



FERRI
SPECIALIZED MACHINERY



**DECK MACHINERY AND DRIVES & CONTROLS
OCEANOGRAPHICS**



CARRAL
100 YEARS 1921 2021





HISTORY

- **Industrias Ferri S.A. is a family company founded in 1964.**

PROFILE

- **Industrias Ferri S.A., located in Vigo Spain, has specialized in designing and manufacturing of equipment, systems and machinery for all types of vessels, complying with the most rigorous requirements of performance and reliability, confirming our fame as an innovate manufacturer of high quality products.**

STAFF

- **Our team: 100+ of whom 70% are engineers.**

EXPANSION

- **2013, Ferri acquired Talleres Carral, company focused on winches & windlasses since 1921.**
- **In 2014, Ferri organized the refoundation of Brusselle, the well known Belgium Winches manufacturer.**
- **In 2019, FERRI Systems was created.**



FERRI

SPECIALIZED MACHINERY

RANGE OF PRODUCTS



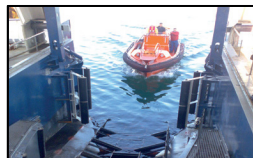
LARS



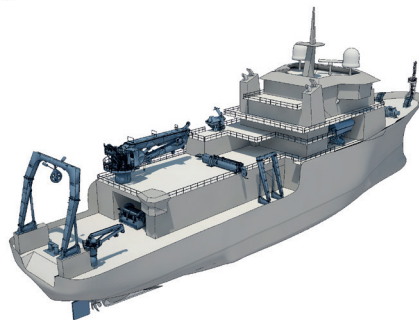
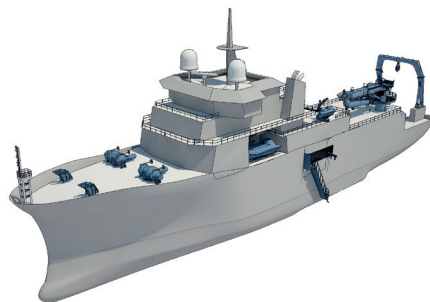
CRANES



DAVITS



STERN RAMPS



DOORS



HANDLING LOADS AND FENDER



HOOKS AND BLOCKS



GANGWAYS & LADDERS



WINCHES



FERRI

SPECIALIZED MACHINERY



RESEARCH



OFFSHORE WIND



FISHING



OIL & GAS



MEGAYATCHS



WORKBOATS



NAVY



CRUISER

MARKET NICHEs AND MAIN CLIENTS





OCEANOGRAPHIC VESSELS TRACK RECORD



OCEANOGRAPHIC VESSELS



A33 BIO HESPÉRIDES



**82,5M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

NAVANTIA CARTAGENA

SHIPOWNER:

ARMADA ESPAÑOLA

YEAR:

1990

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



A33 BIO HESPÉRIDES



TILTING L DAVIT

SWL: 3,5T OU-
TREACH: 2,6M

HYDROGRAPHIC LATERAL AFRAME MODIFICATION



OCEANOGRAPHIC VESSELS



NC-600 SARMIENTO DE GAMBOA



**70 M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

C.S.I.C. (Spanish National Research
Council)

YEAR:

2006

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



NC-600 SARMIENTO DE GAMBOA



STERN A- FRAME FOR ROV

SWL: ALL POSITIONS 5T

SWL: TOP OUT 12T



HYDROGRAPHIC LATERAL AFRAME FOR CORE DRILLS

SWL: ALL POSITIONS 12T



TELESCOPIC BOOM FOR CTD ROSETTE

SWL: 5T



CERTIFIED BY BUREAU VERITAS



OCEANOGRAPHIC VESSELS



V-061 INTERMARES



**46 M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

I.E.O. – Spanish Government

YEAR:

2009

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



V-061 INTERMARES



ARTICULATED CRANE 16 M

SWL: 6T

STERN A-FRAME

SWL: 45T

2 TILTING DAVIT

SWL: 1.1T



OCEANOGRAPHIC VESSELS



NC-661 JANAN



**43M MULTIPURPOSE
RESEARCH VESSEL**

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

QATAR UNIVERSITY

YEAR:

2011

COUNTRY:

