



HSM 3147 FORMERLY BARGE "HTCO 3147"

ULLAGE TRIM TABLE (HERMETIC)

	1 FT.		2 FT.		3 FT.		4 FT.		5 FT.		6 FT.	
	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>	<u>BOW</u>	<u>STERN</u>
1 PORT	- 02-1/8	02-1/8	- 04-1/4	04-1/4	- 06-1/4	06-1/4	- 08-1/2	08-1/2	- 10-5/8	10-5/8	- 12-3/4	12-3/4
1 STBD	- 02-1/8	02-1/8	- 04-1/4	04-1/4	- 06-1/4	06-1/4	- 08-1/2	08-1/2	- 10-5/8	10-5/8	- 12-3/4	12-3/4
2 PORT	- 02-1/8	02-1/8	- 04-1/4	04-1/4	- 06-1/4	06-1/4	- 08-1/2	08-1/2	- 10-5/8	10-5/8	- 12-3/4	12-3/4
2 STBD	- 02-1/8	02-1/8	- 04-1/4	04-1/4	- 06-1/4	06-1/4	- 08-1/2	08-1/2	- 10-5/8	10-5/8	- 12-3/4	12-3/4
3 PORT	02-1/8	- 02-1/8	04-1/4	- 04-1/4	06-3/8	- 06-3/8	08-1/2	- 08-1/2	10-1/2	- 10-1/2	12-5/8	- 12-5/8
3 STBD	02-1/8	- 02-1/8	04-1/4	- 04-1/4	06-3/8	- 06-3/8	08-1/2	- 08-1/2	10-1/2	- 10-1/2	12-5/8	- 12-5/8

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 2'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 2'-00" (DOWN BY STERN)

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 1 PORT IS 04-1/4"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 1 PORT, THE TRIM CORRECTED ULLAGE IS 4'-04 1/4"

LENGTH BETWEEN DRAFT MARKS: 237'-09"

August 24, 2018

**PRECISION MEASUREMENT
& ANALYSIS, INC.**
 P.O. Box 2092
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HSM 3147 FORMERLY BARGE "HTCO 3147"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0		0	4,924.46	0	4,568.85	0	4,211.48	0	3,853.37	0	3,495.27	0	3,137.17	0	2,778.97
1/4		1/4		1/4		1/4	4,917.06	1/4	4,561.41	1/4	4,204.02	1/4	3,845.91	1/4	3,487.81	1/4	3,129.71	1/4	2,771.51
1/2		1/2		1/2		1/2	4,909.65	1/2	4,553.98	1/2	4,196.56	1/2	3,838.45	1/2	3,480.35	1/2	3,122.24	1/2	2,764.04
3/4		3/4		3/4		3/4	4,902.25	3/4	4,546.54	3/4	4,189.10	3/4	3,830.99	3/4	3,472.89	3/4	3,114.78	3/4	2,756.58
1		1		1		1	4,894.85	1	4,539.10	1	4,181.64	1	3,823.53	1	3,465.43	1	3,107.32	1	2,749.11
1/4		1/4		1/4		1/4	4,887.44	1/4	4,531.66	1/4	4,174.18	1/4	3,816.07	1/4	3,457.97	1/4	3,099.86	1/4	2,741.65
1/2		1/2		1/2		1/2	4,880.04	1/2	4,524.22	1/2	4,166.71	1/2	3,808.61	1/2	3,450.51	1/2	3,092.40	1/2	2,734.19
3/4		3/4		3/4		3/4	4,872.64	3/4	4,516.78	3/4	4,159.25	3/4	3,801.15	3/4	3,443.05	3/4	3,084.94	3/4	2,726.72
2		2		2		2	4,865.24	2	4,509.34	2	4,151.79	2	3,793.69	2	3,435.59	2	3,077.48	2	2,719.26
1/4		1/4		1/4		1/4	4,857.83	1/4	4,501.90	1/4	4,144.33	1/4	3,786.23	1/4	3,428.13	1/4	3,070.02	1/4	2,711.79
1/2		1/2		1/2		1/2	4,850.43	1/2	4,494.46	1/2	4,136.87	1/2	3,778.77	1/2	3,420.66	1/2	3,062.56	1/2	2,704.33
3/4		3/4		3/4		3/4	4,843.03	3/4	4,487.03	3/4	4,129.41	3/4	3,771.31	3/4	3,413.20	3/4	3,055.10	3/4	2,696.86
3		3		3		3	4,835.62	3	4,479.59	3	4,121.95	3	3,763.85	3	3,405.74	3	3,047.64	3	2,689.40
1/4		1/4		1/4		1/4	4,828.22	1/4	4,472.15	1/4	4,114.49	1/4	3,756.39	1/4	3,398.28	1/4	3,040.18	1/4	2,681.93
1/2		1/2		1/2		1/2	4,820.82	1/2	4,464.71	1/2	4,107.03	1/2	3,748.93	1/2	3,390.82	1/2	3,032.72	1/2	2,674.47
3/4		3/4		3/4		3/4	4,813.42	3/4	4,457.27	3/4	4,099.57	3/4	3,741.47	3/4	3,383.36	3/4	3,025.26	3/4	2,667.00
4		4		4		4	4,806.02	4	4,449.83	4	4,092.11	4	3,734.01	4	3,375.90	4	3,017.80	4	2,659.54
1/4		1/4		1/4		1/4	4,798.62	1/4	4,442.39	1/4	4,084.65	1/4	3,726.55	1/4	3,368.44	1/4	3,010.34	1/4	2,652.08
1/2		1/2		1/2		1/2	4,791.22	1/2	4,434.95	1/2	4,077.19	1/2	3,719.08	1/2	3,360.98	1/2	3,002.88	1/2	2,644.61
3/4		3/4		3/4		3/4	4,783.82	3/4	4,427.52	3/4	4,069.73	3/4	3,711.62	3/4	3,353.52	3/4	2,995.42	3/4	2,637.15
5		5		5	5,054.44	5	4,776.42	5	4,420.08	5	4,062.27	5	3,704.16	5	3,346.06	5	2,987.96	5	2,629.68
1/4		1/4		1/4	5,052.90	1/4	4,769.02	1/4	4,412.64	1/4	4,054.81	1/4	3,696.70	1/4	3,338.60	1/4	2,980.50	1/4	2,622.22
1/2		1/2		1/2	5,051.36	1/2	4,761.62	1/2	4,405.20	1/2	4,047.35	1/2	3,689.24	1/2	3,331.14	1/2	2,973.03	1/2	2,614.75
3/4		3/4		3/4	5,049.83	3/4	4,754.23	3/4	4,397.76	3/4	4,039.89	3/4	3,681.78	3/4	3,323.68	3/4	2,965.57	3/4	2,607.29
6		6		6	5,048.29	6	4,746.83	6	4,390.32	6	4,032.43	6	3,674.32	6	3,316.22	6	2,958.11	6	2,599.82
1/4		1/4		1/4	5,045.68	1/4	4,739.43	1/4	4,382.88	1/4	4,024.97	1/4	3,666.86	1/4	3,308.76	1/4	2,950.65	1/4	2,592.36
1/2		1/2		1/2	5,043.08	1/2	4,732.03	1/2	4,375.44	1/2	4,017.50	1/2	3,659.40	1/2	3,301.30	1/2	2,943.19	1/2	2,584.90
3/4		3/4		3/4	5,040.48	3/4	4,724.63	3/4	4,368.01	3/4	4,010.04	3/4	3,651.94	3/4	3,293.84	3/4	2,935.73	3/4	2,577.43
7		7		7	5,037.87	7	4,717.23	7	4,360.57	7	4,002.58	7	3,644.48	7	3,286.38	7	2,928.27	7	2,569.97
1/4		1/4		1/4	5,034.20	1/4	4,709.83	1/4	4,353.13	1/4	3,995.12	1/4	3,637.02	1/4	3,278.92	1/4	2,920.81	1/4	2,562.50
1/2		1/2		1/2	5,030.53	1/2	4,702.43	1/2	4,345.69	1/2	3,987.66	1/2	3,629.56	1/2	3,271.45	1/2	2,913.34	1/2	2,555.04
3/4		3/4		3/4	5,026.86	3/4	4,695.03	3/4	4,338.25	3/4	3,980.20	3/4	3,622.10	3/4	3,263.99	3/4	2,905.87	3/4	2,547.57
8		8		8	5,023.19	8	4,687.63	8	4,330.81	8	3,972.74	8	3,614.64	8	3,256.53	8	2,898.40	8	2,540.11
1/4		1/4		1/4	5,018.45	1/4	4,680.24	1/4	4,323.36	1/4	3,965.28	1/4	3,607.18	1/4	3,249.07	1/4	2,890.94	1/4	2,532.64
1/2		1/2		1/2	5,013.71	1/2	4,672.84	1/2	4,315.91	1/2	3,957.82	1/2	3,599.72	1/2	3,241.61	1/2	2,883.48	1/2	2,525.18
3/4		3/4		3/4	5,008.98	3/4	4,665.44	3/4	4,308.46	3/4	3,950.36	3/4	3,592.26	3/4	3,234.15	3/4	2,876.01	3/4	2,517.71
9		9		9	5,004.24	9	4,658.04	9	4,301.00	9	3,942.90	9	3,584.80	9	3,226.69	9	2,868.55	9	2,510.25
1/4		1/4		1/4	4,998.44	1/4	4,650.62	1/4	4,293.54	1/4	3,935.44	1/4	3,577.34	1/4	3,219.23	1/4	2,861.08	1/4	2,502.79
1/2		1/2		1/2	4,992.63	1/2	4,643.20	1/2	4,286.08	1/2	3,927.98	1/2	3,569.87	1/2	3,211.77	1/2	2,853.62	1/2	2,495.32
3/4		3/4		3/4	4,986.83	3/4	4,635.78	3/4	4,278.62	3/4	3,920.52	3/4	3,562.41	3/4	3,204.31	3/4	2,846.15	3/4	2,487.86
10		10		10	4,981.03	10	4,628.36	10	4,271.16	10	3,913.06	10	3,554.95	10	3,196.85	10	2,838.69	10	2,480.39
1/4		1/4		1/4	4,974.22	1/4	4,620.92	1/4	4,263.70	1/4	3,905.60	1/4	3,547.49	1/4	3,189.39	1/4	2,831.22	1/4	2,472.93
1/2		1/2		1/2	4,967.42	1/2	4,613.49	1/2	4,256.24	1/2	3,898.14	1/2	3,540.03	1/2	3,181.93	1/2	2,823.76	1/2	2,465.46
3/4		3/4		3/4	4,960.61	3/4	4,606.05	3/4	4,248.78	3/4	3,890.68	3/4	3,532.57	3/4	3,174.47	3/4	2,816.29	3/4	2,458.00
11		11		11	4,953.81	11	4,598.61	11	4,241.32	11	3,883.22	11	3,525.11	11	3,167.01	11	2,808.83	11	2,450.53
1/4		1/4		1/4	4,946.47	1/4	4,591.17	1/4	4,233.86	1/4	3,875.76	1/4	3,517.65	1/4	3,159.55	1/4	2,801.37	1/4	2,443.07
1/2		1/2		1/2	4,939.13	1/2	4,583.73	1/2	4,226.40	1/2	3,868.29	1/2	3,510.19	1/2	3,152.09	1/2	2,793.90	1/2	2,435.61
3/4		3/4		3/4	4,931.80	3/4	4,576.29	3/4	4,218.94	3/4	3,860.83	3/4	3,502.73	3/4	3,144.63	3/4	2,786.44	3/4	2,428.14

