

SOP-NAUT-001 Critical Equipment

- 1.0 [Purpose](#)
- 2.0 [Critical Systems & Equipment](#)
- 3.0 [Standby Critical Equipment](#)
- 4.0 [Maintenance](#)

1.0 Purpose

Chapter 10 “Maintenance of Ships and Equipment” establishes the definitions of critical and standby critical equipment and sets forth the guidelines that will ensure all this equipment on our vessels is identified and maintained in readiness at all times.

This SOP lists the critical systems, equipment, standby critical equipment, and recommended spares specific to the Nautilus.

2.0 Critical Systems and Equipment

The Company recognizes the importance of all vessel equipment, but has identified the following systems as critical for the Nautilus:

Systems: subsystems	Recommended Spares
Ship's Hull: Hull Watertight doors	1 Damage control kit
Electrical Generation Plant 1 Harbor generator: 500 kw Generator Caterpillar 3412 Main switchboard panel	1 Cylinder head 1 Piston 1 Injector 1 Bridge diode 1 Water pump 1 Fuel Pump 1 Cyl. Liner 1 Turbo Cartridge

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NOT-CONTROLLED IF PRINTED			Page 1 of 3

<p>Propulsion</p> <p>Main engines:</p> <p>4 Caterpillar 3516</p>	<p>2 Water pump</p> <p>2 Turbo Cartridge</p> <p>4 Injectors</p> <p>2 Cylinder Head</p> <p>2 Fuel Pump</p> <p>2 Oil Pump</p> <p>2 Piston</p> <p>2 Cyl. Liner</p> <p>2 Fuel Pump</p> <p>1 AVR</p> <p>1 Bridge Diode</p> <p>1 Woodward</p>
Steering Gear	1 Solenoids set

3.0 Standby Critical Equipment

Air Compressors	Recommended Spares
2 Main Air Compressors	<p>Oil filter</p> <p>Compressor Oil 10 Lt</p> <p>1 High Pressure Valve</p> <p>1 Low pressure Valve</p> <p>2 Belt</p> <p>1 Piston High Pressure side</p> <p>1 Piston Low Pressure side</p>

Firefighting Apparatus	Recommended Spares
<p>1 Fire pumps</p> <p>1 Emergency Fire Pump</p>	<p>1 Impeller Each one</p> <p>1 Mechanical Seal Each one</p> <p>1 Ball Bearing</p>

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Communications	Redundancy (no spares)
GMDSS	EPIRB, VSAT, SART
VHF Radios	Multiple units and portables, VSAT, Single side band
General Alarm	Ship's PA, whistle, horn
Ship's whistle/ horn	Portable, manual horns

Navigation	Recommended Spares
Radar	Redundancy in place
Gyro	
GPS	

Bilge Systems	Recommended Spares
2 Bilge/Ballast pump	1 Impeller 1 Mechanical Seal
Engine Room, Steering Gear, Bow Thruster Compartment, Winch Room	2 Level Switches

Ship Security Surveillance and Warning system	Recommended Spares
Cameras	Four (4) Spare cameras and connections

4.0 Maintenance

General maintenance procedures established to ensure their reliability are recorded in the computer-based maintenance program.

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NOT-CONTROLLED IF PRINTED			Page 3 of 3