API
MARINE

GENERAL COMPANY & PRODUCT PRESENTATION

SENSORS & AUTOMATION SYSTEM · POWER GENERATION · DIGITAL SOLUTIONS

COMPANY INTRODUCTION

- Established 2004 in Aalborg, Denmark

- A leading manufacturer of Sensors and Alarm & Monitoring Systems

- Independent supplier – with all main and relevant competencies under the same roof

- All sensors and key components are 100% own development – no 3rd party sensors

- All products designed and manufactured for maritime applications

- Patented technologies

- Flexible and tailor-made solutions, that meet the requirements of shipowners

COMPANY INTRODUCTION

- Supplied systems and solutions to more than 650 newbuildings in past 15 years
- API Marine is ISO9001:2015 certified and PQAN for manufacturing according to ATEX and IECEs standards
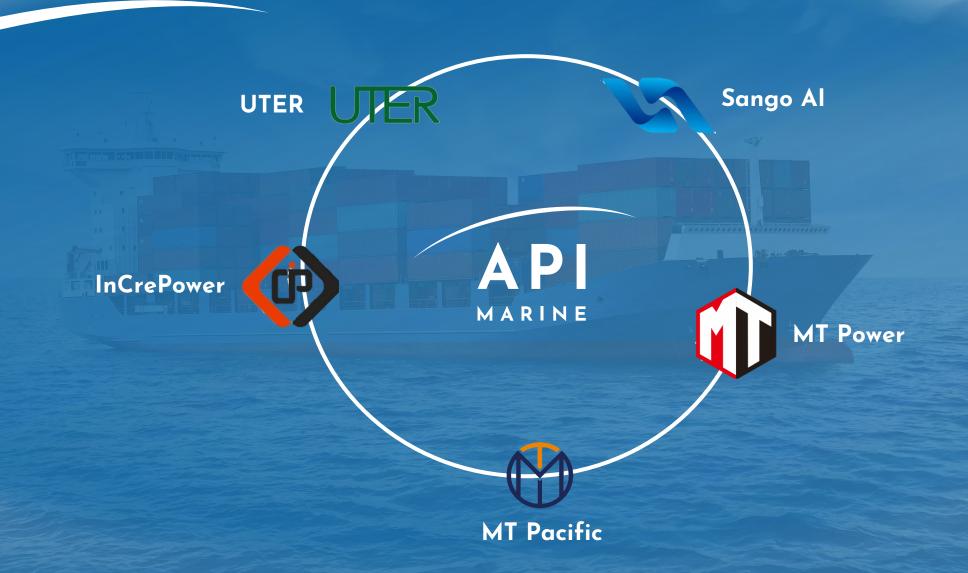- Sensors and systems approved by all major Marine Classification Societies

API Marine Group Companies

API MARINE

www.api-marine.com

UTER

Sango AI

InCrePower

MT Power

MT Pacific

API MARINE

API Marine evolution

API Marine

2004 - 2016

Primarily business relating to Russian customers.

Main Products/systems for "tankers".

2017 - 2024

Development of business model, primarily targeting Chinese new building market.

Solutions in addition to tankers, now also including packages for bulk carriers, container vessels, OSV trawlers etc".

2025 -

Further strengthen of product portfolio to include:

Digital solutions, hereunder Cyber Security, Power generation, Hybrid, Diesel Electric and Electric propulsion.

