

**ARCOSA MARINE
BUSINESS UNIT # 75**

Document No. QA-75038T

Issue Date: 8/30/13

Revision: 1 11-7-2018

TITLE: Controlled Form List
DOCUMENT TYPE: Test Letter

ARCOSA MARINE
CARUTHERSVILLE, MO 63830
PLANT #75

HUCK FINN 75422.

CARGO HEADER AND MISCELLANEAUS TEST REPORT

E2ms106

Year: 2019

Hull Number: 6082-5

Official Number: 1294678

Cargo Header

- A. Date of Pipeline Test: *8-6-19*
B. Test Pressure $1 \frac{1}{2}$ * mawp (187.5 PSIG)
C. Method of Test (Air, Hydro, Nitrogen): Air, Hydro

Miscellaneous test

Cargo relief pop off	125 PSIG
Fuel oil pipe	50 PSI
Pump well	15 PSI
Fuel oil tank	5 PSI
Cargo Pressure Gauge	90 PSIG
Steam Piping	N/A

Test Witnessed by U.S.C.G.

Test Was Satisfactory.

Quality Control Signature: 

Date: *8-6-19*

Cargo piping and test report
Reference 33cfr 156.170.

**ARCOSA MARINE
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VAPOR TIGHTNESS TEST

Note: Test Results are Valid for (1) One Year from Date of Test!

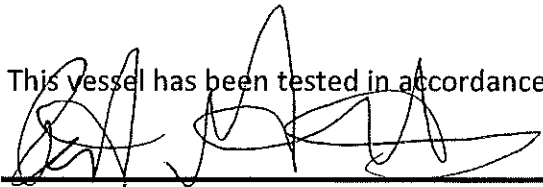
Vessel Name:	<u>E2MS106</u>	Test Date:	<u>8/6/2019</u>
Testing Location:	<u>PLANT 1075</u>	Maximum Load Rate: (BPH)	<u>3500</u>
Tanks Tested:	<u>CARGO/VAPOR</u>	Pressure Indicator	<u>H2O MEASUREMENT</u>

TEST RESULTS

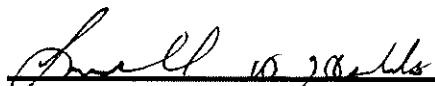
Test Duration: 30 Minutes	Beginning Pressure	<u>55 7/16</u>	Inches H2O
	Ending Pressure	<u>55 7/16</u>	Inches H2O
	Total Pressure Loss	<u>0</u>	Inches H2O
	Allowable Pressure Loss	<u>4.7513</u>	Inches H2O

Barge is Vapor Tight if "Total Pressure Loss" is LESS than "Allowable Pressure Loss"

This vessel has been tested in accordance with Section 61.304F and has been found to be vapor tight.



Signature of Tester



Signature of Witness

- | | |
|---|--------------------------------------|
| (P1) - Beginning Pressure | (P2) - Ending Pressure |
| (Delta P) - Total Pressure Loss | (Delta PM) - Allowable Pressure Loss |
| (TP) - 14.7 plus Barge Test Pressure in PSI | (L) - Maximum Load Rate in BPH |
| (V) - Volumn of Tank (s) | (Delta T) = Test Duration |
| .861 - PIA @ (P1) | |

$$.861 \times \frac{17.2}{(TP)} \times \frac{3500}{(L)} / \frac{10909}{(V)} = \frac{4.7513}{(Delta PM)}$$