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SURFACE EFFECT SHIP STRUCTURAL PRODUCIBILITY. PART 3. (U)
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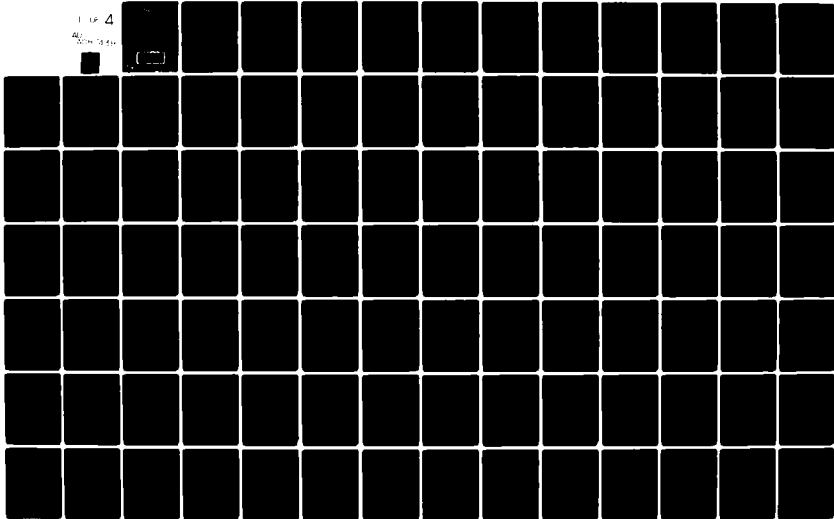
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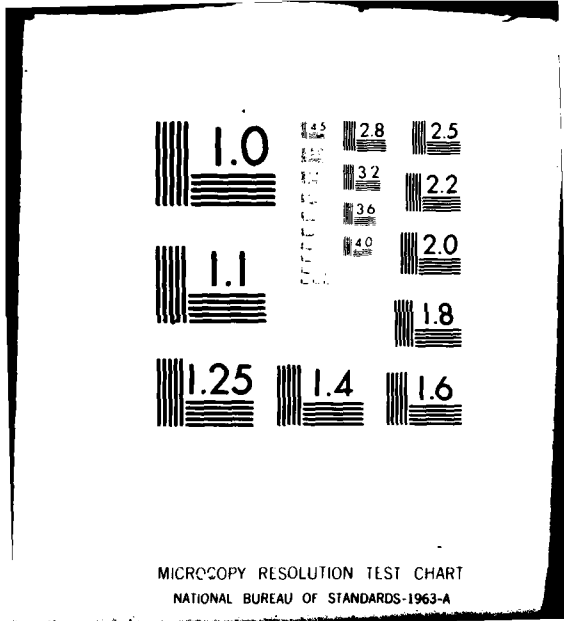
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6 **SURFACE EFFECT SHIP
STRUCTURAL PRODUCIBILITY**

Part 3.

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APPENDIX B / ASSEMBLY WELDING AND BONDING PROCEDURES

This appendix contains the welding and bonding procedures used in fabrication of the 3KSES panel and element structural test assemblies. The welding procedures were developed generally in accordance with the requirements for development of weld procedures for 3KSES production welds. The adhesive bonding procedures were designed for use without special jigs or fixtures in order to provide a procedure suitable for use as an in-service repair by operating personnel.

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Butt Weld Procedures for Structural Test Program.

Metal Thickness (Inches)	Weld Position (1)	Weld (3) Passes	Electrode Diameter (in)	Welding Equipment (2)	Arc Travel (IPM)	Direct Current (Amps)	Arc Voltage (Volts)	Shielding Gas	Gas Flow Rate (CFH)
.160-.180	V	1	.047	S/A	NA	100-130	20-22	Argon	40-50
.160-.200	F	1	.063	A	35-46	240-270	20-24	Argon	40-50
.250	V	1	.047	S/A	NA	120-155	22-24	Argon	40-50
.250	V	IF IR	.047	S/A	NA	130-150	21-23	Argon	40-50
.250-.281	F	1	.063	A	21-24	285-320	18-25	Argon	40-50
.344-.375	F	1	.063	A	11-18	320-325	21-28	Argon	40-50
.160	F	1	.047	M	24-26	135-165	21-23	Argon	40-50
.250	F	1	.047	M	21-23	205-235	25-27	Argon	40-50
.313	F	IF IR	.047	M	20-22	170-200	23-25	Argon	40-50
.313	F	1	.063	M	17-19	225-255	24-26	Argon	40-50
.344	F	2	.047	M	19-21	190-220	23-25	Argon	40-50
.344	V	2	.047	S/A	NA	160-190	23-25	Argon	40-50
.375	V	2	.047	S/A	NA	145-175	22-24	Argon	40-50
.375	F	2	.047	M	18-20	195-225	24-26	Argon	40-50
.375	F	2	.063	M	18-23	220-275	23-27	Argon	40-50
.500	V	2F 2R	.063	S/A	NA	170-200	22-25	Argon	40-50
.500	F	2	.063	M	17-19	245-275	25-27	Argon	40-50
.750	F	2F 2R	.063	M	17-19	260-290	26-28	Argon	40-50

NOTES: 1. F=Flat; V=Vertical
 2. S/A= Semi-automatic; A=Automatic; M=Machine (Pacer TM)
 3. F = Face; R = Root

Fillet Weld Procedures for Structural Test Program.

Metal Thickness		Weld Position (1)	Weld Passes Per Fillet	Electrode Diameter	Welding Equip. (2)	Arc Travel (IPM)	Direct Current (Amps)	Arc Voltage (Volts)	Shielding Gas	Gas Flow Rate (CFH)
Plate	Web									
.160	.160	H	1	.047	M	53-55	215-245	21-23	Argon	25-35
.160	.160	V	1	.047	M	31-33	150-180	19-21	Argon	25-35
.160	.160 ⁽³⁾	V	1	.047	M	27-29	150-180	19-21	Argon	25-35
.160	.160-.200	H	1	.047	S/A	NA	170-200	22-24	Argon	40-45
.180	.180	H	1	.047	M	48-50	225-245	22-24	Argon	25-35
.200	.200-.375	H	1	.063	M	43-45	250-280	22-24	Argon	25-35
.200	.250	H	1	.047	S/A	NA	190-220	23-25	Argon	40-45
.200	.281	H	1	.047	S/A	NA	195-225	24-26	Argon	40-45
.250	.250	H	1	.047	S/A	NA	200-230	23-25	Argon	40-45
.250	.250	V	1	.047	S/A	NA	165-195	23-25	Argon	40-50
.250	.281	V	1	.047	S/A	NA	180-210	23-25	Argon	40-50
.250	.281-.313	H	1	.063	M	31-33	260-280	24-26	Argon	25-35
.281	.281	V	1	.063	M	17-19	180-210	22-24	Argon	25-35
.281	.281 ⁽³⁾	H	1	.063	M	24-26	305-330	27-29	Argon	25-35
.313	.313	H	1	.063	M	24-26	305-325	27-29	Argon	25-35
.313	.313 ⁽³⁾	V	1	.063	M	17-19	200-230	24-26	Argon	25-35
.313	.313	V	1	.063	M	17-19	200-230	24-26	Argon	25-35
.344	.375	H	1	.063	S/A	NA	255-285	25-27	Argon	25-35
.344	.375	H	1	.063	M	17-19	290-320	28-30	Argon	25-35
.500	.250	H	1	.047	S/A	NA	220-250	25-27	Argon	40-50
.500	.344	H	1	.063	S/A	NA	235-265	25-27	Argon	40-50
.750	.750 ⁽⁴⁾	H	2	.063	M	18-20	340-370	29-31	[Argon (60)]	40-50
				.063	S/A	NA	295-325	29-31	[Helium(40)]	40-50

NOTES: 1. H=Horizontal; V=Vertical
 2. M=Machine (Wiggler™); S/A=Semi-automatic
 3. Full Penetration Tee Joints
 4. First pass on each side with Machine (Wiggler™); Remaining Passes with Semi-Automatic equipment.

