

Date : 17 May 2017

Oref : 17002/AZ(mi0515xr)

## CONDITION SURVEY REPORT

### S/Y MIYAGI MOON

At Aegina May/17

IN accordance with instructions received from Mr. Albert Cook, the undersigned performed an insurance condition survey on the following yacht on 11/May/17. The following report details the condition of the yacht on the date of survey.

#### 1. General Particulars

Name	: MIYAGI MOON	Flag	: British Part I
LOA	: 13.22m	Reg. Port	: Brixham
Beam	: 4.17m	Official No.	: 704600
Draught	: 1.98m	CE	: n/a
Status	: Private Yacht	HIN No.	: n/a Hull No. 8
Type	: Ketch	Call Sign	: MCZF6
Builder	: Landamores, Norfolk	MMSI	: 235039794
Model	: Oyster 435	Engines	: Volvo Penta
Built	: 1983	Cabins	: 2
Hull	: GRP	Toilets	: 2



MCA Code  
Small Craft Examiner (RYA)



British Marine Surveyors Europe  
Member

Table of Contents		Page Number
1.	General Particulars .....	1
2.	Circumstances of the Survey .....	3
3.	General Limitations of Survey .....	3
4.	Contact Details .....	4
5.	Certification .....	4
6.	CE Marking .....	4
7.	General Construction .....	4
8.	Hull below Waterline.....	4
9.	Keel.....	5
10.	Topsides.....	6
11.	Hull/Deck Join.....	6
12.	Frames, Bulkheads and Internal Structure .....	6
13.	Deck Moulding .....	7
14.	Moisture Readings.....	7
15.	Coachroof .....	8
16.	Cockpit.....	8
17.	Rudder and Steering.....	8
18.	Stern Gear .....	9
19.	Bow Thruster .....	10
20.	Cathodic Protection.....	10
21.	Skin Fittings and other through Hull Apertures.....	10
22.	Ports and Windows .....	11
23.	Pulpit, Stanchions, Pushpit, Lifelines and Jackstays .....	12
24.	Ground Tackle and Mooring Arrangements.....	12
25.	Davits, Boarding Ladders, Passerelle .....	13
26.	Spars .....	14
27.	Standing Rigging .....	17
28.	Running Rigging.....	19
29.	Winches.....	19
30.	Sails and Covers.....	19
31.	Bilge Pumping Arrangements.....	20
32.	Firefighting Equipment.....	20
33.	Lifesaving and Emergency Equipment.....	21
34.	Navigation Lights .....	22
35.	Engine and Installation .....	23
36.	Fuel System .....	26
37.	Accommodation General.....	26
38.	Gas System .....	27
39.	Fresh Water Tanks and Delivery.....	28
40.	Grey Water System.....	29
41.	Heads and Black Water System .....	29
42.	Electrical Installation .....	29
43.	Electronic and Navigation Equipment .....	30
44.	Heating and Refrigeration .....	32
45.	Other Equipment.....	32
46.	Sea Trial .....	33
47.	Recommendations .....	33
48.	Conclusion .....	34

2. **Circumstances of the Survey**

The yacht was made available for survey ashore. No starting of machinery was made.

3. **General Limitations of Survey**

*The survey was limited to a non-destructive inspection. Unexposed parts of the yacht were not inspected unless specifically commented upon. Inaccessible parts of the yacht were not inspected. It is possible that dismantling or destructive testing may reveal other defects not possible to be noted by the surveyor.*

*Unless an item was specifically commented upon it should be considered that the item was not inspected. If an item was operated or operation witnessed it will be noted as such in the report, any other items should be considered as untested.*

*This report is intended to be used by the named client in the normal manner concerning the type of survey performed as stated on the first page of the report.*

*The report may additionally be used by insurers or financiers for the purpose of insuring or financing the yacht. The report may be used by the yacht's flag to confirm safety.*

*The report should not be relied upon for any other purpose by any other party and no liability is undertaken to such party.*

*The report concerns condition of the yacht at time of survey and future condition cannot be anticipated.*

*Dismantling of machinery may reveal a different condition than was possible to determine within the constraints of a typical inspection circumstances.*

*General periodic servicing requirements are not mentioned in the report.*

*It is always recommended to have any machinery inspected and serviced by a specialist engineer.*

*If a Sailing Yacht, the rigging was inspected from deck level only if mast not down. This is for safety reasons.*

*For further inspection of any rigging, inspection by rigger is required. Inspection at deck level cannot find all defects but is satisfactory to make a general assessment.*

*The survey work was performed in accordance with standard terms and conditions which are available at the following link : <http://www.walshsurveyor.com/terms.pdf>*

#### 4. **Contact Details**

Attn : Mr. Albert Cook  
 Email : miyagi.moon@gmail.com

#### 5. **Certification**

The following certificates were inspected.

