



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

Certification Date: 02 Aug 2022  
Expiration Date: 02 Aug 2023

# 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
HTCO 3087	1238214			Tank Barge

Hailing Port	Hull Material	Horsepower	Propulsion
HOUSTON, TX	Steel		
UNITED STATES			

Place Built	Delivery Date	Keel Laid Date	Gross Tons	Net Tons	DWT	Length
MADISONVILLE, LA	18May2012	16Apr2012	R-1619	R-1619		R-297.5
UNITED STATES			-	-		-0

Owner	Operator
HIGMAN BARGE LINES 1980 POST OAK BLVD. SUITE 1101 HOUSTON, TX 77056 UNITED STATES	HIGMAN BARGE LINES INC 18350 Market Street Channelview, TX 77530 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:**  
**---Lakes, Bays, and Sounds plus Limited Coastwise---**

Also, Lake Michigan, in fair weather, on voyages between Chicago, Illinois and Burns Harbor, Indiana not more than five (5) miles offshore and coastwise not more than twelve (12) miles from shore between St. Marks and Carrabelle, Florida.

This vessel has been granted a fresh water service examination interval per 46 CFR 31.10-21(a)(2). If this vessel is operated in salt water more than 6 months in any 12 month period, the vessel must be inspected using salt water intervals per 46 CFR 31.10-21(a)(1) and the cognizant OCMI notified in writing as soon as this change in status occurs.

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

With this Inspection for Certification having been completed at Port Arthur, TX, UNITED STATES, the Officer in Charge, Marine Inspection, Marine Safety Unit Port Arthur 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: <i>K. A. Hantal</i> <b>K. A. Hantal, CDR, USCG, By direction</b> Officer in Charge, Marine Inspection <b>Marine Safety Unit Port Arthur</b> Inspection Zone
Date	Zone	A/P/R	Signature	



# Temporary Certificate of Inspection

Vessel Name: HTCO 3087

This tank barge is participating in the Eighth Coast Guard District's Tank Barge Streamlined Inspection Program (TBSIP). Inspection activities aboard this barge shall be conducted per its Tank Barge Action Plan (TAP). Inspection issues concerning this barge should be directed to OCMI Houston-Galveston.

### ---Hull Exams---

Exam Type	Next Exam	Last Exam	Prior Exam
DryDock	30Jun2027	21Jun2017	08May2012
Internal Structure	30Jun2027	02Aug2022	21Jun2017

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

Authorization: FLAMMABLE/COMBUSTIBLE LIQUIDS AND SPECIFIED HAZARDOUS CARGOES

Total Capacity	Units	Highest Grade Type	Part151 Regulated	Part153 Regulated	Part154 Regulated
29500	Barrels	A	Yes	No	No

#### \*Hazardous Bulk Solids Authority\*

#### \*Loading Constraints - Structural\*

Tank Number	Max Cargo Weight per Tank (short tons)	Maximum Density (lbs/gal)
1 P/S	810	13.6
2 P/S	820	13.6
3 P/S	820	13.6

#### \*Loading Constraints - Stability\*

Hull Type	Maximum Load (short tons)	Maximum Draft (ft/in)	Max Density (lbs/gal)	Route Description
II	3800	10ft 0in	13.6	
III	4670	11ft 9in	13.6	

#### \*Conditions Of Carriage\*

Only those cargoes named in the vessel's Cargo Authority Attachment (CAA), serial# C1-1201350, dated March 14, 2012, may be carried. The specified hazardous cargoes may be carried only in the tanks indicated.

Per 46 CFR 150.130, the person in charge of the vessel is responsible for ensuring the compatibility requirements of 46 CFR 150 are met. Cargoes must be checked for compatibility using figures, tables, and appendices of 46 CFR 150 in conjunction with the reactive group number from the "Compat Group No" column is listed in the vessel's CAA.

When the vessel is carrying cargoes containing 0.5% or greater benzene by volume, the person in charge is responsible for ensuring the provisions of 46 CFR 197, Subpart C, are applied.

#### \*Vapor Control Authorization\*

Per 46 CFR, 39, excluding Part 39.4000, this vessel's vapor control system (VCS) has been inspected to the plans approved by Marine Safety Center letter serial # C1-1201350 dated March 14, 2012 and found acceptable for collection of bulk liquid cargo vapors annotated with "Yes" in the CAA's VCS column.