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ADHESIVE BONDING PROCEDURES
FOR WELD REINFORCEMENT LAMINATED DOUBLERS
ON FABRICATION ASSY TT802024-57
(TEST SPECIMENS TT802022-205-F1, -F2, & -F3)

- References:
- a) RMI Drawing TT802024
 - b) RMI Drawing TT802022
 - c) RMI Manufacturing Plan for Comp. No. TT802024-57

The procedures outlined below have been established for use in preparing and adhesive bonding doubler laminations over designated weld joints in Assy. No. TT802024-57. Two separate procedures and bond systems have been defined with specific application requirements in order to acquire comparative data.

The procedures outlined below supercede flag notes 25 and 26 on the reference (a) drawing. Accomplishment of these procedures also fulfills the requirements of Steps 600 and 610 of the reference (c) planning package.

PROCEDURE FOR ASSY TT802022-205-F1 and -F2

- 1) Accumulate weld assemblies identified "022-205-F1" and "022-205-F2" plus 8 each doubler details TT802024-151 and -153 plus 2 each doubler details TT802024-155, -157 and -159.
- 2) Process clean weld assemblies and details of Step 1 per attached Procedure SVBP-01.
- 3) Apply Hysol primer EA-9203 per attached Procedure SVBP-02 to all surfaces to be bonded.
- 4) Apply Hysol adhesive EA-9309.1 and bond doubler laminates in positions designated by reference (a) using attached Procedure SVBP-03.

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PROCEDURE FOR ASSY TT802022-205-F3

- 1) Accumulate weld assembly identified "022-205-F3" plus 4 each doubler details TT802024-151 and -153 plus 1 each doubler details TT802024-155, -157 and -159.
- 2) Process clean weld assembly and details of Step 1 per attached Procedure SVBP-01.
- 3) Apply American Cyanamid/Bloomingdale primer BR-127 per attached Procedure SVBP-04 to all surfaces to be bonded.
- 4) Apply Hysol adhesive EA-9314 and bond doubler laminates in positions designated by reference (a) using attached Procedure SVBP-05.
- 5) Sign and date steps 600, 610, and 620 of reference (c) attached to certify completion of specified tasks.

Attachments: Procedures SVBP-01 through SVBP-05.

PROCEDURE SVBP-01

PROCESS CLEANING FOR ADHESIVE BONDING 5456 ALUMINUM ALLOY

CAUTION: Use appropriate precautions in preparing and applying the hazardous chemical solutions required in this cleaning process.

NOTE: All process cleaned parts prepared for adhesive bonding must be handled with clean white gloves only. Handling bond faying surfaces must be kept to an absolute minimum.

- 1) Degrease all surfaces of details and entire sides of large assemblies on which bonding will be performed. Degrease using clean white cotton rags or cheesecloth thoroughly dampened with aliphatic naptha. Wipe surfaces completely dry with clean cloths.
- 2) Using "Scotch-Brite" pads and water, thoroughly abrade surface areas to be bonded until all oxides and discolorations have been removed. Abraded areas should extend approximately 3/4 inch beyond periphery of bond faying surfaces.
- 3) Hand wipe abraded surfaces with clean cheesecloth saturated with alkaline cleaner (GMC 528 or equivalent) to remove abrasive materials and fingerprint contamination. If alkaline cleaner is not available, aliphatic naptha may be substituted. After using aliphatic naptha, wipe surfaces completely dry with clean cloths.
- 4) Spray rinse with room temperature demineralized water to remove all cleaner residue. Inspect for water break-free surfaces at areas to be bonded. (A water break-free surface maintains a continuous demineralized water film on a vertical surface for at least 15 seconds.) Areas to be bonded that do not exhibit the water break-free surface require reprocessing. Although a spray rinse is preferred, hand wiping using cheesecloth thoroughly saturated with demineralized water is an acceptable alternate rinse method. The water break-free surface must still be achieved if hand wiping is employed. Remove

PROCEDURE SVBP-01 (Continued)

excess water by wiping with clean cloths.

- 5) Acid etch each area to be bonded by applying a coating of the following paste:

- a) Demineralized water 350 grams
- b) Sulphuric acid 125 grams
- c) Sodium dichromate 35 grams
- d) Barium sulphate 750 grams

Allow paste to remain in place 20 minutes. At the end of this period, remove paste by wiping. Before any residual paste can dry, thoroughly rinse entire part in the manner described in step (4) above to remove all residue.

- 6) Dry cleaned parts completely in air or oven (150°F maximum temperature).
- 7) Protect cleaned parts from contamination prior to the application of adhesive primer by wrapping parts or suitably covering cleaned surfaces with clean Kraft paper.

NOTE: Adhesive primer must be applied to cleaned bond area surfaces within 3 hours after cleaning.

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PROCEDURE SVBP-02
EA-9203 PRIMER APPLICATION

(See manufacturer's instruction sheets for additional information and cautions.)

- 1) Apply primer to designated part bond areas within 3 hours after parts have been cleaned.
- 2) Handle all cleaned parts prepared for bonding with clean white cotton gloves only. Handling of bond area faying surfaces must be kept to an absolute minimum.
- 3) Use EA-9203 primer as supplied. Apply thin coating of primer by spraying or brushing to each faying surface to be bonded. Apply primer only sufficient to wet the adherend surface.
- 4) Before primer cures, remove any excess by wiping with a clean cloth saturated with denatured alcohol.
- 5) Dry primer coated surfaces a minimum of one hour at 75°F.
- 6) Protect primed parts from contamination prior to bonding by wrapping parts or suitably covering primed surfaces with clean Kraft paper.

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PROCEDURE SVBP-03

EA-9309.1 ADHESIVE BONDING

(See manufacturer's instructions for additional information and cautions.)

- 1) Handle all primer-coated parts preparatory to and during bonding with clean white cotton gloves only to protect bond faying surfaces from contamination and to minimize staining of the hands. Handling of bond faying surfaces must be kept to an absolute minimum.
- 2) Using clean cheesecloth, double solvent wipe each primed bond faying surface with aliphatic naphtha. Remove residual solvent by wiping with clean dry cheesecloth, and allow surface to thoroughly dry. Fan forced air may be used if necessary to accelerate the drying process.
- 3) Combine adhesive components -100 parts A with 20 parts B by weight - and mix thoroughly. Small quantities of Cab-O-Sil (10 percent maximum by volume) may be added to adhesive during mixing to increase viscosity for ease of handling. Pot life for a one pound mass of mixed adhesive at 75°F is approximately 30 minutes.
- 4) Spread a thin layer of mixed adhesive on each surface to be bonded using a spatula or knife-type spreader. Apply sufficient adhesive to thoroughly fill any gaps and form a void-free bond line when parts are assembled. Assemble parts in a manner to avoid entrapment of air pockets within the bond line. Apply pressure (2 to 10 psig) by means of clamps, weights or vacuum to establish and maintain intimate contact until adhesive has cured. Ascertain that parts remain in correct position and alignment after pressure has been applied.
- 5) After bond pressure is applied, remove excess uncured adhesive by scraping and/or wiping with a clean cloth lightly saturated with denatured alcohol. Do not use more alcohol than absolutely necessary. Adhesive expelled from the bond line and/or extending more than 1/2 inch beyond the edge of the bonded detail is considered excess.

