

APPENDIX

(Nonmandatory Information)

X1. NOTES TO SCHOEFER DIAGRAM

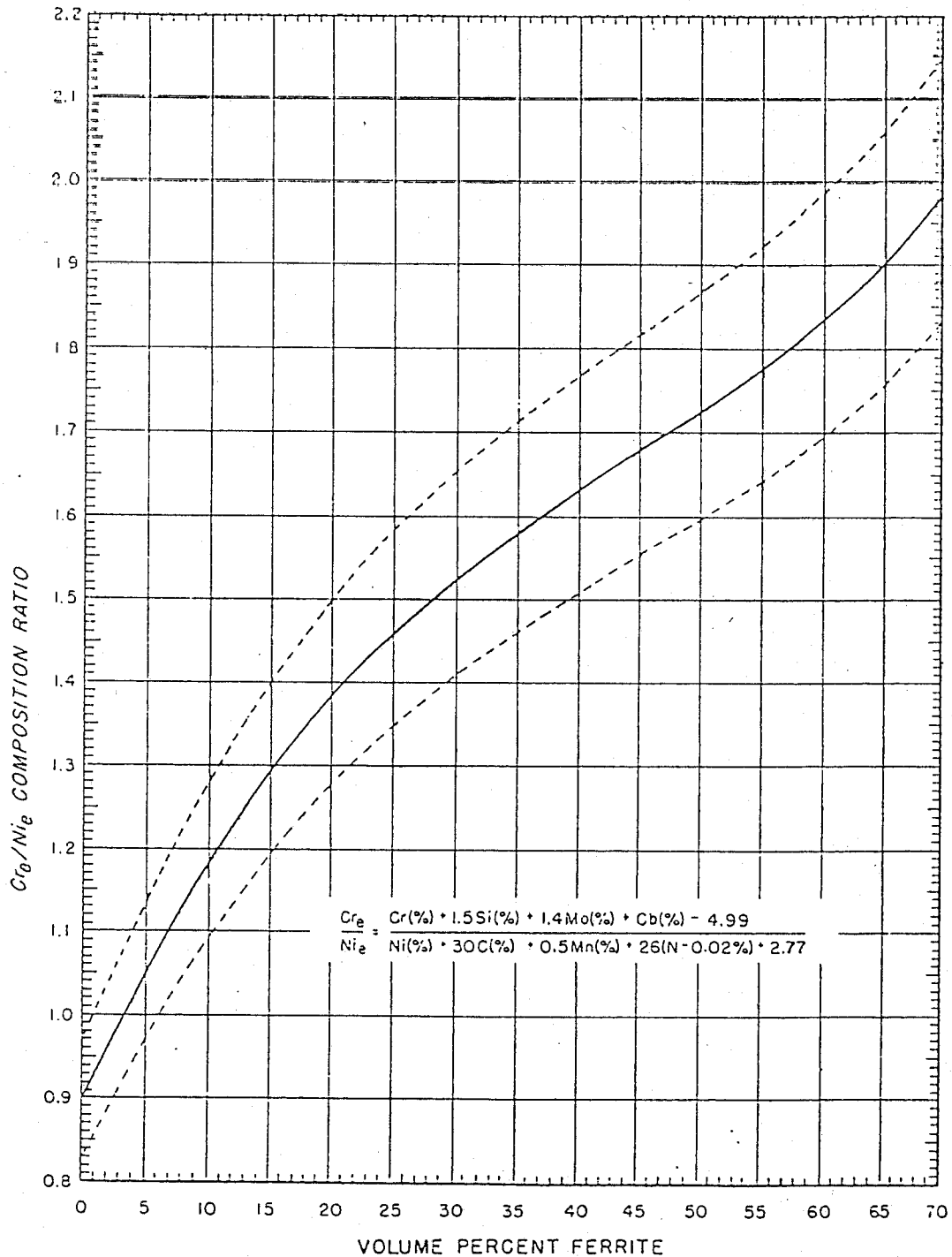


FIG. X1.1 Schoefer Diagram for Estimating the Average Ferrite Content in Austenitic Iron-Chromium-Nickel Alloy Castings

 A 800/A 800M

TABLE X1.1 Composition Ratio Required for a Desired Ferrite Content

Volume Percent Ferrite	0	1	2	3	4	5	6	7	8	9
0	0.900	0.933	0.966	0.997	1.027	1.056	1.084	1.111	1.138	1.163
10	1.187	1.211	1.234	1.256	1.277	1.297	1.317	1.336	1.354	1.371
20	1.388	1.405	1.420	1.436	1.450	1.464	1.478	1.491	1.504	1.516
30	1.528	1.540	1.551	1.562	1.573	1.584	1.594	1.604	1.614	1.623
40	1.633	1.643	1.652	1.661	1.671	1.680	1.689	1.699	1.708	1.718
50	1.728	1.737	1.747	1.758	1.768	1.779	1.790	1.801	1.813	1.825
60	1.837	1.850	1.863	1.877	1.891	1.906	1.921	1.937	1.953	1.970
70	1.988									

TABLE X1.2 Volume Percent Ferrite Indicated by Composition Ratio

Composition Ratio ^A	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
U	0.00	0.00	0.00	0.00	0.30	0.62	0.95	1.28	1.62	1.95
0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U	2.30	2.65	3.00	3.35	3.71	4.08	4.45	4.82	5.20	5.58
0.90	0.00	0.30	0.60	0.90	1.20	1.51	1.82	2.14	2.46	2.70
L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.41
U	5.97	6.36	6.76	7.17	7.58	8.00	8.42	8.85	9.29	9.73
1.00	3.11	3.44	3.77	4.11	4.45	4.79	5.14	5.49	5.85	6.21
L	0.69	0.97	1.25	1.54	1.83	2.12	2.41	2.71	2.96	3.21
U	10.18	10.64	11.11	11.58	12.06	12.55	13.05	13.56	14.08	14.61
1.10	6.58	6.95	7.33	7.71	8.10	8.49	8.89	9.29	9.70	10.11
L	3.61	3.92	4.24	4.55	4.87	5.19	5.52	5.85	6.18	6.52
U	15.15	15.70	16.26	16.84	17.42	18.02	18.63	19.26	19.90	20.56
1.20	10.53	10.96	11.40	11.84	12.29	12.75	13.21	13.68	14.16	14.65
L	6.86	7.21	7.56	7.92	8.28	8.64	9.01	9.38	9.76	10.15
U	21.23	21.92	22.63	23.35	24.10	24.86	25.65	26.46	27.29	28.14
1.30	15.15	15.66	16.17	16.70	17.24	17.79	18.35	18.92	19.50	20.10
L	10.54	10.93	11.33	11.74	12.15	12.57	12.99	13.43	13.87	14.31
U	29.02	29.92	30.85	31.80	32.78	33.78	34.81	35.86	36.94	38.04
1.40	20.71	21.33	21.97	22.63	23.30	23.98	24.68	25.40	26.14	26.90
L	14.77	15.23	15.70	16.18	16.66	17.16	17.66	18.18	18.70	19.23
U	39.16	40.29	41.43	42.59	43.75	44.91	46.07	47.22	48.36	49.48
1.50	27.68	28.55	29.29	30.13	30.99	31.87	32.78	33.70	34.65	35.62
L	19.78	20.33	20.90	21.48	22.07	22.68	23.30	23.93	24.58	25.24
U	50.59	51.67	52.74	53.78	54.79	55.78	56.75	57.68	58.60	59.49
1.60	36.61	37.61	38.64	39.68	40.73	41.79	42.86	43.96	45.00	46.07
L	25.91	26.61	27.32	28.04	28.79	29.55	30.33	31.13	31.94	32.78
U	60.35	61.19	62.01	62.80	63.58	64.33	65.06	65.78	66.28	67.15
1.70	47.13	48.18	49.22	50.25	51.26	52.25	53.22	54.17	55.10	56.01
L	33.63	34.50	35.39	36.30	37.23	38.16	39.12	40.08	41.05	42.04
U	67.82	68.47	69.10	69.72	70.32	>70				
1.80	56.89	57.76	58.60	59.42	60.22	61.00	61.76	62.50	63.22	63.93
L	43.02	44.01	45.00	45.99	46.97	47.94	48.91	49.86	50.80	51.72
U	>70									
1.90	64.61	65.28	65.94	66.58	67.21	67.82	68.42	69.00	69.58	70.14
L	52.63	53.52	54.39	55.24	56.08	56.89	57.69	58.47	59.23	59.97
U	>70									
2.00	>70									
L	60.70	61.41	62.10	62.78	63.44	64.09	64.72	65.34	65.94	66.53
U	>70									
2.10	>70									
L	67.11	67.68	68.23	68.78	69.31	69.84	>70			

^A For a given composition ratio the ferrite content estimate will be found at the intersection of the appropriate line and column. The figures immediately above and below on the lines U and L indicate the probable upper and lower bounds of the ferrite range that may be expected.