

Ruby Princess



Cruise Ship Operations Tour

9-26-18

Keith Rootsart

Ruby Princess

Guest Capacity: 3,080 lower berths.

Tonnage: 113,561.

Inaugural Cruise: November 8, 2008.

Builder: Fincantieri Cantieri Navali Italiani, Monfalcone, Italy

Number of Crew: 1,200.

Number of Guests: 3500.

Registry: Bermuda.

Length: 951 feet.

Height: 195 feet.

Beam: 159 feet

Draft: 27 feet.



Monterey Bay National Marine Sanctuary Advisory Council and NOAA staff

Objective: Observe cruise ship operations that would have an effect on the Sanctuary water and air quality.

Presentation by Jim Peschel

Pollution prevention program for all ships.

Regulations regarding discharge.

Tour

Engine room

Desal / RO plant

Waste, bilge, & ballast water treatment

Solid Waste Sorting

Lunch

Number of Decks: 19

Guest Cabins: 1,542 (1,106 outside/436 inside) total:

26 Suites with private balconies

(Square footage: 461-687*)

2 Family suites with interconnecting cabins

(Square footage: 607*)

178 Mini-suites with private balconies

(Square footage: 324*)

682 Balcony cabins

(Square footage: 233-285*)

218 Ocean view cabins

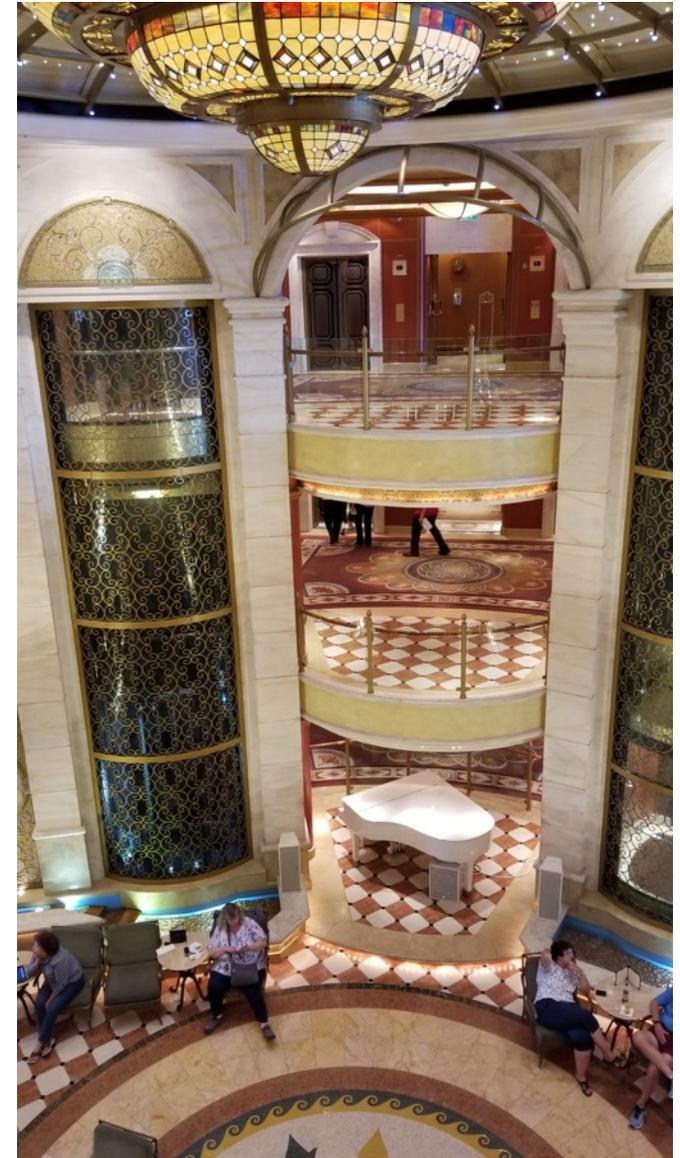
(Square footage: 158-182)

436 Inside cabins

(Square footage: 163) (*includes balcony)

Wheelchair Accessible Cabins: 31 (1 suite, 4 mini-suite, 16 balcony, 4 outside, 6 insides)

Cabins with Private Balconies: 882 (80 percent of all outside cabins)

