Tank Vessel Market Indicators

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Office Of Statistical and Economic Analysis
www.marad.dot.gov/marad_statistics

Contents

Preface

The following report contains data on U.S. domestic tank vessel trades. The tank vessels are: product tankers (10,000-69,999 DWT), crude carriers (70,000 DWT or greater), and coastal tank barges (5,000 DWT or greater). The tank vessel market indicators are trades, calls, fleets and timecharter rates. This report also includes data related to U.S. tank vessel markets indicators; petroleum demand, stocks, production and pipeline shipments. This report and additional data are available at http://www.marad.dot.gov/marad_statistics.

Comments and recommendations as to the content and format of the report can be made at data.marad@marad.dot.gov. In addition, to learn more about the Maritime Administration or the maritime industry visit the agency's website at http://www.marad.dot.gov.

Notes and Sources

Sources

Clarson Research Services, Clarkson's Tanker Register, January 2006, www.clarksons.net, London: Clarkson Research Services, 2006. This source contains data for the world tanker fleet.

Energy Information Agency, Petroleum Supply Annual, 1994-2005 issues, www.eia.doe.gov, Wash., DC: U.S. Department of Energy, June 1994,...June 2006. This source contains data on U.s. petroleum demand, imports, stocks, production and pipe-line shipments.

Lloyd's Maritime Intelligence Unit, Vessel Movements Data Files, 1998-2005, www.seasearcher.com, London: Lloyd's Maritime Intelligence Unit, 1998-2005. This source contains data for vessel port calls, ports and active fleets.

U.S. Army Corps of Engineers, U.S. Waterborne Commerce of the United States, 1994-2004 detail files, www.iwr.usace.army.mil/ndc, New Orleans: Navigation Data Center, 1994-2004. This source contains data for U.S. domestic and international waterborne trade. It also contains data on vessels engaged in those trades.

Estimates

The 2005 estimates for waterborne trade are based on changes in related series; tanker calls, Alaskan crude oil production, petroleum imports (all modes).

Highlights

Trades:

- For the period 1994 to 2005, domestic tank vessel trades declined by 22 percent to 173.8 million metric tons (Figure H-1). Crude carrier trades declined by 54 percent while domestic product tanker trades declined by 19 percent (Figures H-2 and H-3). For the same period, shipments by foreign tankers (imports), a substitute for domestic shipments, increased by 58 percent. Pipeline shipments to the Atlantic coast, a substitute for product tanker shipments, increased by 13 percent to 886 million barrels (Figure H-4).

- The average length of haul (metric ton-miles/metric tons) for domestic tank vessel shipments declined by 20 percent from 1994 to 2005, due largely to a decline in long-haul crude carrier trades (Figure H-5).

- The decline in the Alaska crude oil trades reflect a decline in Alaska crude oil production which is moved by crude carriers from Valdez to the lower 48 states. Long-haul shipments to the U.S. Virgin Islands and Panama ended in the late 1990's, and exports of Alaska crude (on U.S.-flag tankers) ended in 2000 (Figure H-6).

Calls:

- In 2005, 79 percent of the tanker calls (U.S.-flag and foreign-flag) at U.S. ports were by double-hull tankers, up from 37 percent seven years earlier (Figure H-7). In 2005, 18 percent of the calls were by U.S.-flag tankers (Figure H-8). Fifty-five percent of the U.S.-flag calls were by double-hull tankers (Table S-2).

Fleets:

- Fifty-three new/retrofitted double-hull tank barges were added to the U.S. Domestic fleet over the last five years. Another 30 new/retrofitted double hull tank barges will be delivered over the next two years. Currently, the fleet consists of 202 total tank barges (Table S-4).

- Seven U.S.-flag crude carriers were built in U.S. shipyards over the last five years (Table S-4). Two additional crude carriers will be delivered from U.S. shipyards over the next two years. Of the 64 U.S.-flag domestic tankers, 43 are older than 20 years.

Rates:

- International tanker charter rates have increased sharply in recent years reflecting a surge in international petroleum stocks and trades (Exhibit 11).

