Samundra Spirit

QUARTERLY IN-HOUSE MAGAZINE FOR SAMUNDRA INSTITUTE OF MARITIME STUDIES (SIMS), MUMBAI & LONAVALA

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Cover Picture: *Engine Room at Ship-in-Campus, SIMS, Lonavala*

Samundra Spirit
OCTOBER 2009 ISSUE 07

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SAMUNDRA SPIRIT is a quarterly in-house magazine produced by Samundra Institute of Maritime Studies (SIMS) for private circulation.

Our Editorial Team wants to hear from you!

If you wish to submit any feedbacks and/ or contributions, feel free to write to the Editor at:
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Please note we reserve the right to publish your letters/articles or an edited version of it in all print & electronic media.

EDITORIAL NOTE

A thousand miles from land are we,
Tossing about on the roaring sea--
From billow to bounding billow cast,
Like fleecy snow on the stormy blast:
The sails are scattered abroad, like weeds;
The strong masts shake, like quivering reeds;
The mighty cables, and iron chains,
The hull, which all earthly strength disdains--
They strain and they crack, and hearts like stone
Their natural hard proud strength disown.

- Barry Cornwall (pseudonym of Bryan Waller Procter)

Not by design but by the nature of the contributions, the seventh issue of the Samundra Spirit dwells on the indomitable spirit of the sea and the sailors. While, the regular technical news dominate the pages with the practical hand-me-downs from the veteran marine engineers among the faculty as well as the ESM technical superintendents, the articles from our seasoned navigators bring out the challenges of the sea and the advancement in the maritime industry to face the challenges. It once again brings out the importance of maritime training and equipping the next generation to be more sensible and knowledgeable mariners before they jump into the adventure.

The role played by SIMS is not merely imparting an academic and theoretical knowledge but as a pioneering force to pull the industry in the right direction. The culture imparted here is towards a thorough professional mariner who will be part of the next generation of Indian officers trained to lead the world maritime industry in coming years. We are proud and dedicated to play that role.

The Protection of Environment is an issue we can not hide from under any circumstances – more so when the planet we live in is under the serious threat as never before. Every act and every contribution towards saving the environment is worth the efforts if we are serious about saving the earth for the future generations. However, that sense of responsibility and accountability comes only from developing a culture in and around us. SIMS is our ammunition to strive towards establishing that culture and we do hope Samundra Spirit will send that message across. The article on Green House Gas Emissions is one such example.

There has been always a question from skeptics as to how to quantify the value of training in the maritime industry in terms of dollars and cents. The story of avoiding collision in a near miss situation in the Cristobal anchorage is a good example of efficacy of training and also the result of professionalism of alert crew on board. Three cheers for all of them!

The story from the Cadet from Meghalaya - one of the tiny north eastern states of the country some 2000 KM away from Mumbai is a good example of how SIMS has established its name not only in the maritime training industry but also among the young generation across the country. Indeed, a motivating story for the future generation of Indian sailors.

Finally, to repeat the sentiments of the well-known artiste Van Gogh: *No amount of danger and hardship can take away the exhilaration and benefits of sailing across the seas and the oceans and enjoy the adventure that comes with it!*

Happy sailing to all on board and happy reading to all our readers together with wishing you all
a very happy and prosperous Diwali!

Sikha Singh

Message from Capt. S. P. Rao

It gives me immense pleasure to pen this message for the forthcoming issue of "Samundra Spirit". I vividly remember the early days when Mrs. And Mr. Teeka approached me to be a part of their dream project to build a world class maritime training institute. I was impressed with their vision and enthusiasm. I consider myself to be fortunate to be an integral part of the Institute as a Trustee and Member of the Governing Council.

Mr. Teeka has left no stone unturned to make the SIMS campus very impressive. The campus infrastructure has been built by utilizing the services of the best Architects, builder and landscapist. The edifice at Lonavala bears testimony to the vision of Mr. Teeka.

I recall the days when I had undergone training in "T.S. Dufferin" which at that time was the best training institute in India and abroad. After being closely associated with SIMS during the last four years, I have no hesitation in saying that the present training facilities are far better than that provided in Dufferin . The ship in campus with free fall lifeboat facility is the best I have seen in India or abroad. The hands on training which is imparted to the cadets/engineers makes them a full fledged officer with complete knowledge of the ship even before he boards one, except the feel of rolling and pitching of the ship. The speciality of SIMS is to source the best available talent for faculty position and develop their own R & D and various simulators.

Another aspect of Mrs. Sikha and Mr. Teeka, about which few know is their indirect contribution to improving the standard of living of the families in rural/semi urban areas. SIMS gives opportunity to the poor and deprived sections of the society by identifying deserving candidates from the rural/semi urban areas, providing them with financial assistance, scholarships and placement.

I wish the cadets who would be passing out of this institute a bright future in all their endeavours. I also congratulate all the faculty members and the staff , without whose untiring efforts and dedication, this institute would not have been able to reach such impressive heights.

I hereby wish to thank Mr. B.S. Teeka and Mrs. Sikha Singh for giving me an opportunity to be a part of their team and wish them all the best for their future.

Your's truly,
Capt. S.P. Rao

Capt. S.P. Rao, Chairman - SVS Group.
Trustee and Member of the Governing Council, SIMS

Necessity of Coolant Treatment in Diesel Engines

Sanjay Pardeshi
Senior Marine Instructor
SIMS, Lonavala

The coolant treatment in an engine cooling water system is very essential to counter cavitation corrosion and scale formation.

Cavitation corrosion

Aerated coolant in circulation can cause cavitation corrosion (pitting) on cylinder walls and water pump of an engine. Lack/absence of inhibitor in coolant system boosts up this phenomenon.

Corrosion of cylinder walls

A well treated coolant with appropriate inhibitor acts by forming a thin protective oxide film on the coolant side of liner walls. This acts as a protective barrier to prevent corrosion and cavitation pitting. When combustion takes place inside the combustion chamber of the diesel engine, the liner vibrates, hence the coolant moves away from the liner creating cavities. This low pressure area causes the coolant to vaporize and form bubbles. Subsequently as the coolant moves towards the liner, the bubbles violently collapse against liner walls which surfaces at a pressure as high as 60,000 PSI. The violent collapse of these bubbles literally blast small holes in the protective oxide film on the liner walls leaving small pits of bare metal exposed to localized corrosion. In properly inhibited cooling system the protective oxide film rebuilds itself quickly over these holes. However, in an improperly inhibited system, this bare metal surface is immediately exposed to localised corrosion forming a corroded pit in metal. This pitting process will occur over and over again exposing small pitted areas on liners. An increase in air bubbles in cooling system can increase the potential for cavitation corrosion of metal surfaces. Air in the system reduces cooling system pressure and increases the potential for bubble formation thereby increasing surface pitting. Heavy pitting and corrosion on all cylinder liners can be attributed to insufficient additive in the cooling system.

Corrosion of water pump

Entrapped air in the cooling system can also cause pitting on metal surfaces of water pump components. The water pump impeller turns at a very high velocity churning the coolants. This rapid churning forms vacuum bubbles on the trailing edges of the water pump fins. When these air bubbles collapse they can cause pitting to the water pump housing and fins.

An increase in air bubbles in a cooling system can increase the potential of cavitation corrosion on metal surfaces. Air can enter in the cooling system through pump glands/ radiators. This reduces cooling system pressure and increases the potential for bubble formation in the coolant thereby increasing surface pitting.

Cooling system corrosion and scale formation

There are number of conditions in a cooling system which affect the degree of corrosion and scale formation. The factors which affect the rate of corrosion and scale formation are:-

a. **Coolant PH level:**
A pH scale runs from 0 – 14. A coolant becomes more acidic with decreasing pH from 7 to 0 and becomes more alkaline with pH increasing from 7 to 14. It is ideal to have a coolant pH between 7.5 to 11. A coolant with pH value below 7.0 is acidic and aggressive to aluminum and its alloy in a cooling system. An increase in pH above 12 is highly alkaline and increases the potential for scale formation.

b. **Temperature and metal stress:**
Corrosion and scale formation rate is directly related to coolant temperatures. As cooling temperature increases, hardness salts (calcium and magnesium) in solution become less soluble and increase their propensity to plate out on hot system surfaces and so does the propensity of corrosion. Corrosion rates can double with every 25 to 50 degrees Fahrenheit rise in temperature, up to 160 degree Fahrenheit, where further increase in temperature has little effect. Corrosion is also directly related to metal stress. As stress increases on metal joint or a component in a cooling system the potential for corrosion also increases.

c. **Dissolved solids (chlorides and sulphates):**
The amount of dissolved solids in a coolant can effect corrosion reaction in a cooling system by increasing the coolant's electrical conductivity. As the level of dissolved solid in coolant increases the higher conductivity leads to greater potential for corrosion. Total dissolved solids more than 340 PPM are usually not considered acceptable for the use in cooling system unless a proper coolant is used. High level of dissolved chlorides and sulphates in cooling water will make the water very corrosive to all metal surfaces of cooling system. Unless an effective cooling system inhibitor package is used, chlorides and sulphates should not run more than 100 PPM.

d. **Flow characteristics:**
Scales generally forms on hot side of the cooling system and in areas of low turbulent flow. Water flowing over grooves, corners sharp elbows and projections tend to precipitate solids. These areas with little flow are the first areas in a cooling system that will form heavy layers of scale.

e. **Entrapped air:**
Any air bubble formation in a coolant area (budding around the hot surface) increases the tendency for scale to form in that area.

In order to avoid, reduce corrosion or scale formation in cooling water system of diesel engines, cooling system hygiene should be properly maintained and inhibitors should be added in correct proportion. Monitoring the presence of additive should also be done periodically to ensure that the correct proportion of inhibitor is present in the system.

It is very important to replenish the cooling system with clean source of water and preferred that the water produced onboard by the evaporator should be used and as far as practicable the use of shore water must be avoided. The point of introduction of additive should be properly chosen to ensure that the circulation of the chemical/additive takes place in the entire cooling circuit. The circulating pump suction is the best place to introduce the chemical into the circuit, however as it is not a very practical option, the chemicals are usually added in the expansion tank. It is very important to ensure that adequate circulation is there from the expansion tank into the entire circuit.
The additives are available in powder and liquid forms. It is preferable to use liquids but in case powder is used it should be thoroughly mixed with the water prior adding to the system to avoid precipitation.

Marine safety data sheet of the chemical should always be present on board and must be referred to prior storing and handling the chemical.

Know Your Lead Acid Battery

Jitendra Singh Dangi
Senior Electrical Instructor
SIMS, Lonavala

Lead-acid batteries, invented in 1859 by French physicist Gaston Planté, are the oldest type of rechargeable battery. Despite having the second lowest energy-to-weight ratio (next to the nickel-iron battery) and a correspondingly low energy-to-volume ratio, their ability to supply high surge currents means that the cells maintain a relatively large power-to-weight ratio. These features, along with their low cost, make them attractive for use in motor vehicles to provide the high current required by automobile starter motors and wherever power backup is required.

The operating principle:

Every battery (or cell) has a cathode, or positive plate, and an anode, or negative plate. These electrodes must be separated by and are often immersed in an electrolyte that permits the passage of ions between the electrodes. The electrode materials and the electrolyte are chosen and arranged so that sufficient electromotive force (measured in volts) and electric current (measured in amperes) can be developed between the terminals of a battery to operate lights, machines, or other devices.

Inside the battery cell:

The Grid - Takes the Pb and PbO2 deposits The metal grid made up of lead-calcium or lead selenium alloy for stiffening. Onto the grid are the paste of lead and the oxide paste.

Lead (PB) - Cathode, the negative plate - is made up of pure lead and unlike the positive plate it is very porous and hence spongy

Lead Peroxide (PbO2), positive plate - is made up of lead (one atom) and oxygen (two atoms). The colour of this plate is chocolate brown and the plate is very hard but brittle.

Separator - between the two. These are thin sheets made up of insulated material so as to prevent physical contact between the two plates and at the same time are highly porous to allow maximum surface area contact of the electrolyte with the plates

Pb plates joined with common terminal - These are the Lead plates put together in a very similar arrangement as that of the PbO2 plates. These plates are generally eight in number so as to be on the outer sides for maximum usage of active material.

Meshing Together - The plate groups (Pb and PbO2) are then meshed together to form one cell.

Separators put between - After the plate groups have been interleaved, the separators are inserted in between the positive and negative plates to prevent internal short circuiting of the battery.

Casing and the cell covers - The container is generally made of Glass Reinforced Plastic (GRP), ebonite or vulcanized rubber. It generally consists of six cell containers in one such block.

In its original place - The cells are all complete now and placed in their respective containers (with one shown as covered). The terminals, positive (+) and Negative (-) protrude outside to pass through the cover and provide external series connection.

