

SMC NEWS



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Deliveries of 'MV Chrsita Schulte' and 'MV Celmens Schulte' - 5,400 TEU Container Carriers

20 April 2014



MAN B&W G-type Engines, the new generation of optimized ultra-long stroke engines allowing higher efficiency at lower rpm with large propeller diameter. The engine features enable an efficient control of NOx and SOx emissions – the Energy Efficient Design Index greatly surpasses IMO norms. The container ships are constructed under DNV Class.

Mv "Christa Schulte" sailed out on her Maiden Voyage at 0800 Hrs on 6 April 14. Mv "Celmens Schulte" sailed out on her Maiden Voyage at 0800 Hrs on 20 April 14.

HHIC-Phil Shipyard at Subic in Philippines: deliveries of two modern eco-friendly 5,400 TEU containers, hull No. P0088 and P0089, mv 'Christa Schulte' and mv 'Celmens Schulte' owned by Bernhard Schulte.

This two ships are second and third in a series of 4 nos. 5,400 TEU container ships being built by HHIC-Phil. The main particulars of the ships are: 255.0m (LOA) x 37.3m (B) x 22.0m (D), scantling draft of 13.9m and deadweight of about 50,524 metric tons on the design draft of 12.0m. The ships have been designed with fully optimized hull and propeller and Becker's spade type rudder and suitably outfitted for transiting the new Panama Canal when it opens. Main engine is from



TZS, China: Successful delivery of "MV Teal Bulker" - 58,000 dwt bulk carrier

30 April 2014

TZS, Zhoushan, China: Successful delivery of "MV Teal Bulker" - hull number SS 138 - 58,000 dwt bulk carrier, ordered by Mitsubishi Corporation, Japan.

Construction of the vessel was commenced with steel cutting on 26th July 2013. Keel laying was carried out on 6th December and the vessel was launched on 28th February 2014. Sea trial was completed successfully 14th- 17th of April 2014 and the vessel was successfully delivered on 30th April 2014.

The main particulars of the vessel are 190m (LOA) X 32.26m (B) X 18m (D) X 11.30m (Draft Design) X 12.80m (Scantling Draft) and with energy saving rudder bulb and stern boss fins.

The vessel is powered with one set of MAN B&W 6S50ME-C8.2 engine with MCR of 8,200 kW at 108 rpm and the service speed is 14.5 knots. 2 sets of 700 m³/hr electrolysis type ballast water management system is provided onboard and the vessel shall be complied with the MLC 2006 crew accommodation standards. The vessel is classed with NK with Class notation NK, NS*(CSR, BC-A, BC-XII, GRAB 20, PSPC-WBT) (ESP)(IWS) (BWTS) MNS*(M0), Strengthened for heavy cargo loading where holds Nos.2 & 4 may be empty

"MV Teal Bulker" was delivered to the Owner (Mitsubishi Corporation) and Charterer (Lauritzen Bulkers) according to the contractual schedule. The vessel manager is Daiichi Chuo Marine Company, Tokyo.

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Cold Corrosion

Petar Ivanov

Lead Machinery Supervisor
HHIC- 5400 TEU-Oaktree



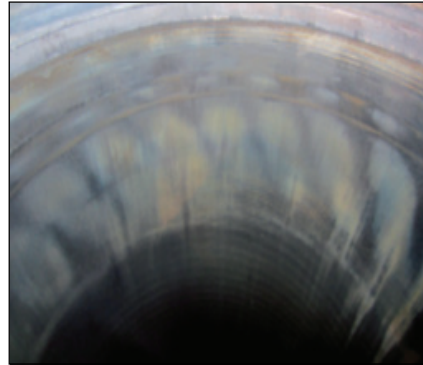
Shipowners are relying on new generation engines to achieve an improved fuel consumption with a lower SFOC, and ultimately lower operating costs. As part of the lower SFOC, the newer engines use longer piston strokes, this allows the cylinder walls to cool more than the engines with shorter strokes. The excess hydrogen and oxygen produces water condensate on the liner wall, this reacts with the sulphur dioxides (also in the exhaust gasses) to form a very powerful sulphuric acid which "eats" the liner material creating tiny iron compounds which are then distributed by the cylinder oil leading to excessive liner wear. This is exacerbated when the engines are run at lower loads with slow, and super-slow steaming.