Highlights

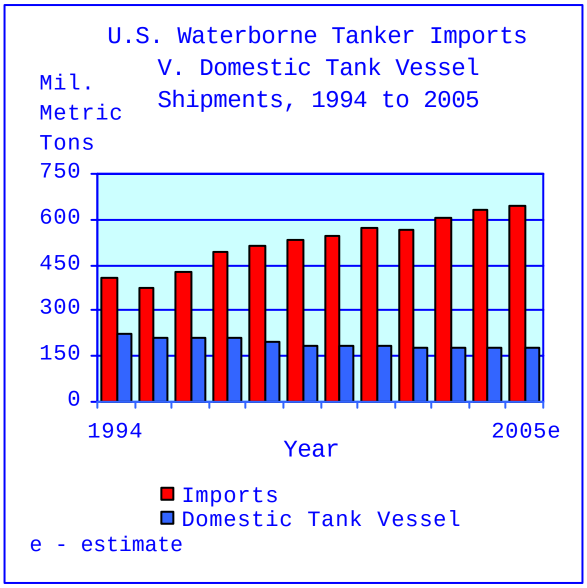


Figure H-1

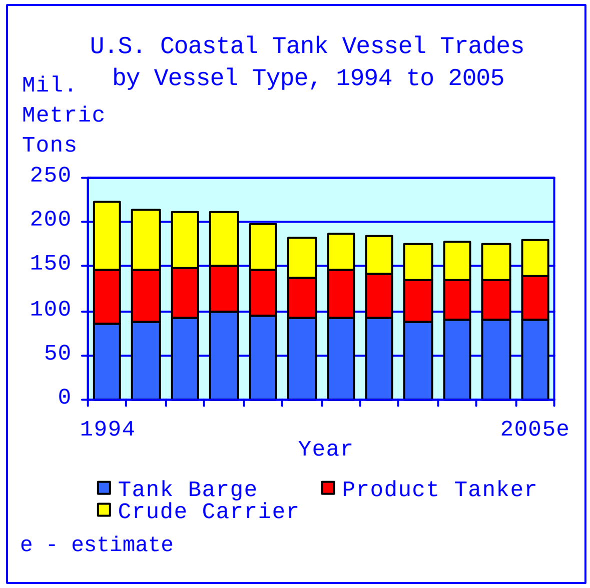


Figure H-2

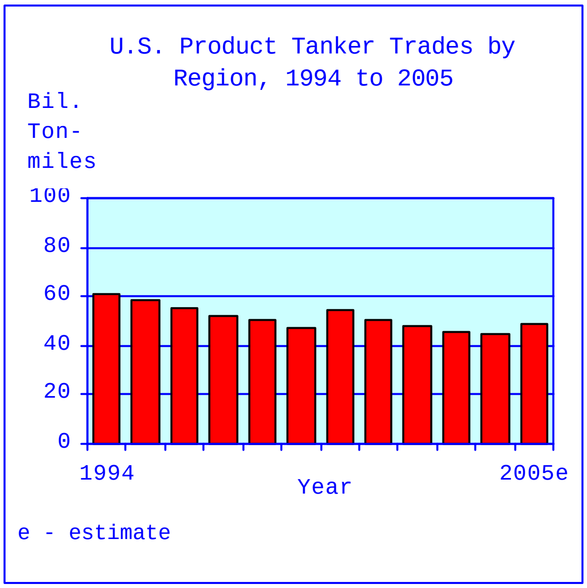


Figure H-3

