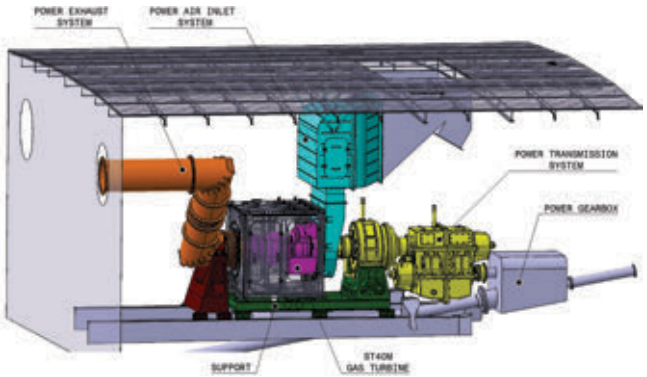
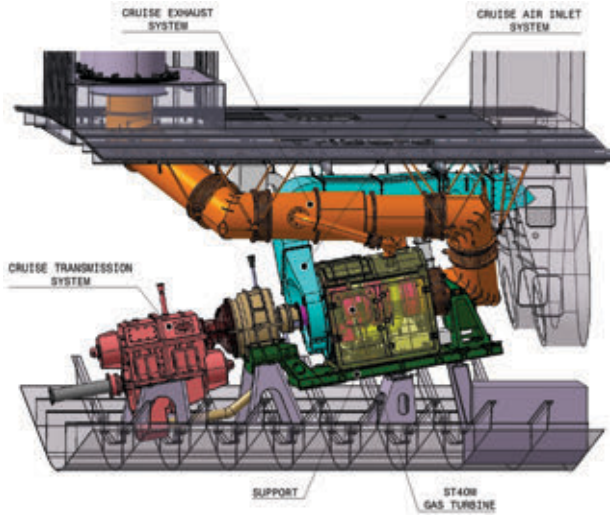
FAST PATROL MISSILE BOAT EQUIPPED WITH ST 40M GAS TURBINES



Power Propulsion Module



Cruise Propulsion Module

DEFENSE

AEROSPACE

ENERGY & SAVING ENERGY

ENVIRONMENT

Address: 220D Iuliu Maniu Ave.,
061126 Bucharest 6, ROMANIA, P.O. 76, P.O.B. 174
Phone: 0040 21/434.01.98, 0040 21/434.02.31, 0040 21/434.02.40
Fax: 0040 21/434.02.41
e-mail: contact@comoti.ro
www.comoti.ro

COMOTI
ROMANIAN RESEARCH & DEVELOPMENT INSTITUTE FOR GAS TURBINES

NAVAL PROPULSION GROUP T22 - ST 40M

FAST PATROL MISSILE BOAT EQUIPPED WITH ST 40M GAS TURBINES

NAVAL PROPULSION GROUP T22- ST 40M

SERIES:
GPN T22-ST40M-001

PRODUCTION YEAR:
2021

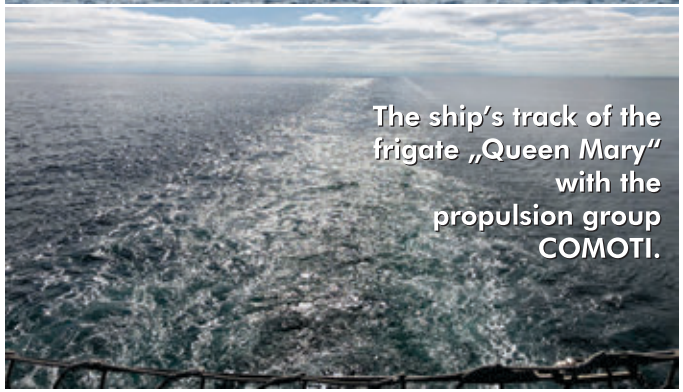
GROUP EQUIPPED
WITH ST40M GAS TURBINE - PRATT & WHITNEY CANADA

GROUP OPERATIONAL CHARACTERISTICS:

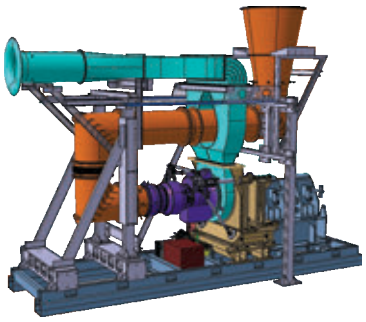
MAX. POWER: 4000 kW
HIGH PRESSURE SHAFT MAX. SPEED: 29500 RPM
POWER TURBINE SHAFT MAX. SPEED: 17501 RPM
FUEL: F-76 NATO
LUBRICANT: MOBIL JET II
PNEUMATIC START UP: START UP PRESSURE: 15-18 BAR

Made in ROMANIA

„Queen Mary" frigate.



The ship's track of the frigate „Queen Mary" with the propulsion group COMOTI.



Test bench prototype.

Naval Propulsion Group T22-ST40M

destined to equip Frigates and Fast Patrol Missile Boats.

Beneficiary:
Romanian Naval Forces within Ministry of National Defence.

Development and implementation of modern solutions for gas turbine propulsion systems and related systems – TURBONAV.

Description: A <<top down>> type of project that aims to strengthen national defense and raise the level of national security by offering an innovative solution to technical and technological problems identified in the ships of the Romanian Naval Forces within the Ministry of National Defense.

Objectives: Identification and implementation of a solution for the replacement of TYNE RM1C type gas turbines - 1960 generation, decommissioned - from the equipment of the "King Ferdinand" and "Queen Mary" frigates with COMOTI's ST40M gas turbine Naval Propulsion Group.

The ST40M marine gas turbine, produced by Pratt & Whitney – Canada is a modern gas turbine, in current production, more reliable and more efficient than the TYNE RM1C. The components of the new propulsive group, including the command and control system, are designed and manufactured in Romania, except the ST40M gas turbine. Fig. 1 presents the major components and systems.

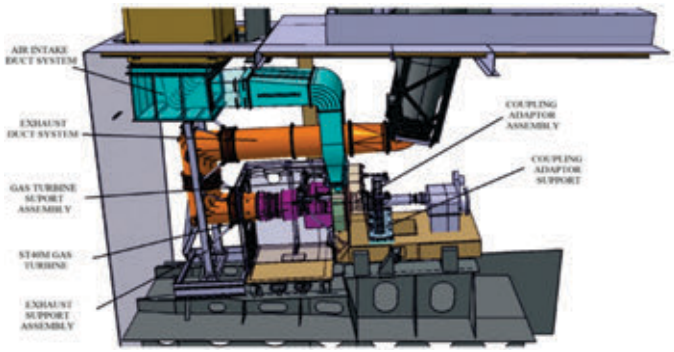


Fig. 1 Cruise propulsion group installed on frigate.

ADVANTAGES:

Specific fuel consumption decreases by 10-15%;
Increase in operation period between overhauls;
Maintenance ensured in Romania through the entire product lifespan;
Possibility of using the technical solution on other ships within the Romanian Naval Forces, for example, Fast Patrol Missile Boats cruise and power modules.