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PROCEDURE SVBP-03 (Continued)

- 6) Cure adhesive under full bond pressure for a minimum of 24 hours at a room temperature of 75[°]F or higher before handling. Parts may be carefully handled after this initial cure period, but full cure requires 7 days at room temperatures of 75[°]F or higher.

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PROCEDURE SVBP-04
BR-127 PRIMER APPLICATION

(See manufacturer's instruction sheets for additional information.)

NOTE: BR-127 Primer is stored at 0°F or below. Primer removed from the freezer and allowed to warm cannot be returned to the freezer. Primer not used within 96 hours after removal from freezer must be discarded.

- 1) Apply primer to designated part bond areas within 3 hours after parts have been cleaned.
- 2) Handle all cleaned parts prepared for bonding with clean white cotton gloves only. Handling of bond area faying surfaces must be kept to an absolute minimum.
- 3) Mark date and time on primer container when removed from freezer. Allow primer material to warm to room temperature prior to opening container. Thoroughly mix primer before application and frequently agitate primer during application since rapid settling occurs.
- 4) Apply BR-127 primer to each faying surface to be bonded. Apply by spray or brush coating to produce a dry primer coating thickness between 0.0001 and 0.0005 inch.
- 5) Cure primer by air drying at least 60 minutes at ambient temperature (65°F or higher) followed by exposure to heat with a minimum time of 30 minutes at a part temperature of 160° ± 15°F. To test for full cure, solvent wipe primer with acetone; wiper discoloration indicates incomplete cure.
- 6) Protect primed parts from contamination prior to bonding by wrapping parts or suitably covering primed bond surfaces with clean Kraft paper.

PROCEDURE SVBP-05
EA-9314 ADHESIVE BONDING

(See manufacturer's instruction sheets for additional information and cautions.)

NOTE: EA-9314 adhesive, when mixed, is very thixotropic and will not sag or slump on vertical surfaces.

CAUTION: EA-9314 adhesive contains asbestos fibers. Suitable breathing protection must be worn when grinding or sanding cured adhesive.

- 1) Handle all primer-coated parts preparatory to and during bonding with clean white cotton gloves only to protect bond faying surfaces from contamination and to minimize staining of the hands. Handling of bond faying surfaces must be kept to an absolute minimum.
- 2) Using clean cheesecloth, double solvent wipe each primed bond faying surface with aliphatic naphtha. Remove any residual solvent by wiping with clean dry cheesecloth, and allow surface to thoroughly dry. Fan forced air may be used if necessary to accelerate the drying process.
- 3) Combine adhesive components - 2 parts A with 1 part B by weight or 3 parts A with 1 part B by volume - and mix thoroughly. Pot life for a one pound mass of mixed adhesive at 75°F is approximately 40 minutes.
- 4) Spread a thin layer of mixed adhesive on each surface to be bonded using a spatula or knife-type spreader. Apply sufficient adhesive to thoroughly fill any gaps and form a void-free bond line when parts are assembled. Assemble parts in a manner to avoid entrapment of airpockets within the bond line. Apply pressure (2 to 15 psig) by means of clamps, weights, or vacuum to establish and maintain intimate contact until adhesive has cured. Ascertain that parts remain in correct position and alignment after pressure has been applied.

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PROCEDURE SVBP-05 (Continued)

- 5) After bond pressure is applied, remove excess uncured adhesive by scraping and/or wiping with a clean cloth lightly saturated with denatured alcohol. Do not use more alcohol than absolutely necessary. Adhesive expelled from the bond line and/or extending more than 1/2 inch beyond the edge of the bonded detail is considered excess.

- 6) Cure adhesive under full bond pressure for a minimum of 36 hours at a room temperature between 65° and 85 F before handling.

APPENDIX C / WELDED PLATE SPECIMEN TABULATED DATA

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1 / STATIC TEST DATA

This section contains various detailed data pertinent to the welded plate coupon static tensile tests.

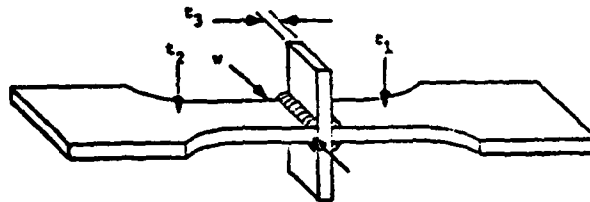
1.1 SPECIMEN DIMENSIONS

Specimen pretest measurement locations and the actual test section dimensions for each static test specimen are presented in Figure C-1 and Table C-1, respectively.

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(a) Transverse Butt Joint Specimen



(b) Transverse Cruciform Joint Specimen

Figure C-1. Welded Plate Specimen Pretest Measurement Locations

Table C-1. Welded Plate Specimen Pretest Measurements (Sheet 1 of 3)
(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	△ OFFSET A	△ OFFSET B	
Butt Jt.	016-3-1	.187	.309		1.407	1.400	1.499			
	-3-2	.187	.307		1.405	1.406	1.494			
	-7-1	.311	.315		1.502	1.503	1.503	.080		
	-7-2	.3115	.315		1.505	1.505	1.505	.080		
	-9-1	.185	.3125		1.303	1.305	1.306	.080		
	-9-2	.186	.3115		1.501	1.501	1.502	.050		
	-21-1	.314	.316		1.504	1.505	1.505			
	-21-2	.315	.318		1.504	1.504	1.504			
	-21-3	.311	.312		1.506	1.505	1.504			
	-25-1	.312	.313		1.503	1.502	1.502	.060		
	-25-2	.305	.313		1.507	1.506	1.507	.080		
	-27-1	.188	.314		1.504	1.505	1.503	.180	.065	
	-27-2	.187	.314		1.504	1.504	1.504	.190	.065	
	-33-1	.302	.310		1.503	1.503	1.504			
	-33-2	.312	.311		1.493	1.493	1.494			
	-43-1	.3145	.3145		1.506	1.504	1.506	.060		
	-43-2	.3145	.3145		1.506	1.506	1.506	.060		
	-47-1	.3135	.3125		1.506	1.507	1.507	.065		
	-47-2	.3125	.312		1.500	1.500	1.499	.065		
	-53-1	.3145	.3145		1.506	1.506	1.506			
	-53-2	.3145	.3145		1.507	1.507	1.507			
	-53-3	.3155	.3155		1.506	1.506	1.506			
	-119-1	.3165	.313		1.502	1.501	1.501			
	-119-2	.3115	.316		1.506	1.507	1.507			
	-123-1	.315	.315		1.502	1.499	1.499	.160		
		016-123-2	.315	.317		1.503	1.503	1.503	.170	
		016-9-3X	.187	.3125		1.503	1.503	1.502	.080	.190
	Butt Jt.	016-9-4X	.187	.3125		1.499	1.499	1.499	.080	.190

NOTE: Reference Figure C-1
for measurement locations.