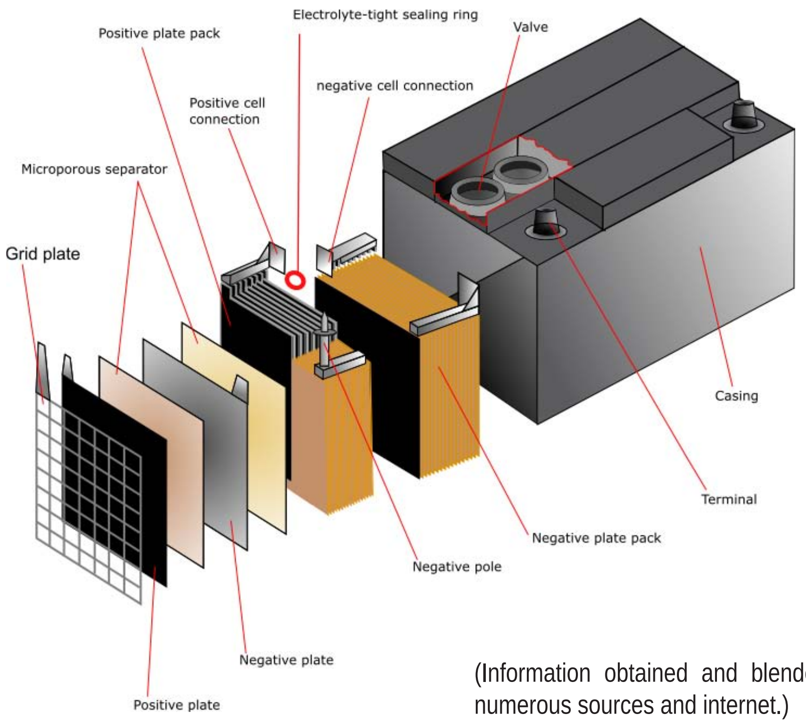
Keeping the battery healthy:

Vaseline should be applied on the exposed terminals to prevent oxidation. The Voltage is measured across Positive (Red) and Negative (Green). For a 2V cell potential, the battery with 06 cells and connected this way gives 12V across Red and Green terminals.

Level measurement – The level of electrolyte in each cell is checked periodically by opening the vent plug as seen here. The electrolyte level is correct if the plates are completely submerged in it. Never overfill to cause a spill.

Cell Specific Gravity measurement – The specific gravity is a measure of the density of electrolyte and also that of the state of charge in battery. This is measured by Hydrometer (shown in fig) where the float indicates a value of the electrolyte sample. 1.21 is the value of a fully charged cell and 1.18 for a discharged cell.

Battery Voltage measurement – The voltage of each cell as well as the battery is checked using a Multimeter (AVO meter). The open circuit voltage of a fully charged cell is approx. 2.2 Volts and should not be allowed to fall below 1.8 Volts.



(Information obtained and blended from numerous sources and internet.)

Theory & Practice of Hydraulic Jack Tightening

A Practical Guide from a Seasoned Marine Engineer

Biju Baben
Engineering Faculty
SIMS, Lonavala

■ *Hydraulic Jack*

Hydraulic Jacks are commonly used on board for pre tensioning and fastening components on various types of machinery. The most frequently used hydraulic jack on board is perhaps the jack for securing the main engine cylinder head to the liner and A-frame and all marine engineers have used this jack during main engine unit overhauls. Not only the cylinder head but almost all components of the main engine like tie rods, connecting rod bolts, holding down bolts are tightened using hydraulic jacks. Modern auxiliary engines are also equipped with hydraulic jacks for tightening of most important parts.

As hydraulic jacks are so widely used on board it is important for us to understand the principle behind hydraulic tightening and also know the correct procedure for use of these jacks both during tightening and opening of hydraulically tensioned bolts.

Understanding of the principle:

Before commencing it has to be ensured that all the parts of the jack and all landing faces on the engine are absolutely clean and free from any dust particles. Unclean surfaces can cause severe damage to the studs as well as to the jacks themselves.

As seen in the figure the jack consists of a hollow cylindrical spacer which is placed around the nut which need to be opened. This spacer has got slots in its side which allows access to holes in the side of the nut. These holes in the side are used for inserting a tommy bar the use of which we will be seeing later on in the article.

On top of this spacer is placed the hydraulic jack itself. This consists of a cylindrical hollow body in which a piston is placed. The space under the piston is sealed with the used of seal rings, namely body seal and piston seal. On top of the piston is placed the Support which has internal threads in the center such that they can be screwed into the projecting threads on top of the elastic stud (bolt).

Procedure and process:

During slackening of a hydraulically tensioned stud, the spacer has to be placed around the nut and then the jack body along with the piston is placed on top of the spacer. The support now has to be screwed in (again using the tommy bar inserted into holes on the support) so that the piston gets pushed to its lower most position in the body ie no clearance under the piston. While doing this it is important that the purging screw located on top of the piston is slackened. This will allow any trapped oil under the piston to escape when the support is being screwed in. Now we come to the most important part in the procedure. After fully tightening the support into the threads it is now required to slacken the support (ie turn it in the opposite direction usually by half a turn) such that a gap is created between the support and the piston. This gap will be roughly equivalent to half the pitch of the upper threads (because we have turned the support by half turn in the opening direction).

The hydraulic high pressure hose from the hydraulic pump is connected to the connector which will direct oil under the piston. The other end of this hose will be connected to a hydraulic oil pump capable of generating pressures as high as 1000 bar.

Precaution and care:

Now the jack is ready in all respects for slackening. After ensuring adequate oil level in the oil tank of the pump, it is started with the purging plug located on top of the jack being kept open. This will allow any air entrapped in the hose and pump to get released. Remember we do not want any air to be present in the hydraulic circuit. The hydraulic jack works on the principle of the hydraulic oil being incompressible. If air is present in the hydraulic circuit the jack will be unable to produce the desired lift as this entrapped air itself will get compressed rather than lifting the piston. Once a steady bubble free flow of oil is observed from the purging plug it can be closed. Now the pump continues to operate and starts filling up the space under the piston and consequently pushing it up. The piston will move up such that the gap between the top of the piston and the support is completely covered up. Once this is achieved the piston is now restricted from moving up further by the support. The pump being a positive displacement pump continues to pump hydraulic oil to the underside of the piston. As oil is incompressible the pressure under the piston rises rapidly. The piston pushes against the support because of this pressure. The support which is screwed into the elastic stud (bolt) starts pulling the bolt and elongating it little by little as the pressure increases. Finally once the recommended pressure is achieved it will have elongated the stud just enough to clear the nut from its landing face.

Watch your steps:

The tommy bar is now inserted into the holes provided on the side of the nut as shown in the figure. The nut can now be slackened just by turning it using the tommy bar. This turning of the nut by hand is possible only because the jack has lifted up the nut from its landing face and thus minimal force is required for slackening the nut. While slackening the nut it should be borne in mind that the nut should not be slackened too much. If the nut is slackened too much then its top face will touch the bottom face of the piston. When the pressure from the hydraulic jack is gradually released (using the release valve given on the pump) the elastic stud will shrink lengthwise to regain its unstressed length and it will pull support and piston down with it. This will cause the entire load to finally come on the nut and it will be impossible to either remove the jack or to turn the nut in any direction.

When the pressure has been completely released the elastic bolt will have regained its unstressed length. While the pressure is being released it is also important to keep on checking with the tommy bar that the nut remains free to move as the elastic stud shrinks in length. If the nut had not been slackened enough when the pressure was at the desired value, chances are that the nut will again come in contact with the landing face. On complete release of pressure from the jack the support can now be easily screwed out and the jack itself removed. The nut can then be screwed out by hand.

Use your mind:

Now we come to the important question "Why is it necessary to create a gap between the piston and the support and how much should this gap be?" Let us assume that no gap was created between the support and the piston and the hydraulic oil pump was started. The oil will now start entering under the piston as there is no gap between the piston and support the piston cannot move up hence it will start pushing against the support which will in turn start pulling the elastic stud on which it is mounted. Once the desired pressure is reached we slacken the nut and release the pressure. As we release the pressure the elastic stud tries to regain its unstressed length, but because this time we have not kept any gap between the support and the piston the stud is prevented from shrinking to its unstressed length. Because of this the tensile stress in the elastic stud cannot be relieved and consequently it keeps on pulling the support, piston and spacer. Due to this it becomes impossible to unscrew the jack from the stud.

Normally a slackening of half turn to three fourth turn is enough to take up the shrinkage of the bolt. However if the support is slackened more than that then the gap between the support and the piston increases. Such an increase gap will result in an increased stroke length for the jack and may in some cases exceed the maximum allowable piston stroke. Longer piston strokes result in putting a strain on the sealing rings and it has been observed that they are more prone to failure as the stroke length approaches maximum.

Procedure of tightening of bolts:

Now let us discuss the procedure for tightening of the bolts. After completion of the work it is to be ensured that all landing face are absolutely clean and free of any particles and dust. The threads on the studs should be lightly lubricated by a lubricant as recommended in the manufacturer's instruction manual. The nut is now placed on the stud and screwed in by hand such that it touches the landing face and can be screwed in no further. Then again in a repeat of the slackening procedure we place the spacer around the nut and place the hydraulic jack on top. The support is then screwed on using the tommy bar such that the piston attains its lowest possible position in the body. During this the purging cock should be left open so that entrapped oil under the piston can escape out allowing the piston to move down.

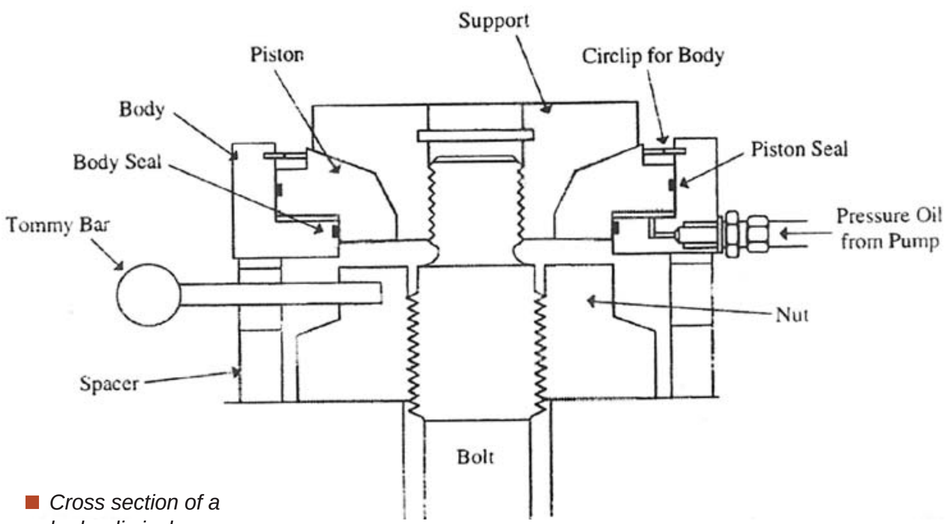
In case of tightening it is not necessary to create a gap between the piston and the support. This is because after the tightening the entire load will be taken by the nut leaving the top end of the stud stress free hence allowing the easy removal of the jack after the tightening.

Now the hose needs to be connected and leaving the purging plug open the pump run for some time till a bubble free floe of oil is observed for the plug. We have already discussed regarding the ill effects of air in the hydraulic circuit. In the case of tightening the air can result in inadequate tightening of the bolts leading to subsequent failure/damage. Once the purging is completed the purging plug is closed and the pump continued to operate. The pressure under the piston will immediately begin to rise causing the elastic stud to elongate. As the specified pressure is reached the bolt elongates and gap is created between the nut and the landing face. Using the tommy bar the nut is now turned in the tightening direction such that it moves down and again touches the landing face. Once this is done the release valve on the pump can be operated and the pressure under the piston gradually releases. The elastic stud will now try to shrink on release of the pressure but cannot do so because of the nut which is touching the landing face. Hence the tension in the stud in not relieved and this keeps the components of the assembly together. However the free end of the stud on which the jack is mounted has no stress and the jack can now be easily unscrewed.

Finally, for the golden rule of hydraulic jacks - In spite of all precautions if something does go wrong and either a nut or jack does become jammed, do not try to force it or hammer it, you may end up creating bigger damage. The simplest thing to do is to retighten all the nuts to correct pressure and start all over again.

The benefits of using hydraulic jacks rather than normal torque tensioning are :

1. Accurate and repeatable stud loading which is even.
2. No flogging hammers and spanners
3. Accurate stud tension is generally difficult using torque because friction has a significant effect.
4. Fast and effortless operation, as in one operation several studs can be worked at thereby cutting down on time.
5. As there is no torque or torsional stress, thread damage is avoided. High levels of torque can produce thread galling and nut surface galling wheras in hydraulic tensioning the nut is NOT under load and turns freely.
6. Ideal for confined spaces.



