



**United States of America
Department of Homeland Security
United States Coast Guard**

Certification Date:	28 Oct 2021
Expiration Date:	28 Oct 2022

Temporary Certificate of Inspection

For ships on international voyages this certificate fulfills the requirements of SOLAS 74 as amended, regulation V/14, for a SAFE MANNING DOCUMENT.

This Temporary Certificate of Inspection is issued under the provision of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after one year from the date of inspection.

Vessel Name	Official Number	IMO Number	Call Sign	Service
405	1197372			Tank Barge

Hailing Port	Hull Material	Horsepower	Propulsion
MIAMI, FL	Steel		
UNITED STATES			

Place Built	Delivery Date	Keel Laid Date	Gross Tons	Net Tons	DWT	Length
HOUSTON, TX	18May2007	16Oct2006	R-2113 I-1735	R-2113 I-993		R-263.3 I-263.3
UNITED STATES						

Owner	Operator
KIRBY INLAND MARINE LP 55 WAUGH DR STE 1000 HOUSTON, TX 77007 UNITED STATES	KIRBY INLAND MARINE LP 1020 PORT BLVD SUITE 2 MIAMI, FL 33132 UNITED STATES

This vessel must be manned with the following licensed and unlicensed Personnel. Included in which there must be 0 Certified Lifeboatmen, 0 Certified Tankermen, 0 HSC Type Rating, and 0 GMDSS Operators.

0 Masters	0 Licensed Mates	0 Chief Engineers	0 Oilers
0 Chief Mates	0 First Class Pilots	0 First Assistant Engineers	
0 Second Mates	0 Radio Officers	0 Second Assistant Engineers	
0 Third Mates	0 Able Seamen	0 Third Assistant Engineers	
0 Master First Class Pilot	0 Ordinary Seamen	0 Licensed Engineers	
0 Mate First Class Pilots	0 Deckhands	0 Qualified Member Engineer	

In addition, this vessel may carry 0 Passengers, 0 Other Persons in crew, 0 Persons in addition to crew, and no Others. Total Persons allowed: 0

Route Permitted And Conditions Of Operation:
---Coastwise---

In accordance with 46 CFR 170(b), in lieu of a stability letter, the following conditions apply:

Calculations show that the barge meets the stability standards in 46 CFR 170 Subpart E and 172 Subpart D for carriage of uniformly loaded 46 CFR Subchapter D cargoes. The maximum density of cargo that may be filled to the tank top is 8.745 lbs/gal. Cargoes with higher densities, up to 13.58 lbs/gal, may be carried as slack loads but the barge may not exceed a maximum allowable draft of 11'6" and trim may not exceed 1 foot 1-3/4 inches by the stern.

The structure of the wing and inner bottom compartments make them suitable for use only as voids. These

*****SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION*****

With this Inspection for Certification having been completed at New Orleans, LA, UNITED STATES, the Officer in Charge, Marine Inspection, Sector New Orleans certified the vessel, in all respects, is in conformity with the applicable vessel inspection laws and the rules and regulations prescribed thereunder.

Annual/Periodic/Re-Inspection				This certificate issued by: J. H. HART COMMANDER , by direction Officer in Charge, Marine Inspection Sector New Orleans Inspection Zone
Date	Zone	A/P/R	Signature	



Temporary Certificate of Inspection

Vessel Name: 405

compartments may not be used to carry cargo or ballast.

---Hull Exams---

Exam Type	Next Exam	Last Exam	Prior Exam
DryDock	31Jul2026	19Jul2021	05Jul2016
Internal Structure	30Apr2026	17Aug2021	29Apr2019

---Stability---

Type	Issued Date	Office
Book	11Oct2006	Marine Safety Center

--- Liquid/Gas/Solid Cargo Authority/Conditions ---

Authorization: Grade D and Lower Cargoes.

Total Capacity	Units	Highest Grade Type	Part151 Regulated	Part153 Regulated	Part154 Regulated
22892	Barrel	D	No	No	No

Hazardous Bulk Solids Authority

Not Authorized

Loading Constraints - Structural

Tank Location Description	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1-6 P/S		8.745

Conditions Of Carriage

Vessel is fitted with an electronically controlled cargo pump engine. In lieu of meeting Class I/ Division 1 requirements set forth in 46 CFR 111.105-5 and 46 CFR 111.105-31(1), vessel owner chose to be limited to the carriage of combustible Grade "D" cargoes having a flashpoint of 140 degrees Fahrenheit or above in accordance with D8(dp) Policy Letter 02-2007 Change 1.