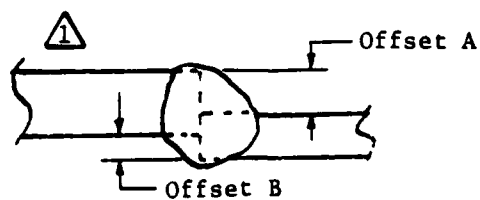


Table C-1. Welded Plate Specimen Pretest Measurements (Sheet 2 of 3)

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	△ OFFSET A	△ OFFSET B
Butt Jt.	016-127-1	.378	.505		1.507	1.523	1.524	.165	.259
	-127-2	.378	.525		1.527	1.528	1.528	.162	.292
	-135-1	.3130	.3130		1.502	1.502	1.502		
Butt Jt.	-135-2	.3115	.3115		1.506	1.506	1.506		
	-135-3	.3105	.3105		1.511	1.511	1.511		
Cruciform Jt.	-201-1	.183	.185	.185	1.526	1.526	1.526		
	-201-2	.185	.184	.185	1.527	1.526	1.526		
	-201-3	.185	.184	.185	1.522	1.522	1.522		
	-205-1	.5255	.525	.525	1.529	1.512	1.529		
	-205-2	.5255	.525	.525	1.499	1.499	1.499		
	-205-3	.526	.525	.525	1.525	1.526	1.525		
	-209-1	.762	.762	.761	1.511	1.512	1.512		
	-209-2	.762	.761	.761	1.526	1.527	1.526		
	-209-3	.762	.761	.759	1.511	1.512	1.511		
Butt Jt.	-301-1	.195	.194		1.528	1.529	1.528		
	-301-2	.193	.192		1.525	1.527	1.526		
	-301-3	.194	.194		1.526	1.527	1.527		
	-303-1	.194	.194		1.529	1.529	1.529		
	-303-2	.193	.193		1.523	1.523	1.523		
	-303-3	.193	.193		1.522	1.522	1.522		
	-305-1	.1945	.1945		1.504	1.504	1.504		
	-305-2	.1950	.1950		1.505	1.503	1.504		
	-305-3	.1950	.1950		1.504	1.505	1.505		
Butt Jt.	-307-1	.1945	.1955		1.506	1.507	1.507		
	-307-2	.1935	.1945		1.503	1.503	1.504		
Butt Jt.	016 -307-3	.1950	.1942		1.510	1.509	1.509		

NOTE: Reference Figure C-1 for measurement locations.

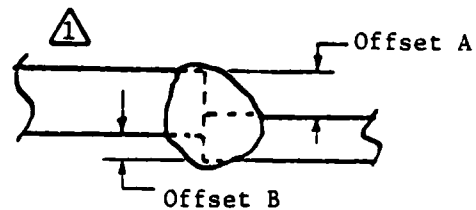


Table C-1. Welded Plate Specimen Pretest Measurements (Sheet 3 of 3)

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	OFFSET
Butt Jt.	016-313-1	.104	.104		1.503	1.504	1.505	
	-313-2	.103	.103		1.505	1.506	1.505	
	-315-1	.103	.104		1.504	1.504	1.504	
	-315-2	.104	.103		1.503	1.503	1.503	
	-317-1	.1920	.1920		1.504	1.502	1.504	
	-317-2	.1946	.1946		1.504	1.504	1.504	
	-319-1	.319	.370		1.501	1.502	1.503	
	-319-2	.368	.370		1.503	1.503	1.502	
	-321-1	.356	.358		1.504	1.504	1.503	
	-321-2	.358	.357		1.498	1.498	1.499	
	-321-3	.357	.370		1.503	1.503	1.503	
	-327-1	.361	.362		1.501	1.501	1.501	
	-327-2	.359	.362		1.498	1.498	1.498	
	-329-1	.361	.362		1.495	1.495	1.495	
Butt Jt.	-329-2	.359	.362		1.500	1.500	1.500	

NOTE: Reference Figure C-1 for measurement locations.

1.2 TEST DATA SHEETS

Copies of the test laboratory data sheets summarizing the recorded data for all welded plate specimen static tensile tests are provided on the following five pages. Minor additions and deletions have been made where necessary for clarification.

TIR TG. NO. <u>2991</u>	ENGINEERING LABORATORY	TEST SPECIFICATION <u>ASTM E-8</u>
WORK ORDER <u>444-11-0-40</u>	TEST REPORT	
REQUESTER <u>F. W. P. R.</u>		

STATIC TENSION PLATE/SHEET

TEST TEMP ROOM °F

BASE MAT'L. 5456 AL.

GRAIN DIRECTION N/A

SPECIMEN NO.	b (in)	t (in)	A ₀ b × t (in) ²	YIELD		ULTIMATE		% ELONG GL ₂ /12"	TYPE OF FAILURE	OFFSET
				LOAD (lbs.)	ksi	LOAD (lbs.)	ksi			
016-3-1	1.499	.187	.280	7250	22.4	13,000	41.4	8.5	EDGE OF WELD	
-3-2	1.496	.187	.280	8050	23.8	12,950	45.9	7.0	EDGE OF WELD	
016-7-1	1.503	.311	.467	9250	21.1	19,950	42.7	3.5	EDGE OF WELD	.080
-7-2	1.505	.315	.469	9200	19.6	19,900	42.2	2.5	EDGE OF WELD	.050
016-9-1	1.505	.185	.278	5900	20.9	11,000	39.6	7.0	EDGE OF WELD	.030
△ -9-2	1.501	.186	.279	5250	21.0	10,600	38.0	6.7	EDGE OF WELD	.030
016-21-1	1.505	.314	.472	15125	32.0	22,500	47.6	10.7	EDGE OF WELD	
-21-2	1.504	.315	.473	15400	32.5	22,150	47.8	11.3	EDGE OF WELD	
-21-3	1.505	.311	.469	15300	32.7	22,500	48.1	10.5	EDGE OF WELD	
016-25-1	1.500	.313	.468	—	—	19,850	42.4	—	WELD	.050
-25-2	1.500	.313	.471	9050	19.2	19,950	42.3	13.0	WELD	.080
016-27-1	1.504	.188	.282	6550	23.2	11,350	40.1	6.1	EDGE OF WELD	.122-.265
-27-2	1.504	.187	.281	—	—	11,650	41.5	—	EDGE OF WELD	.065-.190
016-33-1	1.503	.310	.465	9700	20.8	20,350	43.7	9.9	WELD	
-33-2	1.493	.311	.464	—	—	21,200	45.7	—	WELD	
016-43-1	1.504	.314	.473	9500	20.1	21,400	45.2	12.9	WELD	.050
-43-2	1.506	.314	.473	9900	20.9	20,850	44.0	12.1	WELD	.050
016-47-1	1.506	.312	.471	9950	21.1	20,300	43.1	2.5	EDGE OF WELD	
-47-2	1.500	.312	.468	10,050	21.5	20,000	42.7	2.5	EDGE OF WELD	
016-53-1	1.506	.314	.472	11,500	30.6	22,800	48.1	16.5	WELD	
-53-2	1.507	.314	.472	14,600	30.8	23,150	46.7	13.3	EDGE OF WELD	
-53-3	1.506	.315	.475	14,750	31.0	21,300	44.8	10.3	EDGE OF WELD	
016-119-1	1.501	.312	.468	16,450	35.9	25,200	53.6	13.1	BASE METAL	
-119-2	1.507	.315	.472	16,250	34.6	24,950	52.2	14.7	BASE METAL	

TESTED BY: Van Dorssen / Widmer DATE: 10/30/77

FORM NO. 3022 0

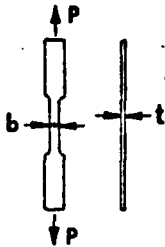
△ Data for specimens no. 016-9-3 and 016-9-4 shown on next page.

