

May 13, 2024

To: Aladin Marine Corporation  
c/o Forrest Shropshire  
337 Old Harbor Rd.  
Westport, MA 02790

**S/Y Melinka  
1981 Swan 80**

## **Condition and Valuation Report**

**In addition to this list of recommendations and notes there is a separate survey text and a document including pictures of the vessel which are an integral part of the report and should be read in conjunction with this text.**

The following is a list of recommendations and notes developed from our inspection. The first items should be considered for **safety purposes**. **priority items** should be addressed as soon as possible. Additional items may be addressed in the course of **general maintenance**.

### **Safety**

1. Update the offshore first aid kit. The subscription has lapsed on the first aid kit and has not been updated.
2. Update the Defibrillator and have the Oxygen emergency kit inspected.
3. There are no inspection tags for the inflatable harness PFDs. Have the inflatable harness/PFD's inspected.
4. Replace the batteries for the MOB light attached to the horseshow buoy
5. The two MOM units in the storage locker are inspected until 06/21. Have the two MOM units inspected.
6. The fire extinguishers are ready to be serviced 06/23. Have the fire extinguishers serviced.

## **Priority**

7. The cockpit scupper hoses in the engine room on the port and starboard side have deteriorated and are in need of replacement.

## **Hull, Deck and Structure**

8. Moisture Meter testing of the hull using a Trimax capacitance type meter and a GE Protimeter using radio waves was done. The hull exhibited acceptable low readings on both meters. The following areas had high moisture readings:
  - a. The lower section of the rudder skeg at a visual cracking between the sheathing and the skeg at the trailing edge of the skeg.
  - b. The bottom 100cm of the rudder has high readings. Visually moisture is weeping from the lower rudder near the lower attachment to the skeg.
9. Caulking at the keel to hull joint is failing an approximately 6 areas generally 5cm to 20cm in length with minor amounts of moisture trails seen. Prepare and recaulk these areas the next time the vessel is hauled out as part of maintenance.
10. There is minor play side to side with the rudder in the centerboard box. This may be removed by adding shims as needed.
11. The teak overlay is thinning and is separating from the fiberglass deck. The teak deck is near the end of its useful life.
12. Dorade boxes have been removed from the vessel for varnish maintenance. Reinstall on the vessel once complete.
13. The bilges are being cleaned as part of spring maintenance. The captain reports the bilges are now clean following our inspection.
14. Reinstall the varnished name boards and bow seat as part of decommissioning from winter storage. This was reported on the worklist.

## **Paint systems**

15. The current antifoul paint on the bottom is in need of repainting for the next season. Consider fairing the areas at the keel better.
16. The underside of the deck in the forepeak and lazarette has some peeling paint. Prep the areas and repaint as part of maintenance.

## **Winches**

17. The captain reports there are issues with the primary winches not shifting gear with the likely problem being with the hydraulic power packs.

## **Mast and Rigging**

18. The masts were not inspected aloft and are not part of this survey. The mast and rigging section of this report are my notes made during this inspection. Please see Newport Rigging Group's complete and separate inspection report.
19. There is minor corrosion at the bottom of the headsail furling extrusion.

## **Cathodic and Lighting protection**

20. Silver/Silver/Chloride cell corrosion testing was done as part of this inspection. The vessel engine and generators measure 625-650 millivolts and are under protected. Consider installing another anode on the engine shaft.

### **Steering**

21. The autopilot has a back up/second autopilot hydraulic pump. The electrical connections in the lazarette must be switched from the primary pump to use it. Consider a better system to employ the use of the back up/second pump.

### **Engine**

22. The engine shaft cutlass bearing at the hull is worn. The cutlass bearing at the strut is worn. No vibration was observed during sea trials. Monitor and consider replacement of the cutlass bearings and the alignment of the engine and shaft arrangement.
23. The Hundested drive gauge is not operational. The parts are reported as on hand and a new connection is reported to be inline for using the new B&G system to monitor the drive. Remove the old gauge if not to be utilized.
24. The oil pressure gauge for the engine did not operate. Repair as necessary.
25. The tachometer for the engine did not operate. Repair as necessary.
26. Wide open throttle of 2500 RPM was not achieved during sea trails. No RPM or Hudested gauges were available for further evaluation.
27. The dipstick for the engine oil has broken off inside the inspection tube. Repair the dipstick.
28. The engine has 1836 hours on it since the last reported rebuilding of the engine in 1995 (11835 total hours) contact a Mercedes Benz Marine authorized repair facility and determine where in the maintenance schedule the engine is and complete any necessary maintenance to the engine.
29. Clean up the minor corrosion on the engine including the hard to get to starboard engine mounts.