In accordance with 46 CFR Part 39, excluding part 39.40, this vessel's vapor control system has been inspected to the plans approved by USCG Marine Safety Center Letter Serial # C1-0802221, dated 25-Jul-08, and is found acceptable for collection of bulk liquid cargo vapors annotated with 'Yes' in the Cargo Authority Attachment's VCS column.

--- Inspection Status ---

Cargo Tanks

Tank Id	Internal Exam			External Exam		
	Previous	Last	Next	Previous	Last	Next
1-6 P/S	05Jul2016	17Aug2021	31Jul2031	-	-	-
			Hydro Test			
Tank Id	Safety Valves		Previous	Last	Next	
1-6 P/S	-		-	-	-	

Pressure Vessels

Type	Location	Previous	Last	Next
Air Receiver	Open Deck	05Jul2012	19Jul2016	19Jul2021

---Conditional Portable Fire Extinguisher Requirements---

Required Only During Transfer of Cargo or Operation of Barge Machinery



Temporary Certificate of Inspection

Vessel Name: 405

--- Fire Fighting Equipment ---

Fire Extinguishers - Hand portable and semi-portable

Quantity	Class Type
2	B-II

END



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: **405**
Official #: **1197372**

Shipyard: Southwest Shipyard
Hull #: 9538

Tank Group Characteristics

Tnk Grp	Tanks in Group	Density	Flammability Grade	Fire Protection	Comments
B	#1P/S, #2P/S, #3P/S, #4P/S, #5P/S, #6P/S	13.6	B	Portable	None

This vessel is approved to collect vapors of the following 46 CFR Subchapter D flammable and/or combustible liquid cargoes using the approved onboard vapor control system.

Subchapter D Cargoes Authorized for Vapor Control

Cargo Identification					Conditions of Carriage		
Name	Chem Code	Compat Group No	IMO Pollution Category	Grade	Tank Group	Vapor Recovery App'd (Y or N)	VCS Category
<u>Distillates: Flashed feed stocks</u>	DFE	33	J	E	B	Yes	1
Distillates: Straight run	DSR	33	I	E	B	Yes	1
Gasoline blending stocks: Alkylates	GAK	33	I	A/C	B	Yes	1
Gasoline blending stocks: Reformates	GRF	33	I	A/C	B	Yes	1
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	I	C	B	Yes	1
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	I	C	B	Yes	1
Gasolines: Casinghead (natural)	GCS	33	I	A/C	B	Yes	1
Gasolines: Polymer	GPL	33	I	A/C	B	Yes	1
Gasolines: Straight run	GSR	33	I	A/C	B	Yes	1
Jet fuel: JP-4	JPF	33	I	E	B	Yes	1
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	I	D	B	Yes	1
Kerosene	KRS	33	I	D	B	Yes	1
Mineral spirits	MNS	33	I	D	B	Yes	1
Naphtha: Heavy	NAG	33	@I	#	B	Yes	1
Naphtha: Petroleum	PTN	33	I	#	B	Yes	1
Naphtha: Solvent	NSV	33	@I	D	B	Yes	1
Naphtha: Stoddard solvent	NSS	33	@I	D	B	Yes	1
Naphtha: Varnish makers and painters (75%)	NVM	33	@I	C	B	Yes	1
Oil, fuel: No. 2	OTW	33	I	D/E	B	Yes	1
Oil, fuel: No. 2-D	OTD	33	I	D	B	Yes	1
Oil, fuel: No. 4	OFR	33	I	D/E	B	Yes	1
Oil, fuel: No. 5	OFV	33	I	D/E	B	Yes	1
Oil, fuel: No. 6	OSX	33	I	E	B	Yes	1
Oil, misc: Crude	OIL	33	I	C/D	B	Yes	1
Oil, misc: Diesel	ODS	33	I	D/E	B	Yes	1
Oil, misc: Lubricating	OLB	33	I	E	B	Yes	1
Oil, misc: Residual	ORL	33	I	E	B	Yes	1
Oil, misc: Turbine	OTB	33	I	E	B	Yes	1



Certificate of Inspection

Cargo Authority Attachment

Vessel Name: 405
Official #: 1197372

Page 2 of 2

Shipyard: Southwest Shi
Hull #: 9538

Explanation of terms & symbols used in the Table:

Cargo Identification

Name	The proper shipping name as listed in 46 CFR Table 30.25-1, 46 CFR Table 151.05, and 46 CFR Part 153 Table 2.
Chem Code	The three letter designation assigned to the cargo in the Chemical Hazards Response Information System (CHRIS) Manual. Certain mixtures of cargoes may not have a CHRIS Code assigned.
Compatibility Group No.	The cargo reactive group number assigned for compatibility determinations in 46 CFR Part 150 Tables I and II. In accordance with 46 CFR 150.130, the Person-in-Charge of the barge is responsible for ensuring that the compatibility requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibility using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number.
Note 1	Because of the very high reactivity or unusual conditions of carriage or potential compatibility problems, this product is not assigned to a specific group in the Compatibility Chart. For additional compatibility information, contact Commandant (G-MSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 267-1217.
Note 2	See Appendix I to 46 CFR Part 150 - exceptions to the compatibility chart.
Subchapter	The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified.
Subchapter D	Those flammable and combustible liquids listed in 46 CFR Table 30.25-1.
Subchapter O	Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2.
Note 3	Those cargoes listed in 46 CFR Part 153 Table 2 are non-regulated cargoes when carried in bulk on non-oceangoing barges.
Grade	The cargo classification assigned to each flammable or combustible liquid. Grades inside of "[]" indicate a provisional assignment based upon literature sources which were not verified by manufacturers data. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
A, B, C	Flammable liquid cargoes, as defined in 46 CFR 30-10.22.
D, E	Combustible liquid cargoes, as defined in 46 CFR 30-10.15.
Note 4	The flammability/combustibility grade of these cargoes may vary depending upon the flashpoint and Reid vapor pressure. The Person-in-Charge shall verify the cargo grade based on Manufacturers data and ensure that the barge is authorized for carriage of that grade of cargo.
NA	Those subchapter O cargoes which are not classified as a flammable or combustible liquid.
#	No flammability/combustibility grade has been assigned yet, as the necessary flash point/vapor pressure data for such assignments are presently not available.
Hull Type	The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1.
I	Designed to carry products which require the maximum preventive measures to preclude the uncontrolled release of the cargo. See 46 CFR 151.10-1(b)(1).
II	Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3).
III	Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4).
NA	Not applicable to barges certificated under Subchapter D.

Conditions of Carriage

Tank Group	The vessel's tank group (as defined under the "46 CFR Tank Group Characteristics" listed on page 1) which is authorized for carriage of the named cargo.
Vapor Recovery Approved (Y or N)	Yes: The vessel's VCS has been reviewed and approved by the MSC to control vapors of the specified cargo. No: The vessel's VCS has been reviewed and is not approved by the MSC to control vapors of the specified cargo.
VCS Category:	The specified cargo's provisional classification for vapor control systems.
Category 1	(No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 158.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.20-11) and the pressure drop calculations (46 CFR 39.30-1(b)) must use appropriate friction factors, vapor densities and vapor growth rates.
Category 2	(Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester.
Category 3	(Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.20-9. This requirement is in addition to the requirements of Category 1.
Category 4	(Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3.
Category 5	(High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1 cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1.
Category 6	(High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5.
Category 7	(High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5.
none	The cargo has not been evaluated/classified for use in vapor control systems.

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Center

US Coast Guard Stop 7430
2703 Martin Luther King Jr Ave SE
Washington, DC 20593-7430
Staff Symbol: MSC-3
Phone: (202) 795-6731
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16710/P012083/jdm1
Serial: C1-2103592
November 18, 2021

Marine Solutions, Inc.
Attn: Mr. Chetan Kumaria
P.O. Box 218197
Nashville, TN 37221
marinesolinc@aol.com

Subj: 405, O.N. 1197372
Southwest Shipyard Hull No. 9538
275' 3"x 54' x 15', Unmanned Hull Type II Tank Barges (D)
Grade D and Lower Combustible Liquids Identified in 46 CFR Table 30.25-1 or 46 CFR
Part 153 Table 2 and Cargoes Identified as "Other Substances (OS)" by the IBC Code
Design Density: 8.7 lbs/gal; Maximum Density (slack load): 13.58 lbs/gal
Oceans
Modification: Vapor Control System (VCS) and Cargo Authority Attachment

Ref: (a) Your letter Task No. MSI/405/S01 dated November 9, 2021

Dear Mr. Kumaria:

In response to your email dated November 9, 2021 (MSC Document No. 2117410), we have updated the subject vessel's cargo authority to only authorize Grade D and Lower Combustible Liquids in order to reflect the current Certificate of Inspection. The updated list of VCS cargoes is attached as enclosure (1). The Cargo Authority Attachment (CAA), which contains the cargoes found in enclosure (1), is now available in the Coast Guard's Marine Information for Safety and Law Enforcement (MISLE) for issuance by the Officer in Charge, Marine Inspection (OCMI).

