



# BARGE "HFL 415"

## ULLAGE TRIM TABLE

	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	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4
1 STBD	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/4	- 00-1/4
2 PORT	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8
2 STBD	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8	00-1/8	- 00-1/8
3 PORT	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8
3 STBD	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8	00-0/8	- 00-0/8

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 1'-00"  
 AFT DRAFT = 4'-00"  
 DIFF. = 3'-00" (DOWN BY STERN)

THE CORRECTION FOR 3'-00" TRIM DOWN BY STERN FOR 1 PORT IS - 00-1/8"  
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 1 PORT, THE TRIM CORRECTED ULLAGE IS 3'-11 7/8"

LENGTH BETWEEN DRAFT MARKS: 238'-06"

February 21, 2012

PRECISION MEASUREMENT  
 & ANALYSIS, INC.

P.O. Box 2092  
 Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## 1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	206,401	0	191,513	0	176,577	0	161,603	0	146,624	0	131,645	0	116,665	0	101,684
1/4		1/4		1/4	206,092	1/4	191,202	1/4	176,266	1/4	161,291	1/4	146,312	1/4	131,333	1/4	116,353	1/4	101,371
1/2		1/2		1/2	205,784	1/2	190,890	1/2	175,955	1/2	160,979	1/2	146,000	1/2	131,020	1/2	116,041	1/2	101,059
3/4		3/4		3/4	205,475	3/4	190,579	3/4	175,644	3/4	160,667	3/4	145,688	3/4	130,708	3/4	115,729	3/4	100,747
1		1		1	205,166	1	190,268	1	175,332	1	160,355	1	145,376	1	130,396	1	115,417	1	100,435
1/4		1/4		1/4	204,857	1/4	189,957	1/4	175,021	1/4	160,043	1/4	145,064	1/4	130,084	1/4	115,105	1/4	100,122
1/2		1/2		1/2	204,548	1/2	189,646	1/2	174,709	1/2	159,731	1/2	144,751	1/2	129,772	1/2	114,793	1/2	99,810
3/4		3/4		3/4	204,239	3/4	189,335	3/4	174,398	3/4	159,419	3/4	144,439	3/4	129,460	3/4	114,481	3/4	99,498
2		2		2	203,930	2	189,023	2	174,086	2	159,107	2	144,127	2	129,148	2	114,169	2	99,186
1/4		1/4		1/4	203,621	1/4	188,712	1/4	173,774	1/4	158,795	1/4	143,815	1/4	128,836	1/4	113,857	1/4	98,874
1/2		1/2		1/2	203,312	1/2	188,401	1/2	173,462	1/2	158,483	1/2	143,503	1/2	128,524	1/2	113,545	1/2	98,561
3/4		3/4		3/4	203,002	3/4	188,090	3/4	173,150	3/4	158,170	3/4	143,191	3/4	128,212	3/4	113,233	3/4	98,249
3		3		3	202,693	3	187,779	3	172,838	3	157,858	3	142,879	3	127,900	3	112,920	3	97,937
1/4		1/4		1/4	202,384	1/4	187,468	1/4	172,526	1/4	157,546	1/4	142,567	1/4	127,588	1/4	112,608	1/4	97,625
1/2		1/2		1/2	202,075	1/2	187,156	1/2	172,214	1/2	157,234	1/2	142,255	1/2	127,276	1/2	112,296	1/2	97,313
3/4		3/4		3/4	201,766	3/4	186,845	3/4	171,902	3/4	156,922	3/4	141,943	3/4	126,964	3/4	111,984	3/4	97,000
4		4		4	201,457	4	186,534	4	171,589	4	156,610	4	141,631	4	126,651	4	111,672	4	96,688
1/4		1/4		1/4	201,148	1/4	186,223	1/4	171,277	1/4	156,298	1/4	141,319	1/4	126,339	1/4	111,360	1/4	96,376
1/2		1/2		1/2	200,839	1/2	185,912	1/2	170,965	1/2	155,986	1/2	141,007	1/2	126,027	1/2	111,048	1/2	96,064
3/4		3/4		3/4	200,530	3/4	185,601	3/4	170,653	3/4	155,674	3/4	140,695	3/4	125,715	3/4	110,736	3/4	95,752
5		5		5	200,221	5	185,290	5	170,341	5	155,362	5	140,383	5	125,403	5	110,424	5	95,439
1/4		1/4		1/4	199,911	1/4	184,978	1/4	170,029	1/4	155,050	1/4	140,070	1/4	125,091	1/4	110,112	1/4	95,127
1/2		1/2		1/2	199,601	1/2	184,667	1/2	169,717	1/2	154,738	1/2	139,758	1/2	124,779	1/2	109,800	1/2	94,815
3/4		3/4		3/4	199,291	3/4	184,356	3/4	169,405	3/4	154,426	3/4	139,446	3/4	124,467	3/4	109,488	3/4	94,503
6		6		6	198,981	6	184,045	6	169,093	6	154,114	6	139,134	6	124,155	6	109,176	6	94,191
1/4		1/4		1/4	198,669	1/4	183,734	1/4	168,781	1/4	153,801	1/4	138,822	1/4	123,843	1/4	108,864	1/4	93,878
1/2		1/2		1/2	198,358	1/2	183,423	1/2	168,469	1/2	153,489	1/2	138,510	1/2	123,531	1/2	108,551	1/2	93,566
3/4		3/4		3/4	198,047	3/4	183,111	3/4	168,157	3/4	153,177	3/4	138,198	3/4	123,219	3/4	108,239	3/4	93,254
7		7		7	197,736	7	182,800	7	167,845	7	152,865	7	137,886	7	122,907	7	107,927	7	92,942
1/4		1/4		1/4	197,425	1/4	182,489	1/4	167,533	1/4	152,553	1/4	137,574	1/4	122,595	1/4	107,615	1/4	92,630
1/2		1/2		1/2	197,114	1/2	182,178	1/2	167,220	1/2	152,241	1/2	137,262	1/2	122,283	1/2	107,303	1/2	92,317
3/4		3/4		3/4	196,802	3/4	181,867	3/4	166,908	3/4	151,929	3/4	136,950	3/4	121,970	3/4	106,991	3/4	92,005
8		8	210,379	8	196,491	8	181,556	8	166,596	8	151,617	8	136,638	8	121,658	8	106,679	8	91,693
1/4		1/4	210,200	1/4	196,180	1/4	181,244	1/4	166,284	1/4	151,305	1/4	136,326	1/4	121,346	1/4	106,367	1/4	91,381
1/2		1/2	210,021	1/2	195,869	1/2	180,933	1/2	165,972	1/2	150,993	1/2	136,014	1/2	121,034	1/2	106,054	1/2	91,069
3/4		3/4	209,842	3/4	195,558	3/4	180,622	3/4	165,660	3/4	150,681	3/4	135,701	3/4	120,722	3/4	105,742	3/4	90,756
9		9	209,663	9	195,247	9	180,311	9	165,348	9	150,369	9	135,389	9	120,410	9	105,430	9	90,444
1/4		1/4	209,432	1/4	194,935	1/4	180,000	1/4	165,036	1/4	150,057	1/4	135,077	1/4	120,098	1/4	105,118	1/4	90,132
1/2		1/2	209,201	1/2	194,624	1/2	179,689	1/2	164,724	1/2	149,745	1/2	134,765	1/2	119,786	1/2	104,806	1/2	89,820
3/4		3/4	208,969	3/4	194,313	3/4	179,378	3/4	164,412	3/4	149,433	3/4	134,453	3/4	119,474	3/4	104,493	3/4	89,508
10		10	208,738	10	194,002	10	179,066	10	164,100	10	149,120	10	134,141	10	119,162	10	104,181	10	89,195
1/4		1/4	208,459	1/4	193,691	1/4	178,755	1/4	163,788	1/4	148,808	1/4	133,829	1/4	118,850	1/4	103,869	1/4	88,883
1/2		1/2	208,180	1/2	193,380	1/2	178,444	1/2	163,476	1/2	148,496	1/2	133,517	1/2	118,538	1/2	103,557	1/2	88,571
3/4		3/4	207,900	3/4	193,068	3/4	178,133	3/4	163,164	3/4	148,184	3/4	133,205	3/4	118,226	3/4	103,245	3/4	88,259
11		11	207,621	11	192,757	11	177,822	11	162,852	11	147,872	11	132,893	11	117,914	11	102,932	11	87,947
1/4		1/4	207,316	1/4	192,446	1/4	177,511	1/4	162,539	1/4	147,560	1/4	132,581	1/4	117,601	1/4	102,620	1/4	87,634
1/2		1/2	207,011	1/2	192,135	1/2	177,199	1/2	162,227	1/2	147,248	1/2	132,269	1/2	117,289	1/2	102,308	1/2	87,322
3/4		3/4	206,706	3/4	191,824	3/4	176,888	3/4	161,915	3/4	146,936	3/4	131,957	3/4	116,977	3/4	101,996	3/4	87,010

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## 1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	86,698	0	71,712	0	56,778	0	41,845	0	26,860	0	12,032	0		0		0		0	
1/4	86,386	1/4	71,400	1/4	56,468	1/4	41,533	1/4	26,547	1/4	11,739	1/4		1/4		1/4		1/4	
1/2	86,073	1/2	71,087	1/2	56,159	1/2	41,220	1/2	26,235	1/2	11,446	1/2		1/2		1/2		1/2	
3/4	85,761	3/4	70,775	3/4	55,849	3/4	40,908	3/4	25,923	3/4	11,153	3/4		3/4		3/4		3/4	
1	85,449	1	70,463	1	55,539	1	40,596	1	25,611	1	10,860	1		1		1		1	
1/4	85,137	1/4	70,151	1/4	55,229	1/4	40,284	1/4	25,299	1/4	10,571	1/4		1/4		1/4		1/4	
1/2	84,824	1/2	69,839	1/2	54,919	1/2	39,972	1/2	24,986	1/2	10,282	1/2		1/2		1/2		1/2	
3/4	84,512	3/4	69,526	3/4	54,609	3/4	39,660	3/4	24,674	3/4	9,992	3/4		3/4		3/4		3/4	
2	84,200	2	69,214	2	54,299	2	39,347	2	24,362	2	9,703	2		2		2		2	
1/4	83,888	1/4	68,902	1/4	53,990	1/4	39,035	1/4	24,050	1/4	9,418	1/4		1/4		1/4		1/4	
1/2	83,576	1/2	68,590	1/2	53,680	1/2	38,723	1/2	23,738	1/2	9,133	1/2		1/2		1/2		1/2	
3/4	83,263	3/4	68,278	3/4	53,370	3/4	38,411	3/4	23,425	3/4	8,847	3/4		3/4		3/4		3/4	
3	82,951	3	67,965	3	53,060	3	38,099	3	23,113	3	8,562	3		3		3		3	
1/4	82,639	1/4	67,653	1/4	52,750	1/4	37,786	1/4	22,801	1/4	8,281	1/4		1/4		1/4		1/4	
1/2	82,327	1/2	67,341	1/2	52,440	1/2	37,474	1/2	22,489	1/2	7,999	1/2		1/2		1/2		1/2	
3/4	82,015	3/4	67,029	3/4	52,130	3/4	37,162	3/4	22,177	3/4	7,718	3/4		3/4		3/4		3/4	
4	81,702	4	66,717	4	51,820	4	36,850	4	21,864	4	7,436	4		4		4		4	
1/4	81,390	1/4	66,404	1/4	51,509	1/4	36,538	1/4	21,552	1/4	7,159	1/4		1/4		1/4		1/4	
1/2	81,078	1/2	66,092	1/2	51,199	1/2	36,225	1/2	21,240	1/2	6,881	1/2		1/2		1/2		1/2	
3/4	80,766	3/4	65,780	3/4	50,888	3/4	35,913	3/4	20,928	3/4	6,603	3/4		3/4		3/4		3/4	
5	80,454	5	65,468	5	50,578	5	35,601	5	20,616	5	6,326	5		5		5		5	
1/4	80,141	1/4	65,156	1/4	50,267	1/4	35,289	1/4	20,303	1/4	6,052	1/4		1/4		1/4		1/4	
1/2	79,829	1/2	64,844	1/2	49,956	1/2	34,977	1/2	19,991	1/2	5,778	1/2		1/2		1/2		1/2	
3/4	79,517	3/4	64,532	3/4	49,645	3/4	34,664	3/4	19,679	3/4	5,505	3/4		3/4		3/4		3/4	
6	79,205	6	64,220	6	49,335	6	34,352	6	19,367	6	5,231	6		6		6		6	
1/4	78,893	1/4	63,909	1/4	49,023	1/4	34,040	1/4	19,055	1/4	4,961	1/4		1/4		1/4		1/4	
1/2	78,580	1/2	63,598	1/2	48,712	1/2	33,728	1/2	18,742	1/2	4,691	1/2		1/2		1/2		1/2	
3/4	78,268	3/4	63,287	3/4	48,400	3/4	33,416	3/4	18,430	3/4	4,421	3/4		3/4		3/4		3/4	
7	77,956	7	62,976	7	48,089	7	33,103	7	18,118	7	4,151	7		7		7		7	
1/4	77,644	1/4	62,666	1/4	47,777	1/4	32,791	1/4	17,807	1/4	3,885	1/4		1/4		1/4		1/4	
1/2	77,332	1/2	62,356	1/2	47,464	1/2	32,479	1/2	17,496	1/2	3,620	1/2		1/2		1/2		1/2	
3/4	77,019	3/4	62,046	3/4	47,152	3/4	32,167	3/4	17,184	3/4	3,354	3/4		3/4		3/4		3/4	
8	76,707	8	61,736	8	46,840	8	31,855	8	16,873	8	3,088	8		8		8		8	
1/4	76,395	1/4	61,426	1/4	46,528	1/4	31,542	1/4	16,565	1/4	2,827	1/4		1/4		1/4		1/4	
1/2	76,083	1/2	61,116	1/2	46,216	1/2	31,230	1/2	16,256	1/2	2,565	1/2		1/2		1/2		1/2	
3/4	75,771	3/4	60,806	3/4	45,903	3/4	30,918	3/4	15,948	3/4	2,304	3/4		3/4		3/4		3/4	
9	75,458	9	60,496	9	45,591	9	30,606	9	15,640	9	2,043	9		9		9		9	
1/4	75,146	1/4	60,186	1/4	45,279	1/4	30,294	1/4	15,335	1/4	1,805	1/4		1/4		1/4		1/4	
1/2	74,834	1/2	59,877	1/2	44,967	1/2	29,981	1/2	15,031	1/2	1,567	1/2		1/2		1/2		1/2	
3/4	74,522	3/4	59,567	3/4	44,655	3/4	29,669	3/4	14,726	3/4	1,329	3/4		3/4		3/4		3/4	
10	74,210	10	59,257	10	44,342	10	29,357	10	14,422	10	1,091	10		10		10		10	
1/4	73,897	1/4	58,947	1/4	44,030	1/4	29,045	1/4	14,121	1/4	914	1/4		1/4		1/4		1/4	
1/2	73,585	1/2	58,637	1/2	43,718	1/2	28,733	1/2	13,820	1/2	738	1/2		1/2		1/2		1/2	
3/4	73,273	3/4	58,327	3/4	43,406	3/4	28,420	3/4	13,520	3/4	561	3/4		3/4		3/4		3/4	
11	72,961	11	58,018	11	43,094	11	28,108	11	13,219	11	384	11		11		11		11	
1/4	72,649	1/4	57,708	1/4	42,781	1/4	27,796	1/4	12,922	1/4		1/4		1/4		1/4		1/4	
1/2	72,336	1/2	57,398	1/2	42,469	1/2	27,484	1/2	12,625	1/2		1/2		1/2		1/2		1/2	
3/4	72,024	3/4	57,088	3/4	42,157	3/4	27,172	3/4	12,329	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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



