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570.12
596 DATA

Built-Up Members in Plastic Design

TESTS ON LONGITUDINALLY STIFFENED

PLATE PANELS WITH FIXED ENDS

STRAIN AND DIAL GAGE READINGS

by

Jun Kondo
Alexis Ostapenko

This work has been carried out as part of an investigation sponsored by the Department of the Navy with funds furnished by the Bureau of Ships Contract Nos. NObs-88221 and NObs-90041.

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Fritz Engineering Laboratory
Department of Civil Engineering
Lehigh University
Bethlehem, Pennsylvania
July 1964

Fritz Engineering Laboratory Report No. 248.12A
(Supplement to F. L. Report No. 248.12)

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1. INTRODUCTION

This report is a supplement to Fritz Engineering Laboratory Report No. 248.12, "TESTS ON LONGITUDINALLY STIFFENED PLATE PANELS", and contains all the readings of the strain and dial gages taken during the tests.

The readings are presented in the form of tables. Neither smoothing nor zero adjustment of the data was carried out--the data were only reduced to the first reading whether it was at a zero load or not.

The strain gage readings are given in Tables 1 to 4 and the dial gage readings in Tables 5 to 8. Each table contains the readings for one specimen.

Nominal dimensions of the test specimens are shown in Fig. 1 on page 2.

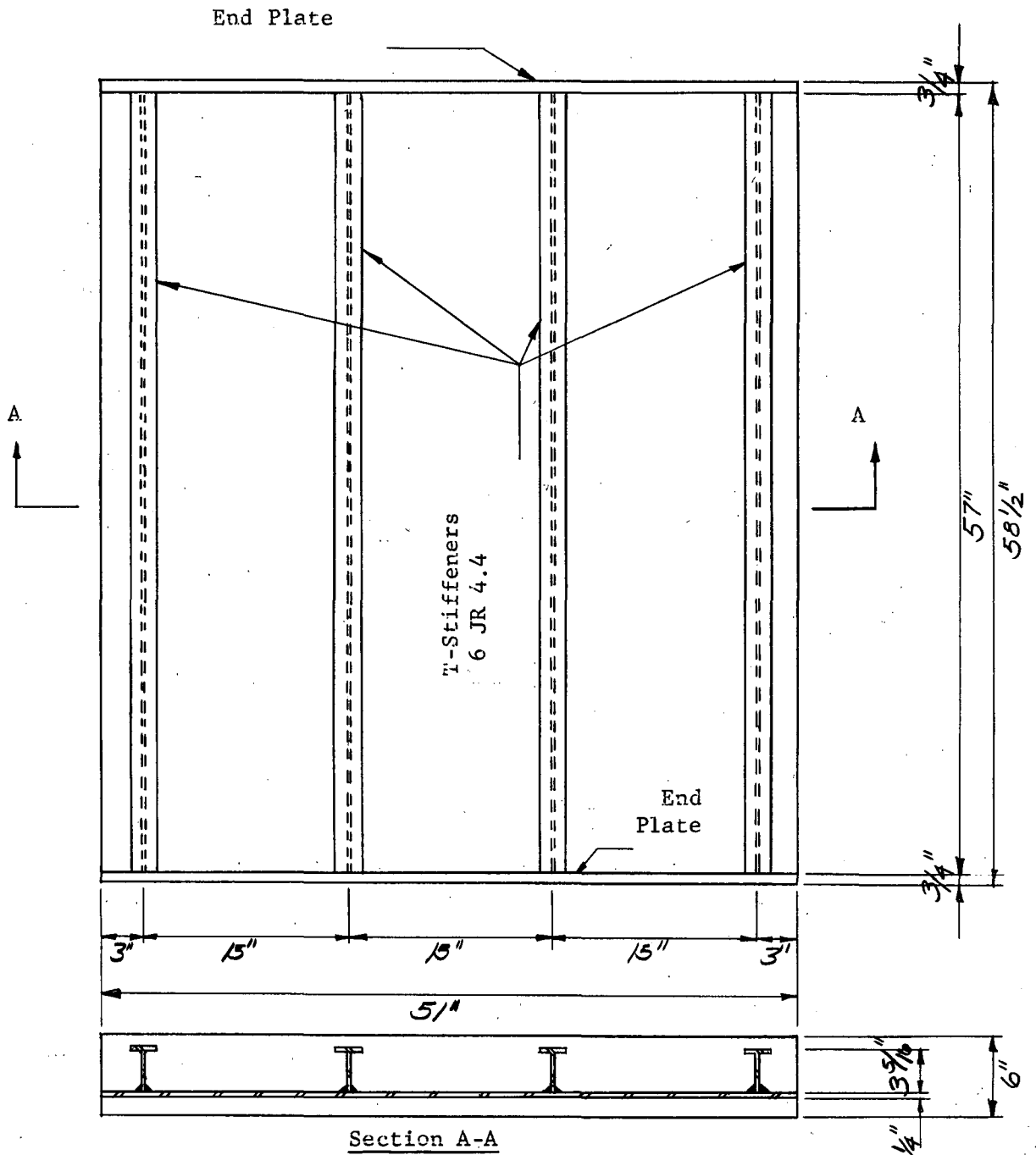


Fig. 1 - TEST SPECIMEN (T-12 T-15)
Scale: 1"=1'-0"

2. STRAIN GAGE READINGS

Locations and directions of SR-4 strain gages are depicted in Fig. 2, page 4. All specimens had the same arrangement and number of gages.

All readings are given in micro-inches per inch with minus sign indicating shortening and no sign indicating elongation.

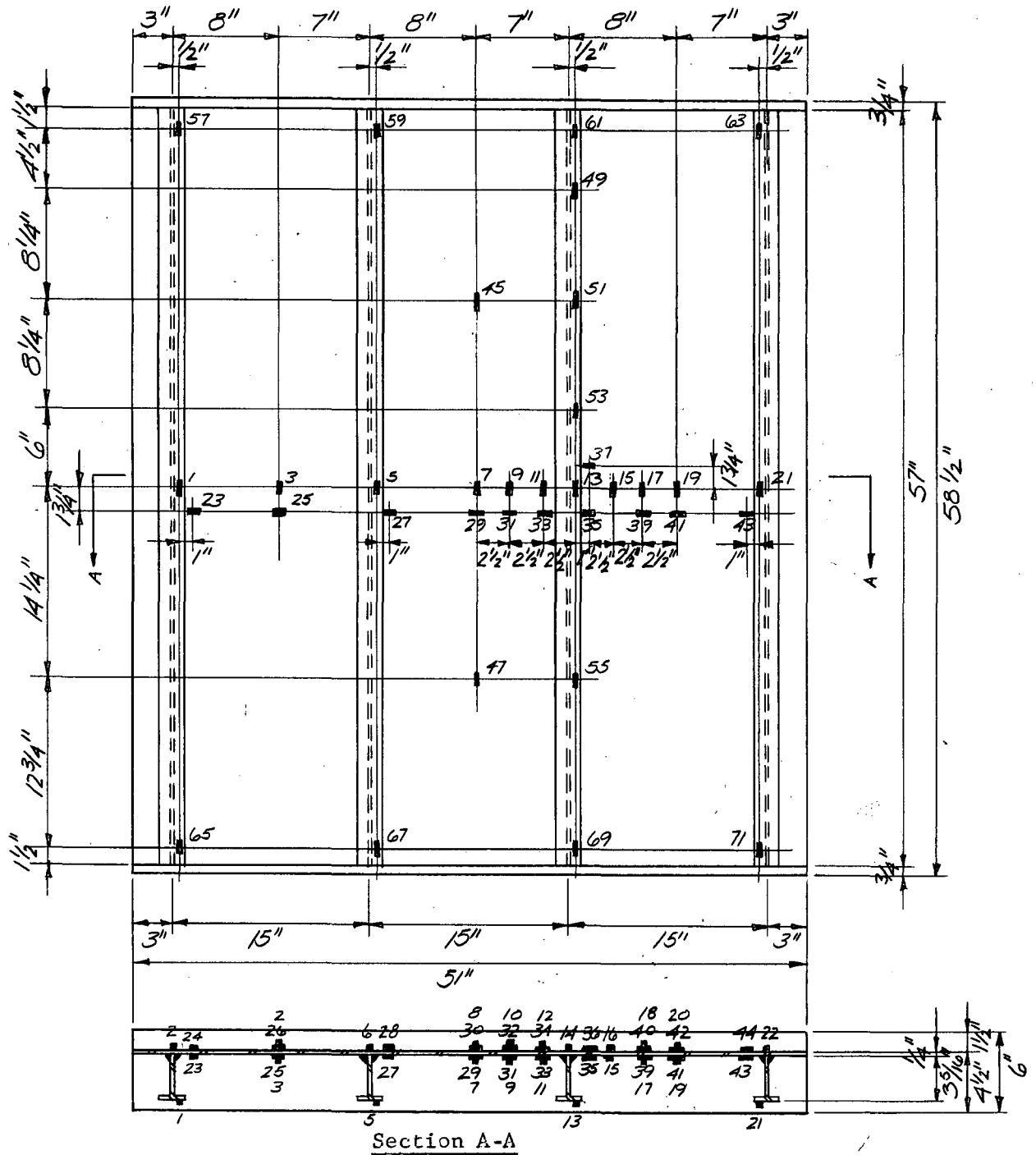


Fig. 2--LOCATION OF SR-4 STRAIN GAGES
Scale: 1" = 1'-0"

Note: For each gage on the front face there is a corresponding gage on the back face. The gage number on the back face is the following even number to that of the gage on the front face.

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12(10⁻⁶ in. per in.)

Ld. No.	Loads		Gage Nos.						
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7
1	50	0	0	0	0	0	0	0	0
2	100	0	-90	-165	-140	-150	-15	-120	-110
3	150	0	-190	-280	-225	-255	-5	-210	-180
4	200	0	-335	-415	-350	-380	-85	-310	-285
5	250	0	-375	-575	-440	-490	-160	-425	-390
6	275	0	-380	-615	-480	-530	-170	-455	-430
7	300	0	-385	-640	-495	-970	-175	-500	-470
8	325	0	-465	-705	-565	-1490	-200	-470	-525
9	350	0	-490	-775	-650	-2035	-225	-630	-595
10	375	0	-530	-845	-735	-2755	-275	-705	-675
11	400	0	-570	-895	-900	-3605	-290	-755	-790
12	425	0	-600	-950	-845	-5140	-290	-810	-890
13	440	0	-660	-1145	-115	-8440	-240	-965	-1290
14	440	0	-1000	-2760	+1625	-11395	-405	-1405	-4305
15	428	0	-1115	-3180	+1665	-11310	-545	-1460	-4215
16	398	0	-1005	-3145	+1580	-11115	-435	-1500	-4065
17	370	0	-790	-3290	+1365	-10845	-200	-1755	-3845
18	321	0	+30	-9565	+1075	-10395	+340	-5430	-2930
19	312	0	-435	-13100	+1180	-10310	+540	-7400	-2550
20	306	0	-930	-----	+1270	-10310	+730	-9860	-2410

