PETTER’S MARINE HYDRAULICS has a long tradition of delivering complete steering gears systems of various types and purposes to the fishing, shipping and aquaculture industries. PETTER’S MARINE HYDRAULICS has all its standardized steering gears as “off the shelf” products, available on short times of delivery, with an ranges from 5kNm up to 15kNm. PETTER’S MARINE HYDRAULICS steering gears are made for operations in demanding environments and tough conditions, providing EXCELLENT performance and high RELIABILITY in a COST EFFICIENT way.

PMH SG: Steering Gear
PETTER’S MARINE HYDRAULICS’ steering gears are hydraulically driven and manufactured in steel. Our steering gears are DNV GL type approved.

The steering gears can be delivered to either single or twin engine(s) ship. The steering gears for twin engines (catamaran) do not need a mechanical crossbeam, this will avoid conflicts with the foundation for deck equipment such as towing pins and shark jaw.

The steering gears are usually not delivered with an helm pump, but it can be delivered on request.

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>SG-500</th>
<th>SG-1000</th>
<th>SG-1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max design pressure</td>
<td>100 Bar</td>
<td>100 Bar</td>
<td>100 Bar</td>
</tr>
<tr>
<td>Max working pressure</td>
<td>80 Bar</td>
<td>80 Bar</td>
<td>80 Bar</td>
</tr>
<tr>
<td>Max rudder angle</td>
<td>2x35 Deg</td>
<td>2x35 Deg</td>
<td>2x35 Deg</td>
</tr>
<tr>
<td>Max design torque</td>
<td>7.14 kNm</td>
<td>13.75 kNm</td>
<td>19.49 kNm</td>
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<tr>
<td>Max MTR</td>
<td>5.71 kNm</td>
<td>11.00 kNm</td>
<td>15.59 kNm</td>
</tr>
<tr>
<td>Max working torque</td>
<td>5.71 kNm</td>
<td>11.00 kNm</td>
<td>15.59 kNm</td>
</tr>
<tr>
<td>Hard angle 35°-0-35°</td>
<td>@11s</td>
<td>@19s</td>
<td>@27s</td>
</tr>
</tbody>
</table>

**SG-500**

**FEATURES:**
- Reliable
- Easy installation
- Easy maintnance
- 2 Cylinders delivers full torque, and 1 cylinder deliveres about half of the max torque
- Compact HPU(s), 1.5kW, 13L tank and capacity of 5 L/min
- 40L reserivor tank
- Torque from 5kNm to 15kNm

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG-500</td>
<td>770 mm</td>
<td>500 mm</td>
<td>453 mm</td>
</tr>
<tr>
<td>SG-1000</td>
<td>935 mm</td>
<td>570 mm</td>
<td>453 mm</td>
</tr>
<tr>
<td>SG-1500</td>
<td>935 mm</td>
<td>570 mm</td>
<td>453 mm</td>
</tr>
</tbody>
</table>
PMH SGC: STEERING GEAR CONTROL SYSTEM
Petter’s Marine Hydraulics delivers a DNV GL type approved control system that can be used on any steering gear model. Steering gear control system is compatible with any auto-pilots. DNV GL type approved electric and electronic parts are used in the system for highest reliability. The system is approved for single and twin engine(s).

STANDARDS & CERTIFICATIONS

DNV GL type approved certificate

Norwegian Maritime Authorities rule ‘No. 1853 on construction and supervision of smaller cargo ships’ §44 section 2.b’ requires that the steering gear control system is type approved by a recognized classification societies for boats over a length 15 and up to 24 meters.

LOCAL CONTROL CABINET FEATURES:
- Power Supply: 2x24 VDC, 2x440/400/230 VAC (50/60Hz)
- Control and monitoring for steering gear
- Local control for rudder
- Dimensions: 600x600x200mm
- Protection: IP66

BRIDGE CONTROL PANEL FEATURES:
- Control and monitoring for steering gear.
- Dimensions: 280x240x120mm
- Material: Aluminium
- Autopilot input
- External joystick input

Petter’s Marine Hydraulics aims to satisfy our customers by providing reliable products at a reasonable price, together with excellent performance and customer support.

For the customer that demands a little bit more, Petter’s Marine Hydraulics offers a support contract that ensures 24/7 technical phone support and on-site support as soon as possible if a breakdown or malfunction should occur. We also offer proactive service contracts for periodic maintenance of all equipment, including software.
PMH has produced and supplied robust, high quality solutions for maritime vessels for over 50 years.

Our customers know PMH products as stable and robust. Our employees are rich in know-how, solution-oriented, receptive and have a wide range of mechanical and technical skills. Equipment from PMH is supplied to customers within the offshore, personnel transportation, fishing, freight and aquaculture industries.

Our products include maneuvering systems, hydraulics, total concepts, thrusters, capstans, winches and safety equipment.