

August 5 - 2026



Gassco Polarled PLEM - Connector Replacement

Version 0.01



Agenda



1 **DOF at a glance**

2 About Polarled





An integrated global offshore services company
combining asset ownership and project engineering



77*
vessels in fleet



6
operating continents



40+ years
operational history



USD 6.9bn*
*USD 6,9bn after Q1
cutoff

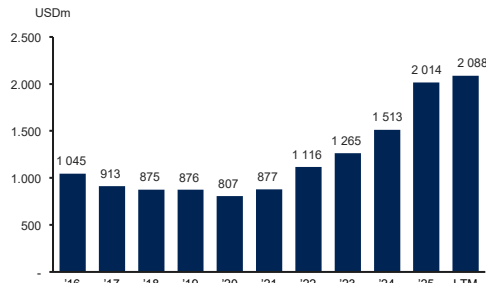


>5,700
employees

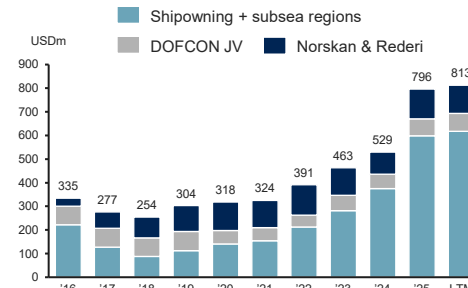


Norway
headquartered

Revenue development



EBITDA development



Global presence through four operating regions¹



DOF Atlantic Region: At-a-glance

We are positioned to lead across offshore **oil & gas** and **renewables**, applying proven subsea and marine capability to support today's operations while building our service lines required for the next generation of offshore energy.

Our region is driven by dedicated people across Norway, Scotland, Angola and Ghana. Their skills, collaboration and continuous learning underpin our performance and long-term success.

We foster a diverse, inclusive and engaging workplace that attracts and develops the talent needed to deliver safely and sustainably. Our teams span all offshore disciplines, supported by strong onshore functions in project delivery and corporate services.

Our shared values — safety, teamwork, excellence, integrity and respect — guide how we work, decide and deliver for our clients and each other.



The Atlantic Region stands strong as an integral part of the wider DOF Group, benefiting from seamless access to the Group's world-class fleet of vessels, deep technical expertise, and extensive global capabilities. Together, this collective strength enables us to deliver enhanced performance, greater operational resilience, and industry-leading solutions for our clients.



Bergen HQ

- Corporate functions
- Regional Management
- 300 Office desks
- Emergency Response Centre
- Growth Potential



Haugesund

- Project Execution
- 15 office Desks
- Growth Potential



Aberdeen

- Project Execution
- Vessel Management
- 250 Office Desks
- Growth Potential



CCB Ågotnes

- Corporate Asset Base
- Main Mob Base
- CPI Storage
- Insulated Storage
- Project Offices