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	8	9	10	11	12	13	14	15	16	17
1	0	0	0	0	0	0	0	0	0	0
2	-110	-110	-115	-110	-115	30	-110	-115	-120	-105
3	-245	-180	-185	-175	-185	40	-190	-180	-185	-165
4	-345	-280	-290	-280	-285	-35	-290	-290	-300	-270
5	-445	-395	-395	-390	-395	-120	-400	-405	-410	-360
6	-480	-430	-430	-435	-440	-150	-455	-455	-460	-400
7	-510	-470	-465	-465	-475	-170	-480	-485	-490	-430
8	-575	-595	-540	-535	-540	-230	-545	-555	-550	-475
9	-625	-650	-590	-585	-595	-265	-595	-600	-600	-520
10	-690	-720	-720	-660	-665	-325	-665	-675	-670	-580
11	-745	-780	-780	-715	-720	-370	-720	-730	-720	-630
12	-770	-870	-815	-790	-775	-425	-785	-785	-850	-665
13	-475	-1195	-520	-1045	-735	-580	-905	-815	-1060	-645
14	1215	-2595	410	-1125	-625	-1090	-1150	-715	-1220	-380
15	1250	-2465	455	-1100	-600	-1425	-1165	-720	-1200	-370
16	235	-2340	430	-1045	-605	-1435	-1175	-715	-1130	-375
17	115	-2160	290	-1000	-735	-1210	-1310	-855	-1205	-495
18	505	-1440	-770	-800	-2525	-520	-2775	-1835	-225	-1165
19	535	-1165	-880	-955	-3185	-215	-3590	-2180	-15	-1155
20	595	-1030	-900	-1215	-3515	160	-4860	-2415	90	-1085

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	18	19	20	21	22	23	24	25	26	27
1	0	0	0	0	0	0	0	0	0	0
2	-120	-125	-125	-45	-125	40	30	50	-5	-15
3	-250	-205	-205	-105	-210	90	70	105	0	-10
4	-375	-330	-315	-280	-330	110	85	140	-15	-30
5	-485	-455	-435	-425	-455	135	95	185	-10	-35
6	-535	-515	-480	-485	-510	145	110	205	-20	-30
7	-565	-545	-515	-525	-540	175	140	230	-25	-25
8	-625	-665	-575	-585	-600	185	150	245	-45	-25
9	-675	-715	-675	-635	-645	200	160	275	-65	-15
10	-745	-815	-750	-710	-735	200	170	300	-95	-15
11	-800	-855	-790	-730	-785	230	195	350	-115	-5
12	-860	-905	-850	-755	-840	235	265	505	-215	-40
13	-1120	-860	-1080	-810	-925	110	330	1030	-550	-140
14	-1340	-415	-1575	-1190	-1250	670	1830	1480	-710	-85
15	-1200	-385	-1420	-1420	-1465	825	1905	1635	-770	-135
16	-1045	-365	-1220	-1460	-1525	860	1870	1810	-810	-135
17	-720	-510	-885	-1365	-1530	1000	1895	1910	-880	-155
18	340	-1280	185	-605	-2430	2680	2145	1520	-1025	110
19	550	-1185	375	-255	-3045	3395	1900	1445	-1075	220
20	655	-1035	460	280	-4140	4360	1280	1340	-1150	465

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	28	29	30	31	32	33	34	35	36	37
1	0	0	0	0	0	0	0	0	0	0
2	0	-5	-15	-5	-25	-10	-20	-5	-10	10
3	10	5	-10	5	-25	0	-15	20	5	30
4	10	10	-10	5	-25	10	-10	25	5	45
5	25	30	15	30	-10	35	5	50	35	65
6	30	40	20	40	0	50	15	60	40	80
7	40	60	35	60	10	70	30	75	65	90
8	50	75	45	70	20	80	45	85	80	100
9	60	100	55	95	30	100	60	95	105	110
10	65	125	60	110	35	105	75	105	125	110
11	75	155	75	135	55	130	105	115	160	115
12	100	160	175	150	80	155	125	145	170	135
13	175	-115	470	-5	230	220	120	345	75	250
14	375	-660	1115	-365	700	210	365	935	80	625
15	430	-760	1230	-460	785	135	465	965	95	760
16	445	-825	1305	-520	845	75	540	985	110	875
17	530	-950	1420	-620	920	20	615	1080	85	1205
18	1215	-1080	1045	-640	720	145	700	1185	-360	5200
19	1330	-1150	925	-660	590	515	145	885	-350	6110
20	1195	-1300	895	-750	440	1285	-1125	165	-5	6870

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	38	39	40	41	42	43	44	45	46	47
1	0	0	0	0	0	0	0	0	0	0
2	20	15	5	15	--	20	10	-100	-110	-45
3	30	30	25	25	--	40	15	-195	-210	-100
4	50	50	40	50	--	70	35	-300	-300	-155
5	70	80	65	85	--	110	65	-410	-400	-230
6	85	95	75	95	--	125	75	-465	-455	-275
7	100	100	90	105	--	140	95	-525	-510	-320
8	120	110	105	115	--	150	115	-590	-555	-370
9	135	125	115	125	--	165	135	-650	-600	-410
10	165	135	135	135	--	160	165	-720	-660	-475
11	190	140	150	145	--	175	195	-790	-725	-540
12	210	165	165	170	--	180	220	-830	-820	-595
13	120	320	95	315	--	140	185	-965	-565	-550
14	-345	745	-385	750	--	130	-75	-570	-70	-345
15	-480	825	-545	860	--	265	-110	-765	350	-300
16	-470	870	-660	920	--	360	-165	-835	630	-280
17	-700	910	-775	955	--	435	-295	-760	820	-245
18	-700	450	-750	440	--	170	-1295	-820	1120	-270
19	-665	220	-745	300	--	-230	-1555	-830	1170	-330
20	-680	20	-805	255	--	-750	-1735	-860	1290	-390

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	48	49	50	51	52	53	54	55	56	57
1	0	0	0	0	0	0	0	0	0	0
2	-50	265	-120	195	-110	120	-110	-85	-40	240
3	-90	390	-235	275	-220	150	-215	-200	-90	255
4	-145	395	-340	245	-320	110	-320	-320	-170	165
5	-200	360	-450	205	-440	50	-440	-440	-250	80
6	-240	330	-500	170	-490	15	-490	-500	-290	10
7	-280	300	-545	135	-540	-15	-545	-550	-335	-70
8	-325	260	-600	95	-600	-55	-595	-610	-380	-150
9	-365	225	-655	50	-650	-95	-660	-675	-435	-240
10	-420	180	-710	10	-710	-135	-720	-745	-500	-330
11	-475	120	-780	-40	-770	-185	-770	-810	-565	-430
12	-560	60	-865	-95	-825	-230	-840	-890	-635	-535
13	-710	-20	-975	-125	-900	-275	-930	-980	-730	-890
14	-810	-1050	-1460	-530	-2700	-555	-2150	-1145	-685	-1860
15	-740	-1545	-1340	-835	-4050	-875	-2910	-1340	-625	-1135
16	-670	-2195	-1255	-760	-5350	-850	-3710	-2195	-460	-970
17	-665	-2380	-1210	-510	-8485	-585	-6120	-2730	-370	-885
18	-530	--	-900	-225	-11235	375	--	-2440	-360	--
19	-450	--	-790	-150	-11210	670	--	-2380	-355	--
20	-390	--	-725	-45	-11230	1045	--	-2340	-360	--

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	58	59	60	61	62	63	64	65	66	67
1	0	0	0	0	0	0	0	--	0	0
2	-150	235	-145	395	-140	315	-240	--	-170	--
3	-295	280	-280	445	-265	495	-425	--	-370	-415
4	-405	225	-390	460	-360	525	-570	--	-545	-505
5	-515	170	-495	420	-465	480	-735	--	-710	-460
6	-610	115	-545	405	-510	460	-780	--	-770	-440
7	-715	45	-600	360	-560	430	-910	--	-890	-485
8	-810	-25	-650	325	-610	405	-990	--	-1010	-610
9	-930	-110	-710	290	-680	380	-1130	--	-1125	-635
10	-1070	-205	-780	235	-750	335	-1230	--	-1430	-1340
11	-1170	-295	-830	190	-820	285	-1360	--	-1745	-535
12	-1290	-375	-930	130	-880	205	-1495	--	-2260	-1035
13	-1410	-485	-1100	-75	-900	95	-1750	--	-2580	-1345
14	-1175	-1260	-925	-950	-660	-765	-1855	--	-2470	-1240
15	-850	-2105	-715	-1540	-460	-1435	-1710	--	-2395	-1155
16	-305	-860	-255	-5350	-80	2325	-1290	--	-2280	-1045
17	330	-215	200	--	-645	3050	-520	--	-2170	--
18	1040	495	710	--	1420	--	530	--	-1840	--
19	1210	--	840	--	1605	--	780	--	-1760	--
20	1490	--	1015	--	1900	--	1170	--	-1610	--

Table 1. STRAIN GAGE READINGS-SPECIMEN T-12 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.				
	68	69	70	71	72
1	0	0	0	0	0
2	--	-20	20	-290	-155
3	20	-385	30	-545	-300
4	5	-500	10	-740	-460
5	-5	-615	-20	-965	-645
6	90	-710	-30	-1040	-785
7	155	-800	-50	-1125	-940
8	200	-875	-80	-1215	-1100
9	240	-965	-100	-1315	-1215
10	350	-1090	-135	-1495	-1520
11	415	-1295	-180	-2375	-1970
12	440	-1625	-230	-3800	-2460
13	415	-2725	-310	-6670	-3100
14	510	-3455	-410	-9195	-3390
15	550	-3435	-410	-9175	-3425
16	600	-3405	-390	-9175	-3365
17	770	-3460	-370	-9195	-3255
18	1230	--	-260	-9150	-3095
19	1330	--	-130	-9215	-3040
20	1450	--	95	-9635	-2950

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13(10⁻⁶ in. per in.)

Ld. No.	Loads		Gage Nos.								
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7	8	9
1	0	0	0	0	--	0	0	0	--	0	0
2	50	0	-275	-95	--	-90	-115	-75	--	-65	-80
3	"	2	-245	-110	--	-105	-15	-80	--	-80	-80
4	"	4	-175	-110	--	-125	145	-95	--	-85	-90
5	"	6	-95	-140	--	-140	315	-130	--	-115	-100
6	"	6.5	-65	-155	--	-150	365	-140	--	-145	-120
7	100	"	-260	-235	--	-230	240	-225	--	-205	-200
8	125	"	-440	-270	--	-270	195	-340	--	-285	-230
9	150	"	-385	-340	--	-310	145	-290	--	-285	-275
10	175	"	-435	-370	--	-350	105	-320	--	-325	-310
11	"	"	-405	-365	--	-340	115	-310	--	-305	-300
12	225	"	-485	-570	--	-440	30	-410	--	-415	-410
13	275	"	-545	-575	--	-530	-50	-500	--	-505	-510
14	325	"	-600	-690	--	-630	-135	-605	--	-605	-600
15	350	"	-625	-740	--	-680	-185	-650	--	-655	-670
16	375	"	-660	-785	--	-725	-220	-715	--	-700	-705
17	400	"	-675	-820	--	-765	-255	-760	--	-755	-760
18	420	"	-695	-860	--	-810	-290	-820	--	-820	-780
19	440	"	-715	-885	--	-840	-310	-865	--	-880	-790
20	450	"	-710	-895	--	-860	-330	-890	--	-905	-785
21	460	"	-720	-910	--	-880	-345	-925	--	-920	-795
22	470	"	-725	-920	--	-905	-355	-960	--	-935	-800
23	485	"	-740	-990	--	-970	-375	-1030	--	-945	-820
24	462	"	-665	-1675	--	-490	-185	-1715	--	-620	-500
25	440	"	-535	-2355	--	-345	15	-1800	--	-625	-170
26	409	"	-335	-3220	--	-100	195	-4085	--	-695	165
27	394	"	-235	-3710	--	50	275	-4745	--	-750	330
28	370	6.5	-125	-4320	--	165	350	-5720	--	-795	515
29	150	6.5	210	-3525	--	390	675	-4850	--	-725	635
30	150	6.5	25	-3460	--	420	355	-4760	--	-675	595