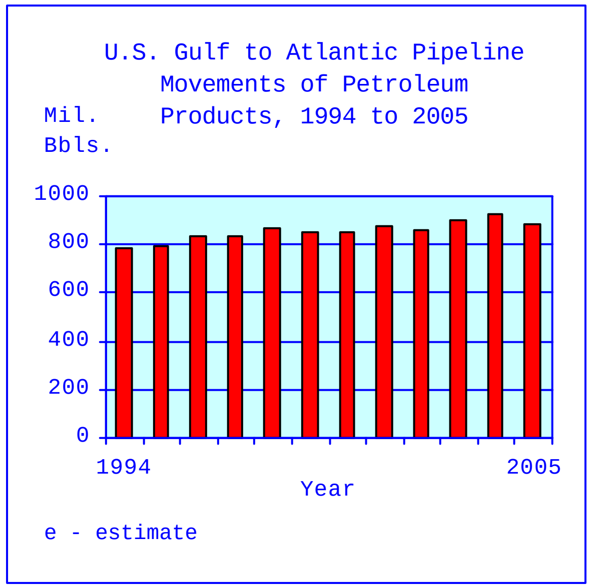
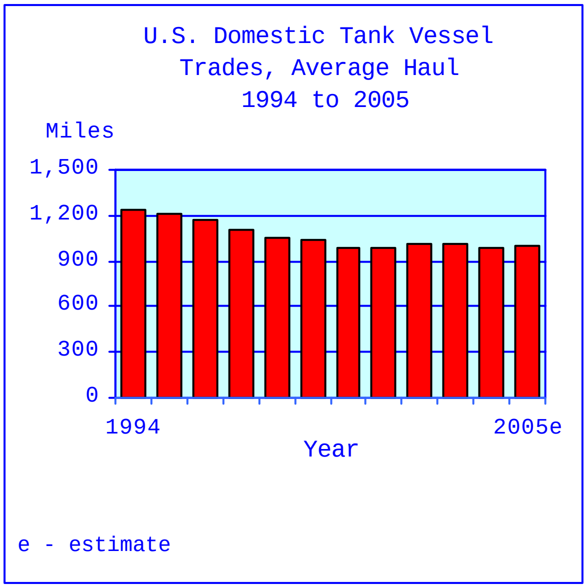


Figure H-4

Highlights



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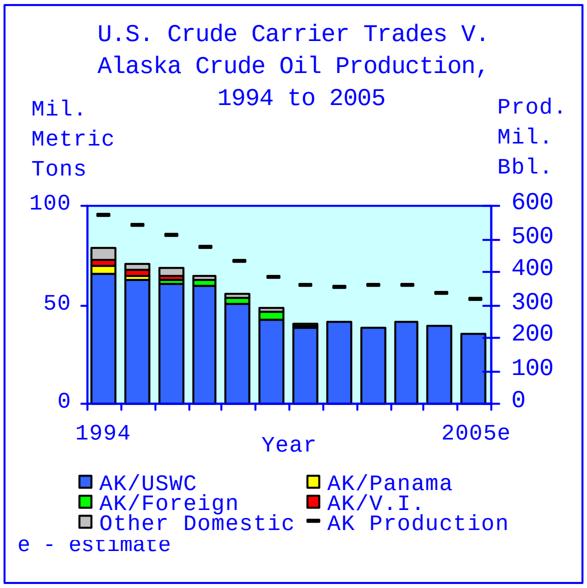