TERO73

TIM TG. NO. 2991 WORK ORDER 444-11-D-40 REQUESTER F. WEBER	ENGINEERING LABORATORY TEST REPORT	TEST SPECIFICATION SPECIMEN DWG. NO.							
STATIC TENSION PLATE/SHEET									
	TEST TEMP. <u>ROOM</u> °F BASE MAT'L. <u>5456 AL</u> GRAIN DIRECTION <u>N/A</u>								
Butt Cruciform									
SPECIMEN NO.	b (in)	t (in)	A _r D x t (in) ²	YIELD		ULTIMATE		% ELONG GL 2 1/10	TYPE OF FAILURE
				LOAD (lbs.)	KSI	LOAD (lbs.)	KSI		
016-1231	1.499	.315	.4722	—	—	16100	39.1		WELD .160
-1232	1.503	.317	.4765	8500	17.9	15450	32.4	11.4	WELD .170
016-1271	1.503	.372	.5681	—	—	23700	40.0		EQ. WELD .250/.165
-1272	1.507	.378	.5696	12850	22.6	21900	33.3	5.8	BASE METAL .160/.290
016-1351	1.502	.310	.4701	14500	30.8	22300	47.2	13.8 4.8	WELD
-1352	1.506	.315	.4691	15650	33.4	22450	47.9	14.2 4.8	WELD
-1353	1.511	.3105	.4692	15150	32.3	22700	48.6	13.9 5.0	WELD
016-2011	1.506	.193	.2756	9050	32.8	11750	42.6	4.2	WELD
-2012	1.506	.134	.2771	9350	33.7	11750	42.4	4.2	WELD
-2013	1.502	.184	.2764	9200	33.3	11900	43.1	4.3	WELD
016-2051	1.509	.505	.7120	20100	26.4	23200	38.5	4.6	WELD
-2052	1.499	.505	.7370	20900	27.6	20200	39.9	4.7	WELD
-2053	1.505	.505	.7600	20700	27.2	23700	39.1	4.5	WELD
016-2081	1.510	.760	1.145	34750	30.3	51400	44.9	4.9	WELD
-2082	1.506	.760	1.145	34600	30.2	53300	46.6	7.5	WELD
-2083	1.511	.759	1.147	34500	30.1	52450	45.7	7.2	WELD
016-3014	1.503	.194	.2927	7200	21.6	11650	39.5	6.8	WELD
-3012	1.507	.192	.2908	6300	21.8	11250	33.9	7.5	WELD
-3013	1.507	.194	.2924	7200	24.6	11000	37.6	6.0	WELD
016-3027	1.509	.194	.2927	6950	23.7	11500	39.1	5.3	WELD
-3022	1.508	.193	.2910	6950	23.9	10500	36.1	5.2	WELD
-3023	1.510	.193	.2914	6750	23.3	10650	36.5	5.2	WELD
016-3024	1.499	.155	.2773	6500	21.6	11050	39.9	6.4	WELD
016-3024	1.502	.156	.2793	6450	23.1	11000	39.4	6.5	WELD
TESTED BY:				DATE:					

FORM NO. 7127-0

TER073

TIT. NO. <u>2991</u>	ENGINEERING LABORATORY	TEST SPECIFICATION <u>ASTM E-8</u>
WORK ORDER <u>444-11-D-40</u>		SPECIMEN Q.W. NO.
REQUESTER <u>F. W. B. B. R.</u>	TEST REPORT	
STATIC TENSION PLATE/SHEET		
	TEST TEMP. <u>ROOM</u> °F	
	BASE MAT'L. <u>5456 AL.</u>	
	GRAIN DIRECTION <u>N/A</u>	

SPECIMEN NO.	b (in)	t (in)	A = d x t (in) ²	YIELD		ULTIMATE		% ELONG. GL. <u>3.0</u>	TYPE OF FAILURE
				LOAD (lbs.)	KSI	LOAD (lbs.)	KSI		
016-305-1	1.504	.1925	2925	6975	23.5	9100	32.8	4.9	WELD
-305-2	1.503	.1950	2931	7150	24.4	13500	46.1	10.5	EDGE OF WELD
-305-3	1.505	.1950	2935	6550	22.3	13250	45.1	10.0	EDGE OF WELD
016-307-1	1.507	.1950	2939	6975	23.7	9750	33.2	4.9	WELD
-307-2	1.503	.1920	2916	6500	22.3	9300	31.9	4.1	WELD
-307-3	1.509	.1920	2927	6975	23.8	14100	48.2	12.5	EDGE OF WELD
016-313-1	1.504	.104	2918	7450	25.5	12050	41.3	7.0	WELD
-313-2	1.506	.103	2907	7400	25.5	12100	41.6	7.5	WELD
016-315-1	1.504	.103	2903	6900	23.9	10000	34.4	4.9	WELD
-315-2	1.503	.103	2901	7100	24.2	13100	45.2	9.2	WELD
016-317-1	1.504	.1920	2918	7500	25.7	9650	33.1	4.6	WELD
016-317-2	1.504	.1925	291	8400	28.9	10750	36.9	3.9	WELD FAILURE
016-317-3	1.507	.194	292	8550	29.2	10400	35.6	4.1	WELD FAILURE
-317-4	1.504	.194	2927	7950	26.8	10900	37.2	4.6	WELD
016-317-5	1.501	.319	5530	14850	26.8	24550	44.3	5.1	WELD
-317-6	1.502	.318	5527	15000	27.1	23550	43.2	8.3	WELD
016-321-1	1.504	.251	5354	14330	26.9	21350	43.2	11.4	WELD
-321-2	1.499	.257	5345	14350	26.8	25050	44.8	11.3	WELD
-321-3	1.503	.257	5360	14300	26.6	24000	44.7	9.2	WELD

TESTED BY:	DATE:
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FORM NO. 7077-D

TER073

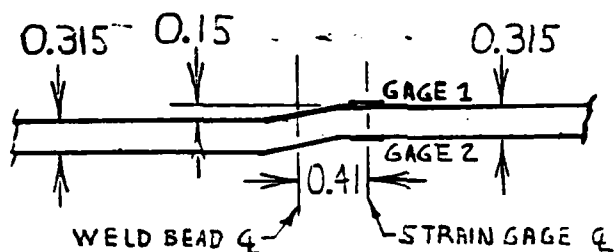
TIR TG. NO. 2991		ENGINEERING LABORATORY		TEST SPECIFICATION					
WORK ORDER 11-11-0-40				SPECIMEN DWG. NO.					
REQUESTER F. WEBER									
		TEST REPORT		STATIC TENSION PLATE/SHEET					
		TEST TEMP <u>ROOM TEMP.</u> °F		BASE MAT'L. _____					
		GRAIN DIRECTION _____							
SPECIMEN NO.	b (in)	t (in)	A = b x t (in)²	YIELD		ULTIMATE		% ELONG GL 2"	REMARKS
				LOAD (lbs.)	KSI	LOAD (lbs.)	KSI		
11-327-1	1.501	0.361	0.542	16,200	29.5	29,000	53.5	14.0	EDGE WELD FAILURE
11-327-2	1.498	0.359	0.538	15,700	29.1	28,950	53.8	14.6	EDGE WELD FAILURE
11-329-1	1.495	0.361	0.540	15,450	28.6	26,200	48.5	9.7	WELD FAILURE
11-329-2	1.500	0.359	0.539	15,000	27.8	27,700	51.4	13.0	WELD FAILURE
TESTED BY: R. W. WINNER			DATE: 11 MARCH 79						


1.3 MISMATCH AND MISALIGNMENT SPECIMEN DATA


Four welded plate coupon specimens fabricated with joint offset mismatch or angular misalignment were each instrumented with a pair of strain gages prior to static tensile testing. The recorded and reduced data from these tests are presented in Tables C-2 through C-7 and Figures C-2 through C-6 on the following pages.

