

INNOVATION OF AZIPOD MARINE PROPULSION

ABB, the leading power and automation technology group, has got prestigious Red Dot Award 2013 for product design in recognition of its innovative Azimuth lever that steers its Azipod XO marine propulsion unit.

This was the decision of board of 37 experts who assessed products submitted by more than 1,800 manufacturers, designers and architects from 54 countries, evaluating the degree of innovation, functionality, quality, ergonomics, durability and ecological compatibility.

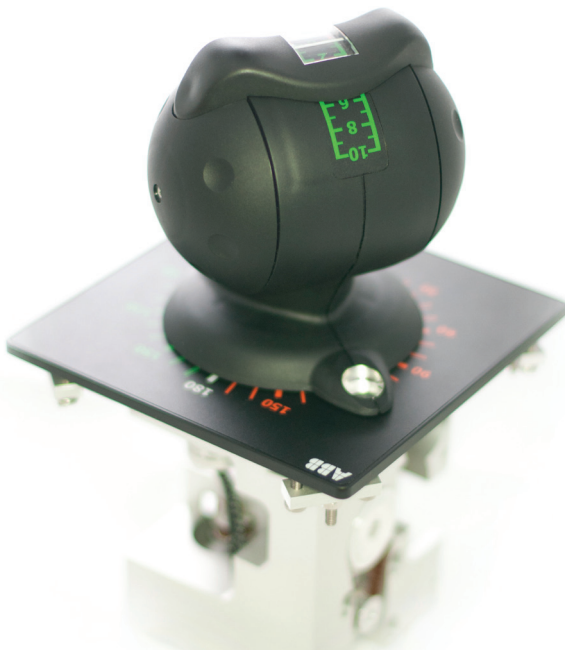


Figure 1.

Source: [//www.abb.com/cawp/seitp202/3e03600fe25129f0c1257b86002aac68.aspx](http://www.abb.com/cawp/seitp202/3e03600fe25129f0c1257b86002aac68.aspx).

The Azimuth lever is the key part used in Azipod-powered ships to control propulsion speed and steering angle and forms part of the ABB Intelligent Maneuvering Interface (IMI) system. Propeller speed is controlled by moving the horizontal axis of the lever while the steering angle is controlled by rotating the lever around its vertical axis. The Azimuth lever can easily steer mega large vessels which is more than 200,000 GRT(gross register tonnage) and over 300 meters long, and it will be an important feature of the steering equipment in the future cruise vessels.

One of the features of the latest Azimuth lever is the use of programmable detents – or “feeling” points – in the lever. The shape of the Azimuth lever is designed to fit easily into the hand and the lever direction can always be determined by its shape, providing tactile feedback. The award-winning design also features scale lamps that can be adjusted to maximize visibility during the night or in bright sunshine.

The product design competition has existed since 1955. Its award is an internationally recognized quality seal.



Figure 2.

Source: [//www.abb.com/cawp/seitp202/3e03600fe25129f0c1257b86002aac68.aspx](http://www.abb.com/cawp/seitp202/3e03600fe25129f0c1257b86002aac68.aspx).

ROBOT BECOMING NEW FIRE DEVICE



Figure 3.

Source: <http://www.nrl.navy.mil/media/news-releases/2012/nrl-designs-robot-for-shipboard-firefighting>

The U.S. Navy reports it is developing an autonomous, humanoid robot for fighting fires aboard ships.

Shipboard Autonomous Firefighting Robot will be able to maneuver within the vessel's confined spaces as well as on ladder ways and interact with personnel.

An interdisciplinary team from the U.S. Naval Research Laboratory is in charge of the device's development. The robot is designed with enhanced multi-modal sensor technology for advanced navigation and a sensor suite that includes a camera, gas sensor and stereo IR camera to enable it to see through smoke.

It is battery-powered that holds enough energy for 30 minutes of firefighting. Like a sure-footed sailor, the robot will also be capable of walking in all directions, balancing in sea conditions and traversing obstacles.

The laboratory said algorithms are being developed to give SAFFiR autonomous mobility and decision-making capability as a "team member." Capabilities will include the ability to understand and respond to human gestures.

Language may also be incorporated as well as other modes of communication and supervision.

Working with the NRL on the robot's development are researchers from Virginia Tech University and the University of Pennsylvania.

A test of the firefighting robot in a realistic firefighting environment onboard the ex-USS Shadwell is slated for September of next year.

