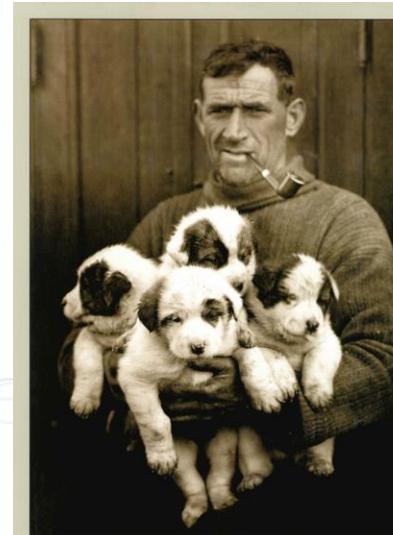




# Project Status

- Design project awarded to Skipsteknisk (ST) design in January 2019
- Tender for shipbuild issued in April/July 2019 (2 stage tender process)
- Ship build contract awarded to ARMON, Vigo in December 2019 (18<sup>th</sup> of December!)
- Main equipment selection/ procurement finalized in the period January–June 2020
- Steel cutting commenced 20<sup>th</sup> August
- Keel Laid 4<sup>th</sup> November 2020 (Block MQ 30)
- Name chosen (not public until 2021)
- Joining of blocks commenced mid march 2021



TOM CREAN 'THE IRISH GIANT'  
Shackleton's second officer aboard the Endurance





# Challenges

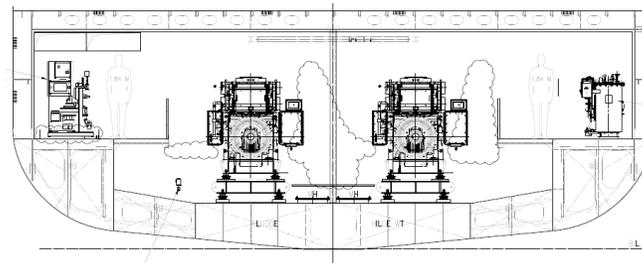
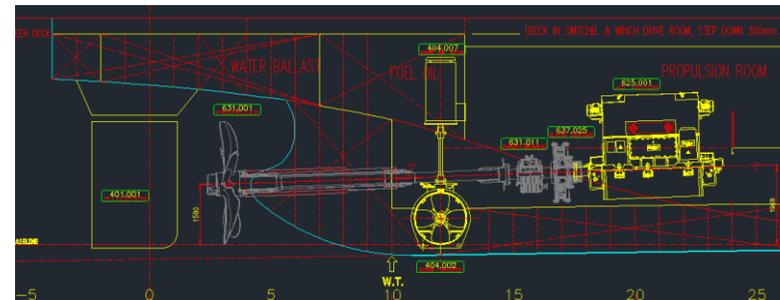
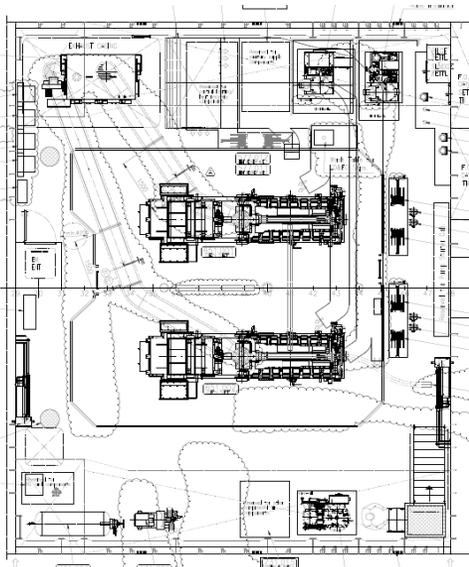
- Global pandemic....
- Travel , shipping, production affected initially
- Yard closure for just 2 weeks due to national shutdown (March 2020)
- Vast majority of components are from Spanish suppliers which greatly reduced impact of Covid 19
- Yard used strict measures and controls which reduced impact greatly of any infection in workforce
- Lots of teams meetings!
- Some FAT's done remotely
- Used local supervision for a period .
- ARMON remain on track ...



# Final Vessel Design and Equipment



- **LOA:** 52.8 m, Beam 14 m, Gross Tonnage 1919GT
- **Class:** Lloyd's +100A1, UMS, Ice Class 1C (Hull), DP (AM)
- **Accommodation:** 26 persons (12 Crew, 14 Scientists )
- **Main generators:** 2 X Mitsubishi S16R-MPTAW 1500kW/ Marelli 1500kW  
1 x Scania DI13 091M 426 kWm
- **Emergency Genset:** 1x Scania D109 217 kWm /Leroy Somer Alternator
- **Main propulsion:** 1 x 2 MW Indar AC induction motor
- **Propeller:** 7 Bladed 3.4m Diameter Balino,
- **Bow Thruster:** 1 x 746 Kw Schottle pump jet (5.58Tonnes thrust)
- **Stern Thruster:** 1 x 400 Kw Schottle 1.24m Dia propeller



