

SAFETY DEVICE CHECKS

(a) **Main Engines (Port & Stbd). (ALARM)**

SI	Description	Unit	Design Value	PME	SME	Remarks
(i)	Low engine oil pressure	450-650 RPM	Bar	1.6		
		650-850 RPM	Bar	3.0		
		850 & above RPM	Bar	4.6		
(ii)	High LO temperature alarm	°C	85			
(iii)	Low lub oil level in crankcase	--	1/4			
(iv)	Low engine fresh water pressure	Bar	0.5			
(v)	High fresh water temperature	°C	90			
(vi)	Low expansion tank level	--				
(vii)	Low engine sea water pressure	Bar	0.25			
(viii)	Low fuel oil pressure	Bar	1.0			
(ix)	High engine bearing temp.	°C	100			
(x)	Exhaust gas temp. failure	°C	600			
(xi)	Low starting air pressure	Bar	19			
(xii)	Remote control air failure	Bar	4.5			
(xiii)	Low over speed air pressure	Bar	15			
(xiv)	Low CPP oil pressure	Bar	40			
(xv)	Low CPP control oil pressure	Bar	5			
(xvi)	High propeller oil temp.	°C	72			
(xvii)	Propeller oil filter clogging	Bar	0.6			
(xviii)	Low level in CPP oil sump	--	1/2			
(xix)	High gear box oil temp.	°C	59			
(xx)	Low gear box sea water pump press.	Bar	0.3			
(xxi)	Low gear box control oil press.	Bar	25			
(xxii)	High gear box bearing temp.	°C	95			
(xxiii)	High propeller bearing temp.	°C	75			
(xxiv)	Temp. monitor failure	°C	Dev ±60			

(b) **Main Engines (Port & Stbd). (TRIP)**

SI	Description	Unit	Design Value	PME	SME	Remarks
(i)	Low engine oil pressure	450-650 RPM	Bar	1.2		
		650-850 RPM	Bar	2.7		
		850 & above RPM	Bar	4.1		
(ii)	Very High LO temperature alarm	°C	90			
(iii)	Very high fresh water temp.	°C	95			
(iv)	Very Low expansion tank level		1/4			
(v)	Very low gear box oil press.	Bar	1.0			
(vi)	Over speed trip	rpm	1120			

(c) **Diesel Alternators.**

SI	Description	Unit	Design Value	Port DA	Cent DA	Stbd DA	Aft DA	Remarks
(i)	Low LO Pr. alarm	Kg/cm ²	1.2					
(ii)	Low LO Pr. trip	Kg/cm ²	0.8					
(iii)	Low fresh water press alarm	Kg/cm ²	0.8					
(iv)	Low fresh water press trip	Kg/cm ²	0.4					
(v)	High F/W temp. alarm	°C	91±2					
(vi)	High F/W temp. trip	°C	97±2°C					
(vii)	High lub oil temp. alarm	°C	121±4					
(viii)	High lub oil temp. trip	°C	129±4					
(ix)	Over speed trip	RPM	1725 - 1762					

(d) **HP Air Compressors.**

SI	Description	Unit	Design Value	HPAC No.1(FER)	HPAC No.2(MER)	Remarks
(i)	1 st stage Relief valve	Bar	6.5			
(ii)	2 nd stage Relief valve	Bar	48			
(iii)	3 rd stage Relief valve	Bar	230			
(iv)	Cooling water outlet temp.	°C	40			
(v)	Lub oil temp.	°C	50			
(vi)	1 st stage air temp.	°C	190			
(vii)	2 nd stage air temp.	°C	180			
(viii)	3 rd stage air temp.	°C	180			
(ix)	Air outlet temp trip	°C	90			
(x)	Auto Drain Mechanism					

(e) **AC Plants.**

SI	Description	Unit	Design value	Port AC Plant	Stbd AC Plant	Fwd AC Plant	Remarks
(i)	LP cutout	Kg/cm ²	2.5±0.5				
(ii)	HP cutout	Kg/cm ²	18±0.5				
(iii)	SW Pr cutout	Kg/cm ²	0.3				
(iv)	DOP cut out	Kg/cm ²	1.8±0.5				
(v)	CW press	Kg/cm ²	2.5±0.5				
(vi)	CW operating thermo	°C	11				
(vii)	Antifreeze	°C	4				

(f) **REF plant**

SI	Description	Unit	Design value	Ref no. 1	Ref no. 2	Remarks
(i)	LP cutout	Kg/cm ²	0.3			
(ii)	HP cutout	Kg/cm ²	12.5			
(iii)	SW Pr cutout	Kg/cm ²	0.5			
(iv)	Cool Thermostat cut in/cut out	°C				
(v)	Cool Thermostat cut in/cut out	°C				