One way to observe the cold corrosion effect is to measuring the iron compounds in the waste cylinder oil from the liners. There are, however, two compounds here, the iron particles worn from the cylinder liner by cat fines, which are magnetic, and the non-metallic compounds such as iron sulphate (created by reactions in the cylinder liner during the combustion process). To safe guard the Owners from costly repairs, they should ideally invest in portable equipment to monitor levels of both metallic and non-metallic elements separately.

Understanding the cause and measuring the items creating the cold corrosion is one thing, avoiding cold corrosion altogether is something else.

There are some service engineers denying the phenomena exists at all, leaving Owners and operators with huge bills and useless vessels.

Monitoring and adjusting the cylinder liner temperature is one approach, this requires the installation of cylinder liner temperature gauges and thermometers, and on some newer engines the fitting of additional cooling lines and fresh water cooling pumps. Chang-



ing the liner materials is another approach, making the liner less susceptible to attack of the acids. This leads to a change in the piston rings and piston ring materials, which in turn looks at the piston ring grooves hardness and clearances, which in turn leads to a change in the Cylinder oil flow

rate. The cylinder flow unfortunately assists the cold corrosion by moving the abrasive particles to other parts of the liner, increasing the wear. Cylinder oil dosage and cylinder oil type is playing a large part in the Cylinder oil TBN being raised to try and counteract the acidic moisture effect on the sides of the liner. Not so long ago (and sometimes still), the cost of Cylinder oil was considered one of the highest (if not the highest) single cost in running a vessel. And where did we start "...relying on new generation engines... ultimately lower operating costs..."

There are a number of initiatives, as mentioned above, which shows there is a need to look at the problem. The disturbing factor is whilst it is now recognized as a major concern, there does not appear to be one common approach to counter the cold corrosion.



Engine and Machinery Shop Tests

11th. June. 2014

Before beginning the shop tests be prepared. Read the Technical Specification, check the approval drawings, and the Makers Manual, before you attend the factory for the FAT.

Shop Tests should be in compliance with the Specification, Makers Manuals and class requirements. It is also good practice to review the SMC report template, you can see what is required on the report before you go. The first section of this report asks for a list of who is in attendance, was Class there?, was any Maker Licensee Engineer attending? etc.

This is extremely important when discussing who is responsible for what and, should there be defects, who will take the responsibility to ensure the defects are corrected. Collect business cards, or ask the people to write down their names and positions.

At the shop test although we say never assume, we have to make some assumptions before we start the shop tests. It is assumed that the engine is mechanically ready, have a good look around the area and the machinery in question for obvious defects or poor quality connections etc. before starting the tests.

Before commencing any tests, the Alarms and Engine Shut Downs should be tested. For a comprehensive list check the Makers Manuals and the shop test schedule and procedures. Report on what was actually carried out, this can follow the Shop Test Plan but check, was it required in the Specification, and was there any additional correspondence from the PCF or Owners, for example.

When writing your conclusion and observations, be clear and use technical language, stay with specific observations, avoid opinions or any recommendations for corrective actions. It's our job to report, not to get involved in any technical opinions. If there are errors or defects, identify the party required to verify the corrective action(s) and the time frame for corrective actions, it cannot be left open.

Clearly state whether it is Accepted or Not Accepted, with or without comments, ensuring the comments clearly define who, when, and where will verify. Write clearly, many times you will not have access to a computer and written confirmation will be needed, make sure the person in charge (PIC) is fully understanding your written comments and technical language and ask them to sign off the comments. If a photocopier is not available take a photograph (several to ensure reasonable quality) of the document and ensure the correct PIC is given the comments sheet.

