The Wärtsilä HYTug 40 concept is designed for shallow draft operation at coastal water terminals and within harbour areas, which features two Wärtsilä 14 high-speed engines and a hybrid propulsion solution.

HYTug 40 main duties:
- To assist in the berthing and un-berthing operations of vessels at ports/terminals;
- To perform towing and ship handling operation in ports/terminals;
- Option for external fire fighting.

It offers:
- A range of flexible operation modes, including zero emission mode.
- Low operating and maintenance costs.
- Compliance with global environmental regulations.
- An option for compliance to IMO Tier III with a Wärtsilä NOx reduction (NOR) system installed.

**Design highlights**

**SPECIFICATION IN BRIEF**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length over all</td>
<td>28.00 m</td>
</tr>
<tr>
<td>Draught, design including skeg</td>
<td>3.00 m</td>
</tr>
<tr>
<td>Bollard pull</td>
<td>40 tonnes</td>
</tr>
<tr>
<td>Gross tonnage</td>
<td>&lt;400</td>
</tr>
<tr>
<td>Service speed</td>
<td>12.0 knots</td>
</tr>
<tr>
<td>Operation area</td>
<td>A1</td>
</tr>
</tbody>
</table>

**DATASHEET**

HYTUG 40
40 MT hybrid DE harbour tug
TECHNICAL SPECIFICATION

MAIN DIMENSIONS
Length over all (excl. fenders).................. 28.00 m
Length PP .............................................. 25.53 m
Breadth on frame (excl. fenders)............. 10.80 m
Depth to deck ........................................ 4.50 m
Design draught (incl. skeg)...................... 3.00 m
Gross tonnage ........................................ <400 t

PERFORMANCE
Max B.P. ............................................. 40 tonnes
(100% MCR + 100% battery)
Service speed ..................................... 12.0 knots
Max B.P. continuous (genset only) ......... abt 28MT
Max time in peak B.P. ......................... abt 22 min.
Max time eco transit 8 kn on battery .. abt 70 min.
Max time eco transit 10 kn on battery .. abt 28 min.

CLASSIFICATION
BV 1 + HULL + MACH TUG, UMS Electric Hybrid,
Fire-fighting Ship 1
MLC 2006 Compliance.
Or other IACS classification.

ACCOMMODATION
The vessel has accommodation for a total of 8 persons. 2 x 1-man cabins with attached toilets and 3 x 2-man cabins with common toilets.

CAPACITIES approx. (100%)
Fuel oil ....................................................... 55 m³
Fresh water ............................................... 25 m³
Lube oil storage ........................................ 8 m³
Seawage holding tank .............................. 7 m³
Dirty oil tank .......................................... 7 m³
Bilge holding tank ................................. 6 m³

DECK EQUIPMENT
Fwd windlass/towing .............................. 5t @ 20m/min; break holding 120t
Aft towing hook ........................................ 40t SWL

PROPULSION/MACHINERY
Wärtsilä HY DE Propulsion
Main generator ................................. 2 x W12V14-E3
....................................................... (2 x 850kW @1800 rpm)
Energy storage ....................................... 450 kWh
Steerable thruster ............................... 2 x WST-14 FPP
....................................................... (2 x 1150 kW Dia. 2.0m)
Propulsion e motor .............................. 2 x 1150 kW @1800 rpm
Shore connection .................................... 80 kWe
Option
Wärtsilä HY DE Propulsion

 wartsi.com/shipdesign  shipdesign@wartsila.com

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Specifications are subject to change without prior notice.

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