



TOMTEC NDT MARINE SERVICES PTE LTD
トムテック NDT マリン・サービス



Non-Destructive Testing (NDT) Services

Marine & Offshore Technical Services

Remote Inspection Services

Co Reg No 199604561K

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ABOUT US

In November 1997, **TOMTEC LIMITED** was incorporated as a ship surveying and thickness measurement company in Kobe, Japan. Subsequently, in December 1997, **TOMTEC NDT MARINE SERVICES PTE LTD** was established in Singapore, as a ship surveying and Non-Destructive Testing (NDT) company with our core services providing to the Marine industry. We further expanded our scope of services to the Marine & Offshore industry to provide specialized Technical and Remote Inspection services.

Our reputation, quality and perseverance has resulted in customer requesting our services all around the world. For twenty years since we have founded our company, we have more than surpassed our anticipated sales and look forward to continued growth.

In 2002, we became the resident contractor of Keppel Corporation (Keppel Shipyard -Benoi). In 2005, we became the resident contractor of Sembcorp Marine Admiralty Yard (Sembawang Shipyard).

An experienced and recognizable management team coupled with a strong commitment to staff training and mentoring across the board has provided the company with a highly developed and stable skill base.

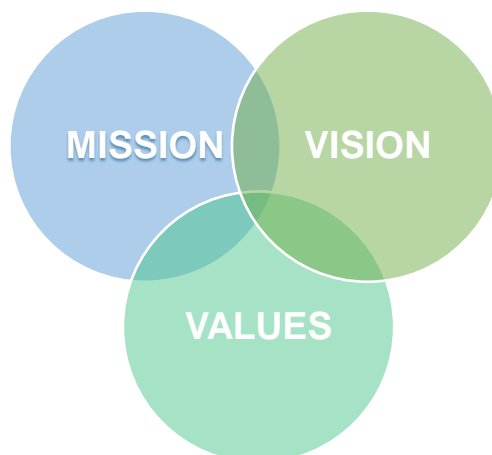
MISSION, VISION & VALUES

Our Mission

We are dedicated to provide high level of Quality Services that meet or even exceed Client's expectations. We aim to develop our capabilities constantly through upgrading of our resources and skills of our employees.

Our Vision

To be the most efficient and reliable provider for NDT and Marine & Offshore Technical Services in the region.



Our Values

- ✓ Safety is our first-priority.
- ✓ Commitment to Excellence.
- ✓ Quality is essence of our operations.
- ✓ Understand the Customer and offer Reliability.
- ✓ Honesty, Integrity and Responsibility is our principle.
- ✓ Have the best trained people for the best technology and equipment.

QUALITY POLICY

Tomtec NDT Marine Services Pte Ltd (TOMTEC) Management is committed to always achieve a high level of quality for testing/inspection in order to provide excellent and reliable testing results and services to its customers.

- ✓ To utilize sound and professional practices in all testing and inspection activities.
- ✓ To provide proper tools and the necessary management involvement to allow workforce to produce the level of quality which our customers expect and deserve.
- ✓ To provide continuous training and upgrading to enable every staff to be committed and competent in his/her services to the customers in order to achieve customer's satisfaction.
- ✓ Adequate resources provided, and relevant controls are implemented in the quality process to ensure continuous improvement in the management system towards business excellence.



OCCUPATIONAL HEALTH AND SAFETY POLICY

A safe and healthy workplace is fundamental to our business core. At TOMTEC NDT Marine Services Pte Ltd (TOMTEC), our Management Team is committed to establish a safe and healthy work culture in our workplace and integrate Occupational Health and Safety (OH&S) Policy into all our workplace activities.

We strive to devote all reasonably practical resources in personnel, finance and time into creating an incident free, safe and healthy working environment for all our employees, clients, suppliers, subcontractors, professionals, members of the public and anyone else affected by our business activities, projects and services.

We also strive to devote all reasonable practical resources to prepare our workforce and workplaces against crises. We will ensure that our workforce remains cohesive, our business recover quickly, and we return to normalcy as soon as possible in case of crises.