Steven Nolan

Technical Manager
Shanghai Head Office



Site Manager Seminar 2014

1st. June. 2014



It was inspiring and encouraging to experience again very active and passionate participation in the seminar from attendees, and eagerness from the senior staff share their experience. This seminar has led us to the desired target of bringing our employees to the same level of understanding and sharing corporate culture that we have been fostering.

Next Site Manager Seminar will be held in Sept/Oct 2014.

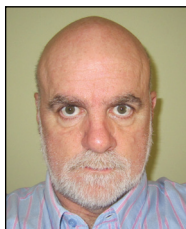
Schulte Marine Concept, Shanghai Head Office: 31st May to 1st of June 2014 Site Manager Seminar for the year 2014 was held in our Shanghai head office. Around 40 attendants participated in the two days event including our Site Managers, Deputy Site Managers, Senior Supervisors and staff from Shanghai and Hong Kong offices.

Besides the presentations made by our business partners (Marine Anti-Corrosive Systems by Chugoku Marine Paints, newbuilding supervision liabilities by Ince & Law) seminar was filled up with internal presentations and brain storming addressing the topics of equipment shop test, site office HSE, incident handling and investigation, corporate HR polices, cold corrosion of main engines, QMS and ISO.

Our Site Managers (Part II)



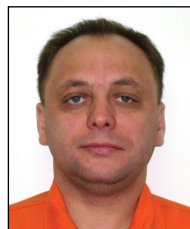
Ekrem Sahin
Hyundai Heavy Industries,
Korea- 100k PT- DENSA



Jeffrey Wood
Beihai Shipyard, China-
VLOC- CARA



E.V.R Nair
Sainty Marine, China-
64k BC- CORBITA



Cristian Sorin Sendroiu
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Jaroslaw Bulinski
Barreras Yard, Spain-
Flotel - PMI



Gabriel Ionut
Navantia Yards, Spain-
Flotel - PMI

SMC Summer Notice

- some handy tips & suggestions to help prevent suffering during hot weather conditions •



How to sleep?

• ADEQUATE SLEEP •

- Where possible arrange to sleep in a cool place, this will improve the quality of sleep which will aid rest and recuperation.
- A 10-20 minute power nap is good, but any longer will take you into a deeper sleep.
- When you are sleeping do not get too cold, do not let the A/C blow directly onto your head.



What to eat?

• SCIENTIFIC & REASONABLE DIET •

- Eat more vegetables, fruit, and eggs.
- Don't go on a diet.
- It is a good idea to eat chicken, duck, lean meat, fish, eggs, and other nutritious food, in order to meet the greater demands and metabolic needs of the body during the summer months.



What to drink?

• DRINK PLENTY OF FLUIDS •

- Staying hydrated will help your body sweat and maintain a normal body temperature.
- Pure water and lightly salted drinks are good.
- Keep drinking even when you are not thirsty.
- Avoid liquids that dehydrate you, such as drinks with caffeine or alcohol.
- Steer clear of overly sugary drinks.



What to wear?

• DRESS APPROPRIATELY •

- While at work: keep wearing protective clothing, do not roll up boiler suit sleeves.
- After work: wear loose-fitting, well-ventilated, thin clothing in light colors. A black shirt, or other dark color, can absorb the sun and raise your body temperature.
- Apply sunblock to protect your skin against sunburn, even under clothing.

the Health, Wellbeing, and Safety of all our employees is of extreme importance



5S methodology

5S is the name of a workplace organization method that uses a list of five Japanese words: seiri, seiton, seiso, seiketsu, and shitsuke. Transliterated or translated into English, they all start with the letter "S".

There are five primary **5S** phases: They can be translated from the Japanese as **Sort, Set in order, Shine, Standardize** and **Sustain**. Other translations are possible.

1. Seiri (整理, sort)

- Remove unnecessary items from the work area. Attach removal tags to infrequently used items.
- Make work easier by eliminating obstacles
- Reduce chance of being disturbed with unnecessary items
- Prevent accumulation of unnecessary items
- Evaluate necessary items with regard to dept/cost/other factors.