Our Product and Solutions Portfolio

Tank & Automation Solutions

- Tank Level Gauging Systems Cargo, Ballast & Service Tanks

- High Level and Overfill Alarm System

- Valve Remote Control System

- Valve Remote Control System

- Online Loading and Stability Computer System

- Dynamic Stability Computer System

- Water Ingress Alarm System

- Sensors, Actuators and other Components

Power Generation

- Gensets

- Diesel Electric Propulsion

- Hybrid Propulsion

- Electric Propulsion

Digital Solutions

- API Marine Trident Cyber Security System

- API Marine Trident Digital System

- API Marine Trident Smart System

- API Marine Central Monitoring System

API MARINE
POWERED BY MT POWER
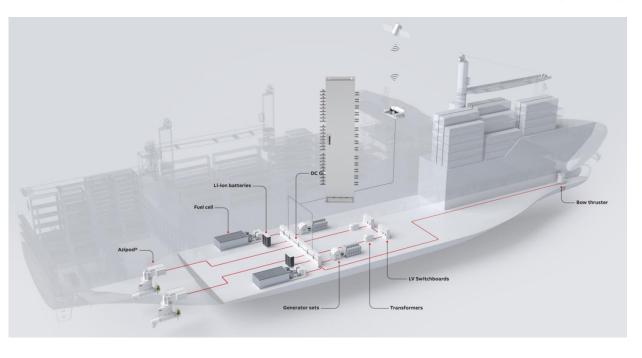
Valve Ctrl & Automation System
AMS/PMS/PCS

DE / Hybrid System

Danfoss Driver / PM Motor

ABB Driver /Motor

SMART Vessel System

Smart INF, MHM, SHM
Digitalization
Digital Twin
Cyber Security

Power System

DPF

Cummins Engine & Genset

SCR

TANK & AUTOMATION
SOLUTIONS

Tank & Automation Solutions

SCOPE OF SUPPLY

- Tank Level Gauging System for Cargo Tanks and Service Tanks
- High Level and Overfill Alarm System
- Tank Level Gauging System for Ballast and Service Tanks
- Valve and Remote Control System
- Online Loading and Stability Computer System
- Sensors
- Water Ingress System
- Sensors, Actuators and other Components