ENVIRONMENTAL POLICY

Tomtec is committed to the protection of our environment. We pledge to prevent environmental pollutions in areas we operate and ensure that the adverse environmental impacts of all emissions and discharges are minimised. We are committed to perform activities, comply with the corresponding and improve our inspection technologies according to best available techniques to minimise environmental laws and regulations in force use of hazardous substances. We strive to participate in pollution prevention programme conducted by our Clients.



OUR MILESTONES

Since our establishment, TOMTEC has been constantly expanding the scope of services. Currently, we are the Approved Service Provider for Seven (7) Major Classification Societies to provide Ship Survey and Ultrasonic Thickness Measurement (UTM) of Hull Structures. We are also accredited to Quality Management Systems such as ISO9001:2015, ISO/IEC 17025:2005 and Occupational Health and Safety management system ISO 45001:2018(SAC).

Moreover, our company has been constantly upgrading our services and operations for the past few years and now, we are Classification Societies approved service provider for Remote Inspection Techniques by using drone / rope access techniques.



ClassNK



YEAR 1997

- Established Tomtec NDT Marine Services Pte Ltd.

YEAR 1998

- Approved by NK (Nippon Kaiji Kyokai) Class for Thickness Measurement on Ships under the Rules for Approval of Manufacturers and Service Suppliers of the Society.

YEAR 1999

- Recognised by ABS (American Bureau of Shipping) as a Service Provider for ESP and Non-ESP Vessels Hull Gauging Firm .

YEAR 2000

- Certified by BV (Bureau Veritas) Class for Thickness Measurements of hull structure of ships classed with the society, within the scope of the Rules, Part A, Chapter 2.

YEAR 2000

- Certified by KR (Korean Register of Shipping) Class for Thickness Measurement of Structural material of classed vessel in accordance with Rules and Regulations of this Society.

YEAR 2002

- Approved in accordance with the requirement of LR (Lloyd's Register) Class as a service supplier for the provision of Thickness Measurement of Hull Structure - Scope of Approval: Type B.

YEAR 2003

- Certified by DNV GL (Det Norske Veritas - Germanischer Lloyd) for Thickness Measurement on Ships, in accordance with Class Program DNVGL-CP-0484 in Category I: Authorised to do measurements on all types and sizes of ships.

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OUR MILESTONES

YEAR 2007

- Certified to bizSAFE Level 4 by Workplace Safety and Health Council.
- In year 2015, company has certified to bizSAFE Level Star.



YEAR 2012

- Certified to Occupational Safety and Health Management System (SS506 Part1:2009/BS OHSAS 18001:2007).
- In year 2020, We have successfully transitioned to ISO 45001 : 2018 (SAC).



YEAR 2013

- Accredited by Singapore Accreditation Council to ISO/IEC 17025:2005 for specific scope within the field of Non-Destructive Testing. We are currently in the progress of transition to ISO/IEC 17025:2017.



YEAR 2014

- Approved by Lloyd's Register Quality Assurance to Quality Management System Standards: ISO 9001:2008. In year 2017, we have successfully transitioned and approved to ISO 9001:2015.



YEAR 2015

- TOMTEC is certified by RINA (Registro Italiano Navale) Class for Part A - Thickness Measurement on Ships in compliance with the RINA "Rules for the Certification of Service Suppliers".