3. Seiso (清掃, shine)

- Clean the work area, equipment and tools.
- Find and eliminate sources of contamination.
- Use cleaning as inspection.
- Keep workplace safe and easy to work
- Can also be translated as "sweep".



2. Seiton (整頓, set in order)

- Customize the work area to improve efficiency. Keep important materials nearby. Implement visual organization to streamline work flow and improve efficiency.
- Prevent loss and waste of time.
- Make it easy to find and pick up necessary items.
- Ensure first-come-first-serve basis
- Make work flow smooth and easy
- Can also be translated as "set in order"



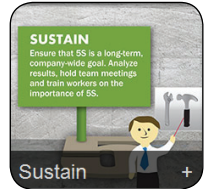
4. Seiketsu (清潔, standardize)

- Create a standardized and consistent 5S workflow.
- Assign tasks and create schedules so that everyone knows their responsibilities.
- Maintain everything in order and according to its standard.



5. Shitsuke (躰, sustain)

- Ensure that 5S is a long-term, company-wide goal. Analyze results, hold team meetings and train workers on the importance of 5S.
- Also translates to "Self-Discipline" meaning to do without being told.



2014 FIFA World Cup

12th. Jun. 2014

The 2014 FIFA World Cup is the 20th FIFA World Cup, a tournament for the men's football world championship, which is currently taking place in Brazil.

It began on 12 June, with a group stage, and is scheduled to conclude on 13 July with the final. It is the second time that Brazil has hosted the competition, the first being in 1950. Brazil was elected unchallenged as host nation in 2007 after the international football federation, FIFA, decreed that the tournament would be staged in South America for the first time since 1978 in Argentina, and the fifth time overall.

The national teams of 31 countries advanced through qualification competitions that began in June 2011 to participate with the host nation Brazil in the final tournament. A total of 64 matches are being played in 12 cities across Brazil in either new or redeveloped stadiums. For the first time at a World Cup finals, match officials are using goal-line technology, as well as vanishing foam for free kicks.

All world champion teams since the first World Cup in 1930 – Argentina, Brazil, England, France, Germany (who won three times as West Germany), Italy, Spain and Uruguay – have qualified for this competition. Spain were the title holders, having defeated the Netherlands 1–0 in the 2010 final to win their first World Cup but they were eliminated after losses in the first two matches at the group stage against the Netherlands and Chile. All seven previous World Cup tournaments staged in the Americas (four in South America and three in North America) were won by South American teams.

Following qualification matches between June 2011 and November 2013, the following 32 teams – shown with their final pre-tournament FIFA World Rankings – qualified for the final tournament. 24 out of the 32 teams to qualify are returning participants from the 2010 World Cup. Bosnia and Herzegovina is the only team with no previous World Cup Finals experience. Colombia qualified for the World Cup after 16 years of absence; while Russia and Belgium after 12 years; and Croatia, Ecuador, Costa Rica, and Iran return after missing only one final tournament. Only three top-25 ranked teams did not qualify for the tournament: Ukraine (16), Denmark (23) and Slovenia (25).



AFC (4)

- Australia (62)
- Iran (43)
- Japan (46)
- South Korea (57)

CAF (5)

- Algeria (22)
- Cameroon (56)
- Ghana (37)
- Ivory Coast (23)
- Nigeria (44)

OFC (0)

- None qualified (New Zealand eliminated by Mexico)

CONCACAF (4)

- Costa Rica (28)
- Honduras (33)
- Mexico (20)
- United States (13)

CONMEBOL (6)

- Argentina (5)
- Brazil (3) (hosts)
- Chile (14)
- Colombia (8)
- Ecuador (26)
- Uruguay (7)

UEFA (13)

- Belgium (11)
- Bosnia and Herzegovina (21)
- Croatia (18)
- England (10)
- France (17)
- Germany (2)
- Greece (12)
- Italy (9)
- Netherlands (15)
- Portugal (4)
- Russia (19)
- Spain (1)
- Switzerland (6)