QATAR



OCEANOGRAPHIC VESSELS



NC-661 JANAN



STERN A-FRAME

SWL: ALL POSITIONS 2T

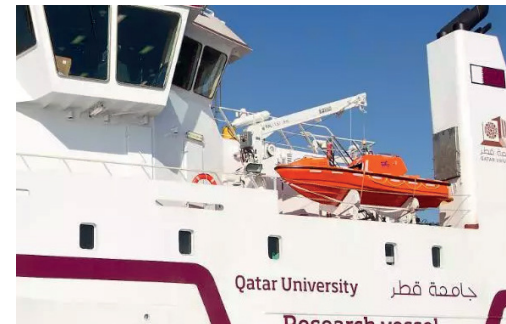
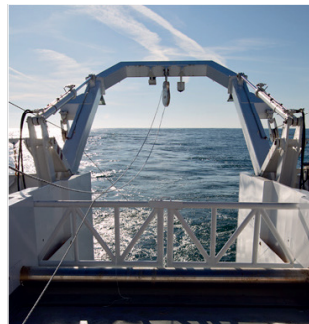
SWL: TOP OUT 4T



SIDE A-FRAME FOR CTD

SWL: ALL POSITIONS 1,5T

SWL: TOP OUT 3T



SIDE A-FRAME HYDROGRAPHIC

SWL: ALL POSITIONS 1,5T

SWL: TOP OUT 2T

DAVIT

SWL: 1,5T



OCEANOGRAPHIC VESSELS



NB-700 PEGASO



**74 M OCEANOGRAPHIC
PRIVATE YATCH**

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

Confidential

YEAR:

2011

COUNTRY:

MALTA



OCEANOGRAPHIC VESSELS



NB-700 PEGASO



**MULTISERVICE LARS IN
BELOW DECK HANGAR FOR
BOAT AND MINISUBMARINE**

SWL: 14T

**COMPLYING WITH DEMANDS
OF FINISHING AS REQUIRED
BY A MEGAYATCH**



OCEANOGRAPHIC VESSELS



V-079 RAMON MARGALEF



**46M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

I.E.O. - Spanish Government

YEAR:

2012

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



V-079 RAMON MARGALEF



ARTICULATED CRANE 9 M

SWL: 5T

SIDE A-FRAME

SWL: 5T

STERN A-FRAME

SWL: 5 T

TELESCOPIC BOOM FOR CTD ROSETTE

SWL: 1 T

RADIAL DAVIT

SWL: 0.9



OCEANOGRAPHIC VESSELS



V-080 ANGELES ALVARIÑO



**46 M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

I.E.O. - Spanish Government

YEAR:

2012

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



V-080 ANGELES ALVARIÑO



ARTICULATED CRANE 9 M

SWL: 5T

SIDE A-FRAME

SWL: 5T

STERN A-FRAME

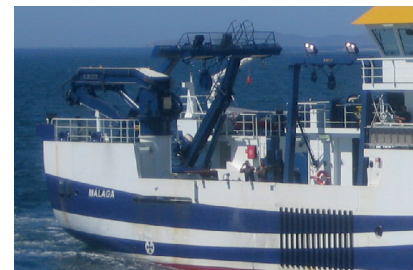
SWL: 5 T

TELESCOPIC BOOM FOR CTD ROSETTE

SWL: 1 T

RADIAL DAVIT

SWL: 0.9



OCEANOGRAPHIC VESSELS



OCEAN RESEARCHER V



72M OCEANOGRAPHIC RESEARCH VESSEL

SHIPYARD:

JONG SHYN

SHIPOWNER:

T.O.R.I. (Taiwan Ocean Research Institute)

YEAR:

2012

COUNTRY:

TAIWAN



OCEANOGRAPHIC VESSELS



OCEAN RESEARCHER V



STERN A- FRAME

SWL: 15T

SIDE A-FRAME

SWL: 15T

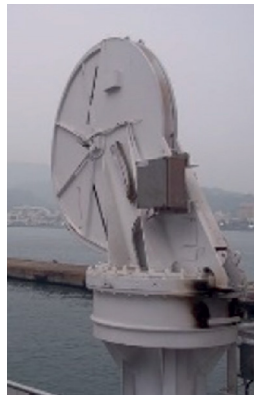
TELESCOPIC BOOM FOR CTD ROSETTE

SWL: 16T

SLEWING FAIRLEAD

SWL: 15 T

SHARED PROJECT WITH IBERCISA



OCEANOGRAPHIC VESSELS



R-69



25M OCEANOGRAPHIC VESSEL

SHIPYARD:

RODMAN

SHIPOWNER:

Balear Islands Government

YEAR:

2012

COUNTRY:

SPAIN



OCEANOGRAPHIC VESSELS



R-69



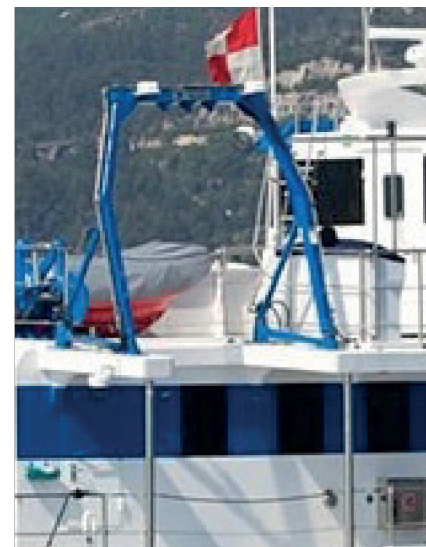
STERN A-FRAME

SWL: 2T (SS4)



LATERAL A-FRAME

SWL: 2T(SS4)



OCEANOGRAPHIC VESSELS



NB-714 DISCOVERY



**100M OCEANOGRAPHIC
RESEARCH VESSEL**

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

N.E.R.C. (Natural Environment Research
Council)

YEAR:

2013

COUNTRY:

UK



OCEANOGRAPHIC VESSELS



NB-714 DISCOVERY



OFFSHORE CRANE 20M

SWL: 10T (SS5)

SWL: 20T (SS0)



4 GANTRIE CRANES

HANDLING LOADS DECKS AND HANGARS

SWL: 3T(SS5) SWL: 10T (SS0)

OFFSHORE CRANE 12 M

SWL: 2T(SS5)



DOCKING HEAD FOR ROV

SWL: 5T (SS5)



OCEANOGRAPHIC VESSELS



R-69 PIERRE PETIT



23M OCEANOGRAPHIC VESSEL

SHIPYARD:

RODMAN

SHIPOWNER:

French Government

YEAR:

2014

COUNTRY:

FRANCE



OCEANOGRAPHIC VESSELS



R-69 PIERRE PETIT



3 RADIAL DAVITS 2.5 M

SWL: 2.25T (SS0)

FIXED CRANE 4.5 M

SWL: 2.5T(SS0)



OCEANOGRAPHIC VESSELS



R-65 GEOSURVEYOR X



21M OCEANOGRAPHIC VESSEL

SHIPYARD:

RODMAN

SHIPOWNER:

English Regional Council

YEAR:

2014

COUNTRY:

LONDON



OCEANOGRAPHIC VESSELS



R-65 GEOSUVEYOR X



STERN A-FRAME

SWL: 2.25T (SS0)



OCEANOGRAPHIC VESSELS



V-087 BIPO Inapesca



59M OCEANOGRAPHIC VESSEL

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

INAPESCA

YEAR:

2014

COUNTRY:

MEXICO



OCEANOGRAPHIC VESSELS



V-087 BIPO Inapesca



4 DECK LOAD HANDLING SYSTEMS



OCEANOGRAPHIC VESSELS



V-095 ARC Roncador



**46M HYDRO MULTIPURPOSE
VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A. &
COTECMAR

SHIPOWNER:

DIMAR - Dirección General Marítima

YEAR:

2016

COUNTRY:

