

Polar Class (PC3) Heavy Transport Vessels

AUDAX / PUGNAX



RED BOX ENERGY SERVICES is a leading provider of module transportation services for a wide range of energy infrastructure projects. The Polar Class (PC3) Heavy Transport Sister Ships, **AUDAX** and **PUGNAX** are the only vessels in the world today that can not only navigate unescorted, year-round above the Arctic Circle; they have been designed and constructed to safely transport module cargoes weighing as much as 20,000 tonnes anywhere in the world today and have transited the Suez and Panama Canals as well as the Northern Sea Route.

The Vessels have an ice-free deck area capable of receiving both side and stern loadout and discharge of modules as long as 174 meters with a beam of 45 meters. The AUDAX and PUGNAX have played a key role in the YAMAL LNG Project and safely executed 32 voyages via the Northern Sea Route navigating over 30.000 nautical miles through ice

covered seas above the Arctic Circle. The versatility of the vessel design was demonstrated during the BLADE Project for ExxonMobil when the size and strength of the deck facilitated the transportation of a diverse combination of both extremely large, as well as very small, modules from a fabrication yard in Thailand via the Panama Canal to Beaumont, Texas. Just prior to the start of a multi-voyage contract to transport ultra-heavy Modules from China to Murmansk, Russia for the Arctic LNG2 Project, the AUDAX safely completed the transport of an 11,000 tonne Jack-up Unit from Grenaa, Denmark to Qingdao, China using the Northern Sea Route. The AUDAX and PUGNAX have firmly established their credentials as safe and reliable vessels able to serve the needs of our clients in the most challenging marine environments, capable of transporting some of the most valuable cargoes for the world's largest energy infrastructure projects.

General

Name	AUDAX	PUGNAX
IMO	9763837	9763849
Class Society	DNV	
Class Notation	+1A1, General Cargo Carrier, BIS BWM(T) CLEAN DK(+) E0 NAUT(AW) PC(3) TMON	
Ice Class	PC3, ARC7	
Year Delivered	2016	
Flag	Liberia	
Port of Registration	Monrovia	

Principal particulars

Length o.a.	206.3 meters
Length p.p.	193.8 meters
Breadth moulded	43.00 meters
Breadth o.a. (main deck)	43.00 meters
Depth	13.5 meters
Design draught	7.5 meters
Scantling draught	8.00 meters
Ice scantling draught	8.00 meters
Max ballasting draught harbour conditions	12.00 meters
Air draught	41.8 meters
Deadweight	24,500 tonnes
Gross tonnage	34,146 tonnes
Net tonnage	10,244 tonnes
Deck cargo (at design water line)	21,800 tonnes
Cargo deck area	174 m x 43 m
Deck load	25 tonnes/m2

Speed and Endurance

Service speed open water	13 knots
Maximum speed open water	17 knots
Speed with icebreaking level of 1,5 meters at design draught	2 knots
Endurance	13,000 nm

Power Supply

Main Engines	Two Wärtsilä 16V32 8,880 kW/ 720 rpm Two Wärtsilä 12V32 6,600 kW/ 720 rpm
Main Generators	Two 7000 kVA Two 9400 kVA
Emergency/Harbor Generator	One 970 kVA (440V)

Propulsion

Two 12,000 kW synchronous electrical propulsion motors each driving a four-blade stainless steel propeller. The propellers have a diameter of 5,4 meters and have been strengthened to meet the applicable Ice Class requirements.

Thrusters

One transversal bow tunnel thruster (1000 kW) with a propeller diameter of 2000 mm. Controllable pitch type.

Ballast System

Ballast Water Capacity	65,000 m ³
Ballast Pump/Type	Six pumps, 2500 m ³ /h each
Ballast Water Treatment	Two 2500 m ³ /h, Hyde GUARDIAN Gold

Equipment

Crane	One service crane (SB side) 10 ton
Mooring Winches	Two combined anchor/mooring winches, Six SSCD mooring winches. One double drum mooring winch. Mooring and anchor load monitoring

Tank Capacity

Fuel Oil	3,800 m ³
Fresh Water	440 m ³
Lubricating Oil	60 m ³
Boiler Water	40 m ³
Treated Waste Water	350 m ³