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 01'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
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HSM 3147 FORMERLY BARGE "HTCO 3147"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,420.68	0	2,062.38	0	1,704.08	0	1,345.79	0	988.18	0	631.41	0	287.78	0	9.70	0		0	
1/4	2,413.21	1/4	2,054.92	1/4	1,696.62	1/4	1,338.32	1/4	980.77	1/4	623.95	1/4	281.11	1/4	7.83	1/4		1/4	
1/2	2,405.75	1/2	2,047.45	1/2	1,689.16	1/2	1,330.86	1/2	973.35	1/2	616.48	1/2	274.45	1/2	5.97	1/2		1/2	
3/4	2,398.28	3/4	2,039.99	3/4	1,681.69	3/4	1,323.39	3/4	965.94	3/4	609.02	3/4	267.78	3/4	4.10	3/4		3/4	
1	2,390.82	1	2,032.52	1	1,674.23	1	1,315.93	1	958.53	1	601.56	1	261.12	1	2.23	1		1	
1/4	2,383.35	1/4	2,025.06	1/4	1,666.76	1/4	1,308.47	1/4	951.11	1/4	594.09	1/4	254.53	1/4		1/4		1/4	
1/2	2,375.89	1/2	2,017.59	1/2	1,659.30	1/2	1,301.00	1/2	943.70	1/2	586.63	1/2	247.95	1/2		1/2		1/2	
3/4	2,368.42	3/4	2,010.13	3/4	1,651.83	3/4	1,293.54	3/4	936.28	3/4	579.16	3/4	241.36	3/4		3/4		3/4	
2	2,360.96	2	2,002.66	2	1,644.37	2	1,286.07	2	928.87	2	571.70	2	234.78	2		2		2	
1/4	2,353.50	1/4	1,995.20	1/4	1,636.90	1/4	1,278.61	1/4	921.46	1/4	564.26	1/4	228.28	1/4		1/4		1/4	
1/2	2,346.03	1/2	1,987.74	1/2	1,629.44	1/2	1,271.14	1/2	914.04	1/2	556.81	1/2	221.78	1/2		1/2		1/2	
3/4	2,338.57	3/4	1,980.27	3/4	1,621.97	3/4	1,263.68	3/4	906.63	3/4	549.37	3/4	215.27	3/4		3/4		3/4	
3	2,331.10	3	1,972.81	3	1,614.51	3	1,256.21	3	899.22	3	541.93	3	208.77	3		3		3	
1/4	2,323.64	1/4	1,965.34	1/4	1,607.05	1/4	1,248.75	1/4	891.80	1/4	534.55	1/4	202.35	1/4		1/4		1/4	
1/2	2,316.17	1/2	1,957.88	1/2	1,599.58	1/2	1,241.29	1/2	884.39	1/2	527.17	1/2	195.93	1/2		1/2		1/2	
3/4	2,308.71	3/4	1,950.41	3/4	1,592.12	3/4	1,233.82	3/4	876.98	3/4	519.79	3/4	189.51	3/4		3/4		3/4	
4	2,301.24	4	1,942.95	4	1,584.65	4	1,226.36	4	869.56	4	512.41	4	183.09	4		4		4	
1/4	2,293.78	1/4	1,935.48	1/4	1,577.19	1/4	1,218.89	1/4	862.15	1/4	505.11	1/4	176.74	1/4		1/4		1/4	
1/2	2,286.32	1/2	1,928.02	1/2	1,569.72	1/2	1,211.43	1/2	854.73	1/2	497.81	1/2	170.40	1/2		1/2		1/2	
3/4	2,278.85	3/4	1,920.55	3/4	1,562.26	3/4	1,203.96	3/4	847.32	3/4	490.51	3/4	164.05	3/4		3/4		3/4	
5	2,271.39	5	1,913.09	5	1,554.79	5	1,196.50	5	839.91	5	483.21	5	157.70	5		5		5	
1/4	2,263.92	1/4	1,905.63	1/4	1,547.33	1/4	1,189.03	1/4	832.49	1/4	475.99	1/4	151.43	1/4		1/4		1/4	
1/2	2,256.46	1/2	1,898.16	1/2	1,539.87	1/2	1,181.57	1/2	825.08	1/2	468.77	1/2	145.16	1/2		1/2		1/2	
3/4	2,248.99	3/4	1,890.70	3/4	1,532.40	3/4	1,174.10	3/4	817.67	3/4	461.55	3/4	138.89	3/4		3/4		3/4	
6	2,241.53	6	1,883.23	6	1,524.94	6	1,166.64	6	810.25	6	454.34	6	132.62	6		6		6	
1/4	2,234.06	1/4	1,875.77	1/4	1,517.47	1/4	1,159.18	1/4	802.84	1/4	447.20	1/4	126.42	1/4		1/4		1/4	
1/2	2,226.60	1/2	1,868.30	1/2	1,510.01	1/2	1,151.71	1/2	795.43	1/2	440.06	1/2	120.23	1/2		1/2		1/2	
3/4	2,219.13	3/4	1,860.84	3/4	1,502.54	3/4	1,144.25	3/4	788.01	3/4	432.92	3/4	114.04	3/4		3/4		3/4	
7	2,211.67	7	1,853.37	7	1,495.08	7	1,136.78	7	780.60	7	425.79	7	107.85	7		7		7	
1/4	2,204.21	1/4	1,845.91	1/4	1,487.61	1/4	1,129.33	1/4	773.16	1/4	418.73	1/4	101.73	1/4		1/4		1/4	
1/2	2,196.74	1/2	1,838.45	1/2	1,480.15	1/2	1,121.88	1/2	765.72	1/2	411.67	1/2	95.62	1/2		1/2		1/2	
3/4	2,189.28	3/4	1,830.98	3/4	1,472.68	3/4	1,114.43	3/4	758.28	3/4	404.62	3/4	89.51	3/4		3/4		3/4	
8	2,181.81	8	1,823.52	8	1,465.22	8	1,106.98	8	750.84	8	397.56	8	83.40	8		8		8	
1/4	2,174.35	1/4	1,816.05	1/4	1,457.76	1/4	1,099.55	1/4	743.38	1/4	390.59	1/4	77.37	1/4		1/4		1/4	
1/2	2,166.88	1/2	1,808.59	1/2	1,450.29	1/2	1,092.11	1/2	735.91	1/2	383.61	1/2	71.34	1/2		1/2		1/2	
3/4	2,159.42	3/4	1,801.12	3/4	1,442.83	3/4	1,084.68	3/4	728.45	3/4	376.64	3/4	65.31	3/4		3/4		3/4	
9	2,151.95	9	1,793.66	9	1,435.36	9	1,077.24	9	720.98	9	369.66	9	59.28	9		9		9	
1/4	2,144.49	1/4	1,786.19	1/4	1,427.90	1/4	1,069.82	1/4	713.52	1/4	362.76	1/4	53.80	1/4		1/4		1/4	
1/2	2,137.03	1/2	1,778.73	1/2	1,420.43	1/2	1,062.39	1/2	706.06	1/2	355.86	1/2	48.32	1/2		1/2		1/2	
3/4	2,129.56	3/4	1,771.26	3/4	1,412.97	3/4	1,054.96	3/4	698.59	3/4	348.96	3/4	42.83	3/4		3/4		3/4	
10	2,122.10	10	1,763.80	10	1,405.50	10	1,047.53	10	691.13	10	342.06	10	37.35	10		10		10	
1/4	2,114.63	1/4	1,756.34	1/4	1,398.04	1/4	1,040.11	1/4	683.66	1/4	335.24	1/4	33.35	1/4		1/4		1/4	
1/2	2,107.17	1/2	1,748.87	1/2	1,390.58	1/2	1,032.69	1/2	676.20	1/2	328.41	1/2	29.35	1/2		1/2		1/2	
3/4	2,099.70	3/4	1,741.41	3/4	1,383.11	3/4	1,025.27	3/4	668.73	3/4	321.59	3/4	25.35	3/4		3/4		3/4	
11	2,092.24	11	1,733.94	11	1,375.65	11	1,017.85	11	661.27	11	314.76	11	21.35	11		11		11	
1/4	2,084.77	1/4	1,726.48	1/4	1,368.18	1/4	1,010.43	1/4	653.81	1/4	308.01	1/4	18.44	1/4		1/4		1/4	
1/2	2,077.31	1/2	1,719.01	1/2	1,360.72	1/2	1,003.01	1/2	646.34	1/2	301.27	1/2	15.52	1/2		1/2		1/2	
3/4	2,069.84	3/4	1,711.55	3/4	1,353.25	3/4	995.60	3/4	638.88	3/4	294.52	3/4	12.61	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 08/24/2015 CL
CALCULATED: 08/24/2015 CL
REPRINTED: 08/24/2018 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 08/2018

PRECISION MEASUREMENT
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HSM 3147 FORMERLY BARGE "HTCO 3147"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.		
0		0		0		0	4,932.27	0	4,576.86	0	4,219.60	0	3,861.58	0	3,503.57	0	3,145.56	0	2,787.49		
1/4		1/4		1/4		1/4	4,924.94	1/4	4,569.42	1/4	4,212.14	1/4	3,854.13	1/4	3,496.11	1/4	3,138.10	1/4	2,780.03		
1/2		1/2		1/2		1/2	4,917.54	1/2	4,561.98	1/2	4,204.68	1/2	3,846.67	1/2	3,488.65	1/2	3,130.64	1/2	2,772.56		
3/4		3/4		3/4		3/4	4,910.13	3/4	4,554.54	3/4	4,197.22	3/4	3,839.21	3/4	3,481.20	3/4	3,123.18	3/4	2,765.10		
1		1		1		1	4,902.73	1	4,547.11	1	4,189.76	1	3,831.75	1	3,473.74	1	3,115.72	1	2,757.64		
1/4		1/4		1/4		1/4	4,895.33	1/4	4,539.67	1/4	4,182.30	1/4	3,824.29	1/4	3,466.28	1/4	3,108.27	1/4	2,750.18		
1/2		1/2		1/2		1/2	4,887.93	1/2	4,532.23	1/2	4,174.85	1/2	3,816.83	1/2	3,458.82	1/2	3,100.81	1/2	2,742.71		
3/4		3/4		3/4		3/4	4,880.53	3/4	4,524.80	3/4	4,167.39	3/4	3,809.37	3/4	3,451.36	3/4	3,093.35	3/4	2,735.25		
2		2		2		2	4,873.13	2	4,517.36	2	4,159.93	2	3,801.92	2	3,443.90	2	3,085.89	2	2,727.79		
1/4		1/4		1/4		1/4	4,865.73	1/4	4,509.92	1/4	4,152.47	1/4	3,794.46	1/4	3,436.44	1/4	3,078.43	1/4	2,720.32		
1/2		1/2		1/2		1/2	4,858.33	1/2	4,502.49	1/2	4,145.01	1/2	3,787.00	1/2	3,428.99	1/2	3,070.97	1/2	2,712.86		
3/4		3/4		3/4		3/4	4,850.93	3/4	4,495.05	3/4	4,137.55	3/4	3,779.54	3/4	3,421.53	3/4	3,063.51	3/4	2,705.40		
3		3		3		3	4,843.52	3	4,487.61	3	4,130.09	3	3,772.08	3	3,414.07	3	3,056.06	3	2,697.94		
1/4		1/4		1/4		1/4	4,836.12	1/4	4,480.18	1/4	4,122.64	1/4	3,764.62	1/4	3,406.61	1/4	3,048.60	1/4	2,690.47		
1/2		1/2		1/2		1/2	4,828.72	1/2	4,472.74	1/2	4,115.18	1/2	3,757.16	1/2	3,399.15	1/2	3,041.14	1/2	2,683.01		
3/4		3/4		3/4		3/4	4,821.32	3/4	4,465.30	3/4	4,107.72	3/4	3,749.71	3/4	3,391.69	3/4	3,033.68	3/4	2,675.55		
4		4		4		4	4,813.93	4	4,457.87	4	4,100.26	4	3,742.25	4	3,384.23	4	3,026.22	4	2,668.09		
1/4		1/4		1/4		1/4	4,806.53	1/4	4,450.43	1/4	4,092.80	1/4	3,734.79	1/4	3,376.78	1/4	3,018.76	1/4	2,660.62		
1/2		1/2		1/2		1/2	4,799.13	1/2	4,442.99	1/2	4,085.34	1/2	3,727.33	1/2	3,369.32	1/2	3,011.30	1/2	2,653.16		
3/4		3/4		3/4		3/4	4,791.73	3/4	4,435.55	3/4	4,077.88	3/4	3,719.87	3/4	3,361.86	3/4	3,003.85	3/4	2,645.70		
5		5		5		5	4,784.34	5	4,428.12	5	4,070.43	5	3,712.41	5	3,354.40	5	2,996.39	5	2,638.24		
1/4		1/4		1/4		1/4	5,054.87	1/4	4,776.94	1/4	4,420.68	1/4	4,062.97	1/4	3,704.95	1/4	3,346.94	1/4	2,988.93	1/4	2,630.77
1/2		1/2		1/2		1/2	5,053.33	1/2	4,769.54	1/2	4,413.24	1/2	4,055.51	1/2	3,697.50	1/2	3,339.48	1/2	2,981.47	1/2	2,623.31
3/4		3/4		3/4		3/4	5,051.79	3/4	4,762.14	3/4	4,405.81	3/4	4,048.05	3/4	3,690.04	3/4	3,332.02	3/4	2,974.01	3/4	2,615.85
6		6		6		6	5,050.26	6	4,754.75	6	4,398.37	6	4,040.59	6	3,682.58	6	3,324.57	6	2,966.55	6	2,608.38
1/4		1/4		1/4		1/4	5,048.72	1/4	4,747.35	1/4	4,390.93	1/4	4,033.13	1/4	3,675.12	1/4	3,317.11	1/4	2,959.09	1/4	2,600.92
1/2		1/2		1/2		1/2	5,046.12	1/2	4,739.95	1/2	4,383.50	1/2	4,025.67	1/2	3,667.66	1/2	3,309.65	1/2	2,951.64	1/2	2,593.46
3/4		3/4		3/4		3/4	5,043.51	3/4	4,732.55	3/4	4,376.06	3/4	4,018.22	3/4	3,660.20	3/4	3,302.19	3/4	2,944.18	3/4	2,586.00
7		7		7		7	5,040.91	7	4,725.16	7	4,368.62	7	4,010.76	7	3,652.74	7	3,294.73	7	2,936.72	7	2,578.53
1/4		1/4		1/4		1/4	5,038.31	1/4	4,717.76	1/4	4,361.19	1/4	4,003.30	1/4	3,645.29	1/4	3,287.27	1/4	2,929.26	1/4	2,571.07
1/2		1/2		1/2		1/2	5,034.64	1/2	4,710.36	1/2	4,353.75	1/2	3,995.84	1/2	3,637.83	1/2	3,279.81	1/2	2,921.80	1/2	2,563.61
3/4		3/4		3/4		3/4	5,030.97	3/4	4,702.97	3/4	4,346.31	3/4	3,988.38	3/4	3,630.37	3/4	3,272.36	3/4	2,914.34	3/4	2,556.15
8		8		8		8	5,027.30	8	4,695.57	8	4,338.87	8	3,980.92	8	3,622.91	8	3,264.90	8	2,906.89	8	2,548.68
1/4		1/4		1/4		1/4	5,023.63	1/4	4,688.17	1/4	4,331.44	1/4	3,973.46	1/4	3,615.45	1/4	3,257.44	1/4	2,899.43	1/4	2,541.22
1/2		1/2		1/2		1/2	5,018.89	1/2	4,680.77	1/2	4,323.99	1/2	3,966.01	1/2	3,607.99	1/2	3,249.98	1/2	2,891.97	1/2	2,533.76
3/4		3/4		3/4		3/4	5,014.15	3/4	4,673.38	3/4	4,316.54	3/4	3,958.55	3/4	3,600.53	3/4	3,242.52	3/4	2,884.50	3/4	2,526.29
9		9		9		9	5,009.42	9	4,665.98	9	4,309.09	9	3,951.09	9	3,593.08	9	3,235.06	9	2,877.04	9	2,518.83
1/4		1/4		1/4		1/4	5,004.68	1/4	4,658.58	1/4	4,301.64	1/4	3,943.63	1/4	3,585.62	1/4	3,227.60	1/4	2,869.58	1/4	2,511.37
1/2		1/2		1/2		1/2	4,998.88	1/2	4,651.17	1/2	4,294.18	1/2	3,936.17	1/2	3,578.16	1/2	3,220.15	1/2	2,862.12	1/2	2,503.91
3/4		3/4		3/4		3/4	4,993.08	3/4	4,643.75	3/4	4,286.72	3/4	3,928.71	3/4	3,570.70	3/4	3,212.69	3/4	2,854.65	3/4	2,496.44
10		10		10		10	4,987.28	10	4,636.33	10	4,279.27	10	3,921.25	10	3,563.24	10	3,205.23	10	2,847.19	10	2,488.98
1/4		1/4		1/4		1/4	4,981.47	1/4	4,628.91	1/4	4,271.81	1/4	3,913.79	1/4	3,555.78	1/4	3,197.77	1/4	2,839.73	1/4	2,481.52
1/2		1/2		1/2		1/2	4,974.67	1/2	4,621.48	1/2	4,264.35	1/2	3,906.34	1/2	3,548.32	1/2	3,190.31	1/2	2,832.27	1/2	2,474.06
3/4		3/4		3/4		3/4	4,967.87	3/4	4,614.04	3/4	4,256.89	3/4	3,898.88	3/4	3,540.86	3/4	3,182.85	3/4	2,824.80	3/4	2,466.59
11		11		11		11	4,961.07	11	4,606.60	11	4,249.43	11	3,891.42	11	3,533.41	11	3,175.39	11	2,817.34	11	2,459.13
1/4		1/4		1/4		1/4	4,954.27	1/4	4,599.17	1/4	4,241.97	1/4	3,883.96	1/4	3,525.95	1/4	3,167.93	1/4	2,809.88	1/4	2,451.67
1/2		1/2		1/2		1/2	4,946.94	1/2	4,591.73	1/2	4,234.51	1/2	3,876.50	1/2	3,518.49	1/2	3,160.48	1/2	2,802.41	1/2	2,444.20
3/4		3/4		3/4		3/4	4,939.60	3/4	4,584.29	3/4	4,227.06	3/4	3,869.04	3/4	3,511.03	3/4	3,153.02	3/4	2,794.95	3/4	2,436.74

