



- DNV +1A1, SF, **DYNPOS AUTRO and DYNPOS ER**, EO, DK(+), CLEAN DESIGN, COMF-V(3) C(3), FIFI-II, NAUT-OSV (A), **ICE-1C**, **DSV-SAT**, DSV-SURFACE, HELDK-SH(CAA-N), BIS, SPS, OFFSHORE SERVICE VESSEL +, BWM-T, RECYCLABLE, SUPPLY VESSEL (Hull Only)
- Achieving an ERN of 99,99,99,99 at T=7,0m
- Complying with **SPS 2008** and **MODU** code.



Main Parameter

Flag	Bahama
Loa	145.9m
Beam	27m
Depth	11.3m
Draught	7.65m
Accommodation	200p
Working Deck	1,850m ²
Deadweight	8650t
Main Cranel (AHC)	400t
Diving system	Twin Bell 24men

Multi Purpose Diving Support Vessel



Main Parameter

Deck Strength	15t/m ²
Deck Load	5,000t @ 1m
Transom Strengthened to	50t/m ²
Working Moonpool area	50t/m ²
Trial Speed	14.5 knots
Eco Speed	11.5 knots
Fuel Oil	2300m ³
Pot Water	1120m ³
Water Makers	2x40m ³ /day RO Units

Main Deck Machinery



Main Crane

- 400t Offshore Rated Knuckle Boom

Crane

- 400t Single Fall with AHC/AT Main Hoist Winch
- Both with Working Operating Depths of 3000m (single fall)

Auxiliary Crane

25t Offshore Rated Knuckle Boom Crane

- 25t Single Fall with AHC/AT Hoist Winch
- Working Operating Depth of 600m
- 2*10t Offshore Rated Telescopic Crane (Pt Side&Stbd Side)

Multi Purpose Diving Support Vessel

Main Deck Machinery

DIVERS MOONPOOLS

2 off - 5.4m x 4.2m Located Pt and Stbd

Fi Fi II System: (FFS) Remote Control Monitors 3,600m³/hr

WORKING MOONPOOL

7.2m x 7.2m Strengthened for Vertical Lay Tower System

KONGSBERG DP System:

- Main DP – K Pos DP-22 (+K MASTER and K Chief)
- Alternative DP – K-Pos DP-12
- Emg Back Up – K Pos DP 12
- 1x SIMRAD cJoy
- 2x cWing Fixed Bridge wings
- Full K-Bridge Integration

1x Transponder
deployment system
(3,500m)
(ROYAL IHC)

DP Reference System:

- 3x DGPS, 1x Radius, 1x CyScan,
- 2x Taut Wires, 1x HiPAP 501, 1x Sonardyne
- 4x Wind Sensors, 4x Gyros, 4x MRU's

2x Spare HiPAP Trunks

DP 3 and DP Enhanced Reliability (ER) = Maximum
Flexibility when considering Operational Requirements
ERN 99,99,99,99





WHEELHOUSE

1x S Band and 1x X Band Type (Chart Radar), 2x ECDIS Units
2x GPS Units (in addition to DP), 1x Autopilot, 1x Speed Log
1x Echo Sounder (3,000m), 1x GMDSS (A3), 1x Navtex ICS Nav 5
1x AIS, 1x Ship Security System, 1x Voyage Data Recorder
1x Bridge Navigational Watch Alarm System, 2x VSAT Domes
1x Fleet Broadband 500 system, 1x Ship Stability Computer

ROV HANGARS

- Fully equipped to support 2x A-Frame or Gantry Launch WROV's Systems.
- 1x Control Room, 2x Offices, Stores and Workshop facilities
- 2x MACGREGOR ROV Doors
- 5t Gantry crane

THRUSTERS

Diesel Electric Propulsion of:

- 6x MAK 2,700kWe, 6.6kV, 3Ph, 60Hz
- 1x CAT Emg/Harbour Set 860kWe
- 1x CAT Dive Emg Gen Set 860kWe

