

OKEANOS EXPLORER

Deck Equipment

Dynamic Positioning (DP-1)

Equipped with a Kongsberg DP-1 system for holding station. System capitalizes on a new 500 hp retractable azimuthing bow thruster and 2 - 250 hp tunnel stern thrusters. One main system control on bridge and two remote controls—one above the ROV hangar and an emergency mobile C-Joy system on the bridge.



Traction Winch System

Dynacon traction winch system installed below deck equipped with 7500 m of 17mm Rochester 2351 electromechanical cable fitted with the Focal Technologies Corporation Model 176 Electrical Slip Ring combined with the Focal Technologies Corporation Model 242 Fiber Optic Rotary Joint, or equal. The electrical slip ring has four power passes each capable of 5,000 VAC and 10 Amps. The optic rotary joint has 3 single-mode passes. Serves as primary umbilical for ROV and camera sled systems. Main control at traction winch with remote control above ROV hangar and in ROV control room.



Hydrographic Winch System

Markey Desh-5 Electric Hydrographic Winch installed to support hydrographic operations. Equipped with 8,000 m of 9.5 mm electromechanical cable and level winding system, the Hydro winch will service the A-Frame and J-Frame for complementary over the side operations.



A-Frame

Dynacon A-Frame has a SWL overboard of 20,000 pounds and a safe luffing load of 8,000 pounds in sea state 4. Power by a central hydraulic power unit below the main deck, the A-Frame will handle Sled launch and recovery and other towed systems using hydrographic winch and traction winch.



ROV Crane

HydraPro Knuckle-boom type crane with a minimum reach of 20 ft beyond the ship to the side and aft over the stern. The crane has a lift capacity at full reach for lifts at sea (2.5m significant wave height, 35 knot wind) of 6,500 pounds @ 40ft SWL. Lift capacity at 10 foot radius for lifts at sea (2.5m significant wave height, 35 knot wind) is 15,000 pounds SWL. The end of the boom can reach to within 5' of the water level at full reach. This crane has a dedicated winch with tension readout, boom angle indicator, 150 ft of 3/4" spectra line and a sway limiter.



General Purpose Crane

The ship has a HydraPro HP46 general purpose crane with variable outreach from a minimum of 10 feet to a maximum of 46 feet. Variable static load capacity of 24,000 lbs at 10 foot outreach to 6,600 lbs at 46 feet. Crane supports handling sampling gear and small boats over the side at sea, transferring ship's stores and equipment from pier side and mission equipment at sea and supporting the J-frame and A-frame working deck areas.



J-Frame

The J-Frame on the starboard side supports over-the-side operations such as CTDs and Tow-yos. The J-frame is rated for a 3,500 pound SWL using a 0.375 inch electromechanical cable from the hydrographic winch. The J-frame also has a towing capability of 3,000 pounds at angles of up to 45 degrees from vertical.



Fast Rescue Boats

The port-side small boat (EX-2) is designated as the rescue boat for a man-overboard situation. The starboard-side boat is the same make and model as the port-side boat (EX-1), but is more commonly utilized for other work-related duties, such as crew transfers and scientific purposes.

Specifications:

Model: Willard 670 Solas
SOLAS compliant: yes
Length: 22ft
Breadth: 9ft
Draft: (fully loaded) 14in
Capacity: 3 crew + 5 passenger and 1 stretcher
Fuel: 40gal
Power: 12Vdc

Propulsion: Jet Drive (highly maneuverable, proppless design allows for safer MOB/victim recovery, safely operates in shallow water)
Steering: hydraulic
Hp: 250hp
Speed: +40kts
Other features: self-righting feature and self-bailing hull



Small Boat Davits

Both of the small boat davits are of the same design. The davits are hydraulic Vestdavit (PLR-3600) single point launch/retrieval. The davits are also capable of manual launch and recovery, including self launch from within the small boat.