### --- Inspection Status ---

#### \*Cargo Tanks\*

Tank Id	Internal Exam			External Exam		
	Previous	Last	Next	Previous	Last	Next
1 P/S	18May2012	21Jun2017	30Jun2027	-	-	-



# Temporary Certificate of Inspection

Vessel Name: HTCO 3087

2 P/S	18May2012	21Jun2017	30Jun2027	-	-	-
3 P/S	18May2012	21Jun2017	30Jun2027	-	-	-
			Hydro Test			
Tank Id	Safety Valves	Previous	Last	Next		
1 P/S	-	-	-	-		
2 P/S	-	-	-	-		
3 P/S	-	-	-	-		

**---Conditional Portable Fire Extinguisher Requirements---**

Required Only During Transfer of Cargo or Operation of Barge Machinery

**--- 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: **HTCO 3087**  
Official #: 1238214

Shipyard: **TRINITY MARINE**  
Hull #: 2201-2

### 46 CFR 151 Tank Group Characteristics

Tank Group Information		Cargo Identification			Hull Type	Tanks			Cargo Transfer		Environmental Control		Fire Protection Provided	Special Requirements				
Tnk Grp	Tanks in Group	Density	Press.	Temp.		Cargo Seg Tank	Type	Vent	Gauge	Pipe Class	Cont	Tanks		Handling Space	General	Materials of Construction	Elec Haz	Temp Cont
A	#1P/S, #2P/S, #3P/S	13.6	Atmos.	Amb.	II	1ii 2ii	Integral Gravity	PV	Closed	II	G-1	NR	NA	Portable	.50-80, .50-70(a), .50-70(b), .50-73, .50-81(a), .50-81(b)	55-1(c), (e), (h), 56-1(b), (c), (d), (e), (f), (g)	NR	No

- Notes:
- Under Environmental Control, Tanks, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo tanks.
  - Under Environmental Control, Handling Space, NR means that the tank group is suitable only for those cargoes which require no environmental control in the cargo handling space. NA means that the vessel does not have a cargo control space, and this requirement is not applied.
  - Under Electrical Hazard Class, NA means that the tank group is suitable only for those cargoes which have no electrical hazard class requirement. NR means that the vessel has no electrical equipment located in a hazardous location.

### List of Authorized Cargoes

Cargo Identification						Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'l's of	Insp. Period	
							App'd (Y or N)	VCS Category			

#### Authorized Subchapter O Cargoes

Acetonitrile	ATN	37	O	C	III	A	Yes	3	No	G
Acrylonitrile	ACN	15 <sup>2</sup>	O	C	II	A	Yes	4	.50-70(e), .55-1(e)	G
Adiponitrile	ADN	37	O	E	II	A	Yes	1	No	G
Alkyl(C7-C9) nitrates	AKN	34 <sup>2</sup>	O	NA	III	A	No	N/A	.50-81, .50-88	G
Anthracene oil (Coal tar fraction)	AHO	33	O	NA	II	A	No	N/A	No	G
Benzene	BNZ	32	O	C	III	A	Yes	1	.50-60	G
Benzene or hydrocarbon mixtures (having 10% Benzene or more)	BHB	32 <sup>2</sup>	O	C	III	A	Yes	1	.50-60	G
Benzene or hydrocarbon mixtures (containing Acetylene and 10% Benzene or more)	BHA	32 <sup>2</sup>	O	C	III	A	Yes	1	.50-60, .56-1(b), (d), (f), (g)	G
Benzene, Toluene, Xylene mixtures (10% Benzene or more)	BTX	32	O	B/C	III	A	Yes	1	.50-60	G
Butyl acrylate (all isomers)	BAR	14	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Butyl methacrylate	BMH	14	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Butyraldehyde (all isomers)	BAE	19	O	C	III	A	Yes	1	.56-1(h)	G
Camphor oil (light)	CPO	18	O	D	II	A	No	N/A	No	G
Carbon tetrachloride	CBT	38	O	NA	III	A	No	N/A	No	G
Chemical Oil (refined, containing phenolics)	COD	21	O	E	II	A	No	N/A	.50-73	G
Chlorobenzene	CRB	36	O	D	III	A	Yes	1	No	G
Chloroform	CRF	36	O	NA	III	A	Yes	3	No	G
Coal tar naphtha solvent	NCT	33	O	D	III	A	Yes	1	.50-73	G
Creosote	CCW	21 <sup>2</sup>	O	E	III	A	Yes	1	No	G
Creosols (all isomers)	CRS	21	O	E	III	A	Yes	1	No	G
Crotonaldehyde	CTA	19 <sup>2</sup>	O	C	II	A	Yes	4	.55-1(h)	G
Crude hydrocarbon feedstock (containing Butyraldehydes and Ethylpropyl acrolein)	CHG		O	C	III	A	No	N/A	No	G
Cyclohexanone, Cyclohexanol mixture	CYX	18 <sup>2</sup>	O	E	III	A	Yes	1	.56-1 (b)	G
Cyclopentadiene, Styrene, Benzene mixture	CSB	30	O	D	III	A	Yes	1	.50-60, .56-1(b)	G
iso-Decyl acrylate	IAI	14	O	E	III	A	Yes	2	.50-70(a), .50-81(a), (b), .55-1(c)	G
1,1-Dichloroethane	DCH	36	O	C	III	A	Yes	1	No	G
Dichloromethane	DCM	36	O	NA	III	A	Yes	5	No	G
1,1-Dichloropropane	DPB	36	O	C	III	A	Yes	3	No	G
1,2-Dichloropropane	DPP	36	O	C	III	A	Yes	3	No	G
1,3-Dichloropropane	DPC	36	O	C	III	A	Yes	3	No	G
1,3-Dichloropropene	DPU	15	O	D	II	A	Yes	4	No	G
Dichloropropene, Dichloropropane mixtures	DMX	15	O	C	II	A	Yes	1	No	G