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld No.	Gage Nos.									
	10	11	12	13	14	15	16	17	18	19
1	0	0	0	0	0	0	0	0	0	0
2	70	-80	-55	-5	-65	-70	-70	-75	-80	-70
3	-110	-90	-70	105	-80	-80	-80	-85	-95	-75
4	-100	-110	-95	230	-110	-90	-100	-85	-115	-75
5	-120	-110	-110	410	-120	-80	-115	-80	-125	-65
6	-150	-130	-140	430	-150	-105	-140	-95	-145	-80
7	-220	-210	-210	330	-230	-190	-230	-185	-235	-180
8	-245	-250	-240	300	-260	-230	-260	-225	-275	-220
9	-290	-290	-290	250	-310	-270	-310	-265	-335	-270
10	-330	-330	-320	210	-350	-315	-360	-310	-380	-310
11	-305	-320	-310	220	-340	-320	-360	-305	-375	-300
12	-430	-430	-420	120	-450	-415	-470	-415	-490	-410
13	-525	-530	-520	30	-555	-500	-570	-505	-595	-500
14	-610	-630	-615	-50	-650	-595	-665	-590	-695	-580
15	-670	-680	-650	-90	-700	-640	-715	-630	-745	-620
16	-710	-730	-720	-130	-750	-690	-770	-675	-795	-660
17	-765	-780	-755	-165	-810	-730	-815	-715	-845	-695
18	-790	-775	-740	-200	-890	-780	-870	-750	-885	-730
19	-805	-765	-740	-230	-955	-840	-930	-800	-935	-765
20	-795	-770	-740	-240	-1000	-870	-960	-820	-970	-790
21	-795	-770	-740	-250	-1040	-900	-995	-855	-1000	-805
22	-790	-790	-740	-270	-1100	-930	-1040	-875	-1035	-825
23	-770	-810	-730	-230	-1220	-920	-1260	-895	-1105	-830
24	-530	-630	-725	-40	-2080	-1370	-1315	-1250	-665	-965
25	-540	-720	-1015	150	-2910	-1850	-1105	-1115	-410	-800
26	-640	-690	-1650	290	-3620	-2160	-870	-1125	-165	-695
27	-710	-570	-2220	355	-3895	-2300	-740	-1155	-35	-670
28	-785	-455	-2880	470	-4250	-2430	-600	-1165	70	-645
29	-560	90	-2290	710	-3415	-1980	-100	-1160	395	-730
30	-500	120	-2115	340	-3340	-1965	-50	-1165	435	-740

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	20	21	22	23	24	25	26	27	28	29
1	0	0	0	0	0	0	0	0	0	0
2	-80	-60	-90	25	50	20	15	0	5	0
3	-90	-10	-100	40	65	80	-35	-40	70	35
4	-110	50	-120	55	80	150	-115	-95	140	80
5	-125	120	-120	85	110	250	-190	-135	225	130
6	-140	130	-140	80	105	255	-220	-165	225	140
7	-245	-35	-260	105	130	280	-225	-170	240	145
8	-285	-90	-330	110	130	300	-225	-175	250	150
9	-340	-160	-360	140	160	320	-215	-170	260	160
10	-390	-220	-420	160	180	340	-205	-170	280	160
11	-385	-210	-420	150	155	330	-225	-180	260	145
12	-505	-330	-540	190	195	375	-215	-185	300	160
13	-615	-435	-640	220	210	400	-205	-180	330	175
14	-710	-530	-730	260	230	430	-185	-170	370	190
15	-765	-580	-780	280	240	450	-180	-160	380	200
16	-805	-620	-820	300	250	475	-165	-140	410	220
17	-855	-650	-860	330	265	490	-145	-125	425	240
18	-900	-675	-890	345	260	475	-135	-120	430	260
19	-940	-700	-930	360	260	550	-95	-85	455	310
20	-970	-750	-950	370	255	490	-80	-70	465	330
21	-1000	-730	-975	370	255	465	-75	-70	465	350
22	-1040	-750	-995	375	240	460	-35	-45	485	390
23	-1095	-755	-1015	330	400	400	5	-20	520	480
24	-510	-760	-1240	390	400	180	-10	-30	715	470
25	-270	-580	-1975	500	530	85	5	60	840	440
26	-55	-400	-3295	585	1130	145	-160	30	970	210
27	60	-325	-3885	560	1550	190	-260	-20	1000	55
28	170	-205	-4560	480	2030	240	-385	-80	1045	-120
29	450	150	-3720	470	1855	440	-530	-320	1045	-225
30	490	-30	-3665	415	1790	350	-415	-260	910	-330

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	30	31	32	33	34	35	36	37	38	39
1	0	0	0	0	--	0	0	0	0	0
2	-25	0	-15	-5	--	80	65	50	70	60
3	-40	30	-20	-30	--	10	115	40	30	100
4	-75	50	-40	-60	--	-40	180	30	-30	155
5	-110	80	-55	-100	--	-80	245	30	-80	210
6	-135	75	-65	-110	--	-95	255	15	-85	215
7	-145	75	-75	-125	--	-105	275	30	-90	240
8	-140	60	-85	-130	--	-105	275	40	-100	260
9	-140	90	-65	-120	--	-95	295	50	-90	270
10	-130	85	-65	-120	--	-90	305	30	-80	280
11	-155	70	-75	-130	--	-100	295	45	-100	270
12	-130	-95	-50	-120	--	-80	325	70	-85	315
13	-105	100	-30	-160	--	-75	350	90	-90	350
14	-120	120	-5	-100	--	-55	385	115	-80	390
15	-70	130	10	-100	--	-45	405	130	-75	430
16	-50	150	35	-80	--	-50	430	140	-80	450
17	-30	160	45	-90	--	-50	435	160	-70	480
18	-20	170	55	-120	--	-65	450	120	-70	495
19	-5	180	55	-135	--	-70	485	190	-60	520
20	0	190	45	-140	--	-75	505	210	-55	540
21	0	200	35	-135	--	-95	520	230	-55	550
22	-5	230	25	-120	--	-110	545	240	-45	555
23	-65	300	-25	-80	--	-75	545	240	-30	560
24	-310	440	-415	190	--	-165	675	1500	-100	480
25	-340	585	-775	715	--	-265	860	2980	-140	370
26	-615	600	-915	1430	--	-475	1175	4380	-265	390
27	-65	565	-920	2470	--	-605	1325	5060	-340	425
28	55	495	-925	1805	--	-775	1530	5815	-440	450
29	150	265	-750	1450	--	-725	1345	5395	-530	605
30	205	165	-705	1450	--	-645	1215	5340	-465	530

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	40	41	42	43	44	45	46	47	48	49
1	0	0	0	0	0	0	0	0	0	0
2	-35	80	95	105	10	-5	-5	-25	5	150
3	-95	150	90	125	25	0	-10	-15	0	120
4	-180	240	80	145	35	0	-30	0	0	40
5	-260	330	70	170	45	10	-45	5	-20	-30
6	-280	340	60	165	40	0	-55	-15	-30	-40
7	-290	385	85	195	50	-20	-90	-50	-100	-140
8	-290	415	110	215	60	-140	-130	-105	-180	-170
9	-280	430	110	225	80	-130	-120	-100	-160	-210
10	-280	450	120	245	80	-180	-155	-120	-220	-280
11	-285	440	110	235	70	-170	-150	-120	-215	-250
12	-280	495	145	285	90	-265	-220	-190	-310	-310
13	-275	540	170	305	100	-350	-280	-260	-410	-380
14	-285	575	180	335	120	-450	-355	-335	-475	-470
15	-280	605	190	360	135	-495	-390	-385	-535	-520
16	-280	635	200	375	150	-535	-435	-425	-575	-570
17	-280	670	210	395	180	-580	-480	-475	-620	-620
18	-285	685	220	405	190	-625	-515	-535	-655	-650
19	-280	720	230	420	225	-680	-560	-595	-680	-670
20	-280	745	230	420	240	-715	-595	-630	-710	-700
21	-290	750	240	430	250	-740	-625	-675	-730	-730
22	-285	770	245	445	270	-760	-670	-715	-750	-760
23	-280	780	245	445	270	-770	-730	-820	-770	-790
24	-360	665	235	495	-240	-200	-450	-845	-1050	-820
25	-310	470	260	420	-740	-35	-280	-860	-990	-890
26	-405	455	690	420	-1110	80	-200	-775	-865	-910
27	-500	480	865	335	-1250	70	-225	-720	-785	-920
28	-590	500	1135	225	-1370	95	-165	-670	-645	-900
29	-730	710	950	220	-1320	50	0	-315	-120	-160
30	-620	590	1010	160	-1370	0	15	-345	-145	40

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)

-6
(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	50	51	52	53	54	55	56	57	58	59
1	0	0	0	0	0	0	0	0	0	0
2	-30	90	-100	10	0	-70	-90	70	-250	25
3	-55	100	-120	100	-10	-20	-90	70	-250	-75
4	-75	120	-150	240	-20	40	-90	-10	-220	-225
5	-85	210	-190	330	-45	120	-70	-50	-210	-415
6	-65	230	-170	410	-30	160	-60	-60	-190	-415
7	-165	130	-260	280	-80	-10	-160	-110	-350	-515
8	-195	110	-300	250	-100	-80	-200	-140	-410	-555
9	-255	60	-350	200	-150	-130	-230	-180	-460	-565
10	-345	-30	-450	150	-190	-190	-290	-240	-510	-635
11	-305	20	-410	170	-180	-180	-280	-240	-480	-605
12	-425	-50	-500	90	-250	-290	-390	-330	-580	-705
13	-495	-130	-600	30	-310	-380	-470	-490	-640	-785
14	-595	-210	-700	-60	-400	-470	-570	-670	-700	-865
15	-635	-230	-740	-90	-440	-510	-620	-750	-730	-905
16	-675	-290	-790	-130	-480	-570	-670	-840	-740	-935
17	-745	-340	-870	-190	-550	-650	-730	-930	-770	-985
18	-775	-360	-900	-220	-590	-690	-760	-1000	-780	-1025
19	-805	-390	-970	-250	-630	-750	-800	-980	-800	-1085
20	-845	-410	-1020	-260	-670	-790	-820	-990	-810	-1105
21	-885	-440	-1070	-290	-700	-810	-830	-1010	-810	-1125
22	-925	-480	-1120	-320	-740	-830	-870	-1040	-830	-1175
23	-965	-490	-1180	-330	-790	-830	-900	-1060	-830	-1235
24	-855	-390	-1980	-370	-730	-750	-790	-1220	-740	-995
25	-845	-380	-3090	-350	-720	-770	-720	-1510	-640	-5195
26	-815	-300	-4440	-180	-630	-730	-650	-3070	-410	-8785
27	-805	-250	-5110	-60	-580	-720	-600	-5970	-210	-10815
28	-785	-150	-6050	120	-500	-680	-560	-9740	-10	-13045
29	-285	240	-5140	460	-110	-40	-200	-9000	370	-12395
30	-275	100	-5095	120	-130	-170	-230	-8390	240	-11885

