



# 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 HiMSEN 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 .....2150m<sup>3</sup>  
diesel .....210m<sup>3</sup>  
Water ballast .....9300m<sup>3</sup>  
Water ballast carried in container loaded condition .....7200m<sup>3</sup>  
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/HIMSEN 7H25/33  
Type of fuel used .....HFO/MDO  
Output/speed .....4 x 1680kW/720rev/min  
Alternator make/type .....Hyundai/HFC7 638-14K  
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 .....Saracom  
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