MHI BUILD RAMFORM VESSELS CAPABLE OF HIGH-ACCURACY, WIDE-RANGE 3D SEISMIC DATA ACQUISITION

Mitsubishi Heavy Industries, Ltd. (MHI) has received an order for two vessels capable of three-dimensional (3D) seismic data acquisition for sea bottom resource exploration from Petroleum Geo-Services ASA (PGS), a leading company in marine seismic and reservoir data acquisition, processing and analysis/interpretation services in Norway.

The vessels ordered are the "Ramform Titan-class", the newest generation in the Ramform series featuring today's most advanced 3D seismic-data acquisition/analysis capability. The 104 meter-long vessel has a very wide breadth of 70m. For quiet operation, the vessel adopts diesel electric for the main propulsion system. The vessel is capable of receiving supply at sea to enable a long-term exploration over an expansive area.

The Ramform vessel tows multiple streamer cables from the vessel's stern. The cables contain sensors which detect echoes of sound waves emitted from sound sources and bounced back from the sea bottom and stratum boundaries. The detected

echoes are used for 3D seismic analysis. The Ramform Titan-class vessels ordered by PGS have a wider stern compared with existing vessels; this feature permits deployment of a greater number



Figure 4.

Source: <http://www.pgs.com/en/Pressroom/News/Ramform-Titan/>

of streamer cables—up to 24 lines—enabling exploration of a wider area at one time.

MHI has a track record in building exploration vessels for deep earth, sea-bottom and ocean applications. The company also instituted a policy to expand its business in high-value-added vessels and marine structures as part of a new strategy for its Shipbuilding & Ocean Development business segment. By further refining its capability to build specialized vessels through construction of the vessels for 3D seismic data acquisition for sea bottom resource exploration for PGS, going forward MHI intends to further strengthen its aggressive activities to attract demand for special ships in Japan and other countries.

“SAYAENDO” NEW-GENERATION LNG CARRIER

Mitsubishi Heavy Industries, Ltd. (MHI) signed an agreement with Mitsui O.S.K. Lines, Ltd. to build a Sayaendo series new-generation liquefied natural gas (LNG) carrier. Sayaendo-series ships feature a unique structure that integrates the LNG tank cover with the ship's hull, resulting in significantly improved fuel consumption and maintainability. From 2020 the new ship will be used mainly for transportation of LNG produced by the Ichthys LNG Project* in Australia for Osaka Gas Co., Ltd. and Kyushu Electric Power Co., Inc.

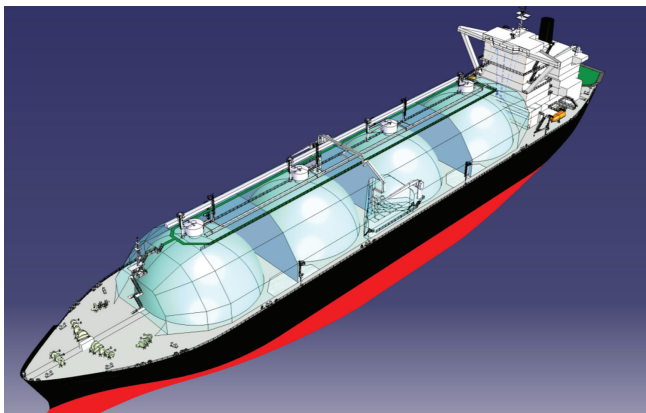


Figure 5.

Source: http://www.mhi.co.jp/en/products/detail/lng_carrier_sayaendo.html

The new LNG carrier will measure 288.0m in length overall (LOA), 48.94m in width, and 11.55m in draft. The 138,000 gross tonnage (75,000 deadweight tonnage) ship will be capable of carrying up to 153,000 m³ of LNG (cargo tank total volume: 155,000m³) in four Moss-type tanks at a service speed of 19.5 knots per hour. The ship will be built at the MHI Nagasaki Shipyard and Machinery Works.

To protect its four Moss spherical tanks, the Sayaendo features a peapod-shaped continuous cover integrated with

the ship's hull in lieu of conventional hemispherical covers. This innovative configuration enables reductions in size and weight while maintaining the ship's overall structural rigidity. The continuous cover over the tanks also improves aerodynamics by substantially reducing air resistance that acts as drag on ship propulsion. For its main power plant the Sayaendo adopts MHI's Ultra Steam Turbine Plant (UST), a new turbine that provides higher thermal efficiency through effective use of thermal energy by reheating steam. Through downsizing, weight reduction and hull line improvement, Sayaendo ships achieve a substantial 20% reduction in fuel consumption compared to conventional ships.