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	60	61	62	63	64	65	66	67	68	69
1	0	0	0	0	0	0	0	0	0	0
2	-110	120	-20	45	-170	-650	-95	-270	40	-150
3	-70	-10	-40	25	-145	-670	-75	-310	90	-220
4	-30	-120	10	-35	-135	-700	-75	-410	110	-320
5	30	-250	50	-75	-75	-820	-75	-500	130	-450
6	30	-300	60	-75	-85	-1620	-55	-500	140	-470
7	-80	-400	-10	-205	-255	-1080	-205	-620	150	-640
8	-120	-440	-40	-245	-305	-1170	-285	-650	140	-690
9	-160	-500	-90	-315	-365	-1210	-375	-680	140	-710
10	-200	-540	-110	-365	-425	-1220	-455	-700	120	-750
11	-200	-480	-90	-335	-415	-1200	-435	-680	150	-730
12	-300	-570	-230	-475	-555	-1520	-575	-760	210	-800
13	-380	-600	-290	-555	-685	-4720	-705	-800	220	-910
14	-480	-650	-380	-665	-815	-6630	-815	-810	250	-990
15	-520	-730	-420	-695	-875	-6030	-855	-810	260	-1110
16	-570	-820	-470	-760	-955	-7500	-835	-790	290	-1210
17	-660	-910	-510	-835	-1005	-7760	-885	-1050	310	-1390
18	-660	-940	-540	-875	-1065	-8040	-905	-1370	350	-1540
19	-700	-1020	-570	-935	-1135	-8330	-955	-1880	380	-1530
20	-710	-1070	-580	-965	-1195	-8630	-955	-1910	420	-1710
21	-730	-1140	-590	-1015	-1255	-8930	-915	-4140	470	-2250
22	-720	-1240	-600	-1055	-1325	-9210	-865	-5490	470	-3010
23	-710	-1620	-600	-1115	-1405	-9680	-755	-7750	460	-5450
24	-570	-4960	-470	-1425	-1365	-10370	-575	-11700	610	-9590
25	-390	-9270	-300	-1775	-1225	-10910	-485	-14520	790	-11920
26	-70	-12470	-60	-2945	-975	-11470	-335	-16350	1010	-13740
27	120	-12970	120	-3785	-785	-11770	-245	-16860	1150	-14290
28	320	-13940	340	-5645	-555	-12180	-145	-17640	1310	-15250
29	590	-13190	640	-4875	-135	-11300	205	-16820	1490	-14380
30	445	-12760	490	-4675	-240	-11075	135	-16370	1360	-13850

Table 2. STRAIN GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.		
	70	71	72
1	0	0	0
2	20	-220	-310
3	50	-230	-280
4	80	-270	-260
5	100	-310	-220
6	120	-310	-210
7	110	-500	-420
8	90	-590	-510
9	60	-670	-600
10	50	-740	-680
11	60	-720	-660
12	30	-920	-830
13	0	-1060	-1080
14	-40	-1190	-1470
15	-70	-1300	-1710
16	-100	-1440	-2100
17	-150	-1590	-2720
18	-200	-1700	-3150
19	-270	-2150	-3440
20	-320	-2640	-3560
21	-400	-3600	-3600
22	-490	-5170	-3600
23	-890	-7580	-3550
24	-1210	-10380	-3350
25	-1030	-11460	-3180
26	-800	-12530	-2940
27	-650	-13070	-2800
28	-480	-13630	-2670
29	-210	-12820	-2270
30	-355	-12650	-2370

Table 3. STRAIN GAGE READINGS-SPECIMEN T-14(10⁻⁶ in. per in.)

Ld. No.	Loads		Gage Nos.						
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7
1	0	0	0	0	0	0	0	0	0
2	50	0	-225	-105	-100	-100	-45	-90	-95
3	100	0	-380	-195	-180	-185	-100	-165	-170
4	100	2	-330	-215	-195	-205	45	-195	-185
5	100	6	-185	-245	-205	-230	345	-245	-200
6	100	10	-45	-310	-230	-270	645	-315	-235
7	100	12	30	-325	-225	-285	790	-345	-245
8	100	13	90	-340	-225	-290	875	-360	-250
9	150	13	10	-445	-320	-380	795	-445	-330
10	200	13	-40	-565	-425	-480	745	-540	-415
11	250	13	-50	-665	-510	-565	735	-630	-495
12	300	13	-115	-805	-640	-675	720	-740	-590
13	325	13	-135	-865	-705	-725	735	-	-
14	300	13	-80	-815	-650	-680	775	-750	-595
15	325	13	-135	-875	-710	-730	740	-800	-640
16	350	13	-190	-920	-765	-775	675	-845	-685
17	360	13	-175	-955	-795	-800	765	-890	-700
18	370	13	-175	-975	-820	-820	775	-910	-715
19	380	13	-185	-1005	-860	-845	785	-940	-735
20	390	13	-180	-1020	-880	-865	810	-995	-745
21	400	13	-185	-1045	-910	-885	820	-1030	-765
22	410	13	-180	-1070	-930	-915	845	-1070	-780
23	420	13	-170	-1080	-965	-955	870	-1145	-805
24	430	13	-170	-1105	-1005	-990	900	-1225	-925
25	390	13	-30	-1965	-770	-615	935	-1745	-90
26	380	13	75	-2695	-	-	-	-	-
27	366	13	180	-3495	-	-	-	-	-
28	355	13	260	-4265	-	-	-	-	-
29	336	13	380	-5355	-	-	-	-	-

Table 3. STRAIN GAGE READINGS-SPECIMNE T-14 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.								
	8	9	10	11	12	13	14	15	16
1	0	0	0	0	0	0	0	0	0
2	-95	-85	-100	-95	-105	10	-125	-115	-125
3	-170	-160	-175	-170	-185	-30	-215	-205	-225
4	-195	-175	-205	-190	-215	95	-250	-220	-245
5	-240	-195	-250	-215	-265	375	-300	-235	-290
6	-295	-220	-305	-250	-320	650	-360	-255	-335
7	-315	-235	-330	-260	-350	795	-385	-265	-360
8	-330	-240	-345	-270	-365	865	-405	-275	-380
9	-415	-330	-435	-360	-455	765	-500	-375	-475
10	-520	-420	-525	-450	-550	685	-600	-475	-575
11	-620	-505	-625	-545	-650	650	-700	-580	-675
12	-730	-605	-745	-645	-770	615	-815	-700	-775
13	-	-	-	-	-	-	-	-	-
14	-740	-605	-750	-650	-780	650	-825	-705	-785
15	-800	-655	-805	-705	-840	610	-870	-760	-830
16	-850	-695	-860	-745	-890	540	-920	-815	-875
17	-890	-720	-910	-770	-935	625	-1000	-840	-910
18	-920	-730	-935	-785	-970	635	-1025	-865	-930
19	-950	-750	-970	-805	-1000	655	-1060	-895	-955
20	-990	-765	-1005	-820	-1040	685	-1105	-925	-975
21	-1035	-790	-1050	-850	-1085	705	-1135	-960	-1005
22	-1090	-810	-1115	-885	-1160	760	-1210	-1005	-1025
23	-1165	-840	-1185	-1115	-1490	830	-1265	-1035	-1060
24	-960	-965	-1075	-1495	-1665	890	-1395	-1055	-1125
25	-910	-390	-1160	-1610	-2475	1125	-2115	-1380	-1325
26	-835	-	-	-	-	1255	-2685	-	-
27	-685	-	-	-	-	1335	-3345	-	-
28	-540	-	-	-	-	1430	-3920	-	-
29	-330	-	-	-	-	1510	-4875	-	-

Table 3. STRAIN GAGE READINGS-SPECIMEN T-14 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	17	18	19	20	21	22	23	24	25	26
1	0	0	0	0	0	0	0	0	0	0
2	-125	-135	-120	-145	-80	-160	5	15	10	-5
3	-220	-235	-245	-250	-220	-280	35	45	35	5
4	-230	-255	-270	-270	-170	-300	60	25	120	-85
5	-245	-290	-275	-305	-55	-335	110	-15	310	-260
6	-255	-325	-280	-330	85	-370	165	-55	500	-430
7	-255	-340	-250	-340	150	-390	195	-75	605	-515
8	-265	-350	-270	-345	190	-400	210	-85	645	-555
9	-365	-460	-385	-450	45	-520	265	-75	700	-580
10	-470	-555	-490	-550	-25	-640	310	-70	770	-615
11	-575	-650	-605	-650	-75	-755	365	-50	845	-640
12	-685	-750	-720	-740	-120	-870	415	-40	935	-680
13	-	-	-	-	-	-	-	-	-	-
14	-695	-755	-	-750	-95	-880	415	-40	945	-680
15	-745	-805	-770	-790	-140	-920	435	-30	980	-690
16	-805	-840	-840	-830	-200	-970	445	-25	980	-670
17	-835	-860	-860	-850	-185	-1005	475	-30	1035	-710
18	-855	-885	-890	-870	-190	-1020	485	-35	1050	-720
19	-885	-905	-920	-890	-200	-1035	500	-35	1065	-720
20	-915	-920	-950	-900	-205	-1070	510	-35	1075	-720
21	-960	-935	-990	-900	-220	-1095	520	-35	1080	-705
22	-1015	-935	-1035	-875	-210	-1100	545	-40	1075	-700
23	-1050	-955	-1050	-880	-210	-1095	555	-40	1035	-645
24	-1095	-1025	-1100	-920	-205	-1130	585	-40	1100	-640
25	-545	-845	-550	-745	-50	-1410	1875	225	990	-655
26	-	-	-	-720	70	-1690	-	-	-	-
27	-	-	-	-715	180	-2115	-	-	-	-
28	-	-	-	-735	290	-2700	-	-	-	-
29	-	-	-	-750	470	-3740	-	-	-	-

Table 3. STRAIN GAGE READINGS-SPECIMEN T-14 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	37	38	39	40	41	42	43	44	45	46
1	0	0	0	0	0	0	0	0	0	0
2	0	0	10	-5	5	20	40	50	-85	-110
3	15	10	30	5	35	40	75	90	-145	-190
4	5	0	90	-65	130	-80	85	40	-170	-210
5	-20	-10	210	-205	325	-275	130	0	-155	-235
6	-45	-15	350	-350	520	-470	185	-50	-150	-265
7	-55	-10	415	-425	620	-555	200	-65	-140	-270
8	-60	-5	440	-455	670	-610	205	-70	-135	-280
9	-40	0	490	-475	730	-630	270	-60	-220	-370
10	-30	10	535	-490	795	-660	310	-50	-320	-460
11	-5	30	600	-505	890	-685	370	-40	-425	-550
12	15	50	655	-525	960	-715	415	-30	-530	-650
13	-	-	-	-	-	-720	445	-25	-585	-690
14	10	55	660	-520	970	-710	435	-15	-525	-640
15	20	65	670	-515	1005	-725	445	-30	-580	-695
16	30	80	690	-515	995	-710	455	-15	-650	-740
17	35	95	730	-535	1055	-735	495	-10	-670	-765
18	30	100	740	-535	1070	-740	505	-10	-695	-780
19	30	110	755	-540	1085	-745	535	10	-725	-800
20	30	120	765	-550	1100	-750	565	20	-755	-820
21	30	135	775	-550	1105	-770	640	40	-790	-830
22	25	165	55	-530	1090	-780	720	55	-840	-845
23	20	210	750	-505	1060	-745	735	55	-885	-850
24	50	280	795	-490	1095	-745	745	50	-1015	-625
25	-220	900	420	-485	570	-545	550	295	-1030	-510
26	-	-	-	-	395	-	-	-	-	-
27	-	-	-	-	245	-	-	-	-	-
28	-	-	-	-	120	-	-	-	-	-
29	-	-	-	-	-90	-	-	-	-	-

Table 3. STRAIN GAGE READINGS-SPECIMEN T-14 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.					
	67	68	69	70	71	72
1	0	0	-	0	0	0
2	-320	100	-	90	-250	-245
3	-450	85	-	120	-360	-490
4	-610	115	-	120	-475	-470
5	-	190	-	-	-610	-395
6	-	260	-	-	-	-265
7	-	280	-	-	-	-230
8	-	330	-	-	-	-230
9	-	430	-	-	-	-410
10	-	510	-	-	-	-390
11	-	660	-	-	-	-485
12	-	680	-	-	-	-510
13	-	-	-	-	-	-
14	-	730	-	-	-	-510
15	-	710	-	-	-	-570
16	-	700	-	-	-	-650
17	-	840	-	-	-	-610
18	-	855	-	-	-	-665
19	-	860	-	-	-	-680
20	-	910	-	-	-	-680
21	-	920	-	-	-	-700
22	-	950	-	-	-	-560
23	-	1000	-	-	-	-490
24	-	-	-	-	-	-
25	-	-	-	-	-	-
26	-	-	-	-	-	-
27	-	-	-	-	-	-
28	-	-	-	-	-	-
29	-	-	-	-	-	-

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15(10⁻⁶ in. per in.)