Complete with SIEMENS Dual In-Feed Concept



SCHOTTEL Propulsion Thrusters

- 3x 3,000kW, Fixed pitch, Variable Speed Fully Azimuthing Thrusters AFT

BRUNVOL Bow retractable Thruster

- 1x 2,500kW, Fixed Pitch, Variable Speed Fully Azimuthing Retractable Thruster FWD

SCHOTTEL Tunnel Thrusters

- 2x 2,680kW, Fixed Pitch, Variable Speed Tunnel Thrusters FWD

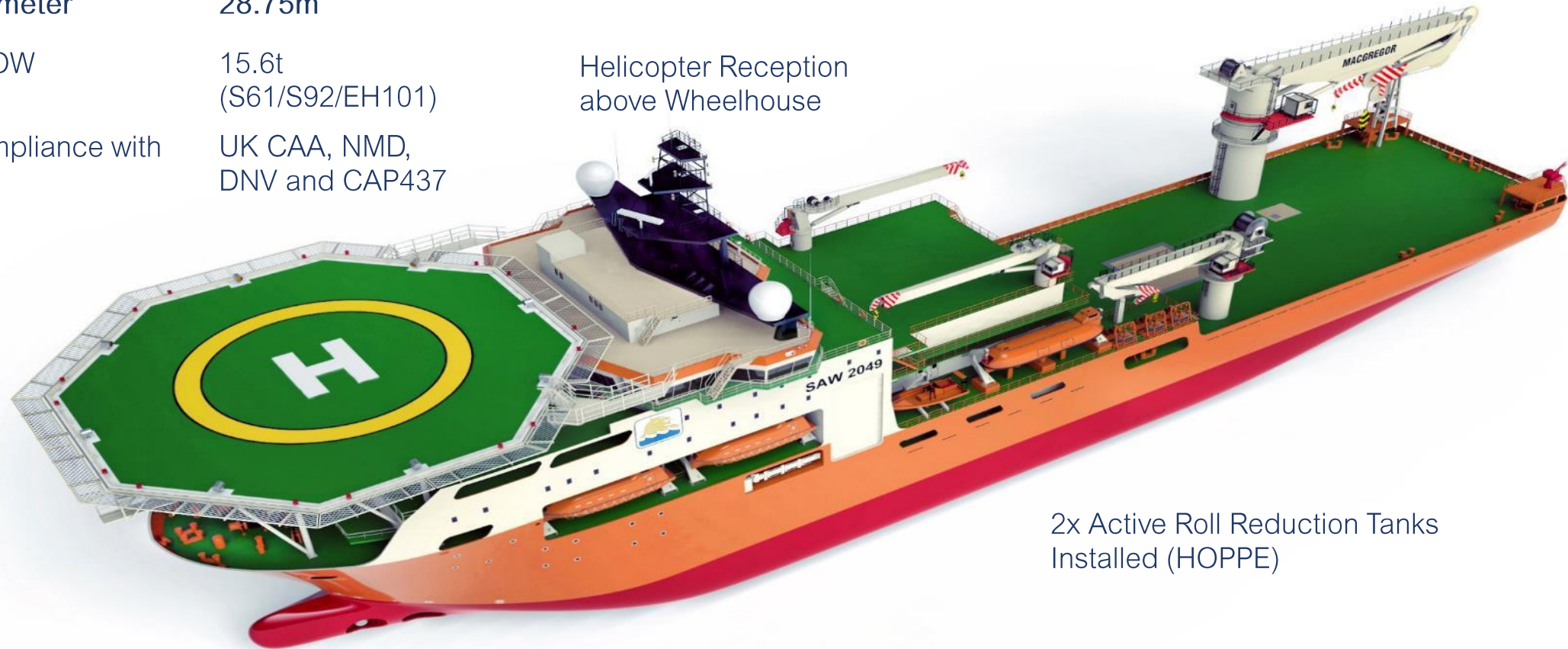
HELIDECK

Diameter 28.75m

MTOW 15.6t
(S61/S92/EH101)