COLOMBIA



OCEANOGRAPHIC VESSELS

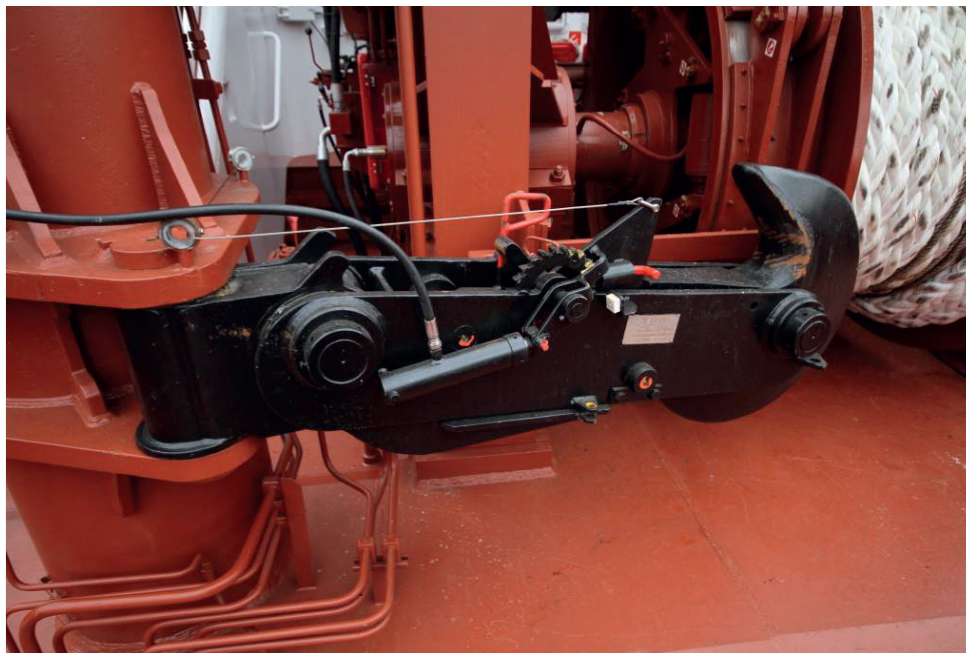


V-095 ARC Roncador



TOWING HOOK

SWL: 28T



OCEANOGRAPHIC VESSELS



NB-710 B.A.P CARRASCO



**95M POLAR RESEARCH
VESSEL**

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

Peruvian Navy

YEAR:

2017

COUNTRY:

PERU



OCEANOGRAPHIC VESSELS



NB-710 B.A.P CARRASCO



TELESCOPIC CRANE 13 M

SWL: 14 T (SS0)

FOLDABLE CRANE 12 M

SWL: 2T (SS0)

FOLDABLE CRANE 15 M

SWL: 2T (SS0)

TELESCOPIC DAVIT

SWL: 4,5T (SS6)

TILTING DAVIT

SWL: 3,6T (SS6)

TELESCOPIC BOOM 6M

SWL: 5T STATIC (SS2)

STERN A-FRAME

SWL: 6T (SS2)

SIDE A-FRAME

SWL: 8T (SS2)

HPU 115 KW

HPU 30 KW



OCEANOGRAPHIC VESSELS



NB-710 B.A.P CARRASCO



TELESCOPIC CRANE 13 M

SWL: 14 T (SS0)

FOLDABLE CRANE 12 M

SWL: 2T (SS0)

FOLDABLE CRANE 15 M

SWL: 2T (SS0)

TELESCOPIC DAVIT

SWL: 4,5T (SS6)

TILTING DAVIT

SWL: 3,6T (SS6)

TELESCOPIC BOOM 6M

SWL: 5T STATIC (SS2)

STERN A-FRAME

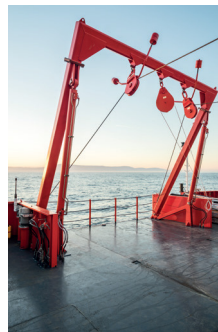
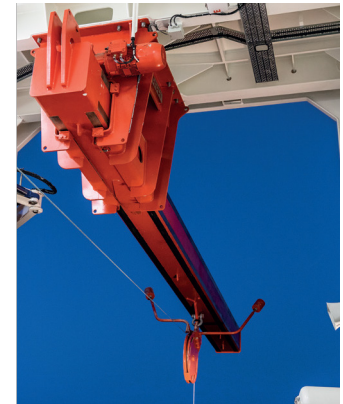
SWL: 6T (SS2)

SIDE A-FRAME

SWL: 8T (SS2)

HPU 115 KW

HPU 30 KW



OCEANOGRAPHIC VESSELS



NB-717 TAQIA



43M OCEANOGRAPHIC & RESEARCH VESSEL

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

TAQIA CYBER

YEAR:

2017

COUNTRY:

SAUDI ARABIAN



OCEANOGRAPHIC VESSELS



NB-717 TAQNIA



FRAMES

STERN A-FRAME

SWL: 2T

LATERAL FRAME

SWL: 3T



OCEANOGRAPHIC VESSELS



V-098 VICTOR ANGELESCU



**53M OCEANOGRAPHIC &
RESEARCH VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

INIDEP

YEAR:

2017

COUNTRY:

ARGENTINA



OCEANOGRAPHIC VESSELS



V-098 VICTOR ANGELESCU



4 DECK LOAD HANDLING SYSTEMS



OCEANOGRAPHIC VESSELS



FRV7417 BAIA FARTA



**74M FISHERY RESEARCH
VESSEL**

**SHIPYARD:
DAMEN SHIPYARD**

**SHIPOWNER:
Ministry of Fisheries of Angola**

**YEAR:
2018**

**COUNTRY:
ANGOLA**



OCEANOGRAPHIC VESSELS



FRV7417 BAIÁ FARTA



WINCHES

2 SPLIT TRAWL WINCH

2 ELECTRIC GILSON WINCH

1 ELECTRIC NET DRUM WINCH

1 ELECTRIC SPLIT NET DRUM WINCH

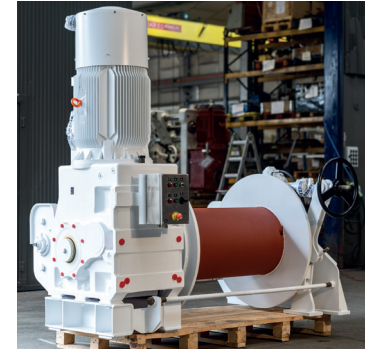
1 ELECTRIC NET SOUNDING WINCH

1 ELECTRIC CTD WINCH

1 ELECTRIC HYDROGRAPHIC WINCH

1 ELECTRIC GENERAL PURPOSE WINCH

1 ELECTRIC NET DRUM WINCH



OCEANOGRAPHIC VESSELS



FRV7417 BAIA FARTA



WINCHES

2 SPLIT TRAWL WINCH

2 ELECTRIC GILSON WINCH

1 ELECTRIC NET DRUM WINCH

1 ELECTRIC SPLIT NET DRUM WINCH

1 ELECTRIC NET SOUNDING WINCH

1 ELECTRIC CTD WINCH

1 ELECTRIC HYDROGRAPHIC WINCH

1 ELECTRIC GENERAL PURPOSE WINCH

1 ELECTRIC NET DRUM WINCH





OCEANOGRAPHIC VESSELS



7417 BAIA FARTA



CRANES & FRAMES

STERN A-FRAME

SWL: 18 T (SS5)



SIDE KNUCLE A-FRAME

SWL: 5T+5T (SS5)

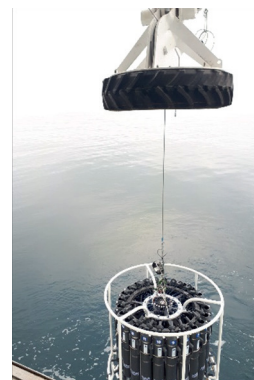


FIXED CRANE 8M

SWL: 1,5

TELESCOPIC BOOM FOR CTD

SWL: 4,5T (SS6)



OCEANOGRAPHIC VESSELS



C-329 BH02M



**72M HYDRO-OCEANOGRAPHIC
AND MULTI-MISSIONS VESSEL**

SHIPYARD:

PIRIOU

SHIPOWNER:

Moroccan Royal Navy

YEAR:

2019

COUNTRY:

Morocco



OCEANOGRAPHIC VESSELS



C-329 BH02M



CRANES & FRAMES

ARTICULATED CRANE 18M

ARTICULATED CRANE 5,5M

TELESCOPIC DAVIT

2 TILTING DAVIT

RADIAL DAVIT



OCEANOGRAPHIC VESSELS



C-329 BH02M



WINCHES

1 MULTIPURPOSE WINCH

3 HPU 2 ANCHOR WIND-

LASS 2 VERTICAL CAPS-

TAIN 1 BATHYSOUNDER

WINCH

2 CHAIN STOPPER

1 MAGNOMETER WINCH

1 SCAN SONAR WINCH



OCEANOGRAPHIC VESSELS



C-325 L'ASTROLABE



**72M POLAR OCEANOGRAPHIC
AND MULTI-MISSIONS VESSEL**

SHIPYARD:

PIRIOU

SHIPOWNER:

The French Southern and Antarctic Lands (TAAF) administration, the French Polar Institute (IPEV) and the French Navy

YEAR:

2018

COUNTRY:

France



OCEANOGRAPHIC VESSELS



C-325 L'ASTROLABE



FRAMES & DAVITS

**STERN A-FRAME SWL = 2.5 T
(SS4)**

**TILTING DAVIT SWL = 3.5T
(SS6)**



OCEANOGRAPHIC VESSELS



NC-719 ALMOSTAKSHIF



**56M OCEANOGRAPHIC
VESSEL**

**SHIPYARD:
FREIRE SHIPYARD**

**SHIOWNER:
KISR (Kuwait Institute for Scientific
Research)**

**YEAR:
2019**

**COUNTRY:
KUWAIT**



OCEANOGRAPHIC VESSELS



NC-719 ALMOSTAKSHIF



FRAMES & DAVIT

STERN A-FRAME

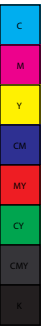
SWL: 3T

LATERAL FRAME

SWL: 5T

TELESCOPIC BOOM FOR CTD

SWL: 2T



OCEANOGRAPHIC VESSELS



V-108 SVEA



**70M OCEANOGRAPHIC
VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO, S.A.

SHIPOWNER:

Swedish University of Agricultural
Sciences SLU

YEAR:

2019

COUNTRY:

SWEDEN



OCEANOGRAPHIC VESSELS



V-108 SVEA



6 DECK LOAD HANDLING SYSTEMS



OCEANOGRAPHIC VESSELS



OPV 58



58M VESSEL

SHIPYARD:

ISRAEL SHIPYARDS

SHIOWNER:

CONFIDENTIAL

YEAR:

2020

COUNTRY:

ISRAEL



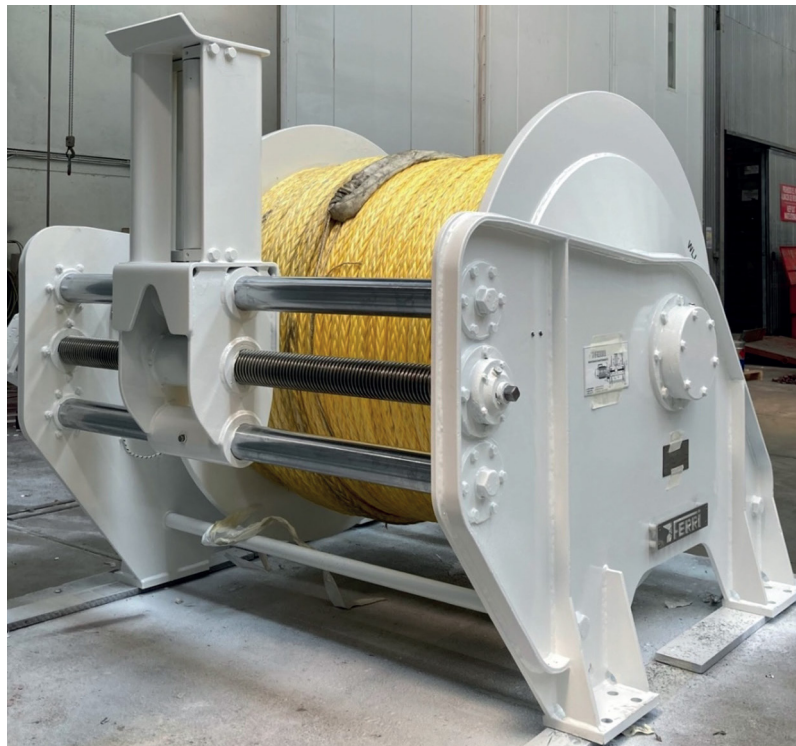
OCEANOGRAPHIC VESSELS



OPV 58



TRACTION WINCH FOR SONAR
PULL: 10T



OCEANOGRAPHIC VESSELS



BOIP TOM CREAM



**59 M OCEANOGRAPHIC AND
MARINE RESEARCH VESSEL**

SHIPYARD:

ASTILLEROS ARMON VIGO

SHIPOWNER:

Marine Institute

YEAR:

Estimated in 2022

COUNTRY:

EIRE



OCEANOGRAPHIC VESSELS



BOIP TOM CREAM



CRANES & FRAMES

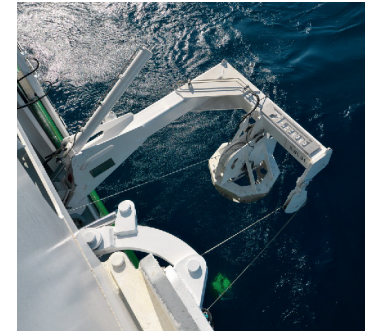
ARTICULATED CRANE 15M



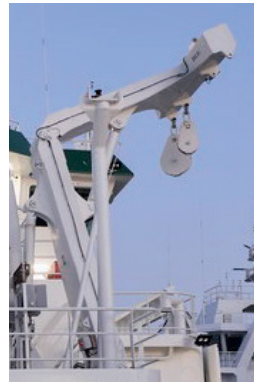
FIXED CRANE 8 M



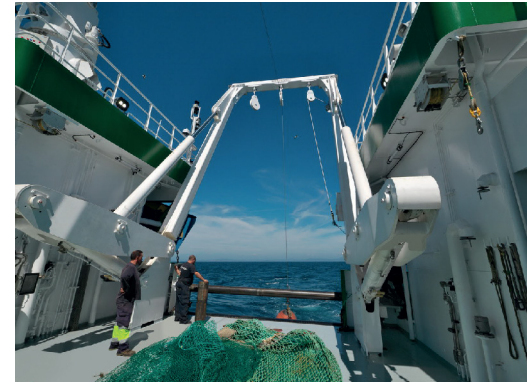
STERN A-FRAME SWL = 10T (SS5)