Ld. No.	Loads		Gage Nos.							
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	0	0	0
2	50	0	-320	-75	-90	-75	-255	-75	-65	-50
3	100	0	-480	-165	-185	-170	-355	-165	-160	-145
4	200	0	-755	-355	-385	-390	-550	-360	-350	-340
5	300	0	-985	-520	-570	-570	-750	-560	-555	-545
6	325	0	-1040	-570	-630	-630	-800	-640	-600	-595
7	350	0	-1105	-625	-680	-680	-855	-690	-655	-655
8	370	0	-1150	-655	-720	-715	-895	-735	-695	-690
9	390	0	-1200	-695	-760	-760	-930	-780	-740	-740
10	400	0	-1215	-710	-785	-780	-980	-810	-760	-760
11	410	0	-1235	-725	-800	-795	-1000	-825	-775	-775
12	420	0	-1260	-740	-820	-815	-1015	-845	-800	-800
13	430	0	-1280	-755	-840	-835	-1040	-865	-820	-825
14	440	0	-1305	-770	-865	-850	-1055	-885	-835	-845
15	450	0	-1320	-790	-880	-870	-1085	-910	-855	-875
16	460	0	-1345	-805	-910	-890	-1110	-935	-885	-900
17	470	0	-1360	-820	-930	-905	-1135	-935	-900	-925
18	480	0	-1385	-830	-955	-930	-1160	-955	-920	-955
19	490	0	-1405	-850	-980	-945	-1225	-970	-945	-975
20	500	0	-1430	-875	-995	-970	-1250	-1000	-970	-1000
21	510	0	-1450	-890	-1010	-975	-1240	-1015	-1005	-995
22	480	0	-1470	-915	-1030	-530	-1245	-1250	-265	-900
23	470	0	-1340	-1780	-660	-240	-1240	-1805	120	-800
24	454	0	-1335	-2110	-760	120	-1195	-2175	470	-910
25	434	0	-1300	-2190	-880	370	-1155	-2325	770	-1070
26	420	0	-1290	-2220	-1000	590	-1115	-2505	1030	-1270

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	9	10	11	12	13	14	15	16	17	18
1	0	0	0	0	0	0	0	0	0	0
2	-75	-55	-95	-55	-140	-75	-110	-95	-90	-90
3	-165	-145	-195	-185	-260	-165	-210	-220	-195	-190
4	-390	-340	-385	-385	-465	-360	-410	-410	-405	-385
5	-590	-545	-590	-595	-680	-555	-620	-605	-625	-600
6	-640	-600	-640	-645	-740	-610	-695	-655	-680	-650
7	-695	-650	-695	-695	-790	-655	-750	-700	-730	-695
8	-730	-690	-730	-735	-830	-695	-790	-730	-770	-720
9	-775	-735	-775	-780	-875	-735	-830	-765	-815	-760
10	-795	-755	-790	-795	-890	-750	-850	-790	-835	-775
11	-810	-775	-805	-820	-910	-765	-875	-810	-855	-790
12	-830	-795	-825	-840	-930	-790	-895	-815	-880	-805
13	-850	-820	-845	-860	-950	-810	-915	-840	-905	-825
14	-870	-840	-870	-885	-970	-825	-935	-860	-925	-835
15	-890	-865	-890	-905	-995	-850	-965	-875	-955	-860
16	-915	-890	-910	-925	-1005	-870	-985	-895	-980	-870
17	-935	-920	-930	-955	-1030	-890	-1005	-910	-1005	-885
18	-955	-940	-955	-980	-1060	-915	-1035	-935	-1035	-905
19	-975	-965	-975	-1005	-1125	-935	-1060	-950	-1055	-920
20	-1000	-990	-995	-1025	-1140	-950	-1075	-965	-1080	-930
21	-1045	-1000	-1055	-1060	-1255	-995	-1110	-1015	-1095	-995
22	-535	-1025	-1130	-1165	-1180	-1315	-1160	-975	-985	-660
23	-305	-980	-1360	-1320	-1000	-1985	-1260	-1065	-780	-495
24	10	-1105	-1350	-1730	-930	-2445	-1640	-845	-810	-175
25	300	-1375	-1120	-2460	-910	-2535	-2160	-605	-920	55
26	590	-1825	-870	-3190	-900	-2555	-2830	-405	-1050	275

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	19	20	21	22	23	24	25	26	27	28
1	0	0	0	0	0	0	0	0	0	0
2	-95	-80	-170	-90	25	30	5	-35	45	75
3	-240	-175	-295	-190	50	55	35	5	95	15
4	-455	-375	-540	-385	95	105	65	45	90	30
5	-670	-555	-775	-580	145	155	100	80	85	85
6	-720	-595	-825	-625	160	170	120	135	110	150
7	-775	-645	-880	-665	175	185	140	120	110	100
8	-810	-670	-920	-700	180	225	150	125	150	135
9	-855	-705	-955	-735	195	235	165	130	140	190
10	-875	-725	-965	-750	200	240	165	150	140	180
11	-900	-735	-1000	-765	205	245	165	150	145	205
12	-925	-755	-1020	-780	210	255	165	160	200	195
13	-945	-765	-1045	-800	215	260	180	170	160	225
14	-965	-780	-1065	-815	215	265	230	185	175	250
15	-990	-800	-1085	-835	220	275	235	195	240	190
16	-1020	-810	-1110	-850	225	280	225	210	190	245
17	-1040	-825	-1125	-870	235	285	280	215	215	190
18	-1065	-835	-1145	-885	235	290	250	205	220	195
19	-1095	-850	-1155	-905	230	285	270	210	240	200
20	-1110	-860	-1165	-915	235	290	285	200	255	205
21	-1125	-960	-1180	-955	240	290	405	80	275	240
22	-1080	-555	-1075	-1145	360	285	440	-130	505	295
23	-850	-350	-955	-1250	460	370	440	-350	660	595
24	-870	-60	-845	-1980	530	510	510	-500	720	765
25	-930	170	-755	-2250	600	560	560	-620	800	835
26	-1010	380	-705	-2370	660	600	620	-710	900	835

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	29	30	31	32	33	34	35	36	37	38
1	0	0	0	0	0	0	0	0	0	0
2	-55	-85	-45	-30	-45	10	5	-10	10	5
3	-60	0	-15	-10	5	25	40	70	30	30
4	-75	-35	0	20	55	30	75	90	70	80
5	0	-20	50	45	75	60	125	110	110	145
6	10	-15	65	50	95	75	130	130	130	155
7	25	0	105	55	110	75	145	145	140	175
8	55	10	120	85	135	90	160	160	145	185
9	90	0	130	75	155	95	165	160	155	200
10	95	10	140	85	160	105	180	175	160	215
11	95	10	155	80	165	115	180	195	170	225
12	175	20	170	85	175	-	240	190	180	230
13	135	25	190	85	205	115	225	205	180	235
14	140	20	200	95	200	170	225	215	185	245
15	240	35	205	90	225	135	255	220	190	255
16	190	85	230	95	240	135	250	220	200	265
17	210	30	245	95	240	135	250	235	205	275
18	205	20	250	85	250	130	260	230	205	280
19	240	40	290	130	265	135	270	240	225	290
20	220	35	280	105	275	135	285	240	225	290
21	110	190	230	205	300	150	345	210	265	275
22	-290	280	-115	390	230	335	550	165	305	260
23	-380	190	-240	320	225	595	765	110	-325	1830
24	-530	220	-400	340	5	845	1025	-10	-485	2565
25	-640	270	-540	420	-105	995	1175	-30	-565	2685
26	-1060	340	-640	470	-175	1115	1265	-30	-630	2770

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	39	40	41	42	43	44	45	46	47	48
1	-	0	0	0	0	0	0	0	0	0
2	-	15	10	25	25	25	-70	-65	-30	-10
3	-	45	30	60	50	60	-160	-155	-115	-90
4	-	115	50	135	100	115	-360	-340	-300	-250
5	-	200	70	225	160	170	-575	-535	-500	-410
6	-	225	75	250	170	185	-630	-580	-545	-450
7	-	240	75	280	185	200	-690	-630	-610	-495
8	-	265	75	300	195	210	-735	-670	-650	-535
9	-	290	75	325	210	225	-780	-705	-695	-565
10	-	310	75	340	215	230	-800	-720	-715	-580
11	-	325	75	355	220	235	-825	-735	-740	-595
12	-	330	75	365	225	240	-850	-755	-765	-610
13	-	345	70	380	235	245	-875	-775	-795	-630
14	-	360	70	400	245	250	-900	-795	-820	-650
15	-	375	65	410	245	260	-930	-810	-850	-665
16	-	390	65	430	260	265	-960	-830	-880	-690
17	-	410	65	445	260	270	-990	-850	-910	-700
18	-	425	60	465	265	280	-1015	-870	-935	-730
19	-	440	60	485	270	290	-1050	-890	-960	-765
20	-	455	55	495	270	295	-1070	-910	-980	-780
21	-	410	110	460	265	325	-1080	-950	-970	-920
22	-	45	370	40	325	330	-1425	-425	-310	-1000
23	-	5	280	-50	440	330	-2695	300	30	-1125
24	-	-150	335	-220	600	450	-2640	355	425	-1510
25	-	-285	435	-360	805	390	-2550	345	755	-2240
26	-	-405	515	-490	975	260	-2475	345	840	-2360