With a conventional cover configuration, pipes, wires and catwalks atop the tanks are supported by complex structures. By covering the tanks with an integrated cover and making those supporting structures unnecessary, the new design also improves maintainability. In addition, CO₂ emissions are reduced as a result of decreased fuel consumption, and response to environmental issues is further enhanced with installation of a ballast water treatment system, which addresses impact on the marine ecosystem.

Owing to the suspended operation of nuclear power plants in Japan in the wake of the Great East Japan Earthquake, as well as an expanded shale gas production in the U.S., demand for LNG and LNG carriers has been expanding not only in Japan but globally. As such, MHI will continue to expand its efforts to secure new orders for Sayaendo and other types of LNG carriers.

Note: The Ichthys LNG Project is a joint venture between INPEX Corporation of Japan (lead partner) and Total S.A. of France, with participation by various other international corporations and Japanese gas and electric power companies. The project aims to build a major facility in Darwin to liquefy gas extracted from the Ichthys Field located approximately 200 kilometers off the coast of Western Australia. Gas production is scheduled to begin by the end of 2016.

BALLAST-WATER-TREATMENT SYSTEM ENGINEERING

Ballast water is sea water drawn into ships' ballast tanks to stabilize and balance the ship. However, the marine organisms it contains may damage the local ecosystem when transported to and propagated in sea areas that are not their natural habitat. In response, an international convention was adopted, imposing requirements on ships newly built and those already in service to equip ballast water treatment systems. MHI has offered total services, ranging from engineering for installation to the actual installation of ballast water treatment systems.

COSTA CONCORDIA SALVAGE OPERATION MAKES PROGRESS

Another important step towards the parbuckling operation has been successfully completed. The Salvors finished the



Figure 4.

Source: <http://www.pgs.com/en/Pressroom/News/Ramform-Titan/>

process of positioning and installment of the two blister tanks on the wreck's bow.

The two blister tanks are special sponsors that provide a net buoyancy of about 4,000 tons and will support the bow during the next three phases of the process: the rotation of the wreck into a vertical position (the so-called parbuckling); the resting of the wreck on the artificial seabed and the refloating.

The two blister tanks are made of steel and were built at Fincantieri shipyards, respectively in Palermo and in Ancona and, consequently, assembled with tubular frame in Palermo.

They are fixed to the hull by means of three anchor pipes installed in the thruster tunnels. The whole structure (the two blister tanks, the tubular frame and the three anchor pipes) weighs about 1,700 tons. The two blister tanks measure 23 meters in length, 20 meters in height and have a breadth of about 15 meters.



Figure 7.

Source: <http://www.noaanews.noaa.gov/stories2013/images/qo478-walker.jpg>

NOAA CONFIRMS IDENTITY OF HISTORIC WRECK

More than 153 years after it was lost in a violent collision at sea, government and university maritime archaeologists have identified the wreck of the ship Robert J. Walker, a steamer that served in the U.S. Coast Survey, a predecessor agency of NOAA.

NOAA notes that the Walker, while now largely forgotten, served a vital role as a survey ship, charting the Gulf Coast including Mobile Bay and the Florida Keys in the decade before the Civil War. It also conducted early work plotting the movement of the Gulf Stream along the Atlantic Coast.

Twenty sailors died when the Walker sank in rough seas in the early morning hours of June 21, 1860, ten miles off Absecon Inlet on the New Jersey coast. The crew had finished its latest surveys in the Gulf of Mexico and was sailing to New York when the Walker was hit by a commercial schooner off New Jersey. The side-wheel steamer, carrying 66 crewmembers, sank within 30 minutes. The sinking was the largest single loss of life in the history of the Coast Survey and its successor agency, NOAA.

NOAA was able to confirm the identity of the Walker using various criteria, including the ship's unique paddlewheel flanges.

Built in 1847, the Walker was one of the U.S. government's first iron-hulled steamers, and was intended for the U.S. Revenue Service, the predecessor of the United States Coast Guard. Instead, the Walker and some of its sister steamers were sent to the U.S. Coast Survey.

The U.S. Coast Survey is NOAA's oldest predecessor organization, established by President Thomas Jefferson in 1807 to survey the coast and produce the nation's nautical charts. In 1860, as the Civil War approached, the Coast Survey redoubled efforts to produce surveys of harbors strategically important to the war effort along the Gulf and Atlantic coasts.

The New York Herald, in reporting the Walker's loss on June 23, 1860, noted that a "heavy sea was running, and many of the men were doubtless washed off the spars and drowned from the mere exhaustion of holding on, while others were killed or stunned on rising to the surface by concussion with spars and other parts of the wreck."

