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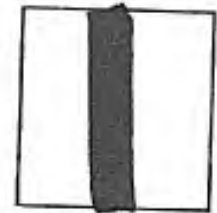
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Waterdown Arsenal Labs, MA



INVENTORY

Rept. No. WAL-091/1

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6 Dec. 33

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REPORT

REPORT NO. 091/1

LIGHT ARMOR PLATE
EMERGENCY PROCUREMENT PLAN
(TENTATIVE)

BY

D. J. MARTIN

1933

DISTRIBUTION STATEMENT A

Approved for public release;
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INDEX

WATERTOWN ARSENAL
WATERTOWN, MASS.

December 6, 1933.

Emergency Procurement Plan

(Tentative)

Light Armor Plate

A survey has been made of the capacity of known sources of light armor plate. Although the estimates submitted are, in some cases, comparatively vague, a production plan is presented herewith in tentative form. When more definite estimates are available, this production schedule should be revised.

Some of the companies to which allocations have been made have not produced armor plate for the War Department for several years. These companies have been given very light assignments for the early months of the emergency period. It is felt, however, that these concerns should be asked to submit samples of their plate for metallurgical and ballistic tests. If such tests were made it would be possible to advance the delivery date for comparatively large tonnages from these concerns, and the heavy burden now placed upon companies whose ability in this work has been demonstrated could be somewhat relieved.

The requirements for armor plate under the 1924 G. M. P., as set forth in let Ind., O.C. 381/9289, are shown in Table I. O.C. 381/9289 requests a procurement plan based on 125% of the figures given on anticipated deliveries of items and marked (X). While the maximum estimated capacity has not been used except in the case of a few sizes, an effort has been made to

By D.J. Martin

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more closely approach the figures given in Table I which were based on actual requirements (marked *).

The estimated capacity of each of the producers is shown, in such detail as is available, in Table II.

The procurement plan, showing tentative allocations to the various manufacturers, of short tons per month in each of the thickness groups, is given in Table III.

A comparison of the manufacturers' present capacity and the load allocated in Table III is shown in Table IV.

Table III indicates that cumulative allocations equal or exceed the actual requirements at consumers' plants as follows:

<u>Plate</u>	<u>Month</u>
0.125"	2nd
0.150"	1st
0.1875"	5th
0.250"	6th
0.375"	6th
0.500"	4th
0.625"	3rd
0.875"	4th

It is apparent in Table IV that full use is being made of the capacity of those manufacturers who have established the quality of their plate in recent Proving Ground test. The remaining manufacturers probably have the capacity which they show but it is felt that their figures for the early months should be fully accepted only after they have demonstrated their ability to produce plate that satisfies present ballistic requirements.

It should be noted that ballistic limits have been increased considerably since some of these manufacturers last made armor plate. When it is established that the concerns referred to can produce - without the delay which extensive experimental work would involve - satisfactory plates, then the picture presented in Table III may be materially improved.

The value of this plan rests largely upon the ability of the manufacturers to meet the ballistic requirements for light armor. Quantity is a secondary factor which all of the manufacturers listed can obtain without undue difficulty. It is, therefore, vital to the success of this plan that all of the manufacturers demonstrate their ability to meet "quality" requirements by submitting ballistic samples for metallurgical and ballistic tests at intervals not to exceed two years. With the information thus made available it will be possible to revise this plan at regular intervals and to keep it in such condition that it will best serve its purpose in any emergency.

It is suggested that all of the manufacturers listed herein and all of those whose names may be added from time to time be furnished with a copy of the current specification for light armor plate, and that they be consulted with reference to future changes.

D. J. Martin,
1st Lt., Ord. Dept.

TABLE I.

ARMOR PLATE REQUIREMENTS

COPY O.O. 381/9289 Inc. 1 - emg

TABLE I.

ARMOR PLATE REQUIREMENTS

1924 O. M. P.

Unit - One Short Ton.

♣- Monthly requirements at Consumers' Plants based on anticipated deliveries of items.

*- Monthly requirements at Consumers' Plants based on actual procurement requirements.

One month allowed to finish and assemble.