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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: **HTCO 3087**

Official #: 1238214

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Shipyard: **TRINITY MARINE**

Hull #: 2201-2

Cargo Identification						Conditions of Carriage					
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat's of	Insp. Period	
							App'd (Y or N)	VCS Category			
Diethanolamine	DEA	8	O	E	III	A	Yes	1	.55-1(c)	G	
Diethylamine	DEN	7	O	C	III	A	Yes	3	.55-1(c)	G	
Diethylenetriamine	DET	7 <sup>2</sup>	O	E	III	A	Yes	1	.55-1(c)	G	
Diisobutylamine	DBU	7	O	D	III	A	Yes	3	.55-1(c)	G	
Diisopropanolamine	DIP	8	O	E	III	A	Yes	1	.55-1(c)	G	
Dilso-propylamine	DIA	7	O	C	II	A	Yes	3	.55-1(c)	G	
N,N-Dimethylacetamide	DAC	10	O	E	III	A	Yes	3	.56-1(b)	G	
Dimethylethanolamine	DMB	8	O	D	III	A	Yes	1	.56-1(b), (c)	G	
Dimethylformamide	DMF	10	O	D	III	A	Yes	1	.55-1(e)	G	
Di-n-propylamine	DNA	7	O	C	II	A	Yes	3	.55-1(c)	G	
Dodecyldimethylamine, Tetradecyldimethylamine mixture	DOT	7	O	E	III	A	No	N/A	.56-1(b)	G	
Dodecyl diphenyl ether disulfonate solution	DOS	43	O	#	II	A	No	N/A	No	G	
EE Glycol Ether Mixture	EEG	40	O	D	III	A	No	N/A	No	G	
Ethanolamine	MEA	8	O	E	III	A	Yes	1	.55-1(c)	G	
Ethyl acrylate	EAC	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G	
Ethylene cyanohydrin	ETC	20	O	E	III	A	Yes	1	No	G	
Ethylenediamine	EDA	7 <sup>2</sup>	O	D	III	A	Yes	1	.55-1(c)	G	
Ethylene dichloride	EDC	36 <sup>2</sup>	O	C	III	A	Yes	1	No	G	
Ethylene glycol hexyl ether	EGH	40	O	E	III	A	No	N/A	No	G	
Ethylene glycol monoalkyl ethers	EGC	40	O	D/E	III	A	Yes	1	No	G	
Ethylene glycol propyl ether	EGP	40	O	E	III	A	Yes	1	No	G	
2-Ethylhexyl acrylate	EAI	14	O	E	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G	
Ethyl methacrylate	ETM	14	O	D/E	III	A	Yes	2	.50-70(a)	G	
2-Ethyl-3-propylacrolein	EPA	19 <sup>2</sup>	O	E	III	A	Yes	1	No	G	
Formaldehyde solution (37% to 50%)	FMS	19 <sup>2</sup>	O	D/E	III	A	Yes	1	.55-1(h)	G	
Furfural	FFA	19	O	D	III	A	Yes	1	.55-1(h)	G	
Glutaraldehyde solution (50% or less)	GTA	19	O	NA	III	A	No	N/A	No	G	
Hexamethylenediamine solution	HMC	7	O	E	III	A	Yes	1	.55-1(c)	G	
Hexamethyleneimine	HMI	7	O	C	II	A	Yes	1	.56-1(b), (c)	G	
Hydrocarbon 5-9	HFN		O	C	III	A	Yes	1	.50-70(a), .50-81(a), (b)	G	
Isoprene	IPR	30	O	A	III	A	Yes	7	.50-70(a), .50-81(a), (b)	G	
Isoprene, Pentadiene mixture	IPN		O	B	III	A	No	N/A	.50-70(a), .55-1(c)	G	
Mesityl oxide	MSO	18 <sup>2</sup>	O	D	III	A	Yes	1	No	G	
Methyl acrylate	MAM	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G	
Methylcyclopentadiene dimer	MCK	30	O	C	III	A	Yes	1	No	G	
Methyl diethanolamine	MDE	8	O	E	III	A	Yes	1	.56-1(b), (c)	G	
2-Methyl-5-ethylpyridine	MEP	9	O	E	III	A	Yes	1	.55-1(c)	G	
Methyl methacrylate	MMM	14	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G	
2-Methylpyridine	MPR	9	O	D	III	A	Yes	3	.55-1(c)	G	
alpha-Methylstyrene	MSR	30	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G	
Morpholine	MPL	7 <sup>2</sup>	O	D	III	A	Yes	1	.55-1(c)	G	
Nitroethane	NTE	42	O	D	II	A	No	N/A	.50-81, .56-1(b)	G	
1- or 2-Nitropropane	NPM	42	O	D	III	A	Yes	1	.50-81	G	
1,3-Pentadiene	PDE	30	O	A	III	A	Yes	7	.50-70(a), .50-81	G	
Perchloroethylene	PER	36	O	NA	III	A	No	N/A	No	G	
Polyethylene polyamines	PEB	7 <sup>2</sup>	O	E	III	A	Yes	1	.55-1(e)	G	
iso-Propanolamine	MPA	8	O	E	III	A	Yes	1	.55-1(c)	G	
Propanolamine (iso-, n-)	PAX	8	O	E	III	A	Yes	1	.56-1(b), (c)	G	