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
 CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
 GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 01'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P.O. Box 2092
 Pearland, Texas 77588
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HSM 3147 FORMERLY BARGE "HTCO 3147"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,429.28	0	2,071.07	0	1,712.86	0	1,354.65	0	996.51	0	638.73	0	294.51	0	12.60	0		0	
1/4	2,421.82	1/4	2,063.61	1/4	1,705.40	1/4	1,347.19	1/4	989.06	1/4	631.27	1/4	287.76	1/4	9.69	1/4		1/4	
1/2	2,414.35	1/2	2,056.14	1/2	1,697.93	1/2	1,339.73	1/2	981.61	1/2	623.81	1/2	281.10	1/2	7.83	1/2		1/2	
3/4	2,406.89	3/4	2,048.68	3/4	1,690.47	3/4	1,332.26	3/4	974.16	3/4	616.35	3/4	274.44	3/4	5.96	3/4		3/4	
1	2,399.43	1	2,041.22	1	1,683.01	1	1,324.80	1	966.71	1	608.88	1	267.77	1	4.10	1		1	
1/4	2,391.97	1/4	2,033.76	1/4	1,675.55	1/4	1,317.34	1/4	959.26	1/4	601.42	1/4	261.11	1/4	2.23	1/4		1/4	
1/2	2,384.50	1/2	2,026.29	1/2	1,668.08	1/2	1,309.87	1/2	951.82	1/2	593.96	1/2	254.52	1/2		1/2		1/2	
3/4	2,377.04	3/4	2,018.83	3/4	1,660.62	3/4	1,302.41	3/4	944.37	3/4	586.50	3/4	247.94	3/4		3/4		3/4	
2	2,369.58	2	2,011.37	2	1,653.16	2	1,294.95	2	936.92	2	579.03	2	241.36	2		2		2	
1/4	2,362.12	1/4	2,003.91	1/4	1,645.70	1/4	1,287.49	1/4	929.47	1/4	571.57	1/4	234.77	1/4		1/4		1/4	
1/2	2,354.65	1/2	1,996.44	1/2	1,638.23	1/2	1,280.02	1/2	922.02	1/2	564.14	1/2	228.27	1/2		1/2		1/2	
3/4	2,347.19	3/4	1,988.98	3/4	1,630.77	3/4	1,272.56	3/4	914.57	3/4	556.70	3/4	221.77	3/4		3/4		3/4	
3	2,339.73	3	1,981.52	3	1,623.31	3	1,265.10	3	907.12	3	549.26	3	215.27	3		3		3	
1/4	2,332.26	1/4	1,974.05	1/4	1,615.85	1/4	1,257.64	1/4	899.67	1/4	541.83	1/4	208.77	1/4		1/4		1/4	
1/2	2,324.80	1/2	1,966.59	1/2	1,608.38	1/2	1,250.17	1/2	892.23	1/2	534.46	1/2	202.35	1/2		1/2		1/2	
3/4	2,317.34	3/4	1,959.13	3/4	1,600.92	3/4	1,242.71	3/4	884.78	3/4	527.08	3/4	195.93	3/4		3/4		3/4	
4	2,309.88	4	1,951.67	4	1,593.46	4	1,235.25	4	877.33	4	519.71	4	189.51	4		4		4	
1/4	2,302.41	1/4	1,944.20	1/4	1,585.99	1/4	1,227.78	1/4	869.88	1/4	512.34	1/4	183.09	1/4		1/4		1/4	
1/2	2,294.95	1/2	1,936.74	1/2	1,578.53	1/2	1,220.32	1/2	862.43	1/2	505.05	1/2	176.74	1/2		1/2		1/2	
3/4	2,287.49	3/4	1,929.28	3/4	1,571.07	3/4	1,212.86	3/4	854.98	3/4	497.76	3/4	170.39	3/4		3/4		3/4	
5	2,280.03	5	1,921.82	5	1,563.61	5	1,205.40	5	847.53	5	490.46	5	164.05	5		5		5	
1/4	2,272.56	1/4	1,914.35	1/4	1,556.14	1/4	1,197.93	1/4	840.08	1/4	483.17	1/4	157.70	1/4		1/4		1/4	
1/2	2,265.10	1/2	1,906.89	1/2	1,548.68	1/2	1,190.47	1/2	832.63	1/2	475.95	1/2	151.43	1/2		1/2		1/2	
3/4	2,257.64	3/4	1,899.43	3/4	1,541.22	3/4	1,183.01	3/4	825.19	3/4	468.73	3/4	145.16	3/4		3/4		3/4	
6	2,250.17	6	1,891.97	6	1,533.76	6	1,175.55	6	817.74	6	461.51	6	138.89	6		6		6	
1/4	2,242.71	1/4	1,884.50	1/4	1,526.29	1/4	1,168.08	1/4	810.29	1/4	454.30	1/4	132.61	1/4		1/4		1/4	
1/2	2,235.25	1/2	1,877.04	1/2	1,518.83	1/2	1,160.62	1/2	802.84	1/2	447.16	1/2	126.42	1/2		1/2		1/2	
3/4	2,227.79	3/4	1,869.58	3/4	1,511.37	3/4	1,153.16	3/4	795.39	3/4	440.02	3/4	120.23	3/4		3/4		3/4	
7	2,220.32	7	1,862.11	7	1,503.90	7	1,145.70	7	787.94	7	432.89	7	114.04	7		7		7	
1/4	2,212.86	1/4	1,854.65	1/4	1,496.44	1/4	1,138.23	1/4	780.49	1/4	425.75	1/4	107.85	1/4		1/4		1/4	
1/2	2,205.40	1/2	1,847.19	1/2	1,488.98	1/2	1,130.77	1/2	773.04	1/2	418.70	1/2	101.73	1/2		1/2		1/2	
3/4	2,197.94	3/4	1,839.73	3/4	1,481.52	3/4	1,123.31	3/4	765.58	3/4	411.64	3/4	95.62	3/4		3/4		3/4	
8	2,190.47	8	1,832.26	8	1,474.05	8	1,115.84	8	758.13	8	404.59	8	89.51	8		8		8	
1/4	2,183.01	1/4	1,824.80	1/4	1,466.59	1/4	1,108.38	1/4	750.67	1/4	397.53	1/4	83.40	1/4		1/4		1/4	
1/2	2,175.55	1/2	1,817.34	1/2	1,459.13	1/2	1,100.92	1/2	743.21	1/2	390.56	1/2	77.37	1/2		1/2		1/2	
3/4	2,168.09	3/4	1,809.88	3/4	1,451.67	3/4	1,093.46	3/4	735.75	3/4	383.59	3/4	71.34	3/4		3/4		3/4	
9	2,160.62	9	1,802.41	9	1,444.20	9	1,085.99	9	728.28	9	376.61	9	65.31	9		9		9	
1/4	2,153.16	1/4	1,794.95	1/4	1,436.74	1/4	1,078.53	1/4	720.82	1/4	369.64	1/4	59.28	1/4		1/4		1/4	
1/2	2,145.70	1/2	1,787.49	1/2	1,429.28	1/2	1,071.07	1/2	713.36	1/2	362.74	1/2	53.80	1/2		1/2		1/2	
3/4	2,138.23	3/4	1,780.02	3/4	1,421.82	3/4	1,063.61	3/4	705.90	3/4	355.84	3/4	48.31	3/4		3/4		3/4	
10	2,130.77	10	1,772.56	10	1,414.35	10	1,056.15	10	698.43	10	348.94	10	42.83	10		10		10	
1/4	2,123.31	1/4	1,765.10	1/4	1,406.89	1/4	1,048.69	1/4	690.97	1/4	342.05	1/4	37.35	1/4		1/4		1/4	
1/2	2,115.85	1/2	1,757.64	1/2	1,399.43	1/2	1,041.24	1/2	683.51	1/2	335.22	1/2	33.35	1/2		1/2		1/2	
3/4	2,108.38	3/4	1,750.17	3/4	1,391.96	3/4	1,033.78	3/4	676.05	3/4	328.39	3/4	29.35	3/4		3/4		3/4	
11	2,100.92	11	1,742.71	11	1,384.50	11	1,026.32	11	668.58	11	321.57	11	25.35	11		11		11	
1/4	2,093.46	1/4	1,735.25	1/4	1,377.04	1/4	1,018.87	1/4	661.12	1/4	314.74	1/4	21.34	1/4		1/4		1/4	
1/2	2,086.00	1/2	1,727.79	1/2	1,369.58	1/2	1,011.42	1/2	653.66	1/2	308.00	1/2	18.43	1/2		1/2		1/2	
3/4	2,078.53	3/4	1,720.32	3/4	1,362.11	3/4	1,003.96	3/4	646.20	3/4	301.25	3/4	15.52	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 08/24/2015 CL
CALCULATED: 08/24/2015 CL
REPRINTED: 08/24/2018 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 08/2018

