

BMT WBM

PRODUCTS & SERVICES

Mechanical, Mechatronic, Structural, Electrical and Marine Technology engineering services including:

- **Design**
 - Machine design and specifications
 - Product development from concept through implementation
 - Port materials handling plant design
 - Passenger ship gangway design
 - Machinery automation including smart monitoring and control
 - Design rectifications including troubleshooting and RCFA, life extension studies and plans
 - Design audits and certification
- **Analysis**
 - FEA, CFD, DEM including combined simulations
 - Dynamic simulation and modelling
 - Transient dynamic analysis
 - Blast analysis
 - Application of appropriate methodologies
- **Testing**
 - Full commissioning trials instrumentation and analysis
 - On-site inspections, data collection and supervision
 - On-site instrumentation installation of test and measurement equipment
 - In-service testing of machines
 - Complete data analysis, diagnosis, troubleshooting, and rectification solutions
- **Consulting**
 - 3rd party inspections and condition audits
 - Repair assessments and plans
 - Maintenance plans
 - Failure investigations including full rectification solution design
 - Expert witness legal services in relevant fields

CAPABILITIES

- Mechanical, Mechatronic, Structural, Electrical, Marine Technology design engineers
- Independent structural and mechanical assessment and certification
- Advanced modelling including ballistic modelling, fatigue life assessment (FEA, CFD, DEM)
- In-service instrumentation and strain gauge testing to monitor dynamic structural stresses, loads, torque (telemetry) and other key parameters
- Integrated approach to design from concept to commissioning - including engineering analysis, prototype construction and testing
- Mechanical and structural customisation to suit Australian Standards

DISCRIMINATORS

- High level of integration between design, testing and certification
- We take on non-mainstream challenges
- Independent and transparent advice
- Willingness to travel to meet the needs of the client
- Actively ensure client confidentiality
- In-house testing & analysis
- Minimise risk through pre-emptive analysis
- Vast experience in large mobile machinery, marine technology
- Local presence with global resources

KEY CUSTOMERS

Main customers and typical projects include:

- **AASSPO**
 - Many projects completed on Manoora/Kanimbla, Success, Tobruk
- **Army Marine**
 - Design detailing – modular self-propelled barge
 - Commando water craft – design rectifications of lift points, operational plan in large seaways
 - LARCs – engine upgrade plan, manoeuvring sea trials and recommendations
- **Serco / DMS**
 - RAN MV Seahorse Horizon – Troubleshooting and re-design of water lubricated stern tube bearing and lubrication system
- **Thales**
 - Minehunter - Engine crankcase repair modification analysis
- **ADI (Newcastle)**
 - Minehunter - LP fuel manifold design modification – design, analysis
- **RPC**
 - Huon Class Minehunter - Sonar dome analysis and testing
- **Wartsila**
 - Diesel torsional vibration measurements and analysis
- **Sydney Ports Corporation**
 - Design of passenger gangways, specifications

KEY PARTNERS

BMT WBM Machinery Group is part of the BMT group of companies with key partners being:

- BMT Design and Technology (Melbourne, Canberra)
- BMT Defence Services (four UK offices)

QUALITY STANDARDS AND OTHER ACCREDITATIONS

- ISO 9001 – by Compliance Australia Certification Services
- ISO 14001 – by Compliance Australia Certification Services
- OHSAS 18001 – by Compliance Australia Certification Services
- AS/NZ 4801 – by Compliance Australia Certification Services

CONTACT / ADDRESS DETAILS

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BMT WBM has Australian offices in Brisbane, Newcastle, Sydney, Melbourne and Perth, and North American offices in Denver and Vancouver.

BMT WBM also provides water and environmental services – see website.