# BARGE "HFL 415"

## 1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

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	205,927	0	191,031	0	176,091	0	161,112	0	146,129	0	131,146	0	116,164	0	101,178
1/4		1/4		1/4	205,619	1/4	190,719	1/4	175,780	1/4	160,800	1/4	145,817	1/4	130,834	1/4	115,852	1/4	100,866
1/2		1/2		1/2	205,310	1/2	190,408	1/2	175,469	1/2	160,488	1/2	145,505	1/2	130,522	1/2	115,540	1/2	100,554
3/4		3/4		3/4	205,001	3/4	190,097	3/4	175,157	3/4	160,176	3/4	145,193	3/4	130,210	3/4	115,227	3/4	100,242
1		1		1	204,692	1	189,786	1	174,846	1	159,864	1	144,881	1	129,898	1	114,915	1	99,929
1/4		1/4		1/4	204,383	1/4	189,475	1/4	174,534	1/4	159,551	1/4	144,569	1/4	129,586	1/4	114,603	1/4	99,617
1/2		1/2		1/2	204,073	1/2	189,163	1/2	174,222	1/2	159,239	1/2	144,256	1/2	129,274	1/2	114,291	1/2	99,305
3/4		3/4		3/4	203,764	3/4	188,852	3/4	173,910	3/4	158,927	3/4	143,944	3/4	128,961	3/4	113,979	3/4	98,993
2		2		2	203,455	2	188,541	2	173,598	2	158,615	2	143,632	2	128,649	2	113,667	2	98,680
1/4		1/4		1/4	203,146	1/4	188,230	1/4	173,286	1/4	158,303	1/4	143,320	1/4	128,337	1/4	113,355	1/4	98,368
1/2		1/2		1/2	202,836	1/2	187,918	1/2	172,974	1/2	157,991	1/2	143,008	1/2	128,025	1/2	113,042	1/2	98,056
3/4		3/4		3/4	202,527	3/4	187,607	3/4	172,662	3/4	157,679	3/4	142,696	3/4	127,713	3/4	112,730	3/4	97,743
3		3		3	202,218	3	187,296	3	172,349	3	157,366	3	142,384	3	127,401	3	112,418	3	97,431
1/4		1/4		1/4	201,909	1/4	186,985	1/4	172,037	1/4	157,054	1/4	142,071	1/4	127,089	1/4	112,106	1/4	97,119
1/2		1/2		1/2	201,600	1/2	186,673	1/2	171,725	1/2	156,742	1/2	141,759	1/2	126,777	1/2	111,794	1/2	96,807
3/4		3/4		3/4	201,291	3/4	186,362	3/4	171,413	3/4	156,430	3/4	141,447	3/4	126,464	3/4	111,482	3/4	96,494
4		4		4	200,982	4	186,051	4	171,101	4	156,118	4	141,135	4	126,152	4	111,170	4	96,182
1/4		1/4		1/4	200,673	1/4	185,740	1/4	170,789	1/4	155,806	1/4	140,823	1/4	125,840	1/4	110,857	1/4	95,870
1/2		1/2		1/2	200,363	1/2	185,428	1/2	170,477	1/2	155,494	1/2	140,511	1/2	125,528	1/2	110,545	1/2	95,558
3/4		3/4		3/4	200,053	3/4	185,117	3/4	170,164	3/4	155,181	3/4	140,199	3/4	125,216	3/4	110,233	3/4	95,245
5		5		5	199,743	5	184,806	5	169,852	5	154,869	5	139,886	5	124,904	5	109,921	5	94,933
1/4		1/4		1/4	199,433	1/4	184,495	1/4	169,540	1/4	154,557	1/4	139,574	1/4	124,592	1/4	109,609	1/4	94,621
1/2		1/2		1/2	199,123	1/2	184,184	1/2	169,228	1/2	154,245	1/2	139,262	1/2	124,279	1/2	109,297	1/2	94,308
3/4		3/4		3/4	198,812	3/4	183,872	3/4	168,916	3/4	153,933	3/4	138,950	3/4	123,967	3/4	108,985	3/4	93,996
6		6		6	198,500	6	183,561	6	168,604	6	153,621	6	138,638	6	123,655	6	108,672	6	93,684
1/4		1/4		1/4	198,189	1/4	183,250	1/4	168,292	1/4	153,309	1/4	138,326	1/4	123,343	1/4	108,360	1/4	93,372
1/2		1/2		1/2	197,878	1/2	182,939	1/2	167,979	1/2	152,996	1/2	138,014	1/2	123,031	1/2	108,048	1/2	93,059
3/4		3/4		3/4	197,567	3/4	182,627	3/4	167,667	3/4	152,684	3/4	137,701	3/4	122,719	3/4	107,736	3/4	92,747
7		7		7	197,255	7	182,316	7	167,355	7	152,372	7	137,389	7	122,407	7	107,424	7	92,435
1/4		1/4		1/4	196,944	1/4	182,005	1/4	167,043	1/4	152,060	1/4	137,077	1/4	122,094	1/4	107,112	1/4	92,122
1/2		1/2		1/2	210,524	1/2	196,633	1/2	181,694	1/2	166,731	1/2	151,748	1/2	121,782	1/2	106,799	1/2	91,810
3/4		3/4		3/4	210,345	3/4	196,322	3/4	181,382	3/4	166,419	3/4	151,436	3/4	121,470	3/4	106,487	3/4	91,498
8		8		8	210,166	8	196,010	8	181,071	8	166,107	8	151,124	8	121,158	8	106,175	8	91,186
1/4		1/4		1/4	209,987	1/4	195,699	1/4	180,760	1/4	165,794	1/4	150,811	1/4	120,846	1/4	105,863	1/4	90,873
1/2		1/2		1/2	209,808	1/2	195,388	1/2	180,449	1/2	165,482	1/2	150,499	1/2	120,534	1/2	105,550	1/2	90,561
3/4		3/4		3/4	209,576	3/4	195,077	3/4	180,138	3/4	165,170	3/4	150,187	3/4	120,222	3/4	105,238	3/4	90,249
9		9		9	209,345	9	194,766	9	179,826	9	164,858	9	149,875	9	134,892	9	104,926	9	89,937
1/4		1/4		1/4	209,114	1/4	194,454	1/4	179,515	1/4	164,546	1/4	149,563	1/4	119,597	1/4	104,613	1/4	89,624
1/2		1/2		1/2	208,883	1/2	194,143	1/2	179,204	1/2	164,234	1/2	149,251	1/2	119,285	1/2	104,301	1/2	89,312
3/4		3/4		3/4	208,603	3/4	193,832	3/4	178,893	3/4	163,922	3/4	148,939	3/4	118,973	3/4	103,989	3/4	89,000
10		10		10	208,324	10	193,521	10	178,581	10	163,609	10	148,626	10	118,661	10	103,677	10	88,687
1/4		1/4		1/4	208,045	1/4	193,209	1/4	178,270	1/4	163,297	1/4	148,314	1/4	118,349	1/4	103,364	1/4	88,375
1/2		1/2		1/2	207,765	1/2	192,898	1/2	177,959	1/2	162,985	1/2	148,002	1/2	118,037	1/2	103,052	1/2	88,063
3/4		3/4		3/4	207,460	3/4	192,587	3/4	177,648	3/4	162,673	3/4	147,690	3/4	117,724	3/4	102,740	3/4	87,751
11		11		11	207,155	11	192,276	11	177,336	11	162,361	11	147,378	11	117,412	11	102,428	11	87,438
1/4		1/4		1/4	206,850	1/4	191,964	1/4	177,025	1/4	162,049	1/4	147,066	1/4	117,100	1/4	102,115	1/4	87,126
1/2		1/2		1/2	206,545	1/2	191,653	1/2	176,714	1/2	161,736	1/2	146,754	1/2	116,788	1/2	101,803	1/2	86,814
3/4		3/4		3/4	206,236	3/4	191,342	3/4	176,403	3/4	161,424	3/4	146,441	3/4	116,476	3/4	101,491	3/4	86,502

