



## CAP PALMERSTON: HMD-built 1800TEU containership design

Shipbuilder: .....Hyundai Mipo Dockyard Co Ltd (HMD), Korea  
 Vessel's name: .....*Cap Palmerston*  
 Hull number: .....4002  
 IMO number: .....9344643  
 Owner/operator: .....Reederei Claus-Peter Offen, Germany  
 Designer: .....Hyundai Mipo Dockyard Co Ltd, Korea  
 Flag: .....Liberia  
 Total number of sister ships already completed: .....4  
 Total number of sister ships still on order: .....7

ONE third of HMD's annual output has recently been given over to containership construction, with four standard designs dominating the orderbook, offering capacities of 4300TEU, 3500TEU, 2800TEU, and that featured in this review, 1800TEU. This particular series, developed, like so many of similar size building worldwide for the German-led, liner charter market, carries its own cargo gear. However, in an interesting move, and in response to another owner requiring quick delivery of eight 2000TEU capacity vessels, HMD has upgraded this 1800TEU series to satisfy this larger intake, by removing the cranes in order to make more stowage space available.

The design is laid out with a single deck and forecastle, bulbous bow, transom stern, and open water sternframe, with rudder suspended from the horn and a FP propeller. An eight tier superstructure containing the crew accommodation and wheelhouse is arranged aft of an open deck space over the engine room, which offers additional container stowage. The double skin hull contains five cargo holds closed by eight sets of lift-away pontoon hatch covers. Side spaces surrounding the holds are separated from the centrally divided double bottom tanks, and are available for water ballast purposes.

A maximum of six tiers and nine rows of containers can be loaded in the holds: three tiers of 9ft 6in high units and three of 8ft 6in, with maximum six tiers and 11 rows on the hatch covers. Seven tiers and 11 rows can be accommodated on the open deck space above the engine room. Cell guides suitable for 40ft boxes are fitted in the holds, with guide fittings suitable for securing TEU, arranged where the ship's lines dictate. Total container capacity is 1841TEU, of which 738 are carried in the holds.

As well as TEU and FEU, 45ft containers can also be loaded in prescribed positions, and refrigerated container connections are provided for a total of

462FEU, 197 of which are located in the holds. Cargo handling is effected by three MacGregor GL type electric-hydraulic deck cranes, manufactured by the designer's Korean associate, Hochang. Lifting capacity of each is 45tonnes, with two units having an outreach of 26m and one 29m.

*Cap Palmerston* is fitted with a MAN B&W 6L70MC-C main engine built by the Hyundai engineering division. MCR is 19,620kW at 108rev/min; however, operation with a clean bottom in calm and deep sea, at an NCR of 17,658kW/104.3rev/min, and allowing a sea margin of 15%, gives a speed of 21.20knots. Electrical generation is by four Hyundai alternators each producing 1570kW, driven by Hyundai Heavy Industries' in-house developed HiMSSEN 7H25/33 engines, whilst an Aalborg composite boiler develops 2500kg/h steam from both the oil fired and the exhaust gas sections. A 1000kW Kawasaki bow thruster is fitted.

### TECHNICAL PARTICULARS

Length, oa .....186.36m  
 Length, bp .....175.00m  
 Breadth, moulded .....27.60m  
 Depth, moulded .....17.10m  
 Width of double skin  
   side .....2.19m  
   bottom .....1.60m  
 Draught  
   design .....9.80m  
   scantling .....11.30m  
 Gross .....22,914gt  
 Displacement .....37,942tonnes  
 Deadweight  
   design .....21,750dwt  
   scantling .....28,100dwt  
 Speed, service, 90% MCR, 15% sea margin .....21.20knots  
 Bunkers  
   heavy oil .....2150m³  
   diesel .....210m³  
 Water ballast .....9300m³  
 Water ballast carried in container loaded condition .....7200m³  
 Classification .....Germanischer Lloyd +100A5,  
   Container Ship, SOLAS Ch. II-2 Reg 19,  
   RSD, +MC, AUT, IW, RCP 462/20  
 Heel control equipment .....Framo  
 Main engine  
   Design .....MAN B&W  
   Model .....6L70MC-C

Manufacturer .....Hyundai Heavy Industries  
 Number .....1  
 Type of fuel used .....HFO/MDO  
 Output/speed .....19,620kW/108rev/min  
 Propeller  
   Material .....Nickel-aluminium-bronze  
   Designer/manufacturer .....Hyundai Heavy Industries  
   Number .....1  
   Pitch .....Fixed  
   Diameter .....6700mm  
   Speed .....108rev/min  
 Diesel-driven alternators  
   Number .....4  
   Engine make/type .....Hyundai/HiMSSEN 7H25/33  
   Type of fuel used .....HFO/MDO  
   Output/speed .....4 x 1680kW/720rev/min  
   Alternator make/type .....Hyundai/HFC7 638-14IK  
   Output/speed .....4 x 1570kW/  
 Cargo cranes  
   Number .....3  
   Designer .....MacGregor  
   Manufacturer .....Hochang Machinery  
   Type .....Hydraulic  
   Models/performance .....2 x GL4526/4029-2; 45/40tonne  
   1 x GL4526/4630-2; 45/40tonne  
 Hatch covers  
   Designer/manufacturer .....MacGregor  
   Type .....Lift-away pontoon  
 Containers  
   Lengths .....TEU: FEU: 45ft  
   Heights .....8ft 6in: 9ft 6in  
   Cell guides .....In holds for FEU  
   Total TEU capacity .....1841  
   on deck .....1103  
   in holds .....738  
   Reefer plugs .....462FEU  
 Ballast control system  
   Make .....Emerson  
   Type .....Remote valve control  
 Complement  
   Officers .....15  
   Crew .....12  
   Suez/repair crew .....6  
 Bow thrusters  
   Number .....1  
   Make .....Kawasaki Industries  
   Output .....1000kW/1200rev/min  
 Fire detection system  
   Make .....Saracorn  
   Type .....T1016  
 Fire extinguishing system  
   Holds/engine room .....NK/CO<sub>2</sub>  
 Contract date .....13 January 2005  
 Launch/float-out date .....22 June 2007  
 Delivery date .....9 August 2007