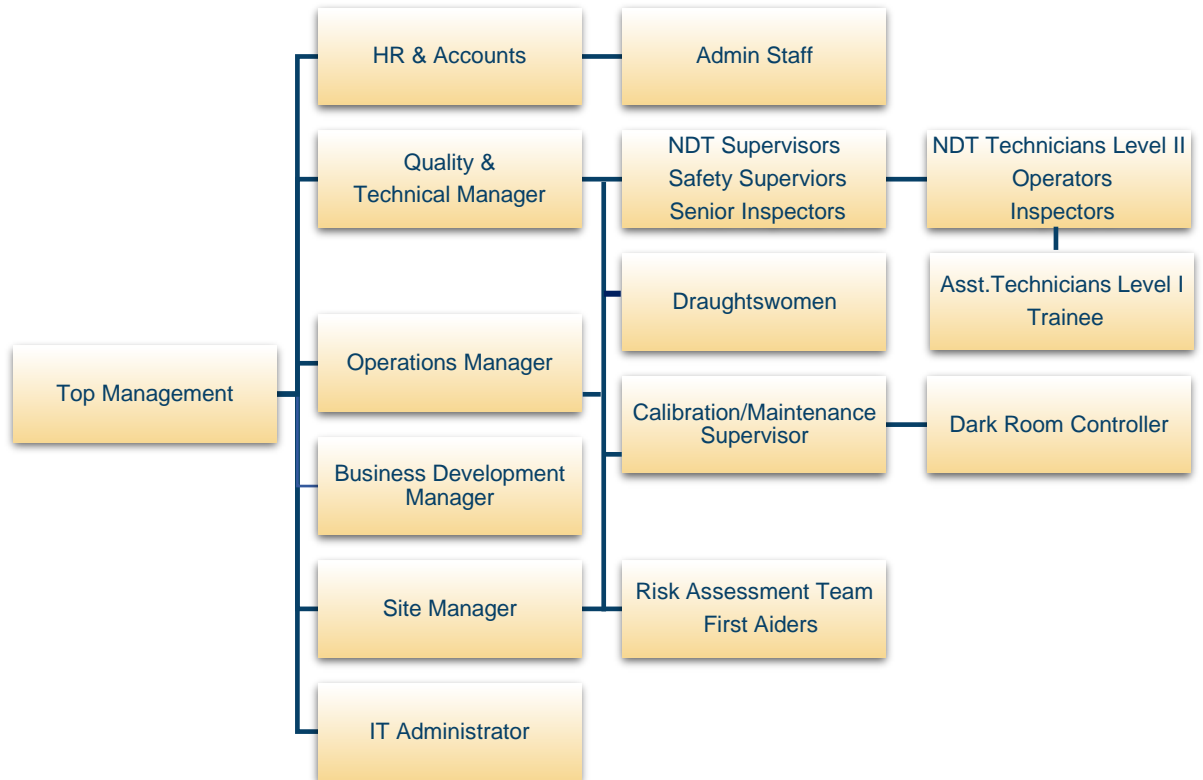
YEAR 2019

- Over many months, our Drone Team has worked hard to train and incorporate the use of Drones into our operations. We have received the **Unmanned Aircraft Operator Permit** issued from Civil Aviation Authority of Singapore (CAAS), as an approval to use Drones for our inspection in **May 2019**.

YEAR 2020

- In Jan 2020, we have successfully migrated from OHSAS 18001:2007 to **ISO 45001:2018 Occupational Health and Safety Management System**.
- Also, in Jan 2020, we have successfully completed **Lloyd's Register assessment** and received Approval of Service Suppliers for the provision of **Surveys Using Remote Inspection Techniques (RIT) of the Structure of Ships and Mobile Offshore by Use of Rope Access Technicians**.
- In March 2020, Tomtec has been audited by **American Bureau of Shipping (ABS)** and certify for the provision of **Surveys Using Remote Inspection Techniques (RIT) of the Structure of Ships and Mobile Offshore by use of Unmanned Aerial Vehicles (UAV), Drones**.
- In April 2020, Tomtec is granted acceptance for the provision of **Survey Using Remote Inspection Techniques (RIT) as an alternative means for Close-up Survey of the structure of Ships and Mobile Offshore Units, in accordance with Class Programme DNVGL CP0484 use of Rope Access Technicians**.
- In October 2020, Tomtec has been successfully audited by **ABS** and certify for **Recognized External Specialist of Remote Inspection Techniques for Rope Access Climbers**.

OUR ORGANISATION



MEET OUR MANAGEMENT TEAM



AN KUMARAPPAN
Co-Founder / Managing Director
Years in NDT & Marine industry : 39



KASHIWAGI MITSURU
Co-Founder / Managing Director
(Japan Office)
Years in NDT & Marine industry : 44



CHIA SENG SENG
Co-Founder / Director
Years in NDT & Marine industry : 28



YASUDA TOSHIAKI
Co-Founder / Director
(Japan Office)
Years in NDT & Marine industry : 47