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

**1 STBD**  
**ULLAGE TABLE**

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

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	86,189	0	71,200	0	56,215	0	41,229	0	26,241	0	11,448	0		0		0		0	
1/4	85,877	1/4	70,888	1/4	55,903	1/4	40,917	1/4	25,929	1/4	11,155	1/4		1/4		1/4		1/4	
1/2	85,565	1/2	70,576	1/2	55,591	1/2	40,605	1/2	25,616	1/2	10,862	1/2		1/2		1/2		1/2	
3/4	85,252	3/4	70,263	3/4	55,279	3/4	40,293	3/4	25,304	3/4	10,573	3/4		3/4		3/4		3/4	
1	84,940	1	69,951	1	54,967	1	39,980	1	24,992	1	10,284	1		1		1		1	
1/4	84,628	1/4	69,639	1/4	54,655	1/4	39,668	1/4	24,679	1/4	9,994	1/4		1/4		1/4		1/4	
1/2	84,316	1/2	69,326	1/2	54,343	1/2	39,356	1/2	24,367	1/2	9,705	1/2		1/2		1/2		1/2	
3/4	84,003	3/4	69,014	3/4	54,031	3/4	39,044	3/4	24,055	3/4	9,420	3/4		3/4		3/4		3/4	
2	83,691	2	68,702	2	53,719	2	38,731	2	23,743	2	9,135	2		2		2		2	
1/4	83,379	1/4	68,390	1/4	53,407	1/4	38,419	1/4	23,430	1/4	8,849	1/4		1/4		1/4		1/4	
1/2	83,067	1/2	68,077	1/2	53,095	1/2	38,107	1/2	23,118	1/2	8,564	1/2		1/2		1/2		1/2	
3/4	82,754	3/4	67,765	3/4	52,783	3/4	37,795	3/4	22,806	3/4	8,282	3/4		3/4		3/4		3/4	
3	82,442	3	67,453	3	52,470	3	37,482	3	22,494	3	8,001	3		3		3		3	
1/4	82,130	1/4	67,141	1/4	52,158	1/4	37,170	1/4	22,181	1/4	7,719	1/4		1/4		1/4		1/4	
1/2	81,817	1/2	66,828	1/2	51,846	1/2	36,858	1/2	21,869	1/2	7,438	1/2		1/2		1/2		1/2	
3/4	81,505	3/4	66,516	3/4	51,534	3/4	36,546	3/4	21,557	3/4	7,160	3/4		3/4		3/4		3/4	
4	81,193	4	66,204	4	51,222	4	36,233	4	21,245	4	6,882	4		4		4		4	
1/4	80,881	1/4	65,891	1/4	50,910	1/4	35,921	1/4	20,932	1/4	6,605	1/4		1/4		1/4		1/4	
1/2	80,568	1/2	65,579	1/2	50,597	1/2	35,609	1/2	20,620	1/2	6,327	1/2		1/2		1/2		1/2	
3/4	80,256	3/4	65,267	3/4	50,285	3/4	35,296	3/4	20,308	3/4	6,053	3/4		3/4		3/4		3/4	
5	79,944	5	64,955	5	49,973	5	34,984	5	19,995	5	5,779	5		5		5		5	
1/4	79,632	1/4	64,642	1/4	49,661	1/4	34,672	1/4	19,683	1/4	5,506	1/4		1/4		1/4		1/4	
1/2	79,319	1/2	64,330	1/2	49,348	1/2	34,360	1/2	19,371	1/2	5,232	1/2		1/2		1/2		1/2	
3/4	79,007	3/4	64,018	3/4	49,036	3/4	34,047	3/4	19,059	3/4	4,962	3/4		3/4		3/4		3/4	
6	78,695	6	63,706	6	48,724	6	33,735	6	18,746	6	4,692	6		6		6		6	
1/4	78,382	1/4	63,393	1/4	48,412	1/4	33,423	1/4	18,434	1/4	4,422	1/4		1/4		1/4		1/4	
1/2	78,070	1/2	63,081	1/2	48,099	1/2	33,111	1/2	18,122	1/2	4,152	1/2		1/2		1/2		1/2	
3/4	77,758	3/4	62,769	3/4	47,787	3/4	32,798	3/4	17,811	3/4	3,886	3/4		3/4		3/4		3/4	
7	77,446	7	62,457	7	47,475	7	32,486	7	17,499	7	3,620	7		7		7		7	
1/4	77,133	1/4	62,144	1/4	47,163	1/4	32,174	1/4	17,188	1/4	3,354	1/4		1/4		1/4		1/4	
1/2	76,821	1/2	61,832	1/2	46,850	1/2	31,862	1/2	16,877	1/2	3,088	1/2		1/2		1/2		1/2	
3/4	76,509	3/4	61,520	3/4	46,538	3/4	31,549	3/4	16,568	3/4	2,827	3/4		3/4		3/4		3/4	
8	76,197	8	61,208	8	46,226	8	31,237	8	16,260	8	2,566	8		8		8		8	
1/4	75,884	1/4	60,896	1/4	45,913	1/4	30,925	1/4	15,951	1/4	2,305	1/4		1/4		1/4		1/4	
1/2	75,572	1/2	60,584	1/2	45,601	1/2	30,612	1/2	15,643	1/2	2,043	1/2		1/2		1/2		1/2	
3/4	75,260	3/4	60,272	3/4	45,289	3/4	30,300	3/4	15,338	3/4	1,805	3/4		3/4		3/4		3/4	
9	74,947	9	59,960	9	44,977	9	29,988	9	15,034	9	1,567	9		9		9		9	
1/4	74,635	1/4	59,648	1/4	44,664	1/4	29,676	1/4	14,729	1/4	1,329	1/4		1/4		1/4		1/4	
1/2	74,323	1/2	59,336	1/2	44,352	1/2	29,363	1/2	14,425	1/2	1,091	1/2		1/2		1/2		1/2	
3/4	74,011	3/4	59,024	3/4	44,040	3/4	29,051	3/4	14,124	3/4	914	3/4		3/4		3/4		3/4	
10	73,698	10	58,711	10	43,728	10	28,739	10	13,823	10	738	10		10		10		10	
1/4	73,386	1/4	58,399	1/4	43,415	1/4	28,427	1/4	13,523	1/4	561	1/4		1/4		1/4		1/4	
1/2	73,074	1/2	58,087	1/2	43,103	1/2	28,114	1/2	13,222	1/2	384	1/2		1/2		1/2		1/2	
3/4	72,761	3/4	57,775	3/4	42,791	3/4	27,802	3/4	12,925	3/4		3/4		3/4		3/4		3/4	
11	72,449	11	57,463	11	42,479	11	27,490	11	12,628	11		11		11		11		11	
1/4	72,137	1/4	57,151	1/4	42,166	1/4	27,178	1/4	12,331	1/4		1/4		1/4		1/4		1/4	
1/2	71,825	1/2	56,839	1/2	41,854	1/2	26,865	1/2	12,034	1/2		1/2		1/2		1/2		1/2	
3/4	71,512	3/4	56,527	3/4	41,542	3/4	26,553	3/4	11,741	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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



# BARGE "HFL 415"

## 2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

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	208,873	0	193,911	0	178,883	0	163,810	0	148,732	0	133,653	0	118,575	0	103,493
1/4		1/4		1/4	208,564	1/4	193,598	1/4	178,570	1/4	163,496	1/4	148,418	1/4	133,339	1/4	118,261	1/4	103,179
1/2		1/2		1/2	208,254	1/2	193,285	1/2	178,257	1/2	163,182	1/2	148,103	1/2	133,025	1/2	117,946	1/2	102,865
3/4		3/4		3/4	207,944	3/4	192,972	3/4	177,944	3/4	162,868	3/4	147,789	3/4	132,711	3/4	117,632	3/4	102,550
1		1		1	207,634	1	192,659	1	177,631	1	162,554	1	147,475	1	132,397	1	117,318	1	102,236
1/4		1/4		1/4	207,324	1/4	192,345	1/4	177,317	1/4	162,240	1/4	147,161	1/4	132,083	1/4	117,004	1/4	101,922
1/2		1/2		1/2	207,014	1/2	192,032	1/2	177,003	1/2	161,925	1/2	146,847	1/2	131,768	1/2	116,690	1/2	101,607
3/4		3/4		3/4	206,704	3/4	191,719	3/4	176,690	3/4	161,611	3/4	146,533	3/4	131,454	3/4	116,376	3/4	101,293
2		2		2	206,394	2	191,406	2	176,376	2	161,297	2	146,219	2	131,140	2	116,062	2	100,979
1/4		1/4		1/4	206,084	1/4	191,093	1/4	176,062	1/4	160,983	1/4	145,904	1/4	130,826	1/4	115,747	1/4	100,664
1/2		1/2		1/2	205,774	1/2	190,780	1/2	175,747	1/2	160,669	1/2	145,590	1/2	130,512	1/2	115,433	1/2	100,350
3/4		3/4		3/4	205,464	3/4	190,467	3/4	175,433	3/4	160,355	3/4	145,276	3/4	130,198	3/4	115,119	3/4	100,036
3		3		3	205,154	3	190,154	3	175,119	3	160,041	3	144,962	3	129,884	3	114,805	3	99,722
1/4		1/4		1/4	204,844	1/4	189,841	1/4	174,805	1/4	159,726	1/4	144,648	1/4	129,569	1/4	114,491	1/4	99,407
1/2		1/2		1/2	204,534	1/2	189,528	1/2	174,491	1/2	159,412	1/2	144,334	1/2	129,255	1/2	114,177	1/2	99,093
3/4		3/4		3/4	204,224	3/4	189,215	3/4	174,177	3/4	159,098	3/4	144,020	3/4	128,941	3/4	113,863	3/4	98,779
4		4		4	203,914	4	188,902	4	173,863	4	158,784	4	143,706	4	128,627	4	113,548	4	98,464
1/4		1/4		1/4	203,604	1/4	188,589	1/4	173,548	1/4	158,470	1/4	143,391	1/4	128,313	1/4	113,234	1/4	98,150
1/2		1/2		1/2	203,294	1/2	188,276	1/2	173,234	1/2	158,156	1/2	143,077	1/2	127,999	1/2	112,920	1/2	97,836
3/4		3/4		3/4	202,984	3/4	187,963	3/4	172,920	3/4	157,842	3/4	142,763	3/4	127,685	3/4	112,606	3/4	97,522
5		5		5	202,672	5	187,649	5	172,606	5	157,528	5	142,449	5	127,370	5	112,292	5	97,207
1/4		1/4		1/4	202,361	1/4	187,336	1/4	172,292	1/4	157,213	1/4	142,135	1/4	127,056	1/4	111,978	1/4	96,893
1/2		1/2		1/2	202,049	1/2	187,023	1/2	171,978	1/2	156,899	1/2	141,821	1/2	126,742	1/2	111,664	1/2	96,579
3/4		3/4		3/4	201,738	3/4	186,710	3/4	171,664	3/4	156,585	3/4	141,507	3/4	126,428	3/4	111,350	3/4	96,264
6		6		6	201,425	6	186,397	6	171,350	6	156,271	6	141,192	6	126,114	6	111,035	6	95,950
1/4		1/4		1/4	201,111	1/4	186,084	1/4	171,035	1/4	155,957	1/4	140,878	1/4	125,800	1/4	110,721	1/4	95,636
1/2		1/2		1/2	200,798	1/2	185,771	1/2	170,721	1/2	155,643	1/2	140,564	1/2	125,486	1/2	110,407	1/2	95,321
3/4		3/4		3/4	200,485	3/4	185,458	3/4	170,407	3/4	155,329	3/4	140,250	3/4	125,172	3/4	110,093	3/4	95,007
7		7		7	200,172	7	185,145	7	170,093	7	155,014	7	139,936	7	124,857	7	109,779	7	94,693
1/4		1/4		1/4	199,859	1/4	184,832	1/4	169,779	1/4	154,700	1/4	139,622	1/4	124,543	1/4	109,465	1/4	94,379
1/2		1/2		1/2	199,546	1/2	184,519	1/2	169,465	1/2	154,386	1/2	139,308	1/2	124,229	1/2	109,150	1/2	94,064
3/4		3/4		3/4	199,233	3/4	184,206	3/4	169,151	3/4	154,072	3/4	138,994	3/4	123,915	3/4	108,836	3/4	93,750
8		8	213,170	8	198,920	8	183,893	8	168,836	8	153,758	8	138,679	8	123,601	8	108,522	8	93,436
1/4		1/4	212,812	1/4	198,607	1/4	183,580	1/4	168,522	1/4	153,444	1/4	138,365	1/4	123,287	1/4	108,208	1/4	93,121
1/2		1/2	212,632	1/2	198,294	1/2	183,266	1/2	168,208	1/2	153,130	1/2	138,051	1/2	122,973	1/2	107,893	1/2	92,807
3/4		3/4	212,453	3/4	197,981	3/4	182,953	3/4	167,894	3/4	152,815	3/4	137,737	3/4	122,658	3/4	107,579	3/4	92,493
9		9	212,222	9	197,668	9	182,640	9	167,580	9	152,501	9	137,423	9	122,344	9	107,265	9	92,179
1/4		1/4	211,990	1/4	197,355	1/4	182,327	1/4	167,266	1/4	152,187	1/4	137,109	1/4	122,030	1/4	106,950	1/4	91,864
1/2		1/2	211,759	1/2	197,042	1/2	182,014	1/2	166,952	1/2	151,873	1/2	136,795	1/2	121,716	1/2	106,636	1/2	91,550
3/4		3/4	211,527	3/4	196,728	3/4	181,701	3/4	166,637	3/4	151,559	3/4	136,480	3/4	121,402	3/4	106,322	3/4	91,236
10		10	211,247	10	196,415	10	181,388	10	166,323	10	151,245	10	136,166	10	121,088	10	106,007	10	90,921
1/4		1/4	210,967	1/4	196,102	1/4	181,075	1/4	166,009	1/4	150,931	1/4	135,852	1/4	120,774	1/4	105,693	1/4	90,607
1/2		1/2	210,687	1/2	195,789	1/2	180,762	1/2	165,695	1/2	150,617	1/2	135,538	1/2	120,459	1/2	105,379	1/2	90,293
3/4		3/4	210,407	3/4	195,476	3/4	180,449	3/4	165,381	3/4	150,302	3/4	135,224	3/4	120,145	3/4	105,065	3/4	89,978
11		11	210,101	11	195,163	11	180,136	11	165,067	11	149,988	11	134,910	11	119,831	11	104,750	11	89,664
1/4		1/4	209,795	1/4	194,850	1/4	179,823	1/4	164,753	1/4	149,674	1/4	134,596	1/4	119,517	1/4	104,436	1/4	89,350
1/2		1/2	209,489	1/2	194,537	1/2	179,510	1/2	164,439	1/2	149,360	1/2	134,281	1/2	119,203	1/2	104,122	1/2	89,036
3/4		3/4	209,183	3/4	194,224	3/4	179,197	3/4	164,124	3/4	149,046	3/4	133,967	3/4	118,889	3/4	103,807	3/4	88,721