PRECISION MEASUREMENT
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HSM 3147 FORMERLY BARGE "HTCO 3147"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0		0	5,003.04	0	4,646.61	0	4,288.34	0	3,929.32	0	3,570.31	0	3,211.29	0	2,852.20
1/4		1/4		1/4		1/4	4,995.68	1/4	4,639.15	1/4	4,280.86	1/4	3,921.84	1/4	3,562.83	1/4	3,203.81	1/4	2,844.72
1/2		1/2		1/2		1/2	4,988.26	1/2	4,631.70	1/2	4,273.38	1/2	3,914.36	1/2	3,555.35	1/2	3,196.33	1/2	2,837.24
3/4		3/4		3/4		3/4	4,980.84	3/4	4,624.24	3/4	4,265.90	3/4	3,906.88	3/4	3,547.87	3/4	3,188.85	3/4	2,829.75
1		1		1		1	4,973.41	1	4,616.78	1	4,258.42	1	3,899.40	1	3,540.39	1	3,181.37	1	2,822.27
1/4		1/4		1/4		1/4	4,965.99	1/4	4,609.32	1/4	4,250.94	1/4	3,891.92	1/4	3,532.91	1/4	3,173.89	1/4	2,814.79
1/2		1/2		1/2		1/2	4,958.57	1/2	4,601.86	1/2	4,243.46	1/2	3,884.44	1/2	3,525.43	1/2	3,166.41	1/2	2,807.30
3/4		3/4		3/4		3/4	4,951.15	3/4	4,594.41	3/4	4,235.98	3/4	3,876.96	3/4	3,517.95	3/4	3,158.93	3/4	2,799.82
2		2		2		2	4,943.73	2	4,586.95	2	4,228.50	2	3,869.49	2	3,510.47	2	3,151.45	2	2,792.33
1/4		1/4		1/4		1/4	4,936.30	1/4	4,579.49	1/4	4,221.02	1/4	3,862.01	1/4	3,502.99	1/4	3,143.97	1/4	2,784.85
1/2		1/2		1/2		1/2	4,928.88	1/2	4,572.03	1/2	4,213.54	1/2	3,854.53	1/2	3,495.51	1/2	3,136.49	1/2	2,777.37
3/4		3/4		3/4		3/4	4,921.46	3/4	4,564.58	3/4	4,206.06	3/4	3,847.05	3/4	3,488.03	3/4	3,129.01	3/4	2,769.88
3		3		3		3	4,914.04	3	4,557.12	3	4,198.58	3	3,839.57	3	3,480.55	3	3,121.54	3	2,762.40
1/4		1/4		1/4		1/4	4,906.61	1/4	4,549.66	1/4	4,191.10	1/4	3,832.09	1/4	3,473.07	1/4	3,114.06	1/4	2,754.92
1/2		1/2		1/2		1/2	4,899.19	1/2	4,542.20	1/2	4,183.62	1/2	3,824.61	1/2	3,465.59	1/2	3,106.58	1/2	2,747.43
3/4		3/4		3/4		3/4	4,891.77	3/4	4,534.74	3/4	4,176.14	3/4	3,817.13	3/4	3,458.11	3/4	3,099.10	3/4	2,739.95
4		4		4		4	4,884.35	4	4,527.29	4	4,168.67	4	3,809.65	4	3,450.63	4	3,091.62	4	2,732.47
1/4		1/4		1/4		1/4	4,876.93	1/4	4,519.83	1/4	4,161.19	1/4	3,802.17	1/4	3,443.15	1/4	3,084.14	1/4	2,724.98
1/2		1/2		1/2		1/2	4,869.52	1/2	4,512.37	1/2	4,153.71	1/2	3,794.69	1/2	3,435.67	1/2	3,076.66	1/2	2,717.50
3/4		3/4		3/4		3/4	4,862.10	3/4	4,504.91	3/4	4,146.23	3/4	3,787.21	3/4	3,428.19	3/4	3,069.18	3/4	2,710.01
5		5		5		5	4,854.68	5	4,497.45	5	4,138.75	5	3,779.73	5	3,420.72	5	3,061.70	5	2,702.53
1/4		1/4		1/4	5,126.00	1/4	4,847.26	1/4	4,490.00	1/4	4,131.27	1/4	3,772.25	1/4	3,413.24	1/4	3,054.22	1/4	2,695.05
1/2		1/2		1/2	5,124.46	1/2	4,839.84	1/2	4,482.54	1/2	4,123.79	1/2	3,764.77	1/2	3,405.76	1/2	3,046.74	1/2	2,687.56
3/4		3/4		3/4	5,122.92	3/4	4,832.42	3/4	4,475.08	3/4	4,116.31	3/4	3,757.29	3/4	3,398.28	3/4	3,039.26	3/4	2,680.08
6		6		6	5,121.37	6	4,825.01	6	4,467.62	6	4,108.83	6	3,749.81	6	3,390.80	6	3,031.78	6	2,672.60
1/4		1/4		1/4	5,119.83	1/4	4,817.59	1/4	4,460.16	1/4	4,101.35	1/4	3,742.33	1/4	3,383.32	1/4	3,024.30	1/4	2,665.11
1/2		1/2		1/2	5,117.22	1/2	4,810.17	1/2	4,452.71	1/2	4,093.87	1/2	3,734.85	1/2	3,375.84	1/2	3,016.82	1/2	2,657.63
3/4		3/4		3/4	5,114.61	3/4	4,802.75	3/4	4,445.25	3/4	4,086.39	3/4	3,727.37	3/4	3,368.36	3/4	3,009.34	3/4	2,650.15
7		7		7	5,112.00	7	4,795.33	7	4,437.79	7	4,078.91	7	3,719.90	7	3,360.88	7	3,001.86	7	2,642.66
1/4		1/4		1/4	5,109.39	1/4	4,787.92	1/4	4,430.33	1/4	4,071.43	1/4	3,712.42	1/4	3,353.40	1/4	2,994.38	1/4	2,635.18
1/2		1/2		1/2	5,105.71	1/2	4,780.50	1/2	4,422.88	1/2	4,063.95	1/2	3,704.94	1/2	3,345.92	1/2	2,986.90	1/2	2,627.70
3/4		3/4		3/4	5,102.03	3/4	4,773.08	3/4	4,415.42	3/4	4,056.47	3/4	3,697.46	3/4	3,338.44	3/4	2,979.42	3/4	2,620.21
8		8		8	5,098.34	8	4,765.66	8	4,407.96	8	4,048.99	8	3,689.98	8	3,330.96	8	2,971.94	8	2,612.73
1/4		1/4		1/4	5,094.66	1/4	4,758.24	1/4	4,400.50	1/4	4,041.51	1/4	3,682.50	1/4	3,323.48	1/4	2,964.46	1/4	2,605.24
1/2		1/2		1/2	5,089.91	1/2	4,750.82	1/2	4,393.03	1/2	4,034.03	1/2	3,675.02	1/2	3,316.00	1/2	2,956.97	1/2	2,597.76
3/4		3/4		3/4	5,085.17	3/4	4,743.41	3/4	4,385.56	3/4	4,026.55	3/4	3,667.54	3/4	3,308.52	3/4	2,949.49	3/4	2,590.28
9		9		9	5,080.42	9	4,735.99	9	4,378.08	9	4,019.08	9	3,660.06	9	3,301.04	9	2,942.01	9	2,582.79
1/4		1/4		1/4	5,075.67	1/4	4,728.57	1/4	4,370.61	1/4	4,011.60	1/4	3,652.58	1/4	3,293.56	1/4	2,934.52	1/4	2,575.31
1/2		1/2		1/2	5,069.85	1/2	4,721.13	1/2	4,363.13	1/2	4,004.12	1/2	3,645.10	1/2	3,286.08	1/2	2,927.04	1/2	2,567.83
3/4		3/4		3/4	5,064.03	3/4	4,713.69	3/4	4,355.65	3/4	3,996.64	3/4	3,637.62	3/4	3,278.60	3/4	2,919.56	3/4	2,560.34
10		10		10	5,058.21	10	4,706.26	10	4,348.17	10	3,989.16	10	3,630.14	10	3,271.13	10	2,912.07	10	2,552.86
1/4		1/4		1/4	5,052.39	1/4	4,698.82	1/4	4,340.69	1/4	3,981.68	1/4	3,622.66	1/4	3,263.65	1/4	2,904.59	1/4	2,545.38
1/2		1/2		1/2	5,045.57	1/2	4,691.36	1/2	4,333.21	1/2	3,974.20	1/2	3,615.18	1/2	3,256.17	1/2	2,897.10	1/2	2,537.89
3/4		3/4		3/4	5,038.75	3/4	4,683.90	3/4	4,325.73	3/4	3,966.72	3/4	3,607.70	3/4	3,248.69	3/4	2,889.62	3/4	2,530.41
11		11		11	5,031.93	11	4,676.44	11	4,318.26	11	3,959.24	11	3,600.22	11	3,241.21	11	2,882.14	11	2,522.92
1/4		1/4		1/4	5,025.11	1/4	4,668.99	1/4	4,310.78	1/4	3,951.76	1/4	3,592.74	1/4	3,233.73	1/4	2,874.65	1/4	2,515.44
1/2		1/2		1/2	5,017.75	1/2	4,661.53	1/2	4,303.30	1/2	3,944.28	1/2	3,585.26	1/2	3,226.25	1/2	2,867.17	1/2	2,507.96
3/4		3/4		3/4	5,010.39	3/4	4,654.07	3/4	4,295.82	3/4	3,936.80	3/4	3,577.78	3/4	3,218.77	3/4	2,859.69	3/4	2,500.47

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 01'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



HSM 3147 FORMERLY BARGE "HTCO 3147"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,492.99	0	2,133.78	0	1,774.56	0	1,415.35	0	1,061.08	0	711.29	0	352.08	0	13.46	0		0	
1/4	2,485.51	1/4	2,126.29	1/4	1,767.08	1/4	1,407.87	1/4	1,053.90	1/4	703.80	1/4	344.60	1/4	9.72	1/4		1/4	
1/2	2,478.02	1/2	2,118.81	1/2	1,759.60	1/2	1,400.38	1/2	1,046.72	1/2	696.32	1/2	337.12	1/2	7.85	1/2		1/2	
3/4	2,470.54	3/4	2,111.33	3/4	1,752.11	3/4	1,392.90	3/4	1,039.54	3/4	688.84	3/4	329.63	3/4	5.98	3/4		3/4	
1	2,463.06	1	2,103.84	1	1,744.63	1	1,385.42	1	1,032.36	1	681.35	1	322.15	1	4.11	1		1	
1/4	2,455.57	1/4	2,096.36	1/4	1,737.15	1/4	1,377.93	1/4	1,025.18	1/4	673.87	1/4	314.67	1/4	2.24	1/4		1/4	
1/2	2,448.09	1/2	2,088.88	1/2	1,729.66	1/2	1,370.45	1/2	1,018.00	1/2	666.39	1/2	307.18	1/2		1/2		1/2	
3/4	2,440.61	3/4	2,081.39	3/4	1,722.18	3/4	1,362.97	3/4	1,010.82	3/4	658.90	3/4	299.70	3/4		3/4		3/4	
2	2,433.12	2	2,073.91	2	1,714.70	2	1,355.48	2	1,003.64	2	651.42	2	292.22	2		2		2	
1/4	2,425.64	1/4	2,066.43	1/4	1,707.21	1/4	1,348.00	1/4	996.46	1/4	643.94	1/4	284.73	1/4		1/4		1/4	
1/2	2,418.15	1/2	2,058.94	1/2	1,699.73	1/2	1,340.52	1/2	989.28	1/2	636.45	1/2	277.25	1/2		1/2		1/2	
3/4	2,410.67	3/4	2,051.46	3/4	1,692.25	3/4	1,333.03	3/4	982.10	3/4	628.97	3/4	269.77	3/4		3/4		3/4	
3	2,403.19	3	2,043.97	3	1,684.76	3	1,325.55	3	974.92	3	621.49	3	262.28	3		3		3	
1/4	2,395.70	1/4	2,036.49	1/4	1,677.28	1/4	1,318.07	1/4	967.74	1/4	614.00	1/4	254.80	1/4		1/4		1/4	
1/2	2,388.22	1/2	2,029.01	1/2	1,669.79	1/2	1,310.58	1/2	960.56	1/2	606.52	1/2	247.32	1/2		1/2		1/2	
3/4	2,380.74	3/4	2,021.52	3/4	1,662.31	3/4	1,303.10	3/4	953.38	3/4	599.04	3/4	239.83	3/4		3/4		3/4	
4	2,373.25	4	2,014.04	4	1,654.83	4	1,295.61	4	946.20	4	591.55	4	232.35	4		4		4	
1/4	2,365.77	1/4	2,006.56	1/4	1,647.34	1/4	1,288.13	1/4	939.02	1/4	584.07	1/4	224.87	1/4		1/4		1/4	
1/2	2,358.29	1/2	1,999.07	1/2	1,639.86	1/2	1,280.65	1/2	931.84	1/2	576.59	1/2	217.38	1/2		1/2		1/2	
3/4	2,350.80	3/4	1,991.59	3/4	1,632.38	3/4	1,273.16	3/4	924.66	3/4	569.10	3/4	209.90	3/4		3/4		3/4	
5	2,343.32	5	1,984.11	5	1,624.89	5	1,265.68	5	917.48	5	561.62	5	202.42	5		5		5	
1/4	2,335.83	1/4	1,976.62	1/4	1,617.41	1/4	1,258.20	1/4	910.30	1/4	554.14	1/4	194.93	1/4		1/4		1/4	
1/2	2,328.35	1/2	1,969.14	1/2	1,609.93	1/2	1,250.71	1/2	903.12	1/2	546.65	1/2	187.45	1/2		1/2		1/2	
3/4	2,320.87	3/4	1,961.65	3/4	1,602.44	3/4	1,243.23	3/4	895.94	3/4	539.17	3/4	179.97	3/4		3/4		3/4	
6	2,313.38	6	1,954.17	6	1,594.96	6	1,235.75	6	888.76	6	531.68	6	172.48	6		6		6	
1/4	2,305.90	1/4	1,946.69	1/4	1,587.47	1/4	1,228.26	1/4	881.58	1/4	524.20	1/4	165.00	1/4		1/4		1/4	
1/2	2,298.42	1/2	1,939.20	1/2	1,579.99	1/2	1,220.78	1/2	874.40	1/2	516.72	1/2	157.51	1/2		1/2		1/2	
3/4	2,290.93	3/4	1,931.72	3/4	1,572.51	3/4	1,213.29	3/4	867.22	3/4	509.23	3/4	150.03	3/4		3/4		3/4	
7	2,283.45	7	1,924.24	7	1,565.02	7	1,205.81	7	860.04	7	501.75	7	142.55	7		7		7	
1/4	2,275.97	1/4	1,916.75	1/4	1,557.54	1/4	1,198.33	1/4	852.86	1/4	494.27	1/4	135.06	1/4		1/4		1/4	
1/2	2,268.48	1/2	1,909.27	1/2	1,550.06	1/2	1,190.99	1/2	845.53	1/2	486.78	1/2	127.58	1/2		1/2		1/2	
3/4	2,261.00	3/4	1,901.79	3/4	1,542.57	3/4	1,183.64	3/4	838.20	3/4	479.30	3/4	120.10	3/4		3/4		3/4	
8	2,253.52	8	1,894.30	8	1,535.09	8	1,176.30	8	830.87	8	471.82	8	112.61	8		8		8	
1/4	2,246.03	1/4	1,886.82	1/4	1,527.61	1/4	1,168.96	1/4	823.54	1/4	464.33	1/4	105.13	1/4		1/4		1/4	
1/2	2,238.55	1/2	1,879.34	1/2	1,520.12	1/2	1,161.76	1/2	816.05	1/2	456.85	1/2	97.65	1/2		1/2		1/2	
3/4	2,231.06	3/4	1,871.85	3/4	1,512.64	3/4	1,154.56	3/4	808.57	3/4	449.37	3/4	90.16	3/4		3/4		3/4	
9	2,223.58	9	1,864.37	9	1,505.16	9	1,147.36	9	801.09	9	441.88	9	82.68	9		9		9	
1/4	2,216.10	1/4	1,856.88	1/4	1,497.67	1/4	1,140.15	1/4	793.60	1/4	434.40	1/4	75.20	1/4		1/4		1/4	
1/2	2,208.61	1/2	1,849.40	1/2	1,490.19	1/2	1,132.96	1/2	786.12	1/2	426.92	1/2	68.18	1/2		1/2		1/2	
3/4	2,201.13	3/4	1,841.92	3/4	1,482.70	3/4	1,125.77	3/4	778.64	3/4	419.43	3/4	61.17	3/4		3/4		3/4	
10	2,193.65	10	1,834.43	10	1,475.22	10	1,118.57	10	771.15	10	411.95	10	54.15	10		10		10	
1/4	2,186.16	1/4	1,826.95	1/4	1,467.74	1/4	1,111.38	1/4	763.67	1/4	404.47	1/4	47.13	1/4		1/4		1/4	
1/2	2,178.68	1/2	1,819.47	1/2	1,460.25	1/2	1,104.19	1/2	756.19	1/2	396.98	1/2	41.52	1/2		1/2		1/2	
3/4	2,171.20	3/4	1,811.98	3/4	1,452.77	3/4	1,097.00	3/4	748.70	3/4	389.50	3/4	35.91	3/4		3/4		3/4	
11	2,163.71	11	1,804.50	11	1,445.29	11	1,089.82	11	741.22	11	382.02	11	30.30	11		11		11	
1/4	2,156.23	1/4	1,797.02	1/4	1,437.80	1/4	1,082.63	1/4	733.74	1/4	374.53	1/4	24.69	1/4		1/4		1/4	
1/2	2,148.74	1/2	1,789.53	1/2	1,430.32	1/2	1,075.45	1/2	726.25	1/2	367.05	1/2	20.94	1/2		1/2		1/2	
3/4	2,141.26	3/4	1,782.05	3/4	1,422.84	3/4	1,068.26	3/4	718.77	3/4	359.57	3/4	17.20	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 08/24/2015 CL
CALCULATED: 08/24/2015 CL
REPRINTED: 08/24/2018 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 08/2018