Certificate	Issued	Expiry	Comment
Certificate of Registry	17/Aug/16	29/Aug/21	Valid
Radio License	20/Mar/07	n/a	Valid
Certificate of Servicing Liferaft	03/Dec/06	02/Dec/07	Not Valid
Certificate of Servicing Fire Extinguishers			Not Provided

#### 6. **CE Marking**

The yacht was in the EU prior to the recreational craft directive and is not required to comply.

#### 7. **General Construction**

Hand laid construction. Solid fiberglass hull. Traditional type overlaminated bilge structure with foam stiffeners.



Overview

#### 8. **Hull below Waterline**

Hull below waterline was recently coppercoated. The hull surfaces were fair. Hammer sounding did not find any delamination or voids. There were no osmosis blisters.



Hull surfaces fair



Another view

9. **Keel**

Encapsulated iron keel. No cracks at interface of the keel laminate and the hull. No grounding damages.



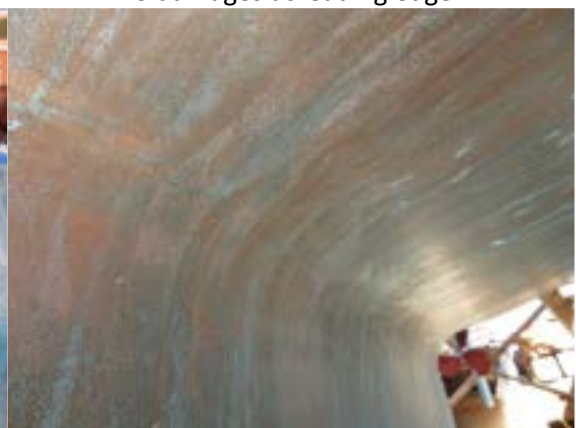
Keel externally intact



No damages at leading edge



No damages at trailing edge



No cracks at interface of encapsulation and the hull

**10. Topsides**

Topsides were recently painted with awlgrip to a high standard. Topsides were fair. There were no damages.



Topsides painted

**11. Hull/Deck Join**

Hull to deck join seen to be secure where visible.

**12. Frames, Bulkheads and Internal Structure**

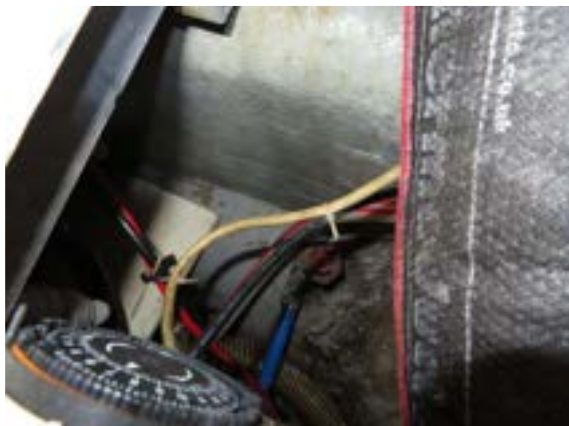
Checking in all bilge accesses was made. The bilge structures found to be intact. Hammer sounding did not find any delamination. Bulkheads were without cracks. Doors closed properly indicating no movement in the structure.



Intact bilge structure



Intact bilge structure



Intact bilge structure

13. **Deck Moulding**

Deck moulding was heavily walked upon and there was no deflection or cracking sounds underfoot. The deck was without crazing. Hammer sounding did not find any delamination or voids.



Deck

14. **Moisture Readings**

Moisture Readings were taken with a Sovereign Quantum Marine meter. Moisture readings do not measure moisture content but are based on a relative scale which is relevant only to this specific model of meter. Moisture readings were as follows :

Meter	Underwater Hull
Sovereign Quantum Marine Scale A Relative Scale 0-100 <b>Shallow Mode</b>	20-25
<b>Deep Mode</b>	16-20

Hull moisture readings were in acceptable dry range. Moisture related defects are therefore unlikely to occur in the laminate.

15. **Coachroof**

Coachroof was also sound underfoot.

16. **Cockpit**

Companionway sliding hatch and board secure. Helm pedestal secure. Cockpit drains provided.



Cockpit

17. **Rudder and Steering**

Skeg hung fiberglass rudder. No cracks at skeg interface with hull. Rudder was without splits between the two mouldings. Hammer sounding did not find any delamination or voids. There was no play at the rudder bushings.