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## 2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

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	88,407	0	73,321	0	58,506	0	44,005	0	29,230	0	14,146	0		0		0		0	
1/4	88,093	1/4	73,007	1/4	58,203	1/4	43,703	1/4	28,916	1/4	13,832	1/4		1/4		1/4		1/4	
1/2	87,778	1/2	72,692	1/2	57,901	1/2	43,402	1/2	28,602	1/2	13,518	1/2		1/2		1/2		1/2	
3/4	87,464	3/4	72,378	3/4	57,598	3/4	43,100	3/4	28,288	3/4	13,203	3/4		3/4		3/4		3/4	
1	87,150	1	72,064	1	57,296	1	42,799	1	27,974	1	12,889	1		1		1		1	
1/4	86,836	1/4	71,749	1/4	56,993	1/4	42,497	1/4	27,660	1/4	12,575	1/4		1/4		1/4		1/4	
1/2	86,521	1/2	71,435	1/2	56,691	1/2	42,196	1/2	27,346	1/2	12,261	1/2		1/2		1/2		1/2	
3/4	86,207	3/4	71,121	3/4	56,388	3/4	41,894	3/4	27,032	3/4	11,946	3/4		3/4		3/4		3/4	
2	85,893	2	70,807	2	56,086	2	41,592	2	26,717	2	11,632	2		2		2		2	
1/4	85,578	1/4	70,492	1/4	55,783	1/4	41,291	1/4	26,403	1/4	11,318	1/4		1/4		1/4		1/4	
1/2	85,264	1/2	70,178	1/2	55,481	1/2	40,989	1/2	26,089	1/2	11,003	1/2		1/2		1/2		1/2	
3/4	84,950	3/4	69,864	3/4	55,178	3/4	40,688	3/4	25,775	3/4	10,689	3/4		3/4		3/4		3/4	
3	84,635	3	69,549	3	54,876	3	40,386	3	25,461	3	10,375	3		3		3		3	
1/4	84,321	1/4	69,235	1/4	54,573	1/4	40,085	1/4	25,146	1/4	10,061	1/4		1/4		1/4		1/4	
1/2	84,007	1/2	68,921	1/2	54,271	1/2	39,783	1/2	24,832	1/2	9,746	1/2		1/2		1/2		1/2	
3/4	83,693	3/4	68,606	3/4	53,968	3/4	39,481	3/4	24,518	3/4	9,432	3/4		3/4		3/4		3/4	
4	83,378	4	68,292	4	53,666	4	39,179	4	24,203	4	9,118	4		4		4		4	
1/4	83,064	1/4	67,978	1/4	53,363	1/4	38,877	1/4	23,889	1/4	8,803	1/4		1/4		1/4		1/4	
1/2	82,750	1/2	67,664	1/2	53,061	1/2	38,575	1/2	23,575	1/2	8,489	1/2		1/2		1/2		1/2	
3/4	82,435	3/4	67,349	3/4	52,758	3/4	38,273	3/4	23,261	3/4	8,175	3/4		3/4		3/4		3/4	
5	82,121	5	67,035	5	52,456	5	37,971	5	22,946	5	7,861	5		5		5		5	
1/4	81,807	1/4	66,721	1/4	52,153	1/4	37,668	1/4	22,632	1/4	7,546	1/4		1/4		1/4		1/4	
1/2	81,493	1/2	66,406	1/2	51,851	1/2	37,366	1/2	22,318	1/2	7,232	1/2		1/2		1/2		1/2	
3/4	81,178	3/4	66,092	3/4	51,548	3/4	37,063	3/4	22,003	3/4	6,918	3/4		3/4		3/4		3/4	
6	80,864	6	65,784	6	51,246	6	36,755	6	21,689	6	6,604	6		6		6		6	
1/4	80,550	1/4	65,475	1/4	50,944	1/4	36,446	1/4	21,375	1/4	6,289	1/4		1/4		1/4		1/4	
1/2	80,235	1/2	65,167	1/2	50,642	1/2	36,138	1/2	21,061	1/2	5,975	1/2		1/2		1/2		1/2	
3/4	79,921	3/4	64,859	3/4	50,339	3/4	35,830	3/4	20,746	3/4	5,661	3/4		3/4		3/4		3/4	
7	79,607	7	64,556	7	50,038	7	35,515	7	20,432	7	5,347	7		7		7		7	
1/4	79,292	1/4	64,253	1/4	49,736	1/4	35,201	1/4	20,118	1/4	5,033	1/4		1/4		1/4		1/4	
1/2	78,978	1/2	63,951	1/2	49,434	1/2	34,887	1/2	19,803	1/2	4,719	1/2		1/2		1/2		1/2	
3/4	78,664	3/4	63,648	3/4	49,132	3/4	34,573	3/4	19,489	3/4	4,405	3/4		3/4		3/4		3/4	
8	78,350	8	63,346	8	48,830	8	34,258	8	19,175	8	4,091	8		8		8		8	
1/4	78,035	1/4	63,043	1/4	48,529	1/4	33,944	1/4	18,861	1/4	3,778	1/4		1/4		1/4		1/4	
1/2	77,721	1/2	62,741	1/2	48,227	1/2	33,630	1/2	18,546	1/2	3,465	1/2		1/2		1/2		1/2	
3/4	77,407	3/4	62,438	3/4	47,925	3/4	33,315	3/4	18,232	3/4	3,151	3/4		3/4		3/4		3/4	
9	77,092	9	62,136	9	47,624	9	33,001	9	17,918	9	2,858	9		9		9		9	
1/4	76,778	1/4	61,833	1/4	47,322	1/4	32,687	1/4	17,603	1/4	2,564	1/4		1/4		1/4		1/4	
1/2	76,464	1/2	61,531	1/2	47,021	1/2	32,373	1/2	17,289	1/2	2,270	1/2		1/2		1/2		1/2	
3/4	76,150	3/4	61,228	3/4	46,719	3/4	32,058	3/4	16,975	3/4	1,976	3/4		3/4		3/4		3/4	
10	75,835	10	60,926	10	46,418	10	31,744	10	16,661	10	1,740	10		10		10		10	
1/4	75,521	1/4	60,623	1/4	46,116	1/4	31,430	1/4	16,346	1/4	1,505	1/4		1/4		1/4		1/4	
1/2	75,207	1/2	60,321	1/2	45,814	1/2	31,115	1/2	16,032	1/2	1,269	1/2		1/2		1/2		1/2	
3/4	74,892	3/4	60,018	3/4	45,513	3/4	30,801	3/4	15,718	3/4	1,033	3/4		3/4		3/4		3/4	
11	74,578	11	59,716	11	45,211	11	30,487	11	15,403	11		11		11		11		11	
1/4	74,264	1/4	59,413	1/4	44,910	1/4	30,173	1/4	15,089	1/4		1/4		1/4		1/4		1/4	
1/2	73,949	1/2	59,111	1/2	44,608	1/2	29,858	1/2	14,775	1/2		1/2		1/2		1/2		1/2	
3/4	73,635	3/4	58,808	3/4	44,307	3/4	29,544	3/4	14,461	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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





# BARGE "HFL 415"

## 2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	210,315	0	195,356	0	180,328	0	165,256	0	150,178	0	135,099	0	120,021	0	104,939
1/4		1/4		1/4	210,005	1/4	195,043	1/4	180,015	1/4	164,942	1/4	149,864	1/4	134,785	1/4	119,706	1/4	104,625
1/2		1/2		1/2	209,696	1/2	194,730	1/2	179,702	1/2	164,628	1/2	149,549	1/2	134,471	1/2	119,392	1/2	104,311
3/4		3/4		3/4	209,386	3/4	194,417	3/4	179,389	3/4	164,314	3/4	149,235	3/4	134,157	3/4	119,078	3/4	103,996
1		1		1	209,076	1	194,104	1	179,076	1	164,000	1	148,921	1	133,843	1	118,764	1	103,682
1/4		1/4		1/4	208,766	1/4	193,790	1/4	178,763	1/4	163,686	1/4	148,607	1/4	133,528	1/4	118,450	1/4	103,368
1/2		1/2		1/2	208,456	1/2	193,477	1/2	178,449	1/2	163,371	1/2	148,293	1/2	133,214	1/2	118,136	1/2	103,053
3/4		3/4		3/4	208,146	3/4	193,164	3/4	178,135	3/4	163,057	3/4	147,979	3/4	132,900	3/4	117,822	3/4	102,739
2		2		2	207,836	2	192,851	2	177,822	2	162,743	2	147,665	2	132,586	2	117,508	2	102,425
1/4		1/4		1/4	207,526	1/4	192,538	1/4	177,508	1/4	162,429	1/4	147,350	1/4	132,272	1/4	117,193	1/4	102,111
1/2		1/2		1/2	207,216	1/2	192,225	1/2	177,193	1/2	162,115	1/2	147,036	1/2	131,958	1/2	116,879	1/2	101,796
3/4		3/4		3/4	206,906	3/4	191,912	3/4	176,879	3/4	161,801	3/4	146,722	3/4	131,644	3/4	116,565	3/4	101,482
3		3		3	206,596	3	191,599	3	176,565	3	161,487	3	146,408	3	131,330	3	116,251	3	101,168
1/4		1/4		1/4	206,286	1/4	191,286	1/4	176,251	1/4	161,172	1/4	146,094	1/4	131,015	1/4	115,937	1/4	100,853
1/2		1/2		1/2	205,976	1/2	190,973	1/2	175,937	1/2	160,858	1/2	145,780	1/2	130,701	1/2	115,623	1/2	100,539
3/4		3/4		3/4	205,666	3/4	190,660	3/4	175,623	3/4	160,544	3/4	145,466	3/4	130,387	3/4	115,309	3/4	100,225
4		4		4	205,355	4	190,347	4	175,309	4	160,230	4	145,152	4	130,073	4	114,994	4	99,911
1/4		1/4		1/4	205,045	1/4	190,034	1/4	174,994	1/4	159,916	1/4	144,837	1/4	129,759	1/4	114,680	1/4	99,596
1/2		1/2		1/2	204,736	1/2	189,721	1/2	174,680	1/2	159,602	1/2	144,523	1/2	129,445	1/2	114,366	1/2	99,282
3/4		3/4		3/4	204,426	3/4	189,407	3/4	174,366	3/4	159,288	3/4	144,209	3/4	129,131	3/4	114,052	3/4	98,968
5		5		5	204,116	5	189,094	5	174,052	5	158,974	5	143,895	5	128,816	5	113,738	5	98,653
1/4		1/4		1/4	203,804	1/4	188,781	1/4	173,738	1/4	158,659	1/4	143,581	1/4	128,502	1/4	113,424	1/4	98,339
1/2		1/2		1/2	203,493	1/2	188,468	1/2	173,424	1/2	158,345	1/2	143,267	1/2	128,188	1/2	113,110	1/2	98,025
3/4		3/4		3/4	203,181	3/4	188,155	3/4	173,110	3/4	158,031	3/4	142,953	3/4	127,874	3/4	112,795	3/4	97,710
6		6		6	202,869	6	187,842	6	172,796	6	157,717	6	142,638	6	127,560	6	112,481	6	97,396
1/4		1/4		1/4	202,556	1/4	187,529	1/4	172,481	1/4	157,403	1/4	142,324	1/4	127,246	1/4	112,167	1/4	97,082
1/2		1/2		1/2	202,243	1/2	187,216	1/2	172,167	1/2	157,089	1/2	142,010	1/2	126,932	1/2	111,853	1/2	96,768
3/4		3/4		3/4	201,930	3/4	186,903	3/4	171,853	3/4	156,775	3/4	141,696	3/4	126,617	3/4	111,539	3/4	96,453
7		7		7	201,617	7	186,590	7	171,539	7	156,460	7	141,382	7	126,303	7	111,225	7	96,139
1/4		1/4		1/4	201,304	1/4	186,277	1/4	171,225	1/4	156,146	1/4	141,068	1/4	125,989	1/4	110,911	1/4	95,825
1/2		1/2		1/2	200,991	1/2	185,964	1/2	170,911	1/2	155,832	1/2	140,754	1/2	125,675	1/2	110,596	1/2	95,510
3/4		3/4		3/4	200,678	3/4	185,651	3/4	170,597	3/4	155,518	3/4	140,439	3/4	125,361	3/4	110,282	3/4	95,196
8		8	214,302	8	200,365	8	185,338	8	170,282	8	155,204	8	140,125	8	125,047	8	109,968	8	94,882
1/4		1/4	214,123	1/4	200,052	1/4	185,024	1/4	169,968	1/4	154,890	1/4	139,811	1/4	124,733	1/4	109,654	1/4	94,568
1/2		1/2	213,944	1/2	199,739	1/2	184,711	1/2	169,654	1/2	154,576	1/2	139,497	1/2	124,419	1/2	109,339	1/2	94,253
3/4		3/4	213,764	3/4	199,426	3/4	184,398	3/4	169,340	3/4	154,261	3/4	139,183	3/4	124,104	3/4	109,025	3/4	93,939
9		9	213,585	9	199,113	9	184,085	9	169,026	9	153,947	9	138,869	9	123,790	9	108,711	9	93,625
1/4		1/4	213,354	1/4	198,800	1/4	183,772	1/4	168,712	1/4	153,633	1/4	138,555	1/4	123,476	1/4	108,396	1/4	93,310
1/2		1/2	213,122	1/2	198,486	1/2	183,459	1/2	168,398	1/2	153,319	1/2	138,241	1/2	123,162	1/2	108,082	1/2	92,996
3/4		3/4	212,891	3/4	198,173	3/4	183,146	3/4	168,083	3/4	153,005	3/4	137,926	3/4	122,848	3/4	107,768	3/4	92,682
10		10	212,659	10	197,860	10	182,833	10	167,769	10	152,691	10	137,612	10	122,534	10	107,454	10	92,367
1/4		1/4	212,379	1/4	197,547	1/4	182,520	1/4	167,455	1/4	152,377	1/4	137,298	1/4	122,220	1/4	107,139	1/4	92,053
1/2		1/2	212,099	1/2	197,234	1/2	182,207	1/2	167,141	1/2	152,063	1/2	136,984	1/2	121,905	1/2	106,825	1/2	91,739
3/4		3/4	211,819	3/4	196,921	3/4	181,894	3/4	166,827	3/4	151,748	3/4	136,670	3/4	121,591	3/4	106,511	3/4	91,425
11		11	211,539	11	196,608	11	181,581	11	166,513	11	151,434	11	136,356	11	121,277	11	106,196	11	91,110
1/4		1/4	211,233	1/4	196,295	1/4	181,268	1/4	166,199	1/4	151,120	1/4	136,042	1/4	120,963	1/4	105,882	1/4	90,796
1/2		1/2	210,927	1/2	195,982	1/2	180,955	1/2	165,885	1/2	150,806	1/2	135,727	1/2	120,649	1/2	105,568	1/2	90,482
3/4		3/4	210,621	3/4	195,669	3/4	180,641	3/4	165,570	3/4	150,492	3/4	135,413	3/4	120,335	3/4	105,254	3/4	90,167

