bound4blue

Wingsail propulsion system

b4b's rigid and foldable **wingsail** has been conceived as a **complementary propulsion system** for vessels. It provides large thurst from wind power, which reduces the engine power required and thereby, **reduces fuel consumption and pollutan emissions**, offering a complete solution to maritime industry challenges.

Maritime industry challenges

New Restrictive Regulations

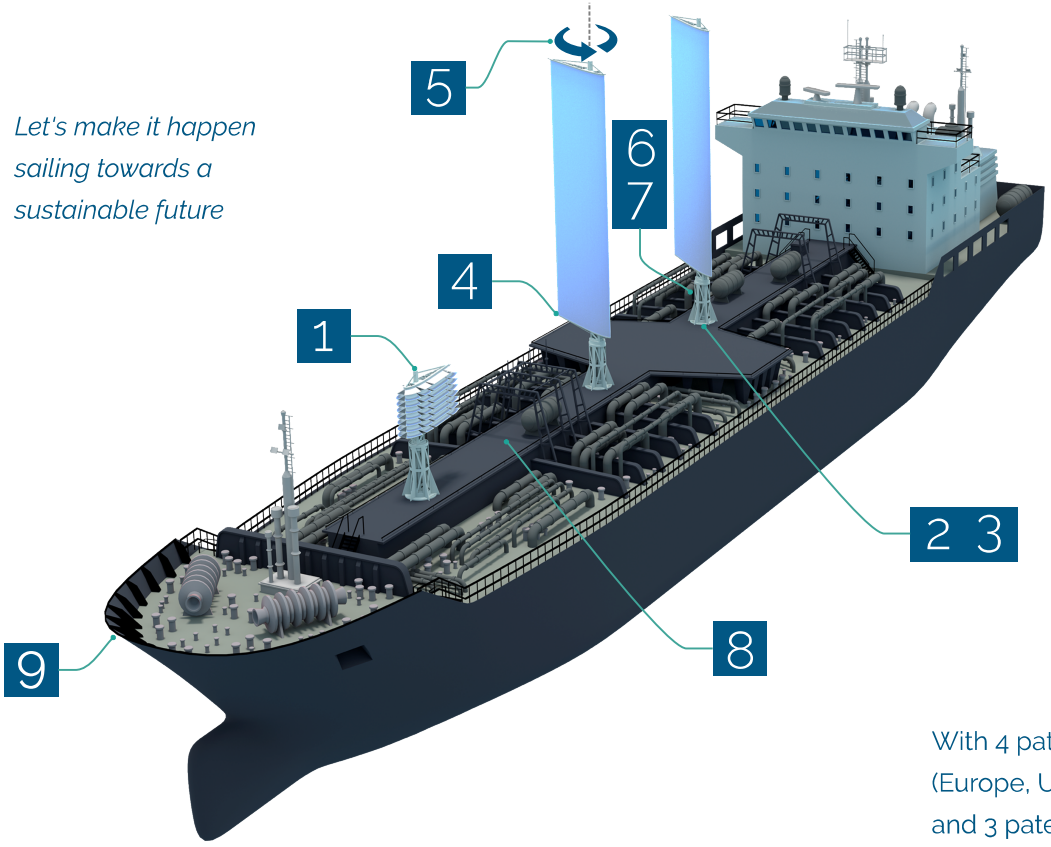
Fuel Cost Increasing

Main features of our wingsail

1. Foldable Capability: both mast and skin fold down.
2. 100% Autonomous: self-operation and self-diagnostics, so no additional crew or training is required to operate it.
3. Payback period under 5 years, it brings **fuel savings** up to 40% and associated **emissions reduction.**
4. Can be raised: above ship's deck to avoid obstacles.
5. Rotation: on the vertical axis in order to orientate the wingsail to maximize thrust on any wind condition.
6. Lightweight marine materials and equipment: designed to minimize heeling.
7. Minimum maintenance: making it coincide with the dry docking "schedule" of the vessel
8. Same cargo volume: integration does not reduce cargo volume, therefore there is no negative impact on capacity.
9. New and existing vessels: the system can be easily installed in both new and existing ships.