Compliance with UK CAA, NMD,
DNV and CAP437

Helicopter Reception
above Wheelhouse



2x Active Roll Reduction Tanks
Installed (HOPPE)

ACCOMODATION (North Sea Offshore)

- POB of 200 persons meeting MLC 2006 regulations, all with en-suite.
- Fully Air-conditioned meeting DNV GL COMF Class C(3) V(3) (Carrier)
- Full Hospital with separate treatment room facilities
- Galley and Provision Stores for 200, Mess room seating for abt. 80
- 2x Recreational rooms, 1x Cinema, 1x Internet Café, 1x Gymnasium
- 3x Large Client Offices with Windows Aft, 1x Survey Area on Bridge, 1x Large Conference room, 2x Separate ROV Office spaces.

CABINS

- 20x Single Cabins
 - 8x Double Cabins
 - 41x Two plus Two (Pullman Bunks)
- Can be easily reconfigured, at Client Request.





Redundancy Features

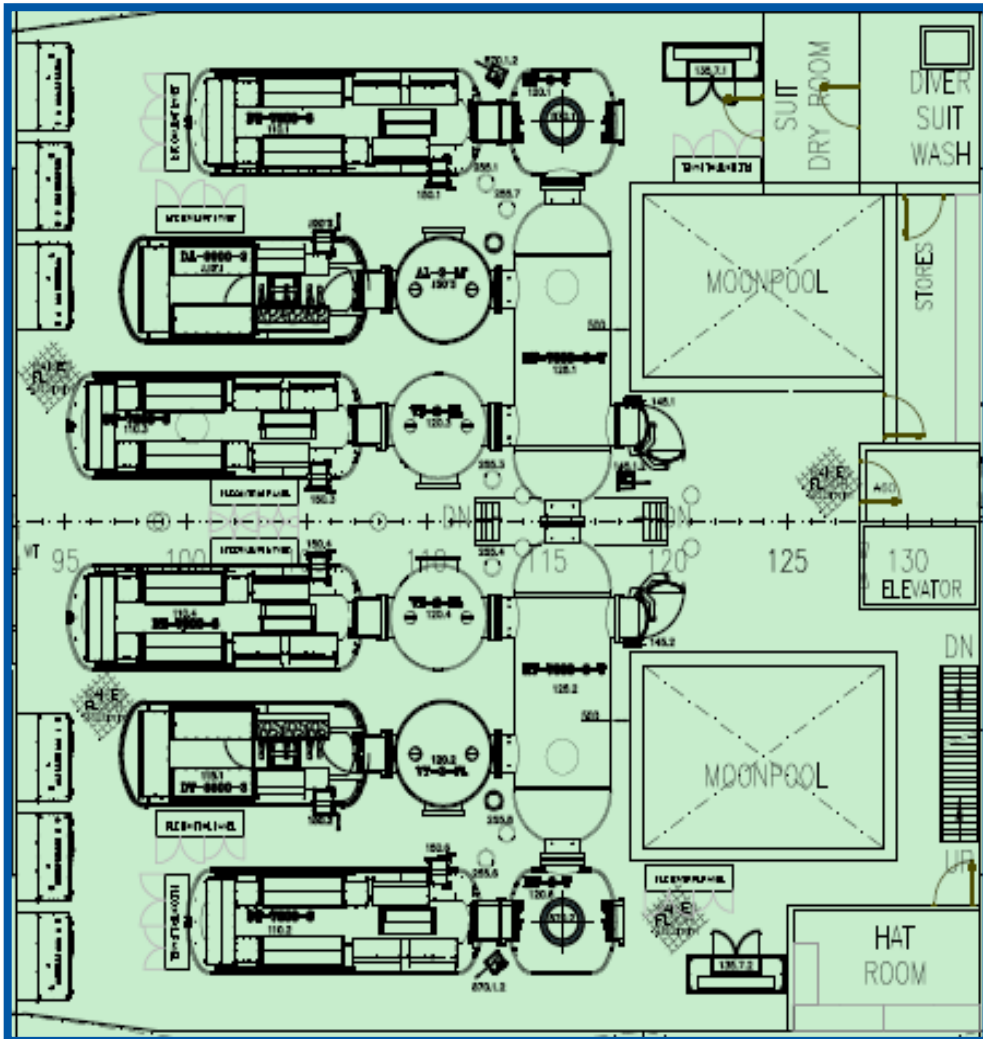
- Fire and Flood protection Throughout, arranged as two redundant groups.
- SIEMENS Dual In-Feed concept incorporated on Fwd, Aft Tunnel Thruster and Centre Aft Propulsion Thruster
- All power, control cabling and piping routed independently and A-60 segregated throughout the vessel
- Provision of an Independent Emergency Fire Back-Up control station, A-60 insulated, below the wheelhouse, facing Aft.
- DYNPOS ER also considers “Hidden Failures” and incorporates secondary monitoring and control systems on the main Power Plant.
- Alternative Full DP control system located at Aft Bridge Console
- Built for Live Short Circuit Testing proving Voltage Dip Ride Through capability and safe operation with the main Bus tie closed and dual feeding.