TER073

Table C-2. Static Tensile Test Strain Data - Specimen No. TT802016-25-1



LOAD	STRAIN GAGE RDGS. 		NOTES
	1	2	
0	150	140	
1	142	157	
2	508	198	
3	864	256	
4	1205	304	
5	1584	372	
6	2126	426	
7	3132 *	428	* Unstable
8	4797 *	448	
9	7260 *	472	
10	10570 *	538	
11		714	
12		1130 *	Drifting
13		2100 *	Drifting
14		4050 *	Drifting
15		7860 *	Drifting
16			
17.5			
19.85			Failure

 Readings in units of in./in. x 10⁻⁶

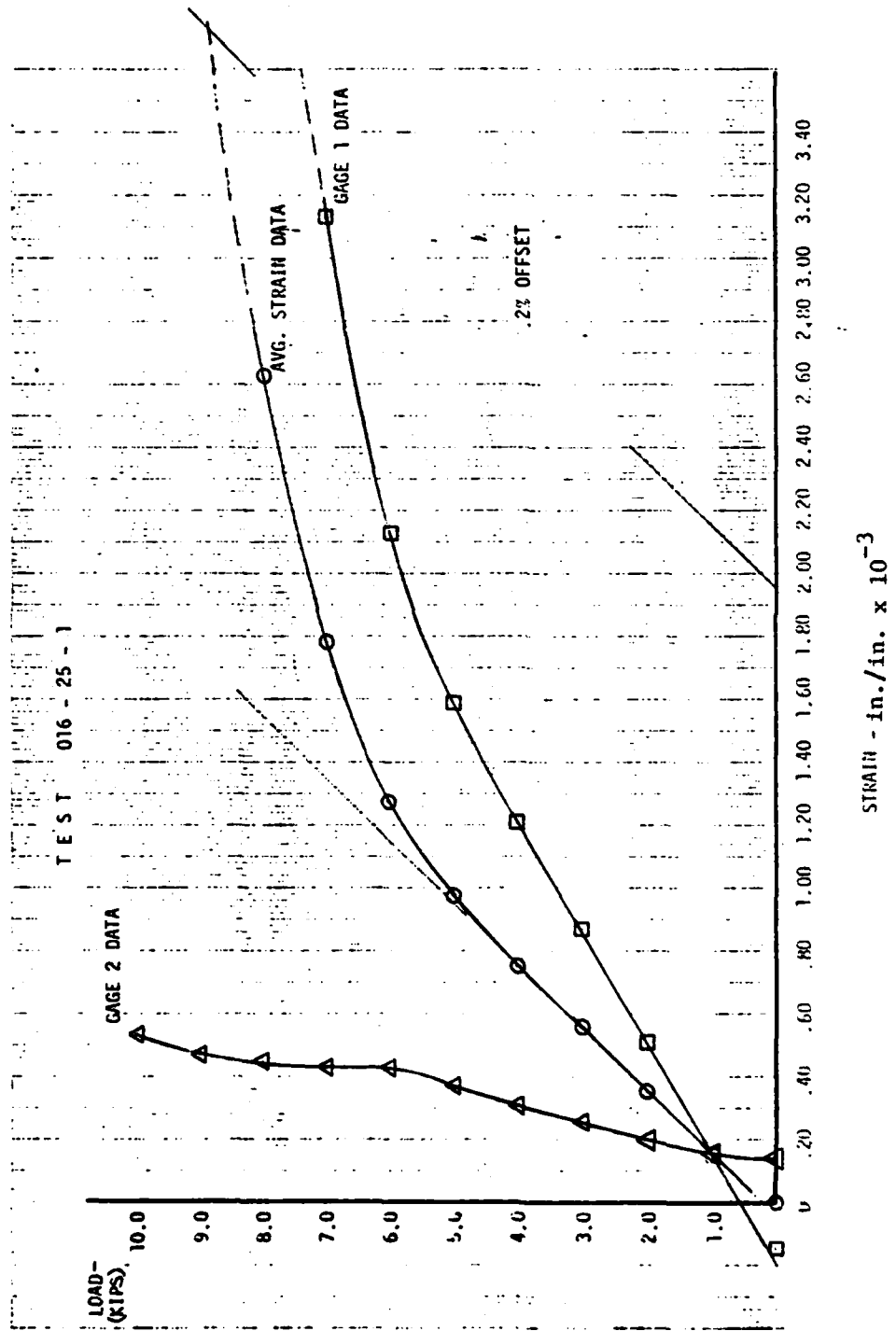
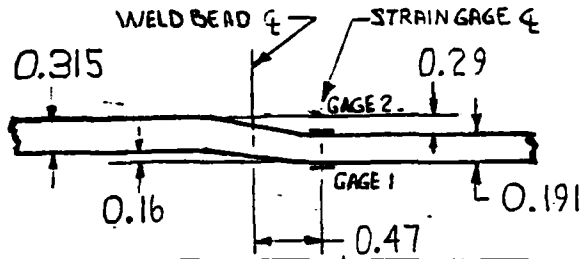


Figure C-2. Static Tensile Test Load-Strain Plots - Specimen No. TT802016-25-1

TER073

Table C-3. Static Tensile Test Strain Data - Specimen No. TT802016-27-2



LOAD (kip)	STRAIN GAGE RDGS.		NOTES
	1	2	
0	- 43	74	
0.1	- 44	76	
0.5	- 73	333	
1.0	- 93	571	
1.5	- 111	859	
2.0	- 113	1283	
2.5	- 98	1649	
3.0	- 78	2070	
3.5	- 52	2608	
4.0	- 21	3297	
4.5	20	4271	
5.0	78	5556	
5.5	172	6560 *	* Reading Unstable
6.0	334	5010 *	
6.5	584	4920 *	
7.0	996	4048 *	
7.5	1696 *	3490 *	
8	2764 *	3330 *	
9.0	7804 *	2220 *	
9.5	12480 *	1700 *	
10.	17835 *	1600 *	
10.5	24480 *	1290 *	
11	33745	1240	
11.65	15300	1195	Failure @ EDGE of Weld Thin Side of Specimen.