### **Generator, 20KW**

30. The 20 KW generator oil pressure gauge was inoperable. Repair as necessary.
31. A small amount of oil was seen at the front of the engine. Monitor the location for a potential oil leak.
32. The 20kw generator hours are 10869. Determine where in the maintenance schedule the generator is. In addition to routine maintenance the Northern Lights manual indicates that:
- a. Every 2400 hours
    - i. Check the injector pump
    - ii. Check and clean the heat exchanger
  - b. Every 600 hours
    - i. Check the valve clearance
    - ii. Check the injectors
    - iii. Flush the cooling system and check
  - c. Every 200 hours
    - i. Inspect condition of the exhaust elbow

### **Generator, 12KW**

33. The temperature gauge reads incorrectly on the 12kw generator. The gauge read 200F while the generator ran at 178 when measured remotely. Repair as necessary.
34. The oil gauge for the 12kw generator was not operating correctly. Repair as necessary.
35. The hose from the 12kw generator header tank to the reservoir bottle is chafed through from rubbing on the engine belts. Replace and reroute the hose.
36. The 12kw generator hours are 11099. Determine where in the maintenance schedule the generator is. In addition to routine maintenance the Northern Lights manual indicates that:
  - a. Every 2400 hours
    - i. Check the injector pump
    - ii. Check and clean the heat exchanger
  - b. Every 600 hours
    - i. Check the valve clearance
    - ii. Check the injectors
    - iii. Flush the cooling system and check
  - c. Every 200 hours
    - i. Inspect condition of the exhaust elbow

### **Bilge / Fire pumps**

37. The aft Par Jabsco pump makes a grinding noise. Repair the pump. The captain reports that they no longer make parts for the pump.

### **Fresh water System**

38. Replace the corroded hose clamps in the watermaker system.
39. The captain reports he does not use fresh water tank #3 as it was reported by the prior captain to leak. Consider repairing the tank.
40. Replace the icemaker water filter as part of routine maintenance.
41. There is no monitor for the fresh water tanks. Consider installing a monitor

### **Black water**

42. The crew head has been disconnected from the overboard discharge. Remove the old plumbing and y valve that remains if the option is no longer utilized.
43. There is no monitor for the black water tanks. Consider installing a monitor or high water alarm on the tanks.

### **Refrigeration**

44. Clean up the wiring at the solenoids for the refrigeration located below the galley.
45. Clean up the minor amounts of corrosion at the refrigeration compressor.

### **HVAC**

46. The chiller failed to operate for the air conditioning system. The chiller blows the breaker when turned on. The air conditioning system is now 29 years old and is an older system.
47. The vessel used to have a diesel fired Espar heat system. The heater has been removed. The ducting, fuel pump and vents remain. Remove the rest of the Espar system.

## **Hydraulic**

48. There is corrosion at the hydraulic autopilot valves as seen in the starboard aft cockpit locker.
49. Monitor the forward hydraulic pack for a leak. Hydraulic fluid was seen under the unit.

## **Thrusters**

50. Replace the hydraulic oil filter as part of routine maintenance for the bow thruster.
51. The hose connections at the thruster have corroded. Address the corrosion.
52. Minor corrosion was seen at the bow thruster where the stainless bolts mount the aluminum housing. Address the corrosion.

## **LPG**

53. Consider the installation of a dedicated propane locker. Currently propane is stored in the forepeak.

## **Electrical**

54. Consider the installation of a monitor for the emergency radio batteries. There is no way to monitor the batteries.
55. The radio/emergency batteries were found to be discharged. Consider replacement of the batteries if they do not hold a charge.
56. The aft light in the lazarette did not operate. Repair as necessary.
57. Overcurrent protection for the alternators was not seen. Locate the fuse or install as necessary.
58. Three of the lights behind the main electrical panel are not operating.
59. The forepeak light is not operating.
60. The GFCI breakers in the captain's cabin and the starboard cabin are not working. Replace the outlets.
61. Install GFCI outlet in the galley where a normal outlet exists.
62. Consider the installation of a galvanic isolator for the shore power.
63. The service inverter is 2500 watt and undersized for the potential load.
64. The loose wiring that goes to nothing in the captain's cabin bilge can be removed if not to be utilized.

## **Electronics**

65. The phone in the port aft cabin is no longer utilized. Remove the phone from the vessel.

## **Ground tackle and deck gear**

66. The temperature sensor wire for the electric windlass is adrift.
67. The davits are not working and have been disconnected. Repair and connect the system or remove the system if not to be utilized.

## **Additional**

68. The Hull identification number has been painted over at the stern. Consider the installation of a small plaque with the HID.
69. The hailing port on the stern of the vessel is Cowes in the UK. The hailing port on the vessels BVI documentation is Road Harbor BVI.

70. The varnished bow seat and the name board on deck have been removed for storage. Reinstall as necessary.
71. Confirm the documentation of the vessel is up to date. The documentation Certificate of British Registry in the British Virgin Islands onboard indicates an expiry date of April 26, 2024.

### **Tender**

72. The tender was visually inspected only. The captain reports that some of the tender switches do not operate for the lights.