Solutions for all types of vessels

Chemical Tankers

Product Oil Tankers

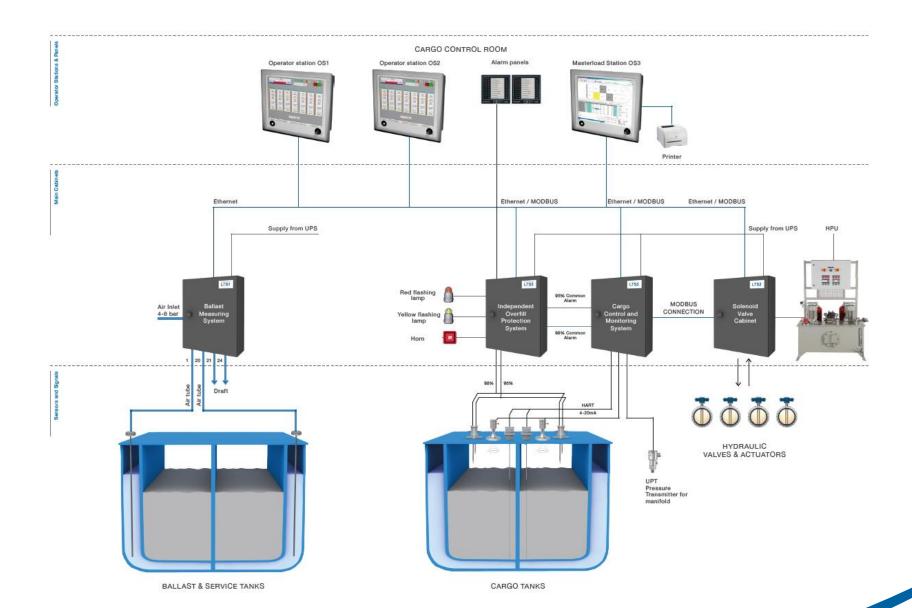Bulk Carriers

Container Vessels

Fishing Vessels

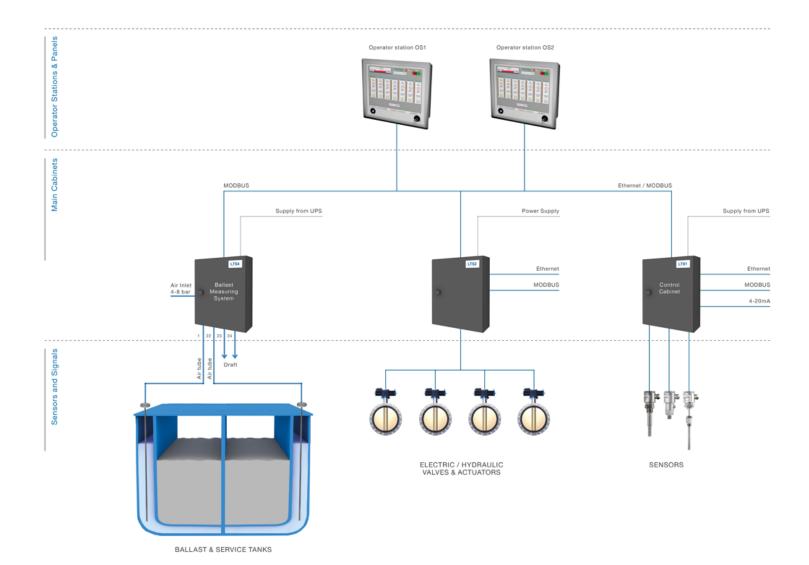Workboats

Retrofit

Floating Dock

Typical Configuration - Tanker

Typical Configuration - Bulk Carrier & Container Vessels

High Quality Sensors for Critical Applications in Harsh Environments

- Designed and manufactured for marine applications
- High quality and reliable automation systems starts with good sensors
- Patented technologies

Sensors & Transmitters

TGD SERIES

TGD™
- Tank Gauging Device (Level, Pressure & 3 X Temperature)

TGD-R™
- Tank Level Radar

TGD-L™
- Tank Gauging Device (Level)

TGD-TP™
- Tank Gauging Device (Temp/Pressure)

LEVEL SWITCHES

UTS™
- Ultrasonic Tank Switch

TLA™
- Tank Level Alarm (95%/98%)

TRANSMITTER

UPT™
- Universal Pressure Transmitter

UTT™
- Universal Temperature Transmitter

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POWERED BY
MT POWER

STEN FRIGG

POWER GENERATION

Gensets

Cummins Genset

Engine Model: 6B,6C,6L, QSB7,QSM11, K19, K38, K50, QSK50, QSK60, QSK95

Power Range: 40 KW ~ 3000 KW

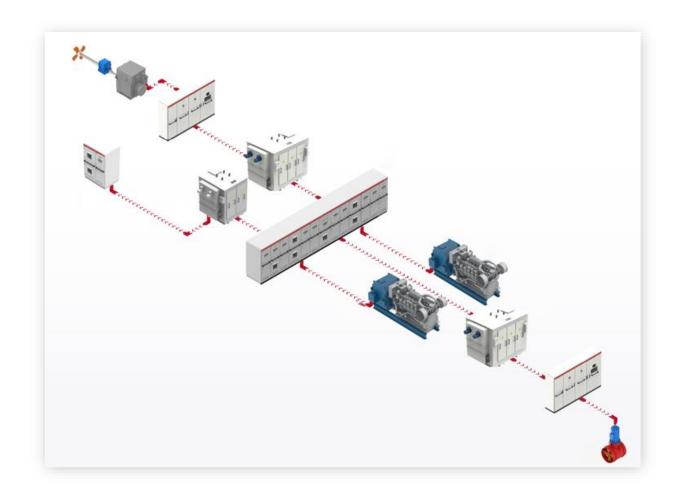## Zone 2 Genset

Engine Model: K19, K38, K50, QSK50, QSK60

Power Range: 200 KW ~ 2000 KW

Diesel Electric Propulsion

ADVANTAGES

- Fuel Efficiency & Lower Emissions

- Flexible Power Distribution

- Quiet and Smooth Operation

- Lower Maintenance Costs
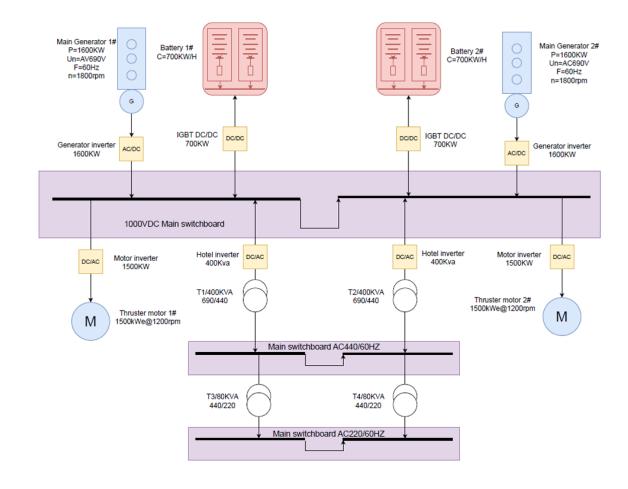
- Improved Redundancy & Reliability

