Situation
The Port of Lirquen, located in the bay of Conception in the 8th Region of Chile, handled a total of 231,000 TEU during 2008, which represented a 13 % growth over the previous year, thus becoming the most important port in Chile dedicated to containerized cargo. It is conveniently located near the City Conception, with easy access to highways and rail tracks heading to Chile’s hinterland.

Task
In January 2008, the Board approved an investment plan to be carried out within the next 36 months. This plan included the extension of the pier Nr 2 and procurement of new port equipment to expand the receiving/dispatch capacity to/from the port. Global carriers such as Maersk Line and Hamburg Süd have weekly calls to Puerto Lirquen, linking Europe, West Africa and the Far East with Chile.

Solution
Ship to shore cargoes are handled at Puerto Lirquen by a fleet of 5 Mobile Harbour Cranes supplied by Liebherr: Puerto Lirquen acquired two Liebherr mobile harbour cranes, type LHM 400, at the end of the year 2000, and a third one, type LHM 500, in 2006. These cranes are mainly used for loading and unloading containers. In the last quarter of 2008, two new mobile harbour cranes, type LHM 500, were added to the fleet.

Performance
While unloading containers, from a containership directly onto trailers using 4 Liebherr mobile harbour cranes, Puerto Lirquen averages 100 containers/hr across the ship.

<table>
<thead>
<tr>
<th></th>
<th>LHM 400</th>
<th>LHM 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (t)</td>
<td>410</td>
<td>450</td>
</tr>
<tr>
<td>Capacity (t)</td>
<td>104</td>
<td>104</td>
</tr>
<tr>
<td>Max. radius (m)</td>
<td>48</td>
<td>51</td>
</tr>
<tr>
<td>Opt. vessel size</td>
<td>Panamax</td>
<td>Post-Panamax</td>
</tr>
<tr>
<td>Average/Peak turnover</td>
<td>26/&gt;40 (moves per hour)</td>
<td>26/&gt;40 (moves per hour)</td>
</tr>
<tr>
<td>Scope of supply includes</td>
<td>4.8 m tower extension</td>
<td></td>
</tr>
</tbody>
</table>
Container Handling daily av: 19 hrs

Job Report

APM Terminals Apapa, Nigeria
LHM 500

Situation
APMT Apapa, Nigeria is the largest container terminal operator in West Africa. In 2006 APM Terminals Apapa was awarded the concession by the Nigerian Port Authority (NPA) to manage, operate, and develop the Apapa Container Terminal into a modern efficient operation handling up to 1.6m TEU/year.

Task
Following privatization of the port, APMT Apapa Ltd. assumed operational control of the facility and began investing in facility upgrades and equipment. APMT Apapa proposed to develop the existing terminal by providing new container handling equipment and expanding the onshore area.

Solution
The addition of two Liebherr Mobile Harbour Cranes, type LHM 500, in November 2008 further boosted efficiency and capacity of the terminal and reduced vessel and container backlogs. “Nigeria is clearly a large market that will need more port facilities in the future, especially when the Nigerian economy is going to grow substantially”, says Martin Dirks, Managing Director, of APMT Apapa.

Performance
Since assuming control of the facility three years ago capacity has tripled to 600,000 TEUs. In this connection reliability is the key. Both LHMs at APMT Apapa have a daily average of over 19 working hours and both cranes have an overall performance of more than 6500 working hours in less than a year.

<table>
<thead>
<tr>
<th>LHM 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (t)</td>
</tr>
<tr>
<td>Capacity (t)</td>
</tr>
<tr>
<td>Max. radius (m)</td>
</tr>
<tr>
<td>Opt. vessel size</td>
</tr>
<tr>
<td>Average/Peak turnover</td>
</tr>
<tr>
<td>Scope of supply includes</td>
</tr>
</tbody>
</table>