

ARTI
ENGINEERING



ARTI ENGINEERING CONSTRUCTION CONTRACT SHIP IND. & TRADE LTD. CO.

www.arti.tc

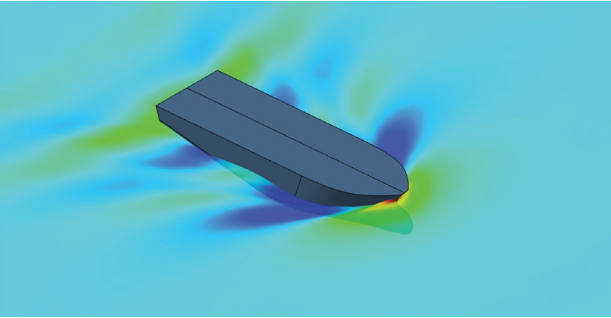
İstanbul Kalkınma Ajansı tarafından desteklenen 'RSW SİSTEMLİ YERLİ BALIKÇI GEMİSİ TASARIMI İLE AR-GE, REKABETÇİLİK VE İHRACAT KAPASİTESİNİN ARTTIRILMASI' Projesi kapsamında hazırlanan bu yayının içeriği İstanbul Kalkınma Ajansı ve Kalkınma Bakanlığı'nın görüşlerini yansıtmamakta olup, içerik ile ilgili tek sorumluluk ARTI MÜHENDİSLİK İNŞAAT TAAHHÜT GEMİ SANAYİ VE TİCARET LTD ŞTİ'ne aittir.

PURSE-SEINER / PELAGIC TRAWLER

83.50 meters Purse Seiner / Pelagic Trawler has been developed by ARTI Engineering with the financial support of Istanbul Development Agency (ISTKA).

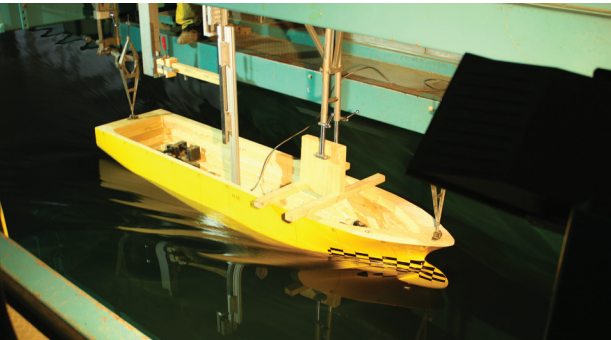
There are twelve (12) refrigerated sea water tanks which have the total capacity of 3200 cubic meters to keep fresh the valuable cargo.

The vessel has diesel oil tanks with the capacity of 500 cubic meters which provides the range of approximately twenty (20) days with the service speed. The vessel can effectively deploy the fishing equipment on the deck.

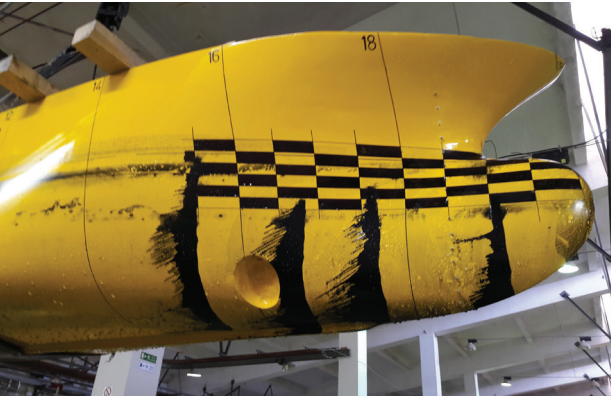


Firstly, a number of CFD analysis was conducted to develop efficient hull form according to the required weight and hydrostatic requirements.

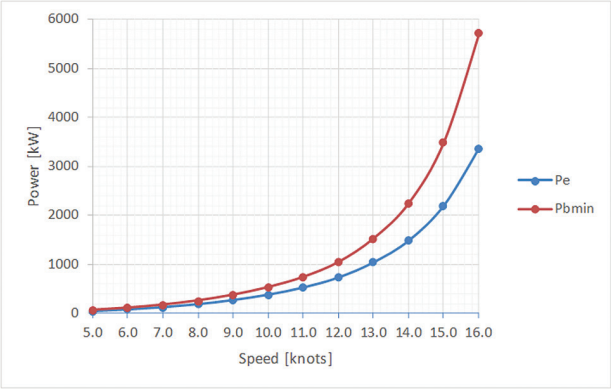
After CFD calculations, resistance tests were carried out in the Istanbul Technical University (ITU), Ata Nutku Ship Model Testing Laboratory.



The 1/28 scaled model was tested free to trim and sinkage at calm water however the model was fixed to heel, sway and yaw. Form factor analysis was carried out by Prohaska Method and revised by the ship - model correlation factor and resultant values are provided. Extrapolation to the full scale was carried out by the ITTC 1978 method. Also wake measurements was conducted with a computer controlled five-hole pitot tube for the design draught of T=6.90 m. Flow visualization tests are carried on by means of tuft and paint tests and no problematic flow pattern was observed throughout the tests.

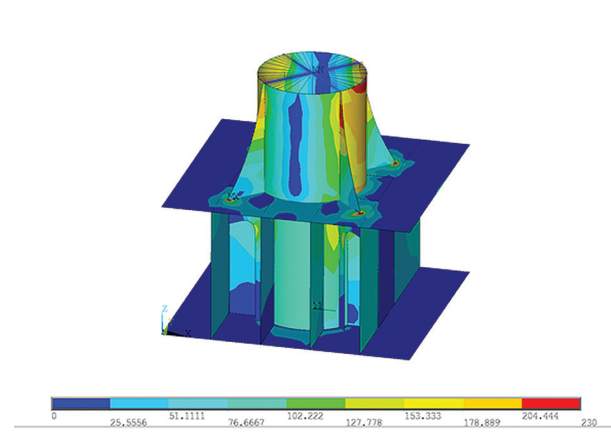


The propulsion tests were carried out in order to determine the required power at the draught of T=6.90 meters even keel and the design speed of Vs=15 knots. Minimum brake powers, Pbmin, of the form required for draught of T = 6.90 meters is Pbmin=3490 kW at 15 knots of speed, excluding engine and sea margins.



A detailed computer model also processed in order to figure out the sea keeping characteristics of the design. The design has specifically been reviewed according to harsh North Sea conditions.

Hull structure and crane foundations were optimized by Finite Element Method (FEM). In addition of this, the main classification drawings such as General Arrangement, Shell Expansion, Midship and Longitudinal Sections are approved by RINA.



PURSE-SEINER / PELAGIC TRAWLER

CLASSIFICATION

RINA, General Cargo, Fishing Vessel

DIMENSIONS

Length o.a.	83.50 m
Length p.p.	73.80 m
Beam (moulded)	17.20 m
Depth to Main Deck mld.	9.60 m
Draught, Design	6.90 m
Draught, Scantling	7.90 m
Deadweight, DWT	3700 tonnes

FISH TRANSFER

PIPE	12" Stainless Steel
Water Separator	Aluminium Construction
Intermediate Tank	2 x 3 m³
Vacuum Pumps	2 pcs

DECK CRANES

Deck Crane	1 x 4 ton at 12 m
Fish Pump Crane	1 x 3 ton at 10 m

CARGO COOLING SYSTEM

RSW System	900.000 kCal/h
Circulation Pumps	2 x 800 cubm/h - 20 mWG

MACHINERY / SPEED

Propulsion Power	4500 kW, 750 RPM
Generators	2 x 470 kW
Emergency Generator	1 x 200 kW
Shaft Alternator	2500 kW
Service Speed	15 knots

MANOEUVRING EQUIPMENT

Thruster	2 x 1000 kW
Steering Gear	1 x Hydraulic Ram Type
Steering Gear	1 x Hydraulic Ram Type
Vacuum Pumps	2 pcs

TANK CAPACITIES

RSW Tanks	3200 m³
Fuel Tanks	500 m³
Lubricating	38 m³
Fresh Water	65 m³
Ballast Water	950 m³