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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: **HTCO 3087**

Shipyard: **TRINITY MARINE**

Official #: 1238214

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Hull #: 2201-2

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'ls of	Insp. Period
							App'd (Y or N)	VCS Category		
iso-Propylamine	IPP	7	O	A	II	A	Yes	5	.55-1(c)	G
Pyridine	PRD	9	O	C	III	A	Yes	1	.55-1(e)	G
Sodium chlorate solution (50% or less)	SDD	0 1,2	O	NA	III	A	No	N/A	.50-73	G
Styrene (crude)	STX		O	D	III	A	Yes	2	No	G
Styrene monomer	STY	30	O	D	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
1,1,2,2-Tetrachloroethane	TEC	36	O	NA	III	A	No	N/A	No	G
Tetraethylenepentamine	TTP	7	O	E	III	A	Yes	1	.55-1(c)	G
Tetrahydrofuran	THF	41	O	C	III	A	Yes	1	.50-70(b)	G
1,2,4-Trichlorobenzene	TCB	36	O	E	III	A	Yes	1	No	G
Trichloroethylene	TCL	36 2	O	NA	III	A	Yes	1	No	G
Triethylamine	TEN	7	O	C	II	A	Yes	3	.55-1(e)	G
Urea, Ammonium nitrate solution (containing more than 2% NH3)	UAS	6	O	NA	III	A	No	N/A	.58-1(b)	G
Vinyl acetate	VAM	13	O	C	III	A	Yes	2	.50-70(a), .50-81(a), (b)	G
Vinyl neodecanate	VND	13	O	E	III	A	No	N/A	.50-70(a), .50-81(a), (b)	G

### Subchapter D Cargoes Authorized for Vapor Control

Acetone	ACT	18 2	D	C		A	Yes	1		
Acetophenone	ACP	18	D	E		A	Yes	1		
Alcohol(C12-C16) poly(1-8)ethoxylates	APU	20	D	E		A	Yes	1		
Alcohol(C6-C17)(secondary) poly(7-12)ethoxylates	AEB	20	D	E		A	Yes	1		
Amyl acetate (all isomers)	AEC	34	D	D		A	Yes	1		
Amyl alcohol (iso-, n-, sec-, primary)	AAI	20	D	D		A	Yes	1		
Benzyl alcohol	BAL	21	D	E		A	Yes	1		
Brake fluid base mixtures (containing Poly(2-8)alkylene(C2-C3) glycols, Polyalkylene(C2-C10) glycol monoalkyl(C1-C4) ethers, and their borate esters)	BFX	20	D	E		A	Yes	1		
Butyl acetate (all isomers)	BAX	34	D	D		A	Yes	1		
Butyl alcohol (iso-)	IAL	20 2	D	D		A	Yes	1		
Butyl alcohol (n-)	BAN	20 2	D	D		A	Yes	1		
Butyl alcohol (sec-)	BAS	20 2	D	C		A	Yes	1		
Butyl alcohol (tert-)	BAT		D	C		A	Yes	1		
Butyl benzyl phthalate	BPH	34	D	E		A	Yes	1		
Butyl toluene	BUE	32	D	D		A	Yes	1		
Caprolactam solutions	CLS	22	D	E		A	Yes	1		
Cyclohexane	CHX	31	D	C		A	Yes	1		
Cyclohexanol	CHN	20	D	E		A	Yes	1		
1,3-Cyclopentadiene dimer (molten)	CPD	30	D	D/E		A	Yes	2		
p-Cymene	CMP	32	D	D		A	Yes	1		
iso-Decaldehyde	IDA	19	D	E		A	Yes	1		
n-Decaldehyde	DAL	19	D	E		A	Yes	1		
Decene	DCE	30	D	D		A	Yes	1		
Decyl alcohol (all isomers)	DAX	20 2	D	E		A	Yes	1		
n-Decylbenzene, see Alkyl(C9+)benzenes	DBZ	32	D	E		A	Yes	1		
Diacetone alcohol	DAA	20 2	D	D		A	Yes	1		
ortho-Dibutyl phthalate	DPA	34	D	E		A	Yes	1		
Diethylbenzene	DEB	32	D	D		A	Yes	1		
Diethylene glycol	DEG	40 2	D	E		A	Yes	1		
Diisobutylene	DBL	30	D	C		A	Yes	1		
Diisobutyl ketone	DIK	18	D	D		A	Yes	1		