- Full SIEMENS Emergency Shut Down (ESD) system installed complete with Gas detection and automatic fire dampers specifically designed for DSCVs
- AUTRONICA Fire detection and suppression systems installed, including CO2 and Water Mist.
- 2x EVAC Membrane Bio-Reactor Sewage treatment plants installed (200 POB each)
- ALFA LAVAL Pure Ballast 3.0 water treatment system installed.
- Dive system upgrade option: install additional 2x 3man chambers, 2x E/L's. All design calcs, interfaces, foundations, reserved space etc. approved by class and installed.

Miscellaneous Features

- Kongsberg Vessel Monitoring System (K-Chief 700)
- SIEMENS Power Management System (PGS)
- All main Electrical Equipment (HV SWBDs, TRAFOS, VFDs, Motors, Alternators) supplied by SIEMENS
- All main machinery items manufactured and delivered from EUROPE
- Full DYNPOS ER application. Allows for off line generators to be taken into account under the DP Consequence Analysis for power requirement criteria.



Saturation Diving & Surface Diving system

24man, Fully Automated, DRASS 300MSW Diving System

- Twin Bell and Twin 24man SPHL's
- Full NORSOK Capabilities / DNVGL Classed
- Total Gas Storage of approx. 40,600Nm³
- Designed for a Significant Wave Height of 5.5m with Heave Compensation

3 Diver Air/Nitrox Surface Diving System (Pt Side)

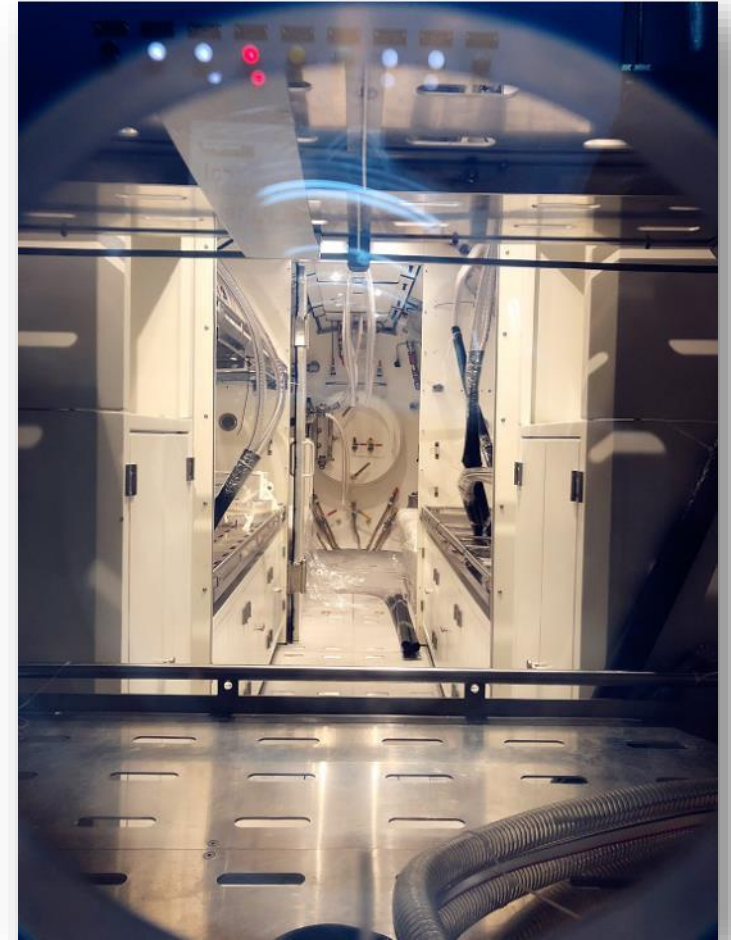
- 2 x Dedicated A-Frame LARS (1x Main and 1x Standby Diver)