Figure H-6

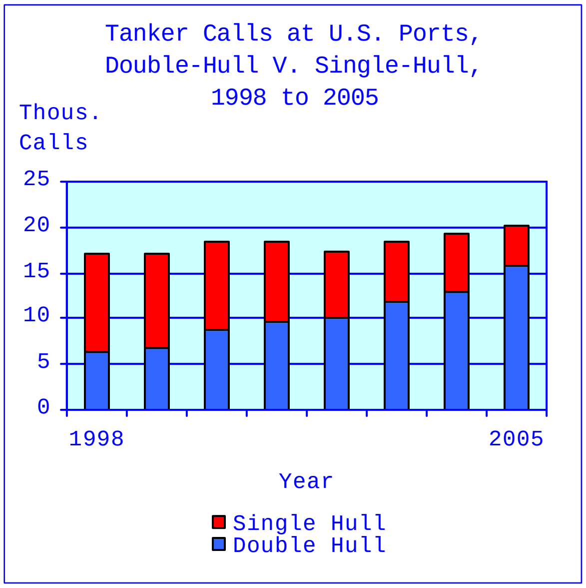

Figure H-7

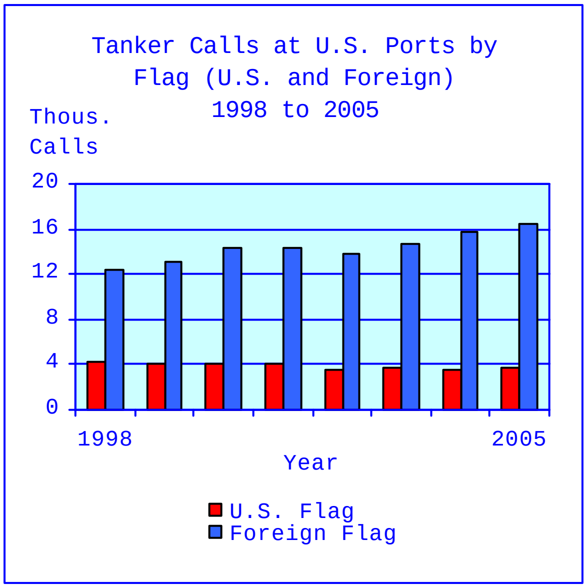

Figure H-8

Highlights

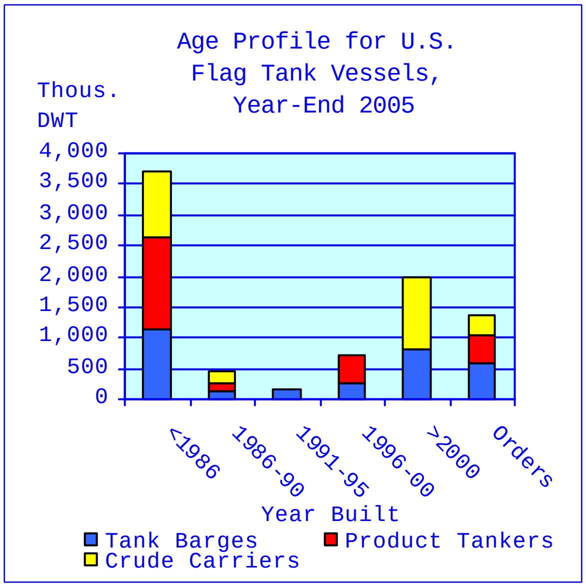

Figure H-9

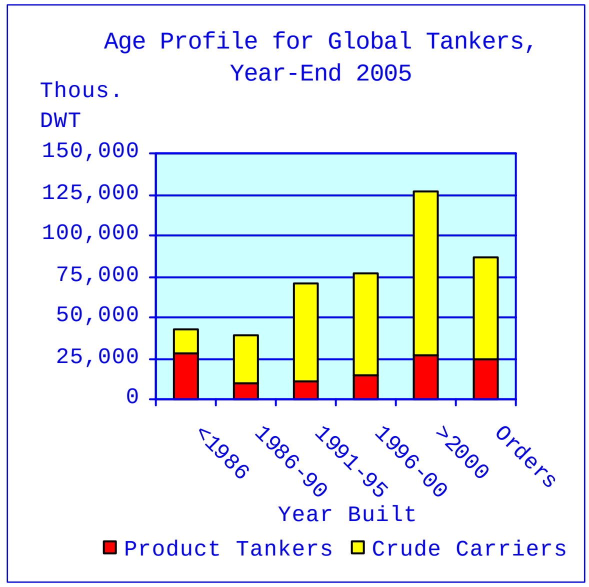

Figure H-10

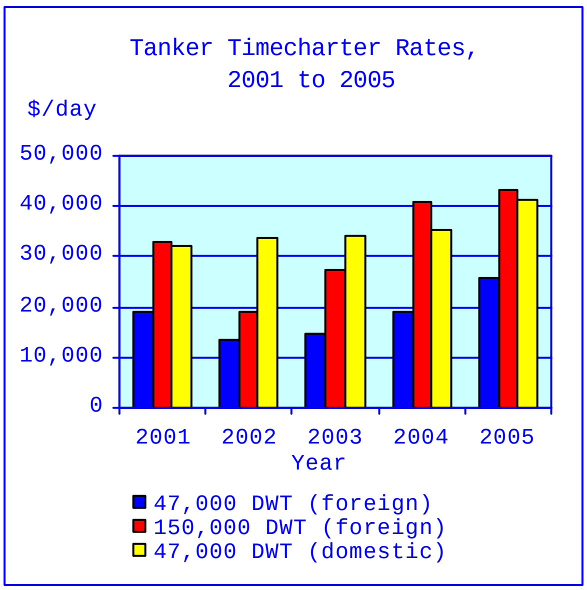

Figure H-11

Summary Tables

U.S. Tank Vessel Trades

Trade and Vessel Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005e
Domestic Trades												
Million Tons	222.9	213.3	212.5	211.9	198.4	183.0	187.1	184.7	174.7	177.2	175.2	173.8
Billion Ton-miles	276.6	257.8	248.5	234.6	209.8	191.1	184.7	181.6	177.5	178.4	173.9	172.3
Product Tanker												
All Trades												
Million Metric Tons	60.7	58.5	55.2	51.8	50.5	46.8	54.4	50.7	48.0	45.8	44.6	48.9
Billion Metric Ton-Miles	87.0	82.4	81.9	77.7	68.7	68.6	75.4	66.7	68.5	63.9	64.5	68.2
Gulf and Atlantic												
Million Metric Tons	36.1	32.6	29.3	30.6	34.0	32.3	36.2	33.0	31.0	32.5	31.6	
Billion Metric Ton-Miles	61.5	56.3	50.4	50.1	47.0	44.1	48.7	42.5	40.7	42.0	40.6	
Gulf/West Coast												
Million Metric Tons	1.6	1.4	2.1	2.0	1.8	2.5	2.1	1.4	1.5	1.7	2.1	
Billion Metric Ton-Miles	10.0	8.8	13.3	12.7	11.3	15.7	13.0	8.7	9.5	10.5	13.5	
West Coast												
Million Metric Tons	23.1	24.5	23.8	19.2	14.6	12.0	16.2	16.2	15.4	11.6	10.8	