Cross section of a hydraulic jack

Collision Avoided: A Result of Professionalism and Competency of On Board Staff

Real life story from the ESM fleet

It was a bright early morning in Singapore on October 11, 2009. The operations team head of Executive Ship Management (ESM) - Capt. Thomas Varghese opened his outlook mailbox; one among the scores of emails was from the captain of MT Sapphire Express- the 47,000 dwt MR tanker waiting for charterers' orders at the Cristobal anchorage. The message put down succinctly by the master conveyed that during the previous night (0700 hrs LT on 10th October i.e. 1900 Singapore LT) the vessel had avoided a near miss with a container feeder vessel, which had lost engine power while proceeding to pick up pilot and dangerously drifting towards own vessel.

We bring in here the real life story as uncovered by our operations and technical team and congratulate the team on board under the command of Capt. Ranjit Joseph for their well timed out and professional; handling of the situation which prevented an impending collision at anchorage.

We also salute our unsung heroes – the faculty members of in-house training institute Samundra Institute of Maritime Studies whose relentless training of the crew on board ensures that the competency of the crew on board is improved and they stay at the top of their professional capabilities. Needless to say, all deck officers on board had undergone the mandatory Bridge Team Management (BTM) course in SIMS, Mumbai prior taking over respective duty on the vessel.

Here's the sequence of events on 10th October 2009, as reported by Capt. Joseph:

The vessel carrying a cargo of Jet A1 had earlier completed her pacific voyage from Kaohsiung via Panama Canal and had been waiting at the Cristobal Outer Atlantic anchorage for charterers' instructions for discharging her cargo.

On the early morning of Saturday, 10th October. Chief officer Abhineet Bhadauria was on his regular anchor watch along with AB Bharatbhai Tandel.

A cursory look established a feeder container vessel MV Melfi Cristobal on a steady bearing on the port bow at a distance of about 1.2 Nautical Miles (NM). Apparently she was drifting for picking up pilot at Cristobal Breakwater.

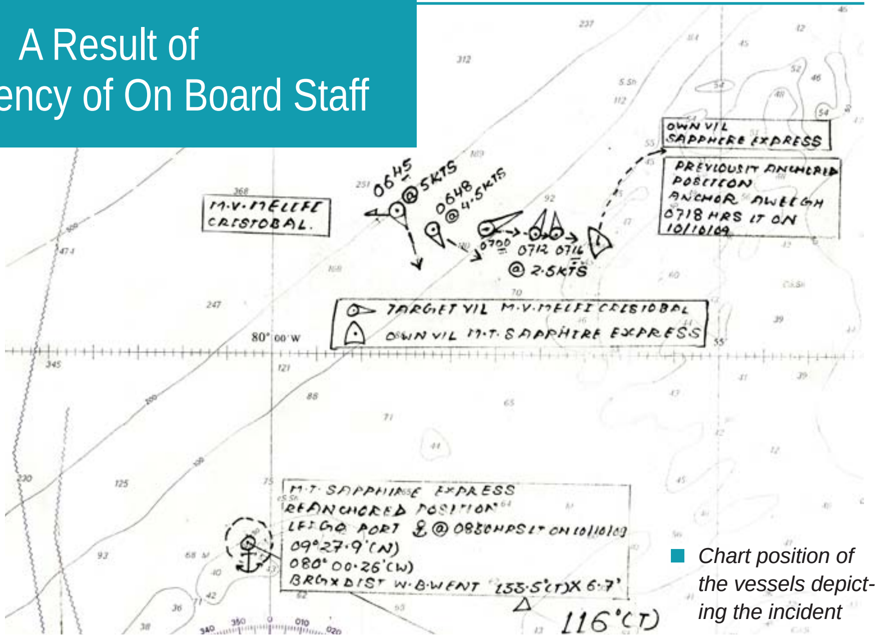


Chart position of the vessels depicting the incident

0645 Hrs LT: Vessel acquired MV Melfi Cristobal on Radar passing clear on port side with Closest Point of Approach (CPA) 2.0 NM.

0648 Hrs LT: MV Melfi Cristobal found altering course to port and the range had now reduced to 1.8 NM. Overheard communication on VHF between Cristobal signal station & MV Melfi Cristobal asking her to stop and drift at about 6 NM from Cristobal breakwater until clearance was given by the signal station to proceed towards breakwater to pick up pilot.

0658 Hrs LT: MV Melfi Cristobal informs Sapphire Express that she had trouble with her engines and was not under command. Also she could not drop anchor as the depths were around 100 mtrs and she was a small feeder container vessel. Sapphire Express was anchored within a 50 M isolated contour.

0700 Hrs LT: Duty officer (C/O) promptly informs the master of the situation and gives notice to engine room to prepare the engines. Master immediately rushed to the bridge.

0705 Hrs LT: At this time MV Melfi Cristobal was found drifting towards Sapphire Express at about 2.5 kts and she was on a steady bearing on the port bow at a range of 1.2 NM. Sapphire Express reported to Cristobal signal station about the dangerous situation. Anchor party consisting of Mr. Abhineet Bhadauria, C/O; Mr. Jagdishbhai Tandel (Bosun) & Mr. Rakesh Pun (O/S) was rushed forward to start picking up Starboard anchor which was 7 shackles in water. Bridge team consisted of Capt. Joseph, Mr. Jaswanth Manohar (3/O); Mr. Amit Kumar Singh (Cadet) & Mr. Bharatbhai Tandel (A/B)

0712 Hrs LT: Sapphire Express had her engines ready and by this time anchor party had heaved upto 3 shackles on deck. MV Melfi Cristobal was now about 6.5 cables (abt. 1200 metres.) on the port bow on a steady bearing and continued drifting towards own vessel at about 2.5 kts.

0716 Hrs LT: Anchor was weighed and Sapphire Express commenced manoeuvring. By this time MV Melfi Cristobal was only about 4.5 cables (830 metres) on the port beam.

0718 Hrs: Anchor party reported stbd anchor was aweigh and vessel steamed clear of MV Melfi Cristobal at 4.5 cables.

0720 Hrs LT: MV Melfi Cristobal & Cristobal signal station appreciated Sapphire Express's efforts.

0830 Hrs LT: Own vessel re-anchored at a new position in Cristobal outer Atlantic anchorage clear from all dangers. Cristobal Signal station was informed of the same.

Excellent job by Master, 3/O and most importantly engineers who got the engines ready on time for manoeuvring. Hearty congratulations to Chief Officer Abhineet for his sharp watch keeping and prompt and professional decision to avert the incident. Over all, it is an excellent example of teamwork and competency of the staff on board. In fact, seafarers with such sharp lookout and good seamanship qualities were employed, then many such incidents could have been averted in the past in the maritime industry.

Pick Up the Rope to Avoid a Mooring Incident

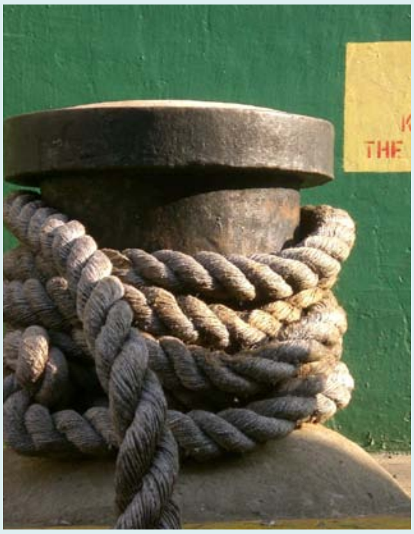
Capt. Deepak Tamras
Nautical Faculty
SIMS, Lonavala

Many mooring incidents have taken place in the maritime history, which resulted either in fatalities or caused serious injuries to personnel. The incident reported here is a personal experience of Capt. Deepak Tamras, Nautical Faculty of SIMS, Lonavala when he stepped into the industry as a junior officer 17 years back. Though neither fatal nor injury causing, it certainly contributed to a huge economical loss for the owners with potential for much higher damage to the life and the property. Here's his account:

Way back in 1992 I had just cleared my 2nd mate's examination and had joined one of the well known Indian shipping company as NWKO (Navigating Watch Keeping Officer) doing duties basically as a 3rd officer. Vessel was a 9 holds 241mtr long gearless Panamax Bulk-Carrier.

The voyage had started from Argentina and Brazil to Egypt carrying grain cargo of Cattle Feed. After sailing for a good 25 days these vessel arrived at Alexandria Anchorage on 25th of December 1992. After staying 2 days at anchorage the vessel was berthed starboard side alongside at Bulk Jetty (with 4 head and stern lines each, 3 breast ropes and 3 springs forward and aft each) which was away from the main port and at the middle of the sea, exposed to the weather. At the time of berthing weather was very good.

As soon as vessel had berthed,six portable cranes were loaded on the ship for discharging the cargo to hopper placed on berth and cargo operations started. Discharging rate was 1000 tonnes per day. On the first day discharging was carried out smoothly. On 29th afternoon weather conditions started deteriorating. Off-shore winds started blowing. Initially wind force was 4 but soon after dusk wind force increased to 7 and ship started surging. At around 1800 hrs while on deck closing the hatches I heard a loud sound at the aft. When self reached at the aft, found 2 nos mooring ropes had parted. Master called all the crew for stations and to attend to moorings. Broken ropes were joined by making knots and were put back on the bits. But the crew were kept on standby. At around 2100 hrs wind force had increased to 9 (Gale). The ropes started parting one after the other as the condition of mooring ropes was not good.



Rope secured on mooring bitts

There were mix moorings of wire ropes and mooring hawsers. One wire rope and almost all the mooring hawsers parted.

At 0030 hrs all the mooring ropes except forward back spring which was a wire rope and was on a winch (vessel had only 4 winches forward and 4 winches aft) parted and vessel moved 50 metres away from the berth from aft. All crew were on deck joining parted ropes by making knots.

Master immediately ordered E/R to start engines and within 30 mins engines were ready, we managed to bring back the vessel to berth but could not pass the mooring ropes because Gangway was taken up and port was closed and no one was available to attend the mooring at the jetty. At round 0400 hrs after a long struggle, wind speed started reducing and at 0600 hrs after shouting for long time on VHF port authorities sent two tugs to push the vessel alongside and keep it in this situation. At 0700hrs three of ship's crew who had gone ashore, came back. Using them we managed to send three of some what better ropes forward and four ropes aft.

Finally weather became normal by noon and we managed to send two more ropes each forward and aft. Thereafter we informed the company about the entire incident. Company had to supply 9 new mooring hawsers which at that time cost around 45,000 US $.When the situation reverted to normal, the first question put to Master was inevitably, "Why did he not take the ship out to the sea?"

Master's reply was (1) there was no Pilot available as the port was closed for 2 days without informing the ship. (2) Unlashed portable cranes on board would have gone over board due to rolling and pitching, at open sea or if they had damaged the coaming or got damaged, then it would have been a big trouble for the ship.

Also vessel had only four winches forward and aft hence all other ropes were put on bollards and during making fast they used to get loose and none of the ropes were having equal tension. Additionally, when vessel left the berth the gangway net got entangled with the shore hoppers and two of them went into the water.

An enquiry at that time revealed

1. Master had not informed the Charterers and Owners nor sought permission about keeping the Portable cranes on deck as it was a normal custom at that port.
2. Weather reports were not received while the vessel was in port.
3. Master was not in touch with the port and agent for any information on weather, pilotage or availability of tugs.

Time has since changed and we reproduce here few lessons from ESM guidelines to avoid such situations:

1. A detailed risk assessment to be prepared for berthing at exposed berths and proactive action taken. In case Master anticipates unsafe conditions he should use his judgment whether to berth or not and whether to wait for conditions to subside before berthing, to ensure ship's and crew safety.
2. In case vessel goes alongside due insistence of operators, suitable letter of protest to be issued regarding berth's lack of safety.
3. Double up forward and after springs as necessary and use extra ropes as required. Mixed moorings should not be used for the same functions
4. Keep engines on standby for emergency usage.
5. Canvas/grease to be used at the fairleads/ chocks to reduce friction.
6. Have a clear understanding with shore authorities on conditions as to when cargo operations will be stopped, when hoses disconnected or cranes put ashore and when ship must vacate berth.
7. Use all available fendering equipment on ship to prevent contact damage during emergencies.

Accidental Fall in Forepeak Tank

*We solicit comments from our learned readership on what could and should have been done to avoid the accident and lessons learnt. Please send us your responses to samundraspirit@samundra.com

This incident occured on a bulk carrier, a typical "LAKER" which could transit through the Great lakes with Length of 196 mtrs, breadth of 27 mtrs and a deadweight of 27500 T for a maximum summer draft of 10.60 Mtrs. The Vessel was carrying a cargo of steel slabs loaded at Genoa , Italy, for full discharge at Osaka Japan..