# EQUIPMENT/ SUPPLIERS SELECTED



<b>Bridge Equipment:</b>	Furuno/ BarryElectronics
<b>DP system:</b>	Praxis
<b>CCTV/ Infotainment:</b>	Redcai
<b>Winches:</b>	Ibercisa
<b>Frames:</b>	Ferri
<b>Furniture/Fit Out:</b>	Regenesa
<b>Ventillation/HVAC:</b>	Clima Frio
<b>Propulsion/Switchboards:</b>	Ingeteam
<b>Ballast water treatment:</b>	Bio Seas
<b>Toilet system:</b>	Jets
<b>Trust Bearing:</b>	Wartsila
<b>Anti Roll:</b>	Hoppe
<b>Water Tight Doors:</b>	Winel
<b>ICAS:</b>	Sedni
<b>Paint:</b>	International
<b>Purifiers:</b>	Alpha Laval
<b>Rudder:</b>	Becker
<b>Thrusters:</b>	Schottle
<b>Steering Gear:</b>	Hydramarin



# Acoustic Survey Equipment



**Multibeam:** 1 x Dual RX EM2040 (retraction unit), 1 X em2040 on drop keel

Provision for degree EM710 on hull

**Sub bottom profiler:** Knudsen 3.5/12Khz unit hull mounted

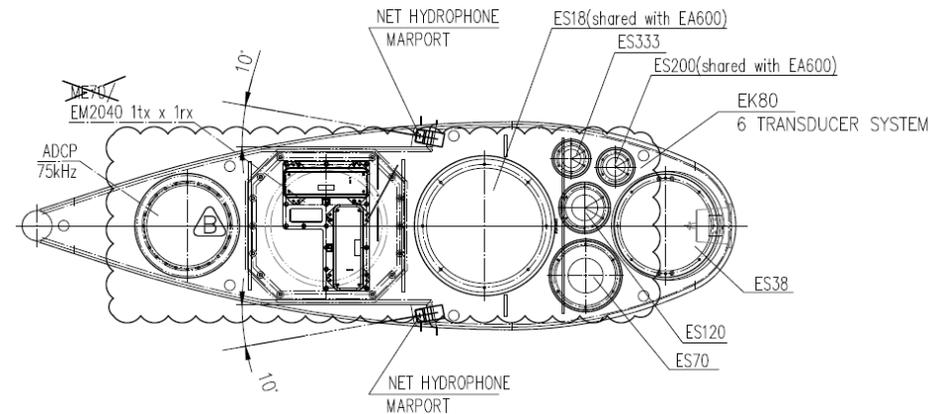
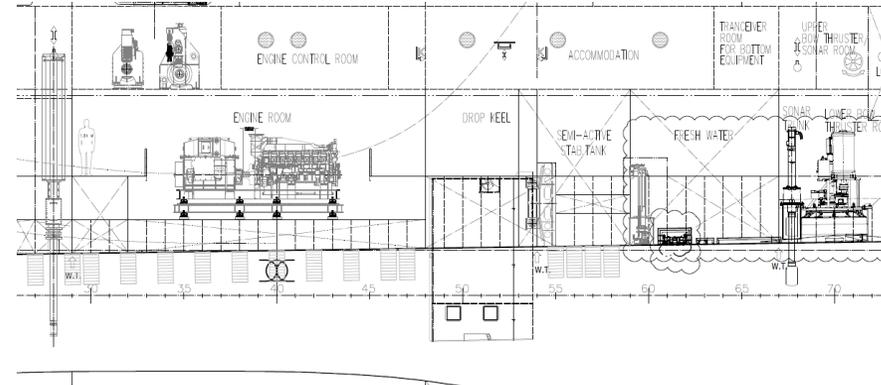
**Fisheries echosounder:** EK80 , 18,38,70, 120, 200 Khz on Drop keel