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>





# BARGE "HFL 415"

**2 STBD**  
**ULLAGE TABLE**

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	89,853	0	74,767	0	59,681	0	44,613	0	29,544	0	14,460	0		0		0		0	
1/4	89,539	1/4	74,453	1/4	59,367	1/4	44,300	1/4	29,230	1/4	14,146	1/4		1/4		1/4		1/4	
1/2	89,225	1/2	74,138	1/2	59,052	1/2	43,987	1/2	28,916	1/2	13,832	1/2		1/2		1/2		1/2	
3/4	88,910	3/4	73,824	3/4	58,738	3/4	43,673	3/4	28,602	3/4	13,517	3/4		3/4		3/4		3/4	
1	88,596	1	73,510	1	58,424	1	43,360	1	28,288	1	13,203	1		1		1		1	
1/4	88,282	1/4	73,196	1/4	58,109	1/4	43,047	1/4	27,974	1/4	12,889	1/4		1/4		1/4		1/4	
1/2	87,967	1/2	72,881	1/2	57,795	1/2	42,733	1/2	27,660	1/2	12,575	1/2		1/2		1/2		1/2	
3/4	87,653	3/4	72,567	3/4	57,481	3/4	42,420	3/4	27,346	3/4	12,260	3/4		3/4		3/4		3/4	
2	87,339	2	72,253	2	57,167	2	42,107	2	27,032	2	11,946	2		2		2		2	
1/4	87,024	1/4	71,938	1/4	56,852	1/4	41,793	1/4	26,718	1/4	11,632	1/4		1/4		1/4		1/4	
1/2	86,710	1/2	71,624	1/2	56,538	1/2	41,480	1/2	26,403	1/2	11,317	1/2		1/2		1/2		1/2	
3/4	86,396	3/4	71,310	3/4	56,224	3/4	41,166	3/4	26,089	3/4	11,003	3/4		3/4		3/4		3/4	
3	86,082	3	70,995	3	55,909	3	40,853	3	25,775	3	10,689	3		3		3		3	
1/4	85,767	1/4	70,681	1/4	55,595	1/4	40,540	1/4	25,461	1/4	10,375	1/4		1/4		1/4		1/4	
1/2	85,453	1/2	70,367	1/2	55,281	1/2	40,226	1/2	25,146	1/2	10,060	1/2		1/2		1/2		1/2	
3/4	85,139	3/4	70,053	3/4	54,966	3/4	39,913	3/4	24,832	3/4	9,746	3/4		3/4		3/4		3/4	
4	84,824	4	69,738	4	54,652	4	39,600	4	24,518	4	9,432	4		4		4		4	
1/4	84,510	1/4	69,424	1/4	54,338	1/4	39,286	1/4	24,203	1/4	9,117	1/4		1/4		1/4		1/4	
1/2	84,196	1/2	69,110	1/2	54,024	1/2	38,972	1/2	23,889	1/2	8,803	1/2		1/2		1/2		1/2	
3/4	83,882	3/4	68,795	3/4	53,709	3/4	38,658	3/4	23,575	3/4	8,489	3/4		3/4		3/4		3/4	
5	83,567	5	68,481	5	53,395	5	38,344	5	23,261	5	8,175	5		5		5		5	
1/4	83,253	1/4	68,167	1/4	53,081	1/4	38,030	1/4	22,946	1/4	7,860	1/4		1/4		1/4		1/4	
1/2	82,939	1/2	67,853	1/2	52,766	1/2	37,716	1/2	22,632	1/2	7,546	1/2		1/2		1/2		1/2	
3/4	82,624	3/4	67,538	3/4	52,452	3/4	37,401	3/4	22,318	3/4	7,232	3/4		3/4		3/4		3/4	
6	82,310	6	67,224	6	52,138	6	37,087	6	22,003	6	6,917	6		6		6		6	
1/4	81,996	1/4	66,910	1/4	51,824	1/4	36,773	1/4	21,689	1/4	6,603	1/4		1/4		1/4		1/4	
1/2	81,681	1/2	66,595	1/2	51,510	1/2	36,459	1/2	21,375	1/2	6,289	1/2		1/2		1/2		1/2	
3/4	81,367	3/4	66,281	3/4	51,196	3/4	36,144	3/4	21,061	3/4	5,975	3/4		3/4		3/4		3/4	
7	81,053	7	65,967	7	50,882	7	35,830	7	20,746	7	5,660	7		7		7		7	
1/4	80,739	1/4	65,652	1/4	50,568	1/4	35,516	1/4	20,432	1/4	5,346	1/4		1/4		1/4		1/4	
1/2	80,424	1/2	65,338	1/2	50,255	1/2	35,201	1/2	20,118	1/2	5,032	1/2		1/2		1/2		1/2	
3/4	80,110	3/4	65,024	3/4	49,941	3/4	34,887	3/4	19,803	3/4	4,718	3/4		3/4		3/4		3/4	
8	79,796	8	64,710	8	49,628	8	34,573	8	19,489	8	4,404	8		8		8		8	
1/4	79,481	1/4	64,395	1/4	49,314	1/4	34,259	1/4	19,175	1/4	4,091	1/4		1/4		1/4		1/4	
1/2	79,167	1/2	64,081	1/2	49,001	1/2	33,944	1/2	18,860	1/2	3,777	1/2		1/2		1/2		1/2	
3/4	78,853	3/4	63,767	3/4	48,687	3/4	33,630	3/4	18,546	3/4	3,464	3/4		3/4		3/4		3/4	
9	78,539	9	63,452	9	48,374	9	33,316	9	18,232	9	3,151	9		9		9		9	
1/4	78,224	1/4	63,138	1/4	48,060	1/4	33,001	1/4	17,918	1/4	2,857	1/4		1/4		1/4		1/4	
1/2	77,910	1/2	62,824	1/2	47,747	1/2	32,687	1/2	17,603	1/2	2,563	1/2		1/2		1/2		1/2	
3/4	77,596	3/4	62,510	3/4	47,434	3/4	32,373	3/4	17,289	3/4	2,269	3/4		3/4		3/4		3/4	
10	77,281	10	62,195	10	47,120	10	32,058	10	16,975	10	1,975	10		10		10		10	
1/4	76,967	1/4	61,881	1/4	46,807	1/4	31,744	1/4	16,660	1/4	1,740	1/4		1/4		1/4		1/4	
1/2	76,653	1/2	61,567	1/2	46,494	1/2	31,430	1/2	16,346	1/2	1,504	1/2		1/2		1/2		1/2	
3/4	76,338	3/4	61,252	3/4	46,180	3/4	31,116	3/4	16,032	3/4	1,268	3/4		3/4		3/4		3/4	
11	76,024	11	60,938	11	45,867	11	30,801	11	15,718	11	1,033	11		11		11		11	
1/4	75,710	1/4	60,624	1/4	45,554	1/4	30,487	1/4	15,403	1/4		1/4		1/4		1/4		1/4	
1/2	75,396	1/2	60,309	1/2	45,240	1/2	30,173	1/2	15,089	1/2		1/2		1/2		1/2		1/2	
3/4	75,081	3/4	59,995	3/4	44,927	3/4	29,859	3/4	14,775	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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