The Vessel was waiting berth to discharge the cargo at Sumitomo steel berth Osaka, Japan, she was drawing 9.85Mtrs fwd and 10.00 Mtrs aft., which was acceptable at this port.

The Pilot wanted to berth ship before high tide and ship was requested to reduce its draft by 5cms. This was discussed onboard and it was decided to take 50 Mts of ballast in forepeak tank to bring aft draft down by 5 cms in about 10 minutes time. Ballast pump was to be used for filling this quantity and instructions were passed to open valves and start the pump. We started picking up anchor in order to receive the pilot after 30 minutes.

On commencement of the ballasting it was noticed that forepeak manual valve's spindle(inside the forepeak tank) was broken and thus ballast could not be pumped into the tank. Since this was a small quantity, it was decided to connect two fire hoses and use them for filling the forepeak tank. Manholes were opened, fire pump started and vessel slow steamed to the pilot station.

In the meantime, the chief officer and 2nd engineer were asked to investigate what was wrong with the valve spindle. Two cargo lights were rigged just at entrance of tank to facilitate the man entry. With the spray of water from the hoses, the illumination being provided by these lamps inside the tank was inadequate.

The Chief officer entered the tank using a flashlight, he reached the bottom-most platform to the required location. The 2nd engineer entered next but was not carrying a flashlight with him, he went down to the first platform which had guard rails to prevent a fall down to the bottom. Without realizing that there was no deck beyond guard rail, the second engineer ducked under the rail, stepped ahead and fell down to the bottom of the tank which was just getting filled.

Forepeak Low Tank Bottom Platform

From bridge, we noticed some commotion and urgency at forecastle , the bosun announced on the walkie-talkie that, " the 2nd engineer has fallen down in to forepeak tank".

Fire pump was stopped immediately, and an emergency team was sent to the forepeak tank.

Obviously the first concern was falling from a height of 30 feet, the 2nd engineer could have hit any steel structure causing serious injury.

It was noticed that there was already about 2 meters of water in tank, which was almost at freezing temperature (Winter month in Japan).

After few seconds 2nd engineer was heard shouting from the bottom of the tank saying "I'm OK, I have only hit my shoulder"

Luckily it appeared like the ballast in the bottom of the tank saved him. The Rescue team lowered a stretcher however it was not possible to hoist him up with the same. With the help of few crew members. he was manually lifted slowly and brought out of the tank.

An ambulance was requested immediately and he was sent to shore hospital. He suffered from shoulder injury and dislocation. He was signed off and repatriated.

Miraculously he sustained only a minor injury in an accident which could have otherwise had serious consequences.

Capt. Sunyil Pada, Nautical Faculty
SIMS, Lonavala

Responses for Baptism by Fire: Issue 06 (Jul 2009)

Readers were invited to give their responses to the causes and lessons learnt through the previous Case Study - Baptism by Fire by Capt. Rakesh Pradhan, Nautical Faculty/DLP Administrator from SIMS, Lonavala. Here is a compilation of the responses received…

The incident was investigated and the root cause was finally determined as follows :

It was established and accepted that the crossing coaster was a "rogue" vessel and did not follow the RoR or the good practice of seamanship. The coaster should have crossed the stern of own vessel and then joined the outbound lane. Vessel's speed was minimum (Dead Slow Ahead) and Main Engines were at immediate disposal for maneuvering.

The root cause was established that the escorting tug forward was NOT made fast to own vessel. The escorting tug forward should have been made fast to the vessel by the tug's line through the forward centre lead and most importantly, this line should have been illuminated by the tug's powerful searchlight to clearly indicate to other vessels/barges not to pass between the tug and own vessel. It was also accepted that as per normal practice of the port, the escorting tugs were NOT made fast to the vessel while transiting through the river to the turning basin.

Other observations made during the investigation were as follows :

- The pilot's spoken English, though rudimentary, was passable and was the usual standard of spoken English of all the pilots of that port.
- The passage plan from berth to disembarkation point of pilot was discussed and was to the satisfaction of the Master.
- Possibility of encountering heavy traffic of coasters was discussed but the possibility of coasters trying to cross between own vessel and the escorting tugs was not considered.
- None of the tug masters of that port spoke English and it was (and still is) an accepted practice to carry out all communication with the tugs through the pilot.
- Own vessel's Main Engines were immediately available for maneuvering and there was no delay in response to the 'Crash Astern' order.

My Prelude to SIMS Entry:
From Meghalaya to Mumbai

It was 29th of July 2009, I was standing at the edge of the beginning of a new life, the edge was the footboard of Gitanjali Express/2860 connecting Howrah station in Kolkata to Mumbai. The journey was to transport me to my new life from Meghalaya –a small hill state at the north east corner to Mumbai the commercial capital of India at the western border of the country.

Excitement had began since the day I got my result of getting selected for the country's best pre-sea Maritime training institute Samundra Institute of Maritime Studies and dreamed about being a merchant navy officer in couple of years hence.

Along with me was my friend my 'chuddy buddy'. By the time the train arrived in Mumbai around 10 in the night both of us were dead tired. So we went hunting for a room but as luck would have there were no rooms available. So finally we decided to spend our night at the station itself. We made our bed from newspaper and retired for the night that was around 2230 hrs. We were so exhausted that not even the noise and cacophony of people, trains and vehicles would wake us up. But the policeman on duty woke us up asking for tickets. Since we did not have the forward journey tickets, we were checked and fined. We scurried to the counter to buy platform tickets and went back to our make shift bed to sleep again.

But this was not the end to our problems. Suddenly at 0100 Hrs a sharp, loud, short bang woke us up. That was the sound of fired bullet and our sleepy eyes could first make out that police personnel and people were running helter-skelter. The chaos caused our sleep to vanish, hence we decided to walk around the station. Suddenly the policeman standing on guard started giving suspicious gazes on us(may be our youth attire and big bags reminded them of the recent terrorist). They caught hold of us and started questioning and checking. This continued till morning by different policemen and soon when they discovered our harmless entity as future marine cadets, we were let go and in fact we became popular among them. As dawn arrived, we changed into formals at the station toilets to rush for our eye tests passing which is a pre-requisite to our entry to SIMS. We trudged along to the Govt. Marine Department (MMD) eye test not knowing whether our exhausted, tired and sleep deprived eyes would get it right. However, we managed and passed the test and knew we were a step closer to our destination - SIMS, Lonavala.

Next was our journey in the SIMS bus through the Mumbai-Pune express highway. The scenic beauty around swiped away our tiredness and we were excited. After a little over an hour drive, we arrived. As we stepped down from the bus the first word was, 'WOW'. I was amazed at the beauty and the infrastructure of the institution. The air was fresh and felt a sense of safety. After such adventuring, thrilling and sleepless nights we finally reached SIMS, where we could sleep comfortably without any fear.

Over two months have passed since that memorable day of my life. The experience has prepared me to face and look forward to my life as a navigation officer about three years down the road. SIMS has given me the confidence and inspiration that it's only a question of time and I will arrive at the destination that is meant to be for me for the rest of my life.

THANK YOU SIMS!

CDT L Independent Singh
DNS-09
SIMS, Lonavala

First Gear

It was the first day of a new chapter in my life – entry into Samundra Institute of Maritime Studies, Lonavala- the state-of the art premier maritime institute of the country. As I stepped inside the majestic entrance of the campus, I was accosted literally by someone pointing a gun towards my head! Oh, well, lucky it did not take long to get explained that they were checking my temperature!! Hence, started the first lesson on HSSE - Health and Safety culture of the institute. In view of the recent swine flu break out all new comers and visitors were screened for body temperature.

The guard at the gate guided me to meet the hostel warden so that I can enroll myself there and put my luggage in the room. He gave me direction to the hostel. At the hostel I met Mr. Chotu Ram and after checking and confirming necessary details, he allotted me a room, which was in the fifth hostel - the far end of the long hostel blocks connected by one long corridor and flanked at both ends by the mess room and the auditorium. So its time for me to have a long walk down the "infinity corridor" with my luggage at tow. As I reached my room I noticed my room partner was already in and as we got introduced to each other I realised I am meeting someone from the southern part of the country whose language and local culture I am yet to get familiar with. First time outside my home territory, I knew I got challenges ahead in communicating with my roommate. But it was just a question of time…

After settling down I went to the mess to have my lunch. As soon as I reached there I wondered am I in the right place? This can't be a mess! The view from there is so breathtaking that I was unable to concentrate on the food. Then I took my plate to a table in a corner while I noticed the happy atmosphere with other new cadets enjoying their meals with their respective family members.

Back in the hostel I met guys from different cultures and backgrounds which I was unaware of. Many of them became my good friends. In the evening hostel warden told us about various rules and regulations to be followed during our stay.

On the very next day few of us were sitting in the lobby, a senior came to greet us and while leaving with a devilish smile he wished us "Best of Luck" and to enjoy last day of your freedom. I was very surprised, why did he say that? After some days I did understand. Indeed, our life has been transformed – vastly, as we are geared towards a completely new life of responsibility and accountability towards self, towards colleagues, the society at large, the world and environment.

This career indeed demands a lot of discipline and will power to succeed. Here I found everything beyond my expectations - be it classrooms, mess, hostel, playing facilities, student teacher interaction etc. Here we are learning from some of the best in this field who are transforming our perspective with their immense knowledge and experience. This is bound to shape our career in the best possible way.

As only a few days have passed since I joined SIMS in every single day I have learnt something new here. And I am looking forward to learn a lot more new things in the coming years and would love to share my experience with all new comers to this profession in the coming days by the next term ...

CDT Prashant Kumar Singh
GME-08
SIMS, Lonavala

Bird's eye view of LPG Simulator hardware installation

LPG Simulator hardware view from CCR (Cargo Control Room)

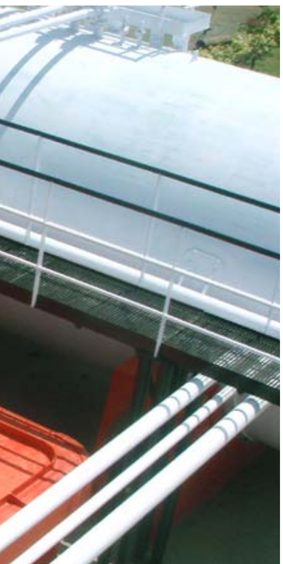
Hardware installation looking from starboard side

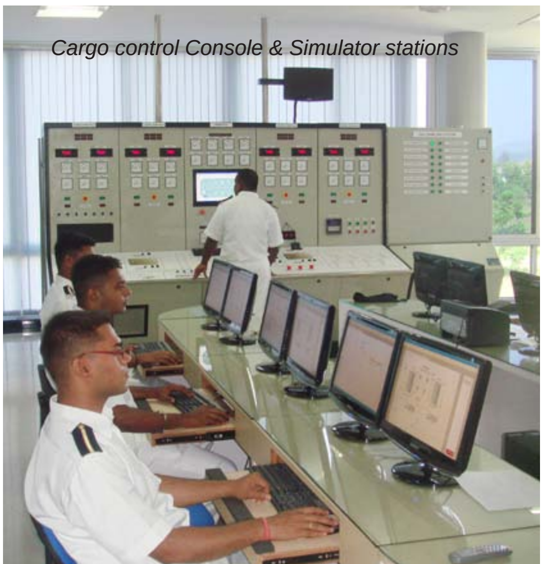
Booster pump

Tank dome showing various mountings

LPG Simulator hardware view from CCR (Cargo Control Room)

Deck pressure vessel





Cargo control Console & Simulator stations

Integrated Gas Tanker Simulator at SIMS, Lonavala

The Samundra Institute of Maritime Studies has achieved yet another milestone with the quality endorsement of its new integrated Gas Tanker simulator by the classification society DNV, Norway. Following an extensive inspection and audit, the facilities and infra-structure of the Gas simulation received its certificate of endorsement on 1st October 2009.

What brings extra glory to this simulator project is - it is not only one such project in the world but it is also an in-house construction by a group of home grown talents with the help of complete in-house resources. Located close to the R&D / Maritime Science building in the SIMS, Lonavala campus, this unique integrated gas training equipment has been fully conceived, designed and implemented by the faculty members with due assistance from the Technical team of **Executive Ship Management**.

This integrates a fully refrigerated gas tanker's hardware on the open deck with the simulator consoles situated in the Maritime Science Building. The aim of the facility is to provide a unique learning experience for the officers and crew of Executive Ship Management (ESM) towards learning the principles and practical working of a fully refrigerated gas tanker in most effective and practical hands-on way.

The facilities will definitely bridge the existing gap between theory based knowledge and real life experience. In fact, SIMS has been a pioneer in such unique hands on training with similar facilities for chemical tanker training with a down sized stainless steel tank with framo pump and other real life accessories in its Mumbai campus.