① Readings in units of in./in. x 10⁻⁶

TERO73

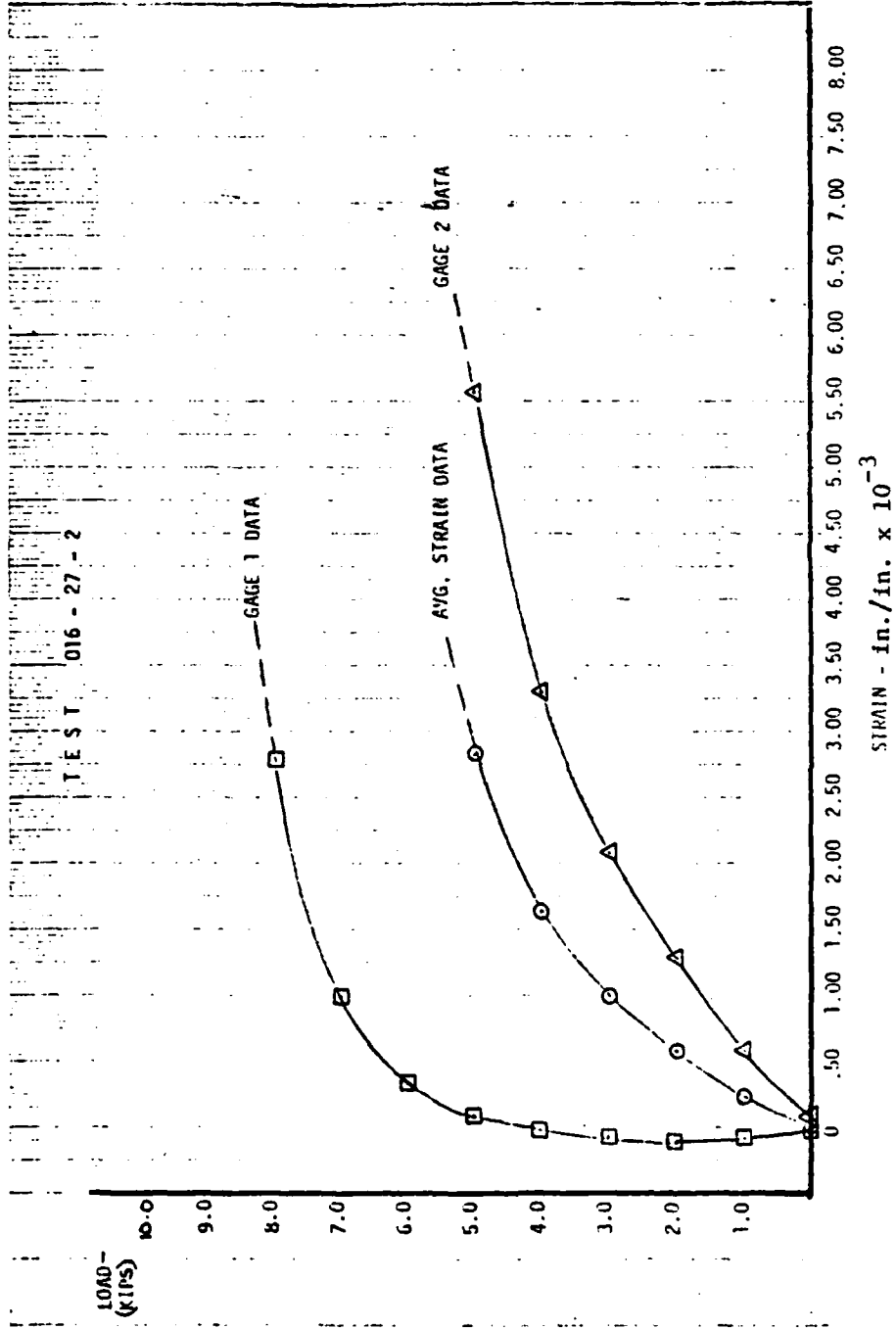
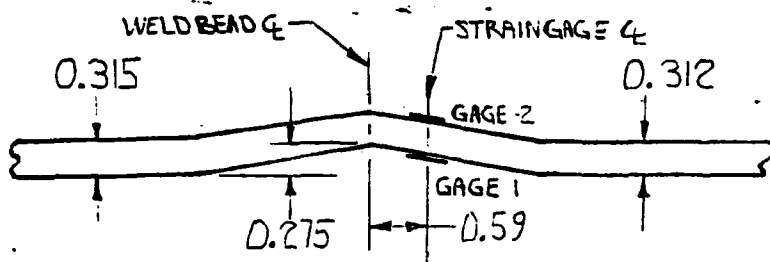




Figure C-3. Static Tensile Test Load-Strain Plots - Specimen No. TT802016-27-2

TER073

Table C-4. Static Tensile Test Strain Data - Specimen No. TT802016-33-2



LOAD (kip)	STRAIN GAGE RDGS. 		NOTES
	1	2	
0	1144	-1100	
0.2	1216	-1104	
1	1525	-1170	
2	2180	-1414	
3	3035	-1568	
4	3935	-1632	
5	4814	-1614	
6	5846	-1534	
7	6959	-1390	
8	8200	-1156	
9	9406	- 847	
10	10670	- 468	
11	12006 *	- 16	* Gage Gives No Const. Output From Here On
12	13560	+ 554	
13	15380	+1318 *	
14	-	+2680	
15	18000	+5590	
16	-	+9470	
17	8000	-	
21.2	8000	-	

 Readings in units of in./in. x 10⁻⁶

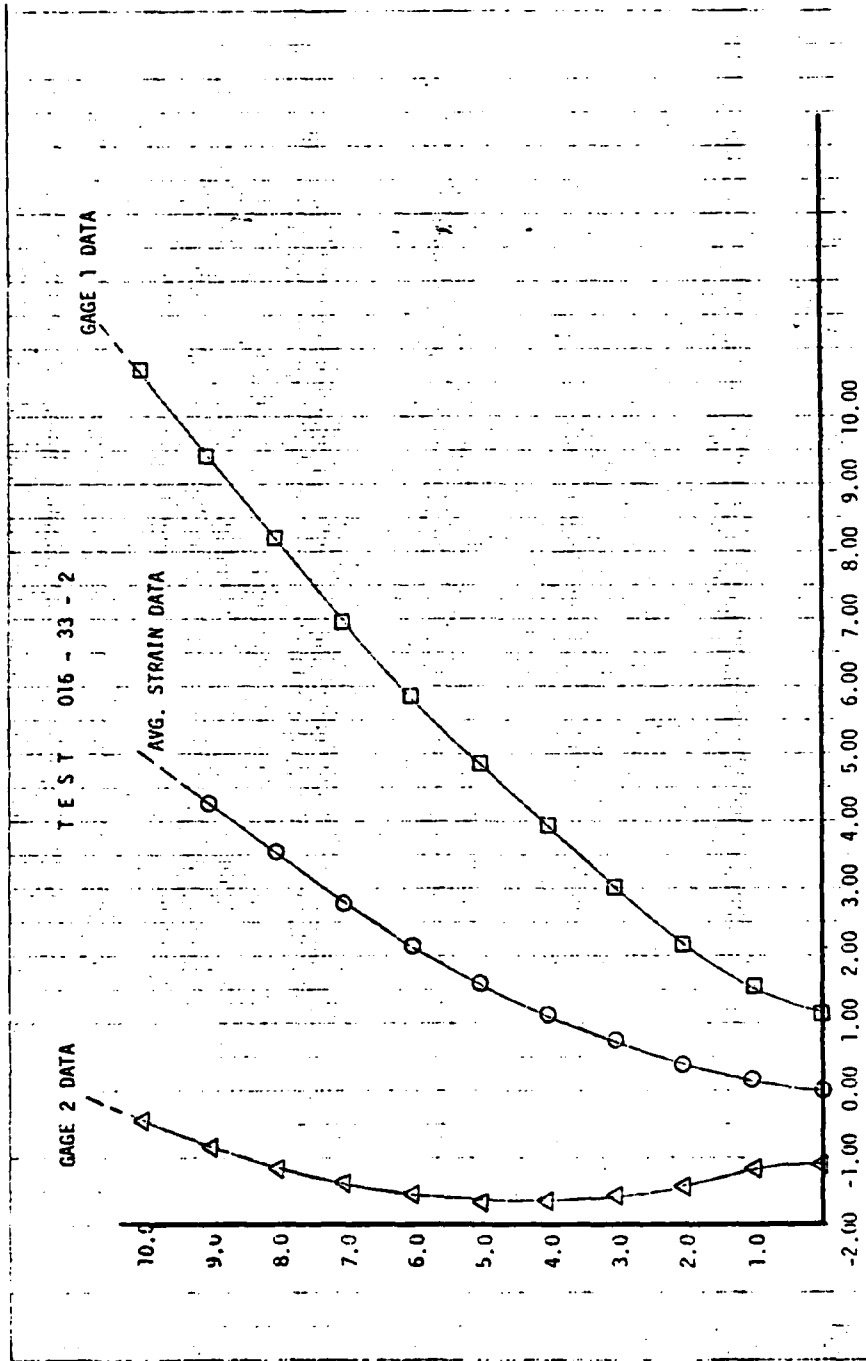
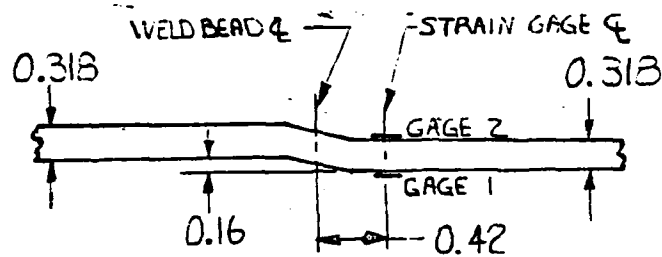




