

Holland America

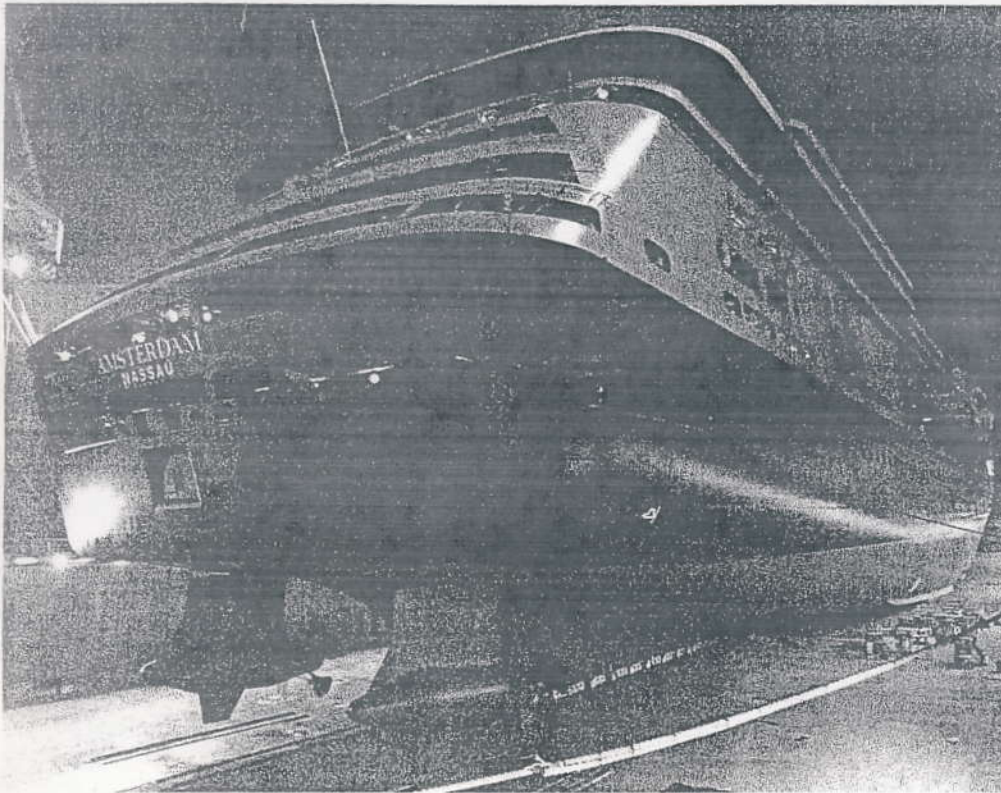
A TRADITION OF EXCELLENCE

Ship's Particulars m.s. Amsterdam

Flag	Netherlands	Engine Room Particulars	
Call Sign	PBAD	Diesel - Electric Propulsion	
Date of keel laying	June 29, 1998	Three GMT Sulzer ZAV40S 12 cylinder diesel engines each 8,6 MW or 11,592 hp	
Date of Floating out	January 7, 2000	Two GMT Sulzer ZAV40S 16 cylinder diesel engines each 11,5 MW or 15456 hp	
Date of Delivery	September 28, 2000	Two AZIPOD propulsion units, with each a 4 blade 5400 mm diameter fixed pitch propeller. Driven by a double wound water/air cooled electric motor of 15,5 MW or 20125 hp. Each AZIPOD has a 360 degrees turning angle for high maneuverability.	
Official Number	9188037	Two KaMeWa bow thrusters, each 1,900 kW or 2,549 hp each with a four-bladed, 2.4 mtr / 8 ft propeller	
International Gross Tonnage	60.874 tons	Two Fincantieri stabilizers	
Displacement	33.950 tons	Three Alpha Laval steam / high temperature cooling water fresh water evaporators	
Deadweight	7.252 tons	Bridge Particulars	
International Net Tonnage	30.766 tons	Two STN Atlas X-band and two S-band radar scanners	
Panama Canal Net Tonnage	50.058 tons	One STN Atlas Multipilot electronic sea-chart	
Suez Canal Net Tonnage	52.358 tons	Two STN Atlas 9600 radars	
Length overall	238.0 mtr / 780 ft	One STN Atlas navigation command system (NACOS)	
Length between perpendiculars	202.0 mtr / 662 ft	Two Trimble Differential GPS positioning systems	
Breadth Molded	32.25 mtr / 105 ft	One Taiyo Loran-C positioning system	
Top funnel above keel	54.60 mtr / 180 ft	One Anschutz automatic pilot	
Air draft (at min. draught)	47.90 mtr / 157 ft	One STN Atlas Depth sounder/recorder	
Cruising speed	21.0 knots	One STN Atlas Doppler speed log	
Maximum speed	24.5 knots	One Sailor GMDSS communication center	
Max. Draught	8.00 mtr / 26'-03"	Lifesaving capacity 1,920 persons in life boat 1,085 persons in life rafts	
Fuel Oil	IFO 380 or MDO	Normal approx. occupancy: 1,380 passengers / 600 crew	
Fuel Oil Consumption	96 gal/mile or 196 ltr/km		
Bunker Capacity Fuel Oil	3,464,400 ltr or 906,800 gallons		
Fresh water production	1,400,000 ltr or 370,000 gal per day		
Fresh water consumption	650,000 ltr or 174,000 gal per day		

Propulsion Data

Diesel Electric Propulsion System



Fixed blades Azipod system :

Two Azipods with electrical driven inward turning reversible 4 fixed blades propellers

Azipod can be rotated 360 degrees.

Azipod units are operated in a pulling configuration, propellers are facing forward.

Propulsion Electro Motors :

2 x 15.5 MW (20800 hp), reversible with no delay time.

Diesel generators, Sulzer :

2 x 11.5 MW (15400 hp)
3 x 8.6 MW (11500 hp)

Maneuvering Data

Engine order	Lever	Speed
Full ahead :	6	15
Half ahead :	4	10
Slow ahead :	2	5.5
Dead slow ahead :	1	2.5
Dead slow astern :	1	
Slow astern :	2	
Half astern :	4	
Full astern :	6	

Minimum steerage speed : 2 knots

Speed 22.5 knots and Azipod hard over will give an advance of 475 meters and a transfer of 450 meters.

Speed 22.5 knots and full astern will give an advance of 1625 meters in 290 seconds.

Available astern power : 80% of ahead

Steering Particulars

Type of rudder :	Azipod propulsion system fitted on semi balans rudders		
Max rudder angle :	35°	Time from 0 to hard over :	12 seconds
Bow thrusters :	2 x 1900 kW (2500 hp)	Bowthrusters effective to :	8 knots
		Time delay for full thrust :	4 seconds
Stern thruster :	No stern thruster available. Port or starboard Azipod will be turned at 90 degrees and functions as a stern thruster. Available power is then 7500 kW (10050 hp), see diagram next page.		