LLOYD'S REGISTER • LRQA ISO 9001

Let's make it happen
sailing towards a
sustainable future

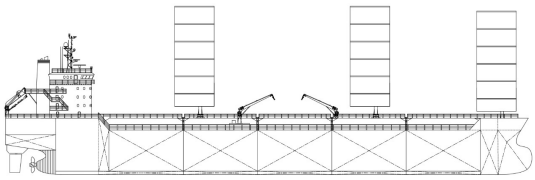


PATENTED

With 4 patents granted (Europe, USA, China & Japan) and 3 patents pending

bound4blue study cases applied to a

Chemical tanker



ROUTE AND VESSEL TECHNICAL SPECIFICATIONS

Deadweight: 19,350 dwt

Route: Seattle <-> Yokohama

WINGSAIL SYSTEM TECHNICAL SPECIFICATIONS

# of wingsails: 3

Wingsail measures: 12x30 m

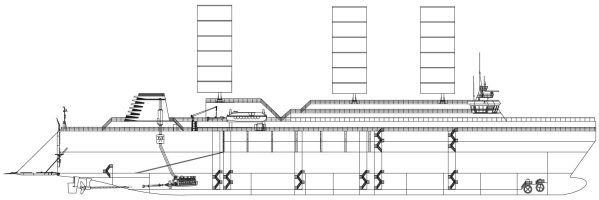
SAIL-ASSISTED VESSEL PERFORMANCE

Fuel reduction *: 20,69 %

Days at sea: 208 days

Yearly fuel reduction: 597 Tn

Ferry



ROUTE AND VESSEL TECHNICAL SPECIFICATIONS

Deadweight: 6.100 dwt

Route: Seattle <-> Yokohama

WINGSAIL SYSTEM TECHNICAL SPECIFICATIONS

# of wingsails: 3

Wingsail measures: 12x30 m

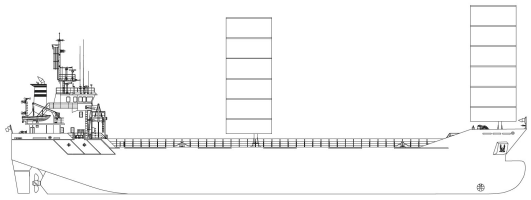
SAIL-ASSISTED VESSEL PERFORMANCE

Fuel reduction *: 14,87 %

Days at sea: 270 days

Yearly fuel reduction: 1.014 Tn

Bulk Carrier



ROUTE AND VESSEL TECHNICAL SPECIFICATIONS

Deadweight: 4,500 dwt

Route: Seattle <-> Yokohama

WINGSAIL SYSTEM TECHNICAL SPECIFICATIONS

# of wingsails: 2

Wingsail measures: 12x30 m

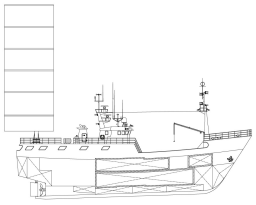
SAIL-ASSISTED VESSEL PERFORMANCE

Fuel reduction *: 23,51 %

Days at sea: 200 days

Yearly fuel reduction: 324 Tn

Fishing vessel



*10 Years Averaged values

ROUTE AND VESSEL TECHNICAL SPECIFICATIONS

Deadweight: 262 dwt

Route: Peru area <-> Fishing

WINGSAIL SYSTEM TECHNICAL SPECIFICATIONS

# of wingsails: 1

Wingsail measures: 8x20 m

SAIL-ASSISTED VESSEL PERFORMANCE

Fuel reduction *: 20,40 %

Days at sea: 330 days

Yearly fuel reduction: 97 Tn

Simple steps towards a blue future

1

Contact and Preliminary Study

Economical case study for your selected ship and route, with an estimation of savings and the expected payback period.

2

Detailed Study

Detailed optimization analysis to adjust the wingsail's design according to the vessel's specifications providing the construction and integration costs.

3

Manufacturing

The wingsail system will be manufactured by our specialized partners.

4

Integration & Certification

The integration will be carried out afloat in a shipyard. Inspection and approval of the installation will be done prior to proceed to sea trials and final system commissioning.

Join us at

4-7 sept 2018 Hamburg

SMM Hall: A5 Booth: 100

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Members of

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