DNV Id No.: **10050154**
Statement number: /

DNV

DET NORSKE VERITAS

STATEMENT OF COMPLIANCE

This Statement consists of 2 pages

This is to confirm that the product

Liquid Cargo Handling Simulator

with class notation

N/A

and type designation

Liquefied Petroleum Gas (Lpg) Tanker Cargo And Ballast Handling Simulator
Full Mission

Manufactured by

Samundra Institute of Maritime Studies
Takwe Khurd, Mumbai – Pune highway (NH4), Lonavala, Dist- Pune.

is found to comply with

Class A- Standard for Certification of Maritime Simulators No. 2.14 October 2007

Application

The above Standard is based on requirements in the STCW Convention, Regulation I/12.

This Statement is valid until **2009-12-01**, provided the requirements for the retention of the Statement will be complied with.

Issued at **Mumbai** on **2009-10-01**

for **Det Norske Veritas AS**

Capt. Vernon J. Sequeira

(name)

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This Certificate is subject to terms and conditions overleaf. Any significant change in simulation performance may render this Statement invalid.

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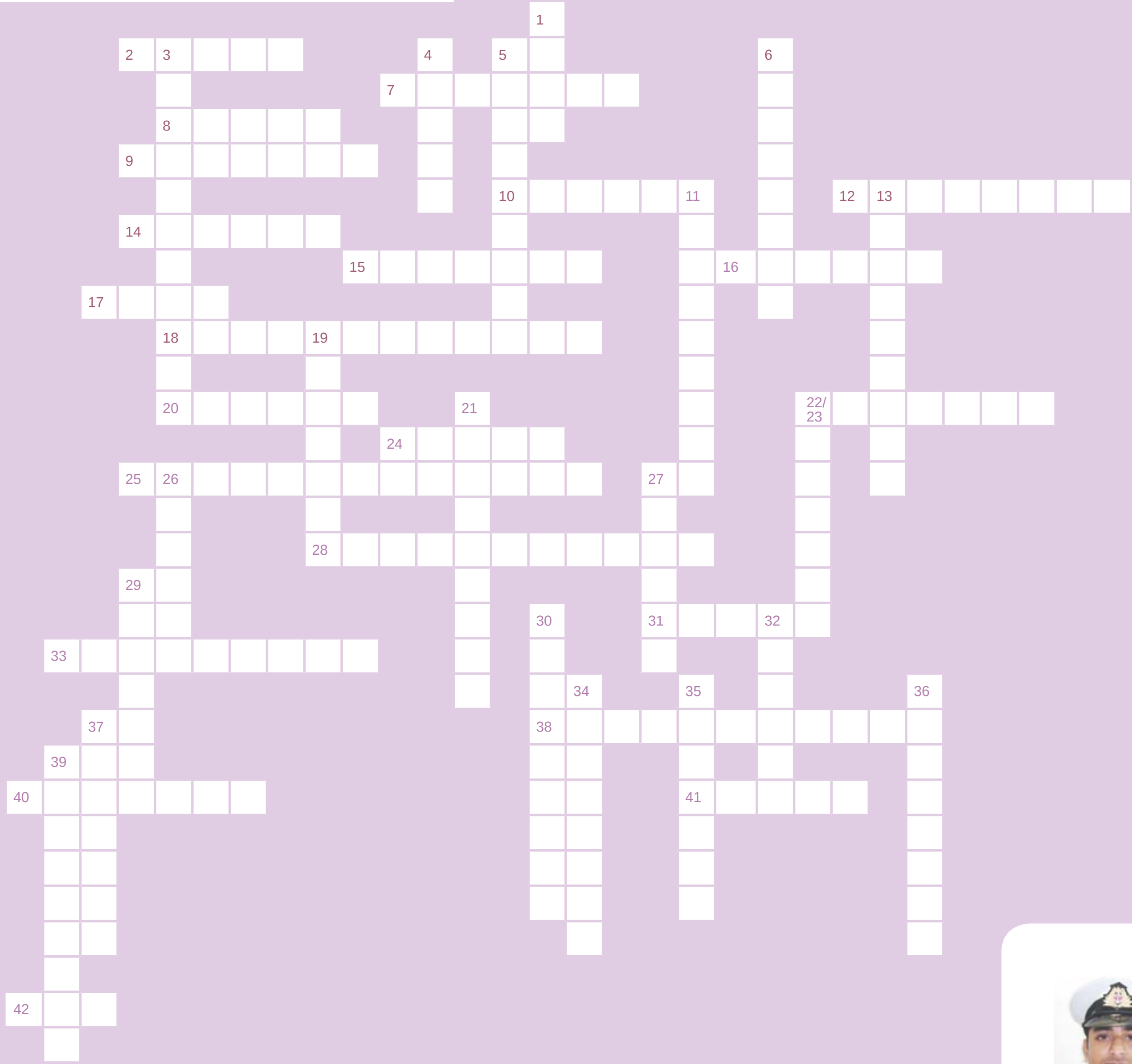
Form No.: 40.066a Issue: January 2008 Page 1 of 2

Crossword Puzzle



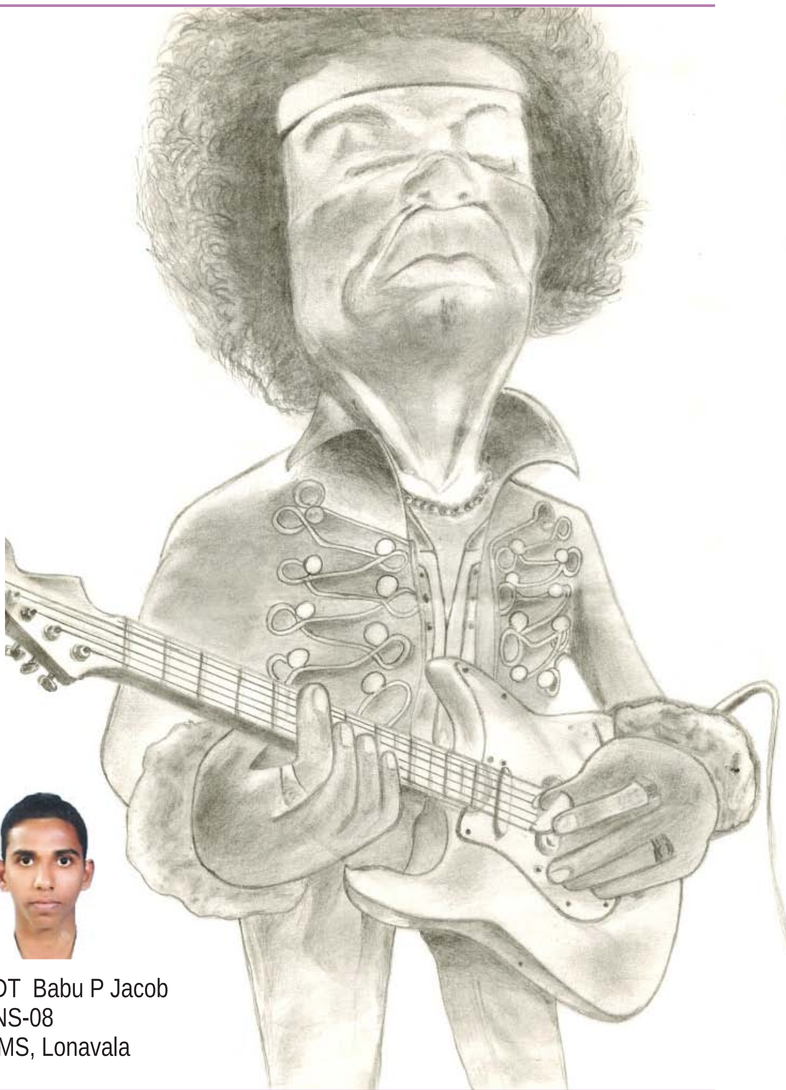
CDT Swatandra Saini, GME-07
SIMS, Lonavala

Across

2. lifeboats are suspended from
7. A frequency control device
8. __________ maneuvering is the application of brake air, whilst the engine is still turning in opposite circulation
9. Phenomenon of irregular pulsation due to a change in the mass flow rate of air w.r.t its pressure ratio
10. Transverse curvature of the deck from the centerline down to the sides
12. Controls the fuel as per load
14. These are non-return valve passing through the jacket water space, which supply cylinder lubricating oil under pressure to the liner surface
15. Transversely distortion of ship is called
16. FET (Field effect transistor) which uses only n channel, either enhancement or depletion type
17. Time interval between a change in a signal and the initiation of a perceptible response to that change
18. used to compress air using main engine exhaust gas
20. __________ used to steer ship
22. It is algebra of logics
24. __________ is necessary for load sharing during paralleling of generators
25. Heating to upper critical temperature and air-cooling is called
28. Distance traveled by the fuel particle into combustion space
31. Sudden pressure and temperature rise due to the detonation of fuel
33. Heating upto critical temperature furnace soak and then cooling
38. It reduces friction and helps in cooling
40. Deck structure is in tension while the bottom plating is in compression
41. Compartment between decks is called __________ deck
42. Gate with inverted output

Down

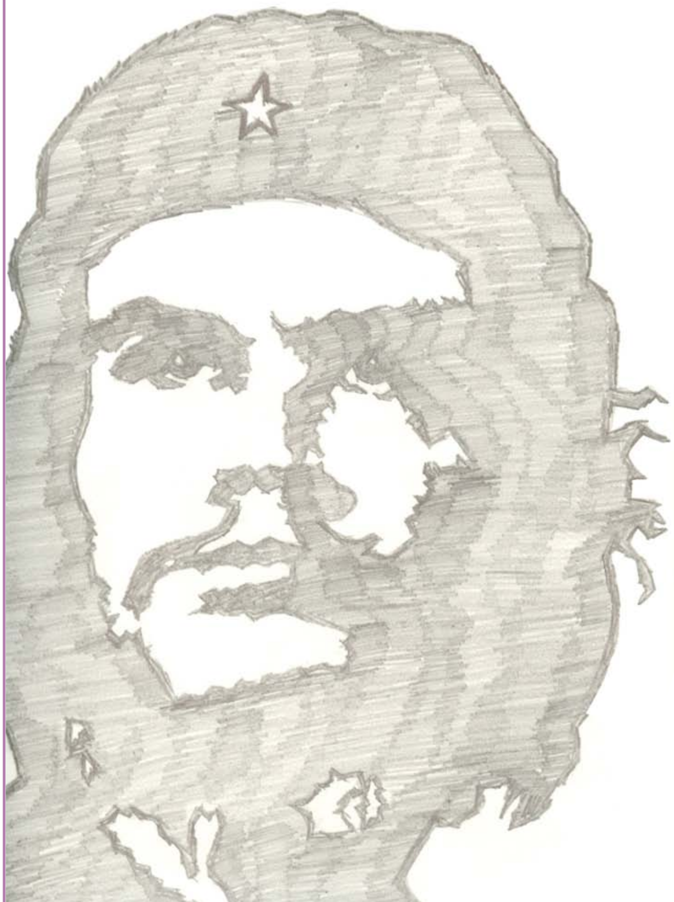
1. Gate whose single output changes only if all input changes
3. fitted at the outer end of quill
4. Diode which can be used in breakdown regions
5. Heating to upper critical temperature and rapid water cooling
6. Uni vibrator circuits are called ___________ circuits
11. Used for flow measurement
13. Difference between the maximum instantaneous value of the step function response and its steady state valve
19. One cylinder unit is phasing in and other is "phasing out"
21. Bimetallic thermometer in which one end is fixed and other rotates shaft 2 pointer is called
23. used to prevent falling or being washed overboard
26. A number used to measure knock rating of fuel
27. Used to limit the motion of main engine with respect of hull
30. Used to amplify the signal
32. Number that indicates the ignition quantity of diesel fuel
34. Keel extends from within engine room length to the forward hold
35. Rudder is supported by
36. Used to convert DC to AC
37. Bottom shell is in tension while deck in compression
39. Stress transducer suited to measuring of torque in rotating shaft



CDT Babu P Jacob
DNS-08
SIMS, Lonavala

Answers:

Across	Down
2.Davit	1.NAND
7.Detuners	3.Accumulator
8.Crash	4.Zener
9.Surging	5.Quenching
10.Camber	6.Flipflop
12.Governor	11.Rotameter
14.Quills	13.Overshoot
15.Racking	19. Overlap
16.MOSFET	21.Rotothern
17.Dead	23.Bulwark
18.Turbocharger	26.Octane
20.Rudder	27.Chocks
22.Boolean	30.Amplifier
24.Droop	32.Cetane
25.Normalization	
28. Penetration	34.Ductkeel
31.Knock	35.Pintles
33.Annealing	36.Invertor
38.Lubrication	37.Sagging
40.Hogging	39.Torductor
41.Tween	
42.NOT	



CDT Neethi Raja
GME-07
SIMS, Lonavala

"Swine Flu"

A Blessing or a Curse?

