M/V MANON

The PCTC (Pure Car Truck Carrier) m/v MANON has a capacity of 7,200 cars or a combination of 3,700 cars and 600 trucks. MANON is a sistership to BOHEME, ELEKTRA, UNDINE and MIGNON. The vessel is built to the highest class of Lloyd's Register of Shipping with the following designations: +100 A1 Vehicle Carrier, movable decks, deck No. 4, 6 and 8 strengthened for Roll on Roll off cargo + LMC, UMS and IWS. Manon was elongated in 2005 by 28 metres, resulting in a 20 per cent increase of car capacity.

TECHNICAL SPECIFICATIONS

Length over all	227.90 m
Beam, moulded	32.26 m
Air draft	47.92 m
Height to upperdeck	33.48 m
Draft, design/max	9.5/11.02 m
Deadweight at maximum draft	28,126 MT
Gross Tonnage	67,264 GT
Net Tonnage	28,473 NT
Stern ramp width	7.0 m
Stern ramp height	5.0 m
Stern ramp capacity	125 t
Number of car decks	13 (of which 3 are hoistable)

Capacity deck area	63,124 m^2
Capacity of car units*	7,200
Capacity of cars/trucks	3,700/600
Engine	KHIC MAN B&W 8S 60MC 14.7 MW
Basic complement	15
Built	1999, Daewoo Heavy Industry Ltd, Korea
Call sign	9V9244
IMO Number	9179725
Flag	Singapore
Owner	Wallenius Lines
Operator	Wallenius Wilhelmsen Logistics

* RT 43 units (one RT43 unit = 7.38975 m^2)

WALLENIUS OW LINES

Deck and Ramp system

Heavy units are loaded on the strengthened 4th, 6th and 8th decks. Deck No. 5, 7, 9 are divided into hoistable sections. These sections are hoisted/lowered by means of mobile lift-cars.

The 6th deck is the normal entrance deck, but the 7th may also be used for the outside midships ramp if the height of the quay requires it.

The two loading ramps are located on the starboard side. The stern quarter ramp is arranged at a 27 degree angle to the center line to enable loading/discharging of long vehicles. The midship ramp is arranged at a 90 degree angle to the centre line.

Anchoring/Winches

The deck machinery consists of two combined anchor/mooring winches and six conventional mooring winches, two of which are placed on the forecastle and four on the poop deck. There is a crane on upper deck with a capacity of five tons for bringing supplies and spare parts.

Cargo Ventilation

Fans evenly distributed throughout the vessel on upper deck creates good ventilation during loading/discharging. In the main holds air is changed at least 25 times an hour and even up to 50 times an hour in the smaller holds.

Machinery

The main engine is an KHIC B&W, type 8S60MC marine diesel with constant pressure supercharging and a maximum output of 20,000 BHP at 101.3 RPM. The engine is directly reversible and attached to a fixed propeller with remote control from the bridge or engine control room.

For the electrical power supply there are two Wärtsilä diesel engines, type 4R32, each attached to an 3 x 440 V, 60 Hz, 1,400 kW AC-generator installed in a separate room and a shaft generator with a capacity of 950 kW. Power to the new second bowthruster is delivered by one Volvo Penta Genset D34 MS, 3 x 440 V, 60 Hz, 728 kW AC-generator installed in a separate room next to funnel on deck 14.

There is an emergency diesel generator with a capacity of 215 kW. The machinery meets the requirements for Unattended Machinery Space (UMS).

Navigational Equipment/Bridge

The Bridge is totally enclosed and air-conditioned. The equipment fullfills the requirement for "Sole Look Out" at sea and it is also designed for Pilot/Co-pilot system of working in high traffic areas.

The Navigation System is mainly integrated by means of an INC installation. INC is of the Finnish ASPO "ANTS" (Automated Navigation and Track keeping System) type. The radar equipment has anti-collision computers (ARPA'S) with free selection of picture, synthetical chart picture etc.

The vessel has an ASPO/Wallenius electronic sea chart-system (EC) which gives a range of options to steer the vessel, including among others an automatic one.

To calculate the vessel's position there are two DGPS-navigators and when in coastal waters, there is a "fixed radar target" positioning system.

The radio equipment is delivered by Standard Radio of Sweden and the radio station has been fitted with satellite communication (B+C), Maritex, GSM etc and is fulfilling the Global Maritime Distress and Safety Systems rules (GMDSS).

The vessel is equipped with a highly effective Schilling "Mono-Vec" rudder to assist in controlling the lateral movements of the stern. The lateral control of the bow is controlled by two bowthrusters; a 1,500 kW bowthruster by about 23.5 tons thrust and a 665 kW bowthruster by about 10 tons thrust.

Interior

All accommodation areas are located on upper deck and bridge deck, far away from the engine room and have the same high quality and mainly the same design as the company's other PCTC vessels. The ship also has a mess-room, TV-room/ library, gymnasium, outdoor swimming pool and a sauna.

There is a cabin with its own entrance from the bridge deck for the Canal staff and service personnel. Tally-men have their own office on the entrance deck (deck 6).

Safety arrangements

For fire extinguishing, the cargo holds, engine room and interior have a permanent installed water fire post system and portable fire extinguishers. Cargo holds and engine room also have CO_2-equipment of "total flooding type".

The vessel has a free-falling life boat capable of carrying 30 passengers and a MOB-boat (Man Over Board). In addition to this there are four life rafts with a carrying capacity of 16 passengers each. Each crew member has his/her own survival-suit.

WALLENIUS LINES AB • PO BOX 17086 • SE-104 62 STOCKHOLM • TEL +46 8-772 05 00 • FAX +46 8-640 06 59 • www.walleniuslines.com