

INTERMODAL MATERIÉL
AND
NAUTICAL/NUCLEAR ANALYSIS
IMANNA
LABORATORY INC.

CERTIFICATION TEST REPORT

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TEST REPORT
17455-1
MECHANICAL STRENGTH TESTS
ON
SURFACE MOUNT FOLDING CLEATS
FOR
ACCON MARINE, INC.

CUSTOMER:

ACCON MARINE, INC.
13665 AUTOMOBILE BLVD.
CLEARWATER, FL 34622

MANUFACTURER
OF TEST ARTICLE: ACCON MARINE, INC.
CLEARWATER, FL 34622

DATE: Nov. 27, 2006

REPORT NO.: 17455-1
IMANNA JOB NO.: 17455
CUSTOMER P.O. NO.: N/A
CONTRACT: N/A
PAGES IN REPORT: 4

STATE OF FLORIDA

ROBERT L. WHITE, being duly sworn, deposes and says: The information contained in this report is the result of complete and carefully conducted tests and is to the best of his knowledge true and correct in all respects.

Robert L. White

SUBSCRIBED and sworn to before me this 27th day of November, 2006

Marydel Kramer



Imanna shall have no liability for damages of any kind to person or property, including special or consequential damages resulting from Imanna's providing the service covered by the report.

IMANNA LABORATORY, Inc.
TEST BY
Robert White
PROJ. MANAGER

1. TEST ARTICLE

Two samples of two of Accon Marine's stainless steel Surface Mount Folding Cleats were received for test.

2. MODEL / DESCRIPTION

8" Folding Cleat with visible screw holes (through bolt)
8" Folding Cleat with no visible screw holes (stud mount)

3. REQUIREMENTS

The requirements for this effort are to perform side pull tests on the received samples. The test is to be continued until the breaking strength of the cleats has been determined.

4. PROCEDURES

Each cleat was mounted to a 1" thick steel plate in the manner it would be mounted on a boat. The cleats were then subjected to an increasing side load to determine the point of significant bending and/or ultimate load capability (whichever occurs first) in the direction of pull. All pulls were performed in the "side" direction and not the lifting direction. Mounting hardware was not supplied with the cleats. IMANNA utilized mounting hardware (grade 8 bolts) purchased at a local marine outlet for the purpose of the tests.

5. RESULTS

The following table contains the values obtained during the tests. In addition to the failures each of the tested samples also experienced some deformation as a result of the tests.

8" Cleat / through bolt		
SAMPLE #	MAX LOAD (lbs)	FAILURE MODE
1	24,560	cleat body
4	25,200	cleat body
AVERAGE	24,880	
8" Cleats / stud mount		
SAMPLE #	MAX LOAD (lbs)	FAILURE MODE
2	18,850	studs
3	18,930	studs
AVERAGE	18,890	

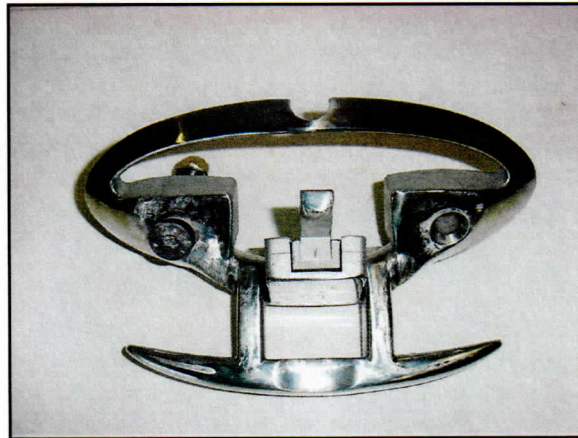


Figure 1. 8" Through Bolt Folding Cleat Sample 1

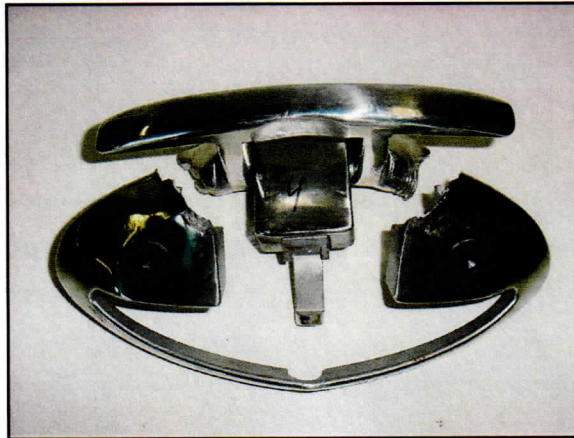


Figure 2. 8" Through Bolt Folding Cleat Sample 4

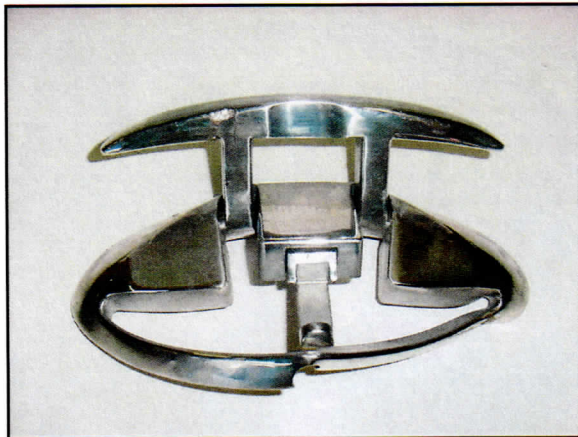


Figure 3. Stud Mount Folding Cleat Sample 2

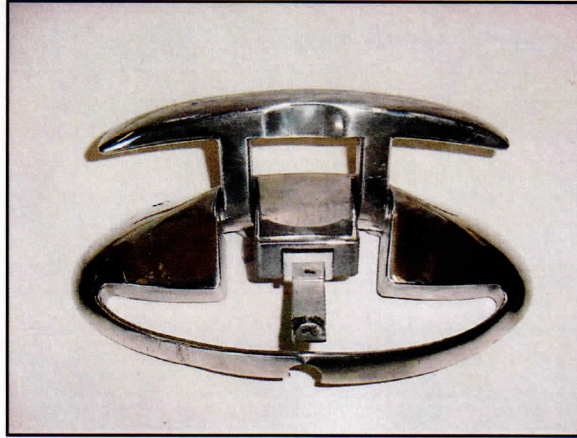


Figure 4. Stud Mount Folding Cleat Sample 3

6. OBSERVATIONS AND COMMENTS

The results of the tests herein record the failure of the test articles to determine rating acceptability. The test article failures recorded do not represent inferiority of the product in a product acceptance or use environment.

The results presented herein apply only to the test article as prepared and as tested. All equipment used in the performance of these tests was calibrated to standards traceable to the N.I.S.T.