SHAS 411040WE Autonomous SyncHoist System demonstrated using a load simulation

- High precision load maneuvering using one crane
- Vastly improving worker safety, operating speed and control
- Integrated PLC-controlled hydraulics in each lifting device – no need for external powerpack and hydraulic hoses
- Wireless control for safe operation
- Quick installation, set-up and operation - one electric connection per lifting point
- Cost reduction compared to conventional load positioning methods.

Accurate Hoisting and Load Positioning Enhancing a Crane’s Capability

Autonomous SyncHoist System

Enerpac Autonomous SyncHoist System is a unique crane product for below-the-hook positioning of heavy loads that require precision placement. The SyncHoist system may reduce the number of cranes needed.

Functions
- High precision horizontal and vertical load positioning
- Pre-programmed positioning, tilting and aligning.

Applications
- Positioning of rotor, stator and propeller blades of wind turbines
- Positioning of roof sections, concrete elements, steel structures
- Positioning of turbines, transformers, fuel rods
- Precise machinery loading, mill rod changes, bearing changes
- Precise positioning of pipe lines, blow out valves
- Positioning and aligning of ship segments prior to assembly.

A single operator controls and oversees the entire hoisting job - the portable wireless control allows him to be at a safe distance.

The standard wireless SHAS-system contains four lifting devices and has to be positioned below the hook or attached to an auxiliary frame.

SyncHoist lifts and positions Brisbane Riverwalk concrete girders.
What is SyncHoist?

Enerpac SHAS-Series SyncHoist is a hydraulically actuated auxiliary attachment for high precision load positioning for cranes.

The autonomous system (SHAS) with integrated PLC-controlled hydraulics, monitors and guides the powerful double-acting push-pull cylinders which are integrated into the lifting points.

The SyncHoist system can be used for pre-programmed positioning, tilting and alignment of loads.

• Complete system in compliance with European lifting directive and safety requirements.

SyncHoist improves safety, operating speed and control of load movement

Geometric positioning of heavy loads in a horizontal and vertical plane are frequently done using more than one crane. Synchronising movements between cranes are difficult and risky. The lifting inaccuracy can result in damage to the load and support structures and puts workers at risk. The SyncHoist system can be used for controlled hydraulic horizontal and vertical material handling.

Autonomous system

• Wireless remote control
• Only one electric power connection per lifting point
• Integrated hydraulics, PLC and controls
• No need for hydraulic hoses and cables
• No need for mid-hoist disconnection of hoses and movement of pump.

Modular system

• Standard with four lifting devices.
• Quick installation, set-up and operation.

PLC-controlled system

• Pre-programmable motions
• Data recording
• Load control
• Stroke control
• Alarms for overload
• Real time indication of force and stroke per lifting point
• Controlled adjustment of forces per lifting point during entire operation.

Wireless controls

• Operate from safe distance
• Portable, no cables
• Siemens wireless 7 inch touch screen control panel
• Emergency stop, TÜV certified in PROFISAFE.

Capacity Per Lifting Point:

110 - 225 ton

Maximum Stroke:

1000 - 1500 mm

Accuracy Over Full Stroke:

± 1,0 mm

SyncHoist system mounted in an auxiliary frame for levelling and positioning steel structures during construction of an oil & gas installation.

<table>
<thead>
<tr>
<th>Capacity per Lifting Point</th>
<th>Total Load</th>
<th>Cylinder Stroke</th>
<th>Model Number</th>
<th>Control System</th>
<th>Motor Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 x 110 (4 x 1078)</td>
<td>1000</td>
<td>1500</td>
<td>SHAS 411040 WE</td>
<td>Wireless</td>
<td>4 x 4,0</td>
<td>1063 315 85 540</td>
</tr>
<tr>
<td>4 x 225 (4 x 2204)</td>
<td>900</td>
<td>1500</td>
<td>SHAS 422540 WE</td>
<td>Wireless</td>
<td>4 x 8,0</td>
<td>1063 315 85 540 1450</td>
</tr>
</tbody>
</table>

1) Standard with 4 lifting points. For more or less lifting points contact Enerpac.
2) WE = with European electrical wiring. Change into suffix “WU” for US-market. Example: SHAS 411060WU.
3) Weight per cylinder.

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