T-FRAME FERRI SWL = 8T (SS5)



CTD HANGAR L-FRAME SWL = 3T (SS5)



HYDRAULIC POWER UNIT 65 KW



OCEANOGRAPHIC VESSELS



BICM ARC SIMON BOLIVAR



**83 M OCEANOGRAPHIC AND
MARINE RESEARCH VESSEL**

SHIPYARD:

DAMEN

SHIPOWNER:

Colombian Navy

YEAR:

Estimated in 2022

COUNTRY:

COLOMBIA



OCEANOGRAPHIC VESSELS



BICM ARC SIMON BOLIVAR

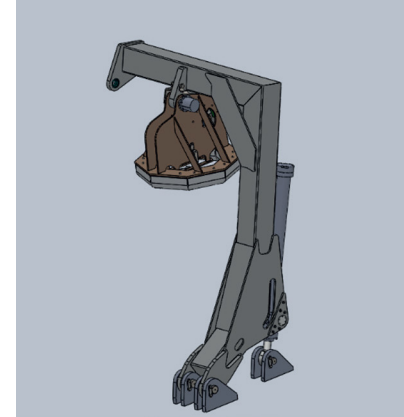


FRAMES

STERN A-FRAME SWL = 10T (SS3)



WATER SAMPLER / CTD DAVIT SYSTEM L-FRAME SWL = 5T (SS5)



SIDE TELESCOPIC BOOM SWL = 2T (SS5)



HYDRAULIC POWER UNIT 22 KW



OCEANOGRAPHIC VESSELS

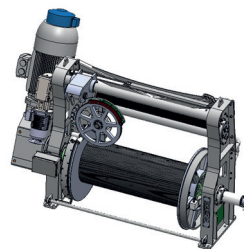


BICM ARC SIMON BOLIVAR

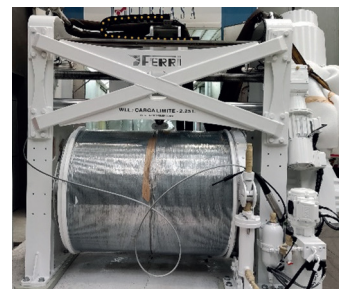
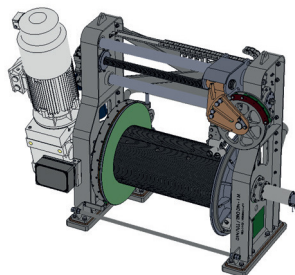


WINCHES

1 ELECTRIC CTD WINCH



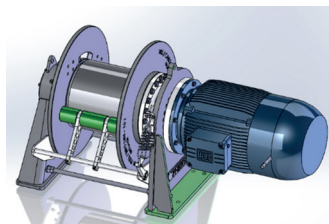
3 RIGGING SHEAVES



1 ELECTRIC WORKING HANDLING

1 ELECTRIC CTD/ ROSETTE WINCH

1 WINCHES CONTROL SYSTEMS & DRIVES



OCEANOGRAPHIC VESSELS



FALKOR T00



110.6 M POLAR OCEANOGRAPHIC AND MARINE RESEARCH VESSEL

SHIPYARD:

FREIRE SHIPYARD

SHIPOWNER:

SCHMIDT OCEAN INSTITUTE

YEAR:

Estimated in 2022

COUNTRY:

CAYMAN ISLANDS



OCEANOGRAPHIC VESSELS



FALKOR T00

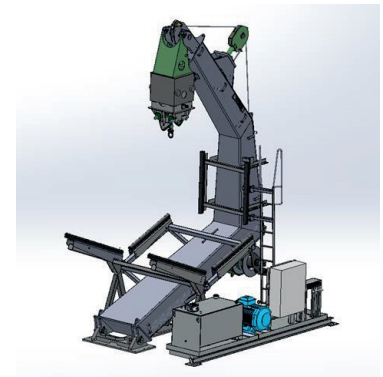


FRAME & DAVIT

STERN A-FRAME SWL = 30T (SS4)



WORKBOAT DAVIT SWL = 8T (SS6)



