

### **TREATMENT AND MANTAINANCE OF SURFACES**

- High pressure water washing.
- Blasting with HP water (hydroblasting).
- Painting of shafts and propellers.
- Surface finishing of metals using Glass beads blasting.
- Cleaning of tanks and supply of MARPOL certificates.
- Cleaning of bilges and supply of MARPOL certificates.
- Cleaning of tanks, filtration and separation of fuels.
- Ceramic treatment of surfaces.

### **MEASUREMENTS, CALIBRATIONS AND FAULT DETECTION**

- Anchor chain calibrations.
- Ultrasonic thickness measurements with certification of the classification society.
- Ultrasonic diagnosis.
- Dye penetrant detection of defects and cracks.
- Magnetic particles detection of defects and cracks.
- Noise measurements and analysis.
- Vibration measurements and analysis (with collaborating company).
- Cathodic protection diagnosis while afloat.
- Laser alignment.
- Oil and fuel analysis.
- Endoscopic analysis.
- Thermographic analysis (with collaborating company).
- Exhaust back pressure measurements.
- Ventilation flow rate measurements.

### **NAVAL ARCHITECTURE STUDIES AND TECHNICAL OFFICE**

- Inclining experiments.
- Damage and intact stability reports and booklets (with collaborating company).
- Docking plans.
- Load test for cranes and davits.
- Sea trials.
- Preparation of schematic and construction drawings for structure, piping, electricity, etc.
- Purchase management of equipment and systems.

### **STEEL AND ALUMINIUM WORKS**

- Structural works with the approval of classification societies.
- Hull and superstructure extensions.
- Swim platforms.
- Installation of bulbous bows, tunnels, etc.

## OUR SPECIALITIES

### STAINLESS STEEL WORKS

- Awnings.
- Staircases, railings and stanchions.
- Custom fittings design and fabrication.
- Custom mooring equipment fabrication.
- Locksmith shop.

### MECHANICAL ENGINEERING

- Clearance measurements of shaft lines and rudders.
- Shaft line repair of variable and fixed pitch propellers.
- Rudder and rudderstock repair.
- Line boring of stern tubes, shaft brackets. and rudder tubes.
- Alignment and chocking with metallic or resin chocks.
- Propeller repairs, pitch measurement and balancing.
- Manouvres of heavy equipment, hull opening and closing for major equipment removal.
- Exhaust insulations.
- Stabilizer systems Installation - at anchor and under way.
- Bow and stern thruster installation.
- Sewage treatment systems Installation.
- Bilge water separator systems Installation.
- Fuel purifiers system installation.
- Fixed fire extinguishing systems installations, water (low pressure or mist) and gas types.

### PIPING

- Design and fabrication of pipes in steel, stainless steel, aluminium and cupronickel.
- Plumbing installations in copper, polypropylene, PVC, stainless steel, etc...

### CARPENTRY

- Shipwright carpentry works.
- Masts and spars.
- Teak decks.
- Interior refits – joinery.

### ELECTRICAL WORKS

- Electrical insulation tests. Megger tests.
- Testing of electrical switchboards. Dielectric strength tests.
- Load test for generators.
- Monitoring, alarms and control systems including automation.

### ONBOARD COMFORT

- Cleaning of air conditioning systems.
- Sterilization and decontamination of ducts and trunking.
- Decontaminations, debugging and rat free certification.