The Walker wreck site initially was discovered in the 1970s by a commercial fisherman. The wreck's identity has been a mystery despite being regularly explored by divers. Resting 85 feet underwater, the vessel's identity was confirmed in June as part of a private-public collaboration that included research provided by New Jersey wreck divers; Joyce Steinmetz, a maritime archaeology student at East Carolina University; and retired NOAA Corps Capt. Albert Theberge, chief of reference for the NOAA Central Library.

While in the area to conduct hydrographic surveys after Hurricane Sandy for navigation safety, NOAA Ship Thomas Jefferson sailed to the wreck site and deployed its multi-beam and side-scan sonar systems. Hydrographers searched likely

locations based on analysis of historical research by Vitad Pradith, a physical scientist with NOAA's Office of Coast Survey.

A NOAA Maritime Heritage diving team, on a separate Hurricane Sandy-related mission in the area, was able to positively identify the Walker. Key clues were the size and layout of the iron-hulled wreck, and its unique engines, rectangular portholes, and the location of the ship, which was found still pointing toward the Absecon lighthouse, the final destination of a desperate crew on a sinking vessel.

NOAA's intent is not to make the wreck a sanctuary or limit diving, but to work with New Jersey's wreck diving community to better understand the wreck and the stories it can tell.

JAN DE NUL ORDERS MULTIPURPOSE VESSEL AT CROATIAN SHIPYARD

Belgium's Jan De Nul Group has ordered a 10,500 dwt, 138 m long multipurpose vessel at the Uljanik Shipyard in Pula, Croatia. It will be a trenching and offshore support vessel, a subsea rock installation vessel and a cable laying vessel.

In the cable laying mode, the vessel will be able to install up to 10,000 tons of cable and will be equipped with a 5,500 tons capacity turntable above deck and a 4,500 tons capacity turntable below deck along with tensioners as required by the project, chute and auxiliary equipment.



Figure 8.
Multipurpose Vesel

In the subsea rock installation mode, the vessel will be able to install up to 10,000 tons of rock in a single load by using the aft stone hopper with a capacity of 3,000 tons and the midship hopper with a capacity of 7,000 tons along with the two excavators and the fall pipe for accurate rock installation at up to 200m water depth.

In the combination mode any combination of the above will be possible, up to the carrying capacity of the vessel. The vessel will be delivered in 2015 and will be the 76th vessel in the Jan De Nul Group fleet.

SWEDISH ICEBREAKER TESTS NEW ARCTIC MONITORING SYSTEM

The Arctic is one of the world's most environmentally sensitive areas, while also being one of the most difficult to protect against accidents. The Swedish Maritime Administration is now testing a new system for monitoring maritime traffic that will improve the potential for Arctic sea rescue, icebreaker assistance and environmental protection.

Oden is owned by the SMA and manned by Viking Supply Ships AB. She was delivered by the Götaverken Arendal shipyard in 1989.

The new tracking system will be tested during an Arctic expedition by the Swedish Maritime Administration icebreaker Oden as part of the MICE (MONALISA Ice) research and development project, which is being conducted in cooperation between the Swedish Maritime Administration and the Chalmers University of Technology in Gothenburg. MICE aims to capitalize on the more wide-ranging MONALISA project, which the Swedish Maritime Administration leads, and which permits the global monitoring of maritime traffic without the need for shore-based



Figure 9.

Source: http://marinelog.com/index.php?option=com_content&view=article&id=4480:swedish-icebreaker-tests-new-arctic-monitoring-system&catid=1:latest-news&Itemid=195

infrastructure, such as AIS base stations or radio communications

The solution is based on using vessels as base stations to communicate information regarding the surrounding traffic and the vessel's own course, speed position and other relevant data. The information is interchanged with a shore-based coordination centre via a satellite link. The same satellite link is used for the interchange of navigation routes and other necessary communications between the vessel and the shore-based centre

FOSEN SHIPYARD DELIVERS LNG-FUELLED CRUISE FERRY



Figure 10.

Source: <https://fjordline.com/en/About-Fjord-Line/Media/Press-releases/Fjord-Lines-cruise-ferry-MS-Stavangerfjord-ready-for-service/>

Norway's Bergen Group Fosen shipyard has today completed the successful delivery of MV Stavangerfjord to Fjord Line.

The 170 m vessel can carry 1,500 passengers and 600 cars and is the first large cruise ferry to be fuelled only by LNG, rather than being dual-fuelled. The Stavangerfjord and her sister were originally ordered with dual-fuel engines. However, Bergen Group received a contract modification last July that specified single-fuel LNG engines. (See earlier story) and each ship is fitted with four Bergen gas engines, powering a highly efficient Promas integrated rudder and propeller propulsion system.