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	49	50	51	52	53	54	55	56	57	58
1	0	0	0	0	0	0	0	0	0	0
2	-20	-65	-55	-70	-100	-75	-205	-30	80	-245
3	-70	-150	-130	-165	-200	-170	-350	-125	55	-390
4	-250	-355	-315	-365	-400	-375	-590	-310	-80	-605
5	-425	-615	-505	-570	-610	-580	-840	-490	-195	-840
6	-465	-660	-545	-615	-665	-630	-890	-530	-245	-930
7	-515	-725	-605	-665	-715	-675	-940	-580	-285	-1025
8	-550	-765	-645	-705	-765	-715	-985	-620	-330	-1115
9	-600	-835	-685	-745	-810	-760	-1030	-660	-365	-1190
10	-610	-850	-700	-755	-825	-775	-1050	-670	-380	-1225
11	-630	-875	-725	-775	-850	-795	-1075	-695	-400	-1270
12	-660	-900	-745	-795	-870	-815	-1095	-715	-415	-1315
13	-675	-920	-765	-810	-895	-845	-1120	-740	-440	-1350
14	-695	-945	-785	-825	-920	-855	-1140	-760	-455	-1390
15	-710	-975	-810	-850	-950	-880	-1165	-780	-485	-1440
16	-735	-990	-830	-865	-975	-905	-1190	-800	-500	-1490
17	-755	-1015	-850	-890	-1000	-925	-1210	-830	-525	-1550
18	-775	-1035	-875	-905	-1035	-945	-1240	-850	-550	-1610
19	-790	-1075	-890	-915	-1080	-985	-1270	-875	-575	-1710
20	-800	-1085	-910	-935	-1095	-1005	-1290	-895	-590	-1755
21	-820	-1120	-920	-980	-1145	-1045	-1455	-940	-605	-1840
22	-900	-1045	-940	-965	-930	-1125	-3910	-1170	-780	-1750
23	-1080	-965	-1055	-955	-865	-1465	-5000	-1205	-1035	-1685
24	-1170	-905	-1095	-895	-860	-1635	-5425	-1205	-1240	-1615
25	-1240	-845	-1115	-825	-850	-1585	-5490	-1205	-1390	-1540
26	-1330	-805	-1165	-775	-860	-1560	-5520	-1220	-1545	-1475

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.									
	59	60	61	62	63	64	65	66	67	68
1	0	0	0	0	0	0	0	0	0	0
2	20	-95	10	-70	-45	-155	-670	-100	-370	60
3	-20	-180	-35	-150	-130	-295	-865	-225	-525	30
4	-180	-350	-210	-335	-300	-520	-1135	-515	-740	-95
5	-160	-500	-380	-555	-455	-820	-1325	-770	-910	-250
6	-380	-535	-430	-595	-485	-880	-1350	-880	-920	-295
7	-435	-580	-480	-650	-515	-950	-1360	-1005	-945	-335
8	-475	-610	-515	-710	-545	-1020	-1380	-1125	-970	-370
9	-520	-635	-560	-765	-565	-1090	-1390	-1285	-990	-400
10	-535	-650	-565	-785	-575	-1120	-1410	-1415	-1040	-410
11	-560	-665	-585	-810	-585	-1160	-1410	-1520	-1080	-425
12	-580	-680	-605	-835	-600	-1210	-1425	-1625	-1130	-440
13	-605	-695	-625	-840	-610	-1260	-1430	-1755	-1170	-450
14	-630	-705	-635	-860	-620	-1305	-1430	-1860	-1220	-465
15	-650	-720	-655	-885	-625	-1335	-1445	-2105	-1265	-485
16	-670	-730	-670	-900	-625	-1360	-1445	-2310	-1300	-495
17	-695	-745	-685	-915	-635	-1380	-1460	-2495	-1340	-515
18	-720	-755	-700	-940	-640	-1410	-1480	-2655	-1325	-530
19	-750	-760	-720	-960	-635	-1445	-1495	-2875	-1380	-555
20	-765	-770	-730	-970	-635	-1470	-1510	-2970	-1380	-570
21	-795	-765	-750	-995	-650	-1535	-2540	-3185	-1280	-600
22	-900	-680	-780	-910	-630	-1515	-3540	-3150	-1225	-510
23	-1110	-595	-910	-820	-745	-1465	-4300	-3105	-1190	-455
24	-1190	-520	-940	-755	-830	-1410	-5560	-3065	-1195	-390
25	-1205	-440	-985	-690	-985	-1340	-6300	-3005	-1350	-310
26	-1245	-365	-1270	-635	-1220	-1280	-6810	-2970	-1790	-240

Table 4. STRAIN GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻⁶ in. per in.)

Ld. No.	Gage Nos.			
	69	70	71	72
1	0	-	0	0
2	-235	-	-170	-215
3	-375	-	-280	-350
4	-590	-	-475	-600
5	-805	-	-685	-1045
6	-840	-	-720	-1145
7	-870	-	-760	-1285
8	-885	-	-790	-1400
9	-910	-	-820	-1550
10	-920	-	-825	-1620
11	-925	-	-840	-1705
12	-935	-	-860	-1795
13	-930	-	-875	-1890
14	-940	-	-890	-1990
15	-950	-	-905	-2080
16	-950	-	-935	-2210
17	-960	-	-960	-2350
18	-955	-	-960	-2495
19	-965	-	-930	-2670
20	-980	-	-935	-2720
21	-1085	-	-890	-3020
22	-1620	-	-915	-3230
23	-1965	-	-945	-3205
24	-2545	-	-980	-3170
25	-3540	-	-1010	-3100
26	-5400	-	-1040	-3040

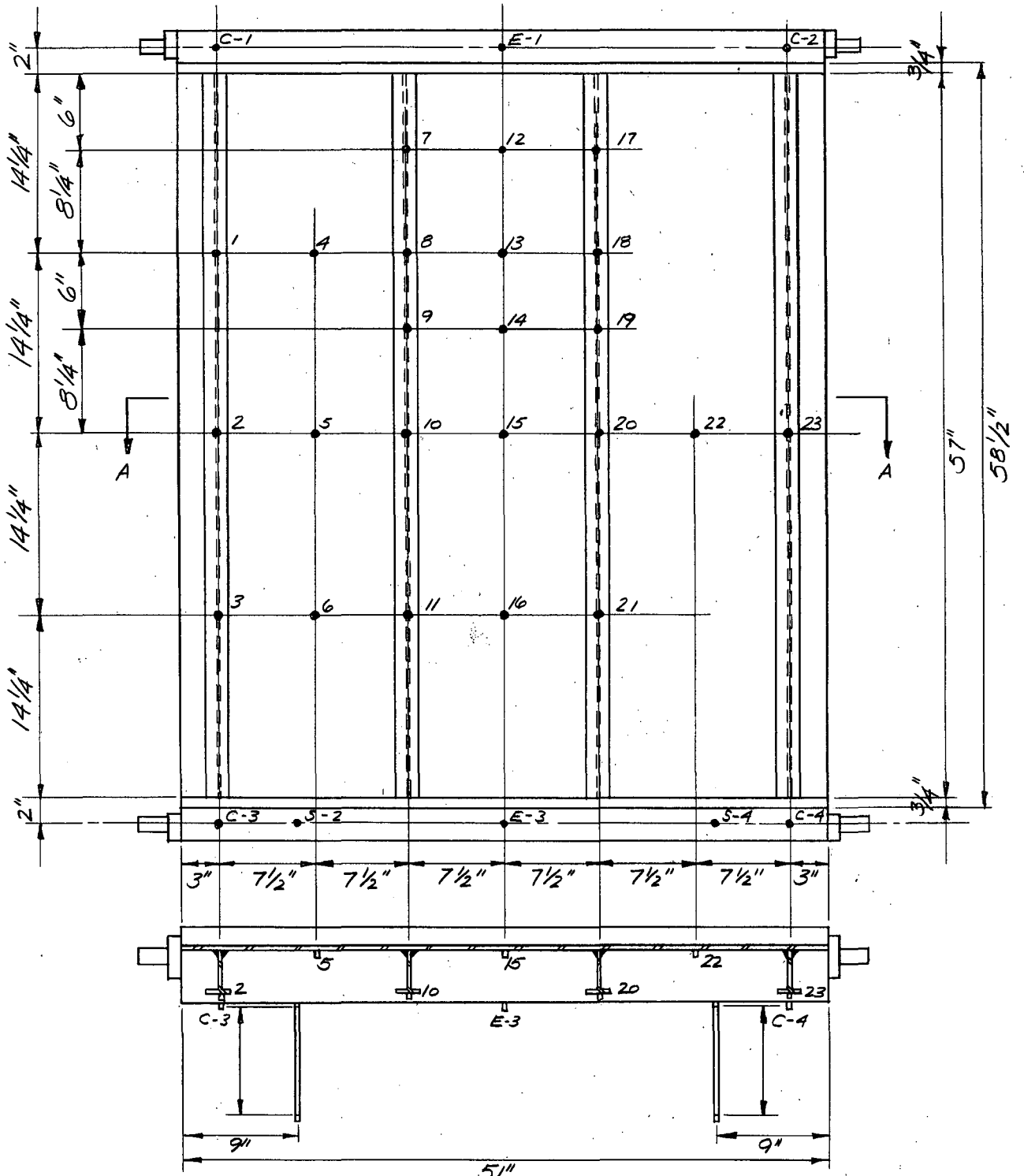
3. DIAL GAGE READINGS

The location of points at which dial gage readings were taken is shown in Fig. 3, page

The dial gages are divided into four groups depending on what they measure:

- 1) Gages Nos. 1 to 23 give lateral deflections of the specimen, positive if corresponding to convex displacement of the front face.
- 2) Gages E and C (E = end, C = corner) give lateral deflections of the end blocks, positive if in the positive direction of gages 1 to 23.
- 3) Gage L gives longitudinal shortening of the specimen, positive if indicating shortening.
- 4) Gages S consist of pairs of dial gages measuring vertical movement of a horizontal bar screwed into the end block. The values presented in the tables are the rotations of the end blocks which were obtained by dividing the difference of the actual dial readings by nine inches, positive if rotation corresponds to convex deformation of the front face of the specimen.

All readings except for S-gages are given in thousands of an inch. Readings of the S-gages are tabulated in thousands of a radian.



Section A-A

Fig. 3 LOCATION OF DIAL GAGES
Scale: 1" = 1'-0"

Table 5. DIAL GAGE READINGS-SPECIMEN T-12 (Cont'd) (10^{-3} in.)