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## Cargo Authority Attachment

Vessel Name: HTCO 3087

Shipyard: TRINITY MARINE

Official #: 1238214

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Hull #: 2201-2

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'l's of	Insp. Period
							App'd (Y or N)	VCS Category		
Diisopropylbenzene (all isomers)	DIX	32	D	E		A	Yes	1		
Dimethyl phthalate	DTL	34	D	E		A	Yes	1		
Diethyl phthalate	DOP	34	D	E		A	Yes	1		
Dipentene	DPN	30	D	D		A	Yes	1		
Diphenyl	DIL	32	D	D/E		A	Yes	1		
Diphenyl, Diphenyl ether mixtures	DDO	33	D	E		A	Yes	1		
Diphenyl ether	DPE	41	D	{E}		A	Yes	1		
Dipropylene glycol	DPG	40	D	E		A	Yes	1		
Distillates: Flashed feed stocks	DFE	33	D	E		A	Yes	1		
Distillates: Straight run	DSR	33	D	E		A	Yes	1		
Dodecene (all isomers)	DOZ	30	D	D		A	Yes	1		
Dodecylbenzene, see Alkyl(C8+)benzenes	DDB	32	D	E		A	Yes	1		
2-Ethoxyethyl acetate	EEA	34	D	D		A	Yes	1		
Ethoxy triglycol (crude)	ETG	40	D	E		A	Yes	1		
Ethyl acetate	ETA	34	D	C		A	Yes	1		
Ethyl acetoacetate	EAA	34	D	E		A	Yes	1		
Ethyl alcohol	EAL	20 <sup>2</sup>	D	C		A	Yes	1		
Ethylbenzene	ETB	32	D	C		A	Yes	1		
Ethyl butanol	EBT	20	D	D		A	Yes	1		
Ethyl tert-butyl ether	EBE	41	D	C		A	Yes	1		
Ethyl butyrate	EBR	34	D	D		A	Yes	1		
Ethyl cyclohexane	ECY	31	D	D		A	Yes	1		
Ethylene glycol	EGL	20 <sup>2</sup>	D	E		A	Yes	1		
Ethylene glycol butyl ether acetate	EMA	34	D	E		A	Yes	1		
Ethylene glycol diacetate	EGY	34	D	E		A	Yes	1		
Ethylene glycol phenyl ether	EPE	40	D	E		A	Yes	1		
Ethyl-3-ethoxypropionate	EEP	34	D	D		A	Yes	1		
2-Ethylhexanol	EHX	20	D	E		A	Yes	1		
Ethyl propionate	EPR	34	D	C		A	Yes	1		
Ethyl toluene	ETE	32	D	D		A	Yes	1		
Formamide	FAM	10	D	E		A	Yes	1		
Furfuryl alcohol	FAL	20 <sup>2</sup>	D	E		A	Yes	1		
Gasoline blending stocks: Alkylates	GAK	33	D	A/C		A	Yes	1		
Gasoline blending stocks: Reformates	GRF	33	D	A/C		A	Yes	1		
Gasolines: Automotive (containing not over 4.23 grams lead per gallon)	GAT	33	D	C		A	Yes	1		
Gasolines: Aviation (containing not over 4.86 grams of lead per gallon)	GAV	33	D	C		A	Yes	1		
Gasolines: Casinghead (natural)	GCS	33	D	A/C		A	Yes	1		
Gasolines: Polymer	GPL	33	D	A/C		A	Yes	1		
Gasolines: Straight run	GSR	33	D	A/C		A	Yes	1		
Glycerine	GCR	20 <sup>2</sup>	D	E		A	Yes	1		
Heptane (all isomers), see Alkanes (C6-C9) (all isomers)	HMX	31	D	C		A	Yes	1		
Heptanoic acid	HEP	4	D	E		A	Yes	1		
Heptanol (all isomers)	HTX	20	D	D/E		A	Yes	1		
Heptene (all isomers)	HPX	30	D	C		A	Yes	2		
Heptyl acetate	HPE	34	D	E		A	Yes	1		
Hexane (all isomers), see Alkanes (C6-C9)	HXS	31 <sup>2</sup>	D	B/C		A	Yes	1		
Hexanoic acid	HXO	4	D	E		A	Yes	1		