The switch from dual fuel to single fuel contributed to some delays in Stavangerfjord's delivery the handover was in line with a revised schedule announced in May.

The hull for the next cruise ferry arrived in Fosen from Poland's Stocznia Gdansk shipyard in late March for outfitting and completion. Bergen Group and Fjord Line say they will clarify the final delivery of this sister ship "in the near future."

BERGEN ENGINES NOW A UNIT OF TOGNUM AG

Norwegian engine manufacturer Bergen Engines AS have become part of the Tognum Group. Bergen Engines was formerly a Rolls-Royce subsidiary and the switch to the new ownership follows the acquisition of MTU-parent Tognum by a joint venture of Rolls-Royce plc. and Daimler AG.

The acquisition adds medium-speed diesel and gas engines with power outputs up to 10 MW to Tognum's engine portfolio.

This is an important milestone and positive for both customers and employees as this enables us to combine the medium- and high-speed portfolios under one roof.

Tognum's MTU brand supplies high-speed diesel and gas engines with power ranges of 75 to 10,000kW and 100 to 2,150kW respectively. The Bergen engine portfolio comprises medium-speed units for marine and power generation applications. The diesel engines deliver 1,800 to 8,000 kW and the gas engines are built for 1,400 to 9,700kW output.



Figure 11.

Source: <http://www.4-traders.com/TOGNUM-AG-619494/news/Tognum-AG--Bergen-Engines--the-new-Tognum-subsiary-17058542/>

STUDENT PROJECT GENERATES NEW ARCTIC VESSEL DESIGN

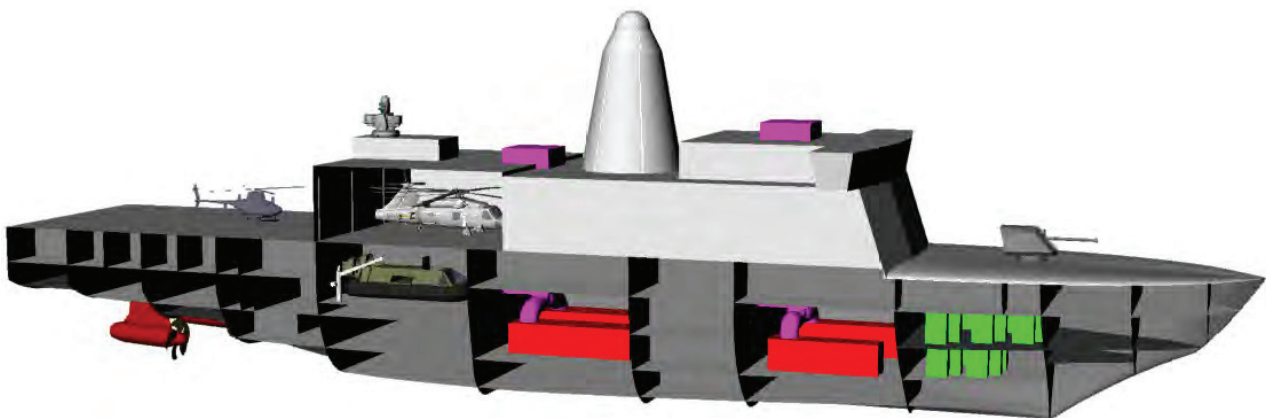


Figure 12.

Source: <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA558375>

Five maritime engineering bachelor students at the Delft University of Technology in the Netherlands) finished their minor in Arctic Engineering last February. Now, in cooperation with Damen Shipyards Group and other partners, their project has resulted in a new Arctic vessel design: the Damen AMTSV (Arctic Modular Towing Supply Vessel).

The 100 m double-acting supply ship is capable of operating in the Barents Sea year round and in the Baffin Bay and Beaufort Sea for eight months. The AMTSV has the ability to sail through 1.6 m of level ice at 3 knots.

The Toptrack program at Delft University of Technology offers students the opportunity to organize their own Minor and fill it up with master courses.

In this particular case students Reiner Bos, John Huisman, Martijn Obers, Tobias Schaap and Max van der Zalm organized their own Arctic Minor. As the Aalto University in Helsinki, Finland, offered several courses on ice, they were included in the project.

The project began with a literature study to get an overview of the environment, the market and the geography in the Arctic and to create an operational profile for the vessel.

Second, a comparison study was held, testing three existing Damen vessels on their Arctic capabilities. The third stage consisted of a ship design, combining the experiences of the Arctic Minor Team into one innovative concept.