Saturation Diving & Surface Diving system

SAT Diving System Arrangement



Chamber





During the one-month sea trial, the sea trial team completed the launch and recovery test of the diving bell from 300M water depth, as well as the function test of the diving bell inner communication, video monitoring and umbilical cable.

The heave compensation function test of diving bell LARS system was completed successfully with constant tension setup for umbilical cable winch. The sea trial team completed the emergency recovery tests of diving bells and air diving baskets under the condition of 2° trim and 5° list as well as the synchronous recovery test of two diving bells and two air diving baskets under normal condition.

The deep-water function tests of the 400T AHC crane and the 25T AHC crane were also completed.



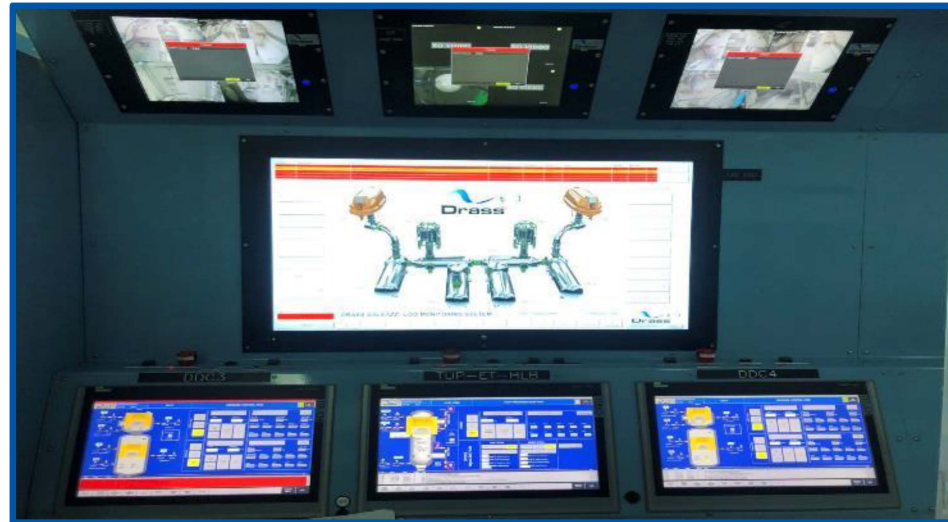
DP Trials



DP trials



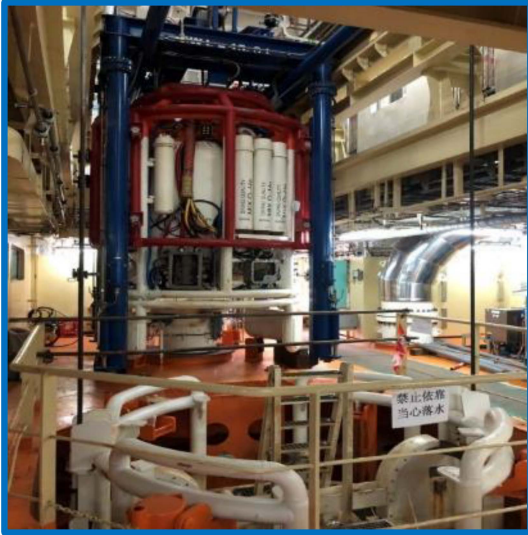
Chamber



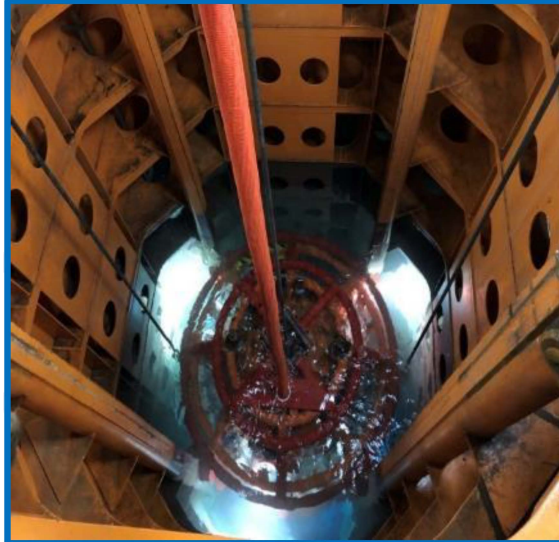