Accommodation

26 Crew + 5 Passengers
Total of 31 (single) cabins

Navigational Equipment

GPS	Two DGPS / GLONASS
Radars	One 25kW X-band One 30kW S-band One ARPA displays
Autopilot	YES
Gyro Compass	Two Gyro
ECDIS	Three independent ECDIS
Onboard Motion Monitoring	OCTOPUS-Onboard
Ice Radar	Rutter

External Communication Equipment

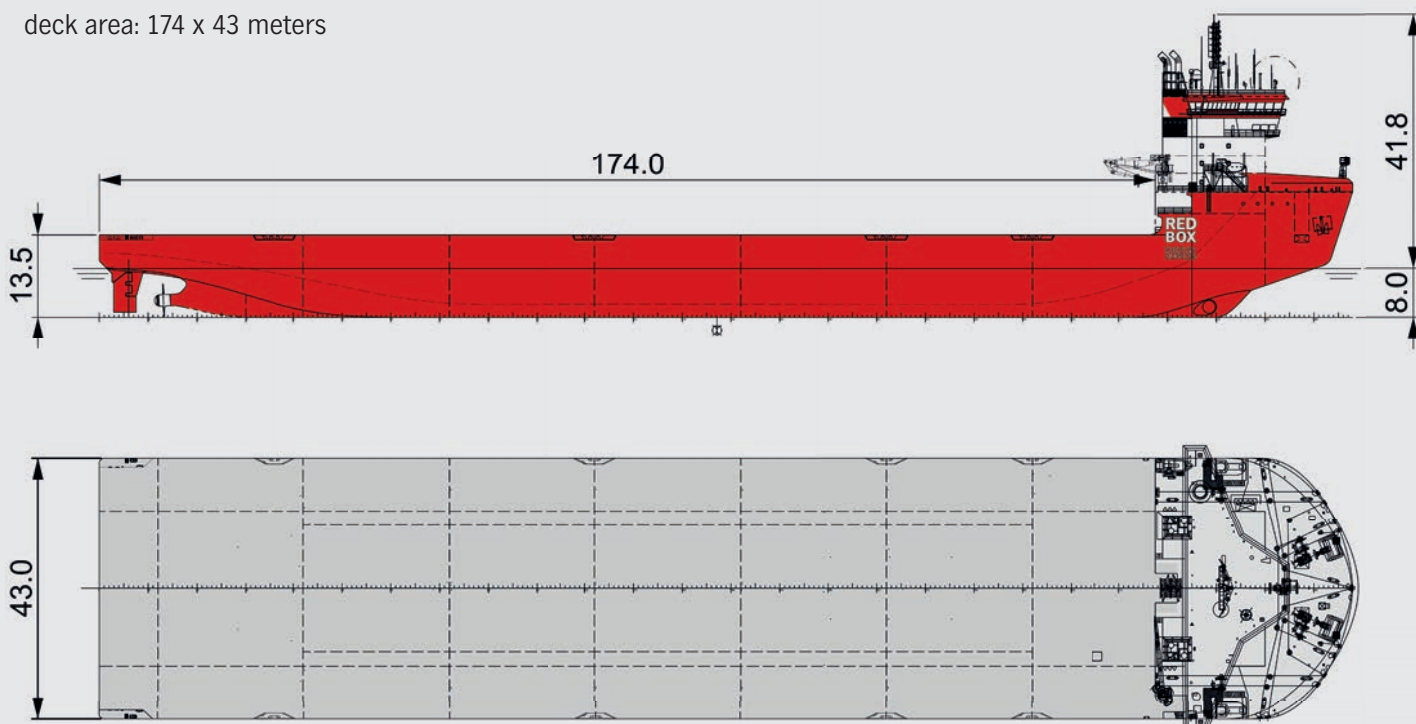
GMDSS A1/A2/A3/A4	Two VHF DSC
One Inmarsat C	One Radio Direction Finder
Iridium	FBB 500
VSAT	Aerial VHF
LRIT	SART/EPIRB
Two MF/HF DSC with radio telex	

Winterization

The vessel is fully winterized up to -50 °C
Cargo operations winterized up to -40 °C
The Vessel has been installed with a below-deck heating system

AUDAX / PUGNAX

deck area: 174 x 43 meters





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Anticipate – Communicate – Cooperate – Lead