CHEONG YEW KEONG
Co-Founder / Director
Years in NDT & Marine industry : 33



MIYAZATO SHIRO
Manager
(Japan Office)
Years in NDT & Marine industry : 30

OUR TEAM COMPETENCIES



NDT INSPECTION

- ✓ ASNT NDT Level III (AE, ET, IR, LT, ML, MT, NR, PT, RT, UT & VT)
- ✓ EN ISO 9712 NDT Level 3 (UT & MT)
- ✓ CSWIP NDT Level 3 (UT & MT)
- ✓ BINDT PED Level 3 (UT & MT)
- ✓ EN ISO 9712 UTM Level 2
- ✓ PCN Level II (PT, MT, UT, RT & RI)
- ✓ SNT-TC-1A Level II (PT, MT, UT, UTM & RT)



API INSPECTION

- ✓ API 510 – Pressure Vessel Inspector
- ✓ API 570 – Piping Inspector
- ✓ API 577 – Welding Inspection And Metallurgy
- ✓ API 580 – Risk Based Inspection
- ✓ API 653 – Aboveground Storage Tank Inspector



WELDING INSPECTION

- ✓ CSWIP 3.1 - Welding Inspector
- ✓ AWS Certified Welding Inspectors



SAFETY SUPERVISORS

- ✓ Shipyard / Oil / Petrochemical Industry Safety Supervisors
- ✓ Confined Space Safety Supervisors
- ✓ Work at Height Supervisors / Managers
- ✓ Occupational First Aiders (CPR / AED)



COATING INSPECTION

- ✓ NACE Coating Inspector
- ✓ Society for Protective Coatings (SSPC)



MANAGEMENT SYSTEM AUDITORS

- ✓ ISO 9001:2015 Lead Auditor (IRCA Approved)
- ✓ ISO 9001:2008 Internal Auditors.
- ✓ ISO 17025 Internal Auditors (SAC SINGLAS Approved)
- ✓ SS506 Part 1 & OHSAS 18001:2007 Internal Auditor
- ✓ ISO45001:2018, ISO14001:2015 and ISO9001:2015 Internal Auditors.



REMOTE INSPECTION

- ✓ IRATA Level I, II, & III Rope Access Technicians
- ✓ UA Operator Permit Holders (Drone Pilots)

OUR SERVICES

NDT INSPECTION SERVICES

- ✓ Ultrasonic Testing (UT)
- ✓ Ultrasonic Thickness Measurement (UTM)
- ✓ Ultrasonic Bond / Cladding Testing
- ✓ Magnetic Particle Testing (MT)
- ✓ Liquid Penetrant Testing (PT)
- ✓ Radiographic Testing (RT)
- ✓ Eddy Current Testing (ET)
- ✓ Visual Testing (VT)
- ✓ Fibre Scope
- ✓ Thermography Inspection (IR)
- ✓ Vibration Analysis (VA)
- ✓ Fluorescent Leak Testing (LT)
- ✓ Positive Material Identification (PMI)
- ✓ Hardness Testing
- ✓ Phased Array Ultrasonic Testing (PAUT)
- ✓ RFET Inspection & IRIS Inspection
- ✓ Ferrite Testing