PRECISION MEASUREMENT
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HSM 3147 FORMERLY BARGE "HTCO 3147"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.
0		0		0		0	5,015.12	0	4,658.83	0	4,300.70	0	3,941.81	0	3,582.92	0	3,224.03	0	2,865.07
1/4		1/4		1/4		1/4	5,007.77	1/4	4,651.37	1/4	4,293.22	1/4	3,934.33	1/4	3,575.44	1/4	3,216.55	1/4	2,857.59
1/2		1/2		1/2		1/2	5,000.35	1/2	4,643.92	1/2	4,285.75	1/2	3,926.86	1/2	3,567.97	1/2	3,209.07	1/2	2,850.11
3/4		3/4		3/4		3/4	4,992.93	3/4	4,636.46	3/4	4,278.27	3/4	3,919.38	3/4	3,560.49	3/4	3,201.60	3/4	2,842.63
1		1		1		1	4,985.51	1	4,629.01	1	4,270.79	1	3,911.90	1	3,553.01	1	3,194.12	1	2,835.15
1/4		1/4		1/4		1/4	4,978.09	1/4	4,621.55	1/4	4,263.32	1/4	3,904.43	1/4	3,545.53	1/4	3,186.64	1/4	2,827.66
1/2		1/2		1/2		1/2	4,970.67	1/2	4,614.10	1/2	4,255.84	1/2	3,896.95	1/2	3,538.06	1/2	3,179.17	1/2	2,820.18
3/4		3/4		3/4		3/4	4,963.25	3/4	4,606.64	3/4	4,248.36	3/4	3,889.47	3/4	3,530.58	3/4	3,171.69	3/4	2,812.70
2		2		2		2	4,955.83	2	4,599.19	2	4,240.89	2	3,882.00	2	3,523.10	2	3,164.21	2	2,805.22
1/4		1/4		1/4		1/4	4,948.41	1/4	4,591.73	1/4	4,233.41	1/4	3,874.52	1/4	3,515.63	1/4	3,156.74	1/4	2,797.74
1/2		1/2		1/2		1/2	4,940.99	1/2	4,584.28	1/2	4,225.93	1/2	3,867.04	1/2	3,508.15	1/2	3,149.26	1/2	2,790.26
3/4		3/4		3/4		3/4	4,933.57	3/4	4,576.82	3/4	4,218.46	3/4	3,859.56	3/4	3,500.67	3/4	3,141.78	3/4	2,782.78
3		3		3		3	4,926.15	3	4,569.37	3	4,210.98	3	3,852.09	3	3,493.20	3	3,134.31	3	2,775.30
1/4		1/4		1/4		1/4	4,918.73	1/4	4,561.91	1/4	4,203.50	1/4	3,844.61	1/4	3,485.72	1/4	3,126.83	1/4	2,767.82
1/2		1/2		1/2		1/2	4,911.31	1/2	4,554.46	1/2	4,196.03	1/2	3,837.13	1/2	3,478.24	1/2	3,119.35	1/2	2,760.34
3/4		3/4		3/4		3/4	4,903.90	3/4	4,547.00	3/4	4,188.55	3/4	3,829.66	3/4	3,470.77	3/4	3,111.87	3/4	2,752.86
4		4		4		4	4,896.48	4	4,539.55	4	4,181.07	4	3,822.18	4	3,463.29	4	3,104.40	4	2,745.37
1/4		1/4		1/4		1/4	4,889.06	1/4	4,532.09	1/4	4,173.59	1/4	3,814.70	1/4	3,455.81	1/4	3,096.92	1/4	2,737.89
1/2		1/2		1/2		1/2	4,881.65	1/2	4,524.64	1/2	4,166.12	1/2	3,807.23	1/2	3,448.34	1/2	3,089.44	1/2	2,730.41
3/4		3/4		3/4		3/4	4,874.23	3/4	4,517.18	3/4	4,158.64	3/4	3,799.75	3/4	3,440.86	3/4	3,081.97	3/4	2,722.93
5		5		5		5	4,866.82	5	4,509.72	5	4,151.16	5	3,792.27	5	3,433.38	5	3,074.49	5	2,715.45
1/4		1/4		1/4	5,138.03	1/4	4,859.40	1/4	4,502.27	1/4	4,143.69	1/4	3,784.80	1/4	3,425.90	1/4	3,067.01	1/4	2,707.97
1/2		1/2		1/2	5,136.49	1/2	4,851.99	1/2	4,494.81	1/2	4,136.21	1/2	3,777.32	1/2	3,418.43	1/2	3,059.54	1/2	2,700.49
3/4		3/4		3/4	5,134.95	3/4	4,844.57	3/4	4,487.36	3/4	4,128.73	3/4	3,769.84	3/4	3,410.95	3/4	3,052.06	3/4	2,693.01
6		6		6	5,133.41	6	4,837.15	6	4,479.90	6	4,121.26	6	3,762.36	6	3,403.47	6	3,044.58	6	2,685.53
1/4		1/4		1/4	5,131.86	1/4	4,829.74	1/4	4,472.45	1/4	4,113.78	1/4	3,754.89	1/4	3,396.00	1/4	3,037.11	1/4	2,678.05
1/2		1/2		1/2	5,129.25	1/2	4,822.32	1/2	4,464.99	1/2	4,106.30	1/2	3,747.41	1/2	3,388.52	1/2	3,029.63	1/2	2,670.57
3/4		3/4		3/4	5,126.64	3/4	4,814.91	3/4	4,457.54	3/4	4,098.83	3/4	3,739.93	3/4	3,381.04	3/4	3,022.15	3/4	2,663.08
7		7		7	5,124.03	7	4,807.49	7	4,450.08	7	4,091.35	7	3,732.46	7	3,373.57	7	3,014.67	7	2,655.60
1/4		1/4		1/4	5,121.42	1/4	4,800.08	1/4	4,442.63	1/4	4,083.87	1/4	3,724.98	1/4	3,366.09	1/4	3,007.20	1/4	2,648.12
1/2		1/2		1/2	5,117.74	1/2	4,792.66	1/2	4,435.17	1/2	4,076.39	1/2	3,717.50	1/2	3,358.61	1/2	2,999.72	1/2	2,640.64
3/4		3/4		3/4	5,114.06	3/4	4,785.25	3/4	4,427.72	3/4	4,068.92	3/4	3,710.03	3/4	3,351.14	3/4	2,992.24	3/4	2,633.16
8		8		8	5,110.39	8	4,777.83	8	4,420.26	8	4,061.44	8	3,702.55	8	3,343.66	8	2,984.76	8	2,625.68
1/4		1/4		1/4	5,106.71	1/4	4,770.42	1/4	4,412.81	1/4	4,053.96	1/4	3,695.07	1/4	3,336.18	1/4	2,977.28	1/4	2,618.20
1/2		1/2		1/2	5,101.96	1/2	4,763.00	1/2	4,405.34	1/2	4,046.49	1/2	3,687.60	1/2	3,328.70	1/2	2,969.80	1/2	2,610.72
3/4		3/4		3/4	5,097.21	3/4	4,755.59	3/4	4,397.88	3/4	4,039.01	3/4	3,680.12	3/4	3,321.23	3/4	2,962.32	3/4	2,603.24
9		9		9	5,092.46	9	4,748.17	9	4,390.41	9	4,031.53	9	3,672.64	9	3,313.75	9	2,954.84	9	2,595.76
1/4		1/4		1/4	5,087.72	1/4	4,740.75	1/4	4,382.95	1/4	4,024.06	1/4	3,665.17	1/4	3,306.27	1/4	2,947.36	1/4	2,588.28
1/2		1/2		1/2	5,081.90	1/2	4,733.32	1/2	4,375.47	1/2	4,016.58	1/2	3,657.69	1/2	3,298.80	1/2	2,939.88	1/2	2,580.79
3/4		3/4		3/4	5,076.08	3/4	4,725.88	3/4	4,367.99	3/4	4,009.10	3/4	3,650.21	3/4	3,291.32	3/4	2,932.40	3/4	2,573.31
10		10		10	5,070.27	10	4,718.45	10	4,360.52	10	4,001.63	10	3,642.73	10	3,283.84	10	2,924.92	10	2,565.83
1/4		1/4		1/4	5,064.45	1/4	4,711.02	1/4	4,353.04	1/4	3,994.15	1/4	3,635.26	1/4	3,276.37	1/4	2,917.44	1/4	2,558.35
1/2		1/2		1/2	5,057.63	1/2	4,703.56	1/2	4,345.56	1/2	3,986.67	1/2	3,627.78	1/2	3,268.89	1/2	2,909.95	1/2	2,550.87
3/4		3/4		3/4	5,050.81	3/4	4,696.10	3/4	4,338.09	3/4	3,979.20	3/4	3,620.30	3/4	3,261.41	3/4	2,902.47	3/4	2,543.39
11		11		11	5,044.00	11	4,688.65	11	4,330.61	11	3,971.72	11	3,612.83	11	3,253.94	11	2,894.99	11	2,535.91
1/4		1/4		1/4	5,037.18	1/4	4,681.19	1/4	4,323.13	1/4	3,964.24	1/4	3,605.35	1/4	3,246.46	1/4	2,887.51	1/4	2,528.43
1/2		1/2		1/2	5,029.82	1/2	4,673.74	1/2	4,315.66	1/2	3,956.76	1/2	3,597.87	1/2	3,238.98	1/2	2,880.03	1/2	2,520.95
3/4		3/4		3/4	5,022.47	3/4	4,666.28	3/4	4,308.18	3/4	3,949.29	3/4	3,590.40	3/4	3,231.50	3/4	2,872.55	3/4	2,513.47

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 01'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
<http://www.pmacorp.net>