Ld. No.	Gage Nos.									
	20	21	22	23	L	E-1	E-2	C-1	C-2	C-3
1	0	0	0	0	0	0	0	0	0	0
2	18	7	21	16	15	1	0	0	-2	1
3	27	9	27	25	26	3	1	1	19	2
4	30	9	31	27	35	3	1	1	19	2
5	35	11	36	30	46	8	1	9	19	7
6	36	10	36	30	50	8	1	11	19	7
7	37	11	36	30	56	8	1	11	19	7
8	38	13	36	30	60	9	1	12	19	7
9	40	13	37	30	65	12	-1	15	19	10
10	42	13	38	32	70	13	-1	16	19	12
11	44	14	40	36	77	16	-1	18	19	13
12	48	14	45	42	82	18	-1	21	19	17
13	56	19	69	50	92	25	-1	27	19	22
14	88	28	202	74	118	37	-1	43	19	36
15	113	30	260	94	137	46	-2	51	19	44
16	163	39	331	130	166	46	-2	54	19	46
17	285	67	481	233	221	48	-2	56	18	49
18	737	209	848	654	357	44	-2	61	18	48
19	748	250	958	665	396	42	-2	61	18	48
20	-	317	1116	826	552	40	-2	62	18	48
21	-	642	-	-	773	18	-2	62	18	35
22	-	-	-	-	1142	-	-1	40	18	5

Table 5. DIAL GAGE READINGS-SPECIMEN T-12 (Cont'd) $(10^{-3} \text{ in.})^*$

Ld. No.	Gage Nos.				
	C-4	S-1	S-3	S-2	S-4
1	0	0	0	0	0
2	-1	-2.111	+3.222	+0.111	-0.111
3	-1	-2.777	-3.333	+0.111	0
4	-1	-2.888	-3.888	+0.222	0
5	-1	-2.777	-4.666	+0.333	+0.111
6	-1	-2.888	-4.888	+0.444	0
7	-1	-2.888	-4.666	+0.555	+0.222
8	-1	-2.888	-4.777	+0.666	+0.222
9	-1	-2.888	-4.777	+0.666	+0.222
10	-1	-3.000	-4.666	+0.666	+0.333
11	-1	-3.000	-4.777	+0.777	+0.333
12	-1	-3.000	-4.777	+0.777	+0.444
13	-1	-2.888	-4.888	+0.777	+0.555
14	-1	-3.111	-4.888	+0.777	+0.555
15	-5	-3.111	-4.888	+0.888	+0.555
16	-5	-3.111	-5.000	+0.888	+0.555
17	1	-3.222	-5.000	+0.888	+0.555
18	1	-3.222	-5.000	+0.888	+0.555
19	1	-3.222	-5.000	+0.888	+0.555
20	-3	-3.222	-5.000	+0.888	+0.555
21	-3	-3.333	-5.111	+0.888	+0.555
22	-3	-3.333	-5.111	+0.777	+0.444

* S-1 through S-4, 10^{-3} radians

Table 6. DIAL GAGE READINGS-SPECIMEN T-13(10⁻³ in.)

Ld. No.	Loads		Gage Nos.								
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7	8	9
1	0	0	0	0	0	0	0	0	0	0	0
2	50	0	-14	-26	-28	-11	-18	-19	-7	-8	-11
3	50	2	-13	-23	-26	-3	-6	-9	-4	-2	-1
4	50	4	-4	-11	-18	21	25	15	2	12	17
5	50	6	4	0	-9	42	52	37	9	24	35
6	50	6.5	8	6	-5	50	63	45	12	29	41
7	100	6.5	-1	-10	-20	44	52	34	7	22	32
8	125	6.5	-3	-14	-24	44	51	34	6	22	31
9	150	6.5	-3	-15	-25	44	51	34	6	21	30
10	175	6.5	-3	-15	-25	44	52	34	6	21	29
11	175	6.5	-4	-16	-26	44	51	33	6	19	28
12	225	6.5	8	-5	-18	57	61	43	17	30	36
13	275	6.5	9	3	-10	63	68	52	17	31	38
14	325	6.5	13	8	-4	64	72	62	15	30	37
15	350	6.5	12	9	-1	66	74	68	14	30	38
16	375	6.5	13	12	2	68	77	74	15	31	39
17	400	6.5	15	15	7	72	81	84	16	32	40
18	420	6.5	18	20	12	77	85	95	17	34	45
19	440	6.5	20	24	17	81	88	108	19	38	49
20	450	6.5	23	28	22	85	91	117	20	40	52
21	460	6.5	25	33	28	89	94	127	22	42	55
22	470	6.5	27	37	34	93	97	134	23	44	58
23	485	6.5	32	45	46	103	104	147	27	51	67
24	462	6.5	44	71	62	83	162	153	35	73	97
25	440	6.5	67	109	81	90	224	180	46	103	143
26	409	6.5	104	170	108	79	320	198	59	141	194
27	394	6.5	127	207	122	75	377	208	66	163	240
28	373	6.5	156	256	143	84	447	222	76	193	288
29	150	6.5	126	224	130	15	424	200	50	160	250
30	150	0	111	201	115	-28	377	156	40	134	214
31	0	0	123	201	118	4	365	143	42	125	196

Table 6. DIAL GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻³ in.)

Ld. No.	Gage Nos.									
	10	11	12	13	14	15	16	17	18	19
1	0	0	0	0	0	0	0	0	0	0
2	-11	-14	-1	-3	-4	-5	-5	-4	0	-1
3	0	-7	4	8	9	9	6	-1	8	10
4	19	8	13	25	31	32	24	6	21	28
5	38	17	21	41	51	54	43	12	33	45
6	44	27	24	47	59	61	48	15	37	49
7	35	17	21	42	51	52	40	10	32	43
8	33	14	21	40	44	50	38	9	31	42
9	32	12	21	40	48	50	37	9	31	41
10	32	11	21	40	48	49	35	10	31	41
11	30	10	20	38	46	48	32	9	30	38
12	37	12	32	48	52	52	35	19	39	47
13	39	12	34	48	53	52	34	20	41	48
14	39	13	32	45	50	50	32	17	39	47
15	40	14	32	45	50	50	32	16	38	46
16	42	16	33	44	50	50	32	16	39	48
17	45	19	34	45	52	53	32	17	40	48
18	49	21	35	46	53	56	32	18	42	50
19	54	26	37	47	56	61	31	19	44	52
20	57	29	39	47	58	64	28	20	45	54
21	61	32	40	48	59	69	35	21	48	56
22	64	37	42	49	59	74	38	23	50	59
23	74	46	46	51	60	88	46	26	56	67
24	107	64	71	36	78	106	74	35	79	105
25	156	88	84	94	-36	161	97	47	109	150
26	215	116	99	258	-38	204	136	61	147	211
27	251	133	108	299	-31	226	159	69	170	245
28	296	154	118	346	-18	260	188	78	199	293
29	260	138	72	248	-39	208	169	53	166	255
30	221	113	53	209	-72	159	127	44	140	220
31	200	100	35	155	-93	117	103	27	112	183

Table 6. DIAL GAGE READINGS-SPECIMEN T-13 (Cont'd)(10⁻³ in.)

Ld. No.	Gage Nos.									
	20	21	22	23	L	E-1	E-2	C-1	C-2	C-3
1	0	0	0	0	0	0	0	0	0	0
2	-1	-3	1	3	34	-8	7	-8	13	-8
3	12	6	21	11	34	-8	7	-9	13	-8
4	30	20	47	21	34	-6	9	-8	13	-9
5	48	33	73	31	34	-4	11	-7	14	-7
6	53	38	81	34	34	-2	12	-7	14	-6
7	47	35	77	28	43	-5	11	-9	12	-9
8	47	28	77	27	48	-6	11	-9	12	-9
9	43	27	78	27	52	-6	11	-9	12	-9
10	43	26	79	27	57	-6	10	-9	12	-9
11	41	25	76	26	57	-6	10	-9	12	-11
12	48	27	77	32	65	5	11	4	11	-1
13	48	27	90	32	73	5	11	6	11	-1
14	48	26	94	30	79	2	11	3	11	-4
15	48	26	95	30	83	1	11	1	10	-6
16	49	27	99	30	88	0	11	1	10	-6
17	49	27	102	32	93	0	11	2	10	-5
18	51	27	105	34	98	1	11	3	10	-5
19	53	28	110	37	102	3	11	5	10	-4
20	56	29	113	39	105	3	11	6	10	-4
21	57	31	117	41	108	3	10	6	10	-4
22	59	33	121	43	112	5	10	7	10	-3
23	59	40	130	48	118	6	10	9	10	-3
24	100	63	196	73	125	9	11	11	10	-2
25	138	87	254	116	134	10	11	12	10	-2
26	210	116	343	177	148	9	11	12	10	-1
27	239	132	397	214	156	9	11	12	10	-1
28	293	154	464	263	169	10	11	12	10	-1
29	257	142	439	231	136	-13	11	-15	10	-21
30	210	116	391	207	131	-15	10	-16	10	-22
31	181	95	347	160	-	-15	9	7	9	-42

Table 6. DIAL GAGE READINGS-SPECIMEN T-13 (Cont'd) $(10^{-3} \text{ in.})^*$

Ld. No.	Gage Nos.				
	C-4	S-1	S-2	S-3	S-4
1	0	0	0	0	0
2	0	0.222	-1.888	0.666	0.111
3	0	0.444	-1.888	0.888	0.111
4	1	0.555	-1.666	1.111	0.444
5	1	0.777	-1.333	1.222	0.555
6	2	0.666	-1.222	1.444	0.111
7	1	0.777	-2.222	1.333	-0.111
8	1	0.666	-2.555	1.333	-0.333
9	1	0.666	-2.555	1.333	-0.333
10	1	0.555	-2.666	1.333	-0.444
11	1	0.666	-2.777	1.333	-0.555
12	1	0.555	-2.666	1.333	-0.555
13	1	0.666	-2.888	1.333	-0.444
14	1	0.555	-2.888	1.333	-0.555
15	1	0.666	-2.888	1.333	-0.555
16	1	0.444	-2.888	1.333	-0.555
17	1	0.555	-3.000	1.333	-0.555
18	1	0.555	-3.000	1.333	-0.555
19	1	0.444	-3.000	1.333	-0.666
20	1	0.444	-3.000	1.333	-0.666
21	1	0.555	-3.000	1.333	-0.666
22	1	0.555	-3.000	1.333	-0.666
23	1	0.555	-3.000	1.333	-0.666
24	2	0.555	-3.000	1.333	-0.666
25	1	0.555	-3.000	1.333	-0.666
26	1	0.555	-3.000	1.444	-0.666
27	1	0.555	-3.000	1.444	-0.666
28	1	0.555	-3.000	-0.777	-0.666
29	1	0.777	-3.000	-0.777	-0.666
30	1	0.666	-3.111	-0.888	-0.777
31	-1	1.111	-1.888	0.666	-2.000

* S-1 through S-4, 10^{-3} radians

Table 7. DIAL GAGE READINGS-SPECIMEN T-14 (Cont'd)(10⁻³ in.)