The resulting Arctic Modular Towing Supply Vessel (AMTSV) is capable of operating in Arctic waters for 8 to 12 months, depending on the specific region. The vessel actually has two bows; when she sails through open water the accommodations will be in the front. Through ice however, she will sail with her thrusters first. The "stern first" concept is not new in arctic shipping. However, in this case it's a veritable "double-bow" vessel, a concept which is incorporated in the structural lay-out of the ship.

The AMTSV can handle up to 1.6 m of level ice at a speed of 3 knots. The research showed this to be an optimal solution, because the shape of an ice bow is completely different compared to an open water bow. When using two bows no compromises have to be made. Another argument for this concept is that, while sailing through ice, the thrusters will create a flow around the hull which decreases friction.

Because the vessel can sail in both directions, she also has to be capable of towing in both directions. Hence, a double-acting winch of 300 tons is installed. This winch is installed inside the accommodations so the harsh weather will not affect it.

No compromises on crew conditions are made, by allowing the crew to work in the Enclosed Superstructure (ESS) located behind the conventional superstructure. This superstructure can be kept up above zero degrees with an outside temperature of -55 degrees. The ESS is not only useful for the crew, but temperature-sensitive cargo can also be kept in this area.

This Arctic concept vessel will be running on Liquid Natural Gas (LNG), with dual fuel engines, in an effort to make it more environmentally friendly. The main disadvantage of LNG is that it requires a lot of storage capacity. However, ice strengthened vessels have a lot of steel weight in the hull compared to open water vessels and this means that the centre of gravity is relatively low. Therefore, the disadvantage is negated by placing the LNG tanks on top of the ESS.

The project shows that the motivation of students, supported by open-minded universities and partnering companies, can lead to the creation of a substantial and innovative project. The Arctic Minor project taught the team about cooperation, working in a foreign environment and most of all Arctic shipbuilding. For its part, Damen will incorporate the research into its own, ongoing Arctic research program.

LNG-FUELLED FERRY NOW WORLD'S FASTEST SHIP

Australian ferry builder Incat Tasmania's world first high-speed dual-fuel vehicle and passenger ferry is now officially fast

with a lightship speed of 58.1 knots - (107.6 kilometres an hour) and a thrill for the designers of the 99-metre-high speed vessel Francisco (Incat hull 069).

This is certainly the fastest ship in the world.....of course there are a few speed boats that could surpass 58 knots but nothing that could carry 1,000 passengers and 150 cars, and with an enormous duty-free shop on board.

Last week at 1,516-ton displacement trial she achieved 51.8 knots at 100% MCR operating with one turbine on LNG and one on marine distillate, exceeding the results achieved on 1st June when Francisco was sea trialled with full ballast comfortably exceeding 50 knots at full power and maintaining a steady 49 knots at 90 per cent power while operating on marine distillate.

On Saturday, 15th June, with the water ballast removed, and with both Port and Starboard Gas Turbines operating on LNG, Francisco achieved 58.1 knots at 100% MCR.

The vessel's high speed can be attributed to the combination of Incat wave-piercing catamaran design, the use of lightweight, strong marine grade aluminum, and the power produced by the two 22MW GE LM2500 gas turbines driving Wartsila LJM 1720 SR waterjets. The extensive and luxurious interior made significant increases to the weight of the interior fit-out, however the Incat team worked diligently to maximize weight savings during construction wherever possible.

Francisco has been constructed for South American company Buquebus, for service on the River Plate, between Buenos Aires Argentina and Montevideo, Uruguay.

Incat is still not claiming 58.1 as the end point of lightship trials as there was a full load of LNG on board (two 40-cubic-meter tanks) in addition to about 35 tons of marine distillate, with Incat Chairman Robert Clifford, saying "When we have less fuel on board, and delivery spares removed, we will see that speed go higher still in the shallow waters of the River Plate (Rio Plata). We are delighted with the efficiency of the design and sure that our customer, Buquebus, will be pleased with the results, enabling the ferry to compete with airline traffic on the River Plate route."

Buquebus Chairman Juan Carlos Lopez Mena recently announced that the vessel will be named Francisco, in honour of the Argentinean-born Pope Francis. "Godmother" to the ship will be the President of Argentina, Christina Fernandez de Kirchner, who will christen Francisco following the ship's arrival in Argentina.

Francisco has capacity for 1,000 persons and 150 cars. A luxurious fit-out has been incorporated, including a 1,100-square-metre duty-free shop.