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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: **HTCO 3087**  
Official #: 1238214

Page 5 of 7

Shipyard: **TRINITY MARINE**  
Hull #: 2201-2

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compat Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'l's of	Insp. Period
							App'd (Y or N)	VCS Category		
Hexanol	HXN	20	D	D		A	Yes	1		
Hexene (all isomers)	HEX	30	D	C		A	Yes	2		
Hexylene glycol	HXG	20	D	E		A	Yes	1		
Isophorane	IPH	18 <sup>2</sup>	D	E		A	Yes	1		
Jet fuel: JP-4	JPF	33	D	E		A	Yes	1		
Jet fuel: JP-5 (kerosene, heavy)	JPV	33	D	D		A	Yes	1		
Kerosene	KRS	33	D	D		A	Yes	1		
Methyl acetate	MTT	34	D	D		A	Yes	1		
Methyl alcohol	MAL	20 <sup>2</sup>	D	C		A	Yes	1		
Methylamyl acetate	MAC	34	D	D		A	Yes	1		
Methylamyl alcohol	MAA	20	D	D		A	Yes	1		
Methyl amyl ketone	MAK	18	D	D		A	Yes	1		
Methyl tert-butyl ether	MBE	41 <sup>2</sup>	D	C		A	Yes	1		
Methyl butyl ketone	MBK	18	D	C		A	Yes	1		
Methyl butyrate	MBU	34	D	C		A	Yes	1		
Methyl ethyl ketone	MEK	18 <sup>2</sup>	D	C		A	Yes	1		
Methyl heptyl ketone	MHK	18	D	D		A	Yes	1		
Methyl isobutyl ketone	MIK	18 <sup>2</sup>	D	C		A	Yes	1		
Methyl naphthalene (molten)	MNA	32	D	E		A	Yes	1		
Mineral spirits	MNS	33	D	D		A	Yes	1		
Myrcene	MRE	30	D	D		A	Yes	1		
Naphtha: Heavy	NAG	33	D	#		A	Yes	1		
Naphtha: Petroleum	PTN	33	D	#		A	Yes	1		
Naphtha: Solvent	NSV	33	D	D		A	Yes	1		
Naphtha: Stoddard solvent	NSS	33	D	D		A	Yes	1		
Naphtha: Varnish makers and painters (75%)	NVM	33	D	C		A	Yes	1		
Nonane (all isomers), see Alkanes (C8-C9)	NAX	31	D	D		A	Yes	1		
Nonene (all isomers)	NON	30	D	D		A	Yes	2		
Nonyl alcohol (all isomers)	NNS	20 <sup>2</sup>	D	E		A	Yes	1		
Nonyl phenol	NNP	21	D	E		A	Yes	1		
Nonyl phenol poly(4+)ethoxylates	NPE	40	D	E		A	Yes	1		
Octane (all isomers), see Alkanes (C6-C9)	OAX	31	D	C		A	Yes	1		
Octanoic acid (all isomers)	OAY	4	D	E		A	Yes	1		
Octanol (all isomers)	OCX	20 <sup>2</sup>	D	E		A	Yes	1		
Octene (all isomers)	OTX	30	D	C		A	Yes	2		
Oil, fuel: No. 2	OTW	33	D	D/E		A	Yes	1		
Oil, fuel: No. 2-D	OTD	33	D	D		A	Yes	1		
Oil, fuel: No. 4	OFR	33	D	D/E		A	Yes	1		
Oil, fuel: No. 5	OFV	33	D	D/E		A	Yes	1		
Oil, fuel: No. 6	OSX	33	D	E		A	Yes	1		
Oil, misc: Crude	OIL	33	D	C/D		A	Yes	1		
Oil, misc: Diesel	ODS	33	D	D/E		A	Yes	1		
Oil, misc: Gas, high pour	OGP	33	D	E		A	Yes	1		
Oil, misc: Lubricating	OLB	33	D	E		A	Yes	1		
Oil, misc: Residual	ORL	33	D	E		A	Yes	1		
Oil, misc: Turbine	OTB	33	D	E		A	Yes	1		
Pentane (all isomers)	PTY	31	D	A		A	Yes	5		
Pentene (all isomers)	PTX	30	D	A		A	Yes	5		

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# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: **HTCO 3087**

