



# CMA CGM JACQUES SAADÉ - Container ship

Shipbuilder: Hudong-Zhonghua Shipbuilding (Group) Co., Ltd  
 Vessel's name: CMA CGM Jacques Saadé  
 Owner/Operator: CMA CGM  
 Country: France  
 Designer: Marine Design and Research Institute of China (MARIC)  
 Country: China  
 Model test establishment used: Marine Research Institute Netherlands (MARIN)  
 Flag: France  
 IMO number: 9839179  
 Total number of sister ships already completed (excluding ship presented): 1  
 Total number of sister ships still on order: 7

Arguably the most talked about container ship since Maersk's Triple E design was unveiled in 2011, CMA CGM Jacques Saadé may be eclipsed in size eventually but will always be able to claim the title of the world's first LNG-powered ultra large container ship (ULCS). It is also presently the largest LNG-powered container ship in the world along with its sisters.

The ship is the first of nine sister vessels being built across two yards. Five at Hudong-Zhonghua Shipbuilding (Group) and four at Shanghai Jiangnan Changxing Shipbuilding. Including the lead ship, four (two from each shipyard) have been delivered at monthly intervals since September.

With its length a shade under 400m, beam of 61.3m and moulded depth of 33.5m, CMA CGM Jacques Saadé has a total capacity of 23,112TEU of which 13,328TEU are on deck and 9,784TEU under deck.

It is the choice of LNG as fuel that has been the main talking point of the vessel following its announcement. Other operators have also since opted for LNG, but the majority of similar newbuildings appear to have favoured HFO and scrubbers.

CMA CGM Jacques Saadé is powered by a single WinGD 12X92DF engine rated at 63,840kW and linked to a 10.1m diameter propeller rotating at 80rpm, granting a service speed of 21.97knots at 90% MCR. With its dual-fuel engine the vessel could also run on VLSFO or MDO, but the owner has specified a large 18,762m<sup>3</sup> GTT Mark III tank for LNG, allowing the ship to complete a Far East - Europe round trip on one bunkering. By contrast, the HFO tank would only provide for 10 or 11 days of sailing.

## TECHNICAL PARTICULARS

Length oa: 399.9m  
 Length bp: 393.9m  
 Breadth moulded: 61.3m  
 Depth moulded  
 to main deck: 33.5m  
 to upper deck: 33.5m  
 to other decks: 22.915m to second deck  
 Width of double skin  
 side: 2.55m  
 bottom: 2.65m

Draught  
 scantling: 16m  
 design: 14.5m  
 Gross: 236,583gt  
 Displacement: 288,355.3t at scantling draught  
 Lightweight: 67,104.7t  
 Deadweight  
 scantling: 221,250.6t  
 design: 189,260.5t

Block co-efficient: 0.7262 at scantling draught  
 Speed, service: 21.97knots at 90% MCR and scantling draught

Cargo capacity (m<sup>3</sup>)  
 Refrigerated storage: 2,200 pcs electrical plugs for reefer containers

Bunkers (m<sup>3</sup>)  
 Heavy oil: 2,541  
 LNG: 18,762  
 Diesel oil: 1,586  
 Water ballast (m<sup>3</sup>): 56,602  
 Container ships - water ballast in loaded condition (tonnes): 16,382t at heterogeneous loading and scantling draught at maximum geometric capacity

Daily fuel consumption (tonnes/day)  
 Main engine only: 239.1t in fuel mode / 192t in gas mode  
 Auxiliaries: 16.6t in fuel mode / 16.7t in gas mode

Classification society and notations: BV, I, Hull, Mach, Container Ship, DUAL FUEL Unrestricted Navigation, VERISTAR HULL FAT 25, Aut-UMS, Mon-shaft, In Water Survey, CPS (BWT), CLEANSHIP, GREENPASSPORT EU, Aut-Port, Lashing-WW, LI-HG-S2, ESA, +ALP, SDS

Heel control equipment: Anti heeling pump and tanks

Propulsion  
 Main engine(s)  
 Design: WinGD  
 Model: 12X92DF  
 Manufacturer: CMD  
 Number: 1  
 Type of fuel: LNG, HFO, MDO  
 Output of each engine: 63,840kW at 80rpm  
 Is this a diesel-electric or hybrid?: No  
 Propeller(s)  
 Material: Ni-Al-Bronze  
 Designer/Manufacturer: MMG  
 Number: 1  
 Fixed/Controllable pitch: Fixed  
 Diameter: 10.1m  
 Speed: 80rpm  
 Diesel-driven alternators  
 Number: 6  
 Engine make/type: 2 x Wartsila 9L34DF, 4 x Wartsila 8L34DF  
 Type of fuel: LNG, HFO, MDO  
 Alternator make/type: Hyundai Electric / 2 x

HSJ9 911-10P, 4 x HSJ9 809-10P  
 Output/speed of each set: 2 x 4,320kW, 4 x 3,840kW

Boilers  
 Number: 1 auxiliary boiler, 1 exhaust gas boiler  
 Type: Aalborg OL, Aalborg XS-2V  
 Make: Alfa Laval  
 Output, each boiler: AB: 14,650kg/h, EGB: 5,730 kg/h

Bow thruster(s)  
 Make: Kawasaki-KWJ KT-300B3  
 Number: 2  
 Output (each): 430kN thrust  
 Other cranes  
 Number: 2 provision cranes, 1 monorail crane, 2 engine room cranes  
 Make: Oriental  
 Type: 2 x HPC 70-0410, 1 x SMC-150, 2 x CHD

Mooring equipment  
 Number: 14 winches, 2 combined windlass/winches  
 Make: NOV-BLM  
 Type: Electric

Hatch covers  
 Design: MacGregor  
 Manufacturer: Built by shipyard  
 Type: Steel pontoon type on upper deck

Containers  
 Lengths: 24 x 40' bays on deck  
 Heights: 12 tiers on deck and 11 tiers in holds  
 Cell guides: Cell guides in cargo holds  
 Total TEU capacity: 23,112TEU  
 On deck: 13,328TEU  
 In holds: 9,784TEU  
 Homogeneously loaded to 14tonnes: 14,810TEU at scantling draught  
 Reefer plugs: 2,200  
 Tiers/rows (maximum)  
 On deck: 1,400  
 In holds: 800

Ballast control system  
 Make: SAM electronics  
 Type: Platinum  
 Ballast water treatment system  
 Make: Bio UV  
 Capacity: Max flow rate IMO: 1,500m<sup>3</sup>/h  
 Max flow rate USCG: 1,000m<sup>3</sup>/h

Complement  
 Officers: 9  
 Crew: Max. 20  
 Supernumeraries/Spare: 4  
 Suez/Repair Crew: 6 Suez crew + 1 Suez electrician  
 Single/double/other rooms: All crews with single cabins

Passengers  
 Total: 6 passengers  
 Number of cabins: 4 cabins  
 Navigation and other equipment  
 Bridge control system  
 Make: SAM Electronics  
 Type: Platinum  
 Is bridge fitted for one-man operation?: No  
 Integrated bridge system?: No

Radars  
 Number: 3  
 Make: Sperry Marine  
 Model(s): VisionMaster Net S-band, 2 x VisionMaster Net X-band

Fire detection system  
 Make: Consilium  
 Type: Salwico Cargo

Fire extinguishing systems  
 Cargo holds: CO<sub>2</sub>  
 Make/Type: Seaplus  
 Engine room: CO<sub>2</sub>, local water-based  
 Make/Type: Seaplus / Survitec

Efficiency  
 Attained EEDI value: 6.035 g-CO<sub>2</sub>/tonne-mile  
 Required EEDI value: 13.2 g-CO<sub>2</sub>/tonne-mile  
 Installed Fuel Meters: Monitoring on fuel, lube oil and gas system

Contract date: 19 September 2017  
 Launch/float-out date: 06 October 2019  
 Delivery date: 22 September 2020