Agenda

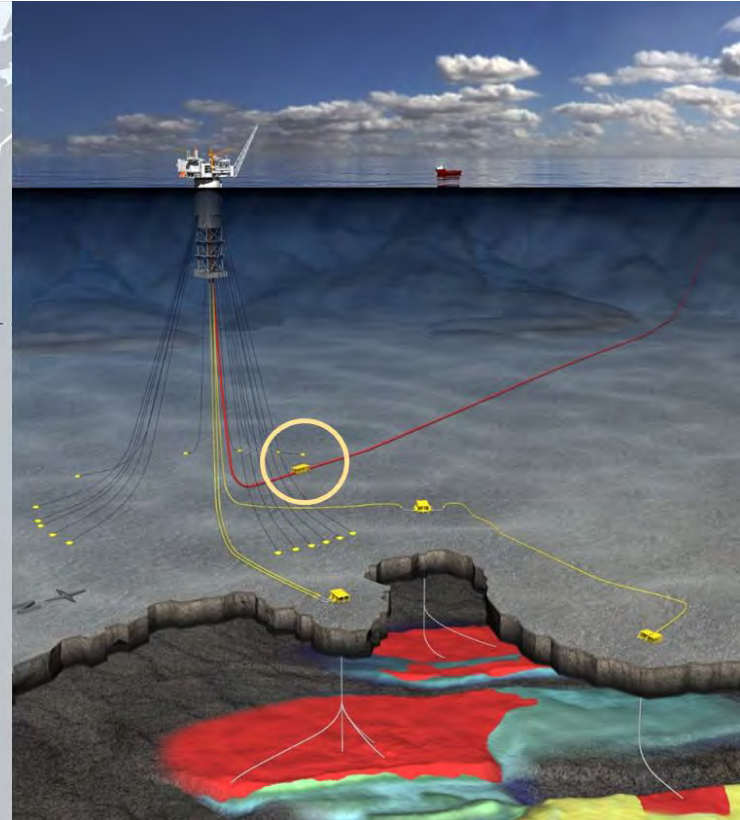
1 DOF at a glance

2 **Polarled Project**



Polarled Operation: Polarled Pipeline Project

Polarled Pipeline Project

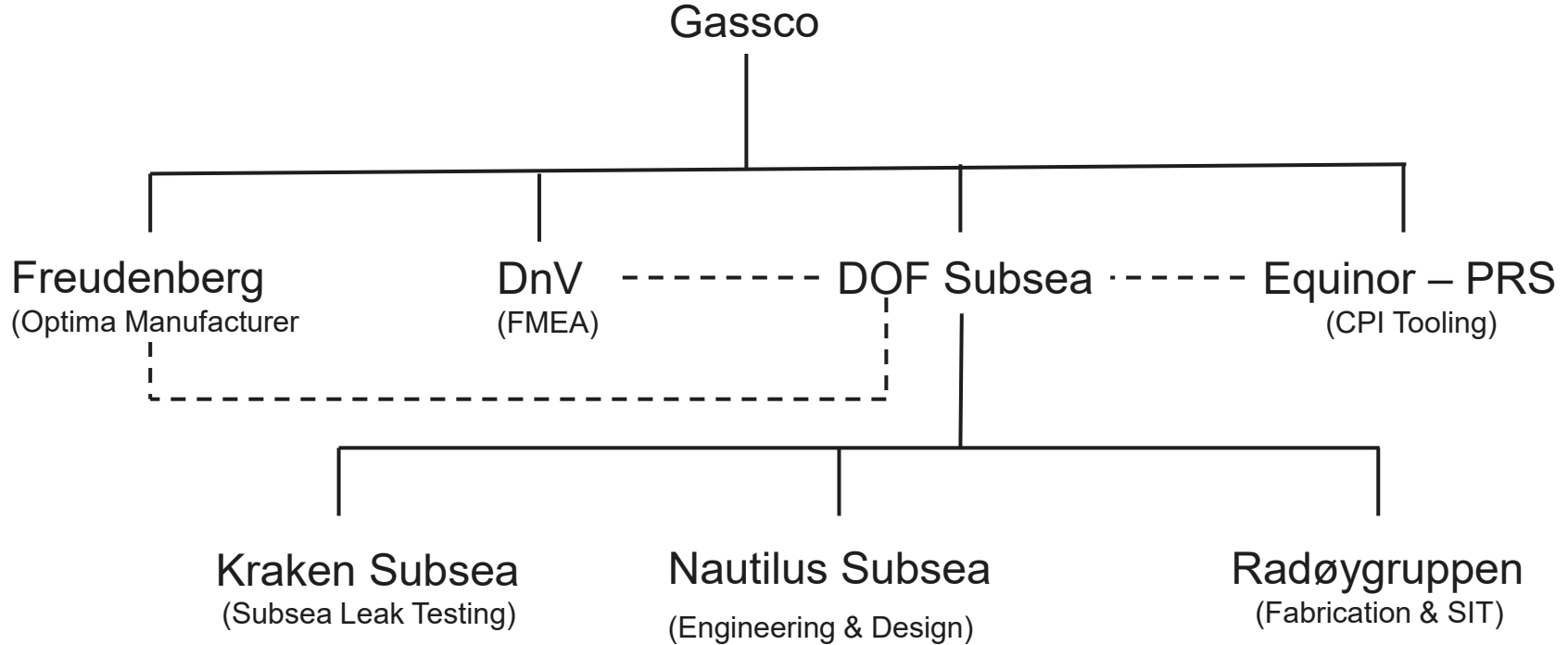


Polarled Operation: Project Challenges

- Scope technical challenges not identified by client or DOF.
- Inaccurate CPI tooling assumptions made by DOF.
- Further definition of scope continued during detailed engineering.
- 3mm tolerance between Optima Connector mounting tubes and PLEM bull horns.
- 1245m water depth.
- No tooling or procedures existed for subsea Optima change out.
- No shut down of Aasta Hansteen gas export during change out.
- Breaking containment against a dual seal single valve isolation.