Imagine this: A hundred blood thirsty zombies infected with a contagious virus running after you on a road already full of dead bodies. Sounds like a scene right out of a sci fi movie, right? Well the movies are not very imaginative because this is more or less the situation today.

Welcome to the world of viruses. The oxford dictionary defines a virus as " a microscopic infection that can spread". Even a six year old today knows some kind of virus. It could be a computer virus, bird flu virus, HIV virus or as simple as a 'sinal virus infection' ie, normal fever and cold.

So where does the virus originate from? Its an infection. It can rise from a diseased plant, animal, bird or even human. As if this wasn't enough, then there is an element called human curiosity. Scientists and researchers started creating and developing new viruses in labs, purely for greed and power. The recent Saddam Hussein episode came up with a new term called WMD. The weapon of mass destruction is a concept also based on biological viruses which have the potential to massacre a million people in the blink of an eye. Bacteria's and viruses are the integral part of any living being from the existence itself but its real evil form started to show when humans started using technology to create viruses for their own personal interest.

So has the zombie situation arrived already? Not yet, thankfully. The recent swine flu spread which changed the TV headlines all over the world was just the beginning. It started off in Mexico, traveled to US, Japan, China, Europe and eventually India.

So what exactly happened? It started off from some infected pigs and then spread from village to village, city to city and country to country. Some people died, newsmakers got headlines, and medicine companies roped in a lot of cash... Some more people died, public holidays were announced, you see all masked people on the streets for a few days and after some weeks, and all is forgotten. Its typical human nature isn't it?

So do we have anything to learn from all this? Definitely yes. Most will have an opinion that a virus like this is nothing but a curse to mankind. It kills and is therefore obviously hated. But if one sees the positive side, one realizes that the virus actually exposes the vulnerability of a system. It tells us that all those hygiene guidelines are not just to be read, they have to be followed. It teaches us that prevention is indeed better than cure. It warns us that if we don't take it seriously, we have worse waiting for us. Whether it is a computer virus affecting the computer or a disease virus affecting us, both cases indicate that there is a need to defend ourselves.

When some computer virus enters the system, it first attacks the antivirus protection system just like the way robbers tend to disrupt the security system of the house before breaking in. This is very much similar to the H1N1 or HIV viruses which attack the human immune system itself.

We have various vaccines for various diseases but we cannot rely on them always. Because the same virus can mutate over the vaccines and at a later stage emerge as a new species. The real issue is any virus has the tendency to mutate itself. Probably some years down the line, we might see a similar virus can work through another animal and we get to face dog or monkey flu.

So far there is a lack of awareness of personal hygiene amongst people and most of them are unaware about the various products like sanitizer, alcohol based hand wash available in the market. The recent market surveys have also indicated an increase in the sales of such products only after the outbreak.

Now it is going to be a trend to wear the masks. For some people it will become a matter of fashion and glamour and they are eager to select a mask by its colour and appearance! So it's going to be a good time for mask companies to sell its products and it will encourage the black market and fake mask makers.

In future wars, there might not be any use of atomic and nuclear weapons. It would be only the biological warfare which will call the day or the night for the world. The ability of viruses to cause devastation to mankind has been evident and this might lead us to a biological war. Recently H1N1 virus may have too many stories to tell including the killing of many people during the 1st world war period where it was disguised as H3N1.

At SIMS, we realize that our defense mechanism lies in our own hands. The SIMS campus being located in the most pristine and green area in the hills of Lonvala , provides a healthy environment for the students. After the recent swine flu outbreak, extra precautions were taken to ward off the disease. Body temperatures measured on a daily basis, masks had been issued to one and all, doctors and separate wards have been provided for sick students. In addition, personal hygiene and general cleanliness have always been emphasized on. . Whether it is helmet for head or a mask for the flu, 'safety' is always the first word one learns at SIMS.

While the populace at Lonavla lived under the shadow of fear and in the apprehension of an epidemic, we at SIMS walked tall with a confidence re-sounding our faith in our safety culture. We will continue our effort to maintain the safety which is embedded in our blood through the role models in all forthcoming endeavors.

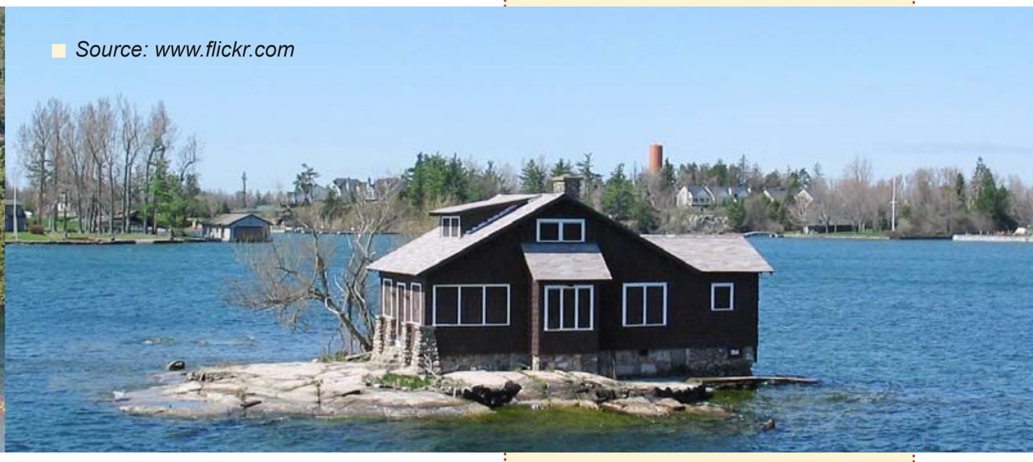
This swine flu outbreak came as a bolt from the blue- a wake up call to all. It broke our complacent attitude towards cleanliness, hygiene and of course the importance of health to enjoy a good life in this world.

(from left to right) CDT Prince Mathews, CDT Aditya Gupta and CDT Hemant
GME-08
SIMS, Lonavala

Travelogue

A Delicious Voyage to Thousand Islands

Capt. Anil Mehta
Nautical faculty
SIMS, Lonavala



Source: www.flickr.com

Not many professions in this world can offer the luxury of visiting and enjoying the beauty of the world's finest tourist spots just in the course of duty and paying nothing for the transport and the food and the whole experience. The merchant navy is one and here's a recollection of crossing the famous St. Lawrence Seaways and a visit to the exotic Thousand Islands by Capt. Anil Mehta, our nautical faculty member. However, note the hard work and professionalism of the crew behind to bring M.V. Lady Hamilton – a 729 Ft. Laker to navigate the notoriously hazardous waterway dotted with shoals, rocks and even shipwrecks. After all no pain no gain!

Here's the account of Capt. Mehta in his own words:

Till now my main encounter with the Thousand Islands had been merely on the dining table with the salad dressing bearing that name generously spread over the lettuce on my plate. But the taste of that hugely popular accompaniment fades once you see the real Thousand Islands-undoubtedly one of the most delicious holiday places in the world.

It was the summer of the year 1996 – the best time to be in the vicinity of the Thousand Islands and my fourth command of a ship; and for the next 10 years I continued to comeback to the same ship and go through this most fascinating experience of my seafaring career. We were calling four ports in the Great Lakes - Hamilton/ Cleveland/ Chicago/ Duluth and the voyage started from Montreal. Most of the ships taking the route import steel coils for the American car industry and export grain to Europe. The lakes reopen in April and for future navigators I must warn that this is a critical period as ice may not have fully melted and ice remnants on the lock walls may be dangerous for the ships hull. While navigating in the lakes speed limits are strictly to be complied with, else vessel is fined heavily. Some Pilots do tend to speed but the responsibility for compliance lies with the Master. Vessel needs to be in top operational condition as continuous maneuvering is necessary during the 5 day pilotage. Crew fatigue is major cause for concern as all stations have to be manned at all of the 17 locks.

As the vessel slows down, the engine hums quietly and everybody rushes to fish out cameras and the binoculars, it settles down to all that we are cruising along the idyllic set up where the bold and bountiful descend to for a lazy summer weekend. A weekend comprising a spin in their yachts, pool parties and perhaps a garden bar-be-cue at their luxurious summer residences on their private islands

Basically the Thousand Islands are an archipelago of 1793 (number varies depending on the definition of an island) islands in the Saint Lawrence River that connect the U.S.-Canada border. The islands stretch for about 80km. While the Canadian islands are in the province of Ontario, the U.S. islands are in the State of New York. The sizes of islands vary from over 100 km to smaller islands occupied by a single residence, to even smaller uninhabited outcroppings of rocks that is home to migratory waterfowl. The best way to see these wonder residences is to navigate through the waters on one of the many tours launched by operators. And though the private residences are out of bounds for the public, a few like the Boldt Castle do make for a brief stopover.

Continued on page 20

St. Lawrence Seaways:

The Great Lakes St. Lawrence Seaway System is a deep draft waterway extending 3,700 km (2,340 miles) from the Atlantic Ocean to the head of the Great Lakes, in the heart of North America. It is ranked as one of the outstanding engineering feats of the twentieth century; the St. Lawrence Seaway includes 13 Canadian and 2 U.S. locks. The St. Lawrence Seaway system serves a region that is home to more than 90 million people (nearly one-quarter of North America's population). It is an Environmentally Friendly Transportation Route.

The Seaway Locks:

Together, the locks make up the world's most spectacular lift system. Ships measuring up to 225.5 meters in length (or 740 feet) and 23.8 meters (or 78 feet), in the beam and 8.08 m (26 ft., 6 in.) draft are routinely raised to more than 180 meters above sea level, as high as a 60-story building. Each lock is 233.5 meters long (766 feet), 24.4 meters wide (80 feet) and 9.1 meters deep (30 feet).

Change Your Course: Typhoon Ahead!

A Weather Guide for the Sailing Staff

Pioneer Express

"The sea is dangerous and the storm terrible, but
these dangers not sufficient reason for remaining ashore."

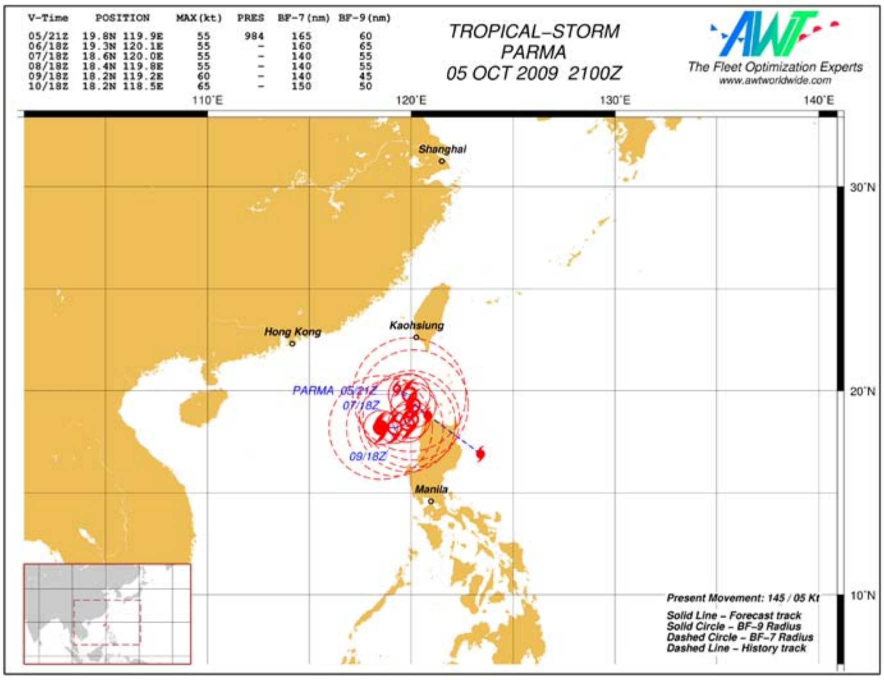
- Van Gogh

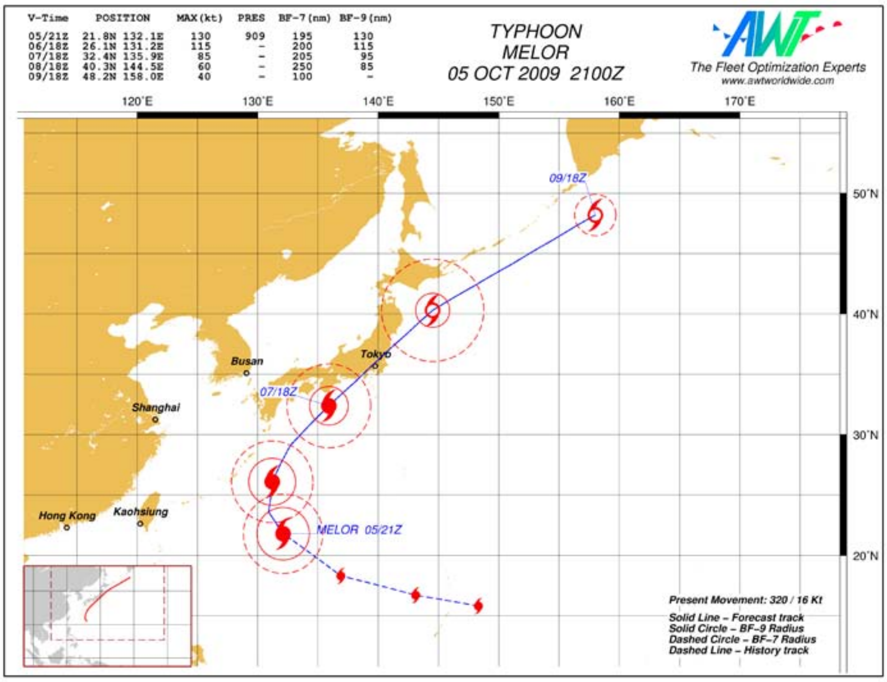
Seafarers have had a long tradition of confronting and combating the hostile and inclement weathers during their voyages across the seven seas and oceans. From the days of sailing ships, when mighty storms battered the sails and wooden masts of sailing ships and sank them with impunity, to the modern times, a prudent and intelligent sailor has learnt to pay due respect to the fury of storms and tried his best to give them a wide berth. Failing which, he has learnt to reduce speed and handle the stormy conditions to the best of his ability till it passes his ship.