Rudder without damages



Lower bracket without wastage



### 17.1. Autopilot

Electric autopilot checked working. Access to steering is poor without removals therefore not possible to inspect linear drive.



Checking autopilot

### 17.2. Emergency Steering

Via a tiller connection to the top of the rudder post.

### 18. Stern Gear

Shaft without pitting. P-bracket secure and without wastage. No excessive play at cutlass bearing. Propeller blades without damage or corrosion.



Stern gear



P-bracket without wastage



Propeller without damages to the blades

19. **Bow Thruster**

Not fitted

20. **Cathodic Protection**

Anodes were new.



Shaft anode new



Hull anode new

21. **Skin Fittings and other through Hull Apertures**

New depth sounder fitting fitted. Through hull necks at the exterior side were without wastage. Blakes seacocks, several were renewed. The old ones present were without wastage externally. Hoses double clipped.



New depth sounder fitting



Through hull necks without wastage



New blakes seacock



Hoses double clipped



Valve without wastage

22. **Ports and Windows**

Hatch windows secure and plexiglass without damage. Seals were secure. Exposed sealant had sun deteriorated. Side window plexiglass was renewed.



Side windows renewed



Hatch window seals not deteriorated

23. **Pulpit, Stanchions, Pushpit, Lifelines and Jackstays**

Railings and guardwires were secure.

24. **Ground Tackle and Mooring Arrangements**

New anchor. Anchor swivel also new. Anchor chain with galvanising intact. Electric anchor windlass without pitting and securing bolts without corrosion.

Anchor roller plate bolts are with corrosion and it would be prudent to draw one for inspection.



New anchor



New anchor swivel



Anchor windlass casing without wastage



Anchor roller without damages



Anchor windlass securing bolts not corroded

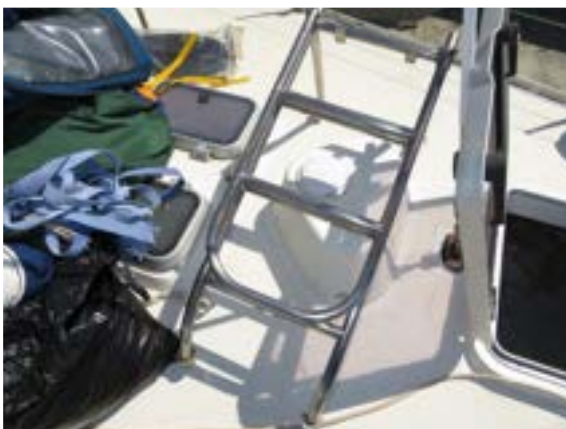


Anchor roller plate bolts corroded.

*Recommendation : Anchor roller plate bolts are with corrosion and it would be prudent to draw one for inspection.*

25. **Davits, Boarding Ladders, Passerelle**

Stainless boarding ladder suitable for recovery of man overboard found without damages.



Boarding ladder

26. Spars

Foresail furler secure, drum without damages and with free movement. Looking up there is distortion to the foil but it is still of use. Staysail furler also secure and drum with free movement.

Ketch rig. Aluminium keel stepped mast. Looking up the extrusions fair and the spreaders secure. Boom looked straight. Boom gooseneck secure and without fracture. Mast boot was without deterioration. Structure in way of mast keel step was sound.

Aluminium deck stepped mizzen mast. Looking up the extrusions fair and the spreaders secure. Boom looked straight. Boom gooseneck was secure and without fracture. Laminations in way of the compression post foot were with a void on the starboard side which may be from original construction as the structure looked intact.



Foresail furler secure



Drum without damages



Staysail furler secure



Drum without damages



Mast boot without deterioration



Boom vang secure



Other side also good



Boom gooseneck secure



Minor galvanic corrosion at bimetallic interface of aluminium and stainless



Spreaders secure



Spreaders secure



Spreaders secure



Spreaders secure



Top of mast



Mast keel step intact



Mizzen boom gooseneck without fracture





Spreaders secure



Laminations in way of mizzen compression post intact

27. **Standing Rigging**

Standing rigging is said to be of 2007. 1x19 stainless wire terminated in swage terminals and also norseman fittings. From deck level the condition was satisfactory. There was no corrosion to wires or fittings. There were no broken wires. Swage terminals were straight and without cracks. The rig was set up hard.

The shrouds chainplates are through deck attached to laminated in structure. The ones without lining were without corrosion to the bolts. The ones with lining not inspected but said to be in good condition.

The stemhead fitting bolts are corroded. Draw one for inspection and consider replacement.



