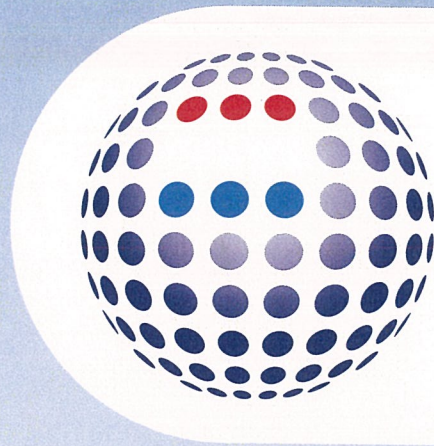


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Maritime by Holland.

Magazine

Vessels highlighted

Norne, Seven Pacific, SS Antoinette

The vision of

Diek Parlevliet, Managing Director Parlevliet & Van der Plas

Special

Marine Propulsion





Moored at the outfitting quay of Shipyard De Hoop in Lobith, the *SS Antoinette* is brimming with activity as the finishing touches are applied before her inaugural cruise in a few days. The 'SS' in this brand new river cruise ship's name does not refer to the traditional 'Steam Ship', but to 'Super Ship', and in many ways, the vessel honours this qualification. The second part of the name is given by Antoinette Tollman, godmother of the ship, but also head designer responsible for the interior decoration. The Tollman family owns the Uniworld river cruise company and Red Carnation Hotels, operator of boutique hotels.

Luxurious cruising

Owner Uniworld caters for a predominantly North-American and British clientele. With the *SS Antoinette*, the company wanted to create the most luxurious river cruising vessel plying the Rhine. This luxury is reflected in the boutique-hotel styling, the onboard art collection, the record-breaking amount of public space per passenger and the unique amenities such as an indoor swimming pool and a 20-seat movie theatre. The innovative slide-down windows turn each cabin into a balcony and the propulsion installation and insulation guarantee extremely quiet cruising. The *SS Antoinette* also features the most spacious bathrooms to be found on the Rhine. A good indicator of the level of luxury and service is the amount of seats in public spaces per sleeping berth. While most ships score around two, on *SS Antoinette*, there are nearly four seats in public areas per berth.

Boutique hotel

To understand and appreciate the *SS Antoinette*, one must be familiar with the concept of boutique hotels. The term describes intimate, usually luxurious and often quirky hotel environments. The boutique hotel movement has been gathering strength since the eighties, as many guests have come to view the large luxury hotel chains, often with sleek modern styling, as business hotels and wanted something more interesting to spend their holidays. Owner Uniworld consistently applies the boutique hotel philosophy on its 17 vessels in operation in Europe, Russia, Egypt and China.

While the interior decoration, inspired by the Château de Versailles of the late-eighteenth century, may be overwhelming to the tastes of some, it will never be considered dull or uninspiring. Furthermore, the fine detailing onboard and the abundance of artwork make

SS ANTOINETTE

THE CONCEPT OF A BOUTIQUE HOTEL APPLIED TO RIVER CRUISING

Builder	
Shipyard De Hoop, Lobith, The Netherlands	
Owner	
Uniwold, Los Angeles, California, United States	
Principal particulars	
Length o.a.	135.00 m
Beam o.a.	11.45 m
Beam moulded	11.00 m
Depth	3.25 m
Draught operational	1.45 m
Draught max. ballast	2.10 m
Airdraught	7.10 m
Speed	24 km/h
Cabins	
Total number of passengers	160
Passenger cabins	80
Crew cabins	29
Tank capacities	
Gasoil	123 cu.m
Potable water	200 cu.m
Dirty oil	1.5 cu.m
Ballast water	860 cu.m
Power	
Main engines	2 x 800 kW
Azimuthing thrusters	2 x 800 kW
Tunnel thruster	150 kW
Jet bowthruster	415 kW
Generators	2 x 650 kW + 1 x 450 kW (1750 ekW)



A 3 meter high chandelier in the entrance lobby sets the tone

for great conversation starters between newly acquainted guests. The tone is already set when guests enter the lobby under a spectacular three-meter high blue Strauss chandelier.

Movable lounge roofs

Most river cruise vessels for the Dutch and German waterways are either 110 meters or 135 meters long. 110 meters is the limit at which a number of safety regulations comes into force, such as double bottoms. The SS Antoinette is 135 meters long, which is the maximum length allowed for ships sailing the Rhine river.

Another important dimension is the airdraught. While access to the Main-Donau channel requires a maximum height above the waterline of six meter, the SS Antoinette will remain on the Rhine. With her airdraught of 7.1 meter, she can access the Moselle, which is achieved by ballasting and

lowering the ceiling and windows of the lounges on the upper deck. The wheelhouse can be lowered in its entirety, and additionally the wheelhouse windows can also be lowered separately. The lowering and raising of the lounge windows and ceilings is with a hydraulic system which pulls up the entire construction by steel cables, spaced at several meters. The same system can lower the roof and windows of the cosy Leopard Bar and the Sky Lounge, an additional buffet restaurant enjoying some of the best views on board.

No blackouts

A unique aspect of the SS Antoinette is her redundancy in power supply. Recently, several ocean cruises have been interrupted by power failures. While emergency generators are sufficient to enable safe evacuation of the vessel, they are not capable of keeping the airconditioning running and the cold stores frozen. A blackout

usually results in the end of a cruise and lots of lost tempers. Based on their experience with DP-capable offshore vessels, Shipyard De Hoop has installed a completely redundant power grid, with three generators in three different engine rooms and redundant cabling following different routes through the vessel. The generators can also run in parallel, providing a record-breaking total electrical power of 1750 kW.

Redundant propulsion

The propulsion installation is also redundant. A fire or flooding in one of the three engine rooms will reduce the power by maximum 50%, reducing the maximum speed from 24 km/h to 19 km/h. In the aft, two azimuthing thrusters from Veth are directly driven by C32 Acert diesel engines from Caterpillar. Propulsion and generator engines are of the same type, reducing the spare parts inventory. In the forward engine room, a



No other river cruise ship features as much public space per guest as the SS Antoinette

Caterpillar C18 generator is fitted, rated at 450 kW. An electrical tunnel-type bowthruster of 150 kW is complemented by a 415 kW electrically driven jet-thruster, able to give thrust in all directions. This jet-thruster can propel the SS Antoinette at 10 km/h in emergencies; even in case both aft engine rooms would be flooded.

Double-resilient propulsion

In order to isolate vibrations from the propulsion installation, a double resilient flexible mounting system has been used. On each side, the engine and azimuthing thrusters are mounted on a rectangular bottom section, which is resiliently mounted in a frame of the actual ship's bottom. On this section, the engine is mounted on vibration dampers and coupled to the thruster through a flexible coupling. This double-resilient solution is estimated to give a further reduction of about 3 dB(A) to the noise

levels onboard. Nowhere in the accommodation, the noise level exceeds 55 dB(A), whether the vessel is stationary or cruising at full speed.

A unique aspect of the SS Antoinette is her redundancy in power supply, making a cancelled cruise due to a blackout nearly impossible

Each of the generators is also flexibly mounted onto a large steel frame, which is filled with sand for damping. This frame is flexibly connected to the hull with a rubber gasket. All the exhausts are led to the stern through dry dampers, giving a reduction of 45 dB(A) in exhaust noise. After

water-injection, the exhausts are discharged overboard through nozzles in the stern, giving extra speed to the gases to avoid the 'station-wagon' effect.

Drop-down windows

While only the eight junior suites and the presidential suite feature private balconies, all cabins on the main and upper deck feature an innovative sliding window system. The full-width upper half of the window slides down electrically, to create a much wider opening than would be achieved with French balconies. In the junior suites, the same system is used to turn the balcony into a sort of conservatory. An additional TV-set in this space can be a useful asset for couples who wish to watch different programs.

Swimming pool

All the way aft on the Princess deck, a spacious spa and relaxation area is provided, with windows around three sides and in the ceiling. Centrally, a swimming pool with a depth of 1.5 meter is equipped with a powerful jetstream for swimming, underwater music and an underwater window facing aft over the stern. Adjoining the spa area are two massage rooms and a Turkish bath. On the lower deck, near the central lobby, a 20-person movie theatre is provided with a digital projection screen. The space is neatly decorated with famous film posters and typical foldable chairs to resemble an art-house cinema.

Safety

Fire protection is with an Ultra Fog watermist system, which serves both the entire accommodation and the engine rooms. Another typical safety item for river cruise vessel is the 'emergency brake', provided by the stern anchor. The inconspicuous mast forward of the bridge is truly a jack of all trades. It incorporates a three-

The interior was designed in boutique-hotel style





The indoor swimming pool looks out over the stern - there's even a full-width window under water MVG

stage telescopic crane which is used to launch the man-overboard-boat and to disembark garbage from the garbage store. When passengers need to be disembarked towards a river bank with 'dry feet', as required by regulations, the crane can place one of the gangways between the bow and the shore.

Under construction

Shipyards De Hoop has recently completed a refurbishment of its real estate. The yard acquired the old customs port near the yard and turned it into a highly successful servicing station for river cruise vessels. In the past winter, no less than 15 vessels stopped by for a refit. In the mean time, newbuilding work continues on the recently-launched *RheinFantasie*, an 80 meter special-event ship, the *Don Daniel*, a 105 meter dive support vessel and - at its Foxhol yard - a 66 meter platform

supply vessel called *Caballo Galiceno*, which will be followed by three sister vessels.

According to Patrick Janssens, owner and general manager of Shipyards De Hoop, the effect of the economic crisis has not been less work, but more precontract work needs to be done to win orders. Shipowners face much more difficulties to obtain financing. An advantage of its mixed portfolio of river cruise vessels and offshore support vessels is that they complement each other well in relation to the oil price. When oil prices go up, river cruiser building slows down, but offshore is more in demand and vice versa.

The yard recently announced a new order for four river cruise vessels of two new types for Vantage Deluxe Travel from Boston (U.S.) to be delivered from 2012 to 2014.

Subcontractors and suppliers of equipment fitted on board the SS Antoinette - YN 441

Aesy Liften, Zevenaar	: elevator
Beerens, Werkendam	: radarmast forward & aft mast
Bovi Scheeps- en Projectinrichting, Tubbergen	: curtains, chairs ect.
Bureau Veritas, Rotterdam	: classification
Deba Marine, Utrecht	: MOB boat
Dijvler Materiaal, Hardinxveld-Giessendam	: anchor winches
Droste Elektro, Tolkamer	: complete electrical installation
Drumarkon, Schelluinen	: Promarine boards bonded with certified Drumarkon marine range
Econosto Nederland, Rotterdam	: valves
GTK, Grootkeuken Techniek Kampen, Dieren	: galley equipment
Hatenboer - Water, Rotterdam	: fresh water hydr. & treatment equipment
Intersona, Heerde	: noise and vibration calculation
Klimatservice Holland, Hardinxveld-Giessendam	: ultra fog; swimming pool equipment; chiller
Lodge Benelux, 's-Hertogenbosch	: foodelevator
Metaglas, Tiel	: windows; maintenance
Miele Nederland, Vianen	: Miele washing- and drying machine; curtains
NRF, Nederlandse Radiatoren Fabriek, Mill Orlando, Barneveld	: coolers
Orlaco, Barneveld	: CCTV system
Pon Power, Papendrecht	: Caterpillar main engine & generator set
Qua-Vac, Almere	: Evac sewage plant
Reikon, Spijkenisse	: Azcue pumps
Rubber Design, Heerjansdam	: air suspension & control unit
Smits Neuchatel Marine Department, Utrecht	: subfloors; topfloors; non combustibile/ sound reducing; subfloor poolbottom sounddamping topfloors
Stannah Trapliften, Sassenheim	: stairelevator (disabled)
Theunissen Technical Trading, Malden	: Eltek fire detection
Toekomst J.J. Loose, De, Waspik	: gangway
TOS Transport & Offshore Services, Rotterdam	: kompasstellen
Trinox, Hardinxveld-Giessendam	: accommodation; hatches; windows & portholes
OK Maritime, Rotterdam	: safety equipment
VDI Isolatie, Ridderkerk	: insulation
Veld cold & safe, Groenlo	: provisioncooling
Veth Propulsion, Papendrecht	: Veth compact-Jet, Veth tunnel thruster; Veth Z-drives;
Wessels, Germany	: wheelhouse
Wijk Werkendam, Van, Werkendam	: crane & 2 gangwaycranes; davit for MOB/rescueboat
Winkel, Assen	: Eagle watertight sliding doors; musketeerdoers; escape hatches
Wittig, Germany	: ropes
Wortelboer, Rotterdam	: anchor, chains and steel wire,
Wet Cab Gdansk, Poland	: Wet units

