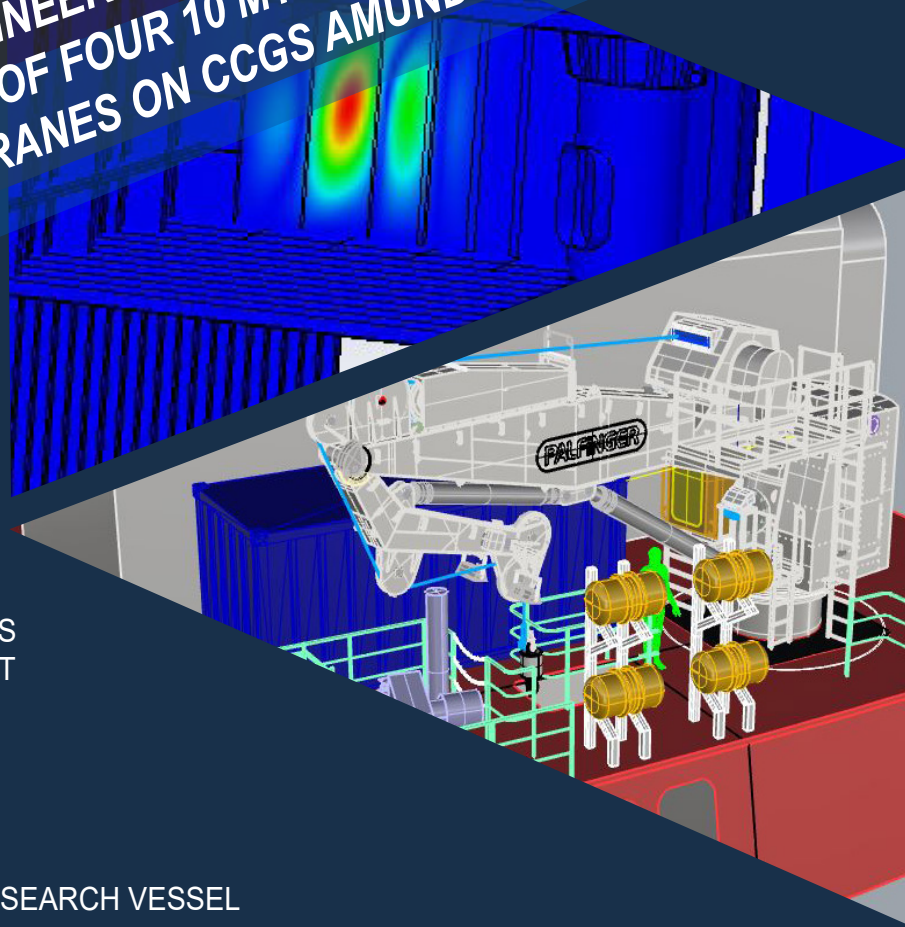


**PROJECT HIGHLIGHT: ENGINEERING SUPPORT
FOR INSTALLATION OF FOUR 10 MT
KNUCKLEBOOM CRANES ON CCGS AMUNDSEN**



KEY PROJECT FEATURES:

STRUCTURAL DESIGN
FINITE ELEMENT ANALYSIS
CONSTRUCTION SUPPORT

INDUSTRY SECTOR:

GOVERNMENT

VESSEL TYPE :

ICEBREAKER / ARCTIC RESEARCH VESSEL

Provision of engineering support to Pennecon Hydraulic Systems for replacement of CCGS Amundsen's four cranes with 10 MT offshore knuckle boom cranes. The project included major structural modifications, pedestal design and integration, finite element analysis, fatigue analysis, class approvals and construction support.

**OTHER SIMILAR
PROJECTS**

A-FRAME DESIGN - MCKEIL MARINE

Full structural design and Finite Element Analysis for 5 MT sectional A-frame.

**ENGINEERING SUPPORT -
RV LEEWAY ODYSSEY**

Various modifications projects for Leeway Marine, including design of new winch, davit, transducer pole, and regulatory approval advice.

**ENGINEERING SUPPORT -
RV NAUTILUS**

Various engineering projects for RV Nautilus, including installation of a traction winch, sheave design, development of A-frame Maximum Capability Document, design of hatch and access ladders.

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FOR OVER **40** YEARS!