

INTERMODAL MATERIÉL
AND
NAUTICAL/NUCLEAR ANALYSIS
IMANNA
LABORATORY INC.

CERTIFICATION TEST REPORT

515 Gus Hipp Blvd
Rockledge, Florida 32955
Telephone (321) 632-2008
http://www.imanna.com

Post Office Box 560933
Rockledge, Florida 32956-0933
FAX (321) 690-3360
E-mail: imannalab@bellsouth.net

TEST REPORT
17755-1
MECHANICAL STRENGTH TESTS
ON
12" STAINLESS STEEL PULL-UP CLEAT
FOR
ACCON MARINE, INC.

CUSTOMER:

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

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

DATE: August 23, 2007

REPORT NO.: 17755-1
IMANNA JOB NO.: 17755
CUSTOMER P.O. NO.: Verbal
CONTRACT: N/A
PAGES IN REPORT: 3

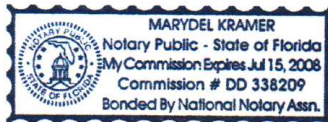
STATE OF FLORIDA

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 23rd day of August, 2007

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 a 12" Stainless Steel Pull-Up Cleat assembly (see photo) were received for test from Accon Marine.

2. PART NUMBER

205-12

3. REQUIREMENTS

The requirements for this effort are to perform mechanical strength tests on the received assemblies. The direction of the loading is to be perpendicular with the assembly body. The test is to be continued until the breaking strength of the assemblies has been determined.

4. PROCEDURES

Each assembly was mounted to a 1" thick steel plate in the manner it would be mounted on a boat. The assemblies were then subjected to an increasing load to determine the point of significant bending and /or ultimate load capability (whichever occurs first) in the direction of pull. The assemblies were attached to the steel base plate using grade 8 bolts.

5. RESULTS

The following table contains the values obtained during the tests. In each case the failure mode was the retention screws shearing off from the bottom of the cleat section of the assembly allowing the cleat to separate from the assembly body. Both of the assembly's sustained significant deformation before the failures occurred.

12" Pull-Up Cleat Assemblies		
SAMPLE #	MAX LOAD (lbs)	FAILURE MODE
1	42,000	retention screws
2	45,150	retention screws
AVERAGE	43,575	

6. OBSERVATIONS AND COMMENTS

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.

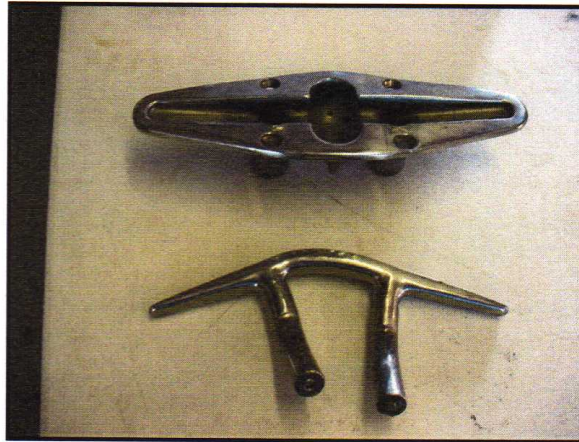
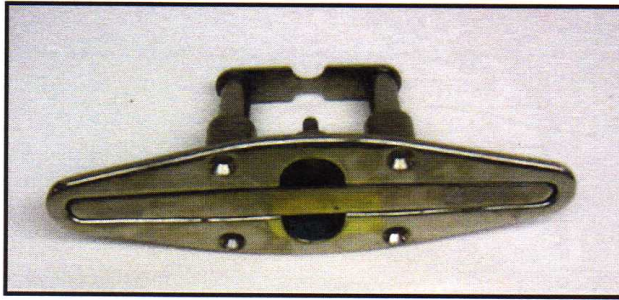


Figure 1. sample #1 prior to and following test

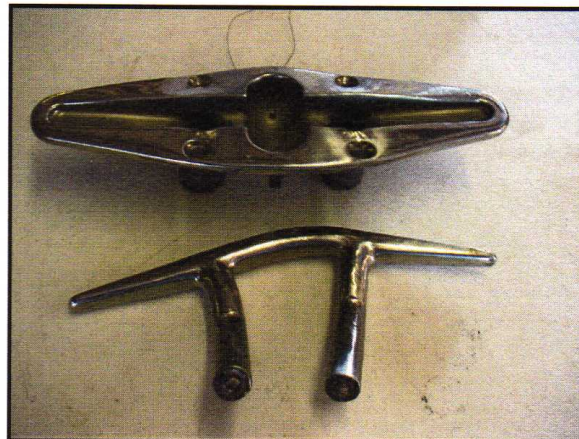
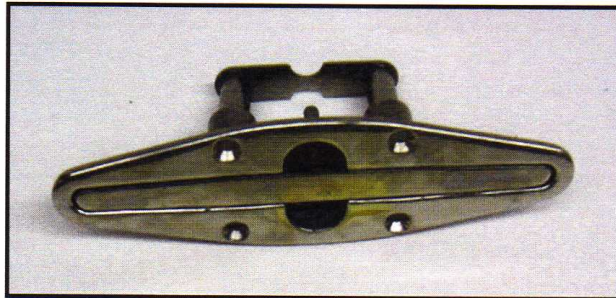


Figure 2. sample #2 prior to and following test