



# WORLDWIDE MARINE SERVICES





## WHO ARE WE?

**BOTA TECHNIK** provides worldwide marine services for the maritime and offshore markets since 2011. The company's head office is located in Gdansk (Poland). Together with main office facilities, in Gdansk is also placed the Thruster Center of Excellence (TCE) - modern workshop with the area of 1248sqm to provide top quality overhaul of thruster and other propulsors.

**BOTA TECHNIK** provides modern solutions created and performed by a highly qualified team of over 100 specialists. The combination of vast knowledge and experience gained over the years of work in the maritime industry allows for constant and dynamic development of the company.

**BOTA TECHNIK** has a branch office located in Rotterdam (Netherlands).

Our company supports clients worldwide with a team of certified service technicians - graduates of renowned technical universities, who gain their experience not only in Poland, but mainly in foreign shipyards all around the world. We offer a comprehensive services, starting with the necessary analysis of customer needs, through creation of the best solution and its further delivery, ending with commissioning and services after assembly. We specialize in propulsion, supplementing our offer with four other areas: power hydraulics, marine engines, automation and design services. As authorized dealers of world leading manufacturers, we also sell products and spare parts. We always want to make sure that we provide a product or service perfectly tailored to the customer's needs. At work, we apply the standards of international manufacturers from the maritime industry and constantly improve our service offer.



### FIND OUT MORE:

ON WEBSITE



ON LINKEDIN



# WHAT IS OUR HISTORY?

## 1995 - 2011

Experience gained on marine market by four BOTA TECHNIK founders:

- shiprepair yards
- newbuildings yards
- shiprepair companies
- makers of propulsion systems (ZAMECH)
- shipowners

**2011**  
**DECEMBER**

First Sales & Service agreement is signed (Jastram GmbH and KEMEL)

**2011**  
**NOVEMBER**

BOTA TECHNIK is established

## 2012-2013

Company is developing quickly by signing further cooperation agreements and building business relations with polish yards and European shipowners established

**2013**  
**MAY**

First marine services are provided and sales contracts signed

**2014**  
**APRIL**

Company's offer is extended by establishing new department - Design Office

**2015**  
**MAY**

Automation department grows into an independent part of the company

**2016**  
**JANUARY**

Company's offer is extended by hydraulic competences

## 2017

Company is developing further by signing new business agreements with world's top maritime producers - Kemel, Effer & Erma First, VULKAN couplings

**2017**  
**APRIL**

New head-office facilities in Gdansk, Poland are put into use

**2018**  
**MARCH**

Marine engines offer is extended by a new business partner - Cummins

Company's offer is extended by signing new business partners - MaxPower, SuperB, Lofrans, Nanni

**2019**  
**JULY**

Company branch BOTA TECHNIK BENELUX in Rotterdam, Netherlands is established

**2020**  
**JANUARY**

New modern workshop called Thruster Center of Excellence is put into use in Gdansk

**2022**  
**JANUARY**

Company is developing into Offshore Wind and Offshore Oil&Gas industry

**2022**  
**MARCH**

First offshore certificates are received

**2022**  
**JULY**

Two sister companies from BOTA family were created:

BOTA WIND ENERGY wind turbine services

BOTA GREEN OFFSHORE - CTV operation & fleet management

ROTTERDAM

GDAŃSK



BOTA



**PROPULSION**

# TCE

## THRUSTER CENTER OF EXCELLENCE

### MANOUVRING PACKAGES SERVICES

- SIDE THRUSTERS
- AZIMUTH THRUSTERS
- RETRACTABLE THRUSTERS
- RUDDER SYSTEMS & STABILIZERS
- PUMP JETS / WATER JETS

### THRUSTERS

- PROPELLER SHAFT SEALS,
- PINION SEALS
- BLADE AND HUB SEALS
- AXIAL AND RADIAL CLEARANCE CHECKING
- EVALUATION OF TEETH CONTACT
- EVALUATION OF TEETH CONDITION
- BEARING AND SEALS CHANGING
- AXIAL AND RADIAL SHAFT CLEARANCE SET UP
- UPGRADE TO EAL ACCORDING TO MANUFACTURER RECOMMENDATION



BOTA TECHNIK has an advanced assessment and test stand for auxiliary ship propulsion. Team of our experienced technicians will carry out diagnostics of both FPP (Fixed Pitch Propeller) and CPP (Controllable Pitch Propeller) marine thrusters. We are prepared to carry out functional tests of our products as well as overhauled and serviced from various manufacturers. The purpose of such tests is confirmation correctness of operation of the device and the settings required both by customer and marine classification societies.

In the diagnostic package, we fully assess the technical condition of the system. Our center is equipped with advanced accelerometers, sensors of rotational speed, linear and angular position, pressure and temperature monitoring systems. Measurements are presented in the form of a detailed report that includes analyzes such as modal, FFT and many other. The measuring devices allow us to check the correctness of operation functions in accordance with your the requirements. We prepare the built-in control system and alarms of the thruster for its on-site calibration.

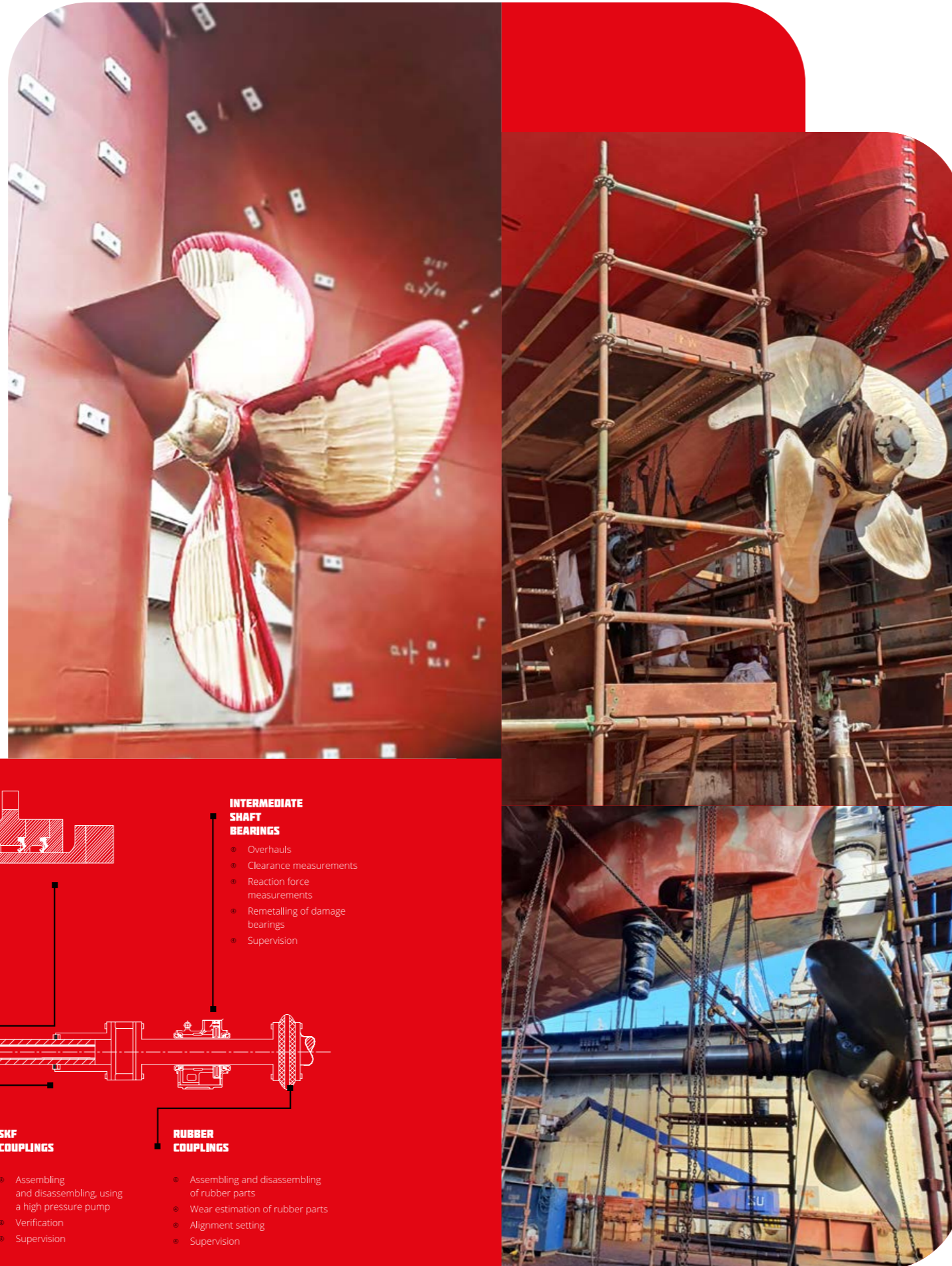
### THE SCOPE OF OUR SERVICES INCLUDES:

- PERIODIC SUPERVISION OF DRIVES
- AFTER REPAIRS AND SERVICES TESTS
- INDEPENDENT FAT ACCEPTANCE
- ACCEPTANCE TESTS FOR MARINE CLASSIFICATION SOCIETIES

# SHAFT LINES CPP, FPP

## SHAFTING OVERHAULS

- SKF TYPE COUPLINGS
- INTERMEDIATE SHAFT BEARINGS
- FLEXIBLE COUPLINGS
- TECHNICAL ADVICE AND SUPPORT
- SHAFT LINE ALIGNMENT CALCULATION:
  - COLD AND HOT ALIGNMENT CONDITION
  - ALIGNMENT IN AFLOAT CONDITION
  - ALIGNMENT ON DRY DOCK
  - SHAFTING ALIGNMENT WITHOUT INTERMEDIATE SHAFT BEARING
- SEALS REPLACEMENT BY BONDING
  - EXCLUSIVELY FOR KEMEL SEALS



## STERN TUBE SHAFT SEALS REPLACEMENTS

- EXCLUSIVELY FOR KEMEL SEALS:
  - REPLACEMENT BY BONDING (ALSO IN AFLOAT CONDITION)
  - CONVERSION FROM OIL TO AIR SEALS
- TAIL SHAFT WITHDRAWAL AND INSTALLATIONS
- STERN TUBE BEARINGS VERIFICATION
- STERN TUBE BEARING REPLACEMENTS
- SLIDE BEARING'S REMETALLINGS

## FPP/CPP:

- DISMANTLING AND INSTALLATION OF PROPELLERS:
  - PROPELLER BLADES & HUB REPAIRS BY WELDING
  - STATIC BALANCING
  - PROPELLER BLADE POLISHING

## CPP:

- COMPLETE OVERHAULS OF PROPELLER HUBS:
  - COMPLETE OVERHAUL OF OD-BOXES
  - SPARE PARTS SELECTION
  - RECONDITIONING / REMANUFACTURING OF HUB'S ELEMENTS - TECHNICAL DRAWINGS & PARTS FABRICATION

## PROPELLER REPAIRS

### SINCE 2014,

BOTA TECHNIK has been offering propeller and propeller blade refurbishment services. We rebuild copper alloy propellers by weld overlay, welding, straightening and machining.

We hold the following certificates and licenses:

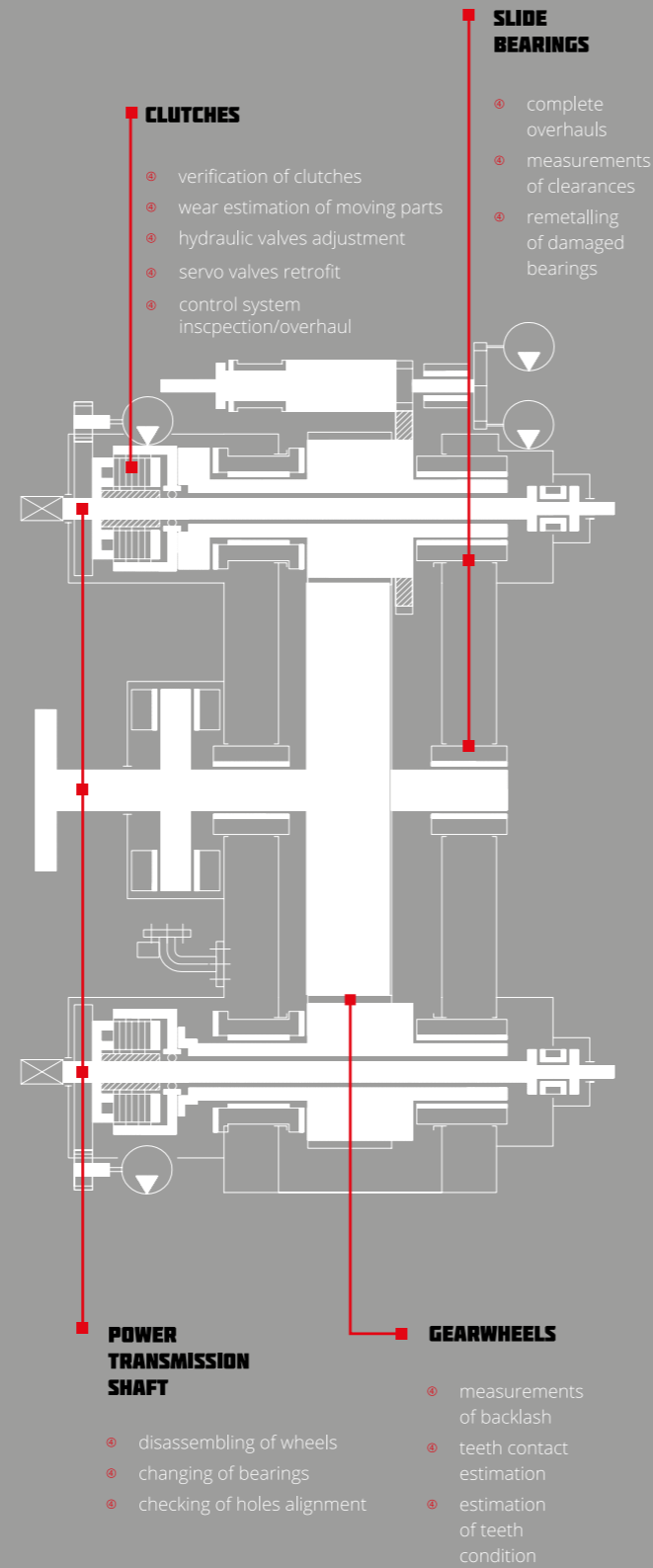
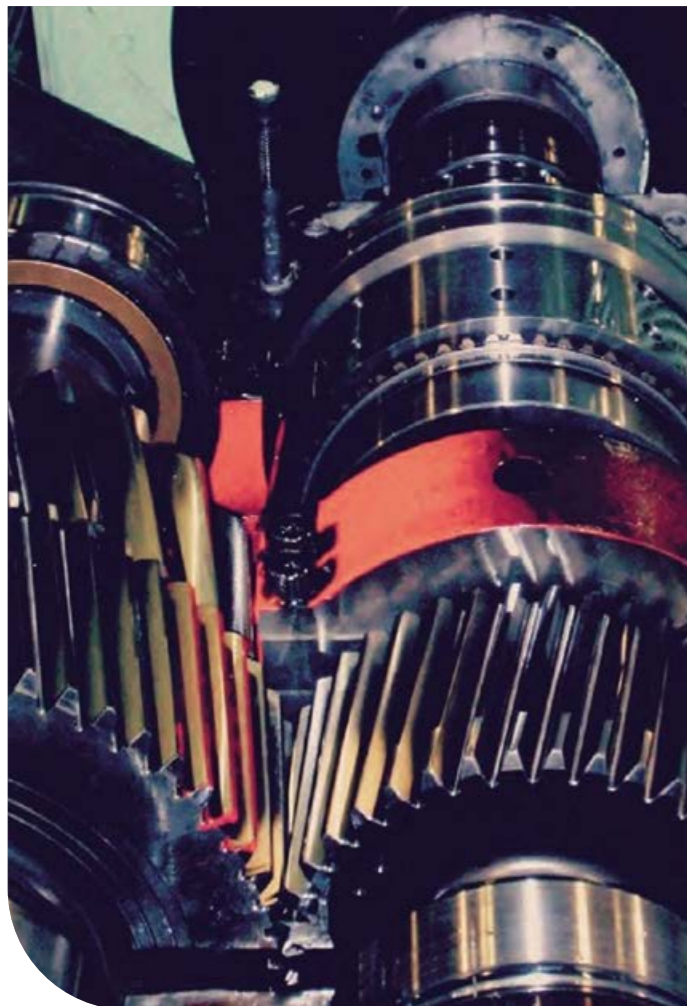
- **WELDER APPROVAL CERTIFICATES**  
FOR METHODS: 131 | 141 | 136
- **WELDING PROCEDURE QUALIFICATION**  
RECORD FOR CU3 MATERIAL
- **LICENSE TO CARRY OUT**  
NON-DESTRUCTIVE TESTING:
  - PT - PENETRANT TESTING
  - MT - MAGNETIC PARTICLE TESTING
  - UT - ULTRASONIC TESTING

We offer propeller repair technology prepared in accordance with the classification societies and adequate repair aimed at restoring the nominal shape and strength of the propeller blade. Moreover, we perform machining of the blade sealing surface.



# GEARBOXES REDUCTION

- COMPLETE OVERHAUL OF GEARBOXES
- SPARE PARTS SELECTION
- VIBRATION DIAGNOSTICS BY MEANS OF TREND ANALYSIS
- TECHNICAL ADVICE AND SUPPORT



# RUDDER SYSTEMS & STABILIZERS

- MEASUREMENT OF RUDDER/STABILIZERS BEARINGS CLEARANCES
- DISMANTLING AND INSTALLATIONS OF THE RUDDER/STABILIZERS
- SEALS REPLACEMENTS



**POWER  
HYDRAULICS**



## STEERING GEARS

BOTA TECHNIK provides 5 and 10 years overhauls along with an assistance regarding necessary spare parts specification for replacements.

### RAM TYPE STEERING GEAR ROTARY VANE TYPE STEERING GEAR ACTUATOR TYPE STEERING GEAR

Periodic inspections and class renewal surveys (repairs):

#### OIL WORK PARAMETERS SURVEY

- PRESSURE & TEMPERATURE
- CLEANLINESS

#### SEALINGS REPLACEMENTS

- VANE SEALINGS
- RUDDER STOCK SEALINGS
- HYDRAULIC CYLINDERS SEALINGS

#### VALVE BLOCK INSPECTIONS & ADJUSTMENTS

- CONTROL VALVES
- NON-RETURN VALVES

#### POWERPACKS INSPECTIONS

- PUMPS INSPECTIONS AND OVERHAULS
- RELIEF VALVES ADJUSTMENTS



## HYDRAULIC DECK CRANES

### ONBOARD SERVICES WORKSHOP SERVICES CRANE ADAPTATION AND MODIFICATION

- INSPECTIONS OF CRANE SYSTEMS
- INSPECTIONS OF MAIN BEARING
- HYDRAULIC SYSTEM INSPECTION/AFTER VERIFICATION REPAIRS
- HYDRAULIC CYLINDER REPAIRS
- PRESSURE TESTS
- OIL FLUSHINGS/REPLACEMENTS
- WINCH OVERHAUL AND REPLACEMENTS
- ROPE INSPECTIONS AND REPLACEMENTS
- LOAD TESTS
- ANNUAL INSPECTIONS
- HOSE REPLACEMENTS/DELIVERY ACCORDING TO HOSE LIST/ON SITE MEASUREMENTS
- PREFABRICATION AND REPLACEMENTS OF WIRE SHEAVES



## DECK EQUIPMENT

### HYDRAULIC PUMPS AND MOTORS

Inspections and repairs of hydraulic pumps, motors and hydrostatic transmissions, retrofits. Workshop testing of pumps and motors.

### HYDRAULIC CONTROL

Adjustments, retrofits and troubleshooting of hydraulic control systems and devices:

- SERVO VALVES
- PROPORTIONAL HYDRAULICS

Annual inspection of hydraulic control system

### WINCHES

- OVERHAULS AND INSPECTIONS OF ANCHORING, MOORING AND TOWING WINCHES
- PREFABRICATION OF COMPONENTS
- BRAKE LOAD TESTS
- MACHINING ON SITE OF BRAKE SURFACE

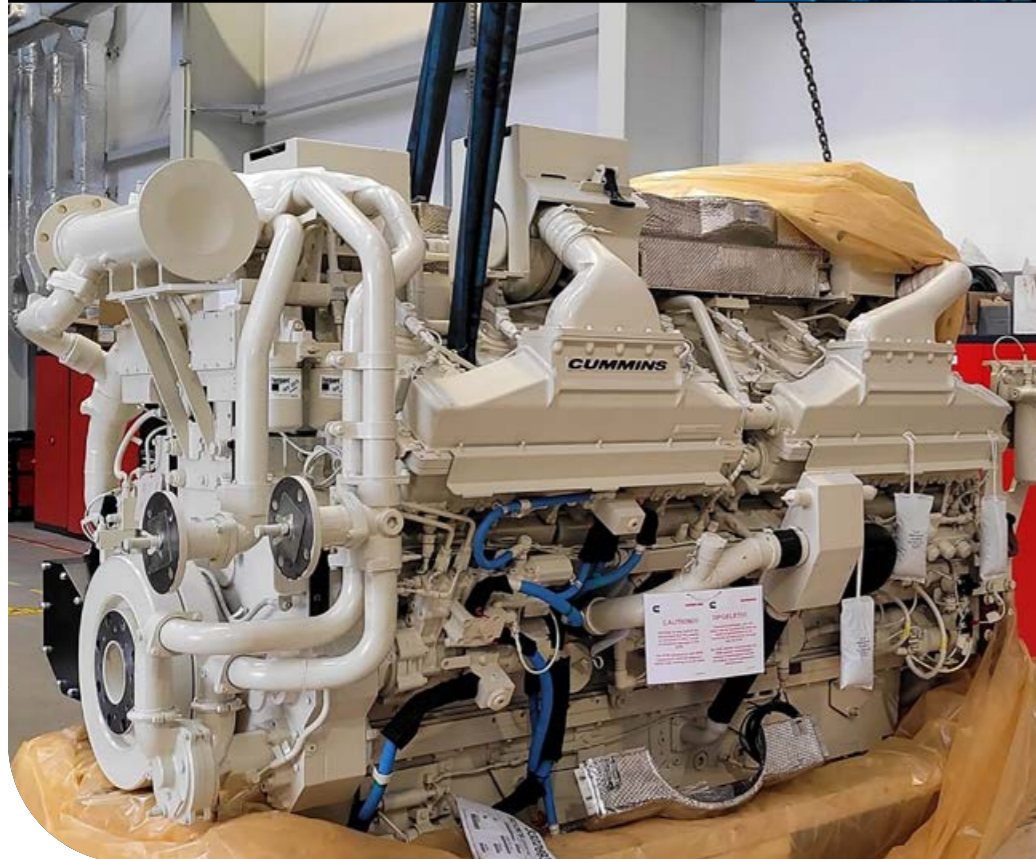


**MARINE  
ENGINES**

# COMPREHENSIVE ENGINE SERVICE



- TECHNICAL SUPPORT 24/7
- CERTIFIED FIELD SERVICE TECHNICIANS
- FULL WARRANTY OF CUMMINS AND NANMI PRODUCTS (AUTHORIZED PARTNERS)
- DESIGN SUPPORT



## HIGH SPEED ENGINE DIAGNOSTIC & TROUBLESHOOTING (ED&T) IN THE FIELD

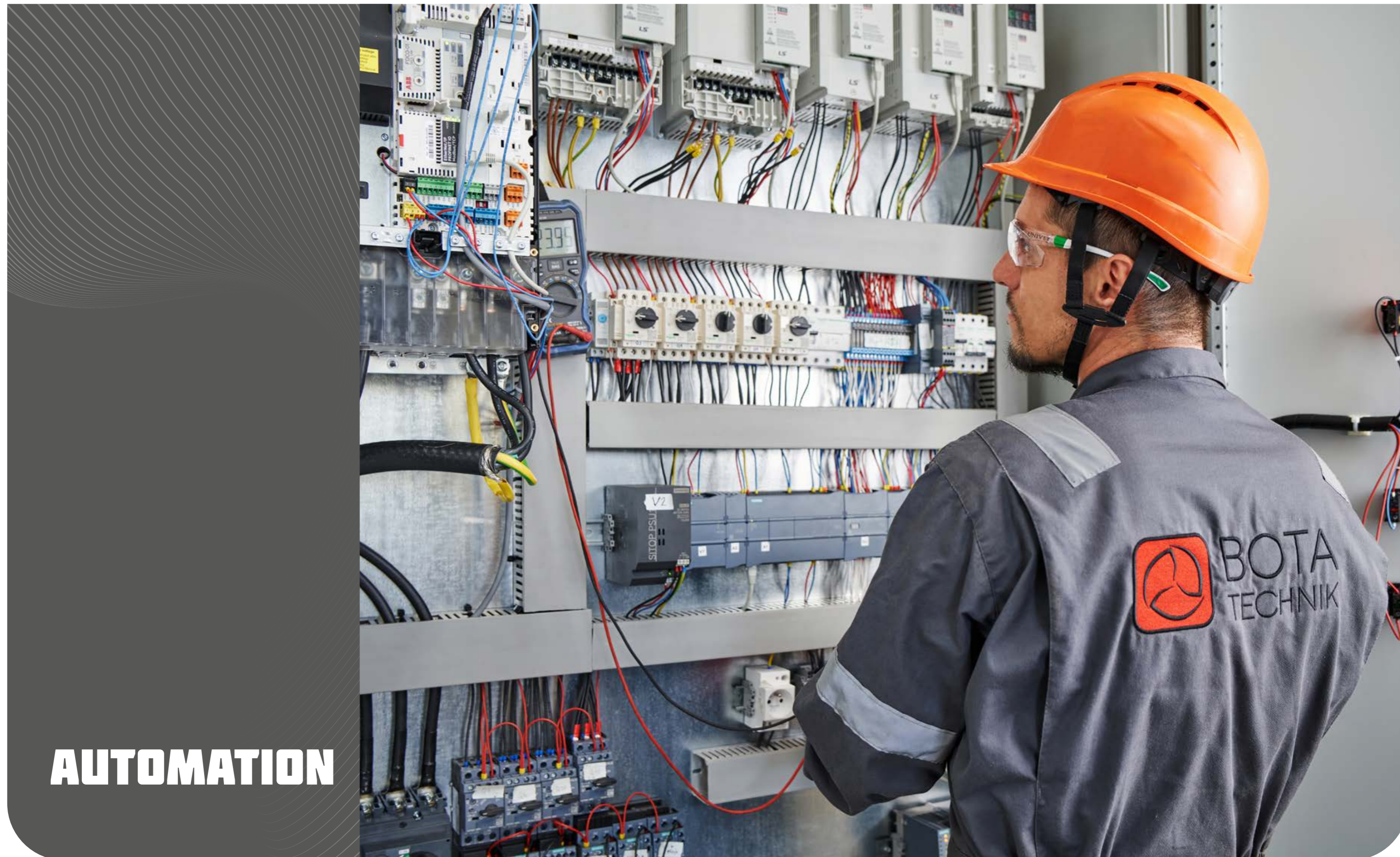
- CUMMINS ENGINE DIAGNOSTIC BY INLINE ADAPTER 6.0/7.0 (HARDWARE) AND INSITE 8.0 (SOFTWARE) TOOLS
- CUMMINS ENGINE/GENSETS DIAGNOSTIC BY INPOWER V14.0
- DIAGNOSTIC OF OTHER ENGINE MAKERS BY TEXA TESTER AXONE NEMO2HUB/SET WITH WIRES & SOFTWARE FOR MARINE APPLICATIONS
- BLOW-BY TEST OF CRANKCASE (CUMMINS)
- CYLINDER LEAK DOWN TESTS (CUMMINS)
- ENGINES ENDOSCOPY WITH HD RESOLUTION
- LASER / ALIGNMENT

## ON-SITE ENGINES REPAIR (ENGINES OF MAN, MAK, CAT, HYUNDAI, CUMMINS, NANMI & OTHERS)

- MODERN WORKSHOP WITH ADVANCED EQUIPMENT AND SPECIAL TOOLS
- REGULAR REPAIRS AFTER 6.000, 10.000, 20.000 AND 40.000 RUNNING HRS
- REPLACEMENT OF ORIGIN SPARE NEW OR RECON OFFERED BY MAKERS
- TESTING OF ENGINES ON THE WORKSHOP FOR ENGINES UP TO 11L OF DISPLACEMENT
- INSTALLATION ON BOARD WITH ALIGNMENT AND FULL COMMISSIONING
- SPARE PARTS PACKAGES DEDICATED TO REGULAR REPAIRS

## ON-BOARD ENGINE REPAIR ENGINES OF MAN, MAK, CAT, HYUNDAI, CUMMINS, NANMI & OTHERS)

- INSTALLATION OF ENGINES / GENSETS ON BOARD WITH ALIGNMENT AND FULL COMMISSIONING (COMMERCIAL & YACHTING)
- REGULAR REPAIRS AFTER 6.000, 10.000, 20.000 AND 40.000 RUNNING HRS WITH FINAL DIAGNOSTIC AND TESTING BY
- SERVICE OF CUMMINS STAMFORD ALTERNATORS
- FULL SCOPE OF SERVICE CUMMINS ONAN GENSETS



**AUTOMATION**

## AUTOMATION

### MAINTENANCE OF MARINE MACHINERY AND EQUIPMENT

We carry out inspections and repairs of electrical equipment and control systems for every type of marine machinery and equipment, especially:

- MAIN AND AUXILIARY PROPULSION SYSTEM
- ELECTRIC PROPULSION SYSTEM
- STEERING GEARS
- HYDRAULIC DECK EQUIPMENT, INCLUDING WINCHES AND CRANES
- GENERATORS
- BALLAST SYSTEMS



### RETROFITS OF PROPULSION CONTROL AND MEASUREMENT SYSTEMS ALONG WITH ON-BOARD

We provide retrofits of existing control systems regarding both automation and electronics (PCB). We offer you modern systems of our design and production based on certified products dedicated to retrofit the main and auxiliary marine propulsion. These are:

- HURRICANE - DEDICATED TO MAIN PROPULSION SYSTEM, CPP AND FPP
- STORM - DEDICATED TO AUXILIARY PROPULSION SYSTEM, CPP AND FPP

Retrofit of a control system is a comprehensive service that includes installation of control panels on the bridge, a new control cabinet together with a new feedback device. What's important, is that we provide a modern solution tailored to your needs and given unit. Moreover, we perform retrofit service by replacing and starting only PLC control units, without any interference to the other parts of marine propulsion control system.

### INSTALLATIONS OF AUTOMATION SYSTEMS AND ELECTRICAL MARINE EQUIPMENT

We provide complete installations of electrical devices and systems of all types.

We perform installation services at sea as well as at dry dock and ports, in the scope of:

- INTEGRATION OF DEVICES WITH DESIGN AND SELECTION SUPPORT
- CHAIN SUPPLY FULL MANAGEMENT
- PREFABRICATION OF MATERIALS
- MECHANICAL AND HYDRAULIC INSTALLATIONS
- ELECTRICAL EQUIPMENT INSTALLATIONS
- AUTOMATION AND CONTROL EQUIPMENT INSTALLATIONS
- INSTALLATION PROCESS MANAGEMENT
- COMMISSIONING



Our Automation Department offers also includes retrofit service of other marine control system, especially:

- STEERING GEAR CONTROL SYSTEMS
- WINCHES CONTROL SYSTEMS
- POWER HYDRAULICS CONTROL SYSTEMS
- HYDRAULIC DECK EQUIPMENT CONTROL SYSTEMS
- ECR ALARM MONITORING
- BALLAST CONTROL SYSTEMS

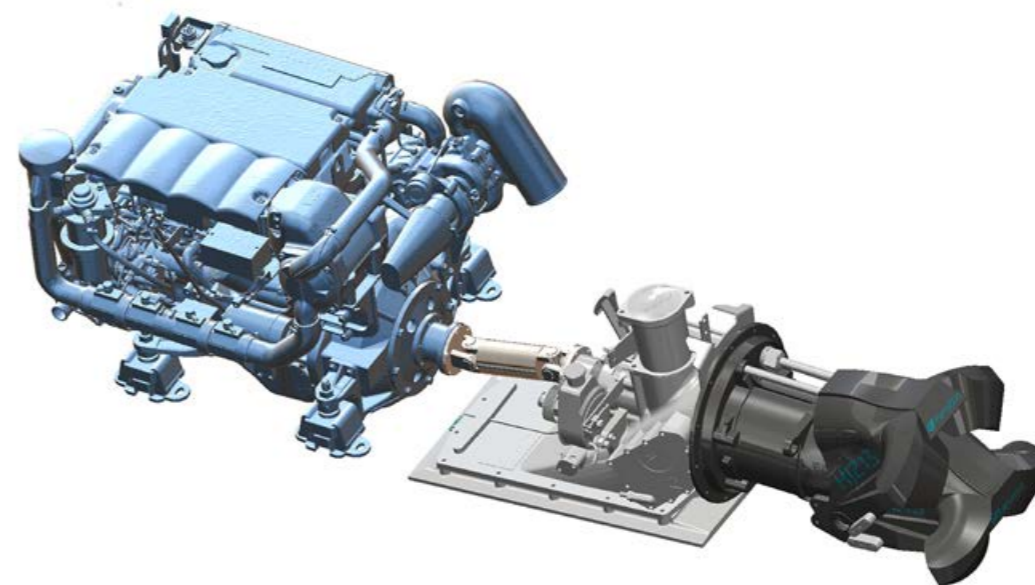


**DESIGN  
OFFICE**



## DESIGN OFFICE

The company stands for highly qualified and experienced designers whose professionalism allow us to offer a high quality of projects to our customers in commercial and research area. Our team provides projects involving advanced 3D modelling, MES analysis and detailed designs with full documentation preparations. We create projects for the marine and offshore industry from concept, thru basic and detailed design, workshop projects up to post-completion documentation. We offer construction supervision and engineering support at every stage of the project. The Design and R&D Office implements commercial and research projects for various clients all around the world.

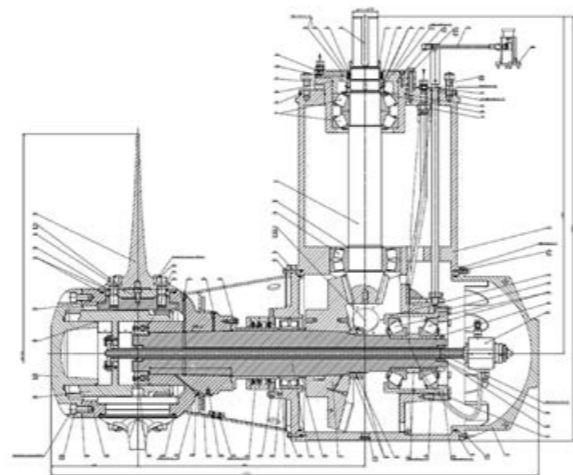


### RETROFITS

- COMPLETE SHAFT LINES AND PROPULSION SYSTEMS
- OPTIMIZATION / MODERNIZATION OF EXISTING PROPULSION SYSTEMS
- DESIGNING FPP AND CPP THRUSTERS FOR MARINE INDUSTRY
- TORSIONAL VIBRATION ANALYSIS (TVA)
- SELECTION OF SEALS ON DRIVE SHAFTS
- SELECTION OF ELECTRIC OR HYDRAULIC MOTORS IN PROPULSION SYSTEMS
- ANALYSES AND CALCULATIONS RELATED TO THE SELECTION OF TRANSMISSION GEARS
- DESIGNING THE OIL DISTRIBUTION AND FEEDBACK SYSTEMS
- TEST STATIONS DESIGN FOR SPIN, PRESSURE AND LOAD TEST
- HYDRODYNAMIC PROCESSES ANALYSIS

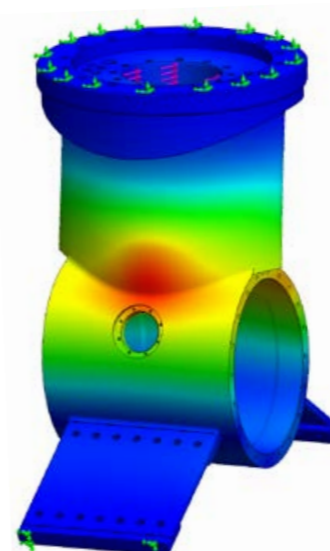
### STEEL CONSTRUCTION, SPECIAL EQUIPMENT AND PIPING INSTALLATIONS

- STEEL STRUCTURES DESIGNS
- ON-BOARD AND SHIPBUILDING SPECIAL EQUIPMENT
- CONVEYORS, CRANES, HANGERS AND OTHER TRANSPORT DEVICES
- EXHAUST INSTALLATIONS
- BALLAST WATER TREATMENT SYSTEMS
- OPERATING AND OPERATING MANUALS



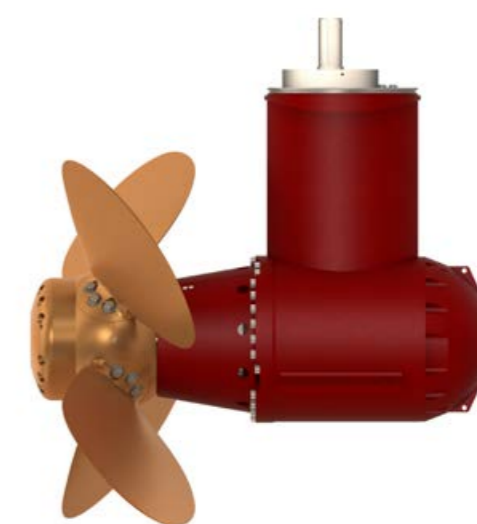
### CALCULATION AND ENGINEERING ANALYSIS

- CALCULATIONS IN ACCORDANCE WITH THE REGULATIONS OF CLASSIFICATION SOCIETIES
- SHAFT LINE CALCULATION
- TRANSMISSION GEAR CALCULATION
- CALCULATIONS OF FPP AND CPP MECHANISMS
- CALCULATION OF BEARING REACTIONS
- CALCULATION OF STRUCTURAL JOINTS



### DIAGNOSTIC AND MEASUREMENTS

- ADVANCED AS-BUILT MEASUREMENTS
- VIBROACOUSTIC - NOISE LEVEL MEASUREMENTS
- ASSESSMENT OF THE TECHNICAL CONDITION OF MACHINES AND DEVICES
- TROUBLESHOOTING & ENGINEERING SUPPORT



**OFFSHORE**



## OFFSHORE OIL&GAS

VALIDATED BY:



### PROPULSION

- OVERHAUL OF AZIMUTH AND TUNNEL THRUSTERS
- ALIGNMENT MEASUREMENT/MISALIGNMENT CORRECTION FOR POWER GENERATOR SETS, PUMPS UNITS, AZIMUTH THRUSTER DRIVES AND OTHERS
- FLEXIBLE COUPLING REPLACEMENT
- THRUSTERS ELECTRIC MOTORS BEARINGS REPLACEMENT
- GENERATOR SETS ALTERNATOR'S BEARINGS REPLACEMENT
- OVERHAUL OF GEARBOXES



### POWER HYDRAULICS

- HYDRAULIC SYSTEMS INSPECTION/AFTER VERIFICATION REPAIRS
- INSPECTIONS AND REPAIRS OF HYDRAULIC PUMPS, MOTORS AND HYDROSTATIC TRANSMISSIONS, RETROFITS
- WORKSHOP TESTING OF PUMPS AND MOTOR
- INSPECTIONS OF CRANE SYSTEMS
- INSPECTIONS OF SLEW BEARING
- HYDRAULIC CYLINDER REPAIRS
- PRESSURE TESTS
- OIL FLUSHING/REPLACEMENT
- WINCH OVERHAULS AND REPLACEMENTS
- ROPE INSPECTIONS AND REPLACEMENTS
- LOAD TESTS
- ANNUAL INSPECTION
- HOSE REPLACEMENTS/DELIVERY ACCORDING TO HOSE LIST/ON SITE MEASUREMENTS
- PREFABRICATION AND REPLACEMENTS OF WIRE SHEAVES
- OVERHAULS AND INSPECTIONS OF ANCHORING, MOORING AND TOWING WINCHES
- WINCH BRAKE LOAD TESTS



## OFFSHORE WIND ENERGY

**BOTA TECHNIK** looks to the future and develop the company towards offshore wind industry offering our high competences, strengths and advantages such as:

- EXPERIENCED AND HIGH-SKILLED ENGINEERING STAFF
- MODERN WORKSHOP WITH AN AREA OF 1300M2 WITH ADVANCED EQUIPMENT, IN CLOSE DISTANCE TO ONE OF THE MOST MAJOR BALTIC PORTS (GDANSK, GDYNIA)

### BOTA TECHNIK IN THE OFFSHORE WIND ENERGY PROJECTS:

- WIND FARM INSTALLATIONS SUPPORT
- TURBINE O&M
- CREW TRANSFER VESSELS PROVIDER
- SUPPORT OFFSHORE FLEET MAINTENANCE



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As an authorized dealer  
of world leading  
manufacturers,  
we also sell products  
and spare parts.

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#BotaTechnik  
#WorldwideMarineServices

## FIND OUT MORE:

ON WEBSITE



ON LINKEDIN



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