

Self Checklist for China Marine Safety Administration(MSA) Special Safety Inspection

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Commencement of Special Measures to Prevent Failure of Ship Machinery/Electrical Machinery for China MSA

1. Implementation Period: 7 April 2024 ~ 31 October 2024

2. Purpose: Prevention of mechanical/electronic machinery failure of vessels

3. Failure Report: In case of any failure in the vessels' machinery and electronic devices, it shall be actively reported to the local Maritime Administration. Failure to report such incidents will result in appropriate action taken in accordance with relevant laws and regulations."

No.	Item	Details	Check
1	Is the main propulsion device fully operational?		
1-1	Is the Fuel Oil System fully operational? This includes the fuel oil supply system, high-pressure fuel oil pump and pipe, fuel oil leakage alarm, fuel oil heating system (if applicable), and fuel oil pump auto changeover (if applicable).		
1-2	Are all instrumental devices fully operational? This encompasses the console, communication facilities between the bridge and engine room, and the presence or absence of a tachometer.		
1-3	Is the Starting Air System fully operational? This includes checking the pressure of the air reserve tank, the functioning of the air compressor, the starting valve, and the starting air distribution system.		
1-4	Lubrication System: Is it fully operational? This involves checking for leaks in piping and filter connections and verifying pressure.		
1-5	Cooling System: Is it fully operational? This entails inspecting for leaks in piping and coolers and verifying pressure.		
1-6	Control Air System: Is it fully operational?		

	This includes checking air pressure and the functionality of air moisture control equipment, such as air dryers.	
1-7	Reversing Means of Main Propulsion System: Are they fully operational? (CPP, clutch, etc.)	
2	Are safety devices, remote controls and other related equipment for main propulsion device fully operational?	
2-1	Is the over-speed alarm and trip device for the main propulsion engine fully operational?	
2-2	Are the lubrication oil low alarm, cooling water high-temperature alarm, and trip devices for major diesel engines fully operational?	
2-3	Are the oil mist detector and temperature monitoring device for the main bearing of the main propulsion engine fully operational? (Output 2250 kW and above and cylinder diameter 300mm and above)	
2-4	Is there any alarm history related to the safety device of the main propulsion system? (AMS, etc.)	
2-5	Are the system and lubrication oil low-pressure alarm for the power transmission system (gear) fully operational? (if applicable, 370 kW and above)	
2-6	Are the system and lubrication oil high-temperature alarm for the power transmission system (gear) fully operational? (if applicable, 1470 kW and above)	
3	Is the steam boiler fully operational?	
3-1	Is the water supply system fully operational? (Quantity of water supply pump, flow rate of supply water, water level indicator, etc.)	
3-2	Is the combustion system fully operational? (Ignition, fuel supply, air supply, etc.)	
3-3	Is the safety system fully operational? (Safety valve, combustion air, flame fail, low water level, etc.)	
4	Is the main power fully operational?	
4-1	Is the capacity of the main power system sufficient? (In case of single or more sets of generator sets failure, considering the operation of high load machinery (side thruster, Sox scrubber, BWTS, etc.)	
4-2	Is the motor (engine) for the main power fully operational? (Fuel oil, lubrication oil, cooling water, etc.)	
4-3	Are the main power distribution panel and generator control panel fully operational? (Auto operation, start, stop, parallel running, load sharing, load	

	control, etc.)	
4-4	Is the insulation monitoring function of the main switchboard fully operational?	
5	Is the emergency power fully operational?	
5-1	Is the emergency generator starting and fully operational? (Fuel oil, lubrication oil, cooling water, etc.)	
5-2	Are the starting devices of the emergency generator fully operational?	
5-3	Does the emergency generator have sufficient fuel oil storage?	
5-4	Is the emergency generator mode set to "Auto" mode?	
5-5	Can power be restored within 45 seconds after the main power is lost?	
5-6	Is the insulation monitoring function of the emergency switchboard fully operational?	
5-7	Is the battery for starting the emergency generator fully operational?	
5-8	Is the quick-closing valve of the emergency generator fuel oil tank fully operational?	
5-9	Are the switches of various loads in the emergency switchboard in the "on" position?	
5-10	Is the leakage alarm for high-pressure fuel oil piping of the emergency generator fully operational?	
6	Is the steering system fully operational?	
6-1	Does the steering system automatically restart after a blackout?	
6-2	When the main power is lost, can the steering system receive power within 45 seconds? (when diameter of upper rudder stock is over 230mm)	
6-3	If the power supply of the electronically controlled steering system has a single failure, can it be switched in less than 10 seconds?	
6-4	Does the capacity of the hydraulic oil storage tank of the steering system satisfy the requirements?	
6-5	Is the visible and audible alarm system for the lubrication oil tank low-level alarm for the steering system fully operational?	
6-7	Does the performance of the steering system satisfy the requirements?	
6-8	Are the communication devices between the bridge and steering system room fully operational?	
7	Are the crew familiar with the operation of mechanical/electrical machinery associated with their mission?	
7-1	Do the crew members have valid certificates and meet the minimum safety	

	requirements? (Safety manning documents, etc.)	
7-2	Can the crew communicate effectively with each other in daily work and emergency situations?	
7-3	Are the crew members in charge familiar with the operation, test, and emergency response procedures of the main propulsion system?	
7-4	Are the crew members in charge familiar with the operation, test, and emergency response procedures of the boiler?	
7-5	Are the crew members in charge familiar with the operation, test, and emergency response procedures of the main power supply system?	
7-6	Are the crew members in charge familiar with the operation, test, and emergency response procedures of the emergency generator?	
7-7	Are the crew members in charge familiar with the operation, test, and emergency response procedures of the steering system?	
8	Are the system documents for mechanical/electrical machinery effectively implemented on the vessel?	
8-1	Does the company guarantee the captain the necessary support? (ship communication records, spare parts application and supply record, technical support, etc.)	
8-2	Does the company have qualified and certified crew to meet the various onboard safety requirements?	
8-3	Does the company ensure that the responsibilities of the SMS are implemented effectively by the crew?	
8-4	Has the company established procedures, plans, guidelines for the operation of mechanical/electrical machinery?	
8-5	Has the company defined mechanical/electrical machinery failures as an emergency and developed emergency response procedures?	
8-6	Has the company established and implemented a maintenance procedure for mechanical/electrical machinery?	
8-7	Is there any other problem that could cause mechanical/electrical failure of the vessel?"	

[The End]