Stemhead fitting bolts corroded



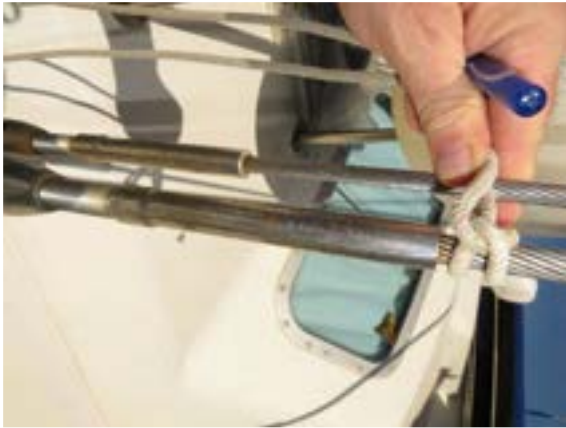
Exterior side no corrosion staining



Bobstay secure



No corrosion at entry to swage terminals



Swage terminals straight



Another view



No crazing or delamination in way of shroud chainplates



No corrosion staining to exposed chainplate bolts



Shroud chainplate behind lining

*Recommendation : The stemhead fitting bolts are corroded. Draw one for inspection and consider replacement.*

28. **Running Rigging**

Running rigging ropes satisfactory for further use.

29. **Winches**

Manual winches found secure and working properly. Recently serviced.

30. **Sails and Covers**

Sails were in satisfactory condition of 2007 and the yankee is new.



Sails in satisfactory condition

Another view



New sail

Another view

31. **Bilge Pumping Arrangements**

Automatic submersible pump in the keel sump. Manual pump also provided which was working but was with some sun deterioration. Both checked working. Bilge pumping arrangements satisfactory.



Submersible pump

Manual pump

32. **Firefighting Equipment**

Portable extinguishers were not with recent servicing and were only 1Kg. type. Externally without corrosion. Engine compartment is protected with two automatic dry powder extinguishers. Fire blanket was provided.



Engine room fixed firefighting installation



Fire blanket

*Recommendation : Service the fire extinguishers. Provide new portable extinguishers. Minimum total portable extinguishers 1 x 3Kg, 1 x 6Kg or equivalent smaller sizes.*

**33. Lifesaving and Emergency Equipment**

Safety equipment requires improvement.

EPIRB was not with recent servicing.

Gas inflated lifejackets not with recent servicing but external condition satisfactory.

Harnesses in satisfactory condition.

8 Person Liferaft container externally intact but not with recent servicing. Stowed on deck with manual release.

Radar reflector provided.

Lifebuoy provided.



EPIRB



Gas inflated lifejackets to service by 2008



Harnesses



Lifebuoy



Radar reflector provided

*Recommendation : Service EPIRB.*

*Recommendation : Gas inflated lifejackets make inflation test 24 hours and install rearm kit.*

*Recommendation : Liferaft to be serviced.*

*Recommendation : Provide two lifebuoys, one with self igniting light. The other secured to the yacht with 18m floating line. Marked with name and port. The second lifebuoy could be substituted for rescue sling.*

#### 34. **Navigation Lights**

Navigation lights checked working. Anchor light not possible to see.



Side lights working

Side lights working



Deck and Steaming light working



Stern light working

## 35. Engine and Installation

### 35.1. Engine Compartment

Enclosed engine compartment suitable to retain fire extinguishing medium. Provided with ventilation. Bilges clean of oils and water. Soundproofing intact.

### 35.2. Auxiliary Engine

Volvo Penta MD22. 59hp. 4cyl inline naturally aspirated. Engine hours 4991. Engine was with coatings intact and in satisfactory external condition. There was no previous leaks from heat exchanger ends. No previous leaks from injection pump or injectors. No leaks from exhaust mixing elbow. No oil leaks at engine body gaskets. Exhaust hose intermediate connector is with corrosion but no wastage externally. Engine was without play on the mounts.

Engine exhaust hose is with cracks and requires replacement.



Engine with coatings intact



Another view



No leaks from heat exchanger



Other side also good



Impeller minor leaks only



Exhaust intermediate connector  
corroded but no wastage





Coolant normal



Exhaust hose with cracks

*Recommendation : Engine exhaust hose is with cracks and requires replacement.*

35.3. Reverse Gear

Reverse gear with coatings intact and no leaks of oil.



Reverse gear

35.4. Shaft Seal

Traditional packing type shaft seal. Without corrosion. No sign of leaks. Hose clips not corroded. Gland material not deteriorated.



Shaft seal

36. **Fuel System**

Fiberglass fuel tank. Externally intact. No leaks from connections. Fuel lines without deterioration. No leaks at primary filters. Some corrosion to connections at primary filters but no wastage. Shut off valve not provided at the tank.