MARINE & OFFSHORE TECHNICAL SERVICES

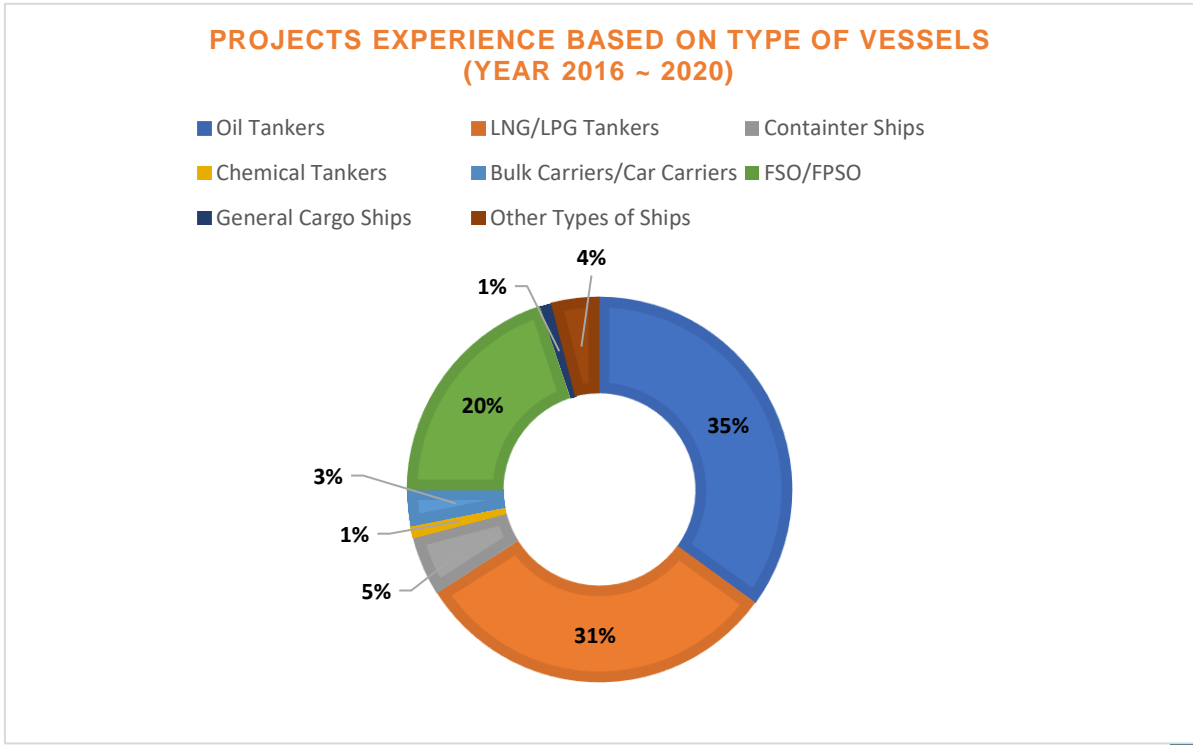
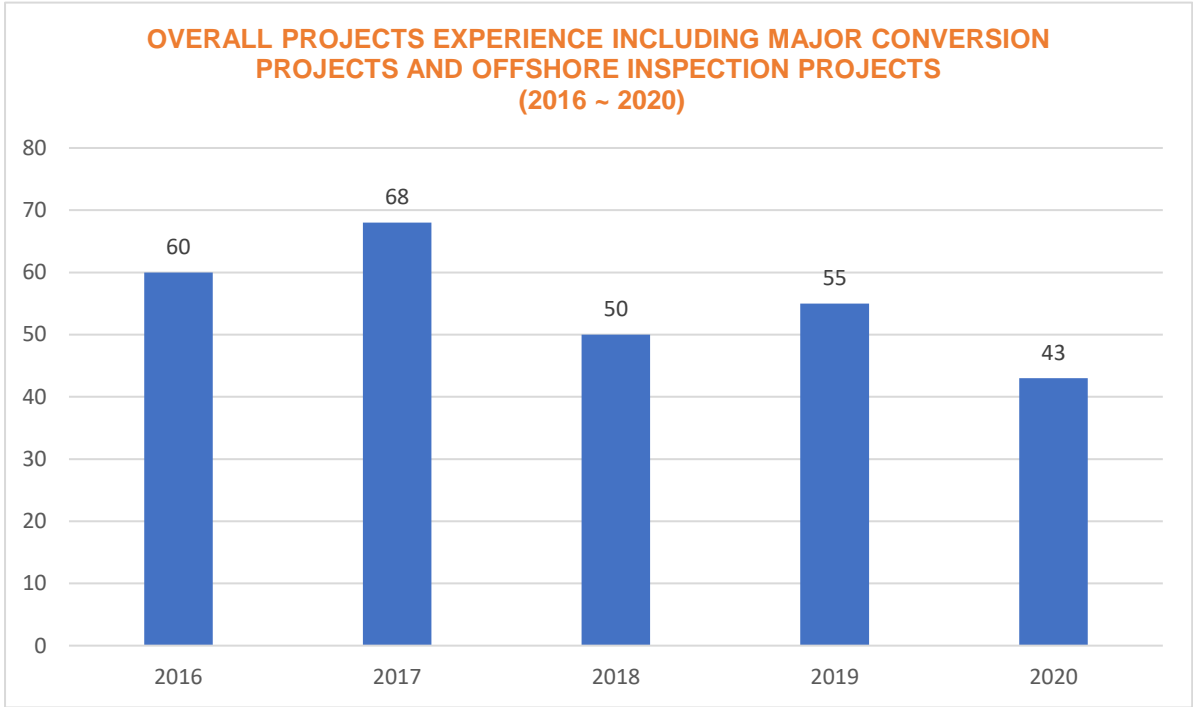
- ✓ Ship Hull / Structure Survey
- ✓ Ship Visual Survey
- ✓ Ultrasonic Thickness Measurement for Class Survey (UTM)
- ✓ Condition Assessment Programme
- ✓ Piping Inspection
- ✓ Tank Internal Inspection
- ✓ Coating Inspection
- ✓ Pre-Docking Inspection Service
- ✓ Ship Repair Consultation
- ✓ Steel Repair QA/QC
- ✓ Welding Inspection
- ✓ Hull Steel Renewal Repair Plan with specifications
- ✓ Supply of Assistant Hull Superintendent for Drydock repairs