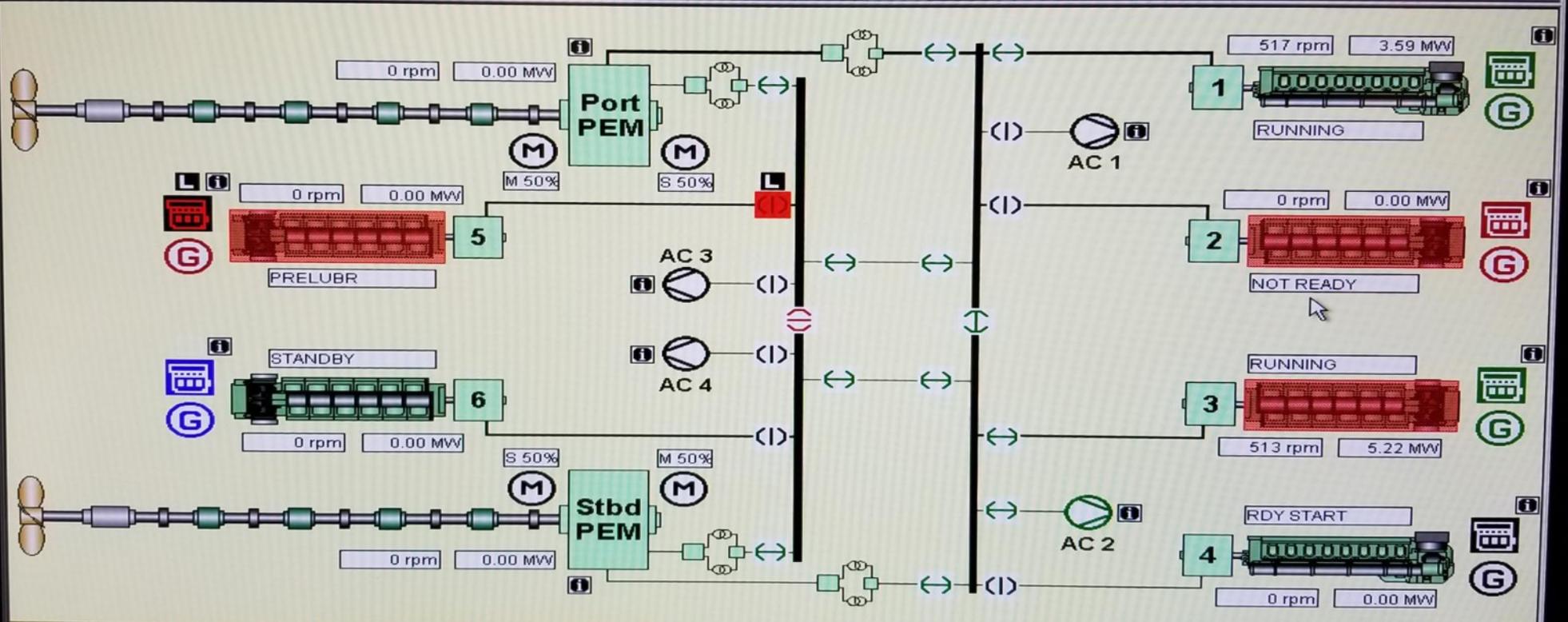








ECR	ECR	ECR	ECR	ECR	ECR	ECR	ECR	BR	BR	SIEMENS SIMOS IMAC 55	
	Alt Eng Systems	Port Eng Systems	Stbd Eng Systems					Heeling	PMS		
	Edge	Bulbast				-25		Pools	Blackout		
ECR	ECR	ECR	ECR	ECR	ECR	ECR	ECR	Elevators	DG Resets	96	26/09/2018
								Pumps	BUZZER		12:59



MSWB	Boilers	Evaps	AC Machinery	EMISSIONS	Energy Management	Running Hours & Load Limits	
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Shaft between 12 MW engine and Generator