Fuel tank externally intact



No leaks at filters

*Recommendation : Shut off valves to be provided at fuel tank on delivery lines.*

37. **Accommodation General**

Accommodation was in general good order. No serious wet damage or fungal rot found.



Forward cabin



Saloon



Galley



Aft cabin

38. **Gas System**

Gas cylinder is stowed on deck in the open. Electronic valve fitted. Manual shut off valve provided in the accommodation and this is behind linings so requires inspection.

Gas cooker was without corrosion. Gimbal function working. Gimbal lock working.



Gas cylinder stowed on deck



Hidden manual gas valve



Connections to cooker



Gas cooker without corrosion



Cooker gimbal lock working

*Recommendation : Remove linings to access the manual gas shut off in the accommodation to check for corrosion as it has never been inspected.*

39. **Fresh Water Tanks and Delivery**

Stainless fresh water tanks externally intact. No sign of leak from fresh water pump.



Tank intact



No sign of leak from pump

40. **Grey Water System**

Shower drain pump no sign of leaks. System is directly overboard.



Shower drain pump

41. **Heads and Black Water System**

Manual toilets. No sign of leaks. Black water tank of plastic externally intact. Sanitary type hoses used and externally without deterioration.



Black water tank externally intact



Manual pumps no leaks

42. **Electrical Installation**

Electric installation was generally working. Shore power circuit was suitably provided with RCD and breakers. Batteries secure and are new.



Shore power RCD



Batteries secure

42.1. Generator

Fischer Panda generator hours 2183. Externally in satisfactory condition without leaks of oil or fuel. Exhaust mixing elbow is with previous insert welded as it was corroded through.



Generator hours 2183



Generator without leaks

43. Electronic and Navigation Equipment

Navigational Equipment in the cockpit :

Type	Model	Condition
Chartplotter	B&G Zeus 2	New
Magnetic Compass		With small bubble. Still of use.



Magnetic compass with small bubble

Navigational Equipment and electronics at the Navigation Station :

Type	Model	Condition
Radar	Raytheon R10	Good. Working.
Chartplotter	Standard Horizon CP300	Good. Working.
Autopilot Control	Autohelm 6000	Good. Working.
Speed / Depth	Hercules	Old. Working.
DSC VHF	Standard Horizon VM-3500E	Good. Working.
MF/HF	Icom IC-M801E	Good. Working.
Portable VHF	Standard Horizon HX270	Good. Working.



Radar working



Speed and Depth working



DSC VHF working



MF / HF working

#### 44. Heating and Refrigeration

##### 44.1. Water Heater

Water heater externally intact and secure.



Water heater

##### 44.2. Refrigerator

Refrigerator internals intact.

#### 45. Other Equipment

Outboard recently painted to a high standard. Externally intact. Propeller without damages. RIB Tender is old and with repairs but externally intact. New stainless davits of high quality are purchased and on board awaiting fitting.





Tender found fully inflated

46. **Sea Trial**

Not required for insurance survey.

47. **Recommendations**

*Recommendations are in my opinion, insurance related. Owners are advised to attend to these items.*

*All items are required to be completed prior to cruising unless a specific schedule is noted for an item.*

- 47.1. Anchor roller plate bolts are with corrosion and it would be prudent to draw one for inspection.
- 47.2. The stemhead fitting bolts are corroded. Draw one for inspection and consider replacement.
- 47.3. Service the fire extinguishers. Provide new portable extinguishers. Minimum total portable extinguishers 1 x 3Kg, 1 x 6Kg or equivalent smaller sizes.
- 47.4. Service EPIRB.
- 47.5. Gas inflated lifejackets make inflation test 24 hours and install rearm kit.
- 47.6. Liferaft to be serviced.
- 47.7. Provide two lifebuoys, one with self igniting light. The other secured to the yacht with 18m floating line. Marked with name and port. The second lifebuoy could be substituted for rescue sling.
- 47.8. Engine exhaust hose is with cracks and requires replacement.

- 47.9. Shut off valves to be provided at fuel tank on delivery lines.
- 47.10. Remove linings to access the manual gas shut off in the accommodation to check for corrosion as it has never been inspected.

48. **Conclusion**

The owners are presently completing a major refit of the yacht for world cruising. The quality of work was good. The general condition of the yacht was good. No structural defect was found. Various minor defects were found as mentioned above. The yacht was built for and is suitable for world cruising provided the safety and fire outfitting is improved and serviced. The yacht should not pose more than a normal insurance risk.



William Walsh

Yacht Surveyor

*Member of British Marine Surveyors Europe*

*RYA Commercial Yacht Inspector MCA Code and Tonnage Measurer*