

SYSTEM OPTIONS



PEOPLE AND CARGO TRANSFER

MAST AND LIFT

A mast with integrated cargo and personnel elevator facilitates easy step-less transfers. An emergency escape route is also contained within the mast.

PEOPLE TRANSFER

An innovative Intermediate Platform can transfer people at higher telescoping speeds and increases the overall capability of smaller vessels. Modular pedestals and staircases can be delivered when a higher transfer frequency of personnel is required.

CARGO

A hoisting system with a hook can be installed under the gangway to accommodate the crane-like transfer of cargo.

ATEX REQUIREMENTS

The system can be delivered for use in ATEX-rated environments.

UTILITIES TRANSFER

Utility lines can be provided to transfer fluids (water, hydraulics and fuel), and air and electricity.

PERSONNEL AND LOGISTICS PLANNING

Advanced vessel DP control systems combine wind farm data, the number of turbines, scheduled maintenance, inter-array distances and TP-landing point positions when scheduling operations. They can also enable the most efficient and rapid transits, pre-landing and departure sequences.

PERSONNEL AND LOGISTICS TRACKING

A check-in/check-out package can be provided for personnel registration.

OPERATORS

Operation of the access system can be carried out via the integrated control cabin or wireless control unit. The control station can also be integrated into the DP operator station in the wheelhouse, which reduces the overall number of operators required on board a vessel.

CLASSIFICATION

IHC's gangway solutions are based on common industry standards and recommendations – DNV-GL, ABS, BV and IMCA.

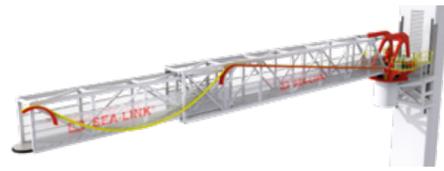
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ROYAL IHC OFFSHORE ACCESS SOLUTIONS EQUIPMENT



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SMART SOLUTIONS



Offshore installation and service operations require safe and efficient transfer of personnel, equipment and utilities from floating vessels to wind turbine foundations, substructures, substations and other platforms. Royal IHC's Sea-Link® provides safe and rapid transfer between a vessel and an offshore structure, which increases the operational window of an offshore operation.

INNOVATIVE DESIGN

IHC developed innovative access solutions in order to facilitate effective operations. By taking a holistic approach, IHC incorporated the following aspects when developing Sea-Link®:

- environmental conditions
- vessel motions
- dynamic positioning (DP) residual motions
- gangway working limits
- human factors
- in-field routing
- on-board logistics.

The result is a cutting-edge design, which is ideal for any service operation.



INTERMEDIATE PLATFORM

One of the most limiting factors on an operation relates to people. More specifically, the ability to let a vessel's crew cross the telescoping part of the gangway safely, whether it is individuals or personnel operating trolleys containing cargo.

IHC can deliver the Sea-Link® with an unique Intermediate Platform. This reduces intermediate telescoping speeds and can even function as a ferry, which eliminates speed differences and results in a safe and truly step-less solution.

The Intermediate Platform can be used on smaller-sized ships and increases their capabilities, making them a feasible alternative to larger vessels equipped with traditional access systems.

VESSEL SYSTEM INTEGRATION

IHC is able to integrate and interface control systems with:

- vessel structure (whether existing or newly built)
- vessel power management (IHC Power+)
- DP systems
- on-board logistics
- wind farm route planners.

In this way, the power consumption of the gangway and the motion envelope can be matched (and monitored) according to specific vessel conditions. In addition, DP accuracy can be reduced by utilising full Sea-Link® motion capabilities and overall power consumption matched to individual requirements. As a result, wind farm service and maintenance strategies can be optimally supported and integrated, offering a truly smart solution.

MOTION IN CONTROL



DESIGN TOOLS

IHC has developed an in-house software package that defines the most optimal access solution for your requirements. This is based on vessel characteristics and project-specific operational requirements, and provides useful output when evaluating:

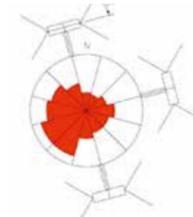
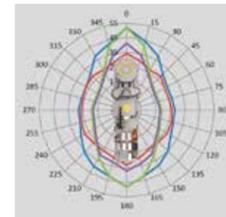
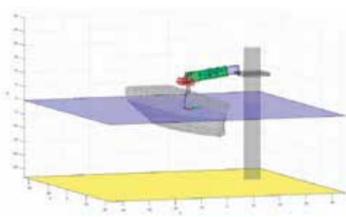
- combined vessel and access system workability
- power consumption.



SERVICES

We are able to offer a full package of services ranging from vessel design and build, through to delivery and operation, including:

- extensive FMECAs
- installation
- commissioning
- testing
- offshore operation
- the provision of (mobile) simulators to train operators.



SEA-LINK® AND TGS



The Sea-Link® provides a safe and rapid transfer between a vessel and an offshore structure. Personnel are able to cross the Sea-Link® at any time via a direct connection, which guarantees a time-efficient operation. Utilities (electrical power, grout, water and fuel) and cargo can also be transported safely over the Sea-Link®. The system incorporates active motion compensation of the tip allowing it to stabilise respond to any of the vessel's six degrees of freedom (6DoF).

FEATURES

- active motion compensation of the tip
- roll-compensated gangway (optional) for a comfortable transfer
- intermediate Platform for safe and step-less transfers.



TELESCOPIC GANGWAY SYSTEM (TGS)

The TGS facilitates constant, safe and rapid transport of personnel from the vessel to the landing platform. The tip of the gangway is equipped with a soft-landing system, which reduces the impact when landing on platforms. For increased safety, an emergency lift-off is also incorporated, allowing for the safe recovery of the gangway to a pre-defined safe position – even when no power supply is available (for example, in a black-out situation).

FEATURES

- active or passive compensation
- shock absorber at the tip.