No matter how well or strongly the ship has been built; it is no match for the sheer power of a mighty tempest. But the clever and advanced technology has equipped us the humans to maneuver and ride the storm and at least keep a safe distance. A ship is kept well equipped with all the meteorological instruments to provide Master with an early warning of worsening weather, as well as to provide him with the periodical approach of a well tracked typhoon by means of weather faxes and navtex reports. Thanks to modern weather tracking satellites and advent of forecasting services, path of an approaching storm can be plotted with remarkable accuracy. This arms the ship's skipper with the knowledge and wherewithal to take early and decisive action to keep out of the way of storms or ride out the passage of the storm after initiating the required heavy weather precautions.

Sailor's life is full of challenges that changes with the season across various sea in the two hemispheres. During summer months he has to contend with hurricanes (also called Tropical Revolving Storms or TRS, Typhoons, etc.), whereas during winter months constant train of depressions keep his ship company for days together during an Atlantic or Pacific ocean crossing. In order to ensure safety, he needs not only help from God above, he needs some help from the ESM office as well.

The Operations team in ESM is tasked with tracking the areas of heavy weather as well the typhoon activities worldwide and provide all the ships with updated, detailed and pictorial weather data as an additional advice. This assists the vessel's master to study the path of the storm and take evasive action by altering course, reducing speed or even stopping his ship to pass at a safe distance from the storm. From time immemorial, sailors have come to trust various man made laws on how to recognize the advent of a TRS, how to determine as to which semicircle their ship was situated in and how must they take action to ensure ship's safety. However, with the modern methods of typhoon tracking by shore stations and receipt of updated weather information by emails, their job has become much simpler. They need not smell the strong salty winds to determine the distance from the storm or use the buy ballot's law to determine the position of the storm





centre and watch the needle of barograph falling to low and lower pressures. The reports sent by ESM provide them with this information. This coupled with other weather information received by the Master, gives him sufficient guidance to take the required action to secure his ship's safety.

In northern hemisphere, the normal typhoon activity takes place from May to September. However, it is not uncommon to encounter rogue typhoons with fancy names as late as in October. During the early October 2009, two typhoons troubled a number of ESM managed ships. Typhoon Parma and Typhoon Melor had created havoc in Philippines by destroying property, killing people and uprooting trees. Then Parma decided to take things easy by becoming nearly stationary yet remain fierce near the Northwest cost of Philippines. Parma's erratic behaviour affected two of our ships, Al Qadisia and Pacific Polaris. This required strict vigil by our Master Mariners of Operations dept., who provided constant guidance and up-to-date reports about the typhoon movements to both ships.

On the other hand, Melor, which by now had acquired the title of "Super Typhoon" turned northwards and marched on relentlessly towards Japanese coast where three of ESM Ships were at various locations. Mercury K was in Shibushi waiting to discharge her cargo of grain. The approach of the typhoon reminded us of the tragic days in June 2002, when during passage Typhoon Fengcheng had caused M.V. 'Co-Op Venture' anchored in Shibushi to drag anchor, run aground at the beach, ultimately break into two and cause death of 4 sailors who had jumped overboard to save themselves.

We had LR2 Pioneer which made safely to Tokuyama before the Melor passed by the south-west coast of Japan. M.T.Pioneer Express delivered from Onomichi Shipyard in Hiroshima Prefacture was on her maiden voyage to Chiba when her passage was obstructed by Typhoon Melor. With advice from Operations dept. Mercury K departed Shibushi, when the local port issued storm warning and made it vacate its berth. It steamed upto 50 miles south of Ibusaki and rode out the storm safely using its engines. Pioneer Express, which was delivered just the day before typhoon was to come close to the vicinity, sailed upto Iyo Nada in Japan's Inland Sea and awaited safe passage of storm. LR2 Pioneer shifted to Tokuyama outer anchorage and rode out the strong winds, which fortunately were not storm force due to it being at the furthest distance from the storm out of the three ships.

Ultimately with advance planning and constant vigil by ship's officers, operations deptartment and personnel department of ESM, all our affected ships underwent minimum diversion to ensure safety and could safely proceed to their destinations. ESM operations dept. had obtained assistance from the Applied Weather Technologies on certain occasions to provide required weather advice to the vessel.

Capt. Arun Sundaram
General Manager
Executive Ship Management Pte Ltd

SIMS, Lonavala Receives Grade 1 Rating from ICRA

SIMS, Lonavala accomplished another milestone this August'09 adding to the already bulging list of achievements it has made in a short span of time.

ICRA Limited, one of the premier Investment Information and Credit Rating Agencies in India has conferred ICRA Grade 1 (Grade One) to SIMS Lonavala after an exhaustive inspection of the institute facilities and review of various academic and financial records. Incidentally, only about five maritime institutes in India have so far made such achievements though there are total 119 maritime training institutes approved under the DG Shipping, Govt of India.

The grade one rating indicates:

"Outstanding; the institution has resources and processes consistent with those required for delivering the highest quality of maritime education and training."

Congratulations to all at SIMS Lonavala and everyone concerned with the rating exercise, who assisted in achieving this success.

Continued from page 18

It was in the late 19th and early 20th century that the Thousand Islands started to assume significance as a recreational area. As wealthy and well known visitors and Hollywood stars began to buy the properties it turned into one of the most beautiful summer resorts in the world. Grand hotels and summer homes were built and steamboats started offering extensive tours among the islands. The area also became most popular for idyllic boating. Today while private residences dominate, some of the earlier castles have become international landmarks. The most famous examples being the Singer Castle on Dark Island and the long-neglected Bold Castle on Heart Island, which is slowly being restored now. About twenty of these islands form the St. Lawrence Islands National Park in the US and Canada.

As the ship cruised through the waters, we pass probably the most famous landmark in the area-the mystical and enchanting Singer castle. At the turn of the 20th century, Commodore Frederick G. Bourne, former director of the Singer Sewing Machine Co., commissioned the construction of a weekend and hunting lodge on the island. A certain mystery surrounds the castle on Dark Island - with its underground, concealed passageways, evocative paintings and metal gates for spying on visitors. A little ahead, The Boldt castle, its neighbour is swarming with students, obviously on a tour to the historical place.

Incidentally the origin of 1000 Island Dressing is related to George Boldt, one-time owner of the Waldorf Astoria Hotel in New York and of the Bellevue-Stratford in Philadelphia. Legend has it that while cruising aboard his yacht amongst the 1000 Islands on the St. Lawrence River, his steward Oscar discovered that some of the ingredients normally used in the dressings during luncheon were not available. He prepared a dressing using a variety of ingredients which George Boldt found so pleasing that he decided to have it served in his hotels. It was called 1000 Island Dressing in honour of the area where it was first prepared.

How to Run Fuel Efficient Ships and Cut Down Green House Gas Emissions

Biju Baben
Engineering Faculty
SIMS, Lonavala

Annex VI of the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 relating thereto (as amended), which is commonly known as MARPOL Convention primarily focuses on air pollution from ships resulting from the release of Nitrogen Oxides (NOx) and Sulphur Oxides (SOx) into the atmosphere. The revised MARPOL Annex VI is expected to enter into force on 1 July 2010. With the regulatory framework for controlling NOx and SOx emissions firmly in place the International Maritime Organisation (IMO) has now started shifting its focus to Green House Gas (GHG) Emissions from ships which mainly comprise of Carbon dioxide (CO_2).

With CO_2 considered a greenhouse gas, the CO_2 concentration in the atmosphere is looked at with some anxiety. In any case, the low speed diesel is the heat engine available for ship propulsion with the lowest CO_2 emission. This is possible simply by virtue of its high thermal efficiency.

A comparative study of various modes of transport made by the Transport Policy Council of Japan in 2006 found that transporting a unit load of cargo by plane releases as much as 400 times the carbon dioxide as compared to a large size ocean going ship. Also shipping compares well with other modes of transport as well. For example transporting cargo by rail would release six times the carbon dioxide as compared to a ship.

While shipping is presently the most environmentally friendly means of transport as far as GHG Emissions are concerned, it was found that there was further room for improvement.

The Marine Environment Protection Committee (MEPC) of the IMO, met for its fifty-ninth session from 13 to 17 July 2009. During this session the MEPC agreed to disseminate a package of interim and voluntary technical and operational measures to reduce greenhouse gas (GHG) emissions from international shipping.

Towards this the MEPC has issued certain guidelines pertaining to "BEST PRACTICES FOR FUEL EFFICIENT OPERATION OF SHIPS" through its circular MEPC.1/Circ.683 dated 17 August 2009.

The guidelines consist of the following salient points;

1. Improved Voyage Planning

The optimum route and improved efficiency can be achieved through the careful planning and execution of voyages. Thorough voyage planning needs time, but a number of different software tools are available for planning purposes.

2. Weather routeing

Weather routeing has a high potential for efficiency savings on specific routes. It is commercially available for all types of ship and for many trade areas. Significant savings can be achieved, but conversely weather routeing may also increase fuel consumption for a given voyage.

3. Speed Optimisation

Speed optimisation can produce significant savings. However, optimum speed means the speed at which the fuel used per tonne mile is at a minimum level for that voyage. It does not mean minimum speed; in fact sailing at less than optimum speed will consume more fuel rather than less. Reference should be made to the engine manufacturer's lower/consumption curve and the ship's propeller curve. Possible adverse consequences of slow speed operation may include increased vibration and soot generation and these should be taken into account.

A gradual increase in speed when leaving a port or estuary whilst keeping the engine load within certain limits may help to reduce fuel consumption.

Under many charter parties the speed of the vessel is determined by the charterer and not the operator. Efforts should be made when agreeing charter party terms to encourage the ship to operate at optimum speed in order to maximize energy efficiency.

4. Optimum Trim

Most ships are designed to carry a designated amount of cargo at a certain speed for certain fuel consumption. This implies the specification of set trim conditions. Loaded or unloaded, trim has a significant influence on the resistance of the ship through the water and optimising trim can deliver significant fuel savings. For any given draft there is a trim condition that gives minimum resistance. In some ships, it is possible to assess optimum trim conditions for fuel efficiency continuously throughout the voyage. Design or safety factors may preclude full use of trim optimisation.

5. Optimum ballast

Ballast should be adjusted taking into consideration the requirements to meet optimum trim and steering conditions and optimum ballast conditions achieved through good cargo planning.

When determining the optimum ballast conditions, the limits, conditions and ballast management arrangements set out in the ship's Ballast Water Management Plan are to be observed for that ship.

Ballast conditions have a significant impact on steering conditions and autopilot settings, and it needs to be noted that less ballast water does not necessarily mean the highest efficiency.

6. Optimum use of rudder and heading control systems (autopilots)

There have been large improvements in automated heading and steering control systems technology. Whilst originally developed to make the bridge team more effective, modern autopilots can achieve much more. An integrated Navigation and Command System can achieve significant fuel savings by simply reducing the distance sailed "off track". The principle is simple; better course control through less frequent and smaller corrections will minimize losses due to rudder resistance. Retrofitting of a more efficient autopilot to existing ships could be considered.