Med Voltage 11,000 V

Low Voltage 600 V

Hotel Load: 10 MW

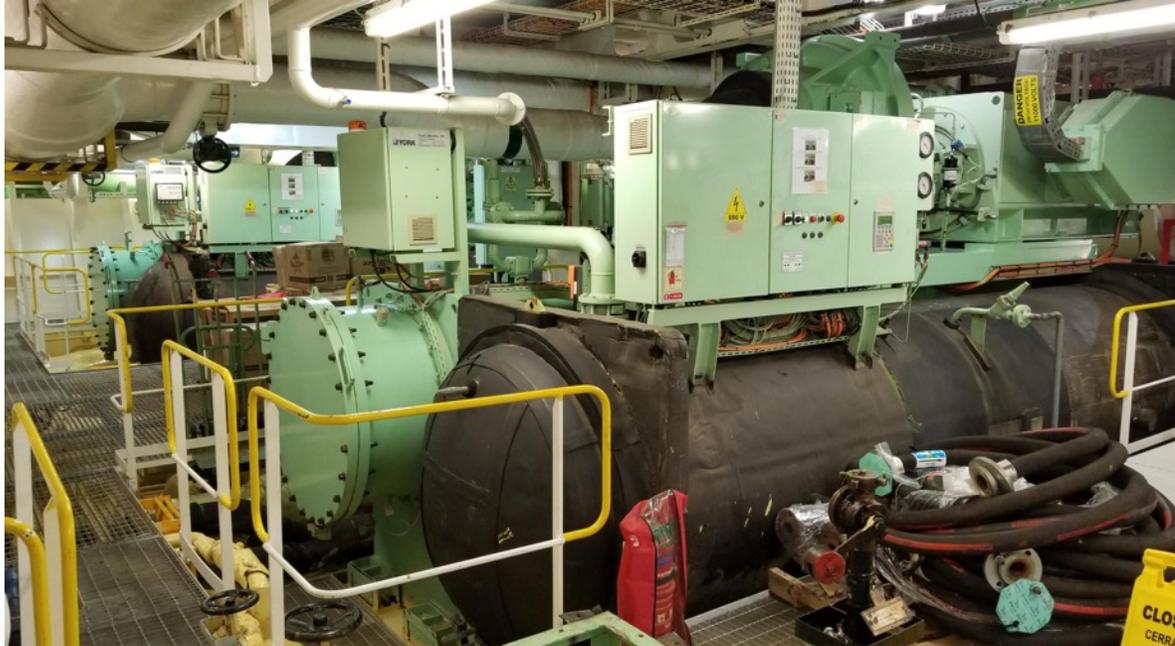
6 engines total

2 mains operating at 24MW to reach
cruising speed of 20 kts.

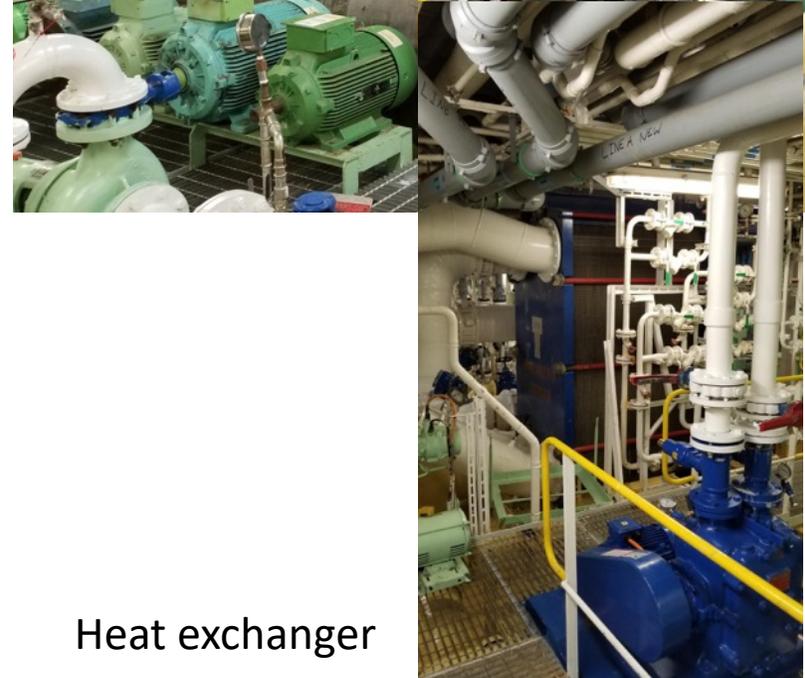
Oil cooled transformers with HEX



(4) 700 Ton centrifugal chillers



Under deck piping



Heat exchanger





Fire Water Pump
200 Bar (2900 PSI)