XSM 3147 FORMERLY BARGE "HTCO 3147"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,505.99	0	2,146.90	0	1,787.82	0	1,428.74	0	1,069.71	0	711.04	0	351.96	0	13.46	0		0	
1/4	2,498.50	1/4	2,139.42	1/4	1,780.34	1/4	1,421.26	1/4	1,062.24	1/4	703.55	1/4	344.48	1/4	9.72	1/4		1/4	
1/2	2,491.02	1/2	2,131.94	1/2	1,772.86	1/2	1,413.77	1/2	1,054.77	1/2	696.07	1/2	337.00	1/2	7.85	1/2		1/2	
3/4	2,483.54	3/4	2,124.46	3/4	1,765.38	3/4	1,406.29	3/4	1,047.31	3/4	688.59	3/4	329.52	3/4	5.98	3/4		3/4	
1	2,476.06	1	2,116.98	1	1,757.90	1	1,398.81	1	1,039.84	1	681.11	1	322.04	1	4.11	1		1	
1/4	2,468.58	1/4	2,109.50	1/4	1,750.41	1/4	1,391.33	1/4	1,032.37	1/4	673.63	1/4	314.56	1/4	2.24	1/4		1/4	
1/2	2,461.10	1/2	2,102.02	1/2	1,742.93	1/2	1,383.85	1/2	1,024.90	1/2	666.15	1/2	307.08	1/2		1/2		1/2	
3/4	2,453.62	3/4	2,094.54	3/4	1,735.45	3/4	1,376.37	3/4	1,017.43	3/4	658.67	3/4	299.60	3/4		3/4		3/4	
2	2,446.14	2	2,087.06	2	1,727.97	2	1,368.89	2	1,009.97	2	651.19	2	292.12	2		2		2	
1/4	2,438.66	1/4	2,079.57	1/4	1,720.49	1/4	1,361.41	1/4	1,002.50	1/4	643.71	1/4	284.64	1/4		1/4		1/4	
1/2	2,431.18	1/2	2,072.09	1/2	1,713.01	1/2	1,353.93	1/2	995.03	1/2	636.23	1/2	277.15	1/2		1/2		1/2	
3/4	2,423.70	3/4	2,064.61	3/4	1,705.53	3/4	1,346.45	3/4	987.56	3/4	628.75	3/4	269.67	3/4		3/4		3/4	
3	2,416.21	3	2,057.13	3	1,698.05	3	1,338.97	3	980.09	3	621.27	3	262.19	3		3		3	
1/4	2,408.73	1/4	2,049.65	1/4	1,690.57	1/4	1,331.48	1/4	972.63	1/4	613.79	1/4	254.71	1/4		1/4		1/4	
1/2	2,401.25	1/2	2,042.17	1/2	1,683.09	1/2	1,324.00	1/2	965.16	1/2	606.31	1/2	247.23	1/2		1/2		1/2	
3/4	2,393.77	3/4	2,034.69	3/4	1,675.61	3/4	1,316.52	3/4	957.69	3/4	598.82	3/4	239.75	3/4		3/4		3/4	
4	2,386.29	4	2,027.21	4	1,668.12	4	1,309.04	4	950.22	4	591.34	4	232.27	4		4		4	
1/4	2,378.81	1/4	2,019.73	1/4	1,660.64	1/4	1,301.56	1/4	942.76	1/4	583.86	1/4	224.79	1/4		1/4		1/4	
1/2	2,371.33	1/2	2,012.25	1/2	1,653.16	1/2	1,294.08	1/2	935.29	1/2	576.38	1/2	217.31	1/2		1/2		1/2	
3/4	2,363.85	3/4	2,004.77	3/4	1,645.68	3/4	1,286.60	3/4	927.82	3/4	568.90	3/4	209.83	3/4		3/4		3/4	
5	2,356.37	5	1,997.28	5	1,638.20	5	1,279.12	5	920.35	5	561.42	5	202.35	5		5		5	
1/4	2,348.89	1/4	1,989.80	1/4	1,630.72	1/4	1,271.64	1/4	912.88	1/4	553.94	1/4	194.87	1/4		1/4		1/4	
1/2	2,341.41	1/2	1,982.32	1/2	1,623.24	1/2	1,264.16	1/2	905.42	1/2	546.46	1/2	187.39	1/2		1/2		1/2	
3/4	2,333.92	3/4	1,974.84	3/4	1,615.76	3/4	1,256.68	3/4	897.95	3/4	538.98	3/4	179.91	3/4		3/4		3/4	
6	2,326.44	6	1,967.36	6	1,608.28	6	1,249.19	6	890.48	6	531.50	6	172.42	6		6		6	
1/4	2,318.96	1/4	1,959.88	1/4	1,600.80	1/4	1,241.71	1/4	883.01	1/4	524.02	1/4	164.94	1/4		1/4		1/4	
1/2	2,311.48	1/2	1,952.40	1/2	1,593.32	1/2	1,234.23	1/2	875.54	1/2	516.54	1/2	157.46	1/2		1/2		1/2	
3/4	2,304.00	3/4	1,944.92	3/4	1,585.83	3/4	1,226.75	3/4	868.08	3/4	509.06	3/4	149.98	3/4		3/4		3/4	
7	2,296.52	7	1,937.44	7	1,578.35	7	1,219.27	7	860.61	7	501.58	7	142.50	7		7		7	
1/4	2,289.04	1/4	1,929.96	1/4	1,570.87	1/4	1,211.79	1/4	853.14	1/4	494.09	1/4	135.02	1/4		1/4		1/4	
1/2	2,281.56	1/2	1,922.48	1/2	1,563.39	1/2	1,204.31	1/2	845.67	1/2	486.61	1/2	127.54	1/2		1/2		1/2	
3/4	2,274.08	3/4	1,914.99	3/4	1,555.91	3/4	1,196.83	3/4	838.19	3/4	479.13	3/4	120.06	3/4		3/4		3/4	
8	2,266.60	8	1,907.51	8	1,548.43	8	1,189.35	8	830.72	8	471.65	8	112.58	8		8		8	
1/4	2,259.12	1/4	1,900.03	1/4	1,540.95	1/4	1,181.87	1/4	823.25	1/4	464.17	1/4	105.10	1/4		1/4		1/4	
1/2	2,251.64	1/2	1,892.55	1/2	1,533.47	1/2	1,174.39	1/2	815.76	1/2	456.69	1/2	97.62	1/2		1/2		1/2	
3/4	2,244.15	3/4	1,885.07	3/4	1,525.99	3/4	1,166.90	3/4	808.28	3/4	449.21	3/4	90.14	3/4		3/4		3/4	
9	2,236.67	9	1,877.59	9	1,518.51	9	1,159.42	9	800.80	9	441.73	9	82.66	9		9		9	
1/4	2,229.19	1/4	1,870.11	1/4	1,511.03	1/4	1,151.94	1/4	793.32	1/4	434.25	1/4	75.18	1/4		1/4		1/4	
1/2	2,221.71	1/2	1,862.63	1/2	1,503.55	1/2	1,144.46	1/2	785.84	1/2	426.77	1/2	68.16	1/2		1/2		1/2	
3/4	2,214.23	3/4	1,855.15	3/4	1,496.06	3/4	1,136.99	3/4	778.36	3/4	419.29	3/4	61.15	3/4		3/4		3/4	
10	2,206.75	10	1,847.67	10	1,488.58	10	1,129.51	10	770.88	10	411.81	10	54.14	10		10		10	
1/4	2,199.27	1/4	1,840.19	1/4	1,481.10	1/4	1,122.03	1/4	763.40	1/4	404.33	1/4	47.12	1/4		1/4		1/4	
1/2	2,191.79	1/2	1,832.70	1/2	1,473.62	1/2	1,114.56	1/2	755.92	1/2	396.85	1/2	41.51	1/2		1/2		1/2	
3/4	2,184.31	3/4	1,825.22	3/4	1,466.14	3/4	1,107.08	3/4	748.44	3/4	389.36	3/4	35.90	3/4		3/4		3/4	
11	2,176.83	11	1,817.74	11	1,458.66	11	1,099.60	11	740.96	11	381.88	11	30.29	11		11		11	
1/4	2,169.35	1/4	1,810.26	1/4	1,451.18	1/4	1,092.13	1/4	733.48	1/4	374.40	1/4	24.68	1/4		1/4		1/4	
1/2	2,161.86	1/2	1,802.78	1/2	1,443.70	1/2	1,084.66	1/2	726.00	1/2	366.92	1/2	20.94	1/2		1/2		1/2	
3/4	2,154.38	3/4	1,795.30	3/4	1,436.22	3/4	1,077.19	3/4	718.52	3/4	359.44	3/4	17.20	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 08/24/2015 CL
CALCULATED: 08/24/2015 CL
REPRINTED: 08/24/2018 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 08/2018

PRECISION MEASUREMENT
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HSM 3147 FORMERLY BARGE "HTCO 3147"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.		
0		0		0		0	4,534.51	0	4,289.38	0	4,042.98	0	3,796.06	0	3,541.74	0	3,186.94	0	2,830.81		
1/4		1/4		1/4		1/4	4,529.47	1/4	4,284.25	1/4	4,037.83	1/4	3,790.92	1/4	3,534.89	1/4	3,179.52	1/4	2,823.38		
1/2		1/2		1/2		1/2	4,524.37	1/2	4,279.12	1/2	4,032.69	1/2	3,785.78	1/2	3,527.48	1/2	3,172.10	1/2	2,815.96		
3/4		3/4		3/4		3/4	4,519.26	3/4	4,273.99	3/4	4,027.54	3/4	3,780.63	3/4	3,520.07	3/4	3,164.68	3/4	2,808.54		
1		1		1		1	4,514.16	1	4,268.86	1	4,022.40	1	3,775.49	1	3,512.66	1	3,157.26	1	2,801.12		
1/4		1/4		1/4		1/4	4,509.05	1/4	4,263.73	1/4	4,017.26	1/4	3,770.34	1/4	3,505.25	1/4	3,149.84	1/4	2,793.70		
1/2		1/2		1/2		1/2	4,503.95	1/2	4,258.60	1/2	4,012.11	1/2	3,765.20	1/2	3,497.85	1/2	3,142.43	1/2	2,786.28		
3/4		3/4		3/4		3/4	4,498.84	3/4	4,253.48	3/4	4,006.97	3/4	3,760.06	3/4	3,490.44	3/4	3,135.01	3/4	2,778.86		
2		2		2		2	4,493.74	2	4,248.35	2	4,001.82	2	3,754.91	2	3,483.04	2	3,127.59	2	2,771.44		
1/4		1/4		1/4		1/4	4,488.63	1/4	4,243.22	1/4	3,996.68	1/4	3,749.77	1/4	3,475.64	1/4	3,120.17	1/4	2,764.01		
1/2		1/2		1/2		1/2	4,483.53	1/2	4,238.09	1/2	3,991.54	1/2	3,744.62	1/2	3,468.24	1/2	3,112.75	1/2	2,756.59		
3/4		3/4		3/4		3/4	4,478.42	3/4	4,232.96	3/4	3,986.39	3/4	3,739.48	3/4	3,460.84	3/4	3,105.33	3/4	2,749.17		
3		3		3		3	4,473.32	3	4,227.83	3	3,981.25	3	3,734.34	3	3,453.44	3	3,097.91	3	2,741.75		
1/4		1/4		1/4		1/4	4,468.21	1/4	4,222.70	1/4	3,976.10	1/4	3,729.19	1/4	3,446.04	1/4	3,090.50	1/4	2,734.33		
1/2		1/2		1/2		1/2	4,463.11	1/2	4,217.57	1/2	3,970.96	1/2	3,724.05	1/2	3,438.65	1/2	3,083.08	1/2	2,726.91		
3/4		3/4		3/4		3/4	4,458.00	3/4	4,212.44	3/4	3,965.82	3/4	3,718.90	3/4	3,431.25	3/4	3,075.66	3/4	2,719.49		
4		4		4		4	4,452.90	4	4,207.31	4	3,960.67	4	3,713.76	4	3,423.85	4	3,068.24	4	2,712.07		
1/4		1/4		1/4		1/4	4,447.80	1/4	4,202.18	1/4	3,955.53	1/4	3,708.62	1/4	3,416.45	1/4	3,060.82	1/4	2,704.64		
1/2		1/2		1/2		1/2	4,442.70	1/2	4,197.05	1/2	3,950.38	1/2	3,703.47	1/2	3,409.06	1/2	3,053.40	1/2	2,697.22		
3/4		3/4		3/4		3/4	4,437.59	3/4	4,191.92	3/4	3,945.24	3/4	3,698.33	3/4	3,401.66	3/4	3,045.98	3/4	2,689.80		
5		5		5		5	4,432.49	5	4,186.79	5	3,940.10	5	3,693.18	5	3,394.26	5	3,038.57	5	2,682.38		
1/4		1/4		1/4		1/4	4,601.92	1/4	4,427.39	1/4	4,181.66	1/4	3,934.95	1/4	3,688.04	1/4	3,386.86	1/4	3,031.15	1/4	2,674.96
1/2		1/2		1/2		1/2	4,601.59	1/2	4,422.29	1/2	4,176.53	1/2	3,929.81	1/2	3,682.90	1/2	3,379.46	1/2	3,023.73	1/2	2,667.54
3/4		3/4		3/4		3/4	4,601.26	3/4	4,417.18	3/4	4,171.40	3/4	3,924.66	3/4	3,677.75	3/4	3,372.07	3/4	3,016.31	3/4	2,660.12
6		6		6		6	4,600.55	6	4,412.08	6	4,166.27	6	3,919.52	6	3,672.61	6	3,364.67	6	3,008.89	6	2,652.70
1/4		1/4		1/4		1/4	4,599.84	1/4	4,406.98	1/4	4,161.14	1/4	3,914.38	1/4	3,667.46	1/4	3,357.27	1/4	3,001.47	1/4	2,645.28
1/2		1/2		1/2		1/2	4,599.13	1/2	4,401.88	1/2	4,156.01	1/2	3,909.23	1/2	3,662.32	1/2	3,349.87	1/2	2,994.06	1/2	2,637.85
3/4		3/4		3/4		3/4	4,598.42	3/4	4,396.78	3/4	4,150.89	3/4	3,904.09	3/4	3,657.18	3/4	3,342.48	3/4	2,986.64	3/4	2,630.43
7		7		7		7	4,597.71	7	4,391.67	7	4,145.76	7	3,898.94	7	3,652.03	7	3,335.08	7	2,979.22	7	2,623.01
1/4		1/4		1/4		1/4	4,597.00	1/4	4,386.57	1/4	4,140.63	1/4	3,893.80	1/4	3,646.89	1/4	3,327.68	1/4	2,971.80	1/4	2,615.59
1/2		1/2		1/2		1/2	4,595.62	1/2	4,381.47	1/2	4,135.50	1/2	3,888.66	1/2	3,641.74	1/2	3,320.28	1/2	2,964.38	1/2	2,608.17
3/4		3/4		3/4		3/4	4,594.24	3/4	4,376.37	3/4	4,130.37	3/4	3,883.51	3/4	3,636.60	3/4	3,312.88	3/4	2,956.96	3/4	2,600.74
8		8		8		8	4,592.86	8	4,371.26	8	4,125.24	8	3,878.37	8	3,631.46	8	3,305.49	8	2,949.54	8	2,593.32
1/4		1/4		1/4		1/4	4,591.47	1/4	4,366.16	1/4	4,120.11	1/4	3,873.22	1/4	3,626.31	1/4	3,298.09	1/4	2,942.12	1/4	2,585.89
1/2		1/2		1/2		1/2	4,589.03	1/2	4,361.06	1/2	4,114.97	1/2	3,868.08	1/2	3,621.17	1/2	3,290.69	1/2	2,934.70	1/2	2,578.46
3/4		3/4		3/4		3/4	4,586.58	3/4	4,355.96	3/4	4,109.83	3/4	3,862.94	3/4	3,616.02	3/4	3,283.29	3/4	2,927.28	3/4	2,571.03
9		9		9		9	4,584.14	9	4,350.86	9	4,104.70	9	3,857.79	9	3,610.88	9	3,275.90	9	2,919.86	9	2,563.61
1/4		1/4		1/4		1/4	4,581.69	1/4	4,345.75	1/4	4,099.56	1/4	3,852.65	1/4	3,605.74	1/4	3,268.50	1/4	2,912.44	1/4	2,556.18
1/2		1/2		1/2		1/2	4,578.18	1/2	4,340.64	1/2	4,094.42	1/2	3,847.50	1/2	3,600.59	1/2	3,261.09	1/2	2,905.02	1/2	2,548.75
3/4		3/4		3/4		3/4	4,574.67	3/4	4,335.52	3/4	4,089.27	3/4	3,842.36	3/4	3,595.45	3/4	3,253.68	3/4	2,897.60	3/4	2,541.32
10		10		10		10	4,571.16	10	4,330.40	10	4,084.13	10	3,837.22	10	3,590.30	10	3,246.27	10	2,890.18	10	2,533.89
1/4		1/4		1/4		1/4	4,567.65	1/4	4,325.29	1/4	4,078.98	1/4	3,832.07	1/4	3,585.16	1/4	3,238.87	1/4	2,882.75	1/4	2,526.46
1/2		1/2		1/2		1/2	4,563.14	1/2	4,320.16	1/2	4,073.84	1/2	3,826.93	1/2	3,579.44	1/2	3,231.45	1/2	2,875.33	1/2	2,519.04
3/4		3/4		3/4		3/4	4,558.64	3/4	4,315.03	3/4	4,068.70	3/4	3,821.78	3/4	3,573.72	3/4	3,224.03	3/4	2,867.91	3/4	2,511.61
11		11		11		11	4,554.13	11	4,309.90	11	4,063.55	11	3,816.64	11	3,568.01	11	3,216.61	11	2,860.49	11	2,504.18
1/4		1/4		1/4		1/4	4,549.62	1/4	4,304.77	1/4	4,058.41	1/4	3,811.50	1/4	3,562.29	1/4	3,209.19	1/4	2,853.07	1/4	2,496.75
1/2		1/2		1/2		1/2	4,544.59	1/2	4,299.64	1/2	4,053.26	1/2	3,806.35	1/2	3,555.44	1/2	3,201.77	1/2	2,845.65	1/2	2,489.34
3/4		3/4		3/4		3/4	4,539.55	3/4	4,294.51	3/4	4,048.12	3/4	3,801.21	3/4	3,548.59	3/4	3,194.35	3/4	2,838.23	3/4	2,481.93

