



## Maritec Tanker Management Private Limited

Vessel	Bitu Express	Inspector	Roshan D'souza
Inspection Type	022 - Mooring Audit	Inspection Date	17 Sep 2019
		Hours Onboard	2 Hrs

Chapter	01.00 - 022 - Mooring Audit
Category	01.01 - 022 - Mooring Audit
Question	01.01.01 - Is maintenance of mooring equipment completed annually as per PMS? Check records of inspection and maintenance of mooring bitts, ropes, windlasses, winches, wires, etc. (Splicing of ropes is acceptable but reduces strength by 10%. Splices in eyes and for repairs should have a min. of 5 tucks. Attention to eyes of mooring wires. If more than 3 broken wires in any strand, or 5 in any adjacent strands in a length of wire 10 times the diameter, the damaged part requires removal & the wire re-splicing. Check routine for maintenance & lubrication of wires. Individually identified & tagged mooring lines allow tracing. A log of where they are deployed to be maintained. Vessel MUST be fitted with closed chocks. Smit type brackets are NOT acceptable)
Answer Detail	<b>Grade - Yes</b>
Answer Remark	

Chapter	01.00 - 022 - Mooring Audit
Category	01.01 - 022 - Mooring Audit
Question	01.01.02 - Are certificates available for all mooring ropes and wires? (A file showing the locations of the winches should be maintained. Test certificates for mooring lines, Mandel/Tonsberg shackles and synthetic tails should show to which winch each component has been fitted)
Answer Detail	<b>Grade - Yes</b>
Answer Remark	

Chapter	01.00 - 022 - Mooring Audit
Category	01.01 - 022 - Mooring Audit
Question	01.01.03 - Check records of tests of winch brakes. (Winch brakes MUST be tested annually and the proper setting recorded. Winch brakes are normally designed to hold 80% of the line's min. breaking load and will be set in service to hold 60% of mooring line's min. breaking load. Brake holding capacity may be expressed in tonnes or as a percentage of a line's min. breaking load. The primary brake to be set to hold 60% of mooring line's min. breaking load. New equipment to be designed to hold 80% of line's min. breaking load, but can be adjusted down to 60%. Ideally, a brake should hold and render within a very small range and once it renders, should shed only enough load to bring the line tension back to a safe level. The band brake with screw is marginally satisfactory and requires care. Specifications to be available on winch drum to show the design holding capacity and the torque required on hand wheel or lever to achieve this. Where self-storing winches are fitted check awareness of the need to monitor the brake holding capacity to ensure that brakes will render well before ropes reach their min. breaking load and part. If mooring lines have a min. breaking load in excess of that for which the winch was originally designed, the brakes shall be set to render at 60% of min. breaking load of mooring line for which the winch was designed. If the over strength line is of a greater diameter than the mooring line, full stowage on the drum must be made and in the case of split-drum winches, must not result in excess layers on the tension part of the drum when in use)



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Answer Detail **Grade - Yes**

Answer Remark

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Question 01.01.04 - Are there emergency towing arrangements readily available for deployment forward and aft?

Answer Detail **Grade - Yes**

Answer Remark

Chapter 01.00 - 022 - Mooring Audit

Category 01.01 - 022 - Mooring Audit

Question 01.01.05 - Are the emergencies towing-off wires (fire wires) of appropriate size, in a satisfactory condition and do they conform to OCIMF recommendations?

Answer Detail **Grade - Yes**

Answer Remark

Chapter 01.00 - 022 - Mooring Audit

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Question 01.01.06 - Is there a record of routine risk assessment to ensure that all anticipated mooring arrangements and equipment ensure the safety of shipboard personnel?

Answer Detail **Grade - Yes**

Answer Remark



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Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.07 - Are there spare mooring ropes and wires available?  
Answer Detail **Grade - Yes**  
Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.08 - Is sufficient crew on board at all times to attend moorings?  
Answer Detail **Grade - Yes**  
Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.09 - Are there records of the inspection and maintenance of mooring bitts, mooring ropes, windlasses, mooring winches, wires and equipment and are they in good condition?  
Answer Detail **Grade - Yes**  
Answer Remark



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Chapter 01.00 - 022 - Mooring Audit  
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Question 01.01.10 - Are moorings satisfactorily deployed and tended?  
Answer Detail **Grade - Yes**  
Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.11 - Are the mooring ropes properly reeled to the winch drums and secured/turned up correctly to the bitts (one turn prior to figures of eight etc.)?  
Answer Detail **Grade - Yes**  
Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
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Question 01.01.12 - Are all powered mooring lines secured on brakes and are the winches out of gear?  
Answer Detail **Grade - Yes**  
Answer Remark



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Chapter 01.00 - 022 - Mooring Audit  
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Question 01.01.13 - On split drum winches are all the lines made fast with no more than one layer on each tension side of the drum?  
Answer Detail  
Answer Remark Mooring winches are not fitted with Split drums

Chapter 01.00 - 022 - Mooring Audit  
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Question 01.01.14 - If mooring tails are fitted to wires, do they have proper connecting links and are they correctly fitted?  
Answer Detail  
Answer Remark No Wire ropes and tails on board

Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.15 - Are all mooring lines stowed neatly to minimise tripping hazards and are mooring areas clear and unobstructed?  
Answer Detail **Grade - Yes**  
Answer Remark

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Question 01.01.16 - Do mooring winch foundations, brake linings, drums and pins in a satisfactory condition?

Answer Detail **Grade - Yes**

Answer Remark

Chapter 01.00 - 022 - Mooring Audit

Category 01.01 - 022 - Mooring Audit

Question 01.01.17 - Are bitter end securing arrangements unobstructed and outside the chain locker?

Answer Detail **Grade - Yes**

Answer Remark

Chapter 01.00 - 022 - Mooring Audit

Category 01.01 - 022 - Mooring Audit

Question 01.01.18 - Are the rollers rotating freely?

Answer Detail **Grade - Yes**

Answer Remark

Chapter 01.00 - 022 - Mooring Audit

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Question 01.01.19 - Are the anchors ready for use? (anchor chain cables and stoppers in good condition)

Answer Detail **Grade - Yes**



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Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
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Question 01.01.20 - Are anchors and chains in good condition?  
Answer Detail **Grade - Yes**  
Answer Remark

Chapter 01.00 - 022 - Mooring Audit  
Category 01.01 - 022 - Mooring Audit  
Question 01.01.21 - Auditor's Comments  
Answer Detail  
Answer Remark All mooring winches and associated equipment were found to be in satisfactory condition. The MSMP was available onboard and updated correctly