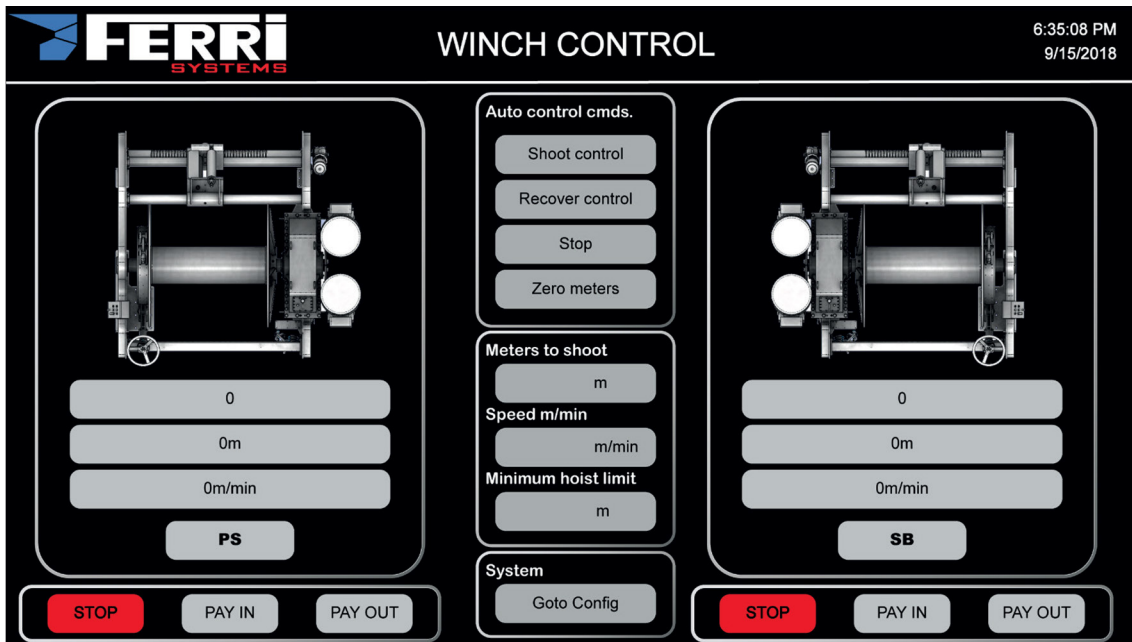


OCEANOGRAPHIC VESSELS TRACK RECORD



WINCH DRIVES AND CONTROL

CONTROL SYSTEM



HMI panels for remote operation with: starter, alarms, emergency stop, joysticks, touch screen data display (counter meters, rpm, lineal speed & tension).

WINCH DRIVES AND CONTROL



CONTROL SYSTEM



FEATURES

Winch parameters real time monitoring:

- Winch speed: RPM y m/min of wire.
- Wire Length.
- Wire Tension
- Electrical power / Torque
- Manoeuvre time
- Alarms management.
- Data record (CF memory).
- Automatic control: Shooting, trawl and heaving.
- Flexibility: adapting to new control variables.
- Ethernet server: remote Access.

Auto-trawl system is a robust automation system based on PLCs and HMI technology (Human Machine Interface). Using a touch screen, the skipper can control the maneuver of a visual, intuitive and simple way.

The system will control the maneuver acting on the electric system, so we can make an automatic control:

- Shooting: controlling the winch speed (length or depth setpoint)
- Trawl: Automatic trawling. Control modes: constant length, constant tension, geometry and turn function.
- Heave compensation: controlling the winch speed and wire tension.

The system consists of the following elements:

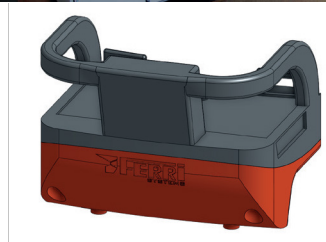
- Electrical cabinet with control hardware.
- Monitoring and control software.
- Ethernet Switch.
- Installation and operation manuals.



WINCH DRIVES AND CONTROL



CONTROL SYSTEM



Auto-trawl system will be connected to all frequency inverters (fishing & oceanographic winches) and it will allow visualization and automatic control of the manoeuvres involved in the cable winches. Avoid breakage of cable, muddy and couplings detected in real time. The display and control system parameters and variables that affect the cable operations allow an optimization of the work of trawl and fishing manoeuvres.

WINCH DRIVES AND CONTROL



CONTROL SYSTEM

ELECTRICAL CABINET

The Drives and control cabinet includes:

Dedicated drives for each winch
AFE (regenerative) or brake resistor
Single drives or multidrives

PLC (Programmable Logic Controller) Input/output modules:

- Digital (inputs & outputs)
- Analogic (inputs & outputs)

Communication modules:

- Ethernet, Modbus or serial.

VPN connection module for remote diagnostic and maintenance





Industrias FERRI S.A. is based in an industrial environment with access to one of Spain's most important sea ports, Vigo.



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