Spare motors



Chilled Water
Primary Pumps

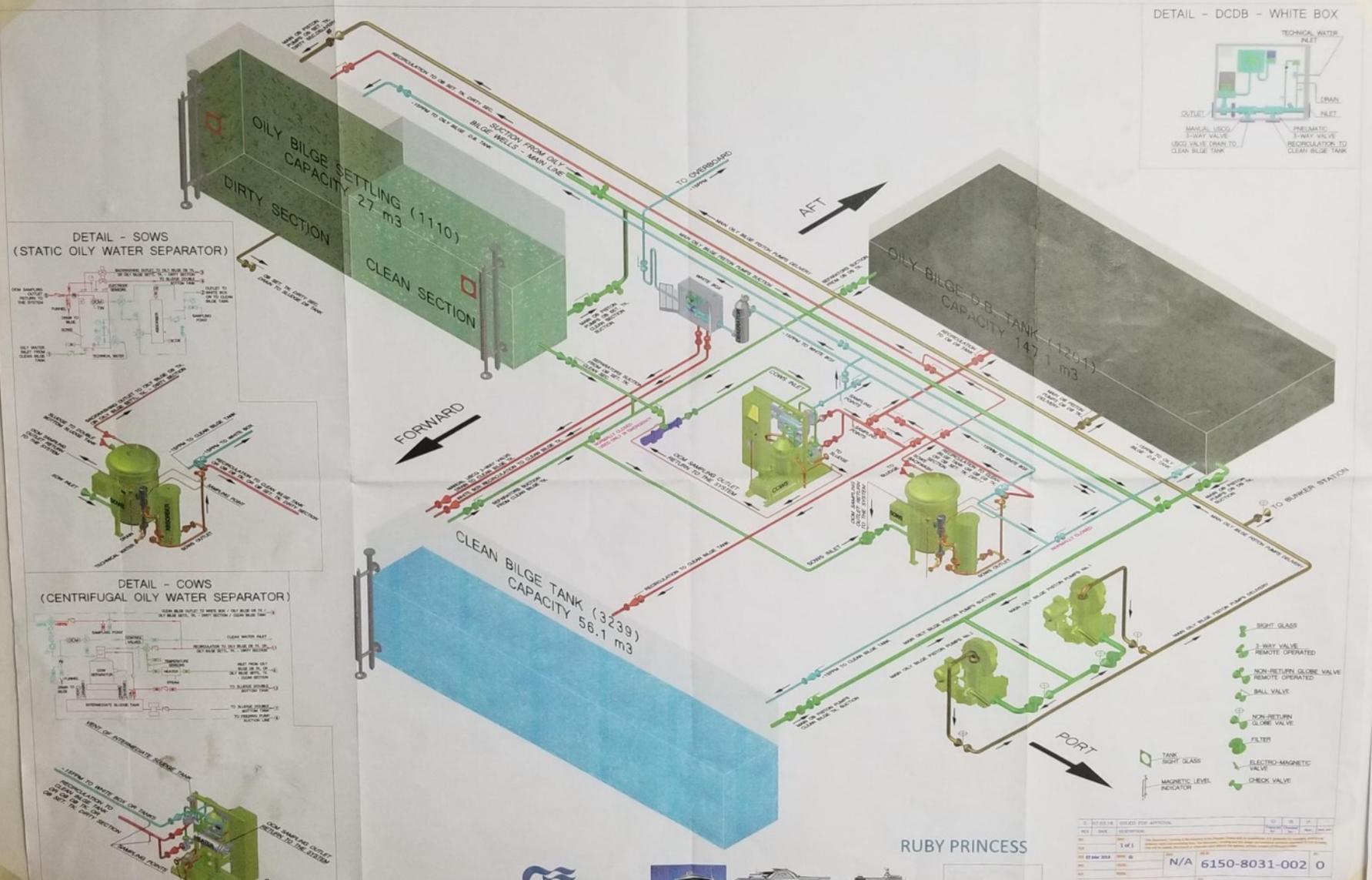


Desalination





Reverse Osmosis



RUBY PRINCESS

NO.	REV.	DATE	BY	CHKD.	APP'D.
1	01	14			
3 of 3 N/A 6150-8031-002 O					



Grey Water Pump



Bilge Water / Ballast Water filtration and UV
No viable organisms. New standard is no living organism.
Discharge upper limit < 15 PPM
Ballast water used in MBNMS is fresh water
No discharge in the MBNMS or other sanctuaries