IMO Ballast Water Management Convention requires the installation of a Ballast Water Treatment System onboard all existing vessels. The prefabrication – installation procedure, of the chosen BWTS system, is the final and the most demanding task, taking into consideration the following:

- **Quality** of the products (pipes, flanges, valves, etc.) with all relevant certificates.
- **Quality** of the welding procedure (WPQR - WPS - Welder’s Certificates).
- **Timesaving** during prefabrication – installation.
- **Testing** of new installed spools before operating the system.

**Hydraulics**

We can provide you with new or reconditioned:

- Hydraulic Motors
- Hydraulic Pumps
- Distributors
- Solenoid Valves
- Control Valves
- Seal kits
- Hydraulic Spare Parts of any kind.

We have qualified experienced technical team, ready to travel around the world for inspection, troubleshooting, installation and any kind of onboard solutions.
Hydraulic Cylinders

Hydraulic Cylinders (H.C.) require special attention. That is why we offer specialized services for all types of hydraulic cylinders.

- Construction
- Spare parts
- Maintenance
- Repair work

CONSTRUCTION AND REPAIR

- Double acting H.C.
- Single acting H.C.
- Power steering H.C.
- Rephasing H.C.
- Telescoping H.C.
- Parts and accessories for H.C.

Auto Greasing System

Hydraulic Cylinders (H.C.) require special attention. That is why we offer specialized services for all types of hydraulic cylinders.

- Construction
- Spare parts
- Maintenance
- Repair work

CONSTRUCTION AND REPAIR

- Double acting H.C.
- Single acting H.C.
- Power steering H.C.
- Rephasing H.C.
- Telescoping H.C.
- Parts and accessories for H.C.

Hoses / Cranes

HYDRAULIC HOSES FOR ALL TYPE OF CRANES.

We have a vast database of hydraulic hoses for different types of cranes. Our hoses are fully tested before delivery (Hydraulic Test).

Some of our data include:

- DONG NAM 10TX23.8M
- DONG NAM 10TON X 25M
- DONG NAM 20TX19M
- MACGREGOR HH630-2019-4
- MACGREGOR HH400 1519-4
- MACGREGOR HH630-2020,5-4
- MITSUBISHI 3ST X 26M
- ORIENTAL HPC 0413
- ORIENTAL HHC420-1025
- ORIENTAL HHC700-1527
- TAE KWANG 3.2Tx15M
- TAE KWANG 3.2TX12.8M
- TTS GPH 630-1526
- TTS GP 400-15-17
- TTS GP 400B-15-16,5
- TTS GP 630-20-20.5
- TTS GPH 900-2029
- TTS GPH 630-1526

BENEFITS OF USING AUTO-GREASING SYSTEM FOR ALL CRANE TYPES.

Enhancement of greasing effectiveness, due to simultaneous slewing motion and consistent (in terms of grease quantity injected per nipple) / precise (in terms of injection frequency) dosage rate.

- Mitigation of risk to sustain catastrophic failure of crane’s slewing bearing, due to inadequate - or even worse, lack due to crew negligence - greasing.

- Facilitation of greasing practice, by adopting a principal, where operator’s intervention, is actually limited to slewing function, only thus, no burden further with factors (unfavorable weather conditions / replacement of damaged greasing nipples) that usually have a direct and adverse impact, on the intended scope and holding crew back from performing a greasing task.

Most importantly, crew will build up confidence in greasing, due to easiness and considerably less time / labor demanding task.

- Procurement cost of auto greasing system, as a package (material + labor) is to be counterbalanced by maintaining the slewing bearing in a satisfactory condition, thus ensuring crane’s unobstructed operation, minimizing any need for frequent grease replenishment / grease consumption and most importantly repair cost, in the unfortunate case where a slewing bearing has sustained a damage.
We can provide full inspection of hydraulic cranes followed by our detailed maintenance agreement report.

- Inspection and replacement of hydraulic hoses.
- Inspection - replacement - repair of hydraulic motors - hydraulic pumps - directional control valve.
- Installation of auto greasing system.
- Replacement of seals on pulleys.
- Inspection / repairwork of electrical parts.

• **Ancor:** inspection / repair hydraulic motors – inspection / repair powerpack – inspection / repair directional control valves.
• **Winch:** inspection / repair hydraulic motor – inspection / repair powerpack – inspection / repair directional control valve.
• **Steering gear:** inspection / repair pumps.
• **Rum:** inspection / repair pumps.

**SPECIAL PRODUCTS FOR SPECIAL TANKER VESSELS.**

**ERMETOS** for **HEATING COILS**, type **Tanker Union**, from 15mm to 57mm. Additionally, special construction for any other size and material, upon request.

**SEAT & VALVE** for **PV VALVES**. We can provide new seats and valves for your PV Valves. Our engineers will provide detailed drawing, before the construction begins.

**PV TESTER**
A machine that can test your PV VALVE on-board. Using air supply, our PV TESTER can test your PV VALVE'S operation at the specific air pressure. Easy and fast operation.

**SPARE PARTS FOR YOUR GRABS.**
We can provide full set of spare parts for the most common grabs i.e. Piener SMAG MZGL 15000-6-B-S.

- Springs
- Valves
- Packing sets
- Hoses
- Nipples
- O-Rings
- Nuts
- Screws
- Sealing sets, etc.

**PV Tester**
Created for CO2 fire extinguishing systems at medium pressure, in marine environments

**TYPE APPROVAL CERTIFICATE** by LR for complete hose assembly with end fittings. Including Pressure Test, Cold Bend Test, Leakage Test, Visual and Dimensional Inspection and Burst Pressure Test at -60oC.

Hoses are marked with **IMO number** and **Date Of Production**.
Tailor Made Constructions

INOX Hoses
Stainless steel hose, welding fittings and forged flanges.
Convolute stainless steel hoses.

Convolute S.S. AISI 321 hose with one or two braids S.S. AISI 304
Composition: Inner tube: stainless steel AISI 321.
Reinforcement: stainless steel AISI 304 braid.
Working temperature: From -270°C to +550°C. From 1/4” up to 8”.

Double Skin - Metal Pipes
FUEL – OIL H.P METAL PIPES for M/E – D/G

We have vast stock of most known makers and part numbers in our premisses of double skin - metal pipes.

Stainless Steel

We can supply all type of fittings - adaptors.
Material: Steel / Stainless Steel / Brass.

- High Pressure Couplings
- High Pressure Elbows

Steel

Unions

Brass

- High Pressure Tees
- Ferrules
- Nuts
- Unions
- Connectors
- Nipples