**Fisheries Sonar :** SU93 Long range omnidirectional

**ADCP:** RDI Teledyne 45Khz Pinnacle (Drop keel), Simrad EC150 150 Khz ADCP

**USBL:** Sonardyne Ranger 2 on retraction unit

**Net Monitoring :** 3 x Marport on drop keel /FS70 headline system

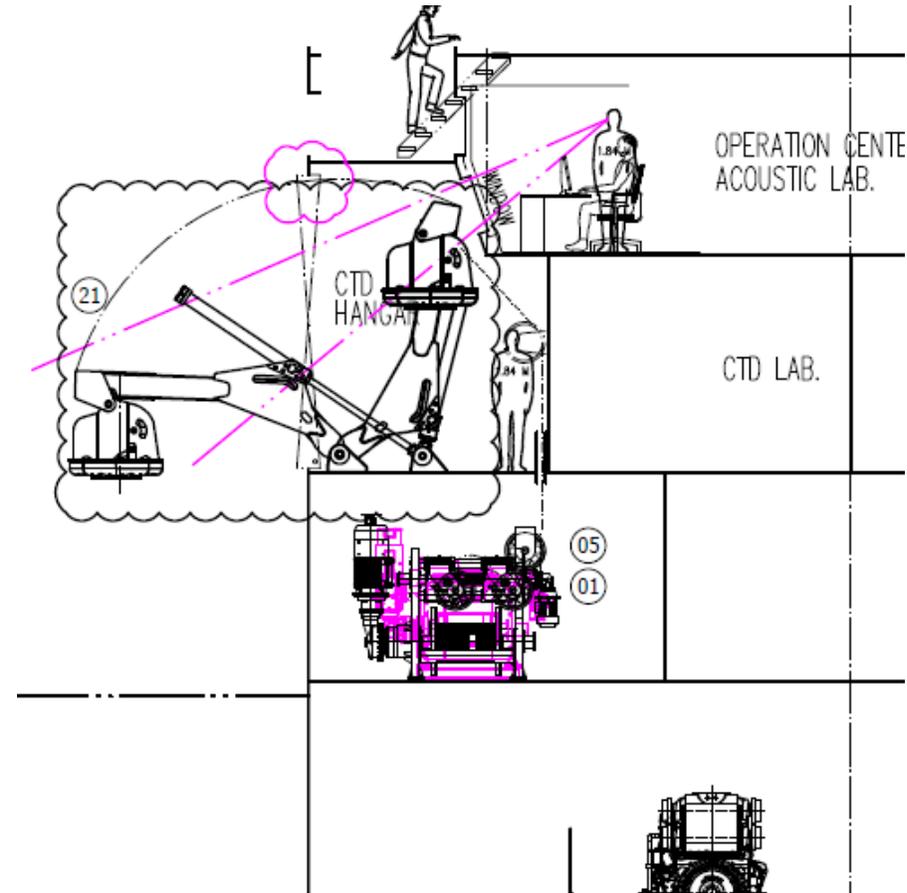


# Oceanographic Equipment



**CTD:** 24 Bottle carousel with 4000m of wire on AHC winch.  
Deployed from hangar on dedicated frame

**Underway:** T/C Fluorometer acquisition in dedicated seawater lab  
PC02 in CTD Hangar, Sea water supply to CTD hangar, CTD Lab, Chem lab, Bow met mast



*Foras na Mara*  
*Marine Institute*

# Sampling Equipment



- 8 Ton T-Frame with opening gates , winch with 4000m of 14mm Dynex
- Hydrographic winch with 1000m of 12mm Dynex
- Oceanographic winch with 2500m of Coax cable (Gulf/Mocness/Multinet)
- 10 Tonne A Frame
- Moving Vessel profiler on port Gantry



# Other Facilities/Capabilities



- 9 – 12 Crew including permanent technician, 14 scientists (max)
- Gymnasium (12m<sup>2</sup>)
- TV lounge
- Additional Lounge area in messroom
- Equipped with shore generator for fuel efficiency
- Electrical drive winches throughout
- Multipurpose design with removable net drum to increase deck space
- DP 1 using bow and stern thrusters
- Anti Roll system

# Other Facilities/Capabilities



- 180 Degree A Frame for better over the side handling
- AUV/Glider “ Step” in hull to allow easy access to water surface
- Shore power connection to allow shutdown of all gensets when in suitable port
- Drop keel ( c.2.5m below ships bottom)
- Hi efficiency intersleek 1100 SR anti foul (9% energy saving)

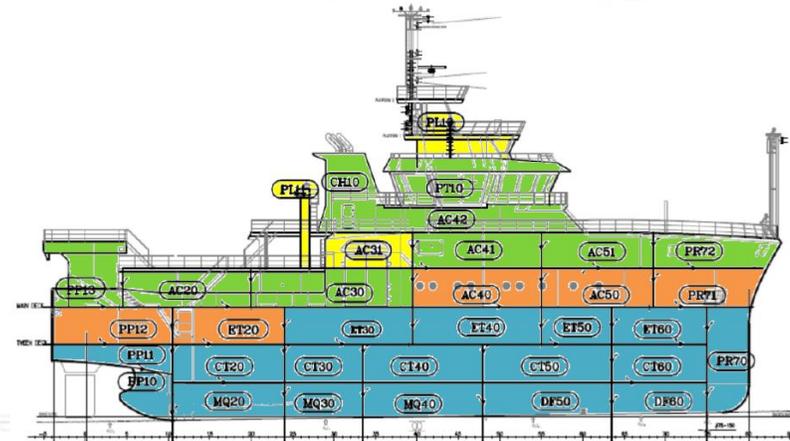




- 19 Blocks joined by week 21
- Propeller in production
- Next Milestone is “Hull finished” planned for August 2021
- Vessel will be launched in November 2021
- Fit out continues afloat
- Sea trials including noise trials /Science Trials in Q2 2022.
- Vessel coming into service planned for 2022



<https://www.youtube.com/watch?v=-hPGte8W5bs>













Thank you for your attention!