Polarled Project Structure



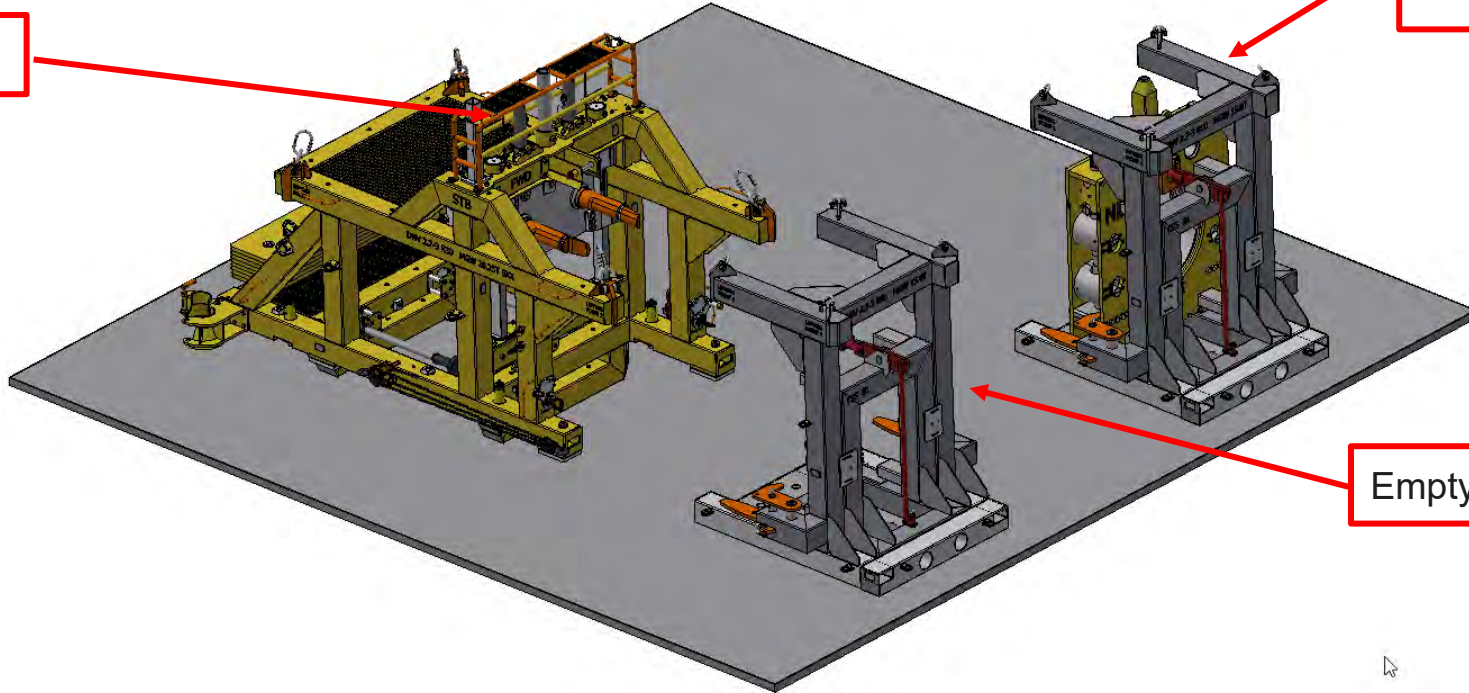


HISC Risk Suspected in Optima Connector Clamping System – Driver for Change Out

CRF*

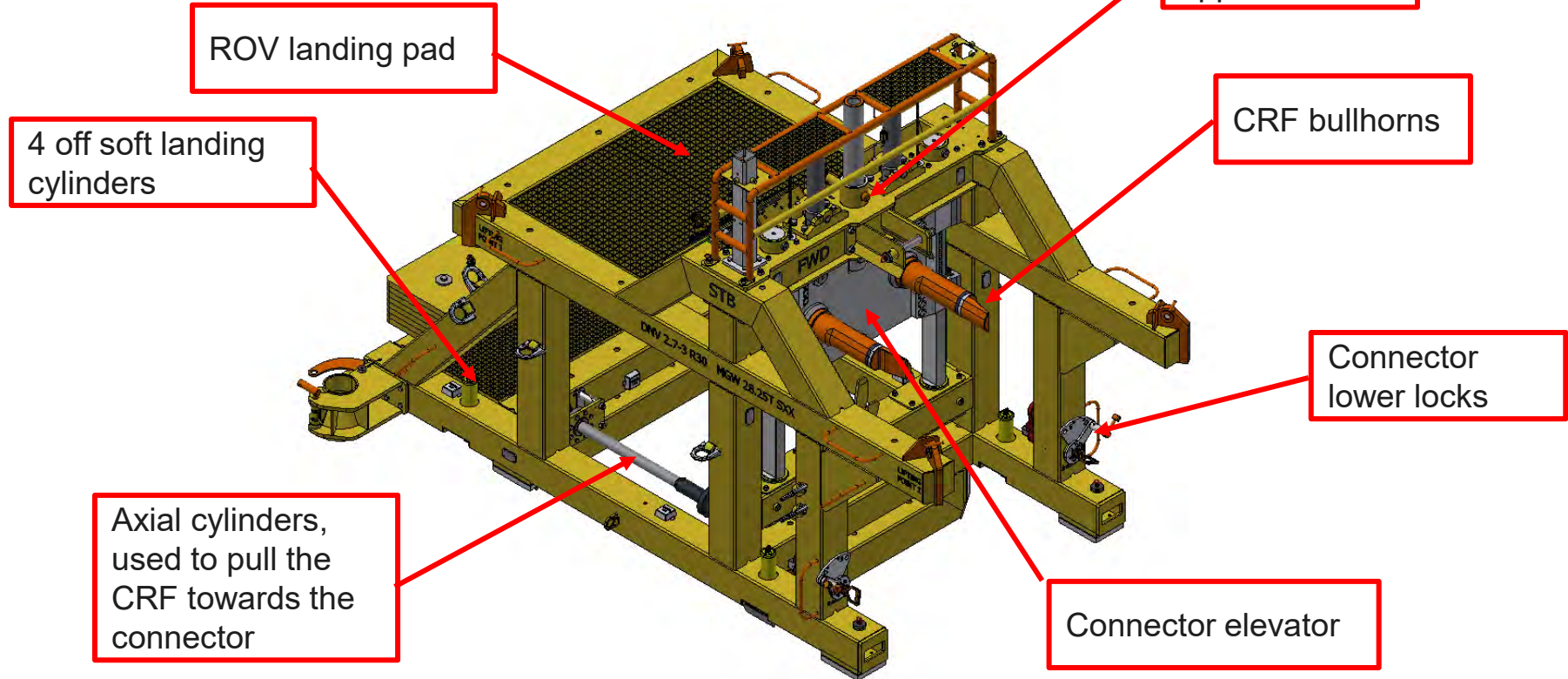
CSS** with
Optima connector

Empty CSS



Polarled Operation:

Empty CRF prepared for launch



Polarled Operation:
Optima connector in CSS for verification





Skandi Inventor

Vessel Specifications



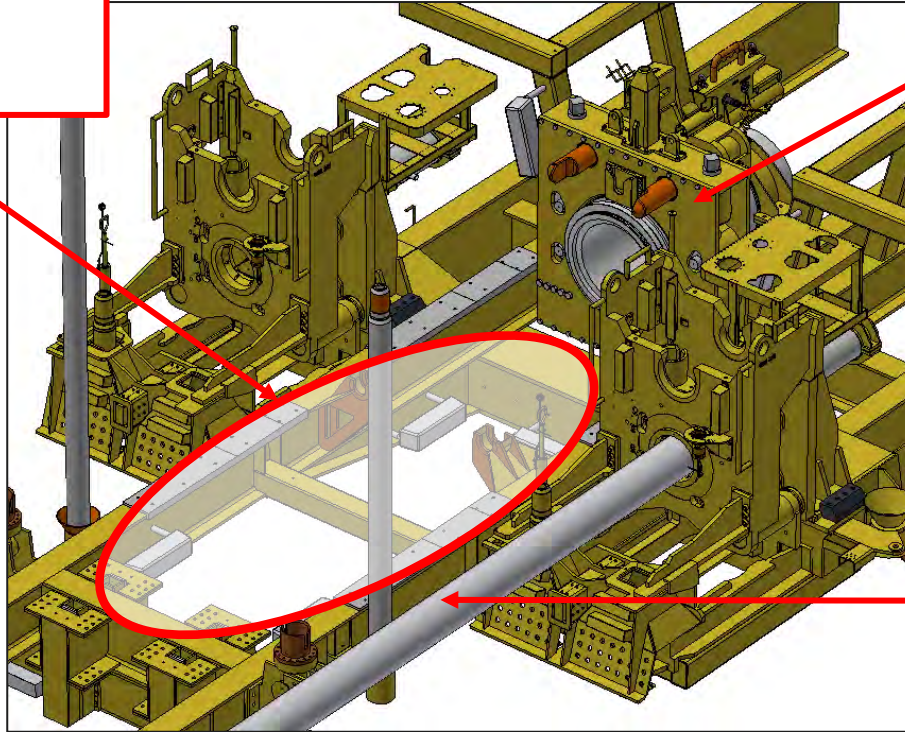
Designed for subsea construction, IMR & ROV services up to 3,000m water depth

Main specifications	
Build	2018
Design	Marin Tenknikk 6027
Class	Offshore Service Vessel, SUPPLY, AMS, ACCU, DPS-3, FFV 1, WS Ready, HELDK, BWE, UWILD, HDC, R2, TCM, ENVIRO, PMP+, CRC, SPS, ICE (1C), A1
LOA	137.6 m
LPP	128.1 m
Breadth	27 m
Draught	8 m
DWT	9785 t
Accommodation	129 people
Booklet	Download fleet booklet

Polarled Operation:
Polarled PLEM with blind cap removed

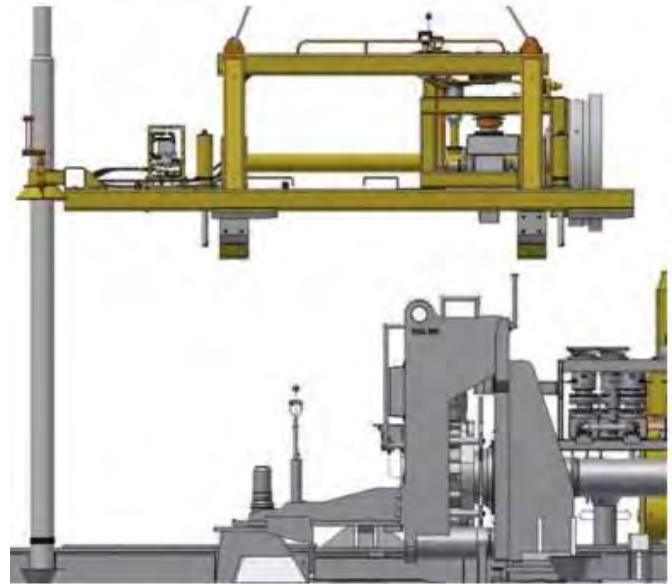
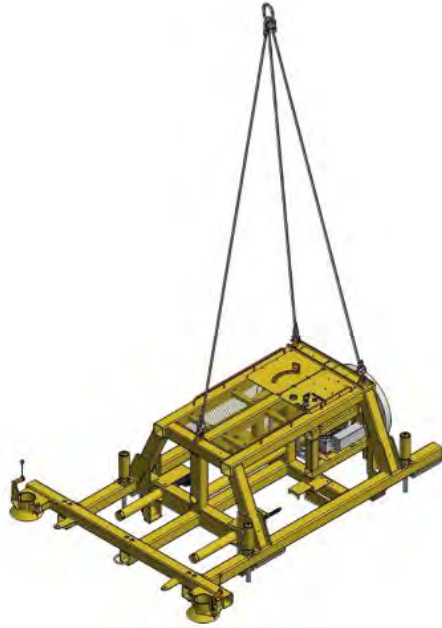
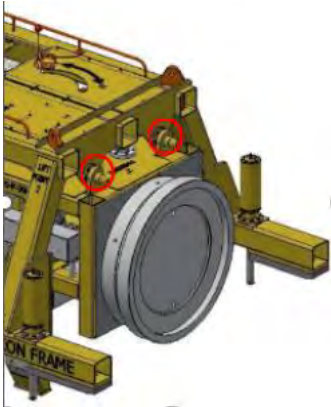
Landing site for
BCRT/CRF