Ld. No.	Gage Nos.										
	20	21	22	23	L	E+1	E+2	C-1	C-2	C-3	C-4
1	0	0	0	0	0	0	0	0	0	0	0
2	1	0	-5	6	34	-19	-1	-22	-3	-21	0
3	3	-2	6	6	44	-23	-2	-25	-4	-25	0
4	20	8	33	15	47	-20	-1	-23	-4	-22	1
5	51	32	86	33	46	-18	2	-23	-4	-21	1
6	81	57	139	51	46	-15	5	-22	-3	-20	2
7	104	71	168	60	46	-13	7	-21	-3	-19	3
8	114	78	181	65	44	-11	8	-21	-2	-19	2
9	111	74	186	63	56	-10	7	-19	-4	-18	2
10	113	74	196	72	65	-6	6	-13	-5	-14	2
11	124	81	217	87	76	7	6	2	-5	-3	2
12	133	86	233	96	84	10	5	6	-6	-1	2
13	137	91	240	99	89	10	5	5	-6	-2	2
14	141	94	240	100	87	11	7	3	-5	-2	2
15	140	93	242	99	89	10	6	3	-6	-4	1
16	137	91	238	98	94	10	6	3	-6	-5	1
17	150	101	255	105	97	10	6	3	-6	-5	1
18	155	104	260	107	100	10	6	3	-6	-4	0
19	160	108	265	110	103	10	6	3	-6	-4	1
20	165	112	270	113	104	11	6	4	-6	-4	1
21	171	116	275	116	108	10	5	4	-6	-5	1
22	182	125	284	125	113	11	6	5	-6	-4	1
23	195	137	291	132	119	11	5	5	-4	-4	1
24	213	151	302	141	126	11	5	5	-6	-4	1
25	260	176	270	185	136	12	5	7	-6	-2	1
26	294	192	284	217	144	-	-	-	-	-	-
27	331	211	302	255	154	-	-	-	-	-	-
28	363	227	324	291	163	-	-	-	-	-	-
29	417	251	354	345	175	-	-	-	-	-	-
30	416	-	355	345	173	-	-	-	-	-	-
31	414	-	355	343	169	-	-	-	-	-	-
32	412	-	352	341	166	-	-	-	-	-	-
33	410	-	350	339	162	-	-	-	-	-	-
34	394	-	335	317	132	-	-	-	-	-	-
35	387	-	325	311	132	-	-	-	-	-	-
36	-	-	-	-	104	-	-	-	-	-	-

Table 7. DIAL GAGE READINGS-SPECIMEN T-14 (Cont'd) $(10^{-3} \text{ in.}) *$

Ld. No.	Gage Nos.			
	S-1	S-2	S-3	S-4
1	0	0	0	0
2	+1.666	+1.888	-2.000	+8.888
3	+2.000	+2.777	-2.777	+8.666
4	+2.111	+2.666	-2.777	+8.666
5	+2.333	+3.333	-2.444	+9.000
6	+2.555	+3.444	-1.888	+9.444
7	+2.555	+3.333	-1.555	+9.555
8	+2.555	+3.444	-1.333	+9.666
9	+2.555	+3.333	-2.111	+9.222
10	+2.666	+3.333	-2.444	+9.000
11	+2.555	+3.222	-2.777	+8.777
12	+2.555	+3.222	-2.888	+8.666
13	+2.555	+3.111	-3.000	+8.555
14	+2.444	+3.222	-3.000	+8.666
15	+2.555	+3.111	-3.000	+8.555
16	+2.444	+3.111	-3.111	+8.555
17	+2.444	+3.111	-3.111	+8.555
18	+2.444	+3.111	-3.111	+8.555
19	+2.444	+3.111	-3.111	+8.444
20	+2.444	+3.111	-3.111	+8.444
21	+2.444	+3.111	-3.111	+8.444
22	+2.444	+3.111	-3.222	+8.444
23	+2.444	+3.111	-3.222	+8.444
24	+2.444	+3.000	-3.222	+8.444
25	+2.444	+3.000	-3.222	+8.555

* S-1 through S-4, 10^{-3} radians

Table 8. DIAL GAGE READINGS-SPECIMEN T-15(10⁻³ in.)

Ld. No.	Loads		Gage Nos.								
	Axial (kips)	Lat. (psi)	1	2	3	4	5	6	7	8	9
1	0	0	0	0	0	0	0	0	0	0	0
2	50	0	-35	-43	-41	-29	-38	-36	-25	-26	-32
3	100	0	-35	-45	-45	-30	-40	-39	-25	-27	-32
4	200	0	-34	-48	-47	-27	-41	-44	-20	-23	-31
5	300	0	-25	-44	-47	-17	-38	-48	-9	-14	-24
6	325	0	-25	-45	-47	-17	-39	-50	-9	-13	-24
7	350	0	-26	-47	-49	-17	-39	-52	-9	-13	-24
8	370	0	-26	-47	-49	-17	-40	-53	-9	-13	-24
9	390	0	-27	-49	-50	-17	-41	-55	-9	-13	-24
10	400	0	-28	-49	-51	-17	-41	-56	-9	-13	-24
11	410	0	-28	-49	-51	-17	-42	-57	-9	-13	-24
12	420	0	-28	-50	-51	-17	-42	-59	-9	-13	-24
13	430	0	-29	-51	-51	-17	-43	-60	-9	-13	-24
14	440	0	-29	-51	-51	-17	-43	-61	-9	-13	-24
15	450	0	-29	-51	-51	-16	-43	-62	-9	-12	-24
16	460	0	-29	-51	-51	-16	-44	-65	-9	-12	-24
17	470	0	-30	-52	-51	-15	-44	-67	-9	-12	-24
18	480	0	-30	-52	-51	-15	-45	-70	-9	-12	-23
19	490	0	-30	-53	-52	-14	-45	-76	-8	-11	-22
20	500	0	-30	-53	-53	-13	-45	-79	-7	-11	-22
21	510	0	-30	-53	-53	-17	-42	-89	-6	-9	-20
22	480	0	-21	-33	-46	16	-26	-106	-3	-1	-4
23	470	0	-9	-6	-35	47	-13	-117	1	11	21
24	454	0	1	20	-18	50	17	-134	4	21	38
25	434	0	12	49	0	46	54	-141	9	31	56
26	420	0	22	77	17	45	87	-142	13	41	76
27	400	0	-	78	-	-	91	-	-	-	-
28	350	0	-	74	-	-	93	-	-	-	-
29	300	0	-	70	-	-	95	-	-	-	-
30	200	0	-	57	-	-	96	-	-	-	-

Table 8. DIAL GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻³ in.)

Ld. No.	Gage Nos.									
	10	11	12	13	14	15	16	17	18	19
1	0	0	0	0	0	0	0	0	0	0
2	-29	-28	-22	-23	-26	-26	-24	-23	-22	-21
3	-29	-30	-22	-24	-26	-26	-24	-23	-22	-22
4	-29	-31	-16	-20	-23	-24	-26	-19	-19	-21
5	-24	-31	-4	-11	-16	-17	-26	-9	-10	-15
6	-24	-31	-3	-11	-16	-17	-26	-9	-10	-15
7	-24	-31	-3	-11	-16	-15	-26	-9	-10	-15
8	-24	-31	-2	-11	-16	-15	-26	-9	-10	-15
9	-24	-31	-2	-11	-16	-14	-26	-9	-10	-15
10	-24	-31	-2	-12	-15	-13	-26	-9	-10	-15
11	-24	-31	-2	-12	-15	-13	-26	-9	-10	-16
12	-24	-31	-1	-13	-15	-11	-27	-9	-10	-16
13	-23	-31	-1	-14	-15	-10	-27	-9	-10	-16
14	-23	-31	0	-14	-15	-9	-27	-9	-10	-16
15	-23	-31	0	-14	-15	-8	-27	-9	-10	-16
16	-23	-31	1	-15	-15	-6	-27	-9	-10	-16
17	-23	-31	1	-15	-15	-5	-27	-9	-10	-16
18	-22	-31	2	-16	-15	-4	-26	-9	-10	-16
19	-22	-32	5	-15	-16	-4	-23	-8	-10	-16
20	-22	-32	6	-15	-17	-4	-22	-8	-10	-16
21	-20	-32	9	-7	-14	1	-8	-8	-9	-16
22	0	-23	-11	-30	-2	13	47	-5	-2	-5
23	28	-12	-15	-55	69	60	65	-1	9	13
24	57	-1	-12	-38	106	85	96	3	19	31
25	82	13	-4	-19	232	104	135	8	29	48
26	111	28	3	5	259	128	172	12	40	66
27	113	-	-	-	-	128	-	-	-	-
28	108	-	-	-	-	116	-	-	-	-
29	102	-	-	-	-	103	-	-	-	-
30	87	-	-	-	-	74	-	-	-	-

Table 8. DIAL GAGE READINGS-SPECIMEN T-15 (Cont'd)(10⁻³ in.)

Ld. No.	Gage Nos.									
	20	21	22	23	L	E-1	E-2	C-1	C-2	C-3
1	0	0	0	0	0	0	0	0	0	0
2	-23	-19	-21	-17	7	-23	-3	-24	-4	-22
3	-23	-20	-21	-16	31	-23	-3	-24	-4	-22
4	-23	-20	-24	-17	45	-18	-3	-17	-3	-22
5	-18	-20	-26	-15	61	-7	-3	-4	-3	-22
6	-18	-20	-29	-16	64	-7	-3	-4	-3	-22
7	-18	-20	-31	-17	67	-7	-3	-4	-3	-22
8	-18	-20	-33	-18	70	-7	-3	-4	-3	-22
9	-19	-20	-35	-19	74	-7	-3	-4	-3	-22
10	-19	-20	-36	-20	75	-7	-3	-4	-3	-21
11	-19	-20	-37	-20	76	-7	-3	-4	-3	-19
12	-19	-20	-38	-21	78	-7	-3	-4	-3	-19
13	-19	-20	-39	-22	80	-7	-3	-4	-3	-18
14	-19	-20	-41	-23	81	-7	-3	-3	-3	-18
15	-19	-21	-42	-23	83	-7	-3	-3	-3	-17
16	-18	-20	-44	-24	84	-7	-3	-3	-3	-17
17	-18	-20	-45	-25	85	-7	-3	-2	-3	-17
18	-18	-20	-47	-27	86	-7	-3	-2	-3	-16
19	-18	-20	-49	-28	89	-6	-3	-1	-3	-9
20	-18	-21	-50	-29	91	-6	-3	0	-3	-9
21	-19	-21	-44	-32	96	-5	-3	0	-3	-8
22	-8	-16	-41	-34	103	-3	-3	2	-3	-6
23	13	-11	-56	-19	114	-2	-3	4	-3	-5
24	34	-3	-38	-0	124	-1	-3	5	-3	-4
25	57	10	-8	19	134	1	-3	9	-3	-2
26	83	24	24	41	144	3	-3	11	-3	0
27	83	-	27	42	144	3	-3	11	-3	0
28	78	-	31	40	138	2	-3	9	-3	-2
29	73	-	34	37	130	-2	-3	4	-3	-5
30	59	-	37	27	114	-16	-3	-12	-3	-16

Table 8. DIAL GAGE READINGS-SPECIMEN T-15 (Cont'd) $(10^{-3} \text{ in.})^*$

Ld. No.	Gage Nos.				
	C-4	S-1	S-2	S-3	S-4
1	0	0	0	0	0
2	-2	+0.111	-0.222	+2.888	+0.444
3	-1	+0.111	-0.333	+3.000	+0.444
4	-1	+0.222	-0.222	+3.222	+0.555
5	-1	+0.333	-0.222	+3.666	+0.555
6	0	+0.333	-0.222	+3.333	+0.555
7	0	+0.444	-0.222	+3.333	+0.555
8	0	+0.444	-0.222	+3.333	+0.666
9	0	+0.444	-0.222	+3.333	+0.666
10	0	+0.444	-0.222	+3.333	+0.666
11	0	+0.444	-0.222	+3.333	+0.666
12	1	+0.444	-0.222	+3.333	+0.666
13	1	+0.444	-0.222	+3.333	+0.666
14	1	+0.444	-0.222	+3.333	+0.666
15	1	+0.444	-0.222	+3.333	+0.666
16	1	+0.444	-0.222	+3.333	+0.666
17	1	+0.444	-0.222	+3.333	+0.666
18	2	+0.444	-0.222	+3.333	+0.777
19	4	+0.444	-0.222	+3.333	+0.777
20	4	+0.444	-0.222	+3.333	+0.777
21	4	+0.444	-0.222	+3.333	+0.777
22	4	+0.444	-0.222	+3.333	+0.777
23	4	+0.444	-0.222	+3.444	+0.777
24	4	+0.444	-0.222	+3.444	+0.777
25	4	+0.444	-0.222	+3.444	+0.777
26	4	+0.444	-0.222	+3.444	+0.777
27	4	-	-	-	-
28	4	-	-	-	-
29	4	-	-	-	-
30	3	-	-	-	-

* S-1 through S-4, 10^{-3} radians