IHC WFSV 18-80

Brief Specifications

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IHC WFSV 18-80

This IHC WFSV 18-80 is a state-of-the-art Wind Farm Service Vessel designed by Royal IHC in The Netherlands based on their extensive experience in building highly integrated offshore vessels.

The vessel features a fully integrated Wind Farm Service package with provisions for one (1) active heave compensated crane and one (1) motion compensated gangway to allow for safe support operations. Moreover, sufficient covered deck space is available for a variety of workshops and equipment containers.

Key vessel features

- High spec Wind Farm Service Vessel
- WFSV mission package
- Active Heave Compensated 5 tons Knuckle Boom Crane
- Motion compensated gangway
- Fuel economic diesel-electric power and propulsion system
- Hull designed for excellent station keeping performances
- Accommodation capacity up to 60 POB
  (All 10m² single cabins with daylight)
- Fit for purpose vessel design
## 1 Vessel Particulars

<table>
<thead>
<tr>
<th>Length</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>over all</td>
<td>82.00 m</td>
</tr>
<tr>
<td>waterline (@design draught)</td>
<td>80.36 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breadth (moulded)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.00 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed @ ballast draught of 4.0 m</td>
<td>13.2 kn</td>
</tr>
<tr>
<td>Endurance</td>
<td>30 days</td>
</tr>
<tr>
<td>DP-capability (ERN)</td>
<td>(99,98,93,91)</td>
</tr>
<tr>
<td>Uniform load main deck</td>
<td>5 t/m²</td>
</tr>
<tr>
<td>Covered work deck, space for:</td>
<td>6 x 20ft containers</td>
</tr>
<tr>
<td>Weather deck, space for:</td>
<td>6 x 20ft containers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>to main deck</td>
<td>8.00 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Draught</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>design</td>
<td>5.00 m</td>
</tr>
<tr>
<td>scantling</td>
<td>5.50 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tank Capacities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel oil</td>
<td>860 m³</td>
</tr>
<tr>
<td>Fresh water</td>
<td>780 m³</td>
</tr>
<tr>
<td>Water ballast</td>
<td>2,500 m³</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Helicopter Landing Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For size and weight</td>
<td>EC175</td>
</tr>
<tr>
<td>Refueling facilities</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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2 Rules & Regulations

Classification society
DNV-GL

Notation
*1A1, SF, E0, Offshore Service Vessel, BIS, DYNPOS-AUTR, CLEAN DESIGN, BWMT-T, DK(+), COMF-V(3)C(3), NAUT-AW, LCS-DC, HELDK-SH, SPS

Safety equipment
- One (1) Daughter Craft; 8 persons & 1 ton cargo
- One (1) Fast Rescue Craft; 12 persons
- Six (6) Life Rafts; 25 persons each

Flag state
TBD

Statutory regulations
IMO Resolution MSC.266(84)
- Code of Safety For Special Purpose Ships (SPS), 2008 including unified interpretation according to DE55/15

MLC 2006
- Maritime Labour Convention
3  Power and propulsion

Power generation
Four (4) diesel generator sets 1,200 kW
Maximum output (mechanical)  4,800 kW
Engine speed 900 rpm

Emergency power (ship)
One (1) emergency diesel generator
Maximum output 200 kW
Engine speed 1,800 rpm

Thrusters
Two (2) azimuth thrusters (aft) 1,200 kW
Two (2) tunnel thrusters (fwd)  850 kW
One (1) retractable thruster (fwd) 650 kW

DP capability
DP mode  IMO DP-2
DP performance  ERN(99,98,93,91)
4 Cranes

Main crane
Type
Capacity
Hook travel
AHC
CT
Man-riding

Deck crane
Type
Capacity
Hook travel
AHC
CT
Man-riding

Optional Crane*
Type
Capacity
Hook travel
Motion compensated (3-axis)
AHC
CT
Man-riding

*Replacement for main crane

Knuckle Boom
5t @ 21m
50m
Yes
Yes
Yes

Knuckle Boom
2t @ 15m
50m
No
Yes
No

Knuckle Boom
5t @ 21m
50m
Yes (Hs = 2.75)
Yes
Yes
Yes
5 Life on board

**Manning**

**Vessel operations**

<table>
<thead>
<tr>
<th>Role</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captain</td>
<td>1</td>
</tr>
<tr>
<td>Helmsman / DP-operator</td>
<td>1</td>
</tr>
<tr>
<td>2nd Helmsman</td>
<td>1</td>
</tr>
<tr>
<td>Chief Engineer</td>
<td>1</td>
</tr>
<tr>
<td>Engineer</td>
<td>2</td>
</tr>
<tr>
<td>Crane / Gangway operator</td>
<td>2</td>
</tr>
<tr>
<td>Deck hands</td>
<td>3</td>
</tr>
</tbody>
</table>

**Hotel**

<table>
<thead>
<tr>
<th>Role</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooke</td>
<td>1</td>
</tr>
<tr>
<td>Cooksmate</td>
<td>2</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>2</td>
</tr>
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</table>

**Non-crew**

<table>
<thead>
<tr>
<th>Role</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitors</td>
<td>4</td>
</tr>
<tr>
<td>Technicians</td>
<td>40</td>
</tr>
</tbody>
</table>

**Total** 60

**Work areas**

- Spacious bridge
- Dedicated contractors area on bridge
- Four (4) Offices
- One (1) Conference room
- Two (2) Meeting rooms
- Three (3) Workshops
- Galley

**Transit areas**

- Male change room
- Female change room
- Reception
- Briefing area

**Off duty areas**

- Sixty (60) Cabins
  - Comfort class, all single berth and all daylight
- Sky lounge
- Cinema
- Gym
- Relax area, incl. sauna
- Mess room; thirty six (36) persons
6 Internal workflow

Note: Mission equipment package as shown in artist impression does not represent vessel as proposed.
7 Motion Compensated Gangway

Max. Outreach
23 meters

Compensation
- Heave compensation
- Roll compensation
- Pitch compensation

Max. load
0.5 tons @ \( H_s = 2.5 \)
1.0 tons @ \( H_s = 1.0 \)

Workability plots IHC WFSV 18-80 with BM-MCG3.0

Note: Mission equipment package as shown in artist impression does not represent vessel as proposed.

The operational envelope shows the workability of the IHC WFSV 18-80 combined with the BM-MCG3.0 for peak wave periods \( T_p = 6, 7, 8, \) and 9 seconds for all headings of the ship w.r.t. the incoming waves based on North Sea conditions. The radial axis shows significant wave height in meters.
8 Profile view
9 Arrangement