

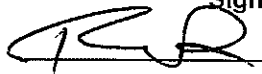

PIPING TEST REPORT

Customer / Contract E-Squared Marine Services, Inc. / 38223
Vessel Name E2MS 315
Hull Number 2227-2
Official Number 1292165
KEEL Date / COI Year 6/13/2019 / 2019

TESTING INFO

System	Method of Test	PSI or "Pass"	Date	Witness By
Cargo Pipe	Hydro	200 psi	8/21/2019	WD
Pump Well	Air	15 psi	8/21/2019	WD
Fuel Oil Piping	Air	100 psi	8/21/2019	WD
Hot Oil Piping	n/a	n/a	n/a	n/a
Steam Piping	n/a	n/a	n/a	n/a
Air Piping	Air	100 psi	8/21/2019	WD
Stripping Piping	Air	Pass	8/21/2019	WD
Hydraulic Piping	n/a	n/a	n/a	n/a
Cargo Piping Relief Valve	Air	Pass	8/21/2019	WD
Vapor Piping Relief Valve	Air	1.0 psi	9/5/2019	WD
Steam Piping Relief Valve	n/a	n/a		n/a
Air Piping Relief Valve	Air	Pass	8/21/2019	WD
Fuel Tank	Hydro	Pass	5/21/2019	WD
Slop Tank	Hydro	Pass	5/21/2019	WD
Cargo Pressure Gauge	Air	Pass	9/5/2019	WD
Vapor Pressure Gauge	Air	Pass	9/5/2019	WD
Air Pressure Gauge	n/a	n/a	n/a	n/a
Hydraulic Pressure Gauge	n/a	n/a	n/a	n/a
Emergency Shutdown	Manual	Pass	9/5/2019	WD
Pump Operational Test	Discharge	Pass	9/4/2019	WD
Heater Operational Test	n/a	n/a	n/a	n/a
Stripping Operational Test	Manual	Pass	n/a	n/a
Hydraulic Operational Test	n/a	n/a	8/21/2019	n/a

If a system is not applicable, leave that line blank

	Initial	Print	Signature
Production	WD	R. WHITNEY DAVIS	 9/5/19
Quality	FS	FRANK STRONG	 9/5/2019

Cargo piping and test report

Reference 33cfr 156.170.

VAPOR TIGHTNESS TEST REPORT

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

Vessel Name:	E2MS 315	Test Date:	9/5/2019
Testing Location:	Arcosa Marine Products, Inc. - Madisonville, LA	Maximum Load Rate: (BPH)	5000
Tanks Tested:	All Cargo Tanks	Pressure Indicator	1.0

TEST RESULTS


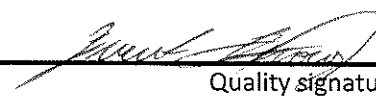
Test Duration: 30 Minutes	Beginning Pressure	28	Inches H2O
	Ending Pressure	28	Inches H2O
	Total Pressure Loss	0	Inches H2O
	Allowable Pressure Loss	2.3890	Inches H2O

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

- | | |
|---|--------------------------------------|
| (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) - Volume of Tank (s) | (Delta T) = Test Duration |
| 0.861 - PIA @ (P1) | |

$$0.861 \times \frac{16.2}{(TP)} \times \frac{5000}{(L)} \div \frac{29192}{(V)} = \frac{2.3890}{(Delta PM)}$$

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

	
9/5/19	9/5/2019
Production signature/date	Quality signature/date
Whitney Davis	Frank Strong
Print name	Print name