7. Hull maintenance

Docking intervals should be integrated with ship operator's ongoing assessment of ship performance. Hull resistance can be optimised by new technology-coating systems, possibly in combination with cleaning intervals. Regular in-water inspection of the condition of the hull is recommended.

Propeller cleaning and polishing or even appropriate coating may significantly increase fuel efficiency. The need for ships to maintain efficiency through in-water hull cleaning should be recognized and facilitated by port States.

Consideration may be given to the possibility of timely full removal and replacement of underwater paint systems to avoid the increased hull roughness caused by repeated spot blasting and repairs over multiple dockings. Generally, the smoother the hull, the better the fuel efficiency.

8. Propulsion system maintenance

Maintenance in accordance with manufacturers' instructions in the company's planned maintenance schedule will also maintain efficiency. The use of engine condition monitoring can be a useful tool to maintain high efficiency.

Additional means to improve engine efficiency might include:

- Use of fuel additives;
- Adjustment of cylinder lubrication oil consumption;
- Valve improvements;
- Torque analysis; and
- Automated engine monitoring systems.

9. Energy management

A review of electrical services on board can reveal the potential for unexpected efficiency gains. However care should be taken to avoid the creation of new safety hazards when turning off electrical services (e.g., lighting). Thermal insulation is an obvious means of saving energy.

Optimisation of reefer container stowage locations may be beneficial in reducing the effect of heat transfer from compressor units. This might be combined as appropriate with cargo tank heating, ventilation, etc. The use of water-cooled reefer plant with lower energy consumption might also be considered.

While the above are just interim guidelines we can, in time to come expect and be prepared for more detailed and mandatory guidelines regarding GHG emissions.

Onam Rangoli by CDT Sarin from GME-07

CAMPUS NEWS

SIMS Cadets Join as ESM Officers

Welcome Aboard!

It is with great pride we introduce the below mentioned SIMS trainees, who joined SIMS with dreams of rising up as merchant navy officers. With their sincere efforts, the guidance of their faculties at SIMS, Lonavala and their seniors onboard, they can now proudly exhibit the 'STRIPE' of an officer rank on their epaullettes. Yes, but with all the admiration comes a lot of responsibility, and we are sure, they will live up to it!

We wish them all the best.

3/O Thomas Kiran Bose

3/O Kozhikkara Binoy Chacko

3/O Hari Sreejith Kunnappillil

3/O Pathak Vivek

3/O Yoganand Siva

3/O Kalathil Deepak Sharma

3/O Jatinder Singh

4/E Prabhakaran Himesh Kizhakkepura

4/E Menon Subash Sasi

4/E Gopakumar Prasanna Mahesh

4/E Subramanian Rajaram

4/E Nagaraj Jagadish

4/E Pilla Satish Kumar

4/E Kapoor Sukhdeep Singh

4/E Mathilote Kumaran Dileep

4/E Sharma Shriram

Mr. Helge Kjeoy, Vice President & Mr. Kamal Kumar, Country Manager - DNV visit SIMS, Lonavala

Mr. Helge Kjeoy with Principal, Prof. Swamy

Mr. A Banerjee, Chief Surveyor - Cum - Addtnl DG (I/C) receiving a SIMS, Lonavala plaque from Prof. Swamy

Chief Executive Nautical Institute, London - Mr. Philip Wake (centre) at the seminar room, Administration Building

Mr. Philip Wake visiting the Ship-in-Campus

President & CEO of United Arab Chemical Carriers - Mr. Jens Gronning (left) & Operation Manager - Mr. Vikas Malhan (right) at the seminar room, Administration Building

Mr. Jens Gronning at the Workshop

Welcome to SIMS

A Report on Visits from Maritime Dignitaries Across the Globe

We are pleased to inform that **Samundra Institute of Maritime Studies (SIMS)** has become a source focus of keen interest from a wide range of dignitaries from the international maritime world. The state-of the art infra-structure and innovative maritime training facilities have received kudos from the industry luminaries. We have a steady growth of such visitors over the years and we are pleased to include below a report of the visits of some of our special guests in the SIMS, Lonavala campus. Some of them also visited our post-sea facilities in Mumbai and expressed their admiration for the pioneering work done by the institute at two different levels of maritime training in India. Here's the report from the last quarter of the year:

We have had the honour of having **Mr. Amitava Banerjee, Chief Surveyor of Govt. of India** as our chief guest for the passing out of GME 06 batch on 29th August. Delivering the valedictory speech to the cadets, faculty, staff and the parents of the outgoing cadets Mr. Banerjee pointed out that the quality and standard of the institute is well known and there are many things which others in the field should emulate. His message to the cadets was that although the knowledge and training provided in this institute is best in the world, they should go beyond the training and inculcate the right attitude and act rationally and honestly to be a successful sailor on board. It's the maturity of thoughts, the capacity to resolve conflict and react rationally under adverse circumstances that will prove them to be good professionals in the field, he emphasized. We were indeed proud to receive such erudite comments and advice from our learned guest. We offer our heartfelt gratitude to Mr. Banerjee.

Mr. Philip Wake, Chief Executive of Nautical Institute, London accompanied by his counterpart in India, Commodore Rajan Vir, President of Indian Maritime Foundation, Pune and Capt. R. Hajarnavis paid a visit to SIMS, Lonavala on 22nd September and the team was accorded a warm welcome by the campus team headed by Prof. DVB Swamy, Principal, SIMS, Lonavala. They were shown around the facilities and their visit ended with a meeting with the cadets. Capt. Wake described the campus as most impressive and went on to urge the cadets to enjoy their training as well as whatever they do in life. He pointed out that a majority of seafarers eventually leave the sea to take up a job ashore. But, nevertheless, they all take up jobs in fields related to the maritime industry since this industry offers a wide range of opportunity for the seafarers. Capt. Wake explained at length the role played by the Nautical Institute which is also an official consultative organizations for the IMO. While the shipping industry is still reeling through recession, Mr. Wake pointed out that the cadets need not worry since the demand for capable and qualified seafarers is still going up in the market. However, he emphasized on the importance of training to balance out the speedy promotion of officers in such market.

Continued on page 25


Mr. Helge Kjeoy at the Ship-in-Campus


Introducing the SIMS faculty members to Mr. A Banerjee


Mr. Philip at the Workshop


Prof. Swamy explaining the R&D to Mr. Jens Gronning at the Workshop

Continued from page 24

Mr. Helge Kjeoy, Vice President, Regional Manager, Middle East, S.E. Asia & Australia, DNV visited SIMS along with his counter part **Mr. Kamal Kumar, Country Manager, Maritime India, Srilanka & Bangladesh, DNV** on 20th August, 2009. After a full guided tour of the campus, Mr. Kjeoy said that this has been high on his agenda to visit the institute because of what he had heard and read about the institute. After going through the campus, he said he was thoroughly impressed and described, "With a hand in my heart" that "this is the top class institute for marine education in the world." Coming from a fishing family and community, he had chosen sailing as his natural vocation. He commented, "If this academy had been there around in Norway at the time he had got into the career and if he had no sea sickness, he would have chosen SIMS as his academy to start his sea career!"

Talking about the beautiful scenery on his way from Mumbai to Lonavala, he joked how he thought they were on the wrong path seeing a ship far away at the top of the mountain. However, he gushed his admiration to see all the facilities assembled here to make academic education and teaching top class. He pointed out that the challenges for the maritime industry and shipping in particular is the competency and skill of the crew which will be the determining factor in success or failure of a company. Investment and effort by ESM group, members & staff and the leadership of ESM and SIMS is impressive which has contributed to the industry at large, he commented.

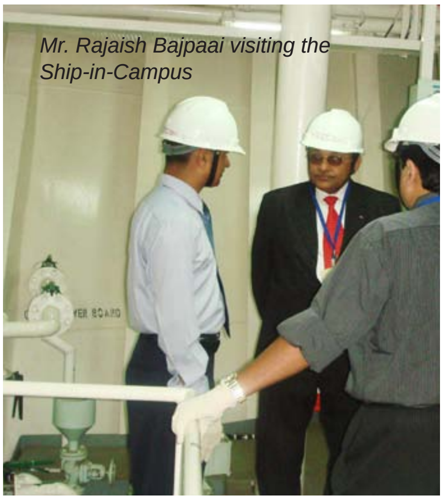
He told the cadets that they are fortunate to get the chance to study in this institute. This itself should be a strong drive and motivation to go forward for them, he stressed. Finally, he expressed his hope that there will be more and stronger relationship between the ESM/ SIMS group and DNV in future.

The institute was also graced by **Mr. Jens Gronning, President & CEO of UACC** (United Arab Chemical Carriers), UAE accompanied by Mr. Vikas Malhan, Operation Manager, **Mr. Per Winther Christensen, Vice President, Torm Shipping, Denmark** accompanied by Capt. Kersi Khambatta, GM Training, and Capt.J.S. Loney, GM SQE, Torm Shipping, India, **Mr. Rajaish Bajpaai, Chief Operating Officer**, Capt. A.P.Sethi, GM Training, Capt. R.K. Singhal. GM HRM of Bernhard Schulte Ship, **Mr. S. Senenayake, Group Director, Ceyline Group of Companies** accompanied by Capt. S.P.Rao, Chairman, SVS Group, India management during the last quarter of the year. Their comments have been included in separate page at the end of this issue.


Vice President, Torm Shipping - Mr. Per Winther Christensen (center) at the seminar room, Administraion Building



Mr. Per Winther Christensen and his team visiting the Ship-in-Campus


Mr. Rajaish Bajpaai visiting the Ship-in-Campus


Mr. Rajaish Bajpaai (right), Chief Operating Officer of Bernhard Schulte Ship Management at the Ship-in-Campus


Capt. S.P. Rao (left), Chairman - SVS Group and SIMS Trustee & Governing Council member visited SIMS, Lonavala with Mr. Saliya Senanayake (right), Group Director - Ceyline Group of Companies

Visitors' Comments

History in Maritime training has been created here! The institute should act as a role model for other institutes to emulate. The vision of those who gave shape to this seat of meaningful maritime learning, is simply stupendous. Prof. Swamy and his team, please keep it up!

- Mr. A Banerjee, Chief Surveyor – Cum – Addtnl DG (I/C), Directorate General of Shipping, Govt of India

A most impressive new pre-sea training Institute with smart, confident cadets. The future of our industry is clearly in good hands with such integrated and well supported preparation for a maritime career.

- Mr. Philip Wake, Chief Executive of Nautical Institute, London

This is a state of the art institute, the pride of India. We salute the founders for taking this initiative and ensuring it's immense success.
Best of Luck.

- Commodore (retd) Rajan Vir, President – Indian Maritime Foundation, Pune

Very impressive and fantastic institute.

- Capt. R.Hajarnavis, Indian Maritime Foundation, Pune

A great pleasure being here visiting the institute. Great achievements for the entire shipping community.

- Mr. Helge Kjeoy, Vice President, Regional Manager, Middle East, S.E. Asia & Australia, Det Norske Veritas (DNV)

Congratulations to SIMS for their excellent support to the maritime industry. The professionalism of the team at SIMS and willingness to participate enthusiastically is appreciated.

- Mr. Kamal Kumar, Country Manager, Maritime India, Srilanka & Bangladesh, Det Norske Veritas (DNV)

It has been very positive for me to see first hand this visionary and truly innovative project. I am confident that the "Product" that comes out of this project, is definitely worth the investment put into it. Thank you!

- Mr. Jeans Gronning, President & Chief Executive Officer, UACC, UAE

It's been pleasure once again visiting SIMS especially after seeing R&D project on stability of vessels with wave breaker. All the best to SIMS team.

- Capt. Vikas Malhan, Operation Manager, UACC, UAE

Thank you very much for a very interesting tour of the campus.

- Mr. Per Winther Christensen, Vice President, Torm Shipping, Denmark

Exemplary. Continue to surpass all expectations. On another hand anything less than this from SIMS management would have been a disappointment. Wishing this institute a very bright future. Many thanks to the Principal and the faculty for making this visit very comfortable and educative.

- Capt. Kersi Khambatta, General Manager - Training, Torm Shipping, India

Thanks for giving us opportunity to visit your wonderful facility. Enviromental steps are Great.

- Capt. Loney, General Manager SQE, Torm Shipping, India

With best wishes to Prof. Swamy and his team for creating a better future.

- Mr. Rajaish Bajpaai, Chief Operating Officer, Bernhard Schulte Ship Management

I am very impressed to see a maritime institute of this calibre. Absolutely magnificent.

- Capt. R.K.Singhal, General Manager - HRM, Bernhard Schulte Ship Management

An impressive institute. The vision shows. The institute is sure to go a long way.

- Capt. A.P.Sethi, General Manager - Training, Bernhard Schulte Ship Management