



Photo by Flying Focus-Castricum

SWAN FAN MAKKUM

EVOCATIVE OF THE AGE OF SAILING

Builders : R.E.F., Gdansk, Poland
Owners : V.O.F. Swan fan Makkum, Makkum, The Netherlands
Designers : Olivier F. van Meer Design, Enkhuizen, The Netherlands

Introduction

Naval architects, yacht designers and marine consultants *Olivier F. Van Meer Design B.V.* specialise in the complete engineering of extraordinary sailing and motor yachts. As a result of vast experience with riggings and sailing equipment, soon the design company extended her service with a second company, the *Van Meer Rigging Group* which specialises in the development, delivery and installation of rigging and deck equipment with special emphasis on special projects.

Designed by *Olivier van Meer*, and constructed in Poland the square rigged sailing ship 'Swan

fan Makkum' has recently been inaugurated at Makkum, the Netherlands. With an over all length of more than 61 metres, a mast height of more than 44 metres and a square rigged foremast with five yard sails - characteristic feature for brigantines - this is a sailing ship which has not been seen under Dutch flag since the grand old age of sail.

After having been launched in Gdansk, Poland, the vessel made her maiden voyage with passengers in the Baltic Sea. The 'Swan fan Makkum' will be deployed by booking office *V&S Charters* as a charter passenger cruise vessel in the Caribbean.

Design Characteristics

The hull and the decks of the 'Swan fan Makkum' are of all-welded steel with a raised wooden poop deck and wooden bridge/wheelhouse. The hull form with bowsprit, owes to the traditional sailing vessel, and features a long, low superstructure.

There are three decks - including the tank top - below the weather deck, and accommodation is provided for 36 passengers carried in double berth cabins. For day cruises and conferences on board, the passenger capacity is 120 persons. The double bottom is used for the storage of fuel, water and ballast. The raised forecastle has been arranged with a boatswain store and workshop, including anchor chain lockers.

The principal characteristics of the 'Swan fan Makkum' are:

Length o.a. (incl. bowsprit)	61.00 m
Length o.a. (excl. bowsprit)	49.63 m
Length b.p.	39.60 m
Length on w.l.	39.04 m
Beam mid.	9.20 m
Depth to main deck	4.69 m
Draught	3.54 m
Mast height above w.l.	44.60 m
Mast height with lowered top mast	40.00 m
Sail area	1,300 m ²
Displacement	468 t
Ballast (lead)	95 t
Tank capacities (in litres):	
Water	38,000
Fuel	22,000
Grey water	14,000
Ballast water	14,000

Propulsion

The 'Swan fan Makkum' is a true sailing vessel, using her *Caterpillar D353* propulsion unit only in flat calm conditions, to make up passage time, or for manoeuvring in port. Developing 353 kW at 1,200 rev/min, the marine diesel engine drives a four-blade propeller at 480 rev/min, through a *Reintjes* gearbox. Two *MWM* marine generator sets, each having an output of 45 kVA satisfy the electrical loading. To further assist the manoeuvrability, a bow propeller is fitted complemented with a hydraulic steering system.

Speed, under diesel power, is rated at 11 knots, whilst sail passages have been estimated at over 15 knots, making use of the 1,300 m² of sails.

The 'Swan fan Makkum' is a two-masted brigantine with square sails on the foremast only, and has been designed for excellent sailing performance. The sailing system of the 'Swan fan Makkum' consists of two masts of approximately 44.60 m high carrying sails on a brigantine rig. The necessity for climbing into the rigging to handle the yard sails has been avoided by the installation of a *Van Meer Rollaway System* which is manually remote controlled from the main deck. Due to this furling system the



complete sailing system can be easily handled by a minimum crew complement of only four men. Counterbalancing the effect of the rig is with a box-section trunk keel filled with 95 tonnes of ballast lead. The deck equipment includes two electrical capstan winches for the handling of the halyards and one electric windlass.

Accommodation

The 'Swan fan Makkum' has a raised quarter/poop deck and forecastle. The passenger accommodation includes 18 double berth cabins for 36 guests, each fitted with private shower and toilet facilities.

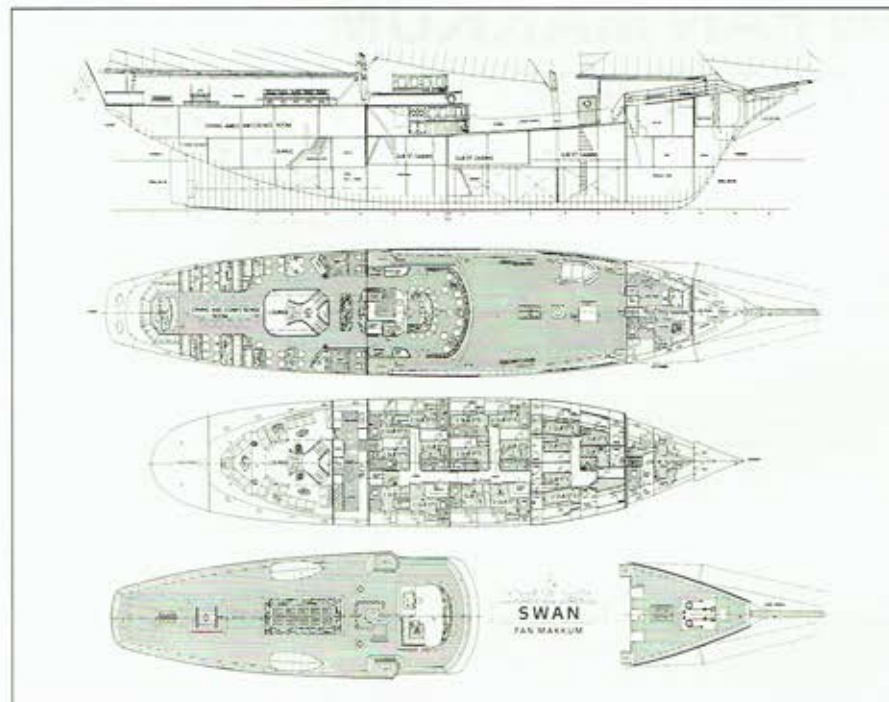
As the ship has a twofold function, luxury and atmosphere on board are geared to business receptions and incentive travel. Especially for

longer sea voyages much attention has been paid to the possibility of organizing conferences, incentives, parties and festivities on board. For these kinds of events and for day round trips the ship has a very impressive day accommodation with room for approximately 120 guests. The large and very complete galley is of hotel standard and in capacity to serve complete meals for the maximum number of guests.

The forepart of the ship accommodates the captain's cabin and the crew quarters, which are situated above the bow thruster room. These living quarters include four double berth cabins for a complement of eight, each fitted with private sanitary facilities. The crew's messroom with galley is situated under the port deck. Amidships at tweendeck level eighteen luxury double berth guest cabins, each with private sanitary facilities, have been arranged. This part of the accommodation has been such designed that all passengers are guaranteed of utmost privacy. One deck below are the engine room, a laundry and store rooms. The vessel's double bottom contains the fuel and fresh water storage tanks.

Outstanding feature of the superstructure is the round-shaped deckhouse with wheelhouse on top. From forward to aft the deckhouse has been arranged with a spacious wet bar, and a dining and conference room, both providing a unique free view to the surroundings. Adjacent to the wet bar is a pantry with open staircase connection to the galley below decks. From the dining and conference room a majestic staircase leads to the lounge below decks. The spacious dining and conference room derives natural light from a classical skylight fitted on the poop deck.

The style and ambiance of the interior on board the 'Swan fan Makkum' was also influenced by stylist *Hinke de Vries*. Together with the Amsterdam-based architect *Frank Brouwers*, who supplied the drawings for the panelling, they succeeded in transforming the traditionally inspired exterior into a classical and intimate interior, based on contemporary demands with regard to safety and comfort.



Nav aids

The wheelhouse, completely built of wood, is fitted with a comprehensive range of navigational aids and communications equipment, including:

- one *Furuno 3* radar system;
- one *Furuno 550* short wave transmitter;
- one *Debeg 6448* VHF set;
- one *Valsat* GPS;
- one *ACR EPIRB*;
- one *Furuno Navtex*;
- one *Tron* radar transponder;
- one *Seafarer* depth sounder;
- one *Sestral Observator* compass.

Classification

The design and outfitting of the 'Swan fan Makkum' complies with all stringent regulations in force and with the requirements of the classification society Register Holland (RH), class notation: 'area worldwide', Z 1.2.3.4.✪

List of suppliers of equipment on board the 'Swan fan Makkum' (partial list)

Anker, 't, Gorinchem	: port holes & windows
Chateauroux Koperwerk, Amsterdam	: port holes & windows
Diesel Power, Moerdijk	: Caterpillar engine, generator sets
Drumarkon, Werkendam	: fire-resistant sheeting
Frank Brouwers, Amsterdam	: interior workshop drawings
Heinen & Hopman, Ridderkerk	: ventilating and heating system
Hinke de Vries, Makkum	: styling & interior design
Hupkes Houthandel, Dieren	: wood panelling
Kapteyn & Stromenger, Enkhuizen	: technical engineering drawings
Kroon, Hoogezand	: brassware
Lambri, Maarssen	: veneer sheeting
Laurens Smits, Franeker	: central heating, hot water system

Van Meer Rigging Group, Enkhuizen	: rigging, stowaway furling system, capstan, winches
Van Meer Scheepswinkel, Harlingen	: standing & running rig materials
Rob Meyer, Amsterdam	: steering system
Nava, Gdansk (P)	: workshop drawings
Olivier F. van Meer Design BV, Enkhuizen	: design, naval architecture, interior
Palux, Bunnik	: galley
R.E.F., Gdansk (P)	: hull, masts & spars
Shipton, Enkhuizen	: electrical engineering, electronics
Strikwerda, Schraard	: anchors
Technische Unie, Enschede	: sanitary equipment
Top Sel, Gdansk (P)	: interior carpentry
United Baltic Sails, Monnickendam	: sails
Zandleven Verf, Leeuwarden	: paint



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"Ook de Swan Fan Makkum vaart er wel bij"

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