

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: imanna@yourlink.net

CERTIFICATION TEST REPORT 16046-1  
MECHANICAL STRENGTH TESTS  
ON  
OVAL LIFTING EYES #201-LE  
FOR  
ACCON MARINE, INC.

**CUSTOMER:**

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

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

**REPORT NO.:** 16046-1  
**IMANNA JOB NO.:** 16046  
**CUSTOMER P.O. NO.:** N/A  
**CONTRACT:** N/A  
**PAGES IN REPORT:** 3

**DATE:** MARCH 19, 2003

**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 19th day of March, 2003



**David H. Hudgins**  
Commission # DD 010632  
Expires May 3, 2005  
Bonded Through  
Atlantic Bonding Co., Inc.

*David H. Hudgins*

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 L. White  
PROJ. ENGINEER

1. TEST ARTICLE

Four stainless steel samples of Oval Lifting Eyes were manufactured and received from Accon Marine in Clearwater, Florida.

2. MODEL NUMBER

Oval Lifting Eye, #201-LE

3. REQUIREMENTS

The Requirements for this effort are to perform vertical pull tests on the received samples.

4. PROCEDURES

Each lifting eye was mounted to a 3/4" thick steel plate in the manner it would be mounted on a boat. The lifting eyes were then subjected to an increasing vertical load to determine the point of significant bending and/or ultimate load capability (whichever occurs first) in the direction of pull.

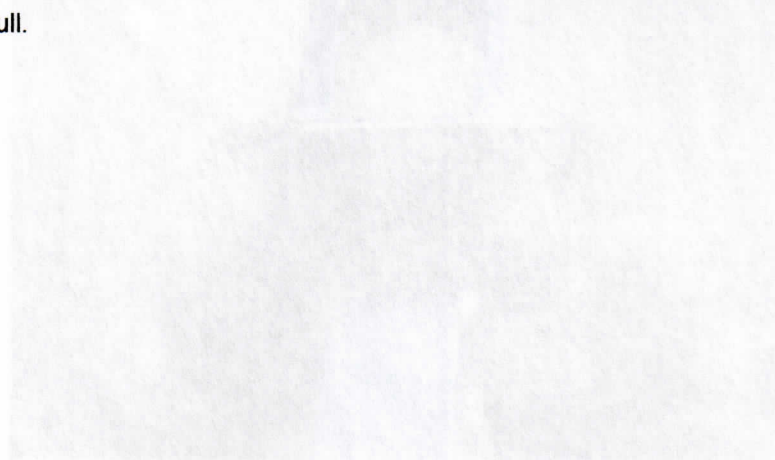


Figure 1. Oval Lifting Eye: Typical Failure Mode

5. OBSERVATIONS AND COMMENTS

The results presented herein apply only to the test article as prepared and tested. As equipment used in the performance of these tests was calibrated to standards acceptable to the NIST.

5. RESULTS

SAMPLE	MAX LOAD (lbs)	FAILURE MODE
1	14,332	PIVOT PIN FAILURE
2	14,030	PIVOT PIN FAILURE
3	14,933	PIVOT PIN FAILURE
4	15,745	PIVOT PIN FAILURE
AVERAGE	14,760	PIVOT PIN FAILURE



**Figure 1. Oval Lifting Eye; Typical Failure Mode**

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.