Hybrid Propulsion

ADVANTAGES

- Fuels Savings & Lower Emissions
- Optimized Performance
- Reduced Noise & Vibration
- Lower Maintenance Costs
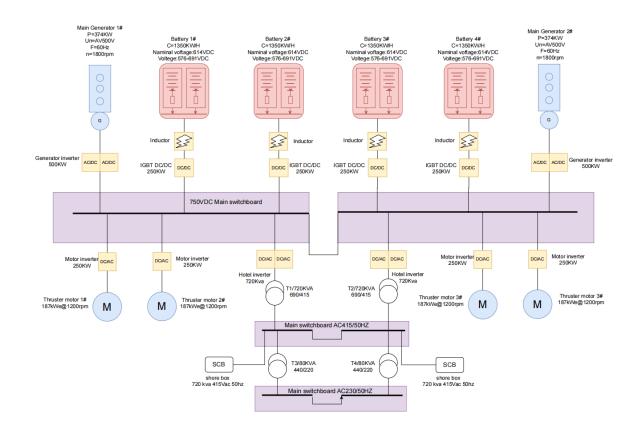- Enhanced Redundancy & Reliability

Electric Propulsion

ADVANTAGES

- Zero Emissions & Environmental Compliance

- Exceptional Energy Efficiency

- Quiet, Vibration-Free Operation

- Lower Maintenance & Operating Costs
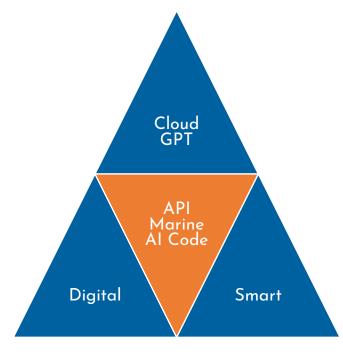
- Precise Control & Maneuverability

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POWERED BY
SANGO MARINE

DIGITAL SOLUTIONS

API Marine Production Hub

One API Marine AI Solution

Cloud GPT

API Marine AI Code

Digital

Smart

Digitilization

- Fuel Monitoring System
- Real Time Tracking
- Voyage Record
- Fleet Management System
- Meet Aramco Requirement

Trident SMART System

- Notation: INF& Cyber + MHM, SHM, AEM (Tier 2)
- Energy Efficiency Monitoring
- Crew Health Monitoring
- Crew Behavior Recognition
- Onshore Central Monitoring

API Marine AI Core: Perform intelligent task AND gather data from its surroundings such as AMS, PMS; PCS, GPS and other major equipment
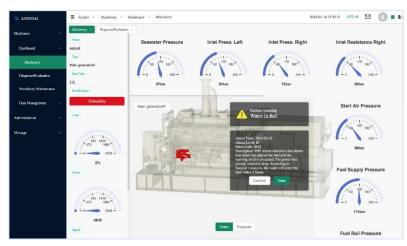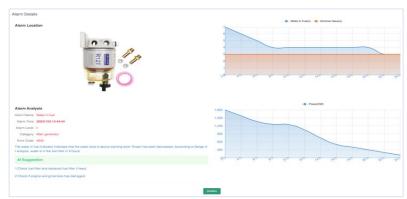
API Marine Production Hub – Machinery

Monitoring | Diagnosis | Comparison | Maintenance

Monitoring of Performance Indicators

- Monitoring of key equipment such as generator sets, propulsion motors, liquid level gauge
- Real-time update of performance data
- Data visualization of performance indicators

Machinery Digital Twin (DT)

- Build 3D models based on manufacturer CAD
- Use DT technology to simulate the equipment's real-time operating state
- Synchronize simulation of equipment fault warnings and alarms

Proactive warnings and real-time alerts

- Use AI algorithms to predict faults in advance and issue proactive warnings
- One-click access to view fault details quickly