# BARGE "HFL 415"

## 3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	189,290	0	178,956	0	168,622	0	158,256	0	147,810	0	133,517	0	118,548	0	103,574
1/4		1/4		1/4	189,075	1/4	178,741	1/4	168,407	1/4	158,040	1/4	147,563	1/4	133,205	1/4	118,236	1/4	103,262
1/2		1/2		1/2	188,860	1/2	178,526	1/2	168,191	1/2	157,823	1/2	147,316	1/2	132,893	1/2	117,924	1/2	102,949
3/4		3/4		3/4	188,645	3/4	178,310	3/4	167,976	3/4	157,607	3/4	147,069	3/4	132,581	3/4	117,612	3/4	102,637
1		1		1	188,430	1	178,095	1	167,761	1	157,391	1	146,821	1	132,269	1	117,301	1	102,325
1/4		1/4		1/4	188,215	1/4	177,880	1/4	167,545	1/4	157,175	1/4	146,558	1/4	131,958	1/4	116,989	1/4	102,013
1/2		1/2		1/2	187,999	1/2	177,664	1/2	167,329	1/2	156,959	1/2	146,295	1/2	131,646	1/2	116,677	1/2	101,700
3/4		3/4		3/4	187,784	3/4	177,449	3/4	167,114	3/4	156,743	3/4	146,032	3/4	131,334	3/4	116,365	3/4	101,388
2		2		2	187,569	2	177,234	2	166,898	2	156,527	2	145,769	2	131,022	2	116,053	2	101,076
1/4		1/4		1/4	187,353	1/4	177,018	1/4	166,682	1/4	156,311	1/4	145,491	1/4	130,710	1/4	115,741	1/4	100,764
1/2		1/2		1/2	187,138	1/2	176,803	1/2	166,466	1/2	156,095	1/2	145,212	1/2	130,398	1/2	115,429	1/2	100,451
3/4		3/4		3/4	186,922	3/4	176,588	3/4	166,250	3/4	155,879	3/4	144,933	3/4	130,086	3/4	115,118	3/4	100,139
3		3		3	186,707	3	176,373	3	166,034	3	155,663	3	144,655	3	129,775	3	114,806	3	99,827
1/4		1/4		1/4	186,492	1/4	176,157	1/4	165,818	1/4	155,447	1/4	144,360	1/4	129,463	1/4	114,494	1/4	99,514
1/2		1/2		1/2	186,276	1/2	175,942	1/2	165,602	1/2	155,231	1/2	144,065	1/2	129,151	1/2	114,182	1/2	99,202
3/4		3/4		3/4	186,061	3/4	175,727	3/4	165,386	3/4	155,015	3/4	143,770	3/4	128,839	3/4	113,870	3/4	98,890
4		4		4	185,846	4	175,511	4	165,169	4	154,799	4	143,476	4	128,527	4	113,558	4	98,578
1/4		1/4		1/4	185,630	1/4	175,296	1/4	164,953	1/4	154,583	1/4	143,169	1/4	128,215	1/4	113,246	1/4	98,266
1/2		1/2		1/2	185,415	1/2	175,081	1/2	164,737	1/2	154,367	1/2	142,861	1/2	127,903	1/2	112,935	1/2	97,953
3/4		3/4		3/4	185,200	3/4	174,865	3/4	164,521	3/4	154,151	3/4	142,554	3/4	127,592	3/4	112,623	3/4	97,641
5		5		5	184,984	5	174,650	5	164,305	5	153,934	5	142,247	5	127,280	5	112,311	5	97,329
1/4		1/4		1/4	184,769	1/4	174,435	1/4	164,089	1/4	153,718	1/4	141,936	1/4	126,968	1/4	111,999	1/4	97,017
1/2		1/2		1/2	184,554	1/2	174,220	1/2	163,873	1/2	153,502	1/2	141,624	1/2	126,656	1/2	111,687	1/2	96,705
3/4		3/4		3/4	184,339	3/4	174,004	3/4	163,657	3/4	153,286	3/4	141,313	3/4	126,344	3/4	111,375	3/4	96,393
6		6		6	184,123	6	173,789	6	163,441	6	153,070	6	141,001	6	126,032	6	111,063	6	96,081
1/4		1/4		1/4	183,908	1/4	173,574	1/4	163,225	1/4	152,854	1/4	140,689	1/4	125,721	1/4	110,752	1/4	95,769
1/2		1/2		1/2	183,693	1/2	173,358	1/2	163,009	1/2	152,638	1/2	140,377	1/2	125,409	1/2	110,440	1/2	95,457
3/4		3/4		3/4	183,477	3/4	173,143	3/4	162,793	3/4	152,422	3/4	140,066	3/4	125,097	3/4	110,128	3/4	95,145
7		7		7	183,262	7	172,928	7	162,577	7	152,206	7	139,754	7	124,785	7	109,816	7	94,833
1/4		1/4		1/4	183,047	1/4	172,712	1/4	162,361	1/4	151,990	1/4	139,442	1/4	124,473	1/4	109,504	1/4	94,521
1/2		1/2		1/2	182,831	1/2	172,497	1/2	162,145	1/2	151,774	1/2	139,130	1/2	124,161	1/2	109,192	1/2	94,209
3/4		3/4		3/4	182,616	3/4	172,282	3/4	161,929	3/4	151,558	3/4	138,818	3/4	123,849	3/4	108,880	3/4	93,897
8		8	192,043	8	182,401	8	172,067	8	161,713	8	151,342	8	138,506	8	123,538	8	108,568	8	93,585
1/4		1/4	191,919	1/4	182,186	1/4	171,851	1/4	161,496	1/4	151,126	1/4	138,195	1/4	123,226	1/4	108,256	1/4	93,273
1/2		1/2	191,796	1/2	181,970	1/2	171,636	1/2	161,280	1/2	150,910	1/2	137,883	1/2	122,914	1/2	107,945	1/2	92,961
3/4		3/4	191,672	3/4	181,755	3/4	171,421	3/4	161,064	3/4	150,694	3/4	137,571	3/4	122,602	3/4	107,633	3/4	92,649
9		9	191,548	9	181,540	9	171,205	9	160,848	9	150,478	9	137,259	9	122,290	9	107,321	9	92,337
1/4		1/4	191,389	1/4	181,324	1/4	170,990	1/4	160,632	1/4	150,261	1/4	136,947	1/4	121,978	1/4	107,008	1/4	92,025
1/2		1/2	191,229	1/2	181,109	1/2	170,775	1/2	160,416	1/2	150,045	1/2	136,635	1/2	121,666	1/2	106,696	1/2	91,713
3/4		3/4	191,069	3/4	180,894	3/4	170,560	3/4	160,200	3/4	149,829	3/4	136,323	3/4	121,355	3/4	106,384	3/4	91,401
10		10	190,910	10	180,678	10	170,344	10	159,984	10	149,613	10	136,012	10	121,043	10	106,072	10	91,089
1/4		1/4	190,716	1/4	180,463	1/4	170,129	1/4	159,768	1/4	149,394	1/4	135,700	1/4	120,731	1/4	105,760	1/4	90,777
1/2		1/2	190,523	1/2	180,248	1/2	169,914	1/2	159,552	1/2	149,174	1/2	135,388	1/2	120,419	1/2	105,448	1/2	90,465
3/4		3/4	190,330	3/4	180,033	3/4	169,698	3/4	159,336	3/4	148,955	3/4	135,076	3/4	120,107	3/4	105,135	3/4	90,153
11		11	190,137	11	179,817	11	169,483	11	159,120	11	148,735	11	134,764	11	119,795	11	104,823	11	89,841
1/4		1/4	189,925	1/4	179,602	1/4	169,268	1/4	158,904	1/4	148,504	1/4	134,452	1/4	119,483	1/4	104,511	1/4	89,529
1/2		1/2	189,714	1/2	179,387	1/2	169,052	1/2	158,688	1/2	148,273	1/2	134,141	1/2	119,172	1/2	104,198	1/2	89,217
3/4		3/4	189,502	3/4	179,171	3/4	168,837	3/4	158,472	3/4	148,042	3/4	133,829	3/4	118,860	3/4	103,886	3/4	88,905

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## 3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	88,593	0	73,629	0	58,721	0	44,181	0	29,381	0	14,388	0		0		0		0	
1/4	88,280	1/4	73,318	1/4	58,415	1/4	43,876	1/4	29,069	1/4	14,076	1/4		1/4		1/4		1/4	
1/2	87,968	1/2	73,008	1/2	58,109	1/2	43,571	1/2	28,757	1/2	13,763	1/2		1/2		1/2		1/2	
3/4	87,656	3/4	72,698	3/4	57,803	3/4	43,266	3/4	28,445	3/4	13,451	3/4		3/4		3/4		3/4	
1	87,344	1	72,387	1	57,498	1	42,961	1	28,133	1	13,139	1		1		1		1	
1/4	87,032	1/4	72,077	1/4	57,194	1/4	42,656	1/4	27,820	1/4	12,826	1/4		1/4		1/4		1/4	
1/2	86,719	1/2	71,767	1/2	56,890	1/2	42,351	1/2	27,508	1/2	12,514	1/2		1/2		1/2		1/2	
3/4	86,407	3/4	71,456	3/4	56,585	3/4	42,046	3/4	27,196	3/4	12,201	3/4		3/4		3/4		3/4	
2	86,095	2	71,146	2	56,281	2	41,741	2	26,884	2	11,889	2		2		2		2	
1/4	85,782	1/4	70,836	1/4	55,979	1/4	41,436	1/4	26,571	1/4	11,576	1/4		1/4		1/4		1/4	
1/2	85,470	1/2	70,525	1/2	55,676	1/2	41,131	1/2	26,259	1/2	11,264	1/2		1/2		1/2		1/2	
3/4	85,158	3/4	70,215	3/4	55,374	3/4	40,826	3/4	25,947	3/4	10,951	3/4		3/4		3/4		3/4	
3	84,845	3	69,904	3	55,071	3	40,521	3	25,634	3	10,638	3		3		3		3	
1/4	84,533	1/4	69,594	1/4	54,769	1/4	40,215	1/4	25,322	1/4	10,326	1/4		1/4		1/4		1/4	
1/2	84,221	1/2	69,284	1/2	54,466	1/2	39,910	1/2	25,010	1/2	10,013	1/2		1/2		1/2		1/2	
3/4	83,908	3/4	68,973	3/4	54,164	3/4	39,605	3/4	24,697	3/4	9,700	3/4		3/4		3/4		3/4	
4	83,596	4	68,663	4	53,861	4	39,300	4	24,385	4	9,387	4		4		4		4	
1/4	83,284	1/4	68,353	1/4	53,559	1/4	38,995	1/4	24,072	1/4	9,074	1/4		1/4		1/4		1/4	
1/2	82,971	1/2	68,042	1/2	53,256	1/2	38,690	1/2	23,760	1/2	8,761	1/2		1/2		1/2		1/2	
3/4	82,659	3/4	67,732	3/4	52,953	3/4	38,385	3/4	23,448	3/4	8,448	3/4		3/4		3/4		3/4	
5	82,347	5	67,421	5	52,651	5	38,080	5	23,135	5	8,136	5		5		5		5	
1/4	82,034	1/4	67,111	1/4	52,348	1/4	37,775	1/4	22,823	1/4	7,823	1/4		1/4		1/4		1/4	
1/2	81,722	1/2	66,801	1/2	52,046	1/2	37,470	1/2	22,510	1/2	7,510	1/2		1/2		1/2		1/2	
3/4	81,410	3/4	66,490	3/4	51,743	3/4	37,165	3/4	22,198	3/4	7,198	3/4		3/4		3/4		3/4	
6	81,097	6	66,180	6	51,441	6	36,860	6	21,886	6	6,885	6		6		6		6	
1/4	80,785	1/4	65,870	1/4	51,138	1/4	36,552	1/4	21,573	1/4	6,573	1/4		1/4		1/4		1/4	
1/2	80,473	1/2	65,559	1/2	50,836	1/2	36,243	1/2	21,261	1/2	6,260	1/2		1/2		1/2		1/2	
3/4	80,160	3/4	65,249	3/4	50,533	3/4	35,935	3/4	20,948	3/4	5,948	3/4		3/4		3/4		3/4	
7	79,848	7	64,939	7	50,231	7	35,627	7	20,636	7	5,635	7		7		7		7	
1/4	79,536	1/4	64,628	1/4	49,928	1/4	35,315	1/4	20,324	1/4	5,322	1/4		1/4		1/4		1/4	
1/2	79,223	1/2	64,318	1/2	49,626	1/2	35,003	1/2	20,011	1/2	5,010	1/2		1/2		1/2		1/2	
3/4	78,911	3/4	64,007	3/4	49,323	3/4	34,691	3/4	19,699	3/4	4,697	3/4		3/4		3/4		3/4	
8	78,599	8	63,697	8	49,021	8	34,379	8	19,386	8	4,385	8		8		8		8	
1/4	78,287	1/4	63,386	1/4	48,718	1/4	34,067	1/4	19,074	1/4	4,073	1/4		1/4		1/4		1/4	
1/2	77,976	1/2	63,075	1/2	48,416	1/2	33,755	1/2	18,762	1/2	3,761	1/2		1/2		1/2		1/2	
3/4	77,665	3/4	62,763	3/4	48,113	3/4	33,442	3/4	18,449	3/4	3,449	3/4		3/4		3/4		3/4	
9	77,353	9	62,452	9	47,810	9	33,130	9	18,137	9	3,137	9		9		9		9	
1/4	77,043	1/4	62,140	1/4	47,508	1/4	32,817	1/4	17,824	1/4	2,845	1/4		1/4		1/4		1/4	
1/2	76,732	1/2	61,828	1/2	47,206	1/2	32,505	1/2	17,512	1/2	2,552	1/2		1/2		1/2		1/2	
3/4	76,422	3/4	61,516	3/4	46,904	3/4	32,193	3/4	17,200	3/4	2,260	3/4		3/4		3/4		3/4	
10	76,112	10	61,204	10	46,602	10	31,880	10	16,887	10	1,967	10		10		10		10	
1/4	75,801	1/4	60,892	1/4	46,300	1/4	31,568	1/4	16,575	1/4	1,732	1/4		1/4		1/4		1/4	
1/2	75,491	1/2	60,580	1/2	45,998	1/2	31,255	1/2	16,262	1/2	1,498	1/2		1/2		1/2		1/2	
3/4	75,181	3/4	60,268	3/4	45,697	3/4	30,943	3/4	15,950	3/4	1,263	3/4		3/4		3/4		3/4	
11	74,870	11	59,956	11	45,395	11	30,631	11	15,638	11	1,028	11		11		11		11	
1/4	74,560	1/4	59,647	1/4	45,092	1/4	30,318	1/4	15,325	1/4		1/4		1/4		1/4		1/4	
1/2	74,250	1/2	59,338	1/2	44,788	1/2	30,006	1/2	15,013	1/2		1/2		1/2		1/2		1/2	
3/4	73,939	3/4	59,029	3/4	44,485	3/4	29,694	3/4	14,701	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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