Buquebus has clearly demonstrated their preference for Incat technology over a twenty-year period and Francisco (hull 069) is the eighth Incat vessel to be operated by Buquebus and their associated companies. It will be the largest catamaran they have operated, the world's first dual-fuel high-speed

ferry to operate on LNG as its primary fuel, and the fastest, environmentally cleanest, most efficient, high-speed ferry in the world.

Incat's High Speed Record

The fastest previous vessel built by Incat was Juan Patricio, delivered also to Buquebus, with a top speed at 53.8 knots. Juan Patricio was delivered in 1996 and remains in commercial service.

Francisco is the fourth Incat-built vessel with service speed over 50 knots.

The past three consecutive winners of the Hales Trophy, the Transatlantic Blue Riband record for commercial passenger ships, were all built by Incat. The average speed over the 3-day (unrefuelled) voyage of Incat hull 049 was 41.284 knots.

Incat has built 25 High Speed Craft over 5,000 gross tons with a top speed in excess of 45 knots.

COSTA CONCORDIA INVESTIGATION REPORT AVAILABLE

The Italian Ministry of Infrastructure and Transport (MIT) released the long-awaited English translation of its report on the safety technical investigation into the marine casualty on January 13, 2012 involving the cruise ship Costa Concordia.

The ship capsized as a result of large-scale internal flooding from a 53-meter long breach of its hull involving five watertight compartments. The breach occurred when the ship allided at a speed of 16 knots with the Scole Rocks off Giglio Island in the Tyrrhenian sea at 21: 45: 07 local time.

The main cause of the casualty is attributed to "the Master's unconventional behavior". The incident resulted in the death of 32 persons and the injury of 157 others, as well as the loss of the ship and significant environmental damage.

Initial findings of the report include the following:

- Poor route planning and navigation direction;
- BTW management shortcomings;
- Poor management of emergency evacuation procedures;
- EDG functionality criticalities

Actions to be taken as reported include the following :

- More detailed passengers info;
- Voyage plan requested by Solas RV/34 should be made available by the Master to the Company prior ship's departure;
- Instructions to passengers to be implemented;
- Muster of passengers to be performed in each port for embarking passengers;
- Company Audit follow up as a consequence of the casualty;
- Amending procedures (Emergency instructions / Decision support system for Master);

- Creation of a new Maritime Development & Company Dept by the Company;
- Implementation of "High Tech Safety Monitoring System";
- Dedicated Fleet Operations Center in Genoa;
- Deck Officers training implementation.

Finally, the report indicates that there are the following findings affecting international regulations :

1. Double-skin for protecting the WTCs containing equipment vital for the propulsion and electrical production;
2. Limiting of the downflooding points on the bulkhead deck;
3. Provision of a computerized stability support for the master in case of flooding;
4. Interface between the flooding detection and monitoring system and the on-board stability computer;
5. Discontinuity between compartments containing ship's essential systems;
6. More detailed criteria for the distribution, along the length of the ship, of bilge pumps and requirement for the availability of at least one pump having the capacity to drain huge quantities of water;
7. Relocation of the main switchboard rooms above the bulkhead;
8. Relocation of the UHF radio switchboard above the bulkhead deck;
9. Increasing the emergency generator capacity to feed also the high capacity pump(s);
10. Provision of a second emergency diesel generator located in another main vertical zone in respect to the first emergency generator and above the most continuous deck;
11. Provision of an emergency light (both by UPS and emergency generator) in all cabins in order to directly highlight the life jacket location;
12. Bridge management, considering aspects such as the definition of a more flexible use of the resources;
13. Bridge Team Management course for certifications renewal should be mandatory by the 1st January 2015;
14. Principles of Minimum Safe Manning (resolution A.1047(27) as amended by resolution A.955(23)) that should be updated to better suit to large passenger ships;
15. Muster list, showing the proper certification/documentary evidence necessary for crew members having safety tasks;
16. Inclusion of the inclinometer measurements in the VDR;
17. SAR patrol boat supplied with fix fenders, blocked in the upper side of the hull, to approach safe other ships/boats in case of extraordinary evacuation of persons. This should be able to load at list 100 passengers in their deck;
18. Divers speleologists, able to rescue, even in dark condition, persons standing into the ravines of ships/wrecks.

SEAFARERS' BILL OF RIGHTS IN FORCE FROM AUGUST 2013

The Maritime Labour Convention (MLC) – the seafarers' bill of rights – comes into force. The MLC is a far-reaching, groundbreaking international convention which establishes an international minimum standard that has the potential to make a real difference to seafarers. The ITF was in at its birth and has supported it all the way. Now it becomes a reality.

