

Subject	Condition monitoring of lifting rigging on the Frog transfer capsule
Issue Date	20/09/2007
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This safety alert affects the following Frog models:-

- ❑ Model FS-01 serial numbers 001 to 282 (excluding FS-01-M40 units)
- ❑ Model HC-01 serial numbers 001 to 003

This notice supersedes the previous Technical Bulletin 02/07 issued in August 07.

1. Background

A recent incident has highlighted the importance of following the recommended maintenance and inspection procedures for Frog sling sets.

The Frog sling set comprises a primary and a back up sling, each constructed of non-rotating steel wire rope. A high visibility sling cover, closed by a Velcro fastening, is fitted to a) keep both legs of the sling set together and b) to assist both crane driver and deck crews in monitoring the position of the sling set during Frog operations.

It has been reported that a recent incident occurred due to a failure of both the primary and back up slings when under a low load condition (single passenger). Although we understand no injuries occurred, this further highlights the importance of adhering to a rigorous inspection and maintenance procedure.

Subsequent investigations conducted by the operator indicated the slings failed due to corrosion; Reflex Marine is unable to confirm the age of the sling set. The corrosion may have been accelerated due to the hot humid (tropical) operating environment, causing condensation to collect inside the high visibility cover.

2. Recommendations arising from the incident

- 3.1 Reflex Marine wishes to emphasize the importance of following the company's recommended inspection and maintenance procedures.
- 3.2 We draw particular attention to the Client Technical Manual which advises clients to inspect all sling sets prior to use of the Frog capsule, ensure six monthly inspections of sling sets by a competent person, and for periodic replacement of sling sets.

Note: The lifting sling set's high visibility cover is closed by means of a Velcro seam to allow convenient opening for sling inspection. This cover should always be opened to allow a full visual inspection prior to use of the unit. We do not recommend the use of plastic cable ties or other securing devices which prevent convenient opening of the cover for sling set inspection.



- 3.3 In Technical Bulletin 02/07, Reflex Marine recommended that all operators carry out an additional (one off) inspection and to check the condition and the maintenance & inspection records, in order to ensure that units were being maintained in accordance with recommendations. Frog users should ensure that these preventative measures have been carried out and that any sling sets showing signs of significant deterioration are replaced.
- 3.4 As a precaution, we now recommend that Frog sling sets are replaced every 12 months (the previous recommended interval was up to 24 months).
- 3.5 As part of our programme of continuous improvement, the specification of the standard sling set was changed earlier in 2007 to a more corrosion resistant material. We now recommend that users in tropical environments (or environments which may cause accelerated corrosion) should change their sling sets to the new specification at the earliest opportunity.
- 3.6 Reflex Marine has issued a revised Client Technical Manual (Rev.15.3), which includes new recommendations for sling set inspection and maintenance.

4. Summary of actions required

- 4.1 **Users in tropical climates**, or in other environments which may cause accelerated corrosion of the sling set, are recommended to **change sling sets to the latest specification at the earliest opportunity.**
- 4.2 Reflex Marine now recommends **replacement of sling sets at 12 month intervals.**
- 4.3 All users should ensure that they have completed the one-off inspection recommended in Technical Bulletin 02/07.
- 4.4 We wish to reinforce the importance of adhering to the recommended inspection and maintenance procedures in the recently revised Client Technical Manual **Rev.15.3.**

Note: This can be downloaded on the following link www.reflexmarine.com/ctm.

Operations Department
Reflex Marine Ltd.