# BARGE "HFL 415"

## 3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	190,263	0	179,932	0	169,601	0	159,238	0	148,796	0	134,477	0	119,480	0	104,478
1/4		1/4		1/4	190,048	1/4	179,717	1/4	169,386	1/4	159,022	1/4	148,548	1/4	134,165	1/4	119,168	1/4	104,165
1/2		1/2		1/2	189,833	1/2	179,502	1/2	169,171	1/2	158,806	1/2	148,301	1/2	133,853	1/2	118,855	1/2	103,852
3/4		3/4		3/4	189,618	3/4	179,286	3/4	168,955	3/4	158,590	3/4	148,054	3/4	133,540	3/4	118,543	3/4	103,540
1		1		1	189,403	1	179,071	1	168,740	1	158,374	1	147,806	1	133,228	1	118,231	1	103,227
1/4		1/4		1/4	189,188	1/4	178,856	1/4	168,525	1/4	158,158	1/4	147,543	1/4	132,915	1/4	117,918	1/4	102,914
1/2		1/2		1/2	188,973	1/2	178,641	1/2	168,309	1/2	157,942	1/2	147,280	1/2	132,603	1/2	117,606	1/2	102,601
3/4		3/4		3/4	188,757	3/4	178,426	3/4	168,093	3/4	157,726	3/4	147,017	3/4	132,290	3/4	117,293	3/4	102,288
2		2		2	188,542	2	178,210	2	167,878	2	157,510	2	146,753	2	131,978	2	116,981	2	101,975
1/4		1/4		1/4	188,327	1/4	177,995	1/4	167,662	1/4	157,294	1/4	146,474	1/4	131,665	1/4	116,668	1/4	101,662
1/2		1/2		1/2	188,111	1/2	177,780	1/2	167,446	1/2	157,078	1/2	146,195	1/2	131,353	1/2	116,356	1/2	101,350
3/4		3/4		3/4	187,896	3/4	177,565	3/4	167,230	3/4	156,862	3/4	145,916	3/4	131,041	3/4	116,043	3/4	101,037
3		3		3	187,681	3	177,349	3	167,014	3	156,646	3	145,636	3	130,728	3	115,731	3	100,724
1/4		1/4		1/4	187,465	1/4	177,134	1/4	166,798	1/4	156,430	1/4	145,341	1/4	130,416	1/4	115,419	1/4	100,411
1/2		1/2		1/2	187,250	1/2	176,919	1/2	166,582	1/2	156,214	1/2	145,046	1/2	130,103	1/2	115,106	1/2	100,098
3/4		3/4		3/4	187,035	3/4	176,704	3/4	166,366	3/4	155,998	3/4	144,750	3/4	129,791	3/4	114,794	3/4	99,785
4		4		4	186,820	4	176,488	4	166,150	4	155,782	4	144,455	4	129,478	4	114,481	4	99,472
1/4		1/4		1/4	186,604	1/4	176,273	1/4	165,934	1/4	155,566	1/4	144,147	1/4	129,166	1/4	114,169	1/4	99,160
1/2		1/2		1/2	186,389	1/2	176,058	1/2	165,718	1/2	155,350	1/2	143,840	1/2	128,853	1/2	113,856	1/2	98,847
3/4		3/4		3/4	186,174	3/4	175,843	3/4	165,502	3/4	155,134	3/4	143,532	3/4	128,541	3/4	113,544	3/4	98,534
5		5		5	185,959	5	175,628	5	165,286	5	154,918	5	143,224	5	128,229	5	113,231	5	98,221
1/4		1/4		1/4	185,743	1/4	175,412	1/4	165,070	1/4	154,702	1/4	142,912	1/4	127,916	1/4	112,919	1/4	97,908
1/2		1/2		1/2	185,528	1/2	175,197	1/2	164,854	1/2	154,486	1/2	142,600	1/2	127,604	1/2	112,607	1/2	97,595
3/4		3/4		3/4	185,313	3/4	174,982	3/4	164,638	3/4	154,270	3/4	142,288	3/4	127,291	3/4	112,294	3/4	97,282
6		6		6	185,098	6	174,767	6	164,422	6	154,054	6	141,976	6	126,979	6	111,982	6	96,970
1/4		1/4		1/4	184,882	1/4	174,551	1/4	164,206	1/4	153,838	1/4	141,663	1/4	126,666	1/4	111,669	1/4	96,657
1/2		1/2		1/2	184,667	1/2	174,336	1/2	163,990	1/2	153,622	1/2	141,351	1/2	126,354	1/2	111,357	1/2	96,344
3/4		3/4		3/4	184,452	3/4	174,121	3/4	163,774	3/4	153,406	3/4	141,039	3/4	126,042	3/4	111,044	3/4	96,031
7		7		7	184,237	7	173,906	7	163,558	7	153,190	7	140,726	7	125,729	7	110,732	7	95,718
1/4		1/4		1/4	184,022	1/4	173,690	1/4	163,342	1/4	152,974	1/4	140,414	1/4	125,417	1/4	110,419	1/4	95,405
1/2		1/2		1/2	183,806	1/2	173,475	1/2	163,126	1/2	152,758	1/2	140,101	1/2	125,104	1/2	110,107	1/2	95,092
3/4		3/4		3/4	183,591	3/4	173,260	3/4	162,910	3/4	152,542	3/4	139,789	3/4	124,792	3/4	109,794	3/4	94,780
8		8	193,015	8	183,376	8	173,045	8	162,694	8	152,326	8	139,476	8	124,479	8	109,482	8	94,467
1/4		1/4	192,891	1/4	183,161	1/4	172,830	1/4	162,478	1/4	152,110	1/4	139,164	1/4	124,167	1/4	109,169	1/4	94,154
1/2		1/2	192,768	1/2	182,945	1/2	172,614	1/2	162,262	1/2	151,894	1/2	138,852	1/2	123,854	1/2	108,857	1/2	93,841
3/4		3/4	192,644	3/4	182,730	3/4	172,399	3/4	162,046	3/4	151,678	3/4	138,539	3/4	123,542	3/4	108,544	3/4	93,528
9		9	192,520	9	182,515	9	172,184	9	161,830	9	151,462	9	138,227	9	123,230	9	108,232	9	93,215
1/4		1/4	192,361	1/4	182,300	1/4	171,969	1/4	161,614	1/4	151,246	1/4	137,914	1/4	122,917	1/4	107,919	1/4	92,902
1/2		1/2	192,201	1/2	182,084	1/2	171,753	1/2	161,398	1/2	151,030	1/2	137,602	1/2	122,605	1/2	107,606	1/2	92,590
3/4		3/4	192,042	3/4	181,869	3/4	171,538	3/4	161,182	3/4	150,814	3/4	137,289	3/4	122,292	3/4	107,294	3/4	92,277
10		10	191,882	10	181,654	10	171,323	10	160,966	10	150,598	10	136,977	10	121,980	10	106,981	10	91,964
1/4		1/4	191,689	1/4	181,439	1/4	171,108	1/4	160,750	1/4	150,379	1/4	136,664	1/4	121,667	1/4	106,668	1/4	91,651
1/2		1/2	191,496	1/2	181,224	1/2	170,892	1/2	160,534	1/2	150,159	1/2	136,352	1/2	121,355	1/2	106,355	1/2	91,338
3/4		3/4	191,303	3/4	181,008	3/4	170,677	3/4	160,318	3/4	149,940	3/4	136,040	3/4	121,042	3/4	106,042	3/4	91,025
11		11	191,110	11	180,793	11	170,462	11	160,102	11	149,720	11	135,727	11	120,730	11	105,730	11	90,712
1/4		1/4	190,898	1/4	180,578	1/4	170,247	1/4	159,886	1/4	149,489	1/4	135,415	1/4	120,418	1/4	105,417	1/4	90,399
1/2		1/2	190,686	1/2	180,363	1/2	170,032	1/2	159,670	1/2	149,258	1/2	135,102	1/2	120,105	1/2	105,104	1/2	90,087
3/4		3/4	190,475	3/4	180,147	3/4	169,816	3/4	159,454	3/4	149,027	3/4	134,790	3/4	119,793	3/4	104,791	3/4	89,774

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 TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## 3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-11"

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	89,461	0	74,444	0	59,427	0	44,413	0	29,410	0	14,394	0		0		0		0	
1/4	89,148	1/4	74,131	1/4	59,114	1/4	44,100	1/4	29,098	1/4	14,081	1/4		1/4		1/4		1/4	
1/2	88,835	1/2	73,818	1/2	58,801	1/2	43,788	1/2	28,785	1/2	13,768	1/2		1/2		1/2		1/2	
3/4	88,522	3/4	73,505	3/4	58,488	3/4	43,476	3/4	28,472	3/4	13,455	3/4		3/4		3/4		3/4	
1	88,209	1	73,192	1	58,175	1	43,163	1	28,159	1	13,142	1		1		1		1	
1/4	87,897	1/4	72,879	1/4	57,862	1/4	42,851	1/4	27,846	1/4	12,830	1/4		1/4		1/4		1/4	
1/2	87,584	1/2	72,567	1/2	57,549	1/2	42,538	1/2	27,533	1/2	12,517	1/2		1/2		1/2		1/2	
3/4	87,271	3/4	72,254	3/4	57,237	3/4	42,226	3/4	27,221	3/4	12,204	3/4		3/4		3/4		3/4	
2	86,958	2	71,941	2	56,924	2	41,914	2	26,908	2	11,891	2		2		2		2	
1/4	86,645	1/4	71,628	1/4	56,611	1/4	41,601	1/4	26,595	1/4	11,578	1/4		1/4		1/4		1/4	
1/2	86,332	1/2	71,315	1/2	56,298	1/2	41,289	1/2	26,282	1/2	11,265	1/2		1/2		1/2		1/2	
3/4	86,019	3/4	71,002	3/4	55,985	3/4	40,977	3/4	25,969	3/4	10,952	3/4		3/4		3/4		3/4	
3	85,707	3	70,689	3	55,672	3	40,664	3	25,656	3	10,640	3		3		3		3	
1/4	85,394	1/4	70,377	1/4	55,359	1/4	40,352	1/4	25,343	1/4	10,327	1/4		1/4		1/4		1/4	
1/2	85,081	1/2	70,064	1/2	55,047	1/2	40,040	1/2	25,031	1/2	10,014	1/2		1/2		1/2		1/2	
3/4	84,768	3/4	69,751	3/4	54,734	3/4	39,727	3/4	24,718	3/4	9,701	3/4		3/4		3/4		3/4	
4	84,455	4	69,438	4	54,421	4	39,415	4	24,405	4	9,388	4		4		4		4	
1/4	84,142	1/4	69,125	1/4	54,108	1/4	39,102	1/4	24,092	1/4	9,075	1/4		1/4		1/4		1/4	
1/2	83,829	1/2	68,812	1/2	53,795	1/2	38,790	1/2	23,779	1/2	8,763	1/2		1/2		1/2		1/2	
3/4	83,517	3/4	68,499	3/4	53,482	3/4	38,478	3/4	23,466	3/4	8,450	3/4		3/4		3/4		3/4	
5	83,204	5	68,187	5	53,169	5	38,165	5	23,154	5	8,137	5		5		5		5	
1/4	82,891	1/4	67,874	1/4	52,857	1/4	37,853	1/4	22,841	1/4	7,824	1/4		1/4		1/4		1/4	
1/2	82,578	1/2	67,561	1/2	52,544	1/2	37,541	1/2	22,528	1/2	7,511	1/2		1/2		1/2		1/2	
3/4	82,265	3/4	67,248	3/4	52,231	3/4	37,228	3/4	22,215	3/4	7,198	3/4		3/4		3/4		3/4	
6	81,952	6	66,935	6	51,918	6	36,916	6	21,902	6	6,885	6		6		6		6	
1/4	81,639	1/4	66,622	1/4	51,605	1/4	36,604	1/4	21,589	1/4	6,573	1/4		1/4		1/4		1/4	
1/2	81,327	1/2	66,309	1/2	51,292	1/2	36,291	1/2	21,276	1/2	6,260	1/2		1/2		1/2		1/2	
3/4	81,014	3/4	65,997	3/4	50,979	3/4	35,979	3/4	20,964	3/4	5,947	3/4		3/4		3/4		3/4	
7	80,701	7	65,684	7	50,667	7	35,666	7	20,651	7	5,634	7		7		7		7	
1/4	80,388	1/4	65,371	1/4	50,354	1/4	35,354	1/4	20,338	1/4	5,322	1/4		1/4		1/4		1/4	
1/2	80,075	1/2	65,058	1/2	50,041	1/2	35,041	1/2	20,025	1/2	5,009	1/2		1/2		1/2		1/2	
3/4	79,762	3/4	64,745	3/4	49,728	3/4	34,729	3/4	19,712	3/4	4,696	3/4		3/4		3/4		3/4	
8	79,449	8	64,432	8	49,415	8	34,416	8	19,399	8	4,384	8		8		8		8	
1/4	79,137	1/4	64,119	1/4	49,102	1/4	34,103	1/4	19,087	1/4	4,072	1/4		1/4		1/4		1/4	
1/2	78,824	1/2	63,807	1/2	48,789	1/2	33,790	1/2	18,774	1/2	3,760	1/2		1/2		1/2		1/2	
3/4	78,511	3/4	63,494	3/4	48,477	3/4	33,478	3/4	18,461	3/4	3,448	3/4		3/4		3/4		3/4	
9	78,198	9	63,181	9	48,164	9	33,165	9	18,148	9	3,136	9		9		9		9	
1/4	77,885	1/4	62,868	1/4	47,851	1/4	32,852	1/4	17,835	1/4	2,844	1/4		1/4		1/4		1/4	
1/2	77,572	1/2	62,555	1/2	47,538	1/2	32,539	1/2	17,522	1/2	2,551	1/2		1/2		1/2		1/2	
3/4	77,259	3/4	62,242	3/4	47,226	3/4	32,226	3/4	17,209	3/4	2,259	3/4		3/4		3/4		3/4	
10	76,947	10	61,929	10	46,913	10	31,913	10	16,897	10	1,966	10		10		10		10	
1/4	76,634	1/4	61,617	1/4	46,600	1/4	31,600	1/4	16,584	1/4	1,732	1/4		1/4		1/4		1/4	
1/2	76,321	1/2	61,304	1/2	46,288	1/2	31,288	1/2	16,271	1/2	1,497	1/2		1/2		1/2		1/2	
3/4	76,008	3/4	60,991	3/4	45,975	3/4	30,975	3/4	15,958	3/4	1,262	3/4		3/4		3/4		3/4	
11	75,695	11	60,678	11	45,663	11	30,662	11	15,645	11	1,028	11		11		11		11	
1/4	75,382	1/4	60,365	1/4	45,350	1/4	30,349	1/4	15,332	1/4		1/4		1/4		1/4		1/4	
1/2	75,069	1/2	60,052	1/2	45,038	1/2	30,036	1/2	15,019	1/2		1/2		1/2		1/2		1/2	
3/4	74,757	3/4	59,739	3/4	44,725	3/4	29,723	3/4	14,707	3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/21/2012 CL - SW  
CALCULATED: 02/22/2012 CL  
PRINTED: 02/22/2012 SW

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

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



# BARGE "HFL 415"

## PORT SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-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	4,825	0	3,674	0	2,521	0	1,369	0	216	0		0		0	
1/4		1/4		1/4	4,801	1/4	3,650	1/4	2,497	1/4	1,345	1/4	192	1/4		1/4		1/4	
1/2		1/2		1/2	4,777	1/2	3,626	1/2	2,473	1/2	1,321	1/2	168	1/2		1/2		1/2	
3/4		3/4		3/4	4,754	3/4	3,602	3/4	2,449	3/4	1,297	3/4	144	3/4		3/4		3/4	
1		1		1	4,730	1	3,578	1	2,426	1	1,273	1	120	1		1		1	
1/4		1/4		1/4	4,706	1/4	3,553	1/4	2,402	1/4	1,249	1/4	96	1/4		1/4		1/4	
1/2		1/2		1/2	4,682	1/2	3,529	1/2	2,378	1/2	1,225	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,658	3/4	3,505	3/4	2,354	3/4	1,201	3/4		3/4		3/4		3/4	
2		2		2	4,634	2	3,481	2	2,330	2	1,177	2		2		2		2	
1/4		1/4		1/4	4,610	1/4	3,457	1/4	2,306	1/4	1,153	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,586	1/2	3,433	1/2	2,282	1/2	1,129	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,562	3/4	3,409	3/4	2,258	3/4	1,105	3/4		3/4		3/4		3/4	
3		3		3	4,538	3	3,385	3	2,234	3	1,081	3		3		3		3	
1/4		1/4		1/4	4,514	1/4	3,361	1/4	2,210	1/4	1,057	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,490	1/2	3,337	1/2	2,186	1/2	1,033	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,466	3/4	3,313	3/4	2,162	3/4	1,009	3/4		3/4		3/4		3/4	
4		4		4	4,442	4	3,289	4	2,138	4	985	4		4		4		4	
1/4		1/4		1/4	4,418	1/4	3,265	1/4	2,114	1/4	961	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,394	1/2	3,241	1/2	2,090	1/2	937	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,370	3/4	3,217	3/4	2,066	3/4	913	3/4		3/4		3/4		3/4	
5		5		5	4,346	5	3,193	5	2,042	5	889	5		5		5		5	
1/4		1/4		1/4	4,322	1/4	3,169	1/4	2,017	1/4	865	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,298	1/2	3,145	1/2	1,993	1/2	841	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,274	3/4	3,121	3/4	1,969	3/4	817	3/4		3/4		3/4		3/4	
6		6		6	4,250	6	3,097	6	1,945	6	793	6		6		6		6	
1/4		1/4		1/4	4,226	1/4	3,073	1/4	1,921	1/4	769	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,202	1/2	3,049	1/2	1,897	1/2	745	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,178	3/4	3,025	3/4	1,873	3/4	721	3/4		3/4		3/4		3/4	
7		7		7	4,154	7	3,001	7	1,849	7	697	7		7		7		7	
1/4		1/4		1/4	4,130	1/4	2,977	1/4	1,825	1/4	673	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,106	1/2	2,953	1/2	1,801	1/2	649	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,082	3/4	2,929	3/4	1,777	3/4	625	3/4		3/4		3/4		3/4	
8		8		8	4,058	8	2,905	8	1,753	8	601	8		8		8		8	
1/4		1/4		1/4	5,131	1/4	4,034	1/4	2,881	1/4	1,729	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	5,119	1/2	4,010	1/2	2,857	1/2	1,705	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	5,108	3/4	3,986	3/4	2,833	3/4	1,681	3/4		3/4		3/4		3/4	
9		9		9	5,096	9	3,962	9	2,809	9	1,657	9		9		9		9	
1/4		1/4		1/4	5,084	1/4	3,938	1/4	2,785	1/4	1,633	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	5,061	1/2	3,914	1/2	2,761	1/2	1,609	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	5,037	3/4	3,890	3/4	2,737	3/4	1,585	3/4		3/4		3/4		3/4	
10		10		10	5,014	10	3,866	10	2,713	10	1,561	10		10		10		10	
1/4		1/4		1/4	4,990	1/4	3,842	1/4	2,689	1/4	1,537	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,967	1/2	3,818	1/2	2,665	1/2	1,513	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,943	3/4	3,794	3/4	2,641	3/4	1,489	3/4		3/4		3/4		3/4	
11		11		11	4,919	11	3,770	11	2,617	11	1,465	11		11		11		11	
1/4		1/4		1/4	4,896	1/4	3,746	1/4	2,593	1/4	1,441	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,872	1/2	3,722	1/2	2,569	1/2	1,417	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,848	3/4	3,698	3/4	2,545	3/4	1,393	3/4		3/4		3/4		3/4	

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 TO THREADS ON "MMC" VALVE.

STRAPPED: 02/15/2012 CL - SW

CALCULATED: 02/16/2012 CL

PRINTED: 02/16/2012 CL

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



# BARGE "HFL 415"

## STBD SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01 1/2"

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	4,848	0	3,698	0	2,545	0	1,393	0	240	0		0		0	
1/4		1/4		1/4	4,825	1/4	3,674	1/4	2,521	1/4	1,369	1/4	216	1/4		1/4		1/4	
1/2		1/2		1/2	4,801	1/2	3,650	1/2	2,497	1/2	1,345	1/2	192	1/2		1/2		1/2	
3/4		3/4		3/4	4,777	3/4	3,626	3/4	2,473	3/4	1,321	3/4	168	3/4		3/4		3/4	
1		1		1	4,754	1	3,602	1	2,449	1	1,297	1	144	1		1		1	
1/4		1/4		1/4	4,730	1/4	3,578	1/4	2,426	1/4	1,273	1/4	120	1/4		1/4		1/4	
1/2		1/2		1/2	4,706	1/2	3,553	1/2	2,402	1/2	1,249	1/2	96	1/2		1/2		1/2	
3/4		3/4		3/4	4,682	3/4	3,529	3/4	2,378	3/4	1,225	3/4		3/4		3/4		3/4	
2		2		2	4,658	2	3,505	2	2,354	2	1,201	2		2		2		2	
1/4		1/4		1/4	4,634	1/4	3,481	1/4	2,330	1/4	1,177	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,610	1/2	3,457	1/2	2,306	1/2	1,153	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,586	3/4	3,433	3/4	2,282	3/4	1,129	3/4		3/4		3/4		3/4	
3		3		3	4,562	3	3,409	3	2,258	3	1,105	3		3		3		3	
1/4		1/4		1/4	4,538	1/4	3,385	1/4	2,234	1/4	1,081	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,514	1/2	3,361	1/2	2,210	1/2	1,057	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,490	3/4	3,337	3/4	2,186	3/4	1,033	3/4		3/4		3/4		3/4	
4		4		4	4,466	4	3,313	4	2,162	4	1,009	4		4		4		4	
1/4		1/4		1/4	4,442	1/4	3,289	1/4	2,138	1/4	985	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,418	1/2	3,265	1/2	2,114	1/2	961	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,394	3/4	3,241	3/4	2,090	3/4	937	3/4		3/4		3/4		3/4	
5		5		5	4,370	5	3,217	5	2,066	5	913	5		5		5		5	
1/4		1/4		1/4	4,346	1/4	3,193	1/4	2,042	1/4	889	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,322	1/2	3,169	1/2	2,017	1/2	865	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,298	3/4	3,145	3/4	1,993	3/4	841	3/4		3/4		3/4		3/4	
6		6		6	4,274	6	3,121	6	1,969	6	817	6		6		6		6	
1/4		1/4		1/4	4,250	1/4	3,097	1/4	1,945	1/4	793	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,226	1/2	3,073	1/2	1,921	1/2	769	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,202	3/4	3,049	3/4	1,897	3/4	745	3/4		3/4		3/4		3/4	
7		7		7	4,178	7	3,025	7	1,873	7	721	7		7		7		7	
1/4		1/4		1/4	4,154	1/4	3,001	1/4	1,849	1/4	697	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,130	1/2	2,977	1/2	1,825	1/2	673	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,106	3/4	2,953	3/4	1,801	3/4	649	3/4		3/4		3/4		3/4	
8		8		8	4,082	8	2,929	8	1,777	8	625	8		8		8		8	
1/4		1/4		1/4	4,058	1/4	2,905	1/4	1,753	1/4	601	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	5,131	1/2	4,034	1/2	2,881	1/2	577	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	5,119	3/4	4,010	3/4	2,857	3/4	552	3/4		3/4		3/4		3/4	
9		9		9	5,108	9	3,986	9	2,833	9	528	9		9		9		9	
1/4		1/4		1/4	5,096	1/4	3,962	1/4	2,809	1/4	504	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	5,084	1/2	3,938	1/2	2,785	1/2	480	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	5,061	3/4	3,914	3/4	2,761	3/4	456	3/4		3/4		3/4		3/4	
10		10		10	5,037	10	3,890	10	2,737	10	432	10		10		10		10	
1/4		1/4		1/4	5,014	1/4	3,866	1/4	2,713	1/4	408	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,990	1/2	3,842	1/2	2,689	1/2	384	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,967	3/4	3,818	3/4	2,665	3/4	360	3/4		3/4		3/4		3/4	
11		11		11	4,943	11	3,794	11	2,641	11	336	11		11		11		11	
1/4		1/4		1/4	4,919	1/4	3,770	1/4	2,617	1/4	312	1/4		1/4		1/4		1/4	
1/2		1/2		1/2	4,896	1/2	3,746	1/2	2,593	1/2	288	1/2		1/2		1/2		1/2	
3/4		3/4		3/4	4,872	3/4	3,722	3/4	2,569	3/4	264	3/4		3/4		3/4		3/4	

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 TO THREADS ON "MMC" VALVE.

STRAPPED: 02/15/2012 CL - SW

CALCULATED: 02/16/2012 CL

PRINTED: 02/16/2012 CL

CANCELS AND SUPERCEDES  
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT  
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>