The ITF is committed to supporting the MLC's effective and full implementation and ensuring that as many countries as possible ratify it.

The ITF is supporting the MLC's launch with a range of advice and materials designed to help seafarers understand and apply it. These include a dedicated web area complete with advice and Q&As at www.itfmlc.org; a new leaflet for all those working on cruise ships, The Maritime Labour Convention 2006 – what does it mean for cruise crews, which can be downloaded here; and more, including the previously published, in-depth guide A seafarers' bill of rights, available here. The ITF is also collaborating fully with the ILO's welcoming publicity around the MLC, which can be seen at www.ilo.org/global/standards/maritime-labour-convention, http://www.itfseafarers.org/maritime_news.cfm/newsdetail/9418/region/6/section/0/order/1.

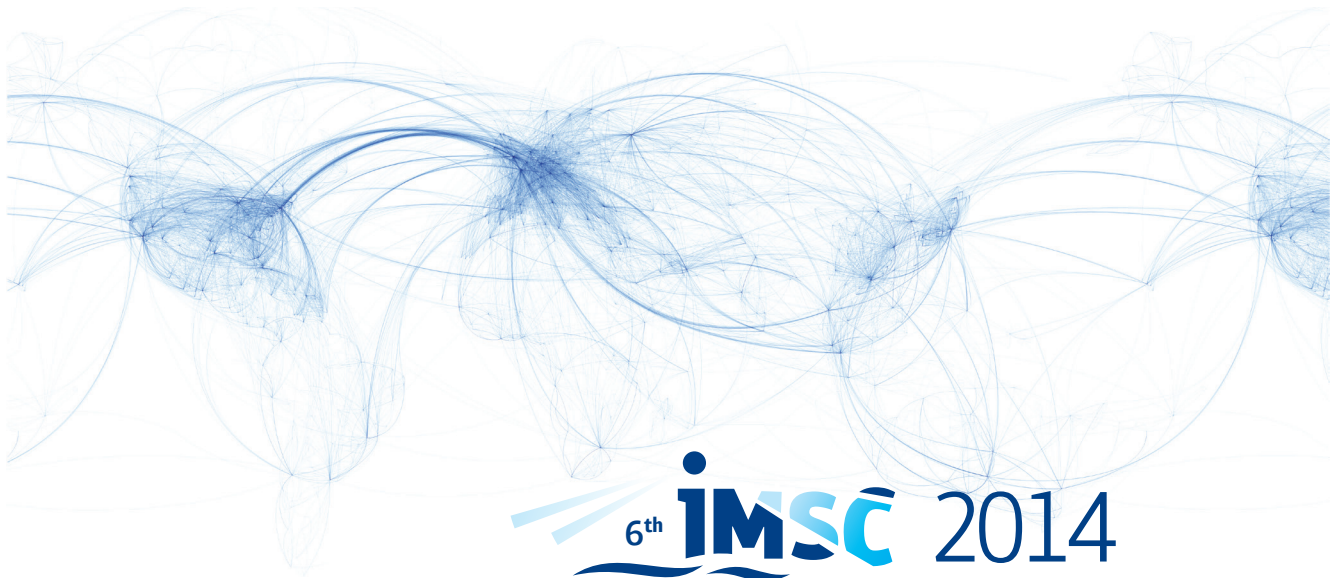
NORWAY BACKS FISHERS' SAFETY

Norway has become the first state to sign up to a convention to improve safety on fishing vessels. The 'Cape Town Agreement 2012' updates an earlier international convention for the safety of fishing vessels. The International Maritime Organization (IMO) says the aim of this agreement is to bring into force a "binding international safety regime" to help improve safety standards and reduce the loss of life in the hazardous occupation of fishing at sea.

To come into force, the Cape Town Agreement will need to be signed by at least 22 states with an aggregate of at least 3,600 vessels that are 24m and longer operating on the high seas. Norway has 242 such fishing vessels.

http://www.itfseafarers.org/maritime_news.cfm/newsdetail/9330/region/6/section/0/order/1.

IMSC 2014: Upcoming Conference on Maritime Science



Topics of interest

- ~ Marine Engineering,
- ~ Navigation,
- ~ Safety Systems
- ~ Marine Ecology,
- ~ Hydrography,
- ~ Marine Automation and Electronics,
- ~ Transportation and Modes of Transport,
- ~ Marine Information Systems,
- ~ Maritime Law,
- ~ Management of Marine Systems,
- ~ Maritime Health,
- ~ Marine Finance,
- ~ Up-To-Date Technologies,
- ~ Safety and Security,
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