Please note that only the local OCMI can issue a vessel's CAA, which is valid only when referenced by and attached to a valid Certificate of Inspection (COI). For the OCMI's convenience, we have included the following recommended COI endorsements:

Only those hazardous cargoes named in the vessel's Cargo Authority Attachment, Serial No. C1-2103592 dated November 18, 2021, may be carried and then only in the tanks indicated, subject to the loading restrictions listed on the vessel's current stability letter.

In accordance with 46 CFR Part 39, excluding subparts 39.4000 and 39.5000, this vessel's vapor control system has been inspected to the plans approved by Marine Safety Center letter Serial No. C1-0802221 dated July 25, 2008, and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

Subj: Southwest Shipyard Hull No. 9538
Vapor Control System and Cargo Authority Attachment

16710/P012083/jdm1
Serial: C1-2103592
November 18, 2021

As an agreed-upon condition of your participation in the Marine Safety Center's electronic commerce program, you must provide the OCMi with a copy of this letter.

Our Project Number for this vessel is P012083. Please ensure that all future correspondence includes the Project Number and the Official Number that appears in the subject line.

Please contact LT Joel MacArthur at (202) 795-6779 with questions concerning our review.

Sincerely,

K. C. HEINE
Lieutenant Commander, U. S. Coast Guard
Chief, Vessel and Cargo Branch
By direction

Encl: (1) Vapor Control System List of Cargoes; 405, O.N. 1197372, Southwest Shipyard Hull No. 9538; dated November 18, 2021

Copy: Commander, Coast Guard Sector Miami, Prevention Department

Vapor Control System List of Cargoes
for: 405, O.N. 1197372, Southwest Shipyard Hull , 9538

Chem Code	Chemical Name	VCS Category
DFF	Distillates: Flashed feed stocks	1
DSR	Distillates: Straight run	1
JPF	Jet fuel: JP-4	1
JPV	Jet fuel: JP-5 (kerosene, heavy)	1
KRS	Kerosene	1
MNS	Mineral spirits	1
NSV	Naphtha: Solvent	1
NSS	Naphtha: Stoddard solvent	1
OTW	Oil, fuel: No. 2	1
OTD	Oil, fuel: No. 2-D	1
OFR	Oil, fuel: No. 4	1
OFV	Oil, fuel: No. 5	1
OSX	Oil, fuel: No. 6	1
ODS	Oil, misc: Diesel	1
OGP	Oil, misc: Gas, high pour	1
OLB	Oil, misc: Lubricating	1
ORL	Oil, misc: Residual	1
OTB	Oil, misc: Turbine	1

Vapor Control System (VCS) Categories

Category 1: (No additional VCS requirements above those for benzene, gasolines and crude oil) All requirements applying to the handling of oil and hazardous materials in Titles 33 and 46 Code of Federal Regulations (CFR) apply to these cargoes. Those specifically dealing with vapor control systems are in 33 CFR 155.750, 33 CFR 156.120, 33 CFR 156.170, 46 CFR 35.35 and 46 CFR 39. The cargo tank venting system calculations (46 CFR 39.2011) and the pressure drop calculations (46 CFR 39.3000) must use appropriate friction factors, vapor densities and vapor growth rates.

Category 2: (Polymerizes) Polymerization and residue build-up of these cargoes can adversely affect the vessel by fouling safety components and restricting vapor flow which could lead to cargo tank overpressurization. The vessel's owner must develop a method of ensuring all VCS safety components are functional and polymer build-up is not causing an unsafe condition due to increased pressure in the vapor control piping and cargo tanks. The method shall be acceptable to the local Officer in Charge, Marine Inspection. This is in addition to the requirements of Category 1. Please note that a material not normally considered a monomer can be a problem in detonation arrester.

Category 3: (Highly toxic) VCSs for these toxic cargoes cannot use a spill valve or rupture disk as the primary means to meet the overfill protection requirement of 46 CFR 39.2009. This requirement is in addition to the requirements of Category 1.

Category 4: (Polymerizes and highly toxic) Must comply with requirements of Categories 1, 2 and 3.

Category 5: (High vapor pressure) VCS pressure drop calculations for cargoes with a vapor pressure greater than 14.7 psia at 115 F must take into account increased vapor-air mixture densities and vapor growth rates as compared to Category 1 cargoes. Consult the Marine Safety Center's VCS Guidelines for further information. This requirement is in addition to the requirements of Category 1.

Category 6: (High vapor pressure and highly toxic) Must comply with requirements of Categories 1, 3 and 5.

Category 7: (High vapor pressure and polymerizes) Must comply with requirements of Categories 1, 2 and 5.