REMOTE INSPECTION TECHNIQUES

- ✓ Rope Access
- ✓ Rafting
- ✓ Drone Inspection

OUR EXPERIENCE

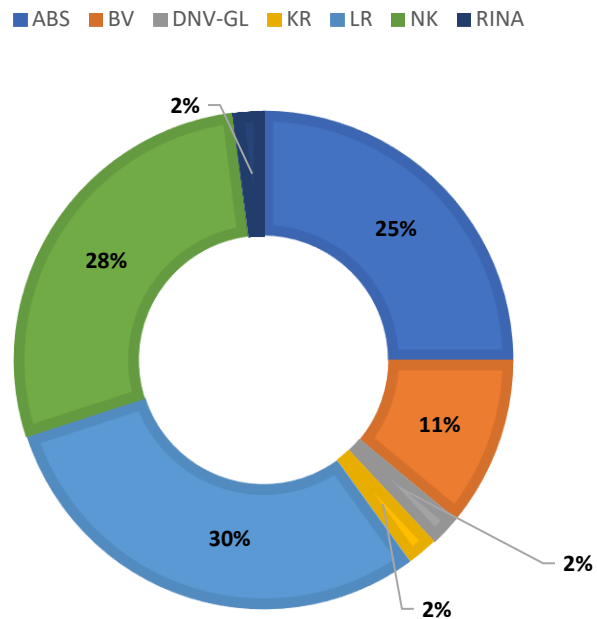
Established in 1997, TOMTEC has completed over 1000 projects worldwide. We pride ourselves in providing quality work and delivering excellent services that meet or exceed our clients' expectations. Our past projects have included Non-Destructive Testing (NDT) services, vessel conversion projects, ship repair projects, marine surveys, ship/steel repair consultations and remote surveys. We are proud to be in support for our clients across the globe in maintenance and repair of their vessels.



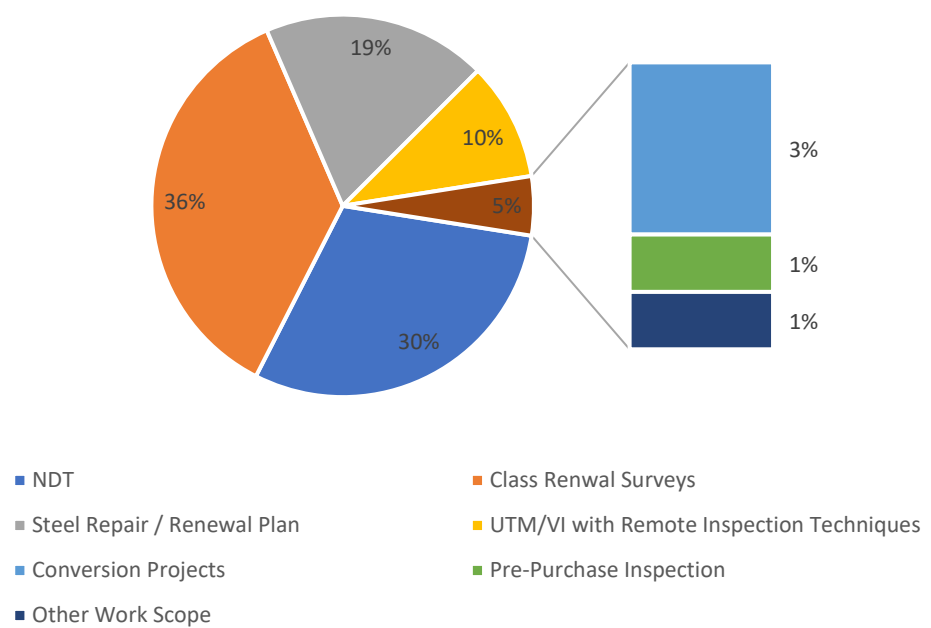
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OUR EXPERIENCE