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 84'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
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Pearland, Texas 77588
<http://www.pmacorp.net>



HSM 3147 FORMERLY BARGE "HTCO 3147"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,474.52	0	2,120.20	0	1,765.58	0	1,409.01	0	1,056.13	0	706.61	0	349.86	0	13.40	0		0	
1/4	2,467.11	1/4	2,112.83	1/4	1,758.15	1/4	1,401.58	1/4	1,048.93	1/4	699.18	1/4	342.43	1/4	9.67	1/4		1/4	
1/2	2,459.72	1/2	2,105.46	1/2	1,750.72	1/2	1,394.15	1/2	1,041.73	1/2	691.74	1/2	335.00	1/2	7.81	1/2		1/2	
3/4	2,452.33	3/4	2,098.10	3/4	1,743.29	3/4	1,386.72	3/4	1,034.53	3/4	684.31	3/4	327.57	3/4	5.95	3/4		3/4	
1	2,444.94	1	2,090.73	1	1,735.86	1	1,379.30	1	1,027.33	1	676.88	1	320.14	1	4.09	1		1	
1/4	2,437.55	1/4	2,083.37	1/4	1,728.44	1/4	1,371.87	1/4	1,020.13	1/4	669.45	1/4	312.71	1/4	2.23	1/4		1/4	
1/2	2,430.16	1/2	2,076.00	1/2	1,721.01	1/2	1,364.44	1/2	1,012.94	1/2	662.01	1/2	305.27	1/2		1/2		1/2	
3/4	2,422.77	3/4	2,068.64	3/4	1,713.58	3/4	1,357.01	3/4	1,005.74	3/4	654.58	3/4	297.84	3/4		3/4		3/4	
2	2,415.38	2	2,061.27	2	1,706.15	2	1,349.58	2	998.54	2	647.15	2	290.41	2		2		2	
1/4	2,407.99	1/4	2,053.91	1/4	1,698.72	1/4	1,342.15	1/4	991.34	1/4	639.71	1/4	282.98	1/4		1/4		1/4	
1/2	2,400.60	1/2	2,046.54	1/2	1,691.29	1/2	1,334.72	1/2	984.14	1/2	632.28	1/2	275.55	1/2		1/2		1/2	
3/4	2,393.21	3/4	2,039.17	3/4	1,683.86	3/4	1,327.30	3/4	976.94	3/4	624.85	3/4	268.12	3/4		3/4		3/4	
3	2,385.82	3	2,031.81	3	1,676.44	3	1,319.87	3	969.74	3	617.42	3	260.69	3		3		3	
1/4	2,378.43	1/4	2,024.44	1/4	1,669.01	1/4	1,312.44	1/4	962.54	1/4	609.98	1/4	253.25	1/4		1/4		1/4	
1/2	2,371.04	1/2	2,017.08	1/2	1,661.58	1/2	1,305.01	1/2	955.34	1/2	602.55	1/2	245.82	1/2		1/2		1/2	
3/4	2,363.65	3/4	2,009.71	3/4	1,654.15	3/4	1,297.58	3/4	948.15	3/4	595.12	3/4	238.39	3/4		3/4		3/4	
4	2,356.26	4	2,002.35	4	1,646.72	4	1,290.15	4	940.95	4	587.69	4	230.96	4		4		4	
1/4	2,348.87	1/4	1,994.98	1/4	1,639.29	1/4	1,282.73	1/4	933.75	1/4	580.25	1/4	223.53	1/4		1/4		1/4	
1/2	2,341.48	1/2	1,987.61	1/2	1,631.86	1/2	1,275.30	1/2	926.55	1/2	572.82	1/2	216.09	1/2		1/2		1/2	
3/4	2,334.09	3/4	1,980.25	3/4	1,624.44	3/4	1,267.87	3/4	919.35	3/4	565.39	3/4	208.66	3/4		3/4		3/4	
5	2,326.70	5	1,972.88	5	1,617.01	5	1,260.44	5	912.15	5	557.95	5	201.23	5		5		5	
1/4	2,319.31	1/4	1,965.52	1/4	1,609.58	1/4	1,253.01	1/4	904.95	1/4	550.52	1/4	193.80	1/4		1/4		1/4	
1/2	2,311.92	1/2	1,958.15	1/2	1,602.15	1/2	1,245.58	1/2	897.75	1/2	543.09	1/2	186.36	1/2		1/2		1/2	
3/4	2,304.53	3/4	1,950.79	3/4	1,594.72	3/4	1,238.15	3/4	890.55	3/4	535.66	3/4	178.93	3/4		3/4		3/4	
6	2,297.14	6	1,943.42	6	1,587.29	6	1,230.73	6	883.36	6	528.22	6	171.50	6		6		6	
1/4	2,289.75	1/4	1,936.06	1/4	1,579.87	1/4	1,223.30	1/4	876.16	1/4	520.79	1/4	164.06	1/4		1/4		1/4	
1/2	2,282.36	1/2	1,928.69	1/2	1,572.44	1/2	1,215.87	1/2	868.96	1/2	513.36	1/2	156.63	1/2		1/2		1/2	
3/4	2,274.97	3/4	1,921.32	3/4	1,565.01	3/4	1,208.44	3/4	861.76	3/4	505.93	3/4	149.20	3/4		3/4		3/4	
7	2,267.58	7	1,913.96	7	1,557.58	7	1,201.01	7	854.56	7	498.49	7	141.76	7		7		7	
1/4	2,260.19	1/4	1,906.59	1/4	1,550.15	1/4	1,193.58	1/4	847.36	1/4	491.06	1/4	134.33	1/4		1/4		1/4	
1/2	2,252.81	1/2	1,899.20	1/2	1,542.72	1/2	1,186.26	1/2	840.05	1/2	483.63	1/2	126.89	1/2		1/2		1/2	
3/4	2,245.44	3/4	1,891.80	3/4	1,535.29	3/4	1,178.94	3/4	832.73	3/4	476.20	3/4	119.45	3/4		3/4		3/4	
8	2,238.06	8	1,884.40	8	1,527.87	8	1,171.61	8	825.41	8	468.77	8	112.02	8		8		8	
1/4	2,230.68	1/4	1,877.01	1/4	1,520.44	1/4	1,164.29	1/4	818.10	1/4	461.33	1/4	104.58	1/4		1/4		1/4	
1/2	2,223.31	1/2	1,869.58	1/2	1,513.01	1/2	1,157.07	1/2	810.67	1/2	453.90	1/2	97.14	1/2		1/2		1/2	
3/4	2,215.95	3/4	1,862.15	3/4	1,505.58	3/4	1,149.85	3/4	803.23	3/4	446.47	3/4	89.70	3/4		3/4		3/4	
9	2,208.58	9	1,854.72	9	1,498.15	9	1,142.63	9	795.80	9	439.04	9	82.25	9		9		9	
1/4	2,201.22	1/4	1,847.29	1/4	1,490.72	1/4	1,135.42	1/4	788.37	1/4	431.61	1/4	74.81	1/4		1/4		1/4	
1/2	2,193.85	1/2	1,839.86	1/2	1,483.29	1/2	1,128.20	1/2	780.94	1/2	424.18	1/2	67.83	1/2		1/2		1/2	
3/4	2,186.49	3/4	1,832.43	3/4	1,475.87	3/4	1,120.99	3/4	773.50	3/4	416.75	3/4	60.85	3/4		3/4		3/4	
10	2,179.12	10	1,825.01	10	1,468.44	10	1,113.78	10	766.07	10	409.31	10	53.88	10		10		10	
1/4	2,171.75	1/4	1,817.58	1/4	1,461.01	1/4	1,106.57	1/4	758.64	1/4	401.88	1/4	46.90	1/4		1/4		1/4	
1/2	2,164.39	1/2	1,810.15	1/2	1,453.58	1/2	1,099.36	1/2	751.21	1/2	394.45	1/2	41.31	1/2		1/2		1/2	
3/4	2,157.02	3/4	1,802.72	3/4	1,446.15	3/4	1,092.15	3/4	743.77	3/4	387.02	3/4	35.73	3/4		3/4		3/4	
11	2,149.66	11	1,795.29	11	1,438.72	11	1,084.95	11	736.34	11	379.59	11	30.15	11		11		11	
1/4	2,142.29	1/4	1,787.86	1/4	1,431.30	1/4	1,077.74	1/4	728.91	1/4	372.16	1/4	24.56	1/4		1/4		1/4	
1/2	2,134.93	1/2	1,780.43	1/2	1,423.87	1/2	1,070.54	1/2	721.47	1/2	364.73	1/2	20.84	1/2		1/2		1/2	
3/4	2,127.56	3/4	1,773.01	3/4	1,416.44	3/4	1,063.34	3/4	714.04	3/4	357.29	3/4	17.12	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 08/24/2015 CL
CALCULATED: 08/24/2015 CL
REPRINTED: 08/24/2018 SW