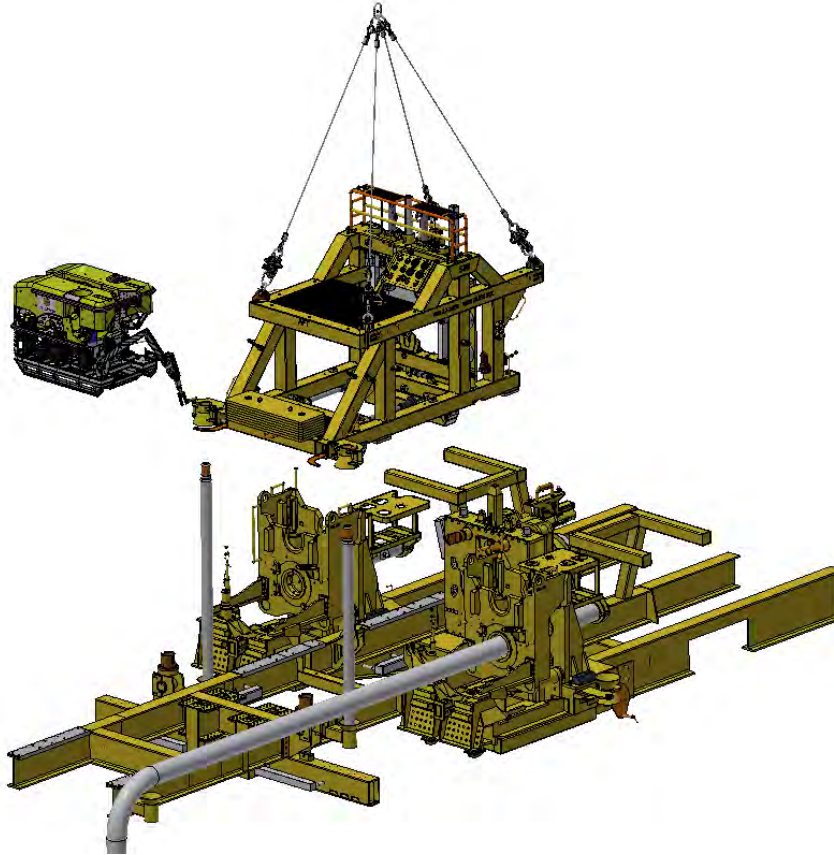
Optima connector
installed on bullhorns



Live gas line from
Aasta Hansteen

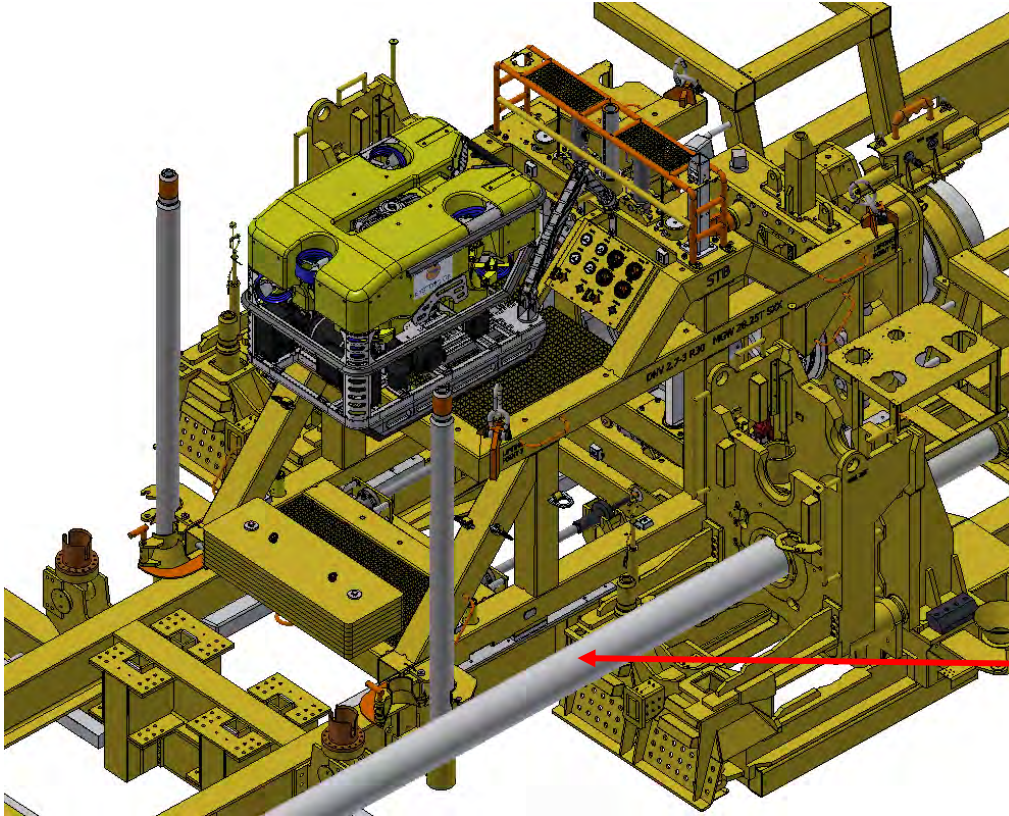
Polarled Operation:
Polarled PLEM - Blind Cap Removal





Preparation phase for CRF
landing for recovery of Connector

Polarled Operation:
Operation of the ROV panel on the CRF

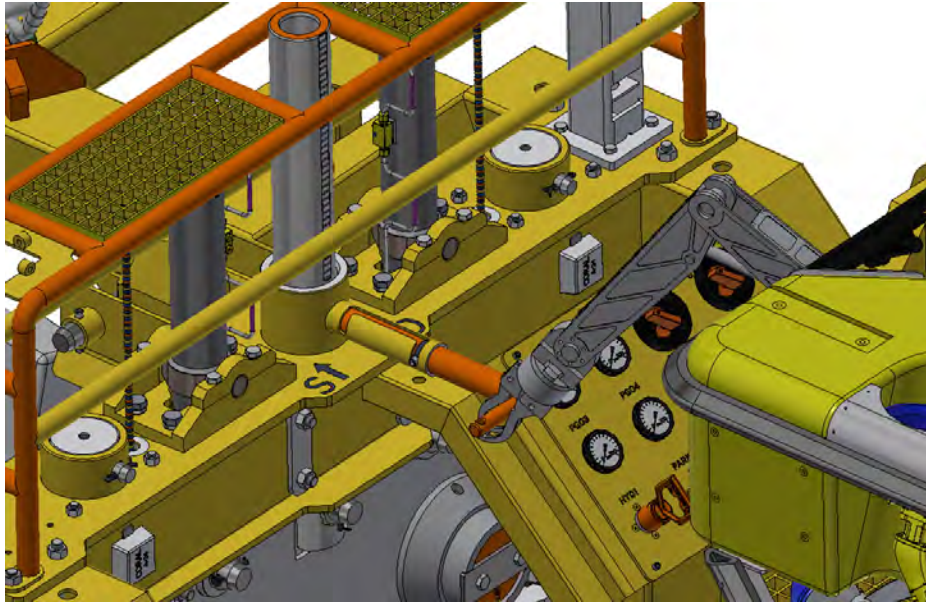


Tight space to operate in....

