

A VESSEL OF EXCEPTIONAL DIMENSIONS:

400 m length x 61 m width x 78 m high



KEY FIGURES


10 m
DIAMETER OF
THE PROPELLER


18 600 m³
TANK CAPACITY


23 000 TEU
VESSEL CAPACITY


63 840 kW
ENGINE POWER


CMD-WinGD
12X92 DF

THE CREW

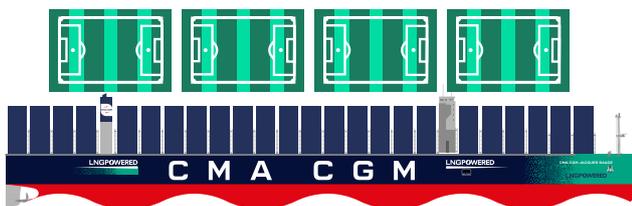
26
CREW MEMBERS

1
GAS-MANAGEMENT
OFFICER

570
TRAINING DAYS
PER CREW

DID YOU KNOW?

Longer than
4 SOCCER FIELDS



Longer than the
EIFFEL TOWER
(324 meters or 1,062 ft)



A PIONEERING VESSEL FOR AIR QUALITY AND MARITIME TRANSPORT'S ENERGY TRANSITION

In the face of major environmental challenges, the CMA CGM Group firmly **sets the course for an ecological transition**. The CMA CGM JACQUES SAADE is the world's largest LNG-powered containership.

Today, LNG is the most advanced solution when it comes to preserving air quality. It enables a 99% reduction in sulfur dioxide and fine particle emissions and a 85% reduction in nitrogen dioxide emissions, all of which represent a major healthcare challenge. This technology enables the ships environmental performances to go well beyond internationally and locally applicable regulations.

LNG is also a first step towards tackling global warming. LNG emits up to 20% less CO₂ compared to fuel motorization. This technology is a first step towards achieving CMA CGM Group's ambitious 2050 objective of carbon neutrality.

What is LNG?

LNG stands for Liquefied Natural Gas. It is a clean energy and is considered, to date, as the least polluting fossil fuel.



ENVIRONMENTAL PERFORMANCE

AIR QUALITY

-99%
SOX
SULFUR DIOXIDE

-99%
FINE PARTICLES

-85%
NOX
NITROGEN DIOXIDE

CLIMATE

UP TO
-20%
CO₂

ONE INNOVATIVE VESSEL. ONE TECHNOLOGICAL MASTERPIECE.

The CMA CGM JACQUES SAADE, 400 m long, 61 m wide, 78 m tall, and with a 16 m draught, boasts state-of-the-art innovations that enable an optimization of its energy efficiency.

• A FUTURISTIC DESIGN

A real work of art, the CMA CGM JACQUES SAADE will be perfectly recognizable throughout all seas across the globe. Its green constellation-like livery symbolizes the natural gas propulsion process: stored in a liquid state, it is then transformed into a gaseous state to fuel the vessel's engines.

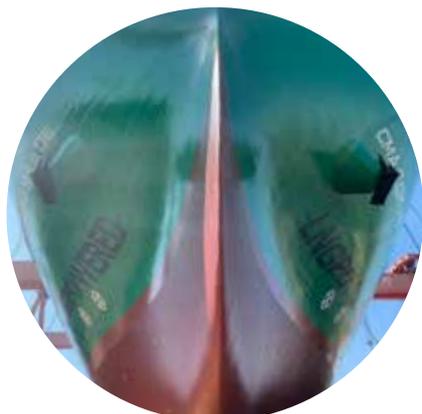
The vessel proudly bears the words "LNG POWERED", highlighting the major worldwide innovation it represents.



green constellation-like livery

• AN INNOVATIVE ARCHITECTURE

The engineers who designed the vessel mobilized all their expertise in order to **optimize its hydrodynamic performances**:



unprecedented straight bow

- At the front, the **bulb** has been completely integrated to the vessel's profile: the bow is straight and tapered, a first for a vessel of this size.



redesigned Propeller and Rudder

- At the back, the propeller and the rudder have been redesigned for an optimized performance. The propeller is equipped with an innovative BECKERTM TWISTED FIN system, thereby improving performance by optimizing water flow and significantly reducing energy consumption. Thanks to this new system, CMA CGM's new vessels boast a 4% reduction in CO₂ emissions.

• NATURAL GAS, THE ENERGY OF TOMORROW

LNG use for a vessel of this size is a **world first**.

The use of LNG preserves air quality and contributes to the reduction in CO₂ emissions: it is the most advanced solution currently available, aiming at reducing maritime transport's environmental footprint. It is the best intermediary solution on the way to achieving zero-emission transport.

• LNG TANK

The tank is a key part of the vessel. Its **18 600 cubic meters of stainless steel** evoke a truly industrial cathedral with exceptional volumes. Its capacity allows full **round trips between Asia and Europe**.

The construction of the tank is a **technological feat** that required the assembly of 1,649 stainless steel panels.

The tank insulation operation required a high level of technical expertise and lasted approximately 9 months. It consists of manufacturing a **thermal cocoon** that allows the natural gas to be maintained in a **liquid state, i.e. at -161°C**. Two layers of insulation and a second membrane envelop the tank and are equipped with very high-tech sensors to ensure that the LNG storage conditions remain optimal and meet all safety requirements.



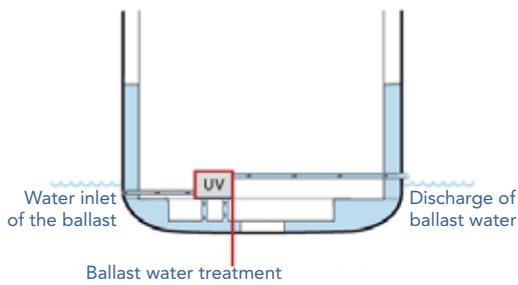
Stored in a liquid state in the tank, the natural gas is converted to a gaseous state to power the ship's engines. This process of gasification and pressurization of the gas is a complex process as it must be adjusted in accordance with the engines' consumption, which depends on the speed of the vessel and the electricity consumption on board. The development of this regulating system is one of the key aspects of this ship.

• A 100% DIGITALIZED PLATFORM

The ship's cockpit contains many digital applications. With its onboard technologies, **CMA CGM propels the industry into the shipping 4.0 era**:

- Augmented reality screens on the bridge providing real-time information to officers such as the vessel's rate of turn, distance from the quay or even transverse speeds;
- A tactical screen for a better view of the charts and dynamic navigation briefings;
- The «path prediction» system, which enables the location of the ship to be predicted with a high degree of accuracy within the next three minutes, taking into account the current rate of turn and speed, as well as helm and speed orders. This facilitates docking maneuvers and allows the Captain to better understand the ship's movements;
- The so-called «smart eye» projection system (a set of cameras) allowing the vessel to be viewed at 360°. Unheard of on a container ship, it is a valuable tool for all port operations.

- **BALLAST WATER PRESERVING BIODIVERSITY**



CMA CGM JACQUES SAADE is equipped with an approved ballast water treatment system. Treated both during pumping and deballasting, the ballast water is filtered and passed under UV lamps, which enables water to be discharged into the sea completely free of all living organisms that could impact marine biodiversity. The system was specifically chosen by CMA CGM because it does not discharge any chemicals into the sea.

- **A SMART SYSTEM FOR VENTILATING REEFER CONTAINERS PLACED IN THE HOLD**

By measuring CO₂ levels as well as the temperature inside and outside the hold, this smart system makes it possible both to ensure proper ventilation of the refrigerated containers placed in it and to reduce the ship's energy consumption. The vessel has 2,200 reefer sockets.

