

TABLE 3. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION^a (Continued)

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CHAPTER 3

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FAHR. TEMP. (°F)	ABSOLUTE PRESSURE $p_s \times 10^6$		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. (°F)
	Lb/Sq In.	In. Hg	Sat. Solid v_f	Evap. $v_g \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_f	Evap. h_{fg}	Sat. Vapor h_g	Sat. Solid s_f	Evap. s_{fg}	Sat. Vapor s_g	
-123	1.716	3.494	0.01726	11.51	11.51	-211.39	1215.91	1004.52	-0.4509	3.6658	3.2089	-123
-127	1.897	3.862	0.01726	10.45	10.45	-211.04	1216.00	1004.36	-0.4559	3.6551	3.1992	-127
-126	2.095	4.205	0.01726	9.489	9.489	-210.69	1216.09	1005.40	-0.4548	3.6444	3.1896	-126
-125	2.312	4.708	0.01726	8.622	8.622	-210.34	1216.18	1005.84	-0.4538	3.6338	3.1800	-125
-124	2.551	5.194	0.01726	7.839	7.839	-209.99	1216.27	1006.28	-0.4527	3.6232	3.1705	-124
-123	2.812	5.726	0.01726	7.131	7.131	-209.64	1216.37	1006.73	-0.4517	3.6127	3.1610	-123
-122	3.099	6.310	0.01726	6.491	6.491	-209.28	1216.45	1007.17	-0.4506	3.6022	3.1516	-122
-121	3.413	6.949	0.01726	5.911	5.911	-208.93	1216.54	1007.61	-0.4496	3.5919	3.1423	-121
-120	3.757	7.649	0.01726	5.386	5.386	-208.58	1216.63	1008.05	-0.4485	3.5815	3.1330	-120
-119	4.133	8.414	0.01726	4.911	4.911	-208.22	1216.71	1008.49	-0.4475	3.5713	3.1238	-119
-118	4.544	9.251	0.01727	4.480	4.480	-207.86	1216.80	1008.94	-0.4464	3.5611	3.1147	-118
-117	4.993	10.17	0.01727	4.088	4.088	-207.51	1216.89	1009.38	-0.4454	3.5510	3.1056	-117
-116	5.484	11.16	0.01727	3.733	3.733	-207.15	1216.97	1009.82	-0.4444	3.5409	3.0965	-116
-115	6.019	12.26	0.01727	3.411	3.411	-206.79	1217.05	1010.26	-0.4433	3.5308	3.0875	-115
-114	6.604	13.44	0.01727	3.118	3.118	-206.43	1217.13	1010.70	-0.4423	3.5209	3.0786	-114
-113	7.241	14.74	0.01727	2.862	2.862	-206.07	1217.21	1011.14	-0.4412	3.5109	3.0697	-113
-112	7.936	16.16	0.01727	2.610	2.610	-205.70	1217.29	1011.59	-0.4402	3.5011	3.0609	-112
-111	8.693	17.70	0.01727	2.369	2.369	-205.34	1217.37	1012.03	-0.4391	3.4912	3.0521	-111
-110	9.517	19.38	0.01728	2.159	2.159	-204.98	1217.45	1012.47	-0.4381	3.4815	3.0434	-110
-109	10.41	21.20	0.01728	2.006	2.006	-204.61	1217.52	1012.91	-0.4370	3.4718	3.0348	-109
-108	11.39	23.19	0.01728	1.839	1.839	-204.24	1217.60	1013.36	-0.4360	3.4621	3.0261	-108
-107	12.45	25.35	0.01728	1.687	1.687	-203.88	1217.68	1013.80	-0.4350	3.4526	3.0176	-107
-106	13.60	27.70	0.01728	1.549	1.549	-203.51	1217.75	1014.24	-0.4339	3.4430	3.0091	-106
-105	14.86	30.25	0.01728	1.422	1.422	-203.14	1217.82	1014.68	-0.4329	3.4335	3.0006	-105
-104	16.22	33.01	0.01728	1.307	1.307	-202.77	1217.89	1015.12	-0.4318	3.4240	2.9922	-104
-103	17.69	36.02	0.01728	1.201	1.201	-202.40	1217.96	1015.56	-0.4308	3.4146	2.9838	-103
-102	19.29	39.28	0.01728	1.104	1.104	-202.03	1218.04	1016.01	-0.4298	3.4053	2.9755	-102
-101	21.03	42.81	0.01729	1.016	1.016	-201.65	1218.10	1016.45	-0.4287	3.3960	2.9673	-101
-100	22.91	46.64	0.01729	0.9352	0.9352	-201.28	1218.17	1016.89	-0.4277	3.3868	2.9591	-100
-99	24.94	50.79	0.01729	0.8613	0.8613	-200.90	1218.23	1017.33	-0.4266	3.3775	2.9509	-99
-98	27.15	55.28	0.01729	0.7936	0.7936	-200.53	1218.30	1017.77	-0.4256	3.3684	2.9428	-98
-97	29.54	60.14	0.01729	0.7314	0.7314	-200.15	1218.37	1018.22	-0.4246	3.3593	2.9347	-97

^aCompiled by John A. Goff and S. Gratch.TABLE 3. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION^a (Continued)

Thermodynamics

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FAHR. TEMP. (°F)	ABSOLUTE PRESSURE $p_s \times 10^6$		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. (°F)
	Lb/Sq In.	In. Hg	Sat. Solid v_f	Evap. $v_g \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_f	Evap. h_{fg}	Sat. Vapor h_g	Sat. Solid s_f	Evap. s_{fg}	Sat. Vapor s_g	
-96	3.212	6.539	0.01729	6.745	6.745	-199.78	1218.44	1018.66	-0.4235	3.3502	2.9267	-96
-95	3.491	7.108	0.01729	6.223	6.223	-199.40	1218.50	1019.10	-0.4225	3.3412	2.9187	-95
-94	3.793	7.722	0.01729	5.743	5.743	-199.02	1218.56	1019.54	-0.4214	3.3322	2.9108	-94
-93	4.118	8.385	0.01730	5.303	5.303	-198.64	1218.62	1019.98	-0.4204	3.3233	2.9029	-93
-92	4.470	9.102	0.01730	4.899	4.899	-198.25	1218.68	1020.43	-0.4194	3.3145	2.8951	-92
-91	4.850	9.876	0.01730	4.528	4.528	-197.87	1218.74	1020.87	-0.4183	3.3050	2.8873	-91
-90	5.260	10.71	0.01730	4.186	4.186	-197.49	1218.80	1021.31	-0.4173	3.2969	2.8796	-90
-89	5.702	11.61	0.01730	3.872	3.872	-197.10	1218.85	1021.75	-0.4162	3.2880	2.8718	-89
-88	6.179	12.58	0.01730	3.583	3.583	-196.72	1218.92	1022.20	-0.4152	3.2794	2.8642	-88
-87	6.692	13.63	0.01730	3.317	3.317	-196.33	1218.97	1022.64	-0.4142	3.2708	2.8566	-87
-86	7.245	14.75	0.01730	3.072	3.072	-195.94	1219.02	1023.08	-0.4131	3.2621	2.8490	-86
-85	7.841	15.96	0.01730	2.846	2.846	-195.56	1219.08	1023.52	-0.4121	3.2536	2.8415	-85
-84	8.482	17.27	0.01731	2.638	2.638	-195.16	1219.12	1023.96	-0.4110	3.2450	2.8340	-84
-83	9.171	18.67	0.01731	2.446	2.446	-194.78	1219.18	1024.40	-0.4100	3.2366	2.8266	-83
-82	9.913	20.18	0.01731	2.270	2.270	-194.38	1219.23	1024.85	-0.4090	3.2282	2.8192	-82
-81	10.71	21.81	0.01731	2.106	2.106	-193.99	1219.28	1025.29	-0.4079	3.2197	2.8118	-81
-80	11.57	23.55	0.01731	1.955	1.955	-193.60	1219.33	1025.73	-0.4069	3.2114	2.8045	-80
-79	12.49	25.42	0.01731	1.816	1.816	-193.20	1219.37	1026.17	-0.4058	3.2030	2.7972	-79
-78	13.47	27.43	0.01731	1.687	1.687	-192.81	1219.43	1026.62	-0.4048	3.1948	2.7900	-78
-77	14.53	29.59	0.01732	1.568	1.568	-192.41	1219.47	1027.06	-0.4038	3.1866	2.7828	-77
-76	15.67	31.91	0.01732	1.458	1.458	-192.01	1219.51	1027.50	-0.4028	3.1784	2.7756	-76
-75	16.89	34.39	0.01732	1.356	1.356	-191.62	1219.56	1027.94	-0.4017	3.1702	2.7685	-75
-74	18.20	37.05	0.01732	1.262	1.262	-191.22	1219.60	1028.38	-0.4007	3.1622	2.7615	-74
-73	19.60	39.91	0.01732	1.175	1.175	-190.82	1219.65	1028.83	-0.3996	3.1540	2.7544	-73
-72	21.10	42.96	0.01732	1.094	1.094	-190.41	1219.68	1029.27	-0.3986	3.1460	2.7474	-72
-71	22.71	46.24	0.01732	1.020	1.020	-190.01	1219.72	1029.71	-0.3976	3.1381	2.7405	-71
-70	24.43	49.74	0.01732	0.9501	0.9501	-189.61	1219.76	1030.15	-0.3965	3.1301	2.7336	-70
-69	26.27	53.49	0.01732	0.8858	0.8858	-189.20	1219.80	1030.60	-0.3955	3.1222	2.7267	-69
-68	28.24	57.51	0.01733	0.8261	0.8261	-188.80	1219.84	1031.04	-0.3945	3.1143	2.7198	-68
-67	30.35	61.80	0.01733	0.7707	0.7707	-188.39	1219.87	1031.48	-0.3934	3.1064	2.7130	-67
-66	32.60	66.38	0.01733	0.7193	0.7193	-187.98	1219.90	1031.92	-0.3924	3.0987	2.7063	-66
-65	35.01	71.28	0.01733	0.6715	0.6715	-187.58	1219.94	1032.36	-0.3914	3.0910	2.6996	-65

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