Steering gear
HATLAPA  RAM type POSEIDON ST

Structural features
- Electro-hydraulic driven
- 4 cylinders
- 2 rams
- Rudder stock diameters 550 - 1,100mm
- Working torque 2130-12012 kNm
- Hydraulic pumps of variable displacement (ST)
- Conical hydraulic shrinkfit connection to rudder stock (keyway on demand)
- Delivery in 5 transportable pieces
- Installation on steel or epoxy resin chocks
- Fastening by stopper or reamer bolts
- In emergency case easily separation and operation with 2 cylinders (manually, automatically)

On request we can deliver
- Rudder carriers
- Motor starters
- Alarm
- Automatic isolation
- Rudder control
- Rudder angle indicator systems
- etc.

Special designs
- Available on request
Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>2000</th>
<th>2500</th>
<th>3000</th>
<th>3500</th>
<th>4000</th>
<th>6000</th>
<th>7000</th>
<th>10000</th>
<th>12000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working torque* at 35° [kNm]</td>
<td>2130</td>
<td>2558</td>
<td>3111</td>
<td>3548</td>
<td>4304</td>
<td>6010</td>
<td>6988</td>
<td>8893</td>
<td>12012</td>
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<tr>
<td>Max rudder stock diameter [mm]</td>
<td>550</td>
<td>600</td>
<td>650</td>
<td>700</td>
<td>750</td>
<td>850</td>
<td>900</td>
<td>1000</td>
<td>1100</td>
</tr>
<tr>
<td>Length L [mm]</td>
<td>4700</td>
<td>5100</td>
<td>5320</td>
<td>5430</td>
<td>6060</td>
<td>6550</td>
<td>6950</td>
<td>7330</td>
<td>9456</td>
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<tr>
<td>Width B [mm]</td>
<td>2750</td>
<td>2800</td>
<td>2915</td>
<td>3355</td>
<td>3090</td>
<td>3500</td>
<td>3600</td>
<td>3600</td>
<td>3760</td>
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<tr>
<td>Height H [mm]</td>
<td>1730</td>
<td>1750</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2250</td>
<td>2000</td>
<td>1800</td>
<td>1854</td>
</tr>
<tr>
<td>El. Motor output** [kW]</td>
<td>2 x 96</td>
<td>2 x 117</td>
<td>2 x 145</td>
<td>2 x 160</td>
<td>2 x 190</td>
<td>2 x 265</td>
<td>4 x 155</td>
<td>4 x 196</td>
<td>4 x 270</td>
</tr>
<tr>
<td>Oil charge (approx) liter [l]</td>
<td>400</td>
<td>480</td>
<td>500</td>
<td>650</td>
<td>700</td>
<td>1000</td>
<td>1100</td>
<td>1250</td>
<td>1600</td>
</tr>
<tr>
<td>Weight(approx) [kg]</td>
<td>17000</td>
<td>19000</td>
<td>22000</td>
<td>30000</td>
<td>30500</td>
<td>41000</td>
<td>45000</td>
<td>50000</td>
<td>75000</td>
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</tbody>
</table>

* at working pressure
** according to IEC 92-204: duty S 6-25%.

Features

- Pump is switched on (bridge panel, starter cabinet)
- As soon as the e-motor is running, the isolation valve is switched in open position
- According to the control signal the hydraulic oil will be delivered to two cylinders (red).
- The ram is getting out and the oil of the opposite cylinder will be delivered back to the pump (blue, close-loop)
- The to and fro going movement of the ram will be transferred via the ram pin and the sliding block into a rotating movement of the tiller.

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