Dive Control Console



Dive Control Console



Diving Bell and Moon Pool



Diving Bell Launch and Recovery



Diving Bells in Water



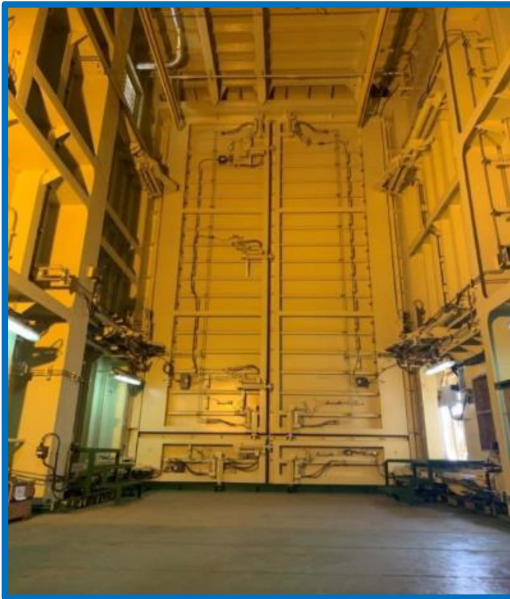
Retractable Thruster



400T HPU Station



Pump Room



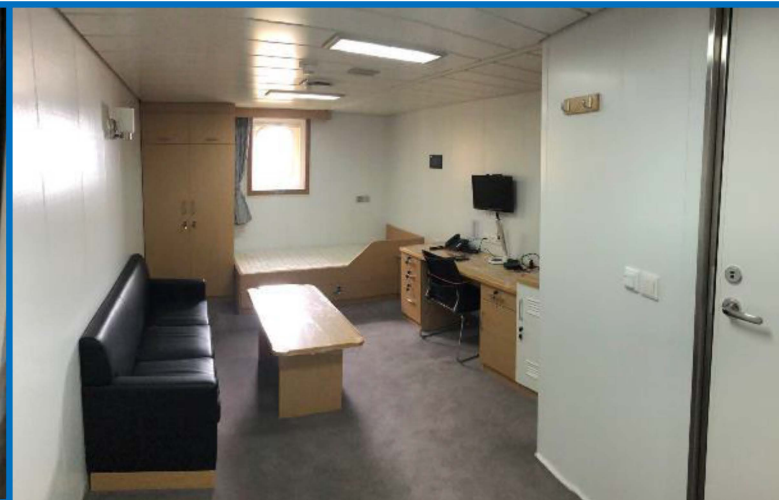
ROV Hanger Doors



Pump Room-FIFI Pumps and Starters

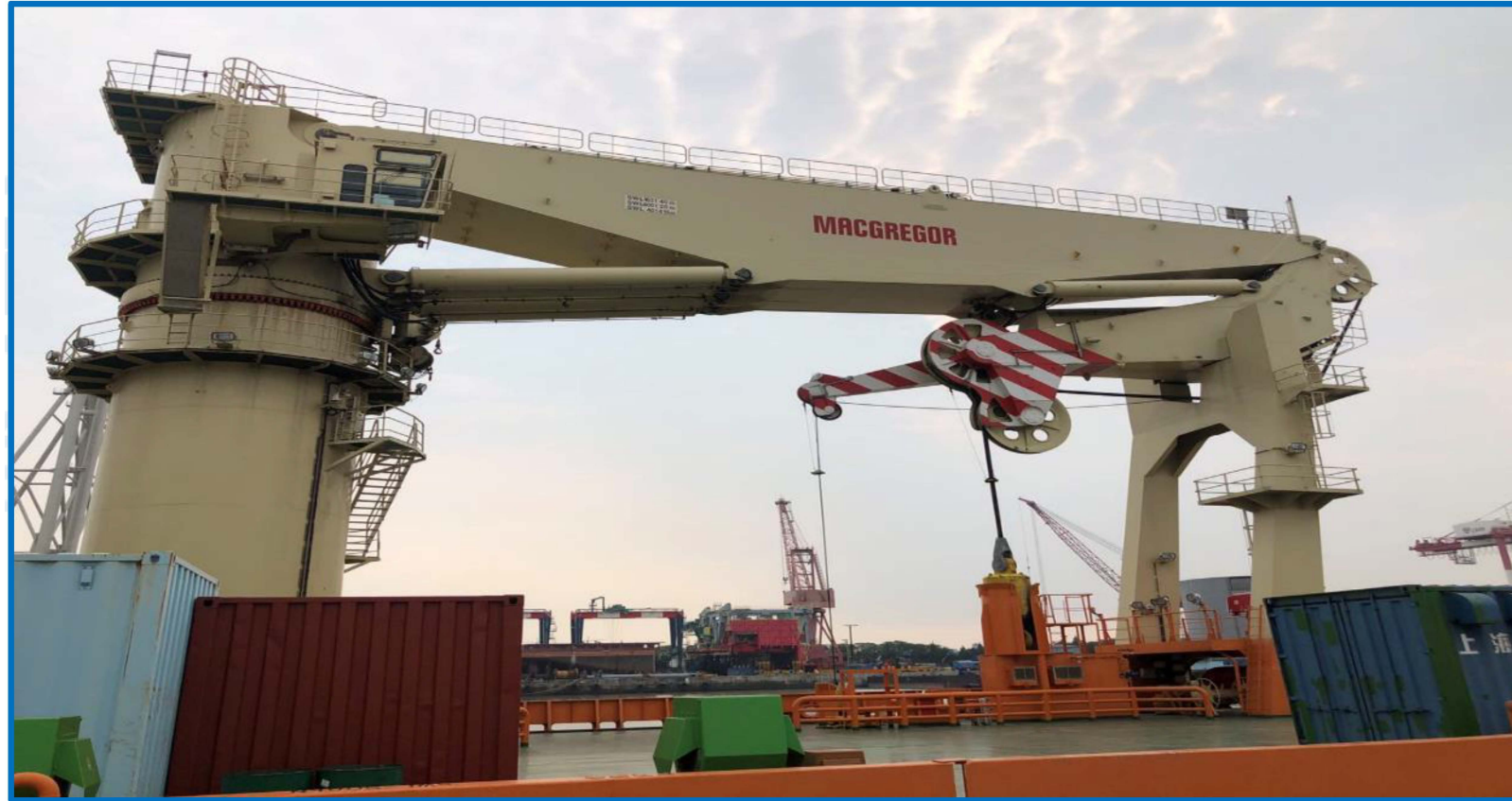


FIFI-2 Monitors





25T AHC Crane



400T AHC Crane



ZPMC PELAGIC

MACGREGOR

TUG

TUG

714