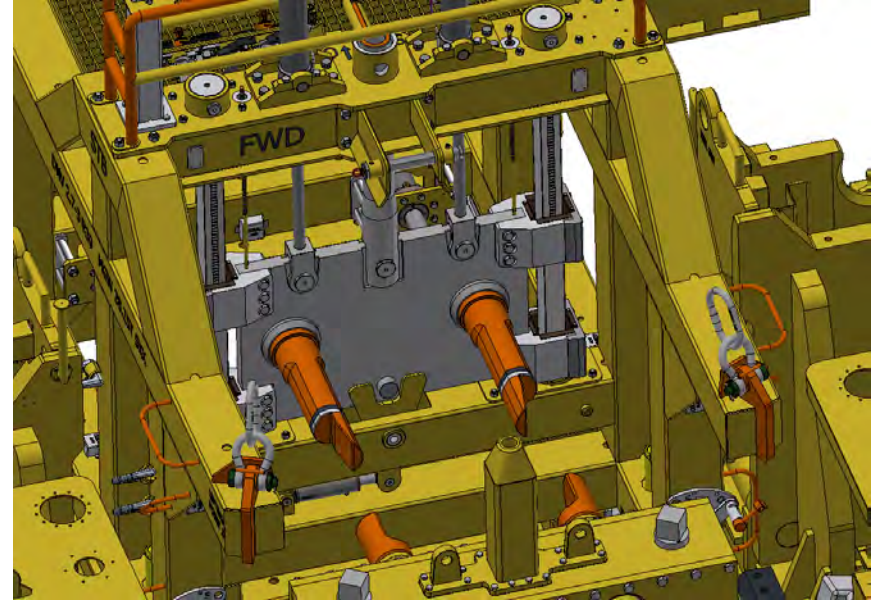
Live gas line from
Aasta Hansteen

Polarled Operation: Operation of the ROV panel on the CRF



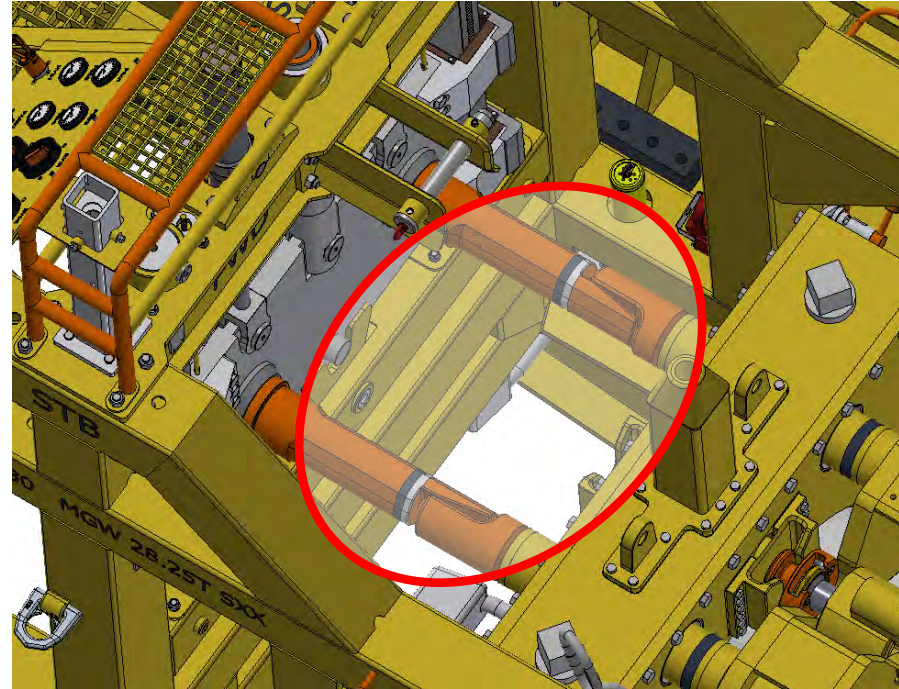
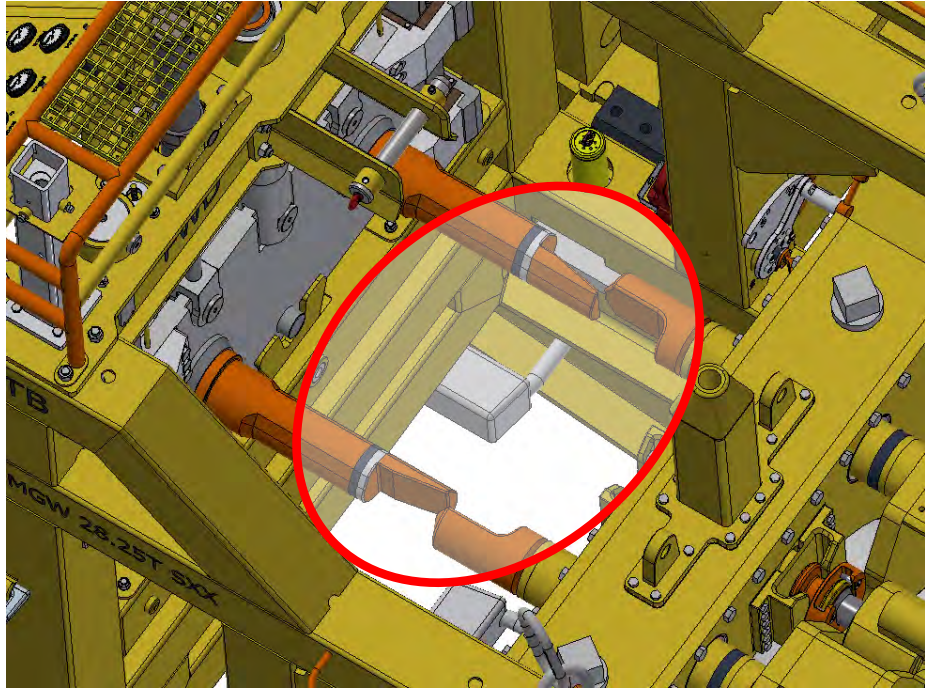


Releasing the connector
locking pin

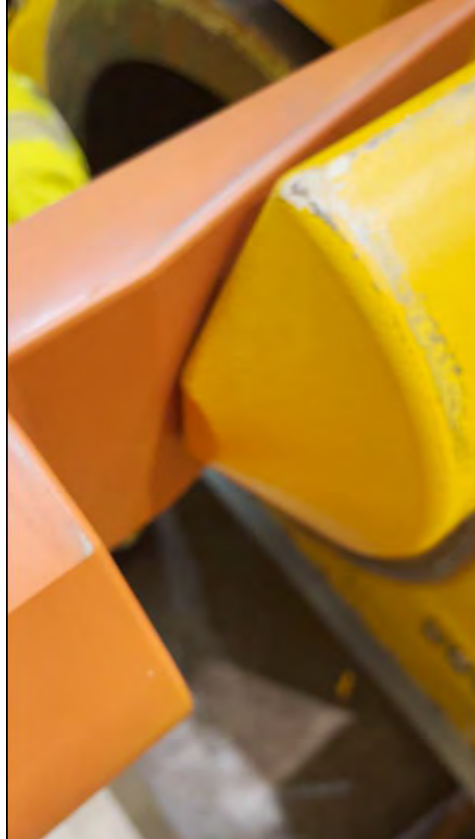


Operating the elevator

Polarled Operation:
CRF & PLEM bullhorn alignment



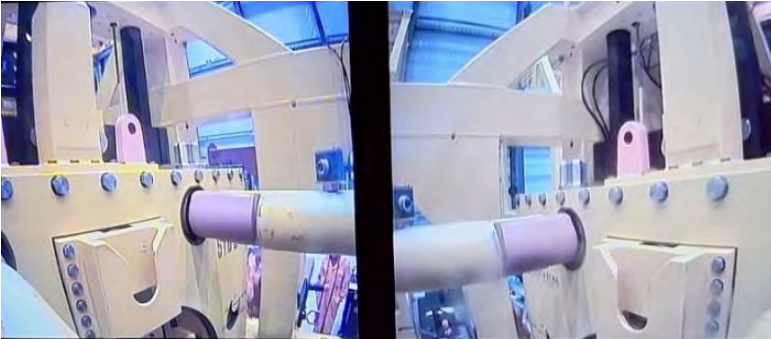
Polarled Operation:
Alignment & Precision