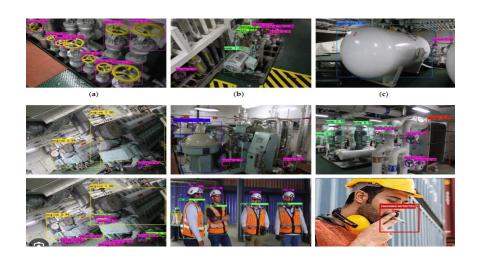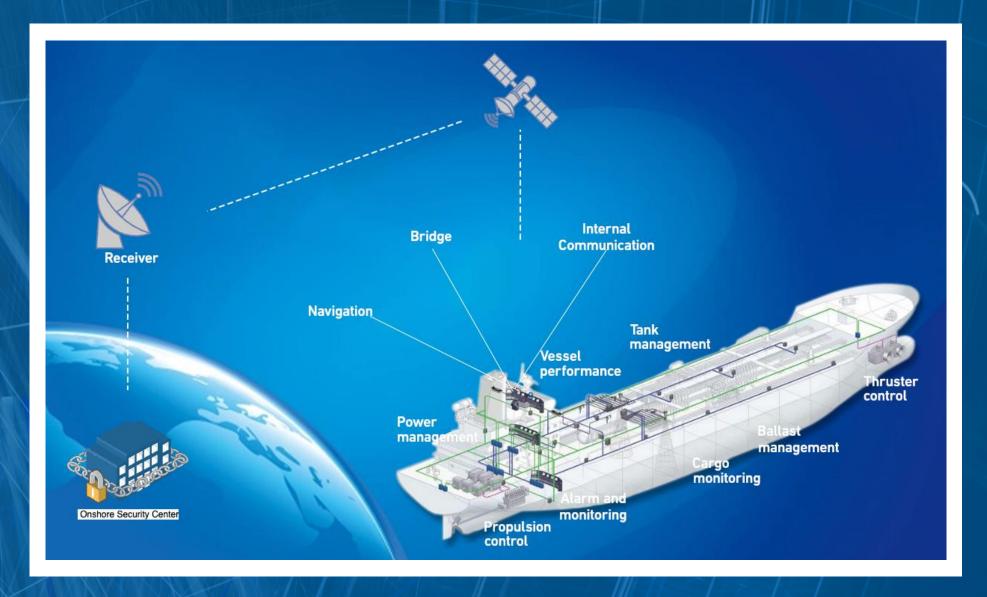# API Marine Production Hub

- Real-time fire monitoring

- AI-powered real-time equipment status monitoring

- The system uses AI algorithms to monitor equipment status and generate real-time alarms for abnormal conditions, such as smoke, fire, and damage

- The system can automatically detect and notify violations such as smoking and nopt wearing a helmet in real time

API Marine Cyber Security

API Marine Trident Cyber Security System

Key features

- Security Control Dashboard
- Event Monitoring
- Security Update Management
- Alarms & Reporting
- Malware Protection Management

- Network Isolation
- Backup & Recovery Management
- Remote Access Management
- Application Allowlisting
- Asset Inventory Management
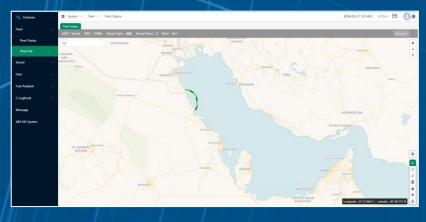
Trident Digital System

- Navigation
- Machinery Monitoring
- Fuel Monitoring
- Onshore Synchronization
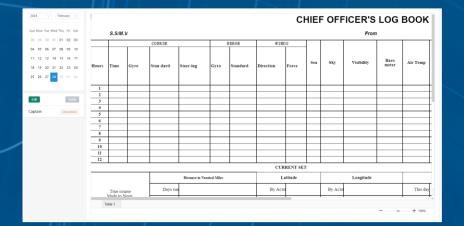
Central Monitoring System

