



BARGE "HFL 409"

INNAGE 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	- 00-0/8	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
1 STBD	- 00-0/8	00-0/8	- 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
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 2 PORT IS 00-1/8"
 FOR A MEASURED INNAGE GAUGE OF 4'-00" ON 2 PORT, THE TRIM CORRECTED INNAGE IS 4'-00 1/8"

LENGTH BETWEEN DRAFT MARKS: 238'-06"

February 5, 2012

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 409"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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	385	0	13,000	0	27,923	0	42,942	0	57,900	0	72,878	0	87,885	0	102,905	0	117,920	0	132,933
1/4	562	1/4	13,301	1/4	28,236	1/4	43,255	1/4	58,211	1/4	73,191	1/4	88,198	1/4	103,218	1/4	118,232	1/4	133,245
1/2	739	1/2	13,602	1/2	28,549	1/2	43,568	1/2	58,522	1/2	73,504	1/2	88,511	1/2	103,530	1/2	118,545	1/2	133,558
3/4	916	3/4	13,904	3/4	28,862	3/4	43,881	3/4	58,832	3/4	73,816	3/4	88,824	3/4	103,843	3/4	118,858	3/4	133,871
1	1,093	1	14,205	1	29,175	1	44,194	1	59,143	1	74,129	1	89,137	1	104,156	1	119,171	1	134,184
1/4	1,329	1/4	14,510	1/4	29,487	1/4	44,507	1/4	59,453	1/4	74,442	1/4	89,450	1/4	104,469	1/4	119,483	1/4	134,496
1/2	1,565	1/2	14,815	1/2	29,800	1/2	44,820	1/2	59,764	1/2	74,755	1/2	89,763	1/2	104,782	1/2	119,796	1/2	134,809
3/4	1,801	3/4	15,121	3/4	30,113	3/4	45,133	3/4	60,074	3/4	75,068	3/4	90,075	3/4	105,095	3/4	120,109	3/4	135,122
2	2,037	2	15,426	2	30,426	2	45,446	2	60,385	2	75,381	2	90,388	2	105,408	2	120,422	2	135,435
1/4	2,292	1/4	15,735	1/4	30,739	1/4	45,759	1/4	60,695	1/4	75,694	1/4	90,701	1/4	105,721	1/4	120,735	1/4	135,748
1/2	2,546	1/2	16,044	1/2	31,052	1/2	46,072	1/2	61,006	1/2	76,007	1/2	91,014	1/2	106,034	1/2	121,047	1/2	136,060
3/4	2,801	3/4	16,353	3/4	31,365	3/4	46,384	3/4	61,317	3/4	76,320	3/4	91,327	3/4	106,347	3/4	121,360	3/4	136,373
3	3,055	3	16,662	3	31,678	3	46,697	3	61,627	3	76,633	3	91,640	3	106,660	3	121,673	3	136,686
1/4	3,312	1/4	16,974	1/4	31,991	1/4	47,010	1/4	61,938	1/4	76,946	1/4	91,953	1/4	106,972	1/4	121,986	1/4	136,999
1/2	3,568	1/2	17,286	1/2	32,304	1/2	47,323	1/2	62,249	1/2	77,259	1/2	92,266	1/2	107,285	1/2	122,298	1/2	137,311
3/4	3,825	3/4	17,598	3/4	32,617	3/4	47,636	3/4	62,559	3/4	77,571	3/4	92,579	3/4	107,598	3/4	122,611	3/4	137,624
4	4,081	4	17,910	4	32,929	4	47,949	4	62,870	4	77,884	4	92,892	4	107,911	4	122,924	4	137,937
1/4	4,341	1/4	18,223	1/4	33,242	1/4	48,261	1/4	63,182	1/4	78,197	1/4	93,204	1/4	108,224	1/4	123,237	1/4	138,250
1/2	4,602	1/2	18,536	1/2	33,555	1/2	48,573	1/2	63,493	1/2	78,510	1/2	93,517	1/2	108,536	1/2	123,549	1/2	138,563
3/4	4,862	3/4	18,849	3/4	33,868	3/4	48,886	3/4	63,805	3/4	78,823	3/4	93,830	3/4	108,849	3/4	123,862	3/4	138,875
5	5,122	5	19,162	5	34,181	5	49,198	5	64,117	5	79,136	5	94,143	5	109,162	5	124,175	5	139,188
1/4	5,386	1/4	19,474	1/4	34,494	1/4	49,509	1/4	64,429	1/4	79,449	1/4	94,456	1/4	109,475	1/4	124,488	1/4	139,501
1/2	5,650	1/2	19,787	1/2	34,807	1/2	49,821	1/2	64,742	1/2	79,761	1/2	94,769	1/2	109,788	1/2	124,801	1/2	139,814
3/4	5,914	3/4	20,100	3/4	35,120	3/4	50,132	3/4	65,055	3/4	80,074	3/4	95,082	3/4	110,100	3/4	125,113	3/4	140,126
6	6,178	6	20,413	6	35,433	6	50,444	6	65,368	6	80,386	6	95,395	6	110,413	6	125,426	6	140,439
1/4	6,446	1/4	20,726	1/4	35,746	1/4	50,755	1/4	65,681	1/4	80,698	1/4	95,708	1/4	110,726	1/4	125,739	1/4	140,752
1/2	6,714	1/2	21,039	1/2	36,059	1/2	51,066	1/2	65,994	1/2	81,010	1/2	96,021	1/2	111,039	1/2	126,052	1/2	141,065
3/4	6,982	3/4	21,352	3/4	36,371	3/4	51,377	3/4	66,306	3/4	81,323	3/4	96,334	3/4	111,351	3/4	126,364	3/4	141,377
7	7,250	7	21,665	7	36,684	7	51,689	7	66,619	7	81,635	7	96,646	7	111,664	7	126,677	7	141,690
1/4	7,524	1/4	21,978	1/4	36,997	1/4	51,999	1/4	66,932	1/4	81,947	1/4	96,959	1/4	111,977	1/4	126,990	1/4	142,003
1/2	7,799	1/2	22,291	1/2	37,310	1/2	52,310	1/2	67,245	1/2	82,259	1/2	97,272	1/2	112,290	1/2	127,303	1/2	142,316
3/4	8,073	3/4	22,603	3/4	37,623	3/4	52,621	3/4	67,558	3/4	82,571	3/4	97,585	3/4	112,602	3/4	127,616	3/4	142,629
8	8,347	8	22,916	8	37,936	8	52,932	8	67,871	8	82,883	8	97,898	8	112,915	8	127,928	8	142,941
1/4	8,630	1/4	23,229	1/4	38,249	1/4	53,242	1/4	68,184	1/4	83,195	1/4	98,211	1/4	113,228	1/4	128,241	1/4	143,254
1/2	8,913	1/2	23,542	1/2	38,562	1/2	53,553	1/2	68,497	1/2	83,507	1/2	98,524	1/2	113,541	1/2	128,554	1/2	143,567
3/4	9,196	3/4	23,855	3/4	38,875	3/4	53,863	3/4	68,810	3/4	83,820	3/4	98,837	3/4	113,854	3/4	128,867	3/4	143,880
9	9,479	9	24,168	9	39,188	9	54,174	9	69,123	9	84,132	9	99,150	9	114,166	9	129,179	9	144,192
1/4	9,769	1/4	24,481	1/4	39,500	1/4	54,484	1/4	69,436	1/4	84,444	1/4	99,463	1/4	114,479	1/4	129,492	1/4	144,505
1/2	10,058	1/2	24,794	1/2	39,813	1/2	54,795	1/2	69,749	1/2	84,757	1/2	99,776	1/2	114,792	1/2	129,805	1/2	144,818
3/4	10,347	3/4	25,107	3/4	40,126	3/4	55,106	3/4	70,061	3/4	85,069	3/4	100,088	3/4	115,105	3/4	130,118	3/4	145,131
10	10,637	10	25,420	10	40,439	10	55,416	10	70,374	10	85,382	10	100,401	10	115,417	10	130,430	10	145,444
1/4	10,930	1/4	25,733	1/4	40,752	1/4	55,727	1/4	70,687	1/4	85,695	1/4	100,714	1/4	115,730	1/4	130,743	1/4	145,756
1/2	11,223	1/2	26,045	1/2	41,065	1/2	56,037	1/2	71,000	1/2	86,008	1/2	101,027	1/2	116,043	1/2	131,056	1/2	146,069
3/4	11,517	3/4	26,358	3/4	41,378	3/4	56,348	3/4	71,313	3/4	86,321	3/4	101,340	3/4	116,356	3/4	131,369	3/4	146,382
11	11,810	11	26,671	11	41,691	11	56,658	11	71,626	11	86,633	11	101,653	11	116,668	11	131,682	11	146,695
1/4	12,107	1/4	26,984	1/4	42,004	1/4	56,969	1/4	71,939	1/4	86,946	1/4	101,966	1/4	116,981	1/4	131,994	1/4	147,007
1/2	12,405	1/2	27,297	1/2	42,317	1/2	57,279	1/2	72,252	1/2	87,259	1/2	102,279	1/2	117,294	1/2	132,307	1/2	147,320
3/4	12,702	3/4	27,610	3/4	42,630	3/4	57,590	3/4	72,565	3/4	87,572	3/4	102,592	3/4	117,607	3/4	132,620	3/4	147,633

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 INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 409"

1 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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	147,946	0	162,959	0	177,963	0	192,932	0	207,829	0		0		0		0		0	
1/4	148,258	1/4	163,271	1/4	178,275	1/4	193,244	1/4	208,109	1/4		1/4		1/4		1/4		1/4	
1/2	148,571	1/2	163,584	1/2	178,586	1/2	193,556	1/2	208,389	1/2		1/2		1/2		1/2		1/2	
3/4	148,884	3/4	163,897	3/4	178,898	3/4	193,867	3/4	208,669	3/4		3/4		3/4		3/4		3/4	
1	149,197	1	164,210	1	179,210	1	194,179	1	208,949	1		1		1		1		1	
1/4	149,510	1/4	164,523	1/4	179,522	1/4	194,491	1/4	209,180	1/4		1/4		1/4		1/4		1/4	
1/2	149,822	1/2	164,835	1/2	179,834	1/2	194,803	1/2	209,412	1/2		1/2		1/2		1/2		1/2	
3/4	150,135	3/4	165,148	3/4	180,146	3/4	195,115	3/4	209,644	3/4		3/4		3/4		3/4		3/4	
2	150,448	2	165,461	2	180,458	2	195,427	2	209,875	2		2		2		2		2	
1/4	150,761	1/4	165,774	1/4	180,769	1/4	195,739	1/4	210,055	1/4		1/4		1/4		1/4		1/4	
1/2	151,073	1/2	166,086	1/2	181,081	1/2	196,050	1/2	210,234	1/2		1/2		1/2		1/2		1/2	
3/4	151,386	3/4	166,399	3/4	181,393	3/4	196,362	3/4	210,414	3/4		3/4		3/4		3/4		3/4	
3	151,699	3	166,712	3	181,705	3	196,674	3	210,593	3		3		3		3		3	
1/4	152,012	1/4	167,025	1/4	182,017	1/4	196,986	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,324	1/2	167,338	1/2	182,329	1/2	197,298	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,637	3/4	167,650	3/4	182,641	3/4	197,610	3/4		3/4		3/4		3/4		3/4		3/4	
4	152,950	4	167,963	4	182,952	4	197,922	4		4		4		4		4		4	
1/4	153,263	1/4	168,276	1/4	183,264	1/4	198,234	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,576	1/2	168,589	1/2	183,576	1/2	198,545	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,888	3/4	168,901	3/4	183,888	3/4	198,857	3/4		3/4		3/4		3/4		3/4		3/4	
5	154,201	5	169,214	5	184,200	5	199,169	5		5		5		5		5		5	
1/4	154,514	1/4	169,527	1/4	184,512	1/4	199,480	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,827	1/2	169,840	1/2	184,824	1/2	199,791	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,139	3/4	170,152	3/4	185,135	3/4	200,101	3/4		3/4		3/4		3/4		3/4		3/4	
6	155,452	6	170,465	6	185,447	6	200,412	6		6		6		6		6		6	
1/4	155,765	1/4	170,778	1/4	185,759	1/4	200,722	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,078	1/2	171,091	1/2	186,071	1/2	201,032	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,391	3/4	171,404	3/4	186,383	3/4	201,341	3/4		3/4		3/4		3/4		3/4		3/4	
7	156,703	7	171,716	7	186,695	7	201,651	7		7		7		7		7		7	
1/4	157,016	1/4	172,029	1/4	187,007	1/4	201,961	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,329	1/2	172,342	1/2	187,318	1/2	202,271	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,642	3/4	172,655	3/4	187,630	3/4	202,580	3/4		3/4		3/4		3/4		3/4		3/4	
8	157,954	8	172,967	8	187,942	8	202,890	8		8		8		8		8		8	
1/4	158,267	1/4	173,280	1/4	188,254	1/4	203,200	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,580	1/2	173,593	1/2	188,566	1/2	203,510	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,893	3/4	173,906	3/4	188,878	3/4	203,820	3/4		3/4		3/4		3/4		3/4		3/4	
9	159,205	9	174,219	9	189,190	9	204,130	9		9		9		9		9		9	
1/4	159,518	1/4	174,531	1/4	189,501	1/4	204,439	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,831	1/2	174,843	1/2	189,813	1/2	204,749	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,144	3/4	175,155	3/4	190,125	3/4	205,059	3/4		3/4		3/4		3/4		3/4		3/4	
10	160,457	10	175,468	10	190,437	10	205,369	10		10		10		10		10		10	
1/4	160,769	1/4	175,780	1/4	190,749	1/4	205,678	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	161,082	1/2	176,091	1/2	191,061	1/2	205,987	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,395	3/4	176,403	3/4	191,373	3/4	206,297	3/4		3/4		3/4		3/4		3/4		3/4	
11	161,708	11	176,715	11	191,684	11	206,606	11		11		11		11		11		11	
1/4	162,020	1/4	177,027	1/4	191,996	1/4	206,912	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,333	1/2	177,339	1/2	192,308	1/2	207,217	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,646	3/4	177,651	3/4	192,620	3/4	207,523	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 409"

1 STBD

INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-09 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	385	0	13,000	0	27,922	0	42,942	0	57,957	0	72,974	0	87,993	0	103,013	0	118,028	0	133,041
1/4	562	1/4	13,301	1/4	28,235	1/4	43,255	1/4	58,269	1/4	73,286	1/4	88,306	1/4	103,326	1/4	118,341	1/4	133,354
1/2	739	1/2	13,602	1/2	28,548	1/2	43,568	1/2	58,582	1/2	73,599	1/2	88,619	1/2	103,639	1/2	118,654	1/2	133,667
3/4	916	3/4	13,904	3/4	28,861	3/4	43,880	3/4	58,895	3/4	73,912	3/4	88,932	3/4	103,952	3/4	118,966	3/4	133,980
1	1,093	1	14,205	1	29,174	1	44,193	1	59,207	1	74,225	1	89,245	1	104,265	1	119,279	1	134,292
1/4	1,329	1/4	14,510	1/4	29,487	1/4	44,506	1/4	59,520	1/4	74,538	1/4	89,558	1/4	104,577	1/4	119,592	1/4	134,605
1/2	1,565	1/2	14,815	1/2	29,800	1/2	44,819	1/2	59,833	1/2	74,851	1/2	89,871	1/2	104,890	1/2	119,905	1/2	134,918
3/4	1,801	3/4	15,120	3/4	30,113	3/4	45,132	3/4	60,145	3/4	75,164	3/4	90,184	3/4	105,203	3/4	120,217	3/4	135,231
2	2,037	2	15,426	2	30,426	2	45,445	2	60,458	2	75,477	2	90,497	2	105,516	2	120,530	2	135,543
1/4	2,292	1/4	15,735	1/4	30,739	1/4	45,758	1/4	60,771	1/4	75,790	1/4	90,809	1/4	105,829	1/4	120,843	1/4	135,856
1/2	2,546	1/2	16,044	1/2	31,051	1/2	46,071	1/2	61,083	1/2	76,103	1/2	91,122	1/2	106,142	1/2	121,156	1/2	136,169
3/4	2,801	3/4	16,353	3/4	31,364	3/4	46,384	3/4	61,396	3/4	76,416	3/4	91,435	3/4	106,455	3/4	121,469	3/4	136,482
3	3,055	3	16,662	3	31,677	3	46,697	3	61,709	3	76,728	3	91,748	3	106,768	3	121,781	3	136,795
1/4	3,312	1/4	16,974	1/4	31,990	1/4	47,009	1/4	62,022	1/4	77,041	1/4	92,061	1/4	107,081	1/4	122,094	1/4	137,107
1/2	3,568	1/2	17,286	1/2	32,303	1/2	47,322	1/2	62,335	1/2	77,354	1/2	92,374	1/2	107,394	1/2	122,407	1/2	137,420
3/4	3,825	3/4	17,598	3/4	32,616	3/4	47,635	3/4	62,648	3/4	77,667	3/4	92,687	3/4	107,706	3/4	122,720	3/4	137,733
4	4,081	4	17,910	4	32,929	4	47,948	4	62,960	4	77,980	4	93,000	4	108,019	4	123,032	4	138,046
1/4	4,341	1/4	18,223	1/4	33,242	1/4	48,261	1/4	63,273	1/4	78,293	1/4	93,313	1/4	108,332	1/4	123,345	1/4	138,358
1/2	4,602	1/2	18,535	1/2	33,555	1/2	48,574	1/2	63,586	1/2	78,606	1/2	93,626	1/2	108,645	1/2	123,658	1/2	138,671
3/4	4,862	3/4	18,848	3/4	33,868	3/4	48,887	3/4	63,899	3/4	78,919	3/4	93,939	3/4	108,958	3/4	123,971	3/4	138,984
5	5,122	5	19,161	5	34,180	5	49,200	5	64,212	5	79,232	5	94,251	5	109,270	5	124,284	5	139,297
1/4	5,386	1/4	19,474	1/4	34,493	1/4	49,513	1/4	64,525	1/4	79,545	1/4	94,564	1/4	109,583	1/4	124,596	1/4	139,610
1/2	5,650	1/2	19,787	1/2	34,806	1/2	49,826	1/2	64,838	1/2	79,858	1/2	94,877	1/2	109,896	1/2	124,909	1/2	139,922
3/4	5,914	3/4	20,100	3/4	35,119	3/4	50,138	3/4	65,151	3/4	80,170	3/4	95,190	3/4	110,209	3/4	125,222	3/4	140,235
6	6,178	6	20,413	6	35,432	6	50,451	6	65,464	6	80,483	6	95,503	6	110,521	6	125,535	6	140,548
1/4	6,446	1/4	20,726	1/4	35,745	1/4	50,764	1/4	65,777	1/4	80,796	1/4	95,816	1/4	110,834	1/4	125,847	1/4	140,861
1/2	6,714	1/2	21,039	1/2	36,058	1/2	51,077	1/2	66,089	1/2	81,109	1/2	96,129	1/2	111,147	1/2	126,160	1/2	141,173
3/4	6,982	3/4	21,352	3/4	36,371	3/4	51,390	3/4	66,402	3/4	81,422	3/4	96,442	3/4	111,460	3/4	126,473	3/4	141,486
7	7,250	7	21,664	7	36,684	7	51,703	7	66,715	7	81,735	7	96,755	7	111,773	7	126,786	7	141,799
1/4	7,524	1/4	21,977	1/4	36,997	1/4	52,015	1/4	67,028	1/4	82,048	1/4	97,068	1/4	112,085	1/4	127,099	1/4	142,112
1/2	7,799	1/2	22,290	1/2	37,310	1/2	52,328	1/2	67,341	1/2	82,361	1/2	97,381	1/2	112,398	1/2	127,411	1/2	142,425
3/4	8,073	3/4	22,603	3/4	37,622	3/4	52,641	3/4	67,654	3/4	82,674	3/4	97,693	3/4	112,711	3/4	127,724	3/4	142,737
8	8,347	8	22,916	8	37,935	8	52,954	8	67,967	8	82,987	8	98,006	8	113,024	8	128,037	8	143,050
1/4	8,630	1/4	23,229	1/4	38,248	1/4	53,266	1/4	68,280	1/4	83,300	1/4	98,319	1/4	113,336	1/4	128,350	1/4	143,363
1/2	8,913	1/2	23,542	1/2	38,561	1/2	53,579	1/2	68,593	1/2	83,612	1/2	98,632	1/2	113,649	1/2	128,662	1/2	143,676
3/4	9,196	3/4	23,855	3/4	38,874	3/4	53,892	3/4	68,906	3/4	83,925	3/4	98,945	3/4	113,962	3/4	128,975	3/4	143,989
9	9,479	9	24,168	9	39,187	9	54,204	9	69,219	9	84,238	9	99,258	9	114,275	9	129,288	9	144,301
1/4	9,769	1/4	24,481	1/4	39,500	1/4	54,517	1/4	69,532	1/4	84,551	1/4	99,571	1/4	114,588	1/4	129,601	1/4	144,614
1/2	10,058	1/2	24,793	1/2	39,813	1/2	54,830	1/2	69,844	1/2	84,864	1/2	99,884	1/2	114,900	1/2	129,914	1/2	144,927
3/4	10,347	3/4	25,106	3/4	40,126	3/4	55,142	3/4	70,157	3/4	85,177	3/4	100,197	3/4	115,213	3/4	130,226	3/4	145,240
10	10,637	10	25,419	10	40,439	10	55,455	10	70,470	10	85,490	10	100,510	10	115,526	10	130,539	10	145,552
1/4	10,930	1/4	25,732	1/4	40,751	1/4	55,768	1/4	70,783	1/4	85,803	1/4	100,823	1/4	115,839	1/4	130,852	1/4	145,865
1/2	11,223	1/2	26,045	1/2	41,064	1/2	56,080	1/2	71,096	1/2	86,116	1/2	101,135	1/2	116,151	1/2	131,165	1/2	146,178
3/4	11,517	3/4	26,358	3/4	41,377	3/4	56,393	3/4	71,409	3/4	86,429	3/4	101,448	3/4	116,464	3/4	131,477	3/4	146,491
11	11,810	11	26,671	11	41,690	11	56,706	11	71,722	11	86,742	11	101,761	11	116,777	11	131,790	11	146,804
1/4	12,107	1/4	26,984	1/4	42,003	1/4	57,019	1/4	72,035	1/4	87,054	1/4	102,074	1/4	117,090	1/4	132,103	1/4	147,116
1/2	12,405	1/2	27,297	1/2	42,316	1/2	57,331	1/2	72,348	1/2	87,367	1/2	102,387	1/2	117,402	1/2	132,416	1/2	147,429
3/4	12,702	3/4	27,610	3/4	42,629	3/4	57,644	3/4	72,661	3/4	87,680	3/4	102,700	3/4	117,715	3/4	132,728	3/4	147,742

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 INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 409"

**1 STBD
INNAGE TABLE**

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-09 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	148,055	0	163,068	0	178,072	0	193,042	0	207,915	0		0		0		0		0	
1/4	148,367	1/4	163,381	1/4	178,384	1/4	193,354	1/4	208,194	1/4		1/4		1/4		1/4		1/4	
1/2	148,680	1/2	163,694	1/2	178,696	1/2	193,666	1/2	208,473	1/2		1/2		1/2		1/2		1/2	
3/4	148,993	3/4	164,006	3/4	179,008	3/4	193,978	3/4	208,752	3/4		3/4		3/4		3/4		3/4	
1	149,306	1	164,319	1	179,320	1	194,290	1	209,031	1		1		1		1		1	
1/4	149,619	1/4	164,632	1/4	179,632	1/4	194,601	1/4	209,261	1/4		1/4		1/4		1/4		1/4	
1/2	149,931	1/2	164,945	1/2	179,944	1/2	194,913	1/2	209,492	1/2		1/2		1/2		1/2		1/2	
3/4	150,244	3/4	165,258	3/4	180,256	3/4	195,225	3/4	209,723	3/4		3/4		3/4		3/4		3/4	
2	150,557	2	165,570	2	180,567	2	195,537	2	209,954	2		2		2		2		2	
1/4	150,870	1/4	165,883	1/4	180,879	1/4	195,849	1/4	210,132	1/4		1/4		1/4		1/4		1/4	
1/2	151,182	1/2	166,196	1/2	181,191	1/2	196,161	1/2	210,311	1/2		1/2		1/2		1/2		1/2	
3/4	151,495	3/4	166,509	3/4	181,503	3/4	196,473	3/4	210,489	3/4		3/4		3/4		3/4		3/4	
3	151,808	3	166,821	3	181,815	3	196,785	3	210,668	3		3		3		3		3	
1/4	152,121	1/4	167,134	1/4	182,127	1/4	197,096	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,434	1/2	167,447	1/2	182,439	1/2	197,408	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,746	3/4	167,760	3/4	182,750	3/4	197,720	3/4		3/4		3/4		3/4		3/4		3/4	
4	153,059	4	168,073	4	183,062	4	198,032	4		4		4		4		4		4	
1/4	153,372	1/4	168,385	1/4	183,374	1/4	198,344	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,685	1/2	168,698	1/2	183,686	1/2	198,656	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,997	3/4	169,011	3/4	183,998	3/4	198,968	3/4		3/4		3/4		3/4		3/4		3/4	
5	154,310	5	169,324	5	184,310	5	199,279	5		5		5		5		5		5	
1/4	154,623	1/4	169,637	1/4	184,622	1/4	199,590	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,936	1/2	169,949	1/2	184,934	1/2	199,900	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,249	3/4	170,262	3/4	185,245	3/4	200,210	3/4		3/4		3/4		3/4		3/4		3/4	
6	155,561	6	170,575	6	185,557	6	200,521	6		6		6		6		6		6	
1/4	155,874	1/4	170,888	1/4	185,869	1/4	200,830	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,187	1/2	171,200	1/2	186,181	1/2	201,138	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,500	3/4	171,513	3/4	186,493	3/4	201,447	3/4		3/4		3/4		3/4		3/4		3/4	
7	156,813	7	171,826	7	186,805	7	201,756	7		7		7		7		7		7	
1/4	157,125	1/4	172,139	1/4	187,117	1/4	202,065	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,438	1/2	172,452	1/2	187,428	1/2	202,374	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,751	3/4	172,764	3/4	187,740	3/4	202,682	3/4		3/4		3/4		3/4		3/4		3/4	
8	158,064	8	173,077	8	188,052	8	202,991	8		8		8		8		8		8	
1/4	158,376	1/4	173,390	1/4	188,364	1/4	203,300	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,689	1/2	173,703	1/2	188,676	1/2	203,609	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,002	3/4	174,015	3/4	188,988	3/4	203,918	3/4		3/4		3/4		3/4		3/4		3/4	
9	159,315	9	174,328	9	189,300	9	204,227	9		9		9		9		9		9	
1/4	159,628	1/4	174,641	1/4	189,612	1/4	204,536	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,940	1/2	174,953	1/2	189,923	1/2	204,844	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,253	3/4	175,265	3/4	190,235	3/4	205,153	3/4		3/4		3/4		3/4		3/4		3/4	
10	160,566	10	175,578	10	190,547	10	205,462	10		10		10		10		10		10	
1/4	160,879	1/4	175,889	1/4	190,859	1/4	205,770	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	161,191	1/2	176,201	1/2	191,171	1/2	206,079	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,504	3/4	176,513	3/4	191,483	3/4	206,387	3/4		3/4		3/4		3/4		3/4		3/4	
11	161,817	11	176,825	11	191,795	11	206,696	11		11		11		11		11		11	
1/4	162,130	1/4	177,137	1/4	192,107	1/4	207,000	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,443	1/2	177,449	1/2	192,418	1/2	207,305	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,755	3/4	177,761	3/4	192,730	3/4	207,610	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
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BARGE "HFL 409"

2 PORT INNAGE 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	1,031	0	15,445	0	30,506	0	45,196	0	59,680	0	74,532	0	89,518	0	104,581	0	119,639	0	134,695
1/4	1,267	1/4	15,759	1/4	30,820	1/4	45,497	1/4	59,982	1/4	74,846	1/4	89,832	1/4	104,895	1/4	119,953	1/4	135,009
1/2	1,502	1/2	16,073	1/2	31,134	1/2	45,798	1/2	60,284	1/2	75,160	1/2	90,146	1/2	105,209	1/2	120,266	1/2	135,322
3/4	1,737	3/4	16,387	3/4	31,448	3/4	46,099	3/4	60,586	3/4	75,473	3/4	90,459	3/4	105,523	3/4	120,580	3/4	135,636
1	1,973	1	16,700	1	31,761	1	46,400	1	60,888	1	75,787	1	90,773	1	105,836	1	120,894	1	135,950
1/4	2,264	1/4	17,014	1/4	32,075	1/4	46,702	1/4	61,190	1/4	76,101	1/4	91,087	1/4	106,150	1/4	121,207	1/4	136,263
1/2	2,555	1/2	17,328	1/2	32,389	1/2	47,003	1/2	61,492	1/2	76,415	1/2	91,401	1/2	106,464	1/2	121,521	1/2	136,577
3/4	2,846	3/4	17,642	3/4	32,703	3/4	47,304	3/4	61,794	3/4	76,729	3/4	91,715	3/4	106,778	3/4	121,835	3/4	136,891
2	3,137	2	17,956	2	33,017	2	47,605	2	62,096	2	77,043	2	92,028	2	107,092	2	122,148	2	137,204
1/4	3,442	1/4	18,269	1/4	33,330	1/4	47,906	1/4	62,399	1/4	77,356	1/4	92,342	1/4	107,406	1/4	122,462	1/4	137,518
1/2	3,747	1/2	18,583	1/2	33,644	1/2	48,207	1/2	62,701	1/2	77,670	1/2	92,656	1/2	107,719	1/2	122,776	1/2	137,831
3/4	4,053	3/4	18,897	3/4	33,958	3/4	48,509	3/4	63,003	3/4	77,984	3/4	92,970	3/4	108,033	3/4	123,089	3/4	138,145
3	4,358	3	19,211	3	34,272	3	48,810	3	63,305	3	78,298	3	93,284	3	108,347	3	123,403	3	138,459
1/4	4,662	1/4	19,525	1/4	34,586	1/4	49,111	1/4	63,607	1/4	78,612	1/4	93,598	1/4	108,661	1/4	123,717	1/4	138,772
1/2	4,966	1/2	19,839	1/2	34,900	1/2	49,413	1/2	63,909	1/2	78,926	1/2	93,911	1/2	108,975	1/2	124,030	1/2	139,086
3/4	5,269	3/4	20,152	3/4	35,213	3/4	49,714	3/4	64,211	3/4	79,239	3/4	94,225	3/4	109,288	3/4	124,344	3/4	139,400
4	5,573	4	20,466	4	35,527	4	50,015	4	64,513	4	79,553	4	94,539	4	109,602	4	124,658	4	139,713
1/4	5,876	1/4	20,780	1/4	35,835	1/4	50,317	1/4	64,821	1/4	79,867	1/4	94,853	1/4	109,916	1/4	124,971	1/4	140,027
1/2	6,180	1/2	21,094	1/2	36,143	1/2	50,619	1/2	65,129	1/2	80,181	1/2	95,167	1/2	110,229	1/2	125,285	1/2	140,341
3/4	6,483	3/4	21,408	3/4	36,451	3/4	50,920	3/4	65,437	3/4	80,495	3/4	95,480	3/4	110,543	3/4	125,599	3/4	140,654
5	6,787	5	21,721	5	36,759	5	51,222	5	65,745	5	80,809	5	95,794	5	110,857	5	125,912	5	140,968
1/4	7,091	1/4	22,035	1/4	37,061	1/4	51,524	1/4	66,059	1/4	81,120	1/4	96,108	1/4	111,170	1/4	126,226	1/4	141,282
1/2	7,394	1/2	22,349	1/2	37,363	1/2	51,826	1/2	66,372	1/2	81,431	1/2	96,422	1/2	111,484	1/2	126,540	1/2	141,595
3/4	7,698	3/4	22,663	3/4	37,665	3/4	52,128	3/4	66,686	3/4	81,743	3/4	96,736	3/4	111,798	3/4	126,853	3/4	141,909
6	8,001	6	22,977	6	37,967	6	52,430	6	67,000	6	82,054	6	97,050	6	112,111	6	127,167	6	142,223
1/4	8,305	1/4	23,291	1/4	38,269	1/4	52,733	1/4	67,314	1/4	82,363	1/4	97,363	1/4	112,425	1/4	127,481	1/4	142,536
1/2	8,608	1/2	23,604	1/2	38,570	1/2	53,035	1/2	67,628	1/2	82,672	1/2	97,677	1/2	112,739	1/2	127,794	1/2	142,850
3/4	8,912	3/4	23,918	3/4	38,872	3/4	53,337	3/4	67,942	3/4	82,981	3/4	97,991	3/4	113,052	3/4	128,108	3/4	143,164
7	9,215	7	24,232	7	39,173	7	53,639	7	68,255	7	83,290	7	98,305	7	113,366	7	128,422	7	143,477
1/4	9,521	1/4	24,546	1/4	39,475	1/4	53,941	1/4	68,569	1/4	83,599	1/4	98,619	1/4	113,680	1/4	128,735	1/4	143,791
1/2	9,827	1/2	24,860	1/2	39,776	1/2	54,243	1/2	68,883	1/2	83,908	1/2	98,932	1/2	113,993	1/2	129,049	1/2	144,105
3/4	10,133	3/4	25,173	3/4	40,077	3/4	54,545	3/4	69,197	3/4	84,217	3/4	99,246	3/4	114,307	3/4	129,363	3/4	144,418
8	10,439	8	25,487	8	40,378	8	54,847	8	69,511	8	84,526	8	99,560	8	114,621	8	129,676	8	144,732
1/4	10,750	1/4	25,801	1/4	40,679	1/4	55,149	1/4	69,825	1/4	84,835	1/4	99,874	1/4	114,934	1/4	129,990	1/4	145,046
1/2	11,061	1/2	26,115	1/2	40,980	1/2	55,451	1/2	70,138	1/2	85,144	1/2	100,188	1/2	115,248	1/2	130,304	1/2	145,359
3/4	11,372	3/4	26,428	3/4	41,281	3/4	55,753	3/4	70,452	3/4	85,453	3/4	100,502	3/4	115,562	3/4	130,617	3/4	145,673
9	11,683	9	26,742	9	41,582	9	56,055	9	70,766	9	85,762	9	100,815	9	115,875	9	130,931	9	145,987
1/4	11,996	1/4	27,056	1/4	41,884	1/4	56,357	1/4	71,080	1/4	86,073	1/4	101,129	1/4	116,189	1/4	131,245	1/4	146,300
1/2	12,309	1/2	27,369	1/2	42,185	1/2	56,659	1/2	71,394	1/2	86,385	1/2	101,443	1/2	116,503	1/2	131,558	1/2	146,614
3/4	12,623	3/4	27,683	3/4	42,486	3/4	56,961	3/4	71,707	3/4	86,696	3/4	101,757	3/4	116,816	3/4	131,872	3/4	146,928
10	12,936	10	27,997	10	42,787	10	57,263	10	72,021	10	87,007	10	102,071	10	117,130	10	132,186	10	147,241
1/4	13,250	1/4	28,310	1/4	43,088	1/4	57,566	1/4	72,335	1/4	87,321	1/4	102,384	1/4	117,444	1/4	132,499	1/4	147,555
1/2	13,563	1/2	28,624	1/2	43,389	1/2	57,868	1/2	72,649	1/2	87,635	1/2	102,698	1/2	117,757	1/2	132,813	1/2	147,869
3/4	13,877	3/4	28,937	3/4	43,690	3/4	58,170	3/4	72,963	3/4	87,949	3/4	103,012	3/4	118,071	3/4	133,127	3/4	148,182
11	14,190	11	29,251	11	43,991	11	58,472	11	73,277	11	88,263	11	103,326	11	118,385	11	133,440	11	148,496
1/4	14,504	1/4	29,565	1/4	44,293	1/4	58,774	1/4	73,590	1/4	88,576	1/4	103,640	1/4	118,698	1/4	133,754	1/4	148,810
1/2	14,818	1/2	29,879	1/2	44,594	1/2	59,076	1/2	73,904	1/2	88,890	1/2	103,954	1/2	119,012	1/2	134,068	1/2	149,123
3/4	15,131	3/4	30,192	3/4	44,895	3/4	59,378	3/4	74,218	3/4	89,204	3/4	104,267	3/4	119,325	3/4	134,381	3/4	149,437

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 INNAGE 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 409"

2 PORT INNAGE 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	149,751	0	164,806	0	179,851	0	194,856	0	209,764	0		0		0		0		0	
1/4	150,064	1/4	165,120	1/4	180,164	1/4	195,169	1/4	210,044	1/4		1/4		1/4		1/4		1/4	
1/2	150,378	1/2	165,434	1/2	180,477	1/2	195,481	1/2	210,323	1/2		1/2		1/2		1/2		1/2	
3/4	150,692	3/4	165,747	3/4	180,789	3/4	195,794	3/4	210,603	3/4		3/4		3/4		3/4		3/4	
1	151,005	1	166,061	1	181,102	1	196,106	1	210,883	1		1		1		1		1	
1/4	151,319	1/4	166,375	1/4	181,414	1/4	196,419	1/4	211,114	1/4		1/4		1/4		1/4		1/4	
1/2	151,633	1/2	166,688	1/2	181,727	1/2	196,732	1/2	211,345	1/2		1/2		1/2		1/2		1/2	
3/4	151,946	3/4	167,002	3/4	182,040	3/4	197,044	3/4	211,576	3/4		3/4		3/4		3/4		3/4	
2	152,260	2	167,316	2	182,352	2	197,357	2	211,808	2		2		2		2		2	
1/4	152,574	1/4	167,629	1/4	182,665	1/4	197,669	1/4	211,986	1/4		1/4		1/4		1/4		1/4	
1/2	152,887	1/2	167,943	1/2	182,977	1/2	197,982	1/2	212,165	1/2		1/2		1/2		1/2		1/2	
3/4	153,201	3/4	168,257	3/4	183,290	3/4	198,295	3/4	212,344	3/4		3/4		3/4		3/4		3/4	
3	153,515	3	168,570	3	183,603	3	198,607	3	212,523	3		3		3		3		3	
1/4	153,828	1/4	168,884	1/4	183,915	1/4	198,920	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,142	1/2	169,198	1/2	184,228	1/2	199,232	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	154,456	3/4	169,511	3/4	184,540	3/4	199,545	3/4		3/4		3/4		3/4		3/4		3/4	
4	154,769	4	169,825	4	184,853	4	199,858	4		4		4		4		4		4	
1/4	155,083	1/4	170,139	1/4	185,166	1/4	200,170	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,397	1/2	170,452	1/2	185,478	1/2	200,483	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,710	3/4	170,766	3/4	185,791	3/4	200,795	3/4		3/4		3/4		3/4		3/4		3/4	
5	156,024	5	171,080	5	186,103	5	201,108	5		5		5		5		5		5	
1/4	156,337	1/4	171,393	1/4	186,416	1/4	201,419	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,651	1/2	171,707	1/2	186,729	1/2	201,730	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,965	3/4	172,021	3/4	187,041	3/4	202,041	3/4		3/4		3/4		3/4		3/4		3/4	
6	157,278	6	172,334	6	187,354	6	202,352	6		6		6		6		6		6	
1/4	157,592	1/4	172,648	1/4	187,666	1/4	202,662	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,906	1/2	172,962	1/2	187,979	1/2	202,971	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,219	3/4	173,275	3/4	188,292	3/4	203,281	3/4		3/4		3/4		3/4		3/4		3/4	
7	158,533	7	173,589	7	188,604	7	203,590	7		7		7		7		7		7	
1/4	158,847	1/4	173,903	1/4	188,917	1/4	203,900	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,160	1/2	174,216	1/2	189,229	1/2	204,209	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,474	3/4	174,530	3/4	189,542	3/4	204,519	3/4		3/4		3/4		3/4		3/4		3/4	
8	159,788	8	174,844	8	189,855	8	204,829	8		8		8		8		8		8	
1/4	160,101	1/4	175,157	1/4	190,167	1/4	205,138	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	160,415	1/2	175,471	1/2	190,480	1/2	205,448	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,729	3/4	175,784	3/4	190,792	3/4	205,757	3/4		3/4		3/4		3/4		3/4		3/4	
9	161,042	9	176,098	9	191,105	9	206,067	9		9		9		9		9		9	
1/4	161,356	1/4	176,411	1/4	191,418	1/4	206,377	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	161,670	1/2	176,724	1/2	191,730	1/2	206,686	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	161,983	3/4	177,038	3/4	192,043	3/4	206,996	3/4		3/4		3/4		3/4		3/4		3/4	
10	162,297	10	177,351	10	192,355	10	207,305	10		10		10		10		10		10	
1/4	162,611	1/4	177,663	1/4	192,668	1/4	207,615	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,924	1/2	177,976	1/2	192,980	1/2	207,924	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	163,238	3/4	178,288	3/4	193,293	3/4	208,233	3/4		3/4		3/4		3/4		3/4		3/4	
11	163,552	11	178,601	11	193,606	11	208,542	11		11		11		11		11		11	
1/4	163,865	1/4	178,914	1/4	193,918	1/4	208,847	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	164,179	1/2	179,226	1/2	194,231	1/2	209,153	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	164,493	3/4	179,539	3/4	194,543	3/4	209,458	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 409"

2 STBD

INNAGE 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	1,032	0	15,453	0	30,522	0	45,573	0	60,629	0	75,700	0	90,771	0	105,842	0	120,907	0	135,971
1/4	1,268	1/4	15,767	1/4	30,836	1/4	45,886	1/4	60,943	1/4	76,014	1/4	91,085	1/4	106,156	1/4	121,221	1/4	136,285
1/2	1,503	1/2	16,081	1/2	31,150	1/2	46,199	1/2	61,257	1/2	76,328	1/2	91,399	1/2	106,470	1/2	121,535	1/2	136,599
3/4	1,739	3/4	16,395	3/4	31,464	3/4	46,512	3/4	61,571	3/4	76,642	3/4	91,713	3/4	106,784	3/4	121,849	3/4	136,912
1	1,974	1	16,709	1	31,778	1	46,825	1	61,885	1	76,956	1	92,027	1	107,098	1	122,163	1	137,226
1/4	2,265	1/4	17,023	1/4	32,092	1/4	47,138	1/4	62,199	1/4	77,270	1/4	92,341	1/4	107,412	1/4	122,477	1/4	137,540
1/2	2,556	1/2	17,337	1/2	32,406	1/2	47,451	1/2	62,513	1/2	77,584	1/2	92,655	1/2	107,726	1/2	122,790	1/2	137,854
3/4	2,847	3/4	17,651	3/4	32,720	3/4	47,764	3/4	62,826	3/4	77,898	3/4	92,969	3/4	108,040	3/4	123,104	3/4	138,168
2	3,138	2	17,965	2	33,034	2	48,077	2	63,140	2	78,212	2	93,283	2	108,354	2	123,418	2	138,482
1/4	3,444	1/4	18,279	1/4	33,348	1/4	48,390	1/4	63,454	1/4	78,526	1/4	93,597	1/4	108,668	1/4	123,732	1/4	138,795
1/2	3,750	1/2	18,593	1/2	33,662	1/2	48,703	1/2	63,768	1/2	78,839	1/2	93,911	1/2	108,982	1/2	124,046	1/2	139,109
3/4	4,055	3/4	18,907	3/4	33,976	3/4	49,016	3/4	64,082	3/4	79,153	3/4	94,225	3/4	109,296	3/4	124,360	3/4	139,423
3	4,361	3	19,221	3	34,290	3	49,330	3	64,396	3	79,467	3	94,539	3	109,610	3	124,673	3	139,737
1/4	4,664	1/4	19,535	1/4	34,604	1/4	49,643	1/4	64,710	1/4	79,781	1/4	94,852	1/4	109,923	1/4	124,987	1/4	140,051
1/2	4,968	1/2	19,849	1/2	34,918	1/2	49,956	1/2	65,024	1/2	80,095	1/2	95,166	1/2	110,237	1/2	125,301	1/2	140,365
3/4	5,272	3/4	20,163	3/4	35,232	3/4	50,269	3/4	65,338	3/4	80,409	3/4	95,480	3/4	110,551	3/4	125,615	3/4	140,678
4	5,576	4	20,477	4	35,546	4	50,583	4	65,652	4	80,723	4	95,794	4	110,865	4	125,929	4	140,992
1/4	5,879	1/4	20,791	1/4	35,860	1/4	50,896	1/4	65,966	1/4	81,037	1/4	96,108	1/4	111,179	1/4	126,242	1/4	141,306
1/2	6,183	1/2	21,105	1/2	36,174	1/2	51,210	1/2	66,280	1/2	81,351	1/2	96,422	1/2	111,493	1/2	126,556	1/2	141,620
3/4	6,487	3/4	21,419	3/4	36,488	3/4	51,524	3/4	66,594	3/4	81,665	3/4	96,736	3/4	111,807	3/4	126,870	3/4	141,934
5	6,791	5	21,733	5	36,802	5	51,837	5	66,908	5	81,979	5	97,050	5	112,120	5	127,184	5	142,247
1/4	7,094	1/4	22,047	1/4	37,116	1/4	52,151	1/4	67,222	1/4	82,293	1/4	97,364	1/4	112,434	1/4	127,498	1/4	142,561
1/2	7,398	1/2	22,361	1/2	37,429	1/2	52,465	1/2	67,536	1/2	82,607	1/2	97,678	1/2	112,748	1/2	127,812	1/2	142,875
3/4	7,702	3/4	22,675	3/4	37,743	3/4	52,779	3/4	67,850	3/4	82,921	3/4	97,992	3/4	113,062	3/4	128,125	3/4	143,189
6	8,005	6	22,989	6	38,057	6	53,093	6	68,164	6	83,235	6	98,306	6	113,376	6	128,439	6	143,503
1/4	8,309	1/4	23,303	1/4	38,371	1/4	53,407	1/4	68,478	1/4	83,549	1/4	98,620	1/4	113,690	1/4	128,753	1/4	143,817
1/2	8,613	1/2	23,617	1/2	38,684	1/2	53,721	1/2	68,792	1/2	83,863	1/2	98,934	1/2	114,003	1/2	129,067	1/2	144,130
3/4	8,916	3/4	23,931	3/4	38,998	3/4	54,035	3/4	69,106	3/4	84,177	3/4	99,248	3/4	114,317	3/4	129,381	3/4	144,444
7	9,220	7	24,245	7	39,312	7	54,349	7	69,420	7	84,491	7	99,562	7	114,631	7	129,695	7	144,758
1/4	9,526	1/4	24,559	1/4	39,625	1/4	54,663	1/4	69,734	1/4	84,805	1/4	99,876	1/4	114,945	1/4	130,008	1/4	145,072
1/2	9,832	1/2	24,873	1/2	39,938	1/2	54,977	1/2	70,048	1/2	85,119	1/2	100,190	1/2	115,259	1/2	130,322	1/2	145,386
3/4	10,139	3/4	25,187	3/4	40,251	3/4	55,291	3/4	70,362	3/4	85,433	3/4	100,504	3/4	115,573	3/4	130,636	3/4	145,699
8	10,445	8	25,501	8	40,564	8	55,605	8	70,676	8	85,747	8	100,818	8	115,886	8	130,950	8	146,013
1/4	10,756	1/4	25,814	1/4	40,877	1/4	55,919	1/4	70,990	1/4	86,061	1/4	101,132	1/4	116,200	1/4	131,264	1/4	146,327
1/2	11,067	1/2	26,128	1/2	41,190	1/2	56,233	1/2	71,304	1/2	86,375	1/2	101,446	1/2	116,514	1/2	131,577	1/2	146,641
3/4	11,378	3/4	26,442	3/4	41,503	3/4	56,547	3/4	71,618	3/4	86,689	3/4	101,760	3/4	116,828	3/4	131,891	3/4	146,955
9	11,689	9	26,756	9	41,816	9	56,861	9	71,932	9	87,003	9	102,074	9	117,142	9	132,205	9	147,269
1/4	12,003	1/4	27,070	1/4	42,129	1/4	57,175	1/4	72,246	1/4	87,317	1/4	102,388	1/4	117,455	1/4	132,519	1/4	147,582
1/2	12,316	1/2	27,384	1/2	42,442	1/2	57,489	1/2	72,560	1/2	87,631	1/2	102,702	1/2	117,769	1/2	132,833	1/2	147,896
3/4	12,630	3/4	27,698	3/4	42,755	3/4	57,803	3/4	72,874	3/4	87,945	3/4	103,016	3/4	118,083	3/4	133,147	3/4	148,210
10	12,943	10	28,011	10	43,068	10	58,117	10	73,188	10	88,259	10	103,330	10	118,397	10	133,460	10	148,524
1/4	13,257	1/4	28,325	1/4	43,381	1/4	58,431	1/4	73,502	1/4	88,573	1/4	103,644	1/4	118,711	1/4	133,774	1/4	148,838
1/2	13,570	1/2	28,639	1/2	43,694	1/2	58,745	1/2	73,816	1/2	88,887	1/2	103,958	1/2	119,025	1/2	134,088	1/2	149,152
3/4	13,884	3/4	28,953	3/4	44,007	3/4	59,059	3/4	74,130	3/4	89,201	3/4	104,272	3/4	119,338	3/4	134,402	3/4	149,465
11	14,198	11	29,266	11	44,320	11	59,373	11	74,444	11	89,515	11	104,586	11	119,652	11	134,716	11	149,779
1/4	14,512	1/4	29,580	1/4	44,633	1/4	59,687	1/4	74,758	1/4	89,829	1/4	104,900	1/4	119,966	1/4	135,030	1/4	150,093
1/2	14,826	1/2	29,894	1/2	44,946	1/2	60,001	1/2	75,072	1/2	90,143	1/2	105,214	1/2	120,280	1/2	135,343	1/2	150,407
3/4	15,139	3/4	30,208	3/4	45,259	3/4	60,315	3/4	75,386	3/4	90,457	3/4	105,528	3/4	120,594	3/4	135,657	3/4	150,721

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 INNAGE 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

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BARGE "HFL 409"

2 STBD
INNAGE 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	151,034	0	166,098	0	181,151	0	196,163	0	211,079	0		0		0		0		0	
1/4	151,348	1/4	166,412	1/4	181,464	1/4	196,476	1/4	211,359	1/4		1/4		1/4		1/4		1/4	
1/2	151,662	1/2	166,726	1/2	181,776	1/2	196,789	1/2	211,638	1/2		1/2		1/2		1/2		1/2	
3/4	151,976	3/4	167,039	3/4	182,089	3/4	197,101	3/4	211,918	3/4		3/4		3/4		3/4		3/4	
1	152,290	1	167,353	1	182,402	1	197,414	1	212,198	1		1		1		1		1	
1/4	152,604	1/4	167,667	1/4	182,715	1/4	197,727	1/4	212,430	1/4		1/4		1/4		1/4		1/4	
1/2	152,917	1/2	167,981	1/2	183,027	1/2	198,040	1/2	212,661	1/2		1/2		1/2		1/2		1/2	
3/4	153,231	3/4	168,295	3/4	183,340	3/4	198,353	3/4	212,892	3/4		3/4		3/4		3/4		3/4	
2	153,545	2	168,609	2	183,653	2	198,665	2	213,123	2		2		2		2		2	
1/4	153,859	1/4	168,922	1/4	183,966	1/4	198,978	1/4	213,302	1/4		1/4		1/4		1/4		1/4	
1/2	154,173	1/2	169,236	1/2	184,278	1/2	199,291	1/2	213,481	1/2		1/2		1/2		1/2		1/2	
3/4	154,487	3/4	169,550	3/4	184,591	3/4	199,604	3/4	213,660	3/4		3/4		3/4		3/4		3/4	
3	154,800	3	169,864	3	184,904	3	199,916	3	213,839	3		3		3		3		3	
1/4	155,114	1/4	170,178	1/4	185,217	1/4	200,229	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,428	1/2	170,491	1/2	185,529	1/2	200,542	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,742	3/4	170,805	3/4	185,842	3/4	200,855	3/4		3/4		3/4		3/4		3/4		3/4	
4	156,056	4	171,119	4	186,155	4	201,167	4		4		4		4		4		4	
1/4	156,369	1/4	171,433	1/4	186,468	1/4	201,480	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,683	1/2	171,747	1/2	186,780	1/2	201,793	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,997	3/4	172,061	3/4	187,093	3/4	202,106	3/4		3/4		3/4		3/4		3/4		3/4	
5	157,311	5	172,374	5	187,406	5	202,418	5		5		5		5		5		5	
1/4	157,625	1/4	172,688	1/4	187,719	1/4	202,730	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,939	1/2	173,002	1/2	188,031	1/2	203,041	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,252	3/4	173,316	3/4	188,344	3/4	203,352	3/4		3/4		3/4		3/4		3/4		3/4	
6	158,566	6	173,630	6	188,657	6	203,663	6		6		6		6		6		6	
1/4	158,880	1/4	173,944	1/4	188,970	1/4	203,973	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,194	1/2	174,257	1/2	189,283	1/2	204,283	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,508	3/4	174,571	3/4	189,595	3/4	204,592	3/4		3/4		3/4		3/4		3/4		3/4	
7	159,822	7	174,885	7	189,908	7	204,902	7		7		7		7		7		7	
1/4	160,135	1/4	175,199	1/4	190,221	1/4	205,212	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	160,449	1/2	175,513	1/2	190,534	1/2	205,521	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	160,763	3/4	175,826	3/4	190,846	3/4	205,831	3/4		3/4		3/4		3/4		3/4		3/4	
8	161,077	8	176,140	8	191,159	8	206,141	8		8		8		8		8		8	
1/4	161,391	1/4	176,454	1/4	191,472	1/4	206,451	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	161,704	1/2	176,768	1/2	191,785	1/2	206,760	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	162,018	3/4	177,082	3/4	192,097	3/4	207,070	3/4		3/4		3/4		3/4		3/4		3/4	
9	162,332	9	177,396	9	192,410	9	207,380	9		9		9		9		9		9	
1/4	162,646	1/4	177,709	1/4	192,723	1/4	207,690	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	162,960	1/2	178,022	1/2	193,036	1/2	208,000	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	163,274	3/4	178,335	3/4	193,348	3/4	208,309	3/4		3/4		3/4		3/4		3/4		3/4	
10	163,587	10	178,649	10	193,661	10	208,619	10		10		10		10		10		10	
1/4	163,901	1/4	178,962	1/4	193,974	1/4	208,928	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	164,215	1/2	179,274	1/2	194,287	1/2	209,238	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	164,529	3/4	179,587	3/4	194,599	3/4	209,547	3/4		3/4		3/4		3/4		3/4		3/4	
11	164,843	11	179,900	11	194,912	11	209,856	11		11		11		11		11		11	
1/4	165,157	1/4	180,213	1/4	195,225	1/4	210,162	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	165,470	1/2	180,525	1/2	195,538	1/2	210,467	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	165,784	3/4	180,838	3/4	195,850	3/4	210,773	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
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BARGE "HFL 409"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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	1,028	0	15,386	0	30,356	0	45,117	0	59,674	0	74,585	0	89,469	0	104,446	0	119,414	0	134,377
1/4	1,263	1/4	15,698	1/4	30,668	1/4	45,419	1/4	59,986	1/4	74,895	1/4	89,781	1/4	104,759	1/4	119,725	1/4	134,689
1/2	1,497	1/2	16,010	1/2	30,981	1/2	45,720	1/2	60,298	1/2	75,206	1/2	90,093	1/2	105,071	1/2	120,037	1/2	135,001
3/4	1,732	3/4	16,323	3/4	31,293	3/4	46,022	3/4	60,610	3/4	75,516	3/4	90,405	3/4	105,383	3/4	120,349	3/4	135,313
1	1,967	1	16,635	1	31,605	1	46,324	1	60,922	1	75,826	1	90,717	1	105,695	1	120,661	1	135,624
1/4	2,257	1/4	16,947	1/4	31,918	1/4	46,626	1/4	61,234	1/4	76,137	1/4	91,029	1/4	106,007	1/4	120,972	1/4	135,936
1/2	2,547	1/2	17,260	1/2	32,230	1/2	46,928	1/2	61,546	1/2	76,447	1/2	91,341	1/2	106,319	1/2	121,284	1/2	136,248
3/4	2,837	3/4	17,572	3/4	32,542	3/4	47,230	3/4	61,858	3/4	76,757	3/4	91,652	3/4	106,631	3/4	121,596	3/4	136,560
2	3,127	2	17,884	2	32,855	2	47,532	2	62,170	2	77,068	2	91,964	2	106,943	2	121,908	2	136,871
1/4	3,431	1/4	18,197	1/4	33,167	1/4	47,834	1/4	62,481	1/4	77,379	1/4	92,276	1/4	107,255	1/4	122,219	1/4	137,183
1/2	3,736	1/2	18,509	1/2	33,479	1/2	48,137	1/2	62,792	1/2	77,690	1/2	92,588	1/2	107,567	1/2	122,531	1/2	137,495
3/4	4,040	3/4	18,821	3/4	33,792	3/4	48,439	3/4	63,103	3/4	78,001	3/4	92,900	3/4	107,879	3/4	122,843	3/4	137,807
3	4,344	3	19,134	3	34,104	3	48,742	3	63,415	3	78,313	3	93,212	3	108,191	3	123,155	3	138,118
1/4	4,647	1/4	19,446	1/4	34,416	1/4	49,044	1/4	63,725	1/4	78,625	1/4	93,524	1/4	108,502	1/4	123,466	1/4	138,430
1/2	4,949	1/2	19,758	1/2	34,727	1/2	49,347	1/2	64,035	1/2	78,937	1/2	93,836	1/2	108,814	1/2	123,778	1/2	138,742
3/4	5,252	3/4	20,071	3/4	35,039	3/4	49,649	3/4	64,345	3/4	79,249	3/4	94,148	3/4	109,126	3/4	124,090	3/4	139,054
4	5,554	4	20,383	4	35,351	4	49,951	4	64,656	4	79,562	4	94,460	4	109,438	4	124,402	4	139,365
1/4	5,857	1/4	20,696	1/4	35,659	1/4	50,254	1/4	64,966	1/4	79,874	1/4	94,772	1/4	109,749	1/4	124,713	1/4	139,677
1/2	6,159	1/2	21,008	1/2	35,967	1/2	50,556	1/2	65,276	1/2	80,186	1/2	95,084	1/2	110,061	1/2	125,025	1/2	139,989
3/4	6,461	3/4	21,320	3/4	36,276	3/4	50,859	3/4	65,587	3/4	80,498	3/4	95,395	3/4	110,373	3/4	125,337	3/4	140,300
5	6,764	5	21,633	5	36,584	5	51,161	5	65,897	5	80,811	5	95,707	5	110,685	5	125,649	5	140,612
1/4	7,066	1/4	21,945	1/4	36,889	1/4	51,464	1/4	66,207	1/4	81,120	1/4	96,019	1/4	110,996	1/4	125,960	1/4	140,924
1/2	7,368	1/2	22,257	1/2	37,194	1/2	51,766	1/2	66,518	1/2	81,430	1/2	96,331	1/2	111,308	1/2	126,272	1/2	141,235
3/4	7,670	3/4	22,570	3/4	37,499	3/4	52,069	3/4	66,828	3/4	81,740	3/4	96,643	3/4	111,620	3/4	126,584	3/4	141,546
6	7,973	6	22,882	6	37,804	6	52,371	6	67,138	6	82,049	6	96,955	6	111,932	6	126,896	6	141,858
1/4	8,275	1/4	23,194	1/4	38,109	1/4	52,674	1/4	67,448	1/4	82,356	1/4	97,267	1/4	112,243	1/4	127,207	1/4	142,165
1/2	8,578	1/2	23,507	1/2	38,414	1/2	52,976	1/2	67,759	1/2	82,664	1/2	97,579	1/2	112,555	1/2	127,519	1/2	142,472
3/4	8,880	3/4	23,819	3/4	38,719	3/4	53,278	3/4	68,069	3/4	82,971	3/4	97,891	3/4	112,867	3/4	127,831	3/4	142,779
7	9,182	7	24,131	7	39,024	7	53,581	7	68,379	7	83,278	7	98,203	7	113,179	7	128,143	7	143,086
1/4	9,487	1/4	24,444	1/4	39,329	1/4	53,883	1/4	68,690	1/4	83,585	1/4	98,515	1/4	113,490	1/4	128,454	1/4	143,381
1/2	9,792	1/2	24,756	1/2	39,634	1/2	54,186	1/2	69,000	1/2	83,892	1/2	98,827	1/2	113,802	1/2	128,766	1/2	143,675
3/4	10,097	3/4	25,068	3/4	39,939	3/4	54,488	3/4	69,310	3/4	84,199	3/4	99,140	3/4	114,114	3/4	129,078	3/4	143,970
8	10,402	8	25,381	8	40,244	8	54,791	8	69,620	8	84,506	8	99,452	8	114,426	8	129,390	8	144,265
1/4	10,712	1/4	25,692	1/4	40,549	1/4	55,093	1/4	69,931	1/4	84,813	1/4	99,764	1/4	114,737	1/4	129,701	1/4	144,543
1/2	11,022	1/2	26,004	1/2	40,854	1/2	55,396	1/2	70,241	1/2	85,120	1/2	100,076	1/2	115,049	1/2	130,013	1/2	144,822
3/4	11,331	3/4	26,316	3/4	41,159	3/4	55,698	3/4	70,551	3/4	85,427	3/4	100,388	3/4	115,361	3/4	130,325	3/4	145,100
9	11,641	9	26,627	9	41,464	9	56,001	9	70,862	9	85,735	9	100,700	9	115,673	9	130,637	9	145,379
1/4	11,953	1/4	26,938	1/4	41,769	1/4	56,305	1/4	71,172	1/4	86,044	1/4	101,013	1/4	115,984	1/4	130,948	1/4	145,642
1/2	12,265	1/2	27,248	1/2	42,074	1/2	56,609	1/2	71,482	1/2	86,354	1/2	101,325	1/2	116,296	1/2	131,260	1/2	145,905
3/4	12,577	3/4	27,558	3/4	42,379	3/4	56,913	3/4	71,793	3/4	86,664	3/4	101,637	3/4	116,608	3/4	131,572	3/4	146,167
10	12,889	10	27,868	10	42,684	10	57,217	10	72,103	10	86,973	10	101,949	10	116,920	10	131,883	10	146,430
1/4	13,201	1/4	28,179	1/4	42,989	1/4	57,522	1/4	72,413	1/4	87,285	1/4	102,261	1/4	117,231	1/4	132,195	1/4	146,678
1/2	13,513	1/2	28,489	1/2	43,294	1/2	57,828	1/2	72,723	1/2	87,597	1/2	102,573	1/2	117,543	1/2	132,507	1/2	146,925
3/4	13,825	3/4	28,799	3/4	43,599	3/4	58,134	3/4	73,034	3/4	87,909	3/4	102,886	3/4	117,855	3/4	132,819	3/4	147,172
11	14,137	11	29,110	11	43,904	11	58,439	11	73,344	11	88,221	11	103,198	11	118,167	11	133,130	11	147,419
1/4	14,449	1/4	29,421	1/4	44,207	1/4	58,748	1/4	73,654	1/4	88,533	1/4	103,510	1/4	118,478	1/4	133,442	1/4	147,650
1/2	14,761	1/2	29,733	1/2	44,510	1/2	59,057	1/2	73,965	1/2	88,845	1/2	103,822	1/2	118,790	1/2	133,754	1/2	147,881
3/4	15,073	3/4	30,044	3/4	44,814	3/4	59,366	3/4	74,275	3/4	89,157	3/4	104,134	3/4	119,102	3/4	134,066	3/4	148,112

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 INNAGE 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

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BARGE "HFL 409"

3 PORT INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 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	148,343	0	158,725	0	169,085	0	179,415	0	189,732	0		0		0		0		0	
1/4	148,563	1/4	158,941	1/4	169,300	1/4	179,631	1/4	189,925	1/4		1/4		1/4		1/4		1/4	
1/2	148,782	1/2	159,157	1/2	169,515	1/2	179,846	1/2	190,118	1/2		1/2		1/2		1/2		1/2	
3/4	149,002	3/4	159,373	3/4	169,730	3/4	180,061	3/4	190,311	3/4		3/4		3/4		3/4		3/4	
1	149,222	1	159,589	1	169,946	1	180,276	1	190,504	1		1		1		1		1	
1/4	149,437	1/4	159,805	1/4	170,161	1/4	180,492	1/4	190,664	1/4		1/4		1/4		1/4		1/4	
1/2	149,653	1/2	160,021	1/2	170,376	1/2	180,707	1/2	190,823	1/2		1/2		1/2		1/2		1/2	
3/4	149,869	3/4	160,237	3/4	170,591	3/4	180,922	3/4	190,983	3/4		3/4		3/4		3/4		3/4	
2	150,085	2	160,453	2	170,806	2	181,137	2	191,143	2		2		2		2		2	
1/4	150,301	1/4	160,669	1/4	171,022	1/4	181,353	1/4	191,266	1/4		1/4		1/4		1/4		1/4	
1/2	150,517	1/2	160,885	1/2	171,237	1/2	181,568	1/2	191,390	1/2		1/2		1/2		1/2		1/2	
3/4	150,733	3/4	161,101	3/4	171,452	3/4	181,783	3/4	191,513	3/4		3/4		3/4		3/4		3/4	
3	150,949	3	161,317	3	171,667	3	181,998	3	191,637	3		3		3		3		3	
1/4	151,165	1/4	161,533	1/4	171,883	1/4	182,213	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	151,381	1/2	161,749	1/2	172,098	1/2	182,429	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	151,597	3/4	161,965	3/4	172,313	3/4	182,644	3/4		3/4		3/4		3/4		3/4		3/4	
4	151,813	4	162,181	4	172,528	4	182,859	4		4		4		4		4		4	
1/4	152,029	1/4	162,397	1/4	172,743	1/4	183,074	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,245	1/2	162,613	1/2	172,959	1/2	183,290	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,461	3/4	162,829	3/4	173,174	3/4	183,505	3/4		3/4		3/4		3/4		3/4		3/4	
5	152,677	5	163,045	5	173,389	5	183,720	5		5		5		5		5		5	
1/4	152,893	1/4	163,261	1/4	173,604	1/4	183,935	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,109	1/2	163,477	1/2	173,820	1/2	184,150	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,325	3/4	163,693	3/4	174,035	3/4	184,366	3/4		3/4		3/4		3/4		3/4		3/4	
6	153,541	6	163,909	6	174,250	6	184,581	6		6		6		6		6		6	
1/4	153,757	1/4	164,125	1/4	174,465	1/4	184,796	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,973	1/2	164,341	1/2	174,681	1/2	185,011	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	154,189	3/4	164,557	3/4	174,896	3/4	185,227	3/4		3/4		3/4		3/4		3/4		3/4	
7	154,405	7	164,773	7	175,111	7	185,442	7		7		7		7		7		7	
1/4	154,621	1/4	164,989	1/4	175,326	1/4	185,657	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,837	1/2	165,204	1/2	175,541	1/2	185,872	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,053	3/4	165,420	3/4	175,757	3/4	186,088	3/4		3/4		3/4		3/4		3/4		3/4	
8	155,269	8	165,636	8	175,972	8	186,303	8		8		8		8		8		8	
1/4	155,485	1/4	165,852	1/4	176,187	1/4	186,518	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,701	1/2	166,068	1/2	176,402	1/2	186,734	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,917	3/4	166,284	3/4	176,618	3/4	186,949	3/4		3/4		3/4		3/4		3/4		3/4	
9	156,133	9	166,500	9	176,833	9	187,164	9		9		9		9		9		9	
1/4	156,349	1/4	166,716	1/4	177,048	1/4	187,380	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,565	1/2	166,932	1/2	177,263	1/2	187,595	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,781	3/4	167,147	3/4	177,478	3/4	187,810	3/4		3/4		3/4		3/4		3/4		3/4	
10	156,997	10	167,363	10	177,694	10	188,025	10		10		10		10		10		10	
1/4	157,213	1/4	167,578	1/4	177,909	1/4	188,240	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,429	1/2	167,793	1/2	178,124	1/2	188,455	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,645	3/4	168,009	3/4	178,339	3/4	188,670	3/4		3/4		3/4		3/4		3/4		3/4	
11	157,861	11	168,224	11	178,555	11	188,885	11		11		11		11		11		11	
1/4	158,077	1/4	168,439	1/4	178,770	1/4	189,097	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,293	1/2	168,654	1/2	178,985	1/2	189,309	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,509	3/4	168,869	3/4	179,200	3/4	189,520	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.
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BARGE "HFL 409"

3 STBD

INNAGE 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	1,028	0	15,388	0	30,396	0	45,388	0	60,396	0	75,404	0	90,400	0	105,408	0	120,399	0	135,387
1/4	1,262	1/4	15,701	1/4	30,709	1/4	45,701	1/4	60,708	1/4	75,717	1/4	90,713	1/4	105,721	1/4	120,711	1/4	135,699
1/2	1,497	1/2	16,013	1/2	31,022	1/2	46,013	1/2	61,021	1/2	76,030	1/2	91,025	1/2	106,033	1/2	121,024	1/2	136,012
3/4	1,731	3/4	16,326	3/4	31,334	3/4	46,326	3/4	61,334	3/4	76,342	3/4	91,338	3/4	106,346	3/4	121,336	3/4	136,324
1	1,966	1	16,639	1	31,647	1	46,638	1	61,646	1	76,655	1	91,651	1	106,659	1	121,648	1	136,636
1/4	2,256	1/4	16,951	1/4	31,960	1/4	46,951	1/4	61,959	1/4	76,968	1/4	91,963	1/4	106,971	1/4	121,960	1/4	136,948
1/2	2,545	1/2	17,264	1/2	32,272	1/2	47,263	1/2	62,272	1/2	77,280	1/2	92,276	1/2	107,284	1/2	122,273	1/2	137,261
3/4	2,835	3/4	17,577	3/4	32,585	3/4	47,576	3/4	62,584	3/4	77,593	3/4	92,589	3/4	107,596	3/4	122,585	3/4	137,573
2	3,125	2	17,889	2	32,898	2	47,888	2	62,897	2	77,906	2	92,901	2	107,909	2	122,897	2	137,885
1/4	3,430	1/4	18,202	1/4	33,210	1/4	48,201	1/4	63,210	1/4	78,219	1/4	93,214	1/4	108,221	1/4	123,209	1/4	138,197
1/2	3,734	1/2	18,515	1/2	33,523	1/2	48,514	1/2	63,522	1/2	78,531	1/2	93,527	1/2	108,533	1/2	123,522	1/2	138,510
3/4	4,038	3/4	18,827	3/4	33,836	3/4	48,826	3/4	63,835	3/4	78,844	3/4	93,839	3/4	108,846	3/4	123,834	3/4	138,822
3	4,342	3	19,140	3	34,148	3	49,139	3	64,148	3	79,157	3	94,152	3	109,158	3	124,146	3	139,134
1/4	4,645	1/4	19,453	1/4	34,461	1/4	49,452	1/4	64,460	1/4	79,469	1/4	94,465	1/4	109,470	1/4	124,458	1/4	139,446
1/2	4,947	1/2	19,765	1/2	34,773	1/2	49,764	1/2	64,773	1/2	79,782	1/2	94,777	1/2	109,783	1/2	124,771	1/2	139,759
3/4	5,250	3/4	20,078	3/4	35,086	3/4	50,077	3/4	65,086	3/4	80,095	3/4	95,090	3/4	110,095	3/4	125,083	3/4	140,071
4	5,552	4	20,391	4	35,398	4	50,390	4	65,399	4	80,407	4	95,403	4	110,407	4	125,395	4	140,383
1/4	5,855	1/4	20,703	1/4	35,710	1/4	50,702	1/4	65,711	1/4	80,720	1/4	95,715	1/4	110,720	1/4	125,707	1/4	140,695
1/2	6,157	1/2	21,016	1/2	36,022	1/2	51,015	1/2	66,024	1/2	81,033	1/2	96,028	1/2	111,032	1/2	126,020	1/2	141,007
3/4	6,460	3/4	21,329	3/4	36,335	3/4	51,328	3/4	66,337	3/4	81,345	3/4	96,341	3/4	111,344	3/4	126,332	3/4	141,320
5	6,762	5	21,641	5	36,647	5	51,640	5	66,649	5	81,658	5	96,653	5	111,656	5	126,644	5	141,632
1/4	7,064	1/4	21,954	1/4	36,959	1/4	51,953	1/4	66,962	1/4	81,970	1/4	96,966	1/4	111,969	1/4	126,956	1/4	141,944
1/2	7,367	1/2	22,267	1/2	37,271	1/2	52,266	1/2	67,275	1/2	82,283	1/2	97,279	1/2	112,281	1/2	127,269	1/2	142,256
3/4	7,669	3/4	22,579	3/4	37,583	3/4	52,579	3/4	67,587	3/4	82,595	3/4	97,591	3/4	112,593	3/4	127,581	3/4	142,568
6	7,971	6	22,892	6	37,895	6	52,891	6	67,900	6	82,907	6	97,904	6	112,905	6	127,893	6	142,880
1/4	8,274	1/4	23,205	1/4	38,208	1/4	53,204	1/4	68,213	1/4	83,219	1/4	98,217	1/4	113,218	1/4	128,205	1/4	143,187
1/2	8,576	1/2	23,517	1/2	38,520	1/2	53,517	1/2	68,525	1/2	83,531	1/2	98,529	1/2	113,530	1/2	128,518	1/2	143,495
3/4	8,878	3/4	23,830	3/4	38,832	3/4	53,829	3/4	68,838	3/4	83,843	3/4	98,842	3/4	113,842	3/4	128,830	3/4	143,802
7	9,181	7	24,143	7	39,144	7	54,142	7	69,151	7	84,155	7	99,155	7	114,154	7	129,142	7	144,110
1/4	9,486	1/4	24,455	1/4	39,456	1/4	54,455	1/4	69,463	1/4	84,466	1/4	99,467	1/4	114,466	1/4	129,454	1/4	144,405
1/2	9,791	1/2	24,768	1/2	39,769	1/2	54,767	1/2	69,776	1/2	84,778	1/2	99,780	1/2	114,779	1/2	129,767	1/2	144,700
3/4	10,095	3/4	25,081	3/4	40,081	3/4	55,080	3/4	70,089	3/4	85,090	3/4	100,093	3/4	115,091	3/4	130,079	3/4	144,995
8	10,400	8	25,393	8	40,393	8	55,393	8	70,401	8	85,402	8	100,405	8	115,403	8	130,391	8	145,290
1/4	10,710	1/4	25,706	1/4	40,705	1/4	55,705	1/4	70,714	1/4	85,714	1/4	100,718	1/4	115,715	1/4	130,703	1/4	145,569
1/2	11,020	1/2	26,019	1/2	41,017	1/2	56,018	1/2	71,027	1/2	86,026	1/2	101,031	1/2	116,028	1/2	131,016	1/2	145,848
3/4	11,330	3/4	26,331	3/4	41,330	3/4	56,331	3/4	71,340	3/4	86,338	3/4	101,343	3/4	116,340	3/4	131,328	3/4	146,128
9	11,639	9	26,644	9	41,642	9	56,643	9	71,652	9	86,650	9	101,656	9	116,652	9	131,640	9	146,407
1/4	11,952	1/4	26,957	1/4	41,954	1/4	56,956	1/4	71,965	1/4	86,962	1/4	101,969	1/4	116,964	1/4	131,952	1/4	146,670
1/2	12,264	1/2	27,269	1/2	42,266	1/2	57,269	1/2	72,278	1/2	87,274	1/2	102,281	1/2	117,277	1/2	132,265	1/2	146,933
3/4	12,576	3/4	27,582	3/4	42,578	3/4	57,581	3/4	72,590	3/4	87,586	3/4	102,594	3/4	117,589	3/4	132,577	3/4	147,196
10	12,888	10	27,895	10	42,890	10	57,894	10	72,903	10	87,899	10	102,907	10	117,901	10	132,889	10	147,459
1/4	13,201	1/4	28,207	1/4	43,203	1/4	58,207	1/4	73,216	1/4	88,211	1/4	103,219	1/4	118,213	1/4	133,201	1/4	147,706
1/2	13,513	1/2	28,520	1/2	43,515	1/2	58,520	1/2	73,528	1/2	88,524	1/2	103,532	1/2	118,526	1/2	133,514	1/2	147,953
3/4	13,825	3/4	28,833	3/4	43,827	3/4	58,832	3/4	73,841	3/4	88,837	3/4	103,845	3/4	118,838	3/4	133,826	3/4	148,200
11	14,138	11	29,146	11	44,139	11	59,145	11	74,154	11	89,149	11	104,157	11	119,150	11	134,138	11	148,448
1/4	14,450	1/4	29,458	1/4	44,452	1/4	59,458	1/4	74,466	1/4	89,462	1/4	104,470	1/4	119,462	1/4	134,450	1/4	148,679
1/2	14,763	1/2	29,771	1/2	44,764	1/2	59,770	1/2	74,779	1/2	89,775	1/2	104,783	1/2	119,775	1/2	134,763	1/2	148,910
3/4	15,075	3/4	30,084	3/4	45,076	3/4	60,083	3/4	75,092	3/4	90,087	3/4	105,095	3/4	120,087	3/4	135,075	3/4	149,141

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 INNAGE 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 409"

3 STBD
INNAGE 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	149,372	0	159,748	0	170,102	0	180,427	0	190,737	0		0		0		0		0	
1/4	149,591	1/4	159,963	1/4	170,317	1/4	180,642	1/4	190,930	1/4		1/4		1/4		1/4		1/4	
1/2	149,811	1/2	160,179	1/2	170,532	1/2	180,857	1/2	191,123	1/2		1/2		1/2		1/2		1/2	
3/4	150,030	3/4	160,395	3/4	170,747	3/4	181,072	3/4	191,316	3/4		3/4		3/4		3/4		3/4	
1	150,249	1	160,611	1	170,962	1	181,287	1	191,509	1		1		1		1		1	
1/4	150,465	1/4	160,827	1/4	171,177	1/4	181,502	1/4	191,669	1/4		1/4		1/4		1/4		1/4	
1/2	150,681	1/2	161,043	1/2	171,392	1/2	181,717	1/2	191,828	1/2		1/2		1/2		1/2		1/2	
3/4	150,897	3/4	161,259	3/4	171,607	3/4	181,933	3/4	191,988	3/4		3/4		3/4		3/4		3/4	
2	151,113	2	161,475	2	171,823	2	182,148	2	192,147	2		2		2		2		2	
1/4	151,329	1/4	161,690	1/4	172,038	1/4	182,363	1/4	192,271	1/4		1/4		1/4		1/4		1/4	
1/2	151,545	1/2	161,906	1/2	172,253	1/2	182,578	1/2	192,395	1/2		1/2		1/2		1/2		1/2	
3/4	151,760	3/4	162,122	3/4	172,468	3/4	182,793	3/4	192,518	3/4		3/4		3/4		3/4		3/4	
3	151,976	3	162,338	3	172,683	3	183,008	3	192,642	3		3		3		3		3	
1/4	152,192	1/4	162,554	1/4	172,898	1/4	183,223	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	152,408	1/2	162,770	1/2	173,113	1/2	183,438	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	152,624	3/4	162,986	3/4	173,328	3/4	183,653	3/4		3/4		3/4		3/4		3/4		3/4	
4	152,840	4	163,201	4	173,543	4	183,869	4		4		4		4		4		4	
1/4	153,056	1/4	163,417	1/4	173,758	1/4	184,084	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	153,272	1/2	163,633	1/2	173,974	1/2	184,299	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	153,487	3/4	163,849	3/4	174,189	3/4	184,514	3/4		3/4		3/4		3/4		3/4		3/4	
5	153,703	5	164,065	5	174,404	5	184,729	5		5		5		5		5		5	
1/4	153,919	1/4	164,281	1/4	174,619	1/4	184,944	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,135	1/2	164,497	1/2	174,834	1/2	185,159	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	154,351	3/4	164,713	3/4	175,049	3/4	185,374	3/4		3/4		3/4		3/4		3/4		3/4	
6	154,567	6	164,928	6	175,264	6	185,589	6		6		6		6		6		6	
1/4	154,783	1/4	165,144	1/4	175,479	1/4	185,804	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	154,999	1/2	165,360	1/2	175,694	1/2	186,020	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	155,214	3/4	165,576	3/4	175,910	3/4	186,235	3/4		3/4		3/4		3/4		3/4		3/4	
7	155,430	7	165,792	7	176,125	7	186,450	7		7		7		7		7		7	
1/4	155,646	1/4	166,008	1/4	176,340	1/4	186,665	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	155,862	1/2	166,224	1/2	176,555	1/2	186,880	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,078	3/4	166,439	3/4	176,770	3/4	187,095	3/4		3/4		3/4		3/4		3/4		3/4	
8	156,294	8	166,655	8	176,985	8	187,310	8		8		8		8		8		8	
1/4	156,510	1/4	166,871	1/4	177,200	1/4	187,526	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	156,725	1/2	167,087	1/2	177,415	1/2	187,741	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	156,941	3/4	167,303	3/4	177,630	3/4	187,956	3/4		3/4		3/4		3/4		3/4		3/4	
9	157,157	9	167,519	9	177,846	9	188,171	9		9		9		9		9		9	
1/4	157,373	1/4	167,734	1/4	178,061	1/4	188,387	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	157,589	1/2	167,950	1/2	178,276	1/2	188,602	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	157,805	3/4	168,165	3/4	178,491	3/4	188,817	3/4		3/4		3/4		3/4		3/4		3/4	
10	158,021	10	168,381	10	178,706	10	189,032	10		10		10		10		10		10	
1/4	158,237	1/4	168,596	1/4	178,921	1/4	189,247	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	158,452	1/2	168,811	1/2	179,136	1/2	189,462	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	158,668	3/4	169,026	3/4	179,351	3/4	189,677	3/4		3/4		3/4		3/4		3/4		3/4	
11	158,884	11	169,241	11	179,566	11	189,891	11		11		11		11		11		11	
1/4	159,100	1/4	169,456	1/4	179,781	1/4	190,103	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	159,316	1/2	169,671	1/2	179,997	1/2	190,314	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	159,532	3/4	169,887	3/4	180,212	3/4	190,526	3/4		3/4		3/4		3/4		3/4		3/4	

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/03/2012 CL - SW
CALCULATED: 02/05/2012 CL
PRINTED: 02/05/2012 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 409"

PORT SLOP INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-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	96	0	1,249	0	2,402	0	3,553	0	4,706	0		0		0		0		0	
1/4	120	1/4	1,273	1/4	2,426	1/4	3,578	1/4	4,730	1/4		1/4		1/4		1/4		1/4	
1/2	144	1/2	1,297	1/2	2,449	1/2	3,602	1/2	4,754	1/2		1/2		1/2		1/2		1/2	
3/4	168	3/4	1,321	3/4	2,473	3/4	3,626	3/4	4,777	3/4		3/4		3/4		3/4		3/4	
1	192	1	1,345	1	2,497	1	3,650	1	4,801	1		1		1		1		1	
1/4	216	1/4	1,369	1/4	2,521	1/4	3,674	1/4	4,825	1/4		1/4		1/4		1/4		1/4	
1/2	240	1/2	1,393	1/2	2,545	1/2	3,698	1/2	4,848	1/2		1/2		1/2		1/2		1/2	
3/4	264	3/4	1,417	3/4	2,569	3/4	3,722	3/4	4,872	3/4		3/4		3/4		3/4		3/4	
2	288	2	1,441	2	2,593	2	3,746	2	4,896	2		2		2		2		2	
1/4	312	1/4	1,465	1/4	2,617	1/4	3,770	1/4	4,919	1/4		1/4		1/4		1/4		1/4	
1/2	336	1/2	1,489	1/2	2,641	1/2	3,794	1/2	4,943	1/2		1/2		1/2		1/2		1/2	
3/4	360	3/4	1,513	3/4	2,665	3/4	3,818	3/4	4,967	3/4		3/4		3/4		3/4		3/4	
3	384	3	1,537	3	2,689	3	3,842	3	4,990	3		3		3		3		3	
1/4	408	1/4	1,561	1/4	2,713	1/4	3,866	1/4	5,014	1/4		1/4		1/4		1/4		1/4	
1/2	432	1/2	1,585	1/2	2,737	1/2	3,890	1/2	5,037	1/2		1/2		1/2		1/2		1/2	
3/4	456	3/4	1,609	3/4	2,761	3/4	3,914	3/4	5,061	3/4		3/4		3/4		3/4		3/4	
4	480	4	1,633	4	2,785	4	3,938	4	5,084	4		4		4		4		4	
1/4	504	1/4	1,657	1/4	2,809	1/4	3,962	1/4	5,096	1/4		1/4		1/4		1/4		1/4	
1/2	528	1/2	1,681	1/2	2,833	1/2	3,986	1/2	5,108	1/2		1/2		1/2		1/2		1/2	
3/4	552	3/4	1,705	3/4	2,857	3/4	4,010	3/4	5,119	3/4		3/4		3/4		3/4		3/4	
5	577	5	1,729	5	2,881	5	4,034	5	5,131	5		5		5		5		5	
1/4	601	1/4	1,753	1/4	2,905	1/4	4,058	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	625	1/2	1,777	1/2	2,929	1/2	4,082	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	649	3/4	1,801	3/4	2,953	3/4	4,106	3/4		3/4		3/4		3/4		3/4		3/4	
6	673	6	1,825	6	2,977	6	4,130	6		6		6		6		6		6	
1/4	697	1/4	1,849	1/4	3,001	1/4	4,154	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	721	1/2	1,873	1/2	3,025	1/2	4,178	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	745	3/4	1,897	3/4	3,049	3/4	4,202	3/4		3/4		3/4		3/4		3/4		3/4	
7	769	7	1,921	7	3,073	7	4,226	7		7		7		7		7		7	
1/4	793	1/4	1,945	1/4	3,097	1/4	4,250	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	817	1/2	1,969	1/2	3,121	1/2	4,274	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	841	3/4	1,993	3/4	3,145	3/4	4,298	3/4		3/4		3/4		3/4		3/4		3/4	
8	865	8	2,017	8	3,169	8	4,322	8		8		8		8		8		8	
1/4	889	1/4	2,042	1/4	3,193	1/4	4,346	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	913	1/2	2,066	1/2	3,217	1/2	4,370	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	937	3/4	2,090	3/4	3,241	3/4	4,394	3/4		3/4		3/4		3/4		3/4		3/4	
9	961	9	2,114	9	3,265	9	4,418	9		9		9		9		9		9	
1/4	985	1/4	2,138	1/4	3,289	1/4	4,442	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,009	1/2	2,162	1/2	3,313	1/2	4,466	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,033	3/4	2,186	3/4	3,337	3/4	4,490	3/4		3/4		3/4		3/4		3/4		3/4	
10	1,057	10	2,210	10	3,361	10	4,514	10		10		10		10		10		10	
1/4	1,081	1/4	2,234	1/4	3,385	1/4	4,538	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,105	1/2	2,258	1/2	3,409	1/2	4,562	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,129	3/4	2,282	3/4	3,433	3/4	4,586	3/4		3/4		3/4		3/4		3/4		3/4	
11	1,153	11	2,306	11	3,457	11	4,610	11		11		11		11		11		11	
1/4	1,177	1/4	2,330	1/4	3,481	1/4	4,634	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,201	1/2	2,354	1/2	3,505	1/2	4,658	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,225	3/4	2,378	3/4	3,529	3/4	4,682	3/4		3/4		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 INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 01/30/2012 CL - SW

CALCULATED: 01/30/2012 CL

PRINTED: 01/30/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 01/2012

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

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BARGE "HFL 409"

STBD SLOP INNAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-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	96	0	1,249	0	2,402	0	3,553	0	4,706	0		0		0		0		0	
1/4	120	1/4	1,273	1/4	2,426	1/4	3,578	1/4	4,730	1/4		1/4		1/4		1/4		1/4	
1/2	144	1/2	1,297	1/2	2,449	1/2	3,602	1/2	4,754	1/2		1/2		1/2		1/2		1/2	
3/4	168	3/4	1,321	3/4	2,473	3/4	3,626	3/4	4,777	3/4		3/4		3/4		3/4		3/4	
1	192	1	1,345	1	2,497	1	3,650	1	4,801	1		1		1		1		1	
1/4	216	1/4	1,369	1/4	2,521	1/4	3,674	1/4	4,825	1/4		1/4		1/4		1/4		1/4	
1/2	240	1/2	1,393	1/2	2,545	1/2	3,698	1/2	4,848	1/2		1/2		1/2		1/2		1/2	
3/4	264	3/4	1,417	3/4	2,569	3/4	3,722	3/4	4,872	3/4		3/4		3/4		3/4		3/4	
2	288	2	1,441	2	2,593	2	3,746	2	4,896	2		2		2		2		2	
1/4	312	1/4	1,465	1/4	2,617	1/4	3,770	1/4	4,919	1/4		1/4		1/4		1/4		1/4	
1/2	336	1/2	1,489	1/2	2,641	1/2	3,794	1/2	4,943	1/2		1/2		1/2		1/2		1/2	
3/4	360	3/4	1,513	3/4	2,665	3/4	3,818	3/4	4,967	3/4		3/4		3/4		3/4		3/4	
3	384	3	1,537	3	2,689	3	3,842	3	4,990	3		3		3		3		3	
1/4	408	1/4	1,561	1/4	2,713	1/4	3,866	1/4	5,014	1/4		1/4		1/4		1/4		1/4	
1/2	432	1/2	1,585	1/2	2,737	1/2	3,890	1/2	5,037	1/2		1/2		1/2		1/2		1/2	
3/4	456	3/4	1,609	3/4	2,761	3/4	3,914	3/4	5,061	3/4		3/4		3/4		3/4		3/4	
4	480	4	1,633	4	2,785	4	3,938	4	5,084	4		4		4		4		4	
1/4	504	1/4	1,657	1/4	2,809	1/4	3,962	1/4	5,096	1/4		1/4		1/4		1/4		1/4	
1/2	528	1/2	1,681	1/2	2,833	1/2	3,986	1/2	5,108	1/2		1/2		1/2		1/2		1/2	
3/4	552	3/4	1,705	3/4	2,857	3/4	4,010	3/4	5,119	3/4		3/4		3/4		3/4		3/4	
5	577	5	1,729	5	2,881	5	4,034	5	5,131	5		5		5		5		5	
1/4	601	1/4	1,753	1/4	2,905	1/4	4,058	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	625	1/2	1,777	1/2	2,929	1/2	4,082	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	649	3/4	1,801	3/4	2,953	3/4	4,106	3/4		3/4		3/4		3/4		3/4		3/4	
6	673	6	1,825	6	2,977	6	4,130	6		6		6		6		6		6	
1/4	697	1/4	1,849	1/4	3,001	1/4	4,154	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	721	1/2	1,873	1/2	3,025	1/2	4,178	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	745	3/4	1,897	3/4	3,049	3/4	4,202	3/4		3/4		3/4		3/4		3/4		3/4	
7	769	7	1,921	7	3,073	7	4,226	7		7		7		7		7		7	
1/4	793	1/4	1,945	1/4	3,097	1/4	4,250	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	817	1/2	1,969	1/2	3,121	1/2	4,274	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	841	3/4	1,993	3/4	3,145	3/4	4,298	3/4		3/4		3/4		3/4		3/4		3/4	
8	865	8	2,017	8	3,169	8	4,322	8		8		8		8		8		8	
1/4	889	1/4	2,042	1/4	3,193	1/4	4,346	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	913	1/2	2,066	1/2	3,217	1/2	4,370	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	937	3/4	2,090	3/4	3,241	3/4	4,394	3/4		3/4		3/4		3/4		3/4		3/4	
9	961	9	2,114	9	3,265	9	4,418	9		9		9		9		9		9	
1/4	985	1/4	2,138	1/4	3,289	1/4	4,442	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,009	1/2	2,162	1/2	3,313	1/2	4,466	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,033	3/4	2,186	3/4	3,337	3/4	4,490	3/4		3/4		3/4		3/4		3/4		3/4	
10	1,057	10	2,210	10	3,361	10	4,514	10		10		10		10		10		10	
1/4	1,081	1/4	2,234	1/4	3,385	1/4	4,538	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,105	1/2	2,258	1/2	3,409	1/2	4,562	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,129	3/4	2,282	3/4	3,433	3/4	4,586	3/4		3/4		3/4		3/4		3/4		3/4	
11	1,153	11	2,306	11	3,457	11	4,610	11		11		11		11		11		11	
1/4	1,177	1/4	2,330	1/4	3,481	1/4	4,634	1/4		1/4		1/4		1/4		1/4		1/4	
1/2	1,201	1/2	2,354	1/2	3,505	1/2	4,658	1/2		1/2		1/2		1/2		1/2		1/2	
3/4	1,225	3/4	2,378	3/4	3,529	3/4	4,682	3/4		3/4		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 INNAGE GAUGES TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 01/30/2012 CL - SW

CALCULATED: 01/30/2012 CL

PRINTED: 01/30/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 01/2012

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