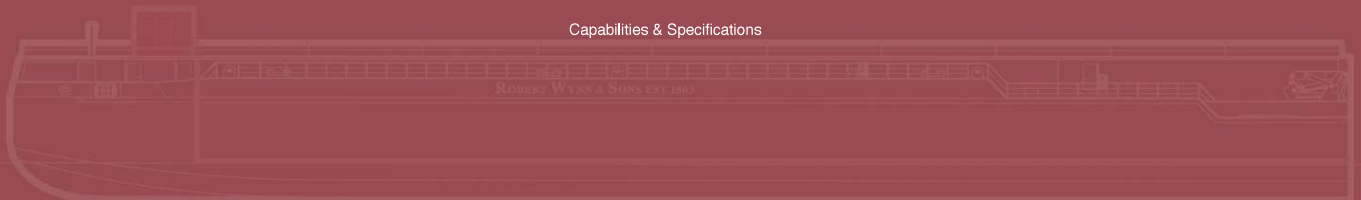




THE TERRA MARIQUE

Capabilities & Specifications



Robert Wynn & Sons Ltd. Established 1863.



235.5Tn MOBILE HARBOUR
CRANE, GUERNSEY

Unique in the European Market...

The Terra Marique is a specialist heavy lift barge designed to carry abnormal indivisible loads. Its design has combined state-of-the-art technology with traditional marine and heavy transport engineering. The sea going barge has been developed to maximise the utilisation of UK and European ports, rivers and inland waterways.

There are a number of specific attributes that contribute to making the Terra Marique unique in the European shipping market, her hydraulic roadway and ballast system allow the vessel to offload on varying quay heights and riverbanks.

The Terra Marique has a specially strengthened hull to allow the vessel to beach land with minimal need for on-site preparation, thus facilitating direct delivery to coastal and inland sites.

Terra Marique's ability to semi-submerge allows it to act as a mobile dry dock or ship lift and can transport smaller vessels, thus facilitating access to the UK and European inland waterway network without transhipping from sea passage.

Terra Marique is able to carry out tasks previously considered fraught with complications and expense.

- Capabilities:
- Conventional Ro/Ro
 - Unconventional Ro/Ro
 - Beach Landing
 - Inland Navigation
 - River Bank Discharge
 - Float-In/Float-Out
 - Lift-On/Lift-Off

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UNIQUE DESIGN ALLOWS
ROLL ON AND OFF AT A
RANGE OF QUAY HEIGHTS.

485t_e REACTOR OFFLOADED AT
DIELETTE EN ROUTE TO FLAMANVILLE
NUCLEAR POWER STATION

Conventional Ro/Ro

**THE TERRA MARIQUE'S
BALLAST SYSTEM AND
HYDRAULIC ROADWAY
ALLOWS CONVENTIONAL
ROLL ON / ROLL OFF
AT A WIDE RANGE OF
QUAY HEIGHTS.**

Her roadway can be lifted
6.5m by its 24 hydraulic
jacks and remain in position
using the vessels ballast
system which moves 40
tonnes of water per minute.

This ballast system also
allows us to work on the
largest tidal ranges
ensuring cargoes can be
loaded/offloaded safely.

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Unconventional Ro/Ro

THE TERRA MARIQUE UTILISES HER EXTENSION RAMPS, REMOVING THE NEED FOR EXTENSIVE CIVIL WORKS AT THE PLACE OF LOADING/OFFLOADING.

The extension ramps can be deployed where the immediate quay strength is of insufficient capacity.

By using the ramps the weight is transferred away from an unsuitable quay edge.