Benefits

- Centralized Fleet Overview
- Real-Time Insights
- Role-Based Access
- Ressource Optimization
- Maintenance & Health Monitoring
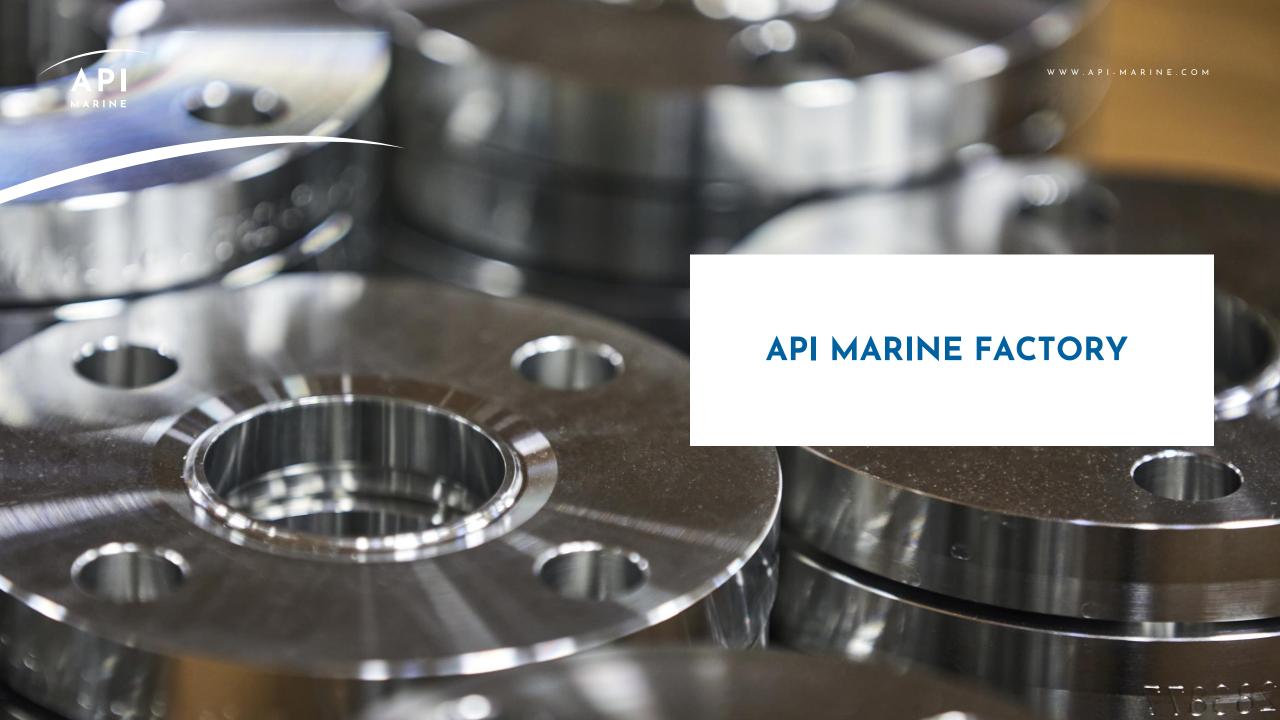
Key features

- Fleet Dashboard
- Fuel Consumption Monitoring
- Vessel KPI Comparison
- Crew Management

API MARINE FACTORY

API MARINE FACTORY

Reference Project – Chemical Tankers

Shipyard   Tongbao Shipbuilding (Nantong)

Shipowner   Dinheng Shipping

8500 DWT   Vessels - ABS Class

13000 DWT   Vessels BV Class

API SCOPE OF SUPPLY

- Cargo Tank Monitoring System
- High Level & Overflow Alarm System
- Remote Sounding System
- Valve Remote Control System
- Loading Computer

Reference Project
- Fishing Vessels

Type of vessel   Large Pelagic Trawler

Shipyard   Karstensens Skibsværft

Owner   Various

No. of vessels   25+

API SCOPE OF SUPPLY

- Tank Level Gauging

- System for ballast and service tanks

Reference Project
– Bulk Carrier

Type of vessel   63500 / 64000 DWT

Shipyard   Nantong XiangYou & others

Owner   Various

No. of projects   40+

API SCOPE OF SUPPLY

- Tank Level Gauging System
- Valve Remote Control System

Reference Project (Digital) – 97.8 DE HYBRID DSV

Shipowner	Jana Marine (Saudi Arabia)
Shipyard	Guangzhou Salvage Bureau of the Ministry of Transport
Delivery	1 vessel
Classification Society	ABS

