## Dr. Fridtjof Nansen Replacement – Block construction

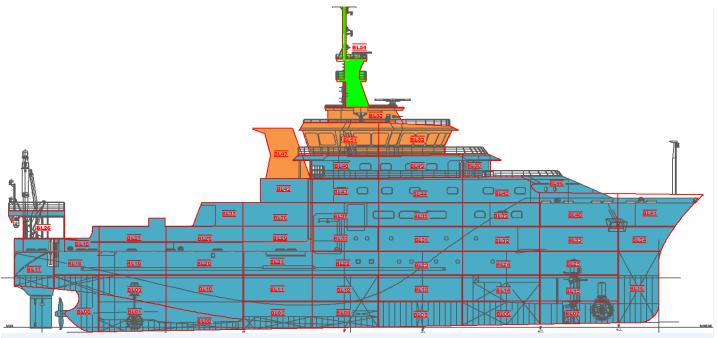
## AG-460 - Hull build progress - Update by 22nd December 2015

Steel cutting First steel cut: 13.01.2015

Under construction

Blocks ready to place on slipway Keel laying: 23.04.15

Blocks on slipway Slipway launch scheduled 23.12.15



## PLANNED BUILDING SEQUENCE OF BLOCKS- ref. Master plan Rev. 03

| 1                       | 2                | 3         | 4         | 5                 | 6                 | 7         | 8                        | 9         | 10        |
|-------------------------|------------------|-----------|-----------|-------------------|-------------------|-----------|--------------------------|-----------|-----------|
| 06 – 100%               | <i>05 – 100%</i> | 07 – 100% | 14 – 100% | 15 <b>– 100</b> % | 04 – 100%         | 13 – 100% | 03 – 100%                | 16 – 100% | 12 – 100% |
| 11                      | 12               | 13        | 14        | 15                | 16                | 17        | 18                       | 19        | 20        |
| 25 - 100%               | 02 – 100%        | 11 – 100% | 01 - 100% | 10 – 100%         | 09 <b>– 100</b> % | 24 -100%  | 08 - 100%                | 23 - 100% | 22 - 100% |
| 21                      | 22               | 23        | 24        | 25                | 26                | 27        | 28                       | 29        | 30        |
| 21 – 100%               | 20 – 100%        | 19 – 100% | 18 – 100% | 32 – 100%         | 17 – 100%         | 31 – 100% | 33 – 100%                | 30 – 80%  | 34 – 100% |
| 31                      | 32               | 33        | 34        | 35                | 36                | 37        | 38                       | 39        | 40        |
| 39 – 100%               | 38 – 100%        | 40 – 100% | 37 – 100% | 41 – 100%         | 29 – 100%         | 28 – 100% | <i>36</i> <b>– 100</b> % | 27 – 100% | 26 – 100% |
| 41                      | 42               | 43        | 44        | 45                | 46                | 47        | 48                       | 49        | 50        |
| <i>35</i> <b>– 100%</b> | 44 – 100%        | 43 – 100% | 42-90%    | 45 <b>– 100</b> % | 46 – 100%         | 47 - 80%  | 49 - 100%                | 48 - 100% | 50- 100%  |
| 51                      | 52               | 53        | 54        |                   |                   |           |                          |           |           |
| E1 000/                 | F2 000/          | F2 000/   | E4 7E0/   |                   |                   |           |                          |           |           |

NOTE! Blocks are defined as 80% completed when ready to put on board - 100% when positioned on board. General comments:

- Vessel ready for launch from slipway for the 23<sup>rd</sup>. December (wind conditions permitting)
  - 49 Blocks assembled, all underwater hull equipment (excl. EM 302 & SBP 600 transducers) installed, shipsides and hull fully painted.
- Progress ref. master plan (MP) rev 03, dated 01. July
  - Slipway assembly and outfitting work is 4-5 weeks behind presented dates in MP 03.
    - Revised Master Plan rev. 4, issued by yard today.
    - No activity at yard during period 24<sup>th</sup> December to 4<sup>th</sup> January.
- Main outfitting work during last period:
  - Propeller with shaft, rudder and drop keels installed.
  - Sandblasting, metalizing and painting of ships sides and hull completed.
  - Tanks & Piping:
  - All bottom tanks pressure tested Installation of all bottom tank piping (zone 400) completed engine room and below t/d areas (zone 400) 75% fabricated and 25% installed.
  - o Cable trays and penetrations status: Engine area/below Tw Dk. 85% Tween dk. 45% Main dk: 15%
  - o Insulation work (pinning) and floating floor installation started on Tw.dk.

New D.F Nansen ready for launch









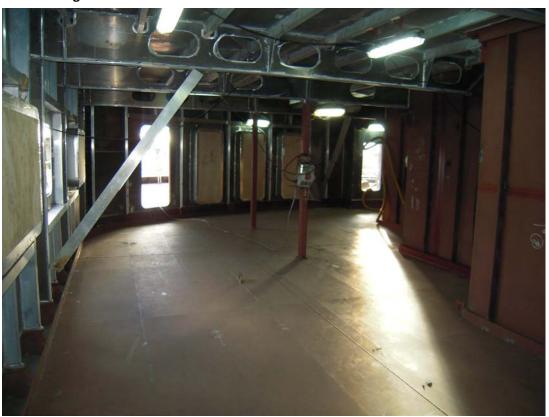
BL 51-52-53 Wheelhouse and top bridge ready on berth—to be installed after launch



Dk 3 – Ops center and scientific office areas seen from fwd.



Dk 3 – Lounge area seen from aft.



Propeller and rudder installed medio December





Drop keels filled with concrete (ballast) prior to installation



Sonars, SU 93 & SH 90, installed



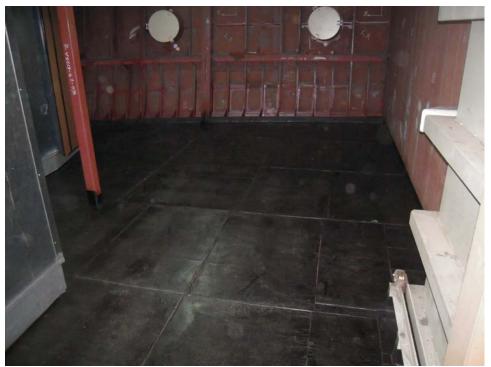
Hatch from Lab 26 to drop keel trunk



Trunk with Propeller inspection window and "box" for camera w/light



Tween dk: nsulation and floating floor installation started



Work boat - progressing



Work boat



Main machinery components installed



Cockpit w/manoeuver position