Billion Metric Ton-Miles	15.5	17.2	18.3	14.9	10.4	8.8	13.7	15.6	18.3	11.4	10.3	
Coastal Tank Barge												
All Trades												
Million Metric Tons	86.1	87.5	92.9	98.9	95.1	91.6	92.1	92.1	88.1	89.9	91.1	90.0
Billion Metric Ton-miles	29.5	34.4	36.6	38.9	37.9	36.6	35.9	35.4	37.2	38.3	36.4	35.0
Gulf and Atlantic												
Million Metric Tons	78.8	77.4	80.5	86.9	84.6	79.4	77.8	80.0	78.1	78.5	77.5	
Billion Metric Ton-miles	27.2	30.8	31.7	34.7	33.6	32.1	31.8	31.1	33.2	33.3	30.2	
Intra-West Coast												
Million Metric Tons	7.3	10.2	12.5	12.0	10.5	12.2	14.3	12.1	10.1	11.4	13.5	
Billion Metric Ton-miles	2.3	3.6	4.9	4.2	4.3	4.5	4.1	4.3	4.0	5.0	6.2	
Crude Carrier												
All Trades												
Million Metric Tons	76.1	67.3	64.4	61.2	52.8	44.6	40.6	41.9	38.5	41.5	39.6	34.9
Billion Metric Ton-miles	160.1	141.0	130.0	118.0	103.2	85.9	73.4	79.5	71.8	76.2	73.0	69.1
Alaska/West Coast												
Million Metric Tons	66.1	62.5	60.5	59.1	50.4	42.7	38.1	41.0	38.5	41.5	39.5	34.9
Billion Metric Ton-miles	131.5	123.0	118.8	113.2	97.0	81.8	72.8	76.7	71.8	76.2	73.0	69.1
U.S. Tanker Imports												
Million Metric Tons	408	378	426	495	514	531	548	573	569	605	630	645

Source: Corps of Engineers, Waterborne Commerce of the United States, for U.S. domestic trades; and Clarkson Research Studies, Shipping Review and Outlook, for world trades.