API SCOPE OF SUPPLY

- SMART System: INF, MHM, SHM, Tier 2
- Digitalization
- Cyber Security, CS-2
- Crew Behavior Monitoring
- Alam Monitoring System
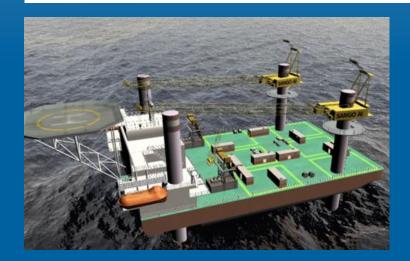
Reference Project (Digital) – 350ft JACK UP BARGE (Type D)

Shipowner	Jana Marine (Saudi Arabia)
Shipyard	WMMP.HHMC
Delivery	4 vessels
Classification Society	ABS

API SCOPE OF SUPPLY

- SMART System: INF, MHM, SHM, Tier 2
- Digitalization
- Cyber Security, CS-2
- Alam Monitoring System

Reference Project (Power) – FPSO IBP (YINSON)

Project   FPSO IBP (Yinson)

Shipyard   COSCO Shipyard

Delivery   1 ship/set

Classification Society   DNV

API SCOPE OF SUPPLY

- Man Gen:
    - 3x QSK95-DM 2700ekw
- Emergency & Harbor Gen:
    - 1x QSK60-DM 1800ekw

Reference Project (Power) – Liftboat (RAWABI)

Project	Liftboat (RAWABI)
Shipyard	CHMI Shipyard (CTW)
Delivery	2 ships/set
Classification Society	ABS

API SCOPE OF SUPPLY

- Man Gen:
    - 4x QSK60-DM 1800ekw
- Emergency & Harbor Gen:
    - 1x KTA19-DM 350ekw

marinetags.com

Reference Project (Power) – 1000 PAX HYBRID FERRY

Shipowner   HK New Ferry

Shipyard   Plenty Shipyard

Delivery   2 vessels

Classification Society BV

API SCOPE OF SUPPLY

- Man Gen: 4x 830ekw
- Hybrid System
- DC-Link:
    - 4x 500ekw Permant magnet motor
    - 4x 830 ekw Permanent magnet generator
    - 33x Inverter + Rectifier
- Battery: 300kwh

References – Shipowners & Clients

References - Shipyards

API MARINE

arctech HELSINKI SHIPYARD

ARMADA SHIPYARD

DSIC SHANHAIGUAN SHIPBUILDING INDUSTRY CO., LTD

SAMSUNG SAMSUNG HEAVY INDUSTRIES

SEFİNE SHIPYARD

YÜTEK GEMİ İNŞA LTD. ŞTİ.

DEARSAN

Tersan SHIPYARD

南通象屿 NANTONG XIANGYU

ZAMAKONA YARDS

BESİKTAS GROUP

XL

HYUNDAI HEAVY INDUSTRIES CO.,LTD.

CELIKTRANS SHIPYARD

KOCATEPE DENIZCILIK VE GEMI INŞA SAN. TIC. LTD. ŞTI.

TB 通宝船舶

nordic yards

Keppel Shipyard

SANFU SHIPBUILDING

MEYER WERFT PAPENBURG 1795

AAS MEK. VERKSTED

BAKU SHIPYARD

SELAH Shipbuilding Industry Inc.

CIMC RAFFLES

ASTILLEROS DE MURUETA

XSI 厦船重工

GELIBOLU SHIPYARD

DESAN SHIPYARD KAPTANOGLU HOLDING

WUHU SHIPYARD CO.,LTD

WUHU SHIPYARD CO.,LTD

stx Heavy Industries

YARDIMCI

DSIC

JSC KHERSON SHIPYARD

KARSTENSENS SKIBSVÆRFT A/S

KAPTANPAŞA DENIZCILIK LTD

Qingdao Beihai Shipbuilding Heavy Industry Co., Ltd.

DSME DAEWOO SHIPBUILDING & MARINE ENGINEERING CO.,LTD.