Shipyard: **TRINITY MARINE**

Official #: 1238214

Page 6 of 7

Hull #: 2201-2

Cargo Identification						Conditions of Carriage				
Name	Chem Code	Compet Group No	Sub Chapter	Grade	Hull Type	Tank Group	Vapor Recovery		Special Requirements in 46 CFR 151 General and Mat'l's of	Insp. Period
							App'd (Y or N)	VCS Category		
n-Pentyl propionate	PPE	34	D	D		A	Yes	1		
alpha-Pinene	PIO	30	D	D		A	Yes	1		
beta-Pinene	PIP	30	D	D		A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether	PAG	40	D	E		A	Yes	1		
Poly(2-8)alkylene glycol monoalkyl(C1-C6) ether acetate	PAF	34	D	E		A	Yes	1		
Polybutene	PLB	30	D	E		A	Yes	1		
Polypropylene glycol	PGC	40	D	E		A	Yes	1		
iso-Propyl acetate	IAC	34	D	C		A	Yes	1		
n-Propyl acetate	PAT	34	D	C		A	Yes	1		
iso-Propyl alcohol	IPA	20 <sup>2</sup>	D	C		A	Yes	1		
n-Propyl alcohol	PAL	20 <sup>2</sup>	D	C		A	Yes	1		
Propylbenzene (all isomers)	PBY	32	D	D		A	Yes	1		
iso-Propylcyclohexane	IPX	31	D	D		A	Yes	1		
Propylene glycol	PPG	20 <sup>2</sup>	D	E		A	Yes	1		
Propylene glycol methyl ether acetate	PGN	34	D	D		A	Yes	1		
Propylene tetramer	PTT	30	D	D		A	Yes	1		
Sulfolane	SFL	39	D	E		A	Yes	1		
Tetraethylene glycol	TTG	40	D	E		A	Yes	1		
Tetrahydronaphthalene	THN	32	D	E		A	Yes	1		
Toluene	TOL	32	D	C		A	Yes	1		
Tricresyl phosphate (less than 1% of the ortho isomer)	TCP	34	D	E		A	Yes	1		
Triethylbenzene	TEB	32	D	E		A	Yes	1		
Triethylene glycol	TEG	40	D	E		A	Yes	1		
Triethyl phosphate	TPS	34	D	E		A	Yes	1		
Trimethylbenzene (all isomers)	TRE	32	D	{D}		A	Yes	1		
Trixylenyl phosphate	TRP	34	D	E		A	Yes	1		
Undecene	UDC	30	D	D/E		A	Yes	1		
1-Undecyl alcohol	UND	20	D	E		A	Yes	1		
Xylenes (ortho-, meta-, para-)	XLX	32	D	D		A	Yes	1		



# Certificate of Inspection

## Cargo Authority Attachment

Vessel Name: **HTCO 3087**  
Official #: 1238214

Page 7 of 7

Shipyard: **TRINITY MARI**  
Hull #: 2201-2

### 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 none	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.
Compatibilty Group No.	The cargo reactive group number assigned for compatibilty 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 compatibilty requirements of 46 CFR Part 150 are met. Cargoes must be checked for compatibilty using the figures, tables, and appendices of 46 CFR 150 in conjunction with the assigned reactive group number. Because of the very high reactivity or unusual conditions of carriage or potential compatibilty problems, this product is not assigned to a specific group in the Compatibilty Chart. For additional compatibilty information, contact Commandant (CG-3PSO-3), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593-0001. Telephone (202) 372-1425. See Appendix I to 46 CFR Part 150 - exceptions to the compatibilty chart.
Note 1	
Note 2	
Subchapter Subchapter D Subchapter O Note 3	The subchapter in Title 46 Code of Federal Regulations under which the cargo has been classified. Those flammable and combustible liquids listed in 46 CFR Table 30.25-1. Those hazardous cargoes listed in 46 CFR Table 151.05 and 46 CFR Part 153 Table 2. 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. Flammable liquid cargoes, as defined in 46 CFR 30-10.22. Combustible liquid cargoes, as defined in 46 CFR 30-10.15. 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. 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.
A, B, C D, E Note 4	
NA #	
Hull Type I II III NA	The required barge hull classification for carriage of the specified Subchapter O hazardous material cargo, see 46 CFR 151.10-1. 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). Designed to carry products which require significant preventive measures to preclude the uncontrolled release of cargo. See 46 CFR 151.10-1(b)(3). Designed to carry products of sufficient hazard to require a moderate degree of control. See 46 CFR 151.10-1(b)(4). Not applicable to barges certificated under Subchapter D.

#### Conditions of Carriage

Tank Group	The vessel's tank group (as defined in Section 4) 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.

