

# Dr. Fridtjof Nansen – Building progress

Update by 30th November 2016



**Main milestones:** First steel cut: 13.01.2015  
Keel laying: 23.04.15  
Launch of vessel: 23.12.15  
Dockside Trials: started 22.08.16  
Sea trials: Departed yard/started sea trials 11.11.16  
Scheduled Delivery – 21.12.16

## Status and progress:

- Departed yard facilities in Castropol, Nov. 11<sup>th</sup>, continued sea trials and final outfitting out of port of Gijon. Sea trials carried out during day time 0800-2000, and final outfitting work ongoing at night shifts alongside.
- Tuning/trials and class approval of main ship systems (Generator sets, propulsion, thrusters DP etc.) completed during 11-24 Nov.  
Except from Ingeteam problems with tuning of frequency drives and some software re-programming due to communication problems with other systems (i.e Brunvoll), no major failures or omissions on ships systems has been observed.  
Final test of propulsion motors (endurance test) is still outstanding. This test was aborted on way to dry-dock, high temperature alarms within the propulsion drive systems needs further investigation from Ingeteam.  
Other outstanding ship system trials are: completion of NAUT AW, EO, anchor, maneuver and speed tests.
- EMC test passed with only 2 minor remarks
- During preliminary URN measurements, it was observed some disturbance from the propeller (“singing”?) Based on this observation Yard/TSI decided to send propeller to Balino (manufacturer) in Vigo for check and possible modification during dry-dock period.
- Bad weather conditions during 18 and 21 & 22 Nov, disrupted some of the planned trials. Yard claim 2 days force majeure for this disruption.
- Overall impression after first sea trial period is that the vessel is functioning well. Basic impression related to internal noise and vibration levels is also promising.

- **Dry-docking at Navantia, Ferrol 24-30 Nov.**
  - Hull and bottom cleaning, applying last coat of antifouling and touch up of ship sides.
  - KM/Simrad installation of EM 302 and SPB 600 transducers. During installation it was noted that cables for EM 302 transducer were too short to reach the cabinets in L27 (main deck), and a connection box has to be installed in L19 (tween dk)
  - Propeller dismantled and shipped to factory in Vigo, re-installed 28<sup>th</sup> Nov. To our knowledge, only cleaning and some smooth grinding have been done?
  - Apart from dry-dock work as mentioned above, limited outfitting work has been carried out in dry dock, only 10-15 Yard/LIDO workers in activity for completion of remaining outfitting work.
  
- Still remaining work related to completion, punch list items and “finish” in many areas - laboratory progress is still a challenge.
  
- Commissioning of Rapp/Triplex equipment continues, service technicians states that they are on track for the planned sea trails, starting 11<sup>th</sup> Dec.
  
- Updated sea trial plan (rev. 01) received 29<sup>th</sup> Nov., shows some changes in sequence of trials and 2 days delay from previous plan, new scheduled delivery date - 21<sup>st</sup> December.  
 Without major obstacles in remaining trial items and good progress in remaining outfitting work, delivery for 21<sup>st</sup> is seen achievable. But in addition to the risk of further delays due to weather conditions, complex system tests on crucial equipment (Ingeteam propulsion, Simrad & Rapp/Triplex, URN/noise) is remaining and has to be tested thoroughly, without any shortcuts. Thus challenges and delays can further be expected.

Good news is that weather forecast for Cantaberico for the next 6-7 days looks good for trials and testing, and we trust yard will utilize this period well.

**Departure yard – Nov 11th**



## Sea trials



## In dry-dock - Ferrol



Ready for docking out



**SBP 600 and EM 302 installed**



**Bridge**





L 22 Ops. Center



**Library – dk 3**



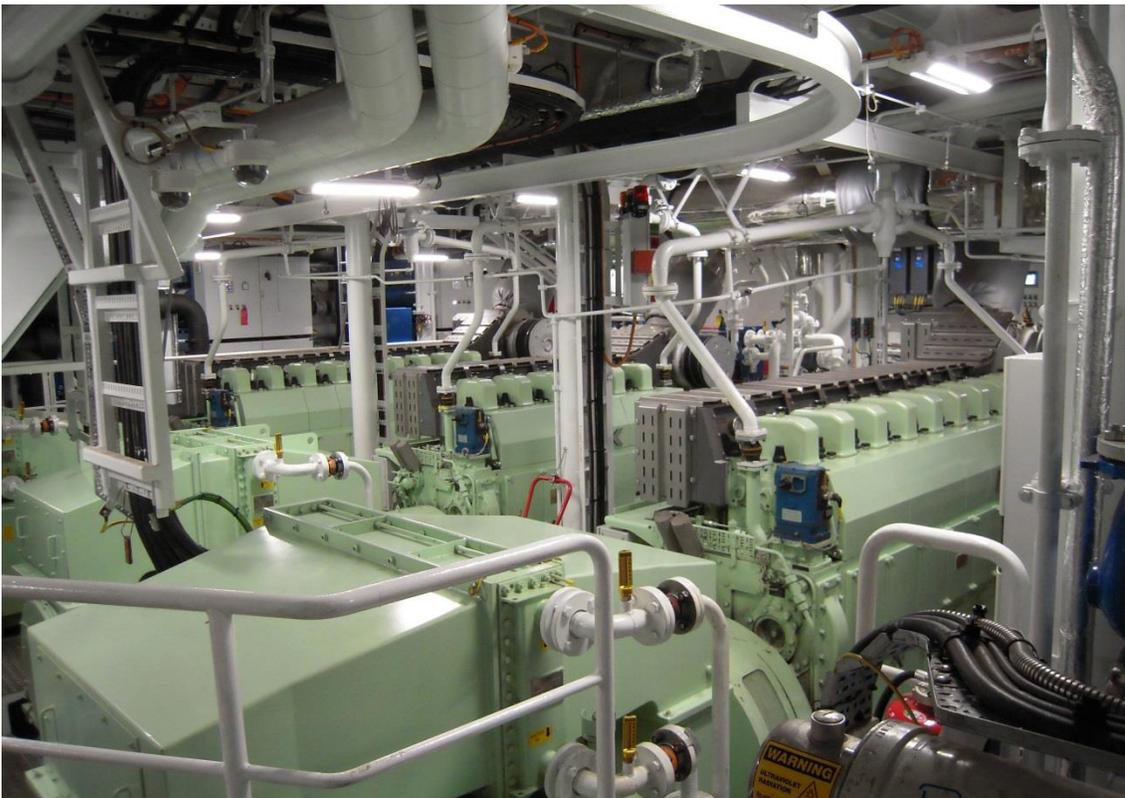
**Cabin dk 2**



**Messrom**



**Engine and Propulsion room areas**





L1 – CTD lab



**L11 – Dry fish lab**



**L12 Wet fish Lab**