Figure C-4. Static Tensile Test Load-Strain Plots - Specimen No. TT802016-33-2

TER073

Table C-5. Static Tensile Test Strain Data - Specimen No. TT802016-123-1



LOAD (kip)	STRAIN GAGE RDGS. 		NOTES
	1	2	
0	- 258	278	
0.5	- 235	388	
1	- 233	544	
2	- 270	1010	
3	- 315	1475	
4	- 353	1954 *	* Unstable Load
5	- 408	2640 *	
6	- 498	3730	
7	- 616	5335	
8	- 812	7744	
9	-1065	10983	
10	-1464	15310 **	
11	-2010	21300	
12	-2532		
13	-2885		
14	-3100		
15	-2905		
16	-2250		
16.1			

 Readings in units of in./in. x 10⁻⁶

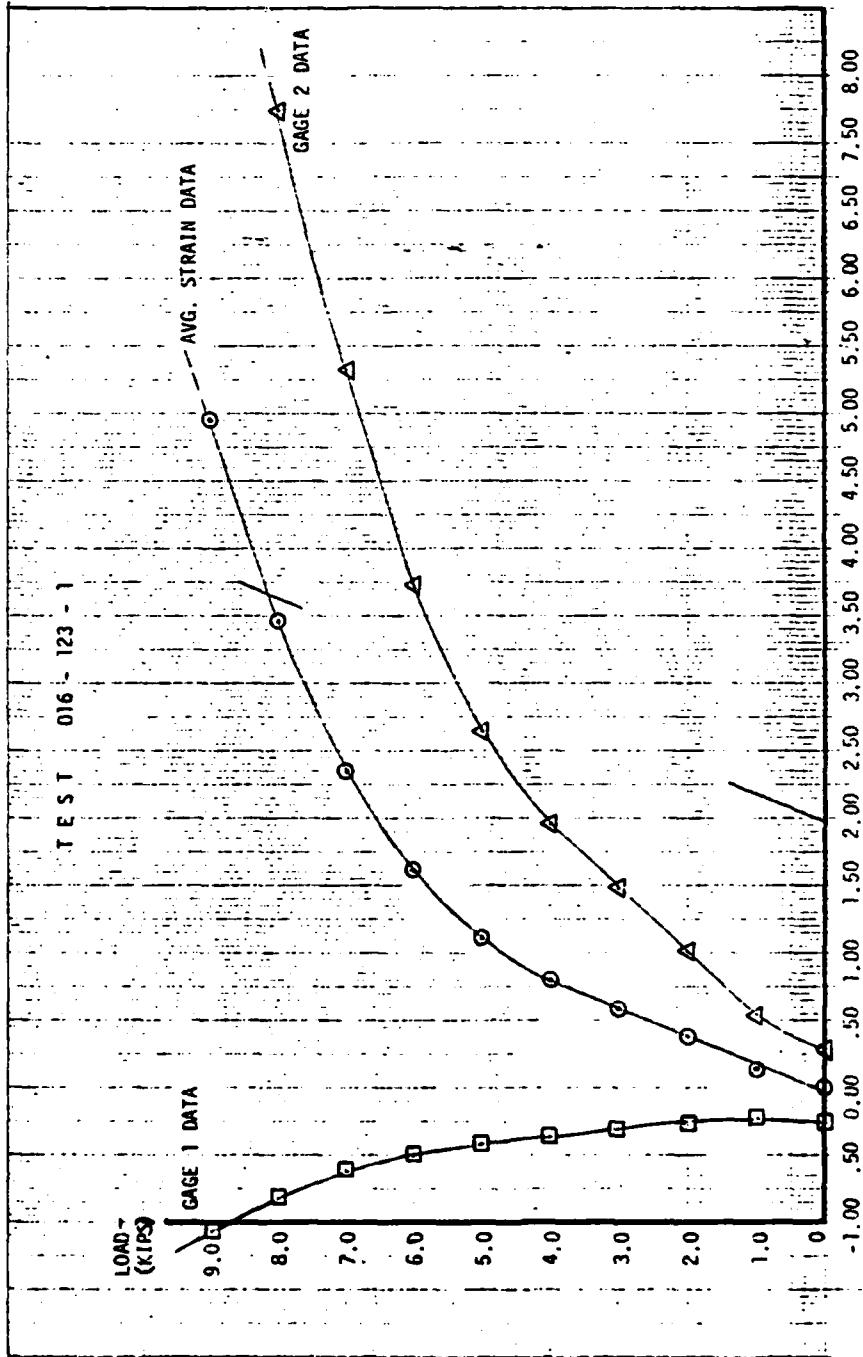
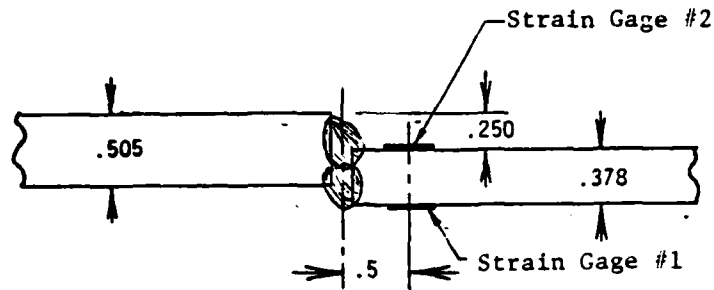