#### 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:

Category 1	The specified cargo's provisional classification for vapor control systems. (No additional VCS requirements above those for benzene, gasoline 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 155.120, 33 CFR 156.170, 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  
Email: msc@uscg.mil

16710/P014551/mpc  
Serial: C1-1600601  
February 18, 2016

The Shearer Group, Inc  
Attn: Mr. Christian Olavesen  
3101 Nasa Parkway, Suite I  
Seabrook, TX 77586  
colavesen@shearer-group.com

Subj: Multi-Breasted Tandem Loading for Various Higman Marine Service Barges

Ref: (a) The Shearer Group, Dwg. No. 0131-014-043, Rev. 10, "Tank Barge Tandem Loading," 37 sheets, dated February 8, 2016  
(b) Marine Safety Information Bulletin 11-14 dated July 8, 2014

Dear Mr. Olavesen:

We have reviewed the pressure drop calculations for multi-breasted tandem loading that were submitted with your email dated February 28, 2016 (MSC Document No. 1611057). Reference (a) is "**Examined.**" The barges listed in enclosure (1) have vapor control systems previously approved by the Marine Safety Center approval letters listed in the last column of enclosure (1) and are acceptable for dual loading operations. Based on the calculations in reference (a), tandem loading is limited to the simultaneous collection of **Subchapter D products and Benzene** at a maximum vapor-air mixture density of **0.240 lbm/ft<sup>3</sup>** at a maximum transfer rate of **4,200 bbl/hr** per barge.

Please note that in accordance with the procedural changes outlined in reference (b), tandem loading no longer requires final approval by Commandant (CG-ENG-5), but may be approved by the local Officer in Charge, Marine Inspection (OCMI) and may be subject to additional operational requirements.

(continued...)

Subj: Multi-Breasted Tandem Loading for Higman Marine Barges 16710/P014551/mpc  
Serial: C1-1600601  
February 18, 2016

Please contact LT Michael Comerford at (202) 795-6782 with questions concerning our review.

Sincerely,

R. W. MOWBRAY  
Lieutenant, U. S. Coast Guard  
Chief, Vessel and Cargo Branch  
By direction

Encl: (1) List of Barges Approved for Tandem Loading

Copy: Supervisor, Marine Safety Detachment Nashville

Subj: Multi-Breasted Tandem Loading for Higman Marine Barges 16710/P014551/mpc  
 Serial: C1-1600601  
 February 18, 2016

Name	Builder	Hull #	Official No.	MAWP [psi]	PV Valve Setting [psig]	Date	Serial
HTCO 3076	Trinity, Ashland City	4755	1230380	3.00	1.5	Dec. 21, 2010	C1-1003228
HTCO 3077	Trinity, Ashland City	4756	1230381	3.00	1.5	Dec. 21, 2010	C1-1003228
HTCO 3078	Trinity, Ashland City	4767	1230383	3.00	1.5	Dec. 21, 2010	C1-1003228
HTCO 3079	Trinity, Ashland City	4768	1230382	3.00	1.5	Dec. 21, 2010	C1-1003228
HTCO 3080	Trinity, Ashland City	4813	1236583	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3081	Trinity, Ashland City	4814	1236584	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3082	Trinity, Ashland City	4815	1236585	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3083	Trinity, Ashland City	4816	1236586	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3084	Trinity, Ashland City	4861	1236587	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3085	Trinity, Ashland City	4862	1236588	3.00	1.5	Nov. 9, 2011	C1-1103918
HTCO 3086	Trinity, Madisonville	2201-1	1238213	3.00	1.5	Mar. 14, 2012	C1-1201350
HTCO 3087	Trinity, Madisonville	2201-2	1238214	3.00	1.5	Mar. 14, 2012	C1-1201350
HTCO 3088	Trinity, Madisonville	2201-3	1238215	3.00	1.5	Mar. 14, 2012	C1-1201350
HTCO 3089	Trinity, Madisonville	2201-4	1238216	3.00	1.5	Mar. 14, 2012	C1-1201350
HTCO 3094	Trinity Marine	2208-1	1244557	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3095	Trinity Marine	2208-2	1244558	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3096	Trinity Marine	2208-3	1244559	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3097	Trinity Marine	2208-4	1244560	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3098	Trinity Marine	2210-1	1224371	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3099	Trinity Marine	2210-2	1224372	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3100	Trinity Marine	2210-3	1224374	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3101	Trinity Marine	2210-4	1224375	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3102	Trinity Marine	2210-5	1224377	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3103	Trinity Marine	2210-6	1224379	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3104	Trinity Marine	2210-7	1224380	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3105	Trinity Marine	2210-8	1224381	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3106	Trinity Marine	2210-9	1224382	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3107	Trinity Marine	2210-10	1224383	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3108	Trinity Marine	2210-11	1224385	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3109	Trinity Marine	2210-12	1224386	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3110	Trinity Marine	2210-13	1224388	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3111	Trinity Marine	2210-14	1224389	3.00	1.5	Feb. 7, 2013	C1-1300352
HTCO 3112	Trinity, Ashland City	4993	1250050	3.00	1.5	Nov. 1, 2013	C1-1303623