Table S-1

Summary Tables

Tanker Calls at U.S. Ports by Flag and Vessel Type, 1998-2005								
Flag and Vessel Type	1998	1999	2000	2001	2002	2003	2004	2005
U.S.-Flag								
Crude and Product	4,345	4,095	4,103	4,009	3,549	3,759	3,591	3,676
Double-Hull	984	1,114	1,414	1,513	1,448	1,637	1,798	2,012
Product Tankers	2,880	2,849	2,932	2,861	2,430	2,369	2,459	2,532
Double-Hull	862	958	1,228	1,250	1,062	1,168	1,277	1,372
Crude Carriers	1,465	1,246	1,171	1,148	1,119	1,168	1,142	1,144
Double-Hull	122	156	186	263	386	469	521	640
ITB's	287	273	430	526	489	579	526	607
Foreign-Flag								
Crude & Product	12,496	13,184	14,432	14,378	13,771	14,744	15,725	16,442
Double-Hull	5,271	5,828	7,328	8,055	8,597	10,266	11,127	13,790
Product Tankers	7,328	8,026	8,936	8,919	8,519	8,629	9,113	9,685
Double-Hull	2,750	3,038	3,956	4,505	4,708	5,408	5,482	7,386
Crude Carriers	5,168	5,158	5,496	5,459	5,252	6,115	6,602	6,757
Double-Hull	2,521	2,790	3,372	3,550	3,889	4,858	5,645	6,404
All Flags								
Crude & Product	16,841	17,279	18,535	18,387	17,320	18,503	19,316	20,118
Double-Hull	6,255	6,942	8,742	9,568	10,045	11,903	12,925	15,802
Product Tankers	10,208	10,875	11,868	11,780	10,949	10,998	11,572	12,217
Double-Hull	3,612	3,996	5,184	5,755	5,770	6,576	6,759	8,758
Crude Carriers	6,633	6,404	6,667	6,607	6,371	7,505	7,744	7,901
Double-Hull	2,643	2,946	3,558	3,813	4,275	5,327	6,166	7,044
Source: Maritime Administration, Vessel Calls at U.S. and World Ports 2005.								

Table S-2

Summary Tables

Tanker Capacity Calling at U.S. Ports by Flag and Vessel Type, 1998-2005 (DWT in Thousands)								
Flag and Vessel Type	1998	1999	2000	2001	2002	2003	2004	2005
U.S.-Flag								
Crude & Product	299,919	274,067	268,317	268,050	246,176	273,399	248,801	267,793
Double-Hull	47,513	56,390	71,119	82,890	92,937	108,558	121,909	145,626
Product Tankers	115,374	114,537	119,312	116,885	100,223	96,577	99,176	103,217
Double-Hull	32,345	37,023	47,996	49,289	42,217	45,890	51,021	52,871
Crude Carriers	184,545	159,530	149,005	151,165	145,954	176,822	149,625	164,576
Double-Hull	15,168	19,367	23,122	33,601	50,719	62,668	70,889	92,754
ITB's	12,977	12,430	19,694	24,212	22,239	26,294	23,777	27,442
Foreign-Flag								
Crude & Product	856,548	896,113	983,737	1,006,401	956,037	1,065,970	1,116,640	1,181,831
Double-Hull	377,175	423,134	528,918	595,617	659,306	801,515	874,114	1,055,115
Product Tankers	261,011	293,446	317,193	326,184	305,440	319,039	336,904	360,487
Double-Hull	93,246	100,335	128,645	158,929	166,244	198,097	210,308	278,457
Crude Carriers	595,536	602,667	666,544	680,217	650,597	746,931	779,735	821,343
Double-Hull	283,929	322,799	400,272	436,688	493,062	603,419	663,806	776,658
All Flags								
Crude & Product	1,156,467	1,170,180	1,252,054	1,274,451	1,202,213	1,339,369	1,365,441	1,449,624
Double-Hull	424,688	479,524	600,036	678,507	752,243	910,074	996,024	1,200,741
Product Tankers	376,386	407,982	436,505	443,069	405,663	415,615	436,080	463,705
Double-Hull	125,590	137,358	176,642	208,218	208,461	243,987	261,329	331,329
Crude Carriers	780,082	762,197	815,549	831,382	796,550	923,753	929,360	985,919
Double-Hull	299,097	342,166	423,394	470,289	543,781	666,087	734,695	869,412
Source: Maritime Administration, Vessel Calls at U.S. and World Ports.								

Table S-3

Summary Tables

Age Profile of Tank Vessels by Type, Year-end 2005 (DWT in Thousands)														
	Before 1986		1986-1990		1991-1995		1996-2000		After 2000		Total		Orders	
Vessel Type	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
Domestic														
Product-Tanker	36	1,497	3	113	0	0	10	432	0	0	49	2,042	10	450
Double-Hull	8	295	2	66	0	0	10	432	0	0	20	793	10	450
Crude Carrier	7	1,070	1	215	0	0	0	0	7	1,145	15	2,430	2	327
Double-Hull	3	372	0	0	0	0	0	0	7	1,145	10	1,517	2	327
Tank Barge	107	1,135	12	137	14	176	16	274	53	830	202	2,551	30	600
Double-Hull	16	281	4	52	14	176	16	274	53	830	103	1,613	30	600
Total	150	3,702	16	465	14	176	26	706	61	2,010	267	7,058	42	1,377
Double-Hull	27	948	6	118	14	176	26	706	61	2,010	134	3,958	42	1,377
Global														
Product-Tanker	1,641	28,312	484	10,009	628	10,719	682	15,044	1,041	27,283	4,449	91,368	918	24,153
Double-Hull	153	2,297	95	2,753	313	7,071	662	14,725	1,038	27,271	2,261	54,117	918	24,153
Crude Carrier	113	17,743	198	29,236	328	59,416	346	61,585	608	100,140	1,593	265,120	414	62,120
Double-Hull	6	665	29	2,629	168	24,411	344	61,029	608	100,140	1,155	188,873	414	62,120
Total	1,727	43,055	682	39,246	956	70,135	1,028	76,629	1,649	127,423	6,042	356,488	1,332	86,274
Double-Hull	159	2,961	124	5,382	481	31,483	1,006	75,753	1,646	127,411	3,416	242,991	1,332	86,274
Source: Clarkson Research Studies, Tanker Register, January 2006; U.S. Army Corps of Engineers, Vessel Master File, for tank barges.														

Table S-4

Summary Tables

Other U.S. Tank Vessel Market Indicators												
All Flags	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Petroleum:												
Demand	6,467	6,469	6,701	6,796	6,905	7,125	7,211	7,172	7,213	7,312	7,588	7,539
Imports	3,284	3,225	3,469	3,709	3,908	3,961	4,194	4,333	4,209	4,477	4,811	
Production*	2,431	2,394	2,366	2,355	2,282	2,147	2,131	2,118	2,097	2,073	1,983	1,869
Alaska	569	542	510	473	429	383	355	351	359	356	332	315
Other	1,862	1,853	1,856	1,882	1,853	1,764	1,776	1,766	1,738	1,718	1,651	1,554
U.S. Stocks	1,653	1,563	1,507	1,560	1,647	1,493	1,468	1,586	1,548	1,568	1,644	1,696
Pipeline												
Gulf to Atl.	784	797	835	838	867	854	855	877	857	900	927	890
Gulf to WC	23	22	25	26	30	33	32	33	33	33	33	32

*Crude
Source: Energy Information Agency, Petroleum Supply Annual.

Table S-5