**ROLL ON AND OFF,
EVEN AT QUAYS WITH
UNSUITABLE STRENGTH.**

75T_e GENERATOR & 282T_e ENGINE OFFLOADED
ST. SAMPSON HARBOUR, GUERNSEY



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**STRONG ENOUGH
HULL TO GROUND
ON A BEACH.**

2 OF 11 MODULES, HEAVIEST
OF WHICH WAS 565Tm
SELLAFIELD, CUMBRIA

Beach Landing

**SPECIFICALLY
DESIGNED WITH A
FLAT BOTTOM AND
STRENGTHENED HULL
TO ENABLE DELIBERATE
AND SAFE GROUNDING
ON A BEACH.**

Using her 4 x 360° water thrusters the vessel can be placed under her own power to a predetermined position for loading/offloading.

To maintain position the Terra Marique employs her two "spud" poles.

Following the removal of stern doors and the employment of ramps we are able to carry out a conventional ro/ro operation.

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Terra Marique Capabilities



1 OF 2 COMPRESSORS,
BELLISWICK BAY, PEMBROKE



OFFLOADING 300Tn TOWHEAD
ONTO TEMPORARY CAUSEWAY,
BELLISWICK BAY, SCOTLAND

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**FORWARD FACING
CONTROL CABIN
ALLOWS FOR EASY
WATERWAY
NAVIGATION.**

NAVIGATING THE MANCHESTER
SHIP CANAL, EN ROUTE TO
CARRINGTON, MANCHESTER

Inland Navigation

**THE TERRA MARIQUE IS DESIGNED
TO MAXIMISE THE UTILISATION OF
MUCH OF THE UK AND EUROPEAN
COMMERCIAL WATERWAY NETWORK.**

A combination of her shallow draft, low build height and ballast capacity allows her to navigate inland waterways to locations not previously served by vessels of her capacity.

Her ability to navigate and offload at inland locations reduces and sometimes obviates the need for carriage by road.



270Tc QUAD BOOSTER, RIVER IRELL, PRESTON



ON THE RIVER TRENT ON ROUTE
TO COTTAM POWER STATION BERTH

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**CARGO UNLOADED ON
MINIMALLY PREPARED
WATERSIDE INFRASTRUCTURE.**

OFFLOADING 385Tc GAS
TURBINE, CARRINGTON
MANCHESTER

River Bank Discharge

**THE TERRA MARIQUE'S UNIQUE DESIGN
ALLOWS CARGO TO BE UNLOADED
WITH THE MINIMAL REQUIREMENT FOR
ON-SITE CIVIL WORKS.**

Using her onboard
extension ramps the Terra
Marique can carry out a
conventional ro/ro operation

on river/canal banks,
facilitating direct delivery to
many inland locations such
as power and substations.



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270Tc QUAD BOOSTER OFFLOADED
PIBURY PARK, PRESTON



Float-in/Float-out

THE TERRA MARIQUE'S ABILITY TO SEMI-SUBMERGE ALLOWS THE VESSEL TO ACT AS A MOBILE DRY DOCK OR SHIP LIFT AND TO TRANSPORT SMALLER VESSELS.

Thus facilitating access to the UK and European inland waterway network without transhipping from sea passage. We have used this facility to salvage stricken craft and to transport non sea-going vessels.

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**CARGO CAN BE LIFTED
ON AND OFF THE TERRA
MARIQUE BY SHORESIDE
OR FLOATING CRANE.**

75Tg GENERATOR LOADED AT
SCHIEDAM, NETHERLANDS

Lift-On/Lift-Off

**THE TERRA
MARIQUE'S
ROADWAY IS
SPECIFICALLY
STRENGTHENED TO
ACCOMMODATE THE
HEAVY LOADINGS.**

Using the Terra Mariques own stands
load spreading equipment, cargo can be
positioned in such a way that a trailer can
be employed prior to discharge allowing
cargo to be loaded by crane but discharged
by ro/ro or the reverse.

