



LEAN PROPULSION®



## SELECTED NAVAL REFERENCES

Silent Strength at Sea – Powering Naval Fleets Around the World.  
STADT Lean Propulsion®.



## A-62 Cartagena



### Spanish Armada

Powered by STADT Lean Propulsion®



The ESPS Cartagena (A62) is a Spanish Navy vessel.  
It was commissioned in late 2024 to enhance the navy's capabilities.



The new ship Cartagena A62 of the Spanish Navy: Arctic capability and vertical helicopter unloading.

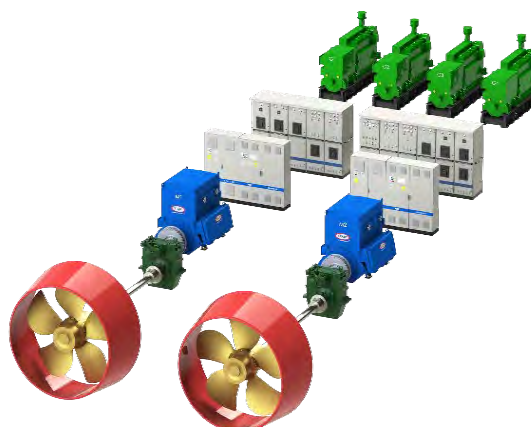
## Armada recibe el nuevo buque



*Participants in the delivery ceremony.  
Signed: Spanish Navy*

## STADT NAVAL Reference - Cartagena A62

|               |              |
|---------------|--------------|
| Owner         | Spanish Navy |
| Details Type  | Naval Vessel |
| Class         | BV, ICE-1B   |
| L.O.A.        | 69,8 m       |
| Width         | 17 m         |
| STADT Project | 13009        |



Diesel-Electric Lean Propulsion®

| Power Generation        | Pcs | Type                              | Maker      | kW   | VAC | Hz |
|-------------------------|-----|-----------------------------------|------------|------|-----|----|
| Diesel-Electric         |     | Total Installed Power             |            | 4000 |     |    |
| Engine                  | 4   | 6EY22LW 720RPM                    | Yanmar     | 1000 |     |    |
| Alternator              | 4   | HFJ7 566-10P                      | Hyundai    | 1000 | 690 | 60 |
| Emergency Genset        | 1   | ECO 38-1LN/4 (Mecc Alte)          | Scania     | 200  | 690 | 60 |
| Main Switchboard        | 2   | STADT MSB-B                       | STADT      |      | 690 | 60 |
| Emergency Switchboard   | 1   | STADT ESB-B                       | STADT      |      | 690 | 60 |
| Lean Propulsion® System | Pcs | Type                              | Maker      | kW   | VAC | Hz |
| Main Propulsion Type    | 2   | CPP Shaft line                    |            | 1500 |     |    |
| MP AC Drive             | 2   | Lean Drive                        | STADT      | 1500 | 690 | 60 |
| MP AC Motor             | 2   | TMC-560-AC-1200R                  | STADT      | 1500 | 690 | 60 |
| MP Gear                 | 2   | LAF 1963 (5,952:1)                | Reintjes   | 1500 |     |    |
| MP Propeller            | 2   | BCP760 F CP in nozzle             | CAT (Berg) | 1500 |     |    |
| BT1 Thruster Type       | 1   | Retractable Azimuth AT 5011 RT-FP | ZF         | 600  |     |    |
| BT1 Drive System        | 1   | FCX Drive & SHB-400-AC-1200R      | STADT      | 600  | 690 | 60 |
| Dynamic Positioning     |     | C-Joy                             | Kongsberg  |      |     |    |

## STADT Scope

Main Switchboards 690V, Main Switchboard 440V, Main Switchboard 230V, Em./Harbor Switchboard 690V, Em./Harbor Switchboard 230V, Power Management System, Distribution Transformers, Main Propulsion Drives, Main Propulsion Motors, Thruster Drive, Thruster Motor

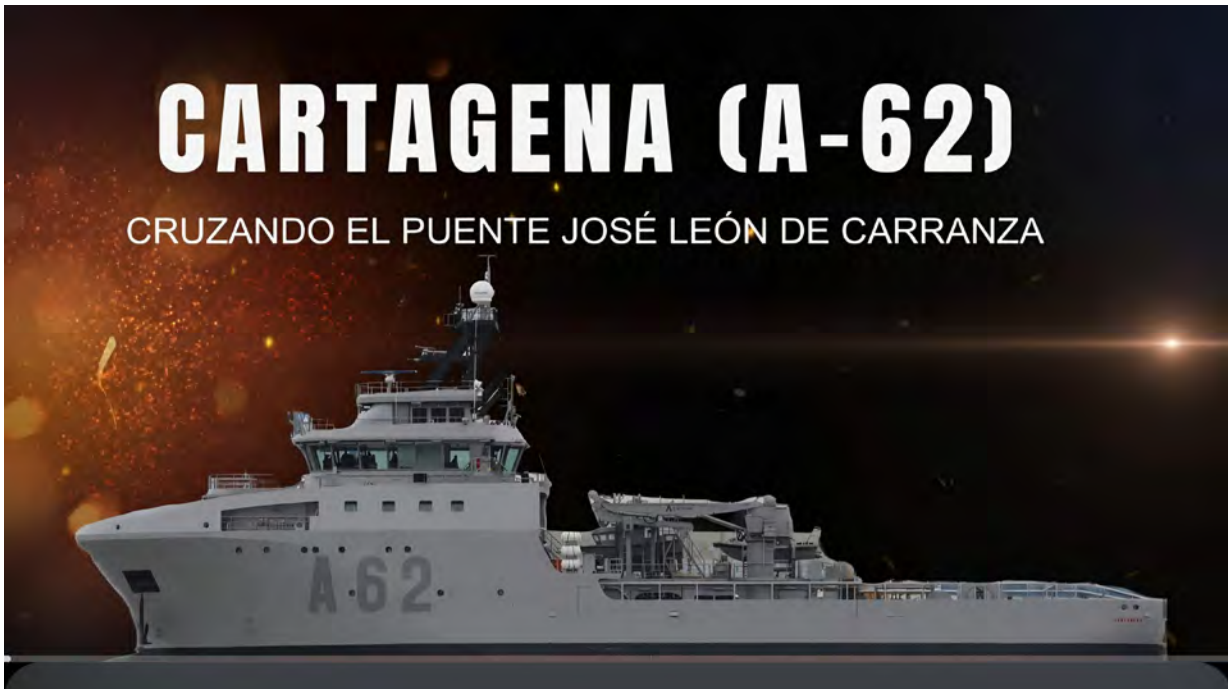
## Reliability - Faultolerance - Robustness

The Cartagena A62 stands out not only for its operational versatility but also for its ability to operate in demanding environments. Thanks to its design, the vessel is built to withstand harsh weather conditions, enabling it to take part in missions in polar regions — a significant milestone for a ship of the Spanish Navy.

In addition, its tactical versatility positions it as a strategic asset in multinational and NATO operations, particularly as a mobile command platform within minehunter flotillas. These features make it a true force multiplier for the Navy, providing logistical, operational, and command support capabilities that are hard to match among traditional auxiliary units.



Main Propulsion Electric Motors



# CARTAGENA (A-62)

CRUZANDO EL PUENTE JOSÉ LEÓN DE CARRANZA



STADT Main Switchboard

## Electric Azimuth bow thruster





## A 202 - HMS Artemis



### Swedish Navy

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HMS Artemis is a signals intelligence gathering vessel currently in service for the Swedish Navy. It was launched in 2019.

Saab has put huge efforts in to a Stealth design.



SAAB & STADT Team  
in Karlskrona



Hallvard Slettevoll with Jyrki Kujansuu  
from SAAB Technologies in Poland







## 261 - ORP Jerzy Różycki 264 - ORP Henryk Zygański



### Polish Navy

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*SIGINT ships for Poland - Designed and delivered by SAAB*

Remontowa Shipbuilding SA was subcontracted by SAAB to build the ships in Poland. STEALTH performance is very important for these ships.







## W-313 - KV Tromsø



In 1997 STADT developed its own MegaWatt-series of AC drives, later known as STADT SCX. This innovation marked an important milestone in STADT's journey toward silent, robust, and reliable propulsion.

KV Tromsø was the very first vessel to implement the STADT's SCX AC drives.



**Bofors  
40 mm / L60  
gun**





Building Yard: Myklebust Verft AS  
Year: 1997

STADT SCX - high power watercooled AC drive for propulsion.





## ORP RATOWNIK



### Polish Navy

Contract for STADT Lean Propulsion®



ORP Ratownik rescue ship to support the Polish Navy's future submarine operations.

STADT NAVAL won the design contract for the integrated diesel-electric energy - and propulsion system for this ship. A DP 2 design.

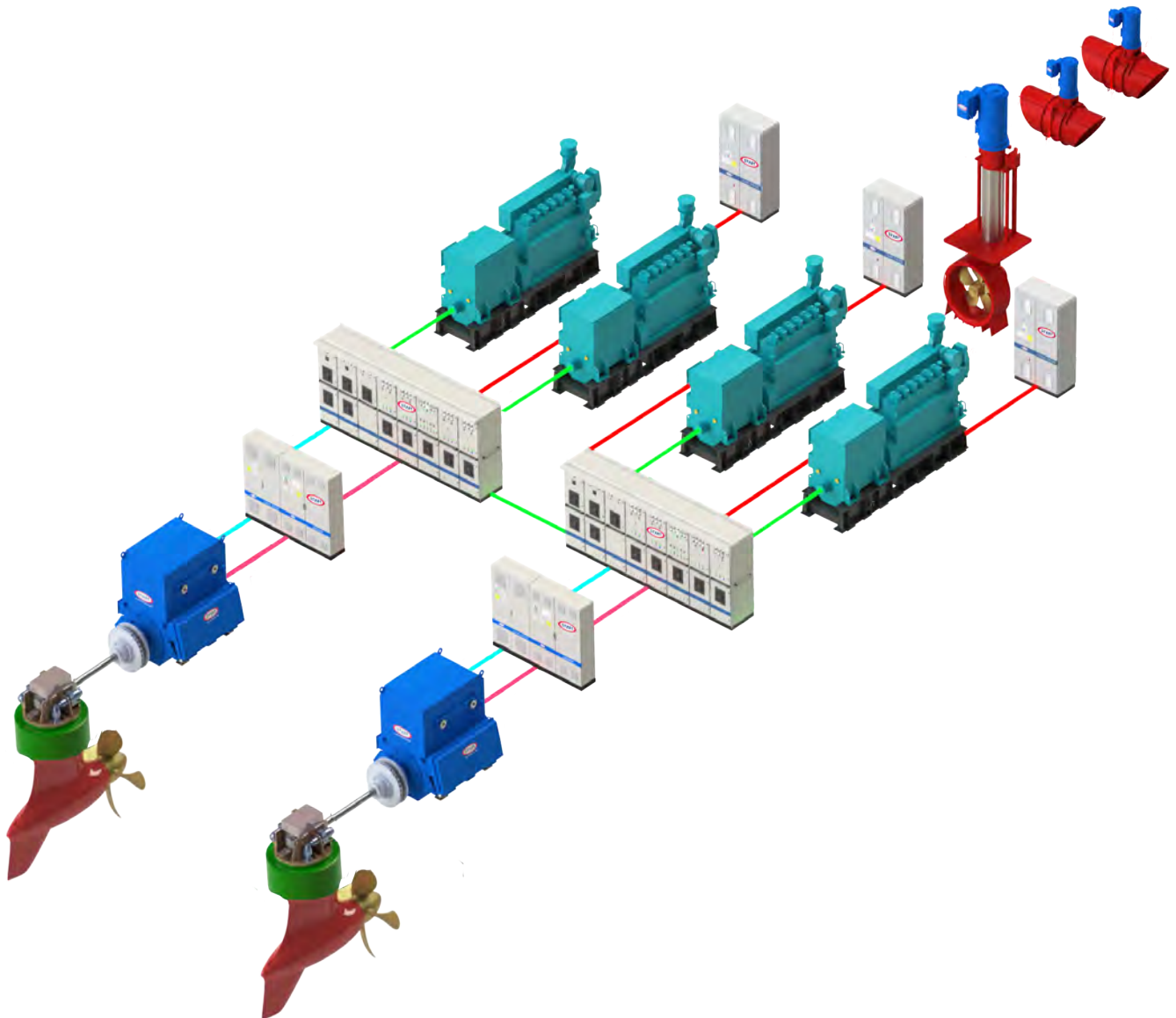
Steel cutting is taking place in 2025, at the PGZ-yard in Poland.



### For DP-2 operations

|  |                 |
|--|-----------------|
| <b>Total installed electric power:</b> | <b>11000 kW</b> |
| Main propellers:                       | 5300 kW         |
| Retractable thruster:                  | 880 kW          |
| Bow thrusters:                         | 1800 kW         |
| FiFi pumps:                            | 2000 kW         |

# STADT Integrated Electric Propulsion (IEP)





**LEAN PROPULSION®**



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Made in Norway

