo K98-type engines have been used as prime movers by 8,000-10,000 teu capacity container vessels. Following efficiency optimisation trends in the market, where container ships have increasingly adopted lower ship speeds, the engine designer evaluated the possibility of using even larger propellers with a view to using engines with even lower speeds for propulsion. Investigations revealed that container ships are indeed compatible with propellers with larger propeller diameters than current designs, and the high efficiencies that follow an adaptation of the aft-hull design to accommodate the larger propeller.

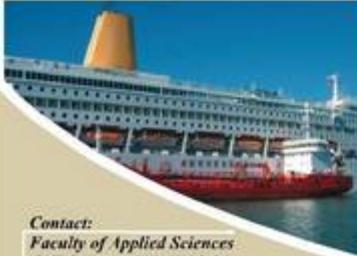
The new, higher-powered, super long-stroke S90ME-C9 engine type meets this trend in the market. MAN Diesel & Turbo investigations indicate an overall efficiency increase of about 7% when using the S90ME-C9, compared with existing main engines, depending on the propeller diameter used.

Choice of engine Canada based Seaspan Shipmanagement Ltd. entered a close dialogue with MAN Diesel & Turbo to decide upon main engines for its expanding fleet of newbuilding container ships. The owner initially considered the MAN B&W K98ME-C engine, but ultimately settled for the super long-stroke 10S90ME-C9 type on account of its superior fuel savings, a choice that required a redesign of the newbuildings' aft-ship to accommodate the lower engine rpm and larger propeller diameter. The yard and its design partner changed the design accordingly.

Seaspan has previously built ships at YangZiJiang Shipbuilding with 6K80MC-C engines built by CMD in China. Ole Grøne, Senior Vice President Promotion & Sales, MAN Diesel & Turbo said: "We continuously keep a close eye on developments and trends within the shipping sector and have watched with interest the increasing demand for lower engine speeds and larger propeller diameters within the container segment. While our portfolio of engines already matches a broad reach of requirements, we have specifically introduced the super long-stroke S90ME-C9 to market to satisfy current trends and are very happy with its immediate adoption in the major shipbuilding markets." The MAN B&W 10S90ME-C9.2 engines to be installed in Seaspan's newbuildings will in addition feature MAN TCA turbochargers built in Augsburg, Germany.

*Source MAN Diesel and Turbo*

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