AL MURABBA: Containership

Shipbuilder: ..... **Hyundai Samho Heavy Industries Co. Ltd.**
Vessel's name: ..... ***Al Murabba***
Hull No: **S737**
Owner/Operator: ..... **UASC**
Country: ..... **Kuwait**
Designer: ..... **Hyundai Samho Heavy Industries Co. Ltd.**
Country: ..... **Republic of Korea**
Model test establishment used: ..... **HSVA**
Flag: ..... **Marshall Islands**
IMO number: **9708837**
Total number of sister ships already completed (excluding ship presented): ...**4**
Total number of sister ships still on order: **10**

AL MURABBA is the first in a series of eleven 15,000TEU container carriers ordered by United Arab Shipping Company. The vessel was delivered from Hyundai Samho Heavy Industries Co. Ltd (HSHI) to United Arab Shipping Company on 30 December 2014.

Al Murabba is the first vessel to use a shaft generator and waste heat recovery to increase the total efficiency of the plant, and are automatically activated by a power management system at HSHI. Surplus waste heat recovery energy can be used for propulsion via a shaft motor, using energy from the auxiliary engine to boost the ship's speed when required for navigation. The waste heat recovery system is composed of a power turbine, steam turbine and turbine generator for electric power production. The task of the power management system is to deliver electrical power for all consumers on the ship. In order to perform the task the power management system controls the auxiliary engine(s) and possibly a shaft generator and/or a waste heat recovery system.

Other distinctive features of *Al Murabba* include a Becker rudder with bulb, Becker twisted fins and a hull stress monitoring system.

UASC is currently implementing one of the industry's largest and most technologically advanced new building programs, with 17 new vessels on order; six of 18,800TEU and 11 15,000TEU containerships.

UASC's vessel designs have been developed with a focus on cost efficiency and enhanced environmental friendliness. These vessels will be the first ultra large containerships in the industry to be delivered 'LNG ready', to enable dual fuel (the use of both traditional heavy fuel oil as well as liquefied natural gas or LNG fuel), which is expected to significantly reduce environmental impact and reduce fuel costs. Final calculations indicate an EEDI (Energy Efficiency Design Index) value that is close to 50% below the 2025 limit set by IMO.

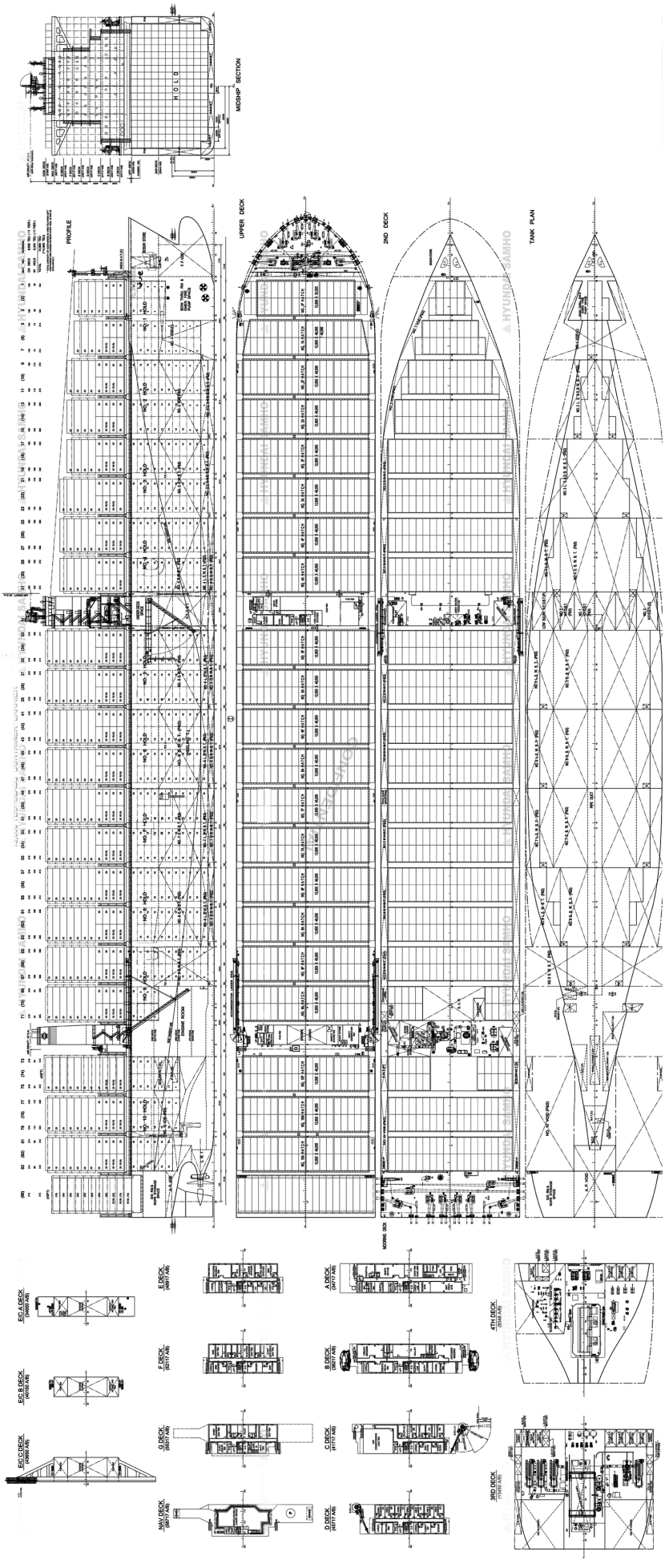
TECHNICAL PARTICULARS

Length oa: 368.52m
Length bp: 352.00m
Breadth moulded: 51.00m
Depth moulded
To main deck: 30.35m
To upper deck: 30.35m
To other decks: .....20.444m(2nd deck)
Width of double skin
Side: 2.50m
Bottom: ..... 2.30m (above base line)
Draught
Scantling: .....15.50m (moulded)
Design: .....14.50m (moulded)
Gross: 15,3148gt
Displacement: ..... 194,967gt (at scantling draught)
Lightweight: .....45,607gt (first vessel)
Deadweight
Design: 133,671dwt
scantling: 149,360dwt
Block co-efficient: ..... 0.6818 (at scantling draught)
Speed, service: .....21knots (Beaufort 3)
Total container capacity (TEU) 14,990TEU
On deck/hatch (11tier): 8,656TEU
In hold: 6,334TEU
Bunkers (m^3)
Heavy oil: ..... 7713.1m^3
Diesel oil: ..... 1120.5m^3
Water ballast (m^3): ..... 40,122.2m^3
Container ships – water ballast in loaded condition (tonnes): .....38,868.6tonnes (homo. 7ton at scant. with dep.)
Daily fuel consumption (tonnes/day)
Main engine only: ..... 161.7g/kW.h + 5% at MCR

Classification society and notations: ....DNV, +1A1 Container carrier, BIS,BWM(T),Clean,..... DG(P),E0, HMON(A1,C1,G4,L4,01), NAUT(OC),NAUTICUS (Newbuilding), TMON

Main engine(s)
Design: ..... HYUNDAI-MAN B&W
Model: 9S90ME-C10.2
Manufacturer: ..... HHI-EMD
Type of fuel (eg, HFO or MDO) : ..... HFO, MGO
Output of each engine: .....54,900 kW X 84 rpm (Two stroke, Crosshead, Turbocharged)
Propeller(s)
Material: ..... Ni.Al.Bronze
Designer/Manufacturer: ..... HHI-EMD
Fixed/Controllable pitch: ..... Fixed pitch
Diameter: 10m
Speed: 72rpm
Diesel-driven alternators
Number: 5
Engine make/type: .....Nishishiba Electric
Output/speed of each set: ..... 4,140kW (4sets) at 720 RPM
Boilers
Type: ..... Automatic, forced draft, heavy fuel oil burning, marine boiler
Make: ..... Alfa Laval
Output, each boiler: 7,000kg/h
Other cranes:..... 1 set(Monorail crane)
Make: .....Dongnam Marine Crane Co. Ltd.
Type: .....Electric-Hydraulic
Performance
- Capacity : ..... 12.5 tonnes
- Lifting height: 45m
- Transversing speed: 7m/min
Number: .....2 sets (provision crane)
Make: .....Dongnam Marine Crane.co Ltd.
Type: .....Electric-Hydraulic
Performance:.....
- Capacity : ..... four tonnes
- Working Radius : ..... Max.10.5m~Min.7.75m
Mooring equipment
Number: .... 16 sets (Upper deck fwd: 8 sets/ Mooring deck aft: 8 sets)
Make: ..... Towimor SA
Special lifesaving equipment (eg MES, free-fall lifeboats)
Number of each and capacity: .....2 sets, 35 persons
Make: ..... Hyundai Lifeboats
Type: ..... Davit launched type
Hatch covers ..... MacGregor
Type (upper deck/other decks):..... Weather Deck Hatch Covers, Lift-Away type
Containers
Lengths: ..... ISO standard container
Heights: ..... ISO standard container
Cell guides: .....Mixed(random) storage
Total TEU capacity:
On deck: 8,656TEU
In holds: 6,334TEU
Homogeneously loaded to 14tonnes: ... 14T *8750TEU+28T*603FEU
Tiers/rows (maximum)
On deck: 11/20
In holds: 11/18
Ballast control system
Make: ..... Kongsberg
Water ballast Treatment System
Make: ..... PANASIA
Capacity:..... 1,000m^3/hr
Complement
Officers:..... 13
Crew:..... 19
Supernumaries/Spare: ..... Suez/Repair Crew
Stern appendages/special rudders: ..... Becker twisted rudder with bulb.
Bow thruster(s) x 2 sets
Make: ..... Kawasaki Heavy Ind. Ltd.
Output (each): .....about 298kN
Bridge control system
Make: ..... Kongsberg
Is bridge fitted for one-man operation? .....Yes
Fire detection system
Make: ..... Consilium
Type: BS-420M
Fire extinguishing systems
Cargo holds: .....
Make/Type: .....NK Co. Ltd/CO_2
Engine room:..... Make/Type: NK Co. Ltd/CO_2
Cabins:.....
Make/Type: ..... Portable fire extinguisher
Public spaces: ..... -
Make/Type: ..... Portable fire extinguisher
Radars
Make: ..... Kongsberg
Integrated bridge system: .....Yes
Model: ..... Kongsberg
Waste disposal plant
Incinerator .....
Make: ..... HMMCO
Model: .....Sludge oil & solid waste burning type
Sewage plant
Make: ..... IL SEUNG Model: Biological Type
Contract date: .....29 August 2013
Launch/float-out date: ..... 1 November 2014
Delivery date: ..... 1 March 2015

AL MURABBA


MIDSHIP SECTION
PROFILE
UPPER DECK
2ND DECK
TANK PLAN
E.R DECK
A DECK
F DECK
B DECK
G DECK
C DECK
D DECK
3RD DECK