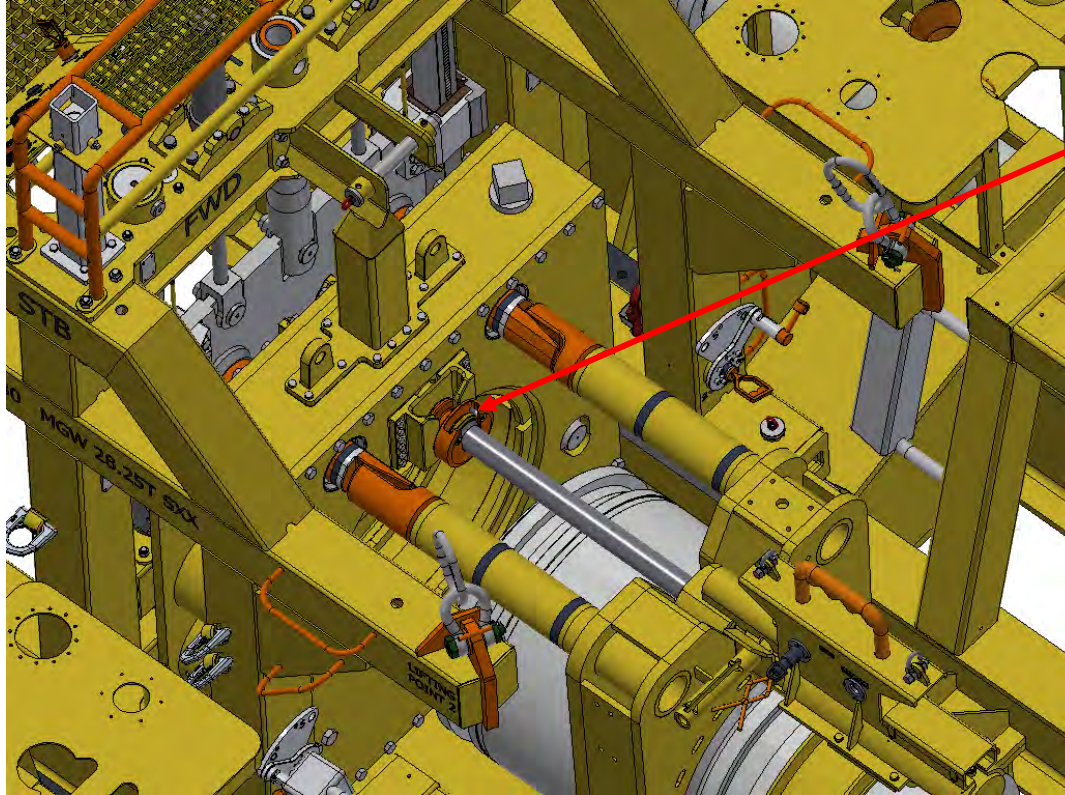
Polarled Operation:
Bullhorn Alignment – Installation aids



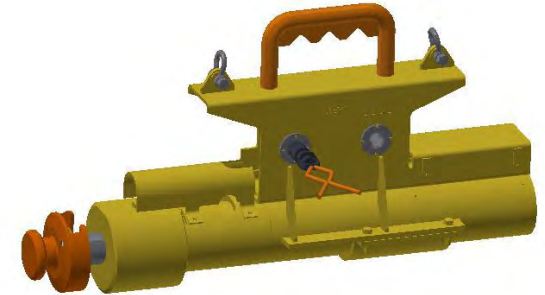
Camera for
observation
elevator level

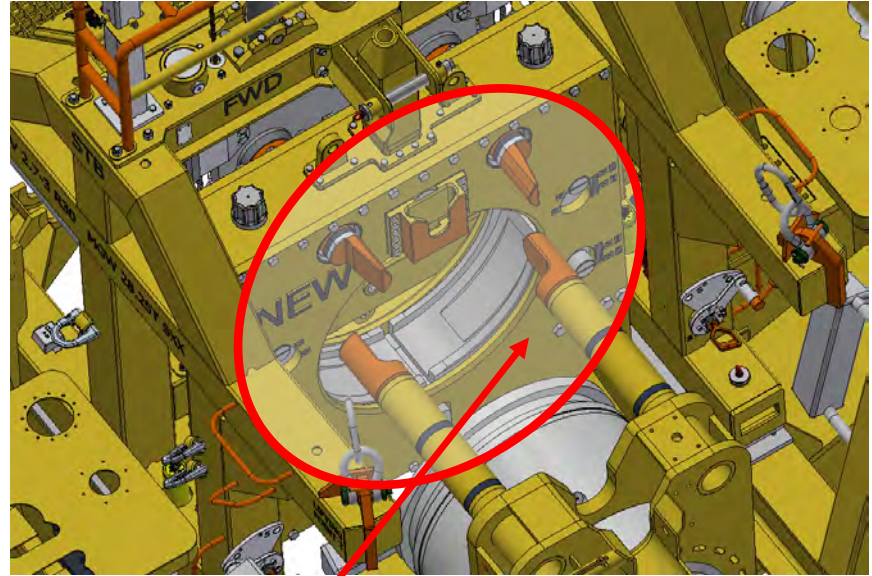
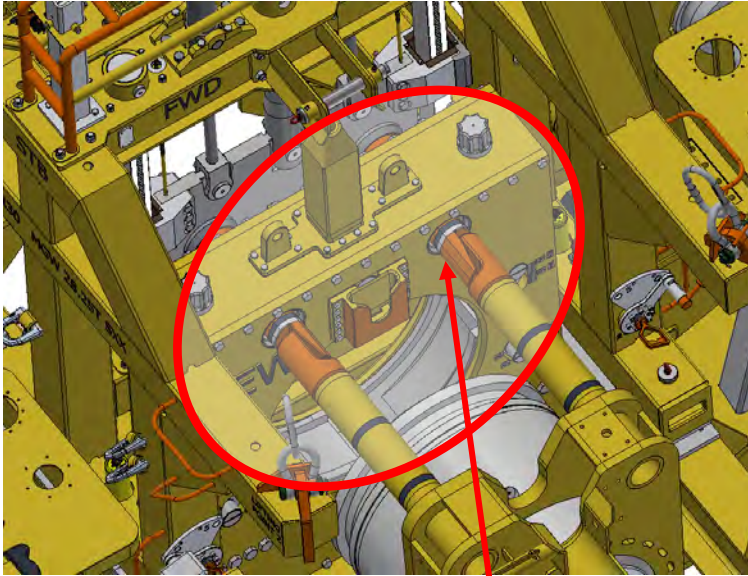