CANCELS AND SUPERCEDES
ALL PRIOR TO 08/2018

PRECISION MEASUREMENT
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HSM 3147 FORMERLY BARGE "HTCO 3147"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	0 FT.	IN	1 FT.	IN	2 FT.	IN	3 FT.	IN	4 FT.	IN	5 FT.	IN	6 FT.	IN	7 FT.	IN	8 FT.	IN	9 FT.		
0		0		0		0	4,559.09	0	4,313.75	0	4,067.12	0	3,820.00	0	3,565.45	0	3,209.73	0	2,852.60		
1/4		1/4		1/4		1/4	4,554.05	1/4	4,308.62	1/4	4,061.97	1/4	3,814.85	1/4	3,558.59	1/4	3,202.29	1/4	2,845.16		
1/2		1/2		1/2		1/2	4,548.94	1/2	4,303.48	1/2	4,056.83	1/2	3,809.70	1/2	3,551.17	1/2	3,194.85	1/2	2,837.72		
3/4		3/4		3/4		3/4	4,543.83	3/4	4,298.35	3/4	4,051.68	3/4	3,804.55	3/4	3,543.75	3/4	3,187.41	3/4	2,830.28		
1		1		1		1	4,538.72	1	4,293.21	1	4,046.53	1	3,799.40	1	3,536.33	1	3,179.97	1	2,822.83		
1/4		1/4		1/4		1/4	4,533.61	1/4	4,288.08	1/4	4,041.38	1/4	3,794.25	1/4	3,528.92	1/4	3,172.54	1/4	2,815.39		
1/2		1/2		1/2		1/2	4,528.50	1/2	4,282.95	1/2	4,036.23	1/2	3,789.10	1/2	3,521.50	1/2	3,165.10	1/2	2,807.95		
3/4		3/4		3/4		3/4	4,523.39	3/4	4,277.81	3/4	4,031.08	3/4	3,783.96	3/4	3,514.08	3/4	3,157.66	3/4	2,800.51		
2		2		2		2	4,518.28	2	4,272.68	2	4,025.94	2	3,778.81	2	3,506.66	2	3,150.22	2	2,793.07		
1/4		1/4		1/4		1/4	4,513.17	1/4	4,267.54	1/4	4,020.79	1/4	3,773.66	1/4	3,499.24	1/4	3,142.78	1/4	2,785.62		
1/2		1/2		1/2		1/2	4,508.07	1/2	4,262.41	1/2	4,015.64	1/2	3,768.51	1/2	3,491.82	1/2	3,135.34	1/2	2,778.18		
3/4		3/4		3/4		3/4	4,502.96	3/4	4,257.28	3/4	4,010.49	3/4	3,763.36	3/4	3,484.40	3/4	3,127.90	3/4	2,770.74		
3		3		3		3	4,497.85	3	4,252.14	3	4,005.34	3	3,758.21	3	3,476.99	3	3,120.46	3	2,763.30		
1/4		1/4		1/4		1/4	4,492.74	1/4	4,247.01	1/4	4,000.19	1/4	3,753.06	1/4	3,469.57	1/4	3,113.02	1/4	2,755.86		
1/2		1/2		1/2		1/2	4,487.63	1/2	4,241.87	1/2	3,995.04	1/2	3,747.92	1/2	3,462.15	1/2	3,105.58	1/2	2,748.41		
3/4		3/4		3/4		3/4	4,482.52	3/4	4,236.74	3/4	3,989.90	3/4	3,742.77	3/4	3,454.73	3/4	3,098.14	3/4	2,740.97		
4		4		4		4	4,477.41	4	4,231.61	4	3,984.75	4	3,737.62	4	3,447.31	4	3,090.70	4	2,733.53		
1/4		1/4		1/4		1/4	4,472.30	1/4	4,226.47	1/4	3,979.60	1/4	3,732.47	1/4	3,439.89	1/4	3,083.26	1/4	2,726.09		
1/2		1/2		1/2		1/2	4,467.20	1/2	4,221.34	1/2	3,974.45	1/2	3,727.32	1/2	3,432.47	1/2	3,075.82	1/2	2,718.65		
3/4		3/4		3/4		3/4	4,462.09	3/4	4,216.20	3/4	3,969.30	3/4	3,722.17	3/4	3,425.06	3/4	3,068.39	3/4	2,711.20		
5		5		5		5	4,456.98	5	4,211.07	5	3,964.15	5	3,717.03	5	3,417.64	5	3,060.95	5	2,703.76		
1/4		1/4		1/4		1/4	4,626.53	1/4	4,451.88	1/4	4,205.94	1/4	3,959.00	1/4	3,711.88	1/4	3,410.22	1/4	3,053.51	1/4	2,696.32
1/2		1/2		1/2		1/2	4,626.22	1/2	4,446.77	1/2	4,200.80	1/2	3,953.86	1/2	3,706.73	1/2	3,402.80	1/2	3,046.07	1/2	2,688.88
3/4		3/4		3/4		3/4	4,625.91	3/4	4,441.66	3/4	4,195.67	3/4	3,948.71	3/4	3,701.58	3/4	3,395.38	3/4	3,038.63	3/4	2,681.44
6		6		6		6	4,625.20	6	4,436.56	6	4,190.53	6	3,943.56	6	3,696.43	6	3,387.96	6	3,031.19	6	2,673.99
1/4		1/4		1/4		1/4	4,624.49	1/4	4,431.45	1/4	4,185.40	1/4	3,938.41	1/4	3,691.28	1/4	3,380.54	1/4	3,023.75	1/4	2,666.55
1/2		1/2		1/2		1/2	4,623.78	1/2	4,426.34	1/2	4,180.26	1/2	3,933.26	1/2	3,686.13	1/2	3,373.13	1/2	3,016.31	1/2	2,659.11
3/4		3/4		3/4		3/4	4,623.08	3/4	4,421.24	3/4	4,175.13	3/4	3,928.11	3/4	3,680.99	3/4	3,365.71	3/4	3,008.87	3/4	2,651.67
7		7		7		7	4,622.37	7	4,416.13	7	4,170.00	7	3,922.97	7	3,675.84	7	3,358.29	7	3,001.43	7	2,644.23
1/4		1/4		1/4		1/4	4,621.66	1/4	4,411.02	1/4	4,164.86	1/4	3,917.82	1/4	3,670.69	1/4	3,350.87	1/4	2,993.99	1/4	2,636.78
1/2		1/2		1/2		1/2	4,620.27	1/2	4,405.92	1/2	4,159.73	1/2	3,912.67	1/2	3,665.54	1/2	3,343.45	1/2	2,986.55	1/2	2,629.34
3/4		3/4		3/4		3/4	4,618.89	3/4	4,400.81	3/4	4,154.59	3/4	3,907.52	3/4	3,660.39	3/4	3,336.03	3/4	2,979.11	3/4	2,621.89
8		8		8		8	4,617.50	8	4,395.70	8	4,149.46	8	3,902.37	8	3,655.24	8	3,328.61	8	2,971.67	8	2,614.44
1/4		1/4		1/4		1/4	4,616.12	1/4	4,390.60	1/4	4,144.33	1/4	3,897.22	1/4	3,650.09	1/4	3,321.20	1/4	2,964.23	1/4	2,606.99
1/2		1/2		1/2		1/2	4,613.67	1/2	4,385.49	1/2	4,139.18	1/2	3,892.07	1/2	3,644.95	1/2	3,313.78	1/2	2,956.79	1/2	2,599.54
3/4		3/4		3/4		3/4	4,611.22	3/4	4,380.38	3/4	4,134.04	3/4	3,886.93	3/4	3,639.80	3/4	3,306.36	3/4	2,949.35	3/4	2,592.09
9		9		9		9	4,608.77	9	4,375.28	9	4,128.90	9	3,881.78	9	3,634.65	9	3,298.94	9	2,941.91	9	2,584.64
1/4		1/4		1/4		1/4	4,606.32	1/4	4,370.17	1/4	4,123.76	1/4	3,876.63	1/4	3,629.50	1/4	3,291.52	1/4	2,934.46	1/4	2,577.19
1/2		1/2		1/2		1/2	4,602.81	1/2	4,365.05	1/2	4,118.61	1/2	3,871.48	1/2	3,624.35	1/2	3,284.09	1/2	2,927.02	1/2	2,569.74
3/4		3/4		3/4		3/4	4,599.30	3/4	4,359.93	3/4	4,113.46	3/4	3,866.33	3/4	3,619.20	3/4	3,276.66	3/4	2,919.58	3/4	2,562.29
10		10		10		10	4,595.78	10	4,354.81	10	4,108.31	10	3,861.18	10	3,614.06	10	3,269.24	10	2,912.14	10	2,554.84
1/4		1/4		1/4		1/4	4,592.27	1/4	4,349.69	1/4	4,103.16	1/4	3,856.03	1/4	3,608.91	1/4	3,261.81	1/4	2,904.70	1/4	2,547.39
1/2		1/2		1/2		1/2	4,587.76	1/2	4,344.56	1/2	4,098.01	1/2	3,850.89	1/2	3,603.18	1/2	3,254.37	1/2	2,897.25	1/2	2,539.95
3/4		3/4		3/4		3/4	4,583.25	3/4	4,339.42	3/4	4,092.87	3/4	3,845.74	3/4	3,597.46	3/4	3,246.93	3/4	2,889.81	3/4	2,532.50
11		11		11		11	4,578.73	11	4,334.29	11	4,087.72	11	3,840.59	11	3,591.74	11	3,239.49	11	2,882.37	11	2,525.05
1/4		1/4		1/4		1/4	4,574.22	1/4	4,329.15	1/4	4,082.57	1/4	3,835.44	1/4	3,586.02	1/4	3,232.05	1/4	2,874.93	1/4	2,517.60
1/2		1/2		1/2		1/2	4,569.18	1/2	4,324.02	1/2	4,077.42	1/2	3,830.29	1/2	3,579.16	1/2	3,224.61	1/2	2,867.49	1/2	2,510.15
3/4		3/4		3/4		3/4	4,564.14	3/4	4,318.89	3/4	4,072.27	3/4	3,825.14	3/4	3,572.30	3/4	3,217.17	3/4	2,860.04	3/4	2,502.70

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES TAKEN ON EXPANSION DOME.
GAUGE POINT: (HERMETIC) LOCATED 03'-00" OFF CENTERLINE AND 84'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
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Pearland, Texas 77588
<http://www.pmacorp.net>



HSM 3147 FORMERLY BARGE "HTCO 3147"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 17'-01 1/4"

IN	10 FT.	IN	11 FT.	IN	12 FT.	IN	13 FT.	IN	14 FT.	IN	15 FT.	IN	16 FT.	IN	17 FT.	IN	18 FT.	IN	19 FT.
0	2,495.25	0	2,137.69	0	1,780.14	0	1,422.58	0	1,065.11	0	708.02	0	350.47	0	13.40	0		0	
1/4	2,487.80	1/4	2,130.25	1/4	1,772.69	1/4	1,415.13	1/4	1,057.67	1/4	700.57	1/4	343.02	1/4	9.68	1/4		1/4	
1/2	2,480.35	1/2	2,122.80	1/2	1,765.24	1/2	1,407.68	1/2	1,050.24	1/2	693.12	1/2	335.57	1/2	7.82	1/2		1/2	
3/4	2,472.90	3/4	2,115.35	3/4	1,757.79	3/4	1,400.23	3/4	1,042.80	3/4	685.68	3/4	328.12	3/4	5.96	3/4		3/4	
1	2,465.45	1	2,107.90	1	1,750.34	1	1,392.78	1	1,035.37	1	678.23	1	320.67	1	4.09	1		1	
1/4	2,458.01	1/4	2,100.45	1/4	1,742.89	1/4	1,385.34	1/4	1,027.93	1/4	670.78	1/4	313.23	1/4	2.23	1/4		1/4	
1/2	2,450.56	1/2	2,093.00	1/2	1,735.44	1/2	1,377.89	1/2	1,020.50	1/2	663.33	1/2	305.78	1/2		1/2		1/2	
3/4	2,443.11	3/4	2,085.55	3/4	1,727.99	3/4	1,370.44	3/4	1,013.07	3/4	655.88	3/4	298.33	3/4		3/4		3/4	
2	2,435.66	2	2,078.10	2	1,720.54	2	1,362.99	2	1,005.63	2	648.43	2	290.88	2		2		2	
1/4	2,428.21	1/4	2,070.65	1/4	1,713.10	1/4	1,355.54	1/4	998.20	1/4	640.98	1/4	283.43	1/4		1/4		1/4	
1/2	2,420.76	1/2	2,063.20	1/2	1,705.65	1/2	1,348.09	1/2	990.76	1/2	633.53	1/2	275.98	1/2		1/2		1/2	
3/4	2,413.31	3/4	2,055.75	3/4	1,698.20	3/4	1,340.64	3/4	983.33	3/4	626.08	3/4	268.53	3/4		3/4		3/4	
3	2,405.86	3	2,048.31	3	1,690.75	3	1,333.19	3	975.90	3	618.63	3	261.08	3		3		3	
1/4	2,398.41	1/4	2,040.86	1/4	1,683.30	1/4	1,325.74	1/4	968.46	1/4	611.19	1/4	253.63	1/4		1/4		1/4	
1/2	2,390.96	1/2	2,033.41	1/2	1,675.85	1/2	1,318.29	1/2	961.03	1/2	603.74	1/2	246.18	1/2		1/2		1/2	
3/4	2,383.51	3/4	2,025.96	3/4	1,668.40	3/4	1,310.84	3/4	953.59	3/4	596.29	3/4	238.74	3/4		3/4		3/4	
4	2,376.07	4	2,018.51	4	1,660.95	4	1,303.40	4	946.16	4	588.84	4	231.29	4		4		4	
1/4	2,368.62	1/4	2,011.06	1/4	1,653.50	1/4	1,295.95	1/4	938.73	1/4	581.39	1/4	223.84	1/4		1/4		1/4	
1/2	2,361.17	1/2	2,003.61	1/2	1,646.05	1/2	1,288.50	1/2	931.29	1/2	573.94	1/2	216.39	1/2		1/2		1/2	
3/4	2,353.72	3/4	1,996.16	3/4	1,638.60	3/4	1,281.05	3/4	923.86	3/4	566.49	3/4	208.94	3/4		3/4		3/4	
5	2,346.27	5	1,988.71	5	1,631.16	5	1,273.60	5	916.42	5	559.04	5	201.49	5		5		5	
1/4	2,338.82	1/4	1,981.26	1/4	1,623.71	1/4	1,266.15	1/4	908.99	1/4	551.59	1/4	194.04	1/4		1/4		1/4	
1/2	2,331.37	1/2	1,973.81	1/2	1,616.26	1/2	1,258.70	1/2	901.56	1/2	544.14	1/2	186.59	1/2		1/2		1/2	
3/4	2,323.92	3/4	1,966.37	3/4	1,608.81	3/4	1,251.25	3/4	894.12	3/4	536.70	3/4	179.14	3/4		3/4		3/4	
6	2,316.47	6	1,958.92	6	1,601.36	6	1,243.80	6	886.69	6	529.25	6	171.69	6		6		6	
1/4	2,309.02	1/4	1,951.47	1/4	1,593.91	1/4	1,236.35	1/4	879.25	1/4	521.80	1/4	164.25	1/4		1/4		1/4	
1/2	2,301.57	1/2	1,944.02	1/2	1,586.46	1/2	1,228.90	1/2	871.82	1/2	514.35	1/2	156.80	1/2		1/2		1/2	
3/4	2,294.13	3/4	1,936.57	3/4	1,579.01	3/4	1,221.46	3/4	864.39	3/4	506.90	3/4	149.35	3/4		3/4		3/4	
7	2,286.68	7	1,929.12	7	1,571.56	7	1,214.01	7	856.95	7	499.45	7	141.90	7		7		7	
1/4	2,279.23	1/4	1,921.67	1/4	1,564.11	1/4	1,206.56	1/4	849.52	1/4	492.00	1/4	134.45	1/4		1/4		1/4	
1/2	2,271.78	1/2	1,914.22	1/2	1,556.66	1/2	1,199.11	1/2	842.08	1/2	484.55	1/2	127.00	1/2		1/2		1/2	
3/4	2,264.33	3/4	1,906.77	3/4	1,549.22	3/4	1,191.66	3/4	834.64	3/4	477.10	3/4	119.55	3/4		3/4		3/4	
8	2,256.88	8	1,899.32	8	1,541.77	8	1,184.21	8	827.20	8	469.65	8	112.10	8		8		8	
1/4	2,249.43	1/4	1,891.87	1/4	1,534.32	1/4	1,176.76	1/4	819.76	1/4	462.21	1/4	104.65	1/4		1/4		1/4	
1/2	2,241.98	1/2	1,884.42	1/2	1,526.87	1/2	1,169.31	1/2	812.31	1/2	454.76	1/2	97.20	1/2		1/2		1/2	
3/4	2,234.53	3/4	1,876.98	3/4	1,519.42	3/4	1,161.86	3/4	804.86	3/4	447.31	3/4	89.76	3/4		3/4		3/4	
9	2,227.08	9	1,869.53	9	1,511.97	9	1,154.41	9	797.41	9	439.86	9	82.31	9		9		9	
1/4	2,219.63	1/4	1,862.08	1/4	1,504.52	1/4	1,146.96	1/4	789.96	1/4	432.41	1/4	74.86	1/4		1/4		1/4	
1/2	2,212.19	1/2	1,854.63	1/2	1,497.07	1/2	1,139.52	1/2	782.51	1/2	424.96	1/2	67.87	1/2		1/2		1/2	
3/4	2,204.74	3/4	1,847.18	3/4	1,489.62	3/4	1,132.07	3/4	775.06	3/4	417.51	3/4	60.89	3/4		3/4		3/4	
10	2,197.29	10	1,839.73	10	1,482.17	10	1,124.63	10	767.61	10	410.06	10	53.91	10		10		10	
1/4	2,189.84	1/4	1,832.28	1/4	1,474.72	1/4	1,117.18	1/4	760.17	1/4	402.61	1/4	46.92	1/4		1/4		1/4	
1/2	2,182.39	1/2	1,824.83	1/2	1,467.28	1/2	1,109.74	1/2	752.72	1/2	395.16	1/2	41.34	1/2		1/2		1/2	
3/4	2,174.94	3/4	1,817.38	3/4	1,459.83	3/4	1,102.30	3/4	745.27	3/4	387.72	3/4	35.75	3/4		3/4		3/4	
11	2,167.49	11	1,809.93	11	1,452.38	11	1,094.86	11	737.82	11	380.27	11	30.16	11		11		11	
1/4	2,160.04	1/4	1,802.48	1/4	1,444.93	1/4	1,087.42	1/4	730.37	1/4	372.82	1/4	24.58	1/4		1/4		1/4	
1/2	2,152.59	1/2	1,795.04	1/2	1,437.48	1/2	1,079.98	1/2	722.92	1/2	365.37	1/2	20.85	1/2		1/2		1/2	
3/4	2,145.14	3/4	1,787.59	3/4	1,430.03	3/4	1,072.54	3/4	715.47	3/4	357.92	3/4	17.13	3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

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ALL PRIOR TO 08/2018

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