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1 OF 2 202TE TRANSFORMERS, ROTTERDAM



318TE GENERATOR, ROTTERDAM

Market Sectors

ROBERT WYNN & SONS HAVE THE EXPERIENCE, EXPERTISE AND SPECIALIST EQUIPMENT TO BENEFIT OUR CLIENTS ACROSS THE FOLLOWING SECTORS:



2 x 268Tc CALENDRES
OFFLOADED DIELETTE, FRANCE

Power GenerationOil and GasHeavy EngineeringRenewable Energy

Within the power generation sector our experience has included the movement of transformers, turbines, generators and rotors. Besides delivery to conventional ports we have delivered these by water directly to coastal sites, inland waterside locations and by beach landing. Our extensive experience has led to contracts for the exclusive delivery of the major components of a number of new build power stations across Europe.

The oil and gas sectors require the safe movement of large components to sites which are often remote. Robert Wynn & Sons have successfully completed a number of projects carrying loads in excess of 500 tonnes for many clients within this sector. From the movement of multiple loads from a South Wales refinery, to single piece loads in the north of Scotland, we have been able to deliver safely and reliably by harnessing our extensive knowledge and offering a solution.

The movement of large component parts for the heavy engineering sector provide many challenges, particularly where the use of cranes is impossible or excessively expensive. Our wealth of experience has allowed us to deliver tailored solutions safely and efficiently to our clients, resulting in repeat business and a solid reputation.

The renewable energy sector requires the movement of large component parts often to isolated locations. Our team design and deliver the solutions which ensure such projects are delivered on time and on budget. Our vessels can accommodate wind turbine loads and successfully deliver them to some of the most remote locations in the UK and Europe. Our track record includes some of the largest turbine components used offshore to date.



Robert Wynn & Sons Ltd.
ESTABLISHED 1863

VESSEL DIMENSIONS:
Length o/a : 80,0m
Beam m/b : 16,5m
Depth to coaming : 5,5m
Depth to main deck : 6m
Deadweight : 2211Te
Design draft : 1,6m to 4,2m
dependant on cargo

HOLD DIMENSIONS:
Length : 67m
Width : 9m
Roadway clear width : 8,4m
Cargo deadweight : 1350Te
Elevating roadway : 3 sections,
SWL 600Te each
Gantry lifting frame capacity : 400Te

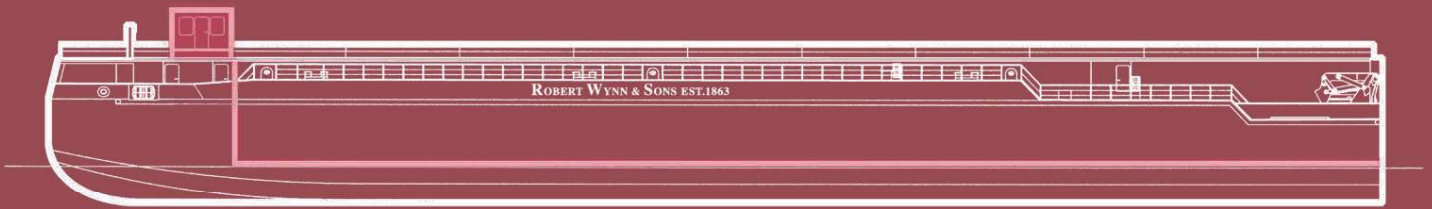
DECK LAY-OUT
Deck cranes :
2 x Knuckle boom type
Capacity : 10Te @ 14m
Spud poles : 2 x 7,5m
Cargo winches : 2 x 15 Te
Extra ramps :
+ 5 x 1m x 16,8m
+ 5 x 1m x 14m

TANK CAPACITIES
Fuel oil : 34m3
Lub. oil : 4m3
S.W. ballast : 2800m3

PERFORMANCE
Speed forward : 4,75kn
Speed transverse : 1,5kn
Bollard pull : 5,0Te

PROPULSION SYSTEM
Main drive : 2 x 670 kW,
Caterpillar 3508 B
Output : 2 x 630 ekW @ 1500 rpm
Propulsion : 4 x Pumpjets,
200kW each

AUXILIARY EQUIPMENT
Harbour set :
1 x Caterpillar 3304 NA
Output :
1 x 50 ekW @ 1500 rpm
Ballast pumps :
4 x 680 m3/hr



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