Camera for
observing bullhorn
alignment



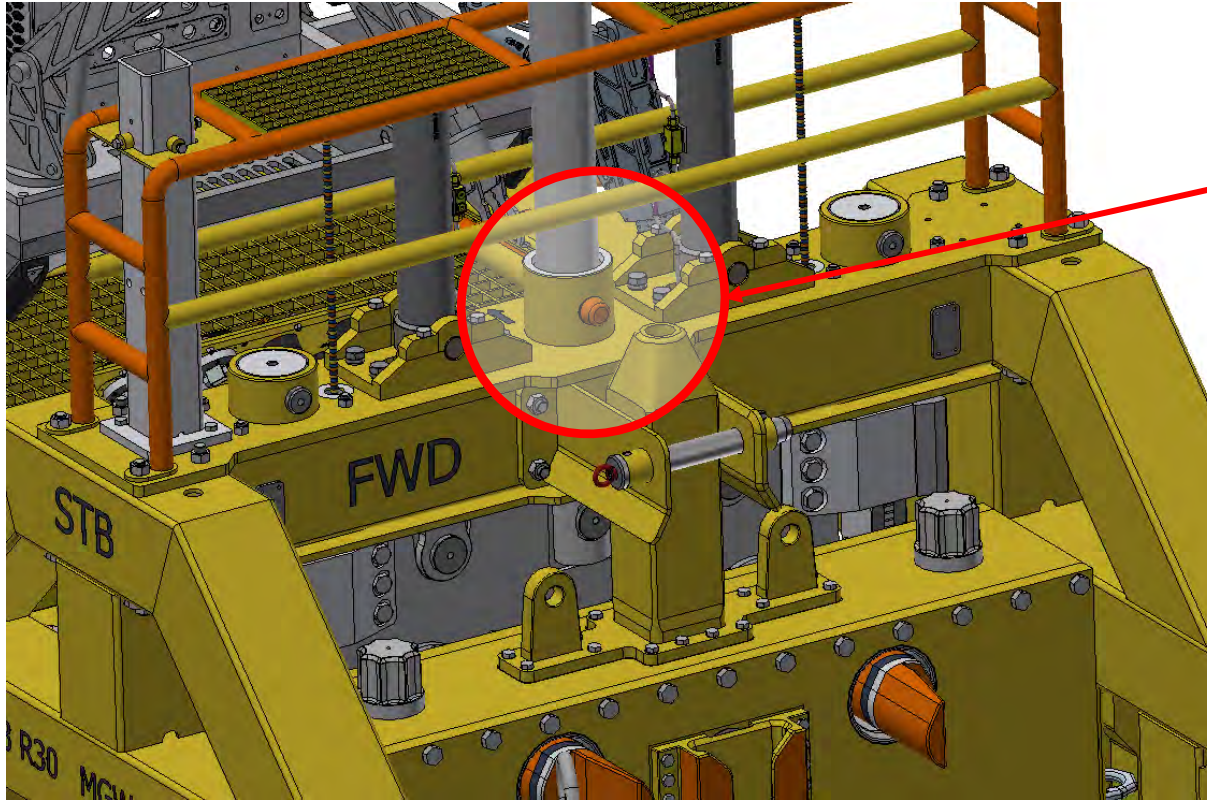
Axial Shift tool fitted with extension pushing the connector across to the CRF



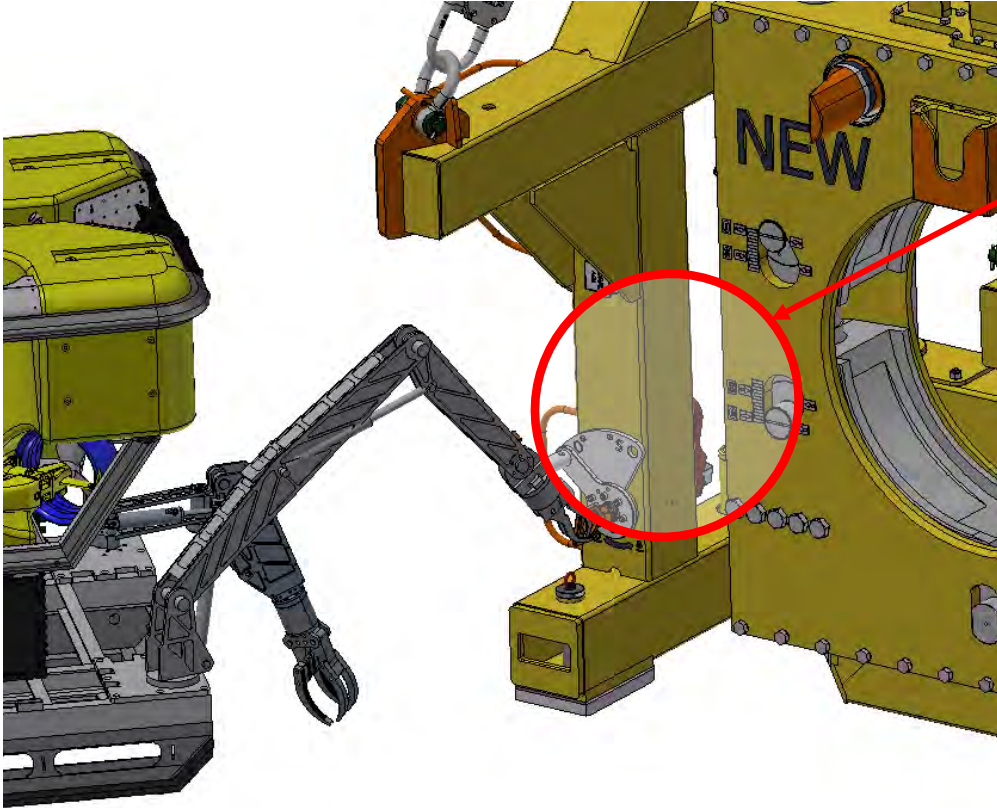


The connector is lifted using the elevator vertical cylinders

Polarled Operation:
Connector elevator mechanical lock



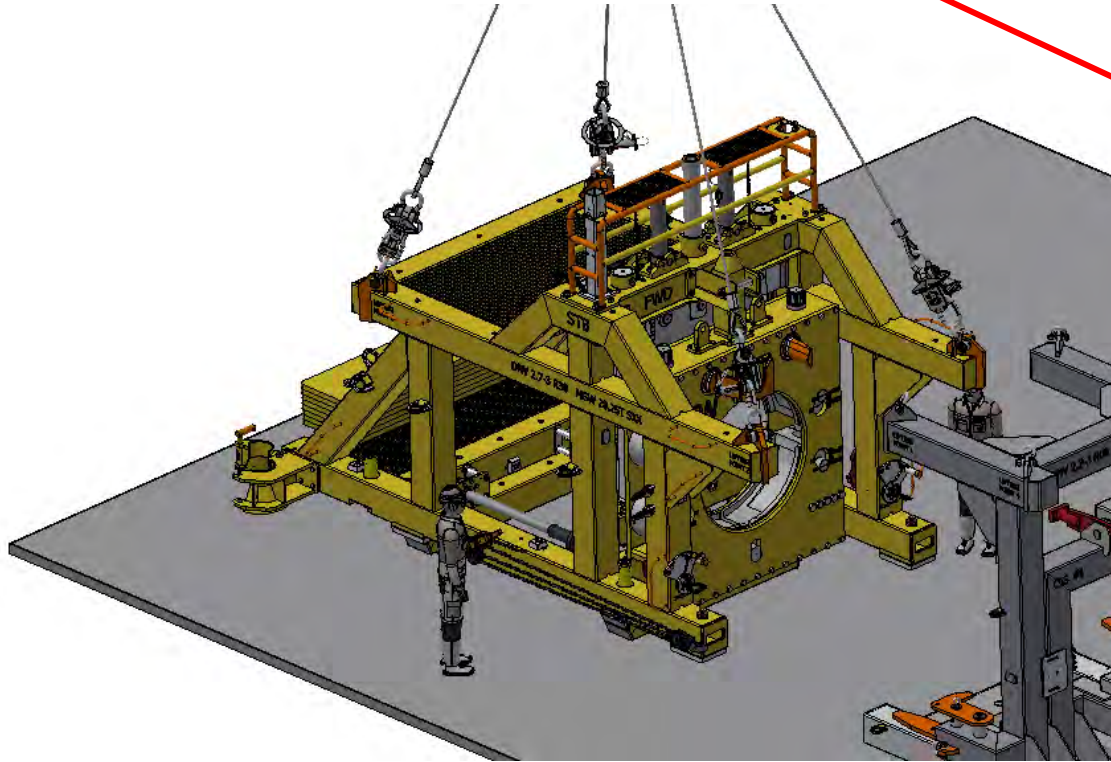
A locking pin operated by the ROV secures the elevator and connector in upper position for transfer



A free flying ROV engaging the lower locks

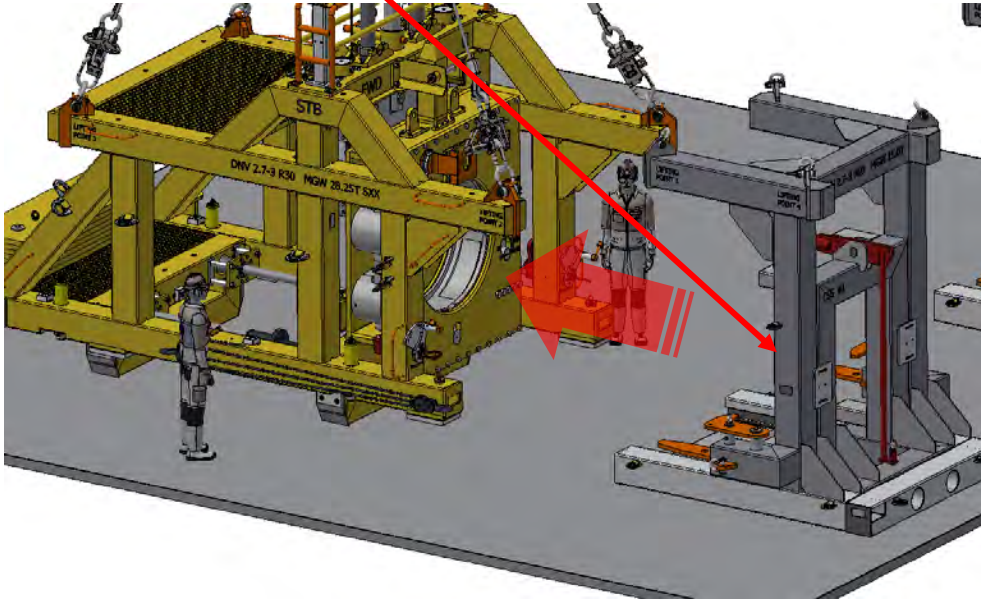


Polarled Operation: CRF On-Deck Operations

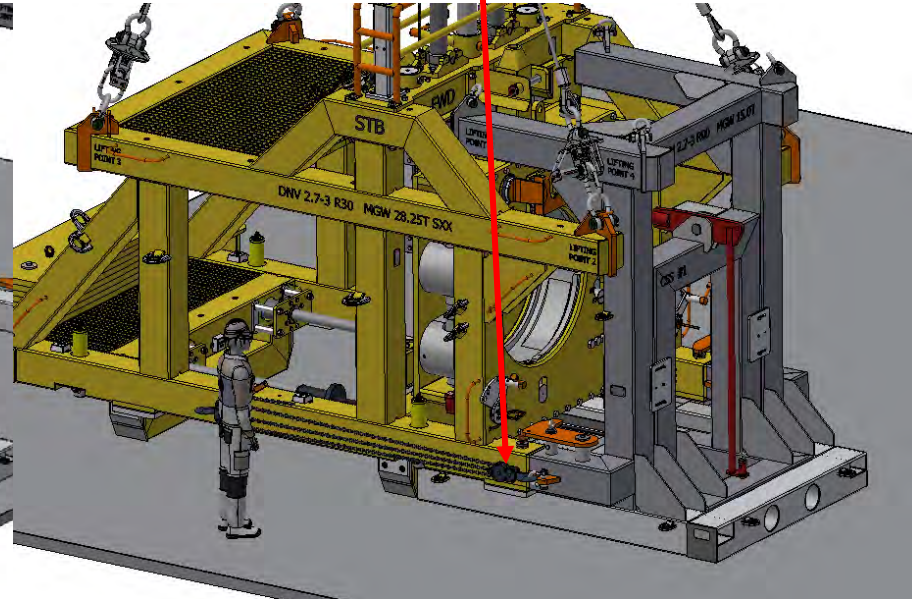


The CRF is landed on deck ready for transfer of the connector to the CSS

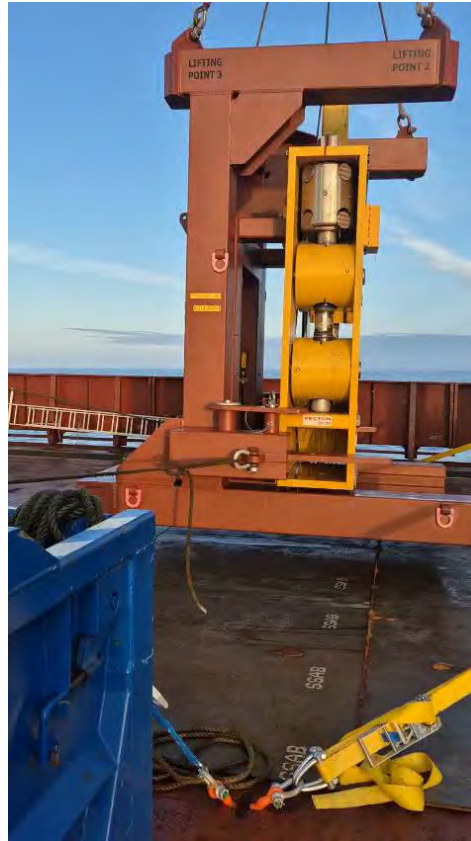
Initial Positioning of CSS with vessel crane



CRF – CSS Engagement using chain hoists



Polarled Operation: CRF On-Deck Operations



Polarled Operation:
CRF On-Deck Operations



What made success possible

- **Lesson 1**
 - Proper engineering before offshore execution
- **Lesson 2**
 - Full-scale testing removes uncertainty
- **Lesson 3**
 - Operational competence must influence design
- **Lesson 4**
 - Client flexibility creates better outcomes
- **Lesson 5**
 - Complex projects require integrated partnerships
- **Lesson 6**
 - Technical continuity from design through offshore execution matters





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