Thickness of plate.	Months after W-day														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
.125" thick-	♣- 0	1	2	2	3	3	3	3	3	3	3	0	0	0	0
"	*- 6	2	2	1	1	1	1	1	1	1	1	1	1	1	1
.15" thick-	♣- 0	0	0	10	18	25	32	33	37	80	84	82	85	75	60
"	*- 0	0	0	0	0	0	2	11	14	19	77	42	44	46	48
.1875" thick-	♣- 0	5	6	11	17	13	13	13	12	12	12	0	0	0	0
"	*- 41	5	12	6	6	6	6	6	6	6	6	6	6	5	5
.25" thick-	♣- 0	64	122	273	409	644	674	674	674	674	674	560	560	560	560
"	*- 653	169	314	283	120	294	1290	250	260	260	270	350	350	350	350
.375" thick-	♣- 0	88	151	276	421	626	655	655	655	655	655	430	430	430	430
"	*- 760	206	346	280	130	290	965	230	242	242	250	306	306	306	306
.5" thick-	♣- 0	1	1	115	150	264	264	264	264	264	264	263	263	263	263
"	*- 195	38	38	37	37	37	774	88	88	90	90	140	140	140	140
.625" thick-	♣- 0	3	6	7	20	30	32	32	32	32	32	32	32	32	32
"	*- 26	7	18	18	6	19	66	13	14	14	15	19	19	19	19
.875" thick-	♣- 0	84	66	193	193	193	193	193	193	193	193	193	193	193	193
"	*- 142	27	27	27	27	27	570	65	65	65	65	103	103	103	103
Total -	♣- 0	246	356	887	1231	1796	1866	1867	1870	1913	1917	1960	1563	1553	1538
"	*- 1823	454	757	652	327	674	3674	664	690	697	774	967	968	970	972

M E N T S

M E N T S

Artillery Division
HMM/32W
Sept. 17, 1932.

nts based on anticipated

nts based on actual pro-

d assemble.

	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	3	3	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	2	2	1	1	1	1	1	1
	80	84	82	85	75	60	66	66	66	62	48	10	10	10
	19	77	42	44	46	48	59	56	45	47	49	51	52	52
	12	12	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	5	5	5	5	5	5	5	5	5	5
	674	674	560	560	560	560	560	500	305	0	0	0	0	0
	260	270	350	350	350	350	350	350	350	350	350	350	350	350
	655	655	430	430	430	430	430	374	285	0	0	0	0	0
	242	250	306	306	306	306	306	306	306	306	306	306	306	306
	264	264	263	263	263	263	263	263	0	0	0	0	0	0
	90	90	140	140	140	140	140	140	140	140	140	140	140	140
	32	32	32	32	32	32	32	30	23	0	0	0	0	0
	14	15	19	19	19	19	19	19	19	19	19	19	19	19
	193	193	193	193	193	193	193	193	0	0	0	0	0	0
	69	65	103	103	103	103	103	103	102	102	102	102	102	102
	913	1917	1560	1563	1553	1538	1544	1426	679	620	48	10	10	10
	697	774	967	968	970	972	983	980	968	970	972	974	975	975

TABLE II.

Producers' Estimates of their Capacity for Light Armor Plate Production

Unit - One Short Ton

Months after May

Mfg. & Thickness : 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9 : 10 : 11 : 12 : 13 : 14 : 15 : 16 : 17 : 18 : 19 : 20 : 21 : 22 :

(1) Crucible Steel Co. of America, Harrison, N. J.

400 tons per month, commencing with the first month - with the following limitations:

- (a) Thickness under 0.50" - max. width 60"
- (b) Thickness 0.50" and greater - max. width 40"
- (c) Heat treating capacity for plates under 0.25" - max. 75" length
- (d) " " " " 0.25" and greater - max. 48" length
- (e) Plates will be fabricated under supervision of Crucible Co., by E. T. Lippert Co., Pittsburg, Pa.

Reference: W.A. 470.5/861, O.O. 381/9833, NYOO 381/1284.

(2) Simonds Saw & Steel Co., Hitchburg, Mass.

Prefer plates 0.25" thick max., 90" max., length, with following capacity:-

.1250	0	0	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
.1500	0	0	0	0	0	0	2	11	14	19	27	42	44	46	48	59	56	45	47	49	51	52
.1875	0	0	0	49	21	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
.2500	0	0	0	0	78	143	141	132	129	124	66	101	99	98	96	85	88	99	97	95	93	92
Total	0	0	10	50	160	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150

Reference: W.A. 470.5/864, O.O. 381/9834.

(3) Lukens Steel Co., Coatesville, Pa.

No size and shape limitation indicated.

0 - first month; 100 tons - second month; 500 tons - third month and, per month, thereafter. Quenching tanks, and small increase in fabricating equipment, required.

Reference: W.A. 470.5/902, P.D.O.M. 470.5

(4) Henry Disston & Sons Inc., Tacoma, Pa.

Prefer that plates more than 0.625" thick be small in size.

All thicknesses acceptable.

10 tons - first month; 50 tons - second month; 200 tons - third month and, per month, thereafter.

Reference: W.A. 381/478.

(5) Edystone Steel Co., Crum Lynne, Pa.

All thicknesses and sizes acceptable.

200 tons - first month; 400 tons - second month and, per month, thereafter.

Reference: W.A. 470.5/899

(6) Jessop Steel Co., Washington, Pa.

Estimate based on 50% of entire capacity. Remaining 50% reserved for other requirements.

All sizes acceptable in thicknesses 0.375" and under.

300 tons per month starting with first month.

Reference: W.A. 470.5/863, O.O. 381/9832, P.D.O. 383.716.

(7) Carnegie Steel Co., Pittsburg, Pa.

.1875	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
.25	0	10	20	30	40	40	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
.375	0	15	30	40	58	50	50	62	61	59	58	72	72	72	72	72	72	73	73	73	73	73
.50	0	20	30	37	37	37	37	37	37	37	37	34	34	34	34	34	34	34	34	34	34	34
.625	0	20	18	18	6	19	20	13	14	14	15	19	19	19	19	19	19	19	19	19	19	19
.875	0	20	27	27	27	27	88	65	65	65	65	103	103	103	103	103	103	102	102	102	102	102
Total	0	87	127	154	160	175	290	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280

Reference: W.A. 470.5/863 O.O. 381/9832.

(8) Universal Steel Co., Bridgeville, Pa.

All sizes acceptable - max. thickness 0.625".

600 tons - first month; 1200 tons - second month and, per month, thereafter. Facilities will be installed for 0.875" plate if desired.

Reference: W.A. 470.5/863, O.O. 381/9832.

Production

14 : 15 : 16 : 17 : 18 : 19 : 20 : 21 : 22 : 23

Following limitations:

1. 75" length
 2. max. 48" length
 3. Made by E. T. Lippert Co., Pittsburg, Pa.

Capacity:-

1	1	1	1	1	1	1	1	1	1
46	48	59	56	45	47	49	51	52	52
5	5	5	5	5	5	5	5	5	5
98	96	85	88	99	97	95	93	92	92
150	150	150	150	150	150	150	150	150	150

and, per month, thereafter.
 required.

month and, per month, thereafter.

thereafter.

and for other requirements.

2	2	2	2	2	2	2	2	2	2
50	50	50	50	50	50	50	50	50	50
72	72	72	72	73	73	73	73	73	73
34	34	34	34	34	34	34	34	34	34
19	19	19	19	19	19	19	19	19	19
103	103	103	103	102	102	102	102	102	102
280	280	280	280	280	280	280	280	280	280

2

, thereafter.

TABLE III

Procurement Plan-Light Armor Plate
 Tentative Allocations - By Thickness of Plate - Short Tons

One month

Company and Thickness	Delivery of Plate																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0.125" Plate																			
Eddy Stone	2	2	2	2															
Jessop	2	2	2	2	2	2													
Simonds	0	0	1	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Monthly Production	4	4	5	14	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Monthly Requirements ϕ	0	1	2	2	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0
" " *	6	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(from Table I)																			
Cumulative Production	4	8	13	27	30	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Cumulative Requirements ϕ	0	1	3	5	8	11	14	17	20	23	26	26	26	26	26	26	26	26	26
Cumulative Requirements *	6	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
0.150" Plate																			
Jessop	5	5	5	15	20	20	30	30	30	40	67	52	64	66	68	79	66	55	47
Simonds	0	0	0	0	0	0	2	11	14	19	50	20	10						
Monthly Production	5	5	5	15	20	20	32	41	44	59	117	72	74	66	68	79	66	55	47
Monthly Requirements ϕ	0	0	0	10	18	25	32	33	37	80	84	82	85	75	60	66	66	66	62
Monthly Requirements *	0	0	0	0	0	0	2	11	14	19	77	42	44	46	48	59	56	45	47
Cumulative Production	5	10	15	30	50	70	102	143	187	246	363	435	509	575	643	722	788	843	890
Cumulative Requirements ϕ	0	0	0	10	28	53	85	118	155	235	319	401	486	561	621	687	753	819	881
" " *	0	0	0	0	0	0	2	13	27	46	123	165	209	255	303	362	418	463	510
0.1875" Plate																			
Jessop	10	10	20	20	40	40	40	5	5	5	5	5	5						
Simonds	0	0	0	0	5	10	10	5	5										
Universal	0	0	0	0	5	10	20												
Monthly Production	10	10	20	20	50	60	70	10	10	5	5	5	5	0	0	0	0	0	0
Monthly Requirements ϕ	0	5	8	11	17	13	13	13	12	12	12	12	12	0	0	0	0	0	0
" " *	41	5	12	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5
Cumulative Production	10	20	40	60	110	170	240	250	260	265	270	275	280	280	280	280	280	280	280
Cumulative Requirements ϕ	0	5	13	24	41	54	67	80	92	104	116	116	116	116	116	116	116	116	116
" " *	41	46	58	64	70	76	82	88	94	100	106	112	118	123	128	133	138	143	148
0.250" Plate																			
Eddystone	10	20	50	100	200	200	200	150	150	174	166	175	175	75	75	75	75	75	75
Jessop	10	20	50	100	180	180	180	150	150	150	150	100	100	100	100	100	100	100	100
Simonds	0	0	0	0	78	143	141	132	129	100	50								
Universal	0	0	0	0	20	50	100	50	50										
Disston	5	25	50	100	100	100	100	100	100	150	100	100	100	100	100	100	100	100	100
Crucible	0	0	10	20	50	100	100	100	100	50	50	50							
Carnegie	0	10	20	30	40	40	50	50	50	50	50								
Lukens	0	0	0	0	50	100	200	200	200	100	50								
Monthly Production	25	75	180	350	718	913	1071	932	829	774	616	425	375	275	275	275	275	175	175
Monthly Requirements ϕ	0	64	122	273	409	644	674	674	674	674	674	560	560	560	560	560	500	305	0
" " *	653	169	314	283	120	294	1290	250	260	260	270	350	350	350	350	350	350	350	350
Cumulative Production	25	100	280	630	1348	2261	3332	4264	5093	5867	6483	6908	7283	7558	7833	8108	8383	8558	8733
Cumulative Requirements ϕ	0	64	186	459	868	1512	2186	2860	3534	4208	4882	5442	6002	6562	7122	7682	8182	8487	8487
" " *	653	822	1136	1419	1539	1833	3123	3373	3533	3893	4163	4513	4863	5213	5563	5913	6263	6613	6963
0.375" Plate																			
Eddystone	10	50	150	150	150	150	150	150	100	100	50	50	50	50	50	50	50	50	50
Jessop	10	50	50	50	50	50	50	50	25										
Universal	0	0	0	0	50	100	200	200	200	175	100								
Disston	5	25	100	100	100	100	100	100	75	75	75	100	100	100	100	100	100	100	100
Crucible	0	0	50	100	150	150	150	150	200	150	150	100	100	50	50	50	50	50	50
Carnegie	0	15	30	40	60	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Lukens	0	0	0	0	50	100	200	200	200	200	150								
Monthly Production	25	140	380	440	610	725	925	925	925	850	650	350	325	275	275	275	175	175	75
Monthly Requirements ϕ	0	88	151	276	421	626	655	655	655	655	655	430	430	430	430	430	374	285	0
" " *	760	206	346	280	130	290	965	230	242	242	250	306	306	306	306	306	306	306	306
Cumulative Production	25	165	545	985	1595	2320	3245	4170	5095	5945	6595	6945	7270	7595	7870	8145	8320	8495	8570
Cumulative Requirements ϕ	0	88	239	515	936	1562	2217	2872	3527	4182	4837	5267	5697	6127	6557	6987	7361	7646	7646
" " *	760	966	1312	1592	1722	2012	2977	3207	3449	3691	3941	4217	4553	4859	5165	5471	5777	6083	6389
0.50" Plate																			
Eddystone	0	0	50	50	15	15	10	50	50	55	60	50	50	50	50	50	50	50	20
Universal	0	0	0	0	20	50	100	100	50	50	50								
Disston	0	0	40	40	40	40	40	40	40	15	40	40	40	40	40	40	40	40	40
Crucible	0	0	10	50	100	50	50	50	50	50	50	30	30	30	30	30	30	30	10
Carnegie	0	20	30	37	17	17	60	60	80	80	80	30	30	30	30	30	30	30	30
Lukens	0	0	0	0	50	100	100	100	50	50									
Monthly Production	0	20	130	177	242	272	360	420	320	300	300	200	150	150	150	150	150	150	100
Monthly Requirements ϕ	0	1	1	115	150	264	264	264	264	264	264	263	263	263	263	263	263	263	0
" " *	195	38	38	37	37	37	774	88	88	90	90	140	140	140	140	140	140	140	140
Cumulative Production	0	20	150	327	569	841	1201	1621	1941	2241	2541	2741	2891	3041	3191	3341	3491	3641	3741
Cumulative Requirements ϕ	0	1	2	117	267	531	795	1059	1323	1587	1851	2114	2377	2640	2903	3166	3429	3429	3429
" " *	195	233	271	308	345	382	1156	1244	1332	1422	1512	1652	1792	1932	2072	2212	2352	2492	2632
0.625" Plate																			
Universal	0	0	0	0	10	10	10	10	10	10									
Disston	0	0	40	40	40	40	40	40	40	40	40	40	40	40	40	40			
Carnegie	0	20	18	18	6														
Monthly Production	0	20	58	58	56	50	50	50	50	50	40	40	40	40	40	40			
Monthly Requirements ϕ	0	3	6	7	20	30	32	32	32	32	32	32	32	32	32	32	30	23	0

Part Tons

One month allowed to finish
and assemble

14 : 15 : 16 : 17 : 18 : 19 : 20 : 21 : 22 : 23 :

1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
41	42	43	44	45	46	47	48	49	50
26	26	26	26	26	26	26	26	26	26
21	22	23	24	25	26	27	28	29	30
66	68	79	66	55	47	49	51	52	52
66	68	79	66	55	47	49	51	52	52
75	60	66	66	66	62	48	10	10	10
46	48	59	56	45	47	49	51	52	52
575	643	722	788	843	890	939	990	1042	1094
561	621	687	753	819	881	929	939	949	959
255	303	362	418	463	510	559	610	662	714
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
5	5	5	5	5	5	5	5	5	5
280	280	280	280	280	280	280	280	280	280
116	116	116	116	116	116	116	116	116	116
123	128	133	138	143	148	153	158	163	168
75	75	75	75	75	75	75			
100	100	100	100						
100	100	100	100	100	100	100	75	75	75
275	275	275	275	175	175	175	75	75	75
560	560	560	500	305	0	0	0	0	0
350	350	350	350	350	350	350	350	350	350
7558	7833	8108	8383	8558	8733	8908	8983	9058	9333
6562	7122	7682	8182	8487	8487	8487	8487	8487	8487
5213	5563	5913	6263	6613	6963	7313	7663	8013	8363
50	50	50	50	50					
100	100	100							
100	50	50	50	50					
75	75	75	75	75	75	75	75	75	75
325	275	275	175	175	75	75	75	75	75
430	430	430	374	289	0	0	0	0	0
306	306	306	306	306	306	306	306	306	306
7595	7870	8145	8320	8495	8570	8645	8720	8795	8870
6127	6557	6987	7361	7646	7646	7646	7646	7646	7646
4859	5165	5471	5777	6083	6389	6695	7001	7307	7613
50	50	50	50	50	20	20	20	20	20
40	40	40	40	40	40				
30	30	30	30	30	10				
30	30	30	30	30	30	30	30	30	30
150	150	150	150	150	100	50	50	50	50
263	263	263	263	0	0	0	0	0	0
140	140	140	140	140	140	140	140	140	140
3041	3191	3341	3491	3641	3741	3791	3841	3891	3941
2640	2903	3166	3429	3429	3429	3429	3429	3429	3429
1932	2072	2212	2352	2492	2632	2772	2912	3052	3192

2

10	5	5	5	5	0	0	0	0	0	0	0	0	0	0
12	12	12	0	0	0	0	0	0	0	0	0	0	0	0
6	6	6	6	6	5	5	5	5	5	5	5	5	5	5
260	265	270	275	280	280	280	280	280	280	280	280	280	280	280
92	104	116	116	116	116	116	116	116	116	116	116	116	116	116
94	100	106	112	118	123	128	133	138	143	148	153	158	163	168

150	174	166	175	175	75	75	75	75	75	75	75			
150	150	150	100	100	100	100	100	100	100					
129	100	50												
50														
100	150	100	100	100	100	100	100	100	100	100	100	75	75	75
100	50	50	50											
50	50	50												
100	100	50												

829	774	616	425	375	275	275	275	275	175	175	175	75	75	75
674	674	674	560	560	560	560	560	500	305	0	0	0	0	0
260	260	270	350	350	350	350	350	350	350	350	350	350	350	350
5093	5867	6483	6908	7283	7558	7833	8108	8383	8558	8733	8908	8983	9058	9333
3534	4208	4882	5442	6002	6562	7122	7682	8142	8487	8487	8487	8487	8487	8487
3633	3893	4163	4513	4863	5213	5563	5913	6263	6613	6963	7313	7663	8013	8363

150	100	100	50	50	50	50	50	50	50					
50	25													
200	175	100												
100	75	75	75	100	100	100	100							
150	200	150	150	100	100	50	50	50	50					
75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
200	200	150												

925	850	650	350	325	325	275	275	175	175	75	75	75	75	75
655	655	655	430	430	430	430	430	374	285	0	0	0	0	0
242	242	250	306	306	306	306	306	306	306	306	306	306	306	306
5095	5945	6595	6945	7270	7595	7870	8145	8320	8495	8570	8645	8720	8795	8870
3527	4182	4837	5267	5697	6127	6557	6987	7361	7646	7646	7646	7646	7646	7646
3449	3691	3941	4247	4553	4859	5165	5471	5777	6083	6389	6695	7001	7307	7613

50	55	80	50	50	50	50	50	50	50	20	20	20	20	20
50	50	50												
40	15	40	40	40	40	40	40	40	40	40				
50	50	50	30	30	30	30	30	30	30	10				
80	80	80	80	30	30	30	30	30	30	30	30	30	30	30
50	50													

320	300	300	200	150	150	150	150	150	150	100	50	50	50	50
264	264	264	263	263	263	263	263	263	0	0	0	0	0	0
88	90	90	140	140	140	140	140	140	140	140	140	140	140	140
1941	2241	2541	2741	2891	3041	3191	3341	3491	3641	3741	3791	3841	3891	3941
1323	1587	1851	2114	2377	2640	2903	3166	3429	3429	3429	3429	3429	3429	3429
1332	1422	1512	1602	1792	1932	2072	2212	2352	2492	2632	2772	2912	3052	3192

10	10													
40	40	40	40	40	40	40	40							

50	50	40	40	40	40	40	40							
32	32	32	32	32	32	32	32	30	23	0	0	0	0	0
14	14	15	19	19	19	19	19	19	19	19	19	19	19	19
392	442	482	522	562	602	642	642	642	642	642	642	642	642	642
162	194	226	258	290	322	354	386	410	433	433	433	433	433	433
185	199	214	233	252	271	290	309	328	347	366	385	404	423	442

50														
65	65	65	100	100	100	50	50	50	50	50	50	50	50	50
100	100	100	100	100	100	50	50	50	50	50	50	50	50	50
100	100	100	100	100	100									
315	265	265	300	300	300	100	100	100	100	100	100	100	100	100
193	193	193	193	193	193	193	193	193	0	0	0	0	0	0
65	65	65	103	103	103	103	103	102	102	102	102	102	102	102
1436	1701	1966	2266	2566	2866	2966	3066	3166	3266	3366	3466	3566	3666	3766
1308	1501	1694	1887	2080	2273	2466	2659	2852	2852	2852	2852	2852	2852	2852
977	1042	1107	1210	1313	1416	1519	1622	1724	1826	1928	2030	2132	2234	2336

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TABLE IV

Armor Plate Capacities and Allocations
By Manufacturers and by Thickness of Plate
Months after War

Unit - One Short Ton

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>The Crucible Steel Co. of America, Harrison, N. J.</u>																	
Estimated Capacity	same to include 23rd month																
All thicknesses	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Allocations																	
Plates																	
0.25"	0	0	10	20	25	100	100	100	100	100	50	50					
0.375"	0	0	50	100	150	150	150	150	150	200	150	150	100	100	50	50	50
0.500"	0	0	10	50	100	50	50	50	50	50	50	50	50	50	50	50	50
0.675"	0	0	10	20	50	100	100	150	100	100	100	100	100	100	100	100	100
Total	0	0	80	190	350	400	400	400	400	400	350	350	350	350	350	350	350
% Total Capacity Allocated	0	0	20	47 1/2	87 1/2	100	100	100	100	100	87 1/2	87 1/2	87 1/2	87 1/2	87 1/2	87 1/2	87 1/2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>The Jones Steel Co., Washington, Pa.</u>																	
Estimated Capacity	same to include 23rd month																
All thicknesses	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Allocations																	
Plates																	
0.125"	2	2	2	2	2	2											
0.150"	5	5	5	15	20	20	20	20	20	40	57	52	54	55	50	79	50
0.1875"	10	10	20	20	40	40	40	5	5	5	5	5	5	5	5	5	5
0.250"	10	20	50	100	100	150	150	150	150	150	150	100	100	100	100	100	100
0.375"	10	20	50	50	50	50	50	50	50	50	25						
Total	37	67	127	197	292	292	290	235	335	320	322	257	262	265	265	265	265
% Total Capacity Allocated	7.4	13.4	25.4	39.4	58.4	58.4	46	47	67	64	64.4	51.4	52.4	53	53	53	53

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>Redystone Steel Co., Gray Linn, Pa.</u>																	
Estimated Capacity	etc., to include 23rd month																
All thicknesses	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Allocations																	
Plates																	
0.125"	2	2	2	2													
0.250"	10	20	50	100	200	200	200	150	150	174	166	175	175	75	75	75	75
0.375"	10	20	50	150	150	150	150	150	150	100	100	50	50	50	50	50	50
0.500"	0	0	50	50	15	15	10	50	50	50	50	50	50	50	50	50	50
0.675"	0	20	50	50	55	55	40	50	50								
Total	22	62	202	352	400	400	400	400	400	529	546	275	275	175	175	175	175
% Total Capacity Allocated	7.3	15.5	50.5	88	100	100	100	100	100	132.25	136.5	68.75	68.75	43.75	43.75	43.75	43.75

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>Sims and Steel Co., Fitchburg, Mass.</u>																	
Estimated Capacity	etc., to include 23rd month																
All thicknesses	0	0	10	50	100	150	150	150	150	150	150	150	150	150	150	150	150
Allocations																	
Plates																	
0.125 - 0.250"	as shown on Table II																
Total	0	0	10	50	100	150	150	150	150	150	150	150	150	150	150	150	150
% Total Capacity Allocated	-	-	10	50	100	100	100	100	100	100	100	100	100	100	100	100	100

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>Henry Dierker & Sons, Inc., Factory, Pa.</u>																	
Estimated Capacity	etc., to include 23rd month																
All thicknesses	10	50	200	300	200	200	200	200	200	200	200	200	200	200	200	200	200
Allocations																	
Plates																	
0.25"	5	25	50	100	200	100	100	100	100	100	100	100	100	100	100	100	100
0.375"	5	25	100	100	100	100	100	100	100	100	75	75	75	100	100	100	100
0.50"	0	0	40	40	40	40	40	40	40	40	15	40	40	40	40	40	40
0.625"	0	0	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Total	10	50	230	380	580	580	580	580	580	580	255	255	255	380	380	380	380
% Total Capacity Allocated	100	100	92 1/2	100	100	100	100	100	100	100	63.75	63.75	63.75	95	95	95	95

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<u>Lucas Steel Co., Coatesville, Pa.</u>																	
Estimated Capacity	etc., to include 23rd month																
All thicknesses	0	100	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Allocations																	
Plate																	
0.250"	0	0	0	0	50	100	200	200	100	100	50						
0.375"	0	0	0	0	50	100	200	200	200	200	150						
0.500"	0	0	0	0	50	100	100	100	100	50	50						
0.675"	0	0	0	0	50	100	0	0	100	200	100	100	100	100	100	100	100
Total	0	0	0	0	200	400	500	500	400	400	300	300	300	300	300	300	300
% Total Capacity Allocated	0	0	0	0	40	80	100	100	80	80	60	60	60	60	60	60	60

One Month Allowed
to finish and assemble

etc

13 14 15 16 17 18 19 20 21 22 23

N. J.

clude 23rd month

100	100	80	80	60	60						
50	50	30	30	30	30	20					
100	100	110	110	110	110	50	50	50	50	50	50
270	270	240	240	210	210	130	60	60	60	60	60
57%	57%	52%	52%	50%	50%	32%	16	12%	12%	12%	12%

64	65	66	79	66	56	47	49	51	52	52
5										
100	100	100	100	100						
168	166	168	179	168	56	47	49	51	52	52
55	55	56	60	55	18	16	16	17	17	17

clude 23rd month

175	75	75	75	75	75	75	75			
50	50	50	50	50	50					
50	50	50	50	50	50	20	20	20	20	20
275	175	175	175	175	175	95	95	80	80	80
69	44	44	44	44	44	24	24	8	8	8

to include 23rd month

1	1	1	1	1	1	1	1	1	1	1
10										

11	1	1	1	1	1	1	1	1	1	1
7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7

clude 23rd month.

100	100	100	100	100	100	100	100	75	75	75
100	100	100	100							
40	40	40	40	40	40	40				
40	40	40	40							
280	280	280	280	140	140	140	100	75	75	75
100	100	100	100	50	50	50	36	27	27	27

clude 23rd month

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150	150	100	100	100	100	100	100	100	56	47	49	51	52	52
25	22	157	163	166	169	173	180	180	18	16	16	17	17	17

Iron Forge, Pa.

100	etc., to include 23rd month													
174	166	175	175	75	75	75	75	75	75	75	75	75	75	75
100	100	50	50	50	50	50	50	50	50	50	50	50	50	50
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50

229	246	275	275	175	175	175	175	175	175	95	95	20	20	20
52	56	69	69	44	44	44	44	44	44	24	24	5	5	5

Itchenburg, Mass.

150	150	etc., to include 23rd month												
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	50	20	10											
100	50													
120	101	21	11	1	1	1	1	1	1	1	1	1	1	1
50	67	14	7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7

Essex, Pa.

150	100	100	100	100	100	100	100	100	100	100	75	75	75
75	75	75	100	100	100	100	100	100	100	100	75	75	75
15	40	40	40	40	40	40	40	40	40	40			
40	40	40	40	40	40	40	40	40	40	40			
200	205	205	200	200	200	200	140	140	140	100	75	75	75
100	91	91	100	100	100	100	50	50	50	50	27	27	27

Greenville, Pa.

100	etc., to include 23rd month													
100	50													
100	150													
50	100	100	100	100										
50	100	100	100	100										
50	50	50	50	0	0	0	0	0	0	0	0	0	0	0

Pittsburgh, Pa.

100	200	200	200	etc., to include 23rd month.										
50	50													
75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
55	65	100	100	100	50	50	50	50	50	50	50	50	50	50
70	270	255	202	205	155	155	155	155	155	155	155	155	155	155
55	56	92	79	73	55	55	55	55	55	55	55	55	55	55

Bridgeville, Pa.

100	etc., to include 23rd month.													
100	100													
50	50													
5	110	0	0	0	0	0	0	0	0	0	0	0	0	0
5	120	0	0	0	0	0	0	0	0	0	0	0	0	0

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