



ISLAND PRINCESS

A VISIT TO THE BRIDGE

The Bridge of Island Princess is manned 24 hours per day, and is the operational centre of the ship. It is manned by highly trained and qualified Deck Officers on a four hours on, eight hours off basis. The watches are comprised of two Deck Officers and two Able Seaman. The Officer of the Watch is responsible to the Captain for the safe navigation of the ship, whilst the Able Seaman are responsible to the Officer for maintaining a continuous visual and audible lookout and taking the ship's helm when required. During busy periods (e.g: arrival and departure manoeuvring, bad weather, heavy traffic, etc.), the manning is supplemented by the Captain and Staff Captain.



THE BRIDGE

The Bridge is the location of the navigational and primary safety systems onboard the vessel. In this brochure, we want to give you an insight into the purpose of some of our equipment, the operation of the Bridge, and the work of the personnel who navigate your ship.

THE ENGINE ROOM

Island Princess operates using a Diesel electric propulsion system; two identical engines supplemented by a gas turbine each drive an electric alternator. These alternators produce electricity which is subsequently distributed around the vessel to run all the ship's systems: from the air-conditioning to the electric motors which drive the ship through the water. The engine room is manned, like the bridge, 24 hours a day by watch keeping engineers. The senior engineer sits in the control room on deck four and monitors the plant on the control screens while the junior is always around the engine room itself.

During the day and on arrivals and departures the team is supplemented by 'day working' engineers who are responsible for conducting maintenance on the plant but also maintain hotel services. All engineers are under the supervision of the Chief Technical Officer.

THE BRIDGE

Island Princess is one of a very modern fleet of Princess cruise ships, and like many of her sisters she is fitted with a German, SAM Elektronik, Integrated Bridge. This system takes information from the many sensors required: Compass, Speed Log, Satellite Navigation, Radar, Echo Sounder, Electronic Chart and Weather Station, integrating them



THE COMPASS

The ship's Compass is perhaps the most important piece of Bridge Equipment to the Deck Officer. There are three types of compasses onboard Island Princess: A Fibre Optic Gyrocompass (a totally digital compass with no moving parts), a Gyro Compass and the Magnetic Compass.

The Gyro Compasses are the ship's primary means of directional reference and are located in a room on the Bridge. They rely on the principles of gyroscopic inertia and precession in order to maintain a reference to True North. Several repeaters are available on the Bridge for the use of the watch-keepers.

The ship's Magnetic Compass is located on Deck 16 above the Bridge, and is used as a further backup against the Gyro Compasses. This Compass is susceptible to magnetic variation and deviation. All of the ship's Compasses are compared hourly, and their accuracy checked by celestial observation every four hours, where possible.

STEERING POSITION

We can steer the ship from the Bridge in either NACOS control, automatic or manual modes. Repeaters from



the Gyro and Magnetic Compasses are located on the steering console, situated on the centreline at the front of the Bridge. The Automatic Pilot is an adaptive unit, meaning that it is "intelligent" and learns how the weather is affecting the steering of the ship. It applies this "intelligence" to the amount of rudder that it uses. The manual wheel steering system uses electronic signals to the steering pumps, which in turn move the ship's twin rudders.

The Rudder Angle Indicator is located on the steering console as well as repeated around the bridge. This shows the angle of the rudder to the Bridge personnel at a glance. A Rate of Turn Indicator shows the rate at which the ship is turning during a manoeuvre. This is also located on the steering console and on other repeaters around the bridge.

FIRE SCREEN DOORS

Modern Cruise Ships are fitted with a series of Fire Doors throughout the accommodation and machinery areas. These doors separate the ship into Fire Zones, which run vertically through the vessel. Each zone can be closed from the Bridge in the event of a fire to limit the spread of the fire, and more importantly, the spread of smoke.

WATER TIGHT DOORS

Island Princess is divided into watertight compartments below deck 4 in order to contain flood water in the event that the hull is punctured. Watertight bulkheads (walls) divide the underwater sections of the ship transversely into 21 watertight compartments. Watertight Doors allow crew members to pass through these bulkheads and work the ship. In an emergency, the watertight doors can be closed from the Bridge within 60 seconds, or operated locally at the door. The doors are kept closed when the ship is in Potentially Hazardous Conditions, such as when she is close to the land, in heavy shipping traffic or in restricted visibility.

FIRE ALARMS

Island Princess is fitted with a passive smoke and fire detection system, using a system of smoke and heat detectors located throughout the vessel. In addition, manual fire alarm buttons are located throughout the ship. The fire alarms alert the Officer of the Watch on the Bridge. Upon receiving a fire alarm the Officer will monitor the alarm on an electronic display, which indicates the location of the alarm on an electronic plan of the relevant deck. This shows the exact location of the alarm, and would also indicate the direction of the spread of smoke in a real emergency. A status bar for each detector indicates the severity of the problem.

The ship is also fitted with a fully automatic, fixed pressure High Fog sprinkler system. This can be seen throughout the accommodation and public areas of the ship. The sprinkler heads activate automatically, and spread water in the form of a fine mist under high pressure over the affected area, extinguishing any fires. In the event of a sprinkler head activating, pumps start automatically in the Engine Room to supply extra water, and an alarm sounds on the Bridge to alert the Officer.

Island Princess has a specialist team dedicated to investigating such alarms. They will instigate further actions through communication with the Bridge should it be deemed necessary. The ship has dedicated fire fighting teams and a full Emergency Response Organization is on standby ready to spring into action.

SHIP SIDE VALVES

These valves can be closed in the event of hull damage, to prevent water travelling through the watertight bulkheads via the ships pipe systems.

VENTILATION AND EMERGENCY STOPS

By activating the Ventilation Emergency Shutdown or Smoke Strategy, we can stop the supply fans to specified areas of the ship including individual cabins, thus controlling ventilation and restricting the air supply to a fire. There are also numerous dampers within the ventilation ducts, most of which are automatic and can be closed to restrict the air supply to a fire.

Emergency Stops are available to shut down the Main Engines and fuel supply systems from the Bridge.

All these controls and systems are brought together in the Safety Centre in what is called the SMS (Safety Management System). Much like the Integrated Bridge this is an integrated safety system giving easy control and graphical display.





SHIP'S PARTICULARS

OWNER:	:	Princess Cruises, Los Angeles
BUILDER:	:	Chantiers de L' Atlantique (St. Nazaire, France)
OFFICIAL NUMBER:	:	733727
IMO NUMBER:	:	9230402
PORT OF REGISTRY:	:	Hamilton, Bermuda
CALL SIGN:	:	ZCDG4
CLASSIFICATION SOCIETY:	:	Lloyd's Register, London
GROSS REGISTERED TONS:	:	91627
NET REGISTERED TONS:	:	53394
LENGTH:	:	294.0m (964.31')
BREADTH:	:	32.2m (105.6')
DRAUGHT:	:	8.30m (27.22')
AIR DRAUGHT:	:	53.7M (176.2')
DISPLACEMENT:	:	49973 t
DEADWEIGHT:	:	8311 t
SERVICE SPEED:	:	24knots
PROPULSION TYPE:	:	Diesel Electric
ENGINE OUTPUT:	:	1x 25000KW Gas Turbine
	:	2x 16200KW Diesel Engine
ENGINE MANUFACTURE:	:	1x General Electric LM 2500+ Marine Gas Turbine
	:	2x Wartsila V 16 Turbo Charged Marine Diesel Engine
ELECTRIC MOTORS:	:	Alstom 20MW
THRUSTERS:	:	6x Rolls Royce 1720KW
PROPELLER:	:	Five Bladed Fixed Pitch
STEERING GEAR:	:	Rolls Royce Hydraulic Rotary Vane
RUDDERS:	:	2x Independent Full-Balanced
PASSENGERS:	:	2368
CREW:	:	810



PRINCESS CRUISES
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