

CMA CGM DIGNITY – CONTAINER SHIP



Shipbuilder: **Hyundai Heavy Industries**
 Vessel's name: **CMA CGM Dignity**
 Owner/Operator: **CMA CGM**
 Country: **France**
 Designer: **Hyundai Heavy Industries**
 Country: **Republic of Korea**
 Flag: **Malta**
 IMO number: **9897779**
 Total number of sister ships already completed (excluding ship presented): **2**
 Total number of sister ships still on order: **14**

In 2019, Eastern Pacific made a huge foray into the dual-fuel container ship sector with an order for 22 15,000TEU vessels spread between Hyundai Samho and Hyundai Heavy. The ships were to be taken into long term charters by several of the major container liner operators. CMA CGM Dignity handed over in February 2022 is typical of the type and the first built at Hyundai Heavy.

The ships are fully cellular and CMA CGM Dignity has a nominal capacity of 15,264TEU which reduces to 10,315 at an homogenous 14tonnes. Hold capacity is 6,068TEU in 11 tiers and 18 rows and on deck 9,226TEU in 12 tiers and 20 rows. There are 123 reefer points. Whilst liner operators do continue with larger ship orders, the 15,000TEU size is increasingly being seen as the ideal due to its flexibility in choice of ports. With its 365.99m loa, beam of 51m and draught of 16m, CMA CGM Dignity can use the Panama Canal unlike the larger sizes.

The chosen power and propulsion system for the vessel comprises a 46,360kW output Hyundai-built MAN B&W 11G90ME-C10.5-GI-EGRTC main engine directly connected to a 10m diameter fixed pitch propeller. This allows for a service speed of 21.65kt at 80%MCR. Auxiliary power is supplied by four HIMSSEN 8H35DF engines. The EGRTC suffix denotes the vessel uses exhaust gas recirculation with turbocharger cutout to achieve NOx Tier III requirements.

The use of LNG as fuel along with energy saving rudder bulb and propeller boss cap fin allows the vessel to achieve an EEDI of 6.63 well below the 14.12 required value for a vessel of the size.

A pair of Hyundai HiBallast systems rated at 1,000m³/h each allow the ship to meet the ballast treatment requirements and with these systems approved by IMO and USCG permits worldwide trading.

TECHNICAL PARTICULARS

Length oa: 365.99m
 Length bp: 350m
 Breadth moulded: 51m
 Depth moulded to main deck: 29.85m
 Width of double skin side: 28mm
 bottom: 24mm

Draught
 scantling: 16m
 design: 14.5m
 Gross: 150,783
 Deadweight
 scantling: 160,194t
 design: 136,240t

Speed, service (80%MCR output): 21.65kts
 (NCR with 15% S.M.)

Cargo capacity (m³)
 Bale: abt. 15,300TEU
 Refrigerated storage: 1,000TEU
 Bunkers (m³)
 Heavy oil: 5,416.8
 Diesel oil: 1,340.8
 Water ballast (m³): 43,507.7
 Daily fuel consumption (tonnes/day)
 Main engine only: 137.6
 Auxiliaries: 111.5

Classification society and notations: LR (+ 1A
 Container ship BIS BWM(T) CMON COAT-
 PSPC(B) EO Gas fueled LNG LCS Recyclable
 RSCS RSD TMON(oil lubricated) WIV ER(EGR,
 SCR, TIER III))

% high-tensile steel used in construction: 68.5%

Propulsion
 Main engine(s)
 Design: Electronically controlled two-stroke,
 direct reversible, crosshead type diesel engine
 Model: MAN B&W 11G90ME-C10.5-
 GI-EGRTC

Manufacturer: Hyundai - MAN B&W
 Number: 1
 Type of fuel: LFO / ULSFO / MGO / Gas
 Output of each engine: 46,360kW
 Is this a diesel-electric or hybrid?: N

Propeller(s)
 Material: Ni-Al Bronze
 Designer/Manufacturer: HHI-EMD
 Number: 5
 Fixed/Controllable pitch: Fixed
 Diameter: 10,000

Diesel-driven alternators
 Number: 4
 Engine make/type: Hyundai/HIMSSEN 8H35DF
 Type of fuel: LFO / ULSFO / MGO / Gas

Boilers
 Number: 1
 Type: Automatic, forced draft, DF
 burning, marine boiler

Make: Kangrim
 Output, each boiler: 8,000kg/h
 Stern appendages/special rudders: Becker
 Twisted Fin

Bow thruster(s)
 Make: KTE
 Number: 1
 Output (each): 3,000kW AC 6,600V 60Hz

Other cranes
 Number: 2
 Make: Sangsagin Industry
 Type: Jib type
 Tasks: Provision handling, Suez boat
 handling

Performance: 3ton x 9.03m (Port), 3ton x
 10.2m (Stbd)

Mooring equipment
 Number: 9
 Make: MacGregor
 Type: Electric

Special lifesaving equipment
 Number of each and capacity: 2 (each 32P)
 Make: HLB
 Type: Conventional

Cargo/capacity
 Hatch covers
 Design: SMS-SME
 Manufacturer: Marine Tech Inc
 Type: Pontoon, non-sequential
 operation type

Containers
 Lengths: 6,058mm (20ft), 12,192mm (40ft)
 Heights: 2,591mm (8ft 6inch), 2,896mm
 (9ft 6inch)

Cell guides: 40ft Cell guide
 Total TEU capacity: 15,294TEU
 On deck: 9,226TEU
 In holds: 6,068TEU
 Homogeneously loaded to 14tonnes: 10,315TEU

Reefer plugs: 123
 Tiers/rows (maximum)
 On deck: 12 Tiers / 20 Rows
 In holds: 11 Tiers / 18 Rows

Cargo valve control system
 Make: KSB Seal
 Type: Hydraulic type

Ballast valve control system
 Make: Emerson
 Type: Electro-hydraulic type

Ballast water treatment system
 Make: (Hi-Ballast) Hyundai Heavy
 Industries, Engine & Machinery Division
 Capacity: 1,000m³/h x 2

Complement
 Officers: 12
 Crew: 20

Navigation and other equipment
 Bridge control system
 Make: Nabtesco
 Type: M-800-V

Is bridge fitted for one-man operation? N
 Integrated bridge system: N
 Radars
 Number: 1
 Make: JRC
 Model(s): JMR-9282-S, JMR-9225-7X3

Fire detection system
 Make: Autronica
 Type: Autosafe 4

Fire extinguishing systems
 Cargo holds: Fixed CO₂ System & SW Hydrants
 Make/Type: Fain / High Pressure CO₂
 Engine room: Fixed CO₂ System & SW
 Hydrants & Portable Fire Extinguishers

Make/Type: Fain / High Pressure CO₂
 Fain / Portable Extinguisher

Cabins: SW Hydrants / Portable Fire
 Extinguishers

Make/Type: Fain / Portable Extinguisher
 Public spaces: SW Hydrants / Portable Fire
 Extinguishers

Make/Type: Fain / Portable Extinguisher
 Waste disposal plant
 Incinerator
 Make/ Model: HMMCO / MAXI 1500SL WS

Sewage plant
 Make/ Model: Jonghap / AEROB - 18N(A)

Efficiency
 Attained EEDI value: 6.63
 Required EEDI value: 14.12
 Installed Fuel Meters: Mass flow

Other installed monitoring tools: Loading
 Computer, Integrated Automation System,
 M/E Shaft Power Meter

Energy Saving Technologies*: Rudder bulb,
 Propeller boss cap fins

Performance Monitoring Regime: Hyundai - ISS
 Contract date: 26 September 2019
 Launch/float-out date: 14 October 2021
 Delivery date: 10 February 2022