PROJECTS EXPERIENCE BASED ON CLASSIFICATION SOCIETIES
(YEAR 2016 ~ 2020)



PROJECTS EXPERIENCE BASED ON SCOPE OF WORK
(YEAR 2016 ~ 2020)



CONVERSION PROJECTS

Client:



Total E&P Angola Block32 Ltd.

Vessel Name(s):

Kaombo North (FPSO) Project.

Project(s) Information:

KAOMBO Project intends to develop the resources of Gengigre, Gindungo, Louro and Mostarda West Fields, located approximately 150 km from the coast of the Republic of Angola

in Block 32. Two FPSO will be installed: One at North, the other at South. The Floating Production Storage and Offloading (FPSO) vessels, based on the conversion of an existing oil tanker of the Very Large Crude Carrier (VLCC) type, will support as follows: accommodation, processing, associated systems and storage and export / offloading facilities, water reinjection, gas lift and gas export.



Services Provided:

Technicians, supervision, consumables and equipment to carry out NDT for conversion works for KAOMBO Project FPSO North as per KAOMBO Project Specification, Project Schedule and Class Requirements.

Location(s):

Sembcorp Marine Admiralty Yard (SMAY), Singapore.



Client:

Mobil Cepu Ltd.
an ExxonMobil Subsidiary

Mobil Cepu Ltd.

Vessel Name(s):

Banyu Urip Project.

Project(s) Information:

The Mobil Cepu Ltd, will play a leading role in Indonesia's natural resource exploitation. Of the several prominent fields, the largest is Banyu Urip field. The project will include 49 wells on

three platforms of wells, a central processing facility (CPF), and 95-kilometer pipeline to transport the oil into a floating storage and offloading facility with maximum capacity of 1.7 million barrels. Tanker ships will transport oil from the FSO to domestic and world markets.

Services Provided:

NDT Services for upstream FPSO/FSO, Marine Piping Fabrication, Hull Welding, Offshore Structural Welding and Quality Inspection as per Client Requirements.

Location(s):

Sembcorp Marine Admiralty Yard (SMAY), Singapore.

LNG PROJECTS

**Client(s):**

NYK LNG Shipmanagement Ltd,

Type of LNG Vessel(s):

Moss-Type.

Project(s) Information:

Periodical inspections have to be performed to ensure that vessels are continuously maintained in

an acceptable condition in accordance with international conventions and Classification Rules.

Services Provided:

To perform Thickness Measurement and Condition Assessment Program (CAP) in accordance with class requirements. To furnish technicians to carry out NDT Inspections, Eddy Current Inspection, Visual Inspection and Pipe scanning as per client's request.

Location(s):

Labuan Anchorage, East Malaysia, Keppel Shipyard and Sembcorp Marine Admiralty Yard, Singapore.

FSO/FPSO PROJECTS

Client(s):

TEEKAY



INTERNATIONAL
ANDROMEDA
SHIPPING

Chevron Offshore (Thailand) Ltd, Teekay Shipping Limited (Australia) and International Andromeda Shipping

Type of Facilities:

FSO, FPSO.

Project(s) Information:

ABS Class Special Continuous Hull Survey inspections and life extension plans have to be performed to ensure that vessels are continuously maintained and extend the vessels' life spans in an acceptable condition in accordance with international conventions and Classification Rules.

Services Provided:

To perform Thickness Measurement for ABS Class Special Continuous Hull Survey & Class Suspect Area in accordance with class requirements and Life Extension Plan as per client's request. To furnish technicians to carry out NDT Inspections, Visual Inspection, Cold Work Repairs and Maintenance, Steel Renewal /Repair Proposal Plan, Tank Internal Inspection, Remote Inspection by Rope Access and Compilation of Data Specification for Blasting Areas.

Location(s):

Gulf of Thailand and Indonesia.



OIL TANKER PROJECTS

Client(s):



Bernhard Schulte Shipmanagement (Cyprus) Ltd, PDV Marina, S.A and Teekay Shipping Limited.

Type of Oil Tanker(s):

Panamax, Aframax, VLCC, ULCC.

Project(s) Information:

Support periodical maintenance and repair of Bernhard Schulte Shipmanagement (BSM), PDV Marina, S.A and



Teekay Shipping Limited owned vessels around the world. Our team of specialists were engaged to assist in maintaining the vessels in an acceptable condition in accordance with international conventions and Classification Rules, as well as to offer guidance on vessel hull repairs during drydock.



Service(s) Provided:

To perform Thickness Measurement and Condition Assessment Program (CAP) in accordance with class requirements.

To furnish technicians to carry out Steel Renewal/Repair Proposal Plan, Pipe Renewal, Installation of New Zinc Anode, Visual Inspection, Pre-docking Survey, Remote Inspection by Rope Access Using Video Cameras, Thermography Survey, Vibration Measurement and Analysis Survey as per client's request. To provide Assistant Hull Superintend during drydock repairs.

Location(s):

As riding crew during voyage, shipyards in Japan, Singapore, China, Vietnam, Portugal, Spain, Curacao, Poland, Thailand, Korea, etc. during drydock repairs.



UTM / VI PROJECTS BY USING REMOTE INSPECTION TECHNIQUES

Client(s):



Bernhard Schulte Shipmanagement (Cyprus) Ltd, PDV Marina, S.A , Teekay Shipping Limited, Euronav, Chevron Offshore (Thailand) Ltd and Alaska Tanker Company.

Type of Vessel (s):

Oil Tankers, Container Ships, FSO, FPSO.

Project(s) Information:

Our qualified rope access technicians and UAV operators carry out Ultrasonic Thickness Measurement Inspection , Visual Inspection (with high-resolution video cameras) and cold-work repairs by using remote inspection techniques (rope access /drone).



Location(s):

As riding crew during voyage, shipyards in Japan, Singapore, China, Vietnam, Portugal, Spain, Curacao, Poland, Thailand, Korea, etc. during drydock repairs.



Our remote inspection team members are not only qualified for remote inspection techniques , they are also qualified and experienced NDT operators and therefore, we are able to support periodical / renewal surveys in accordance with international conventions and Classification Rules, repair and maintenance as well as to offer guidance on vessel hull repairs during drydock.

NDT PROJECTS

Client(s):



Keppel Offshore & Marine

Tomtec is a resident contractor of Sembcorpmarine Admiralty Yard (SMAY) and non-resident contractor of Keppel Offshore & Marine.

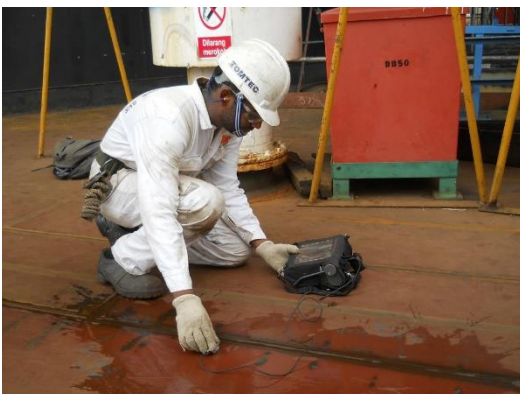
Type of Project (s):

Conversion Projects, Repair Ship Projects and other NDT projects for various type of vessels / structures.

Project(s) Information:

Our qualified NDT technicians carry out various Non-destructive Testings such as Ultrasonic Testing (UT), Magnetic Particle Testing (MT), Penetrant Testing (PT) , Radiographic Testing (RT) and other NDT methods for conversion projects and repair ship projects.

At TOMTEC, we ensure that all our technicians are competent and certified to internationally recognized standards. TOMTEC performs NDT Testing in accordance with Class Requirements, Client specific requirements, AWS standards, ASME standards ,API standards , ASTM standards , other similar national and international standards.



OUR ESTEEMED CLIENTS



“SAFETY, QUALITY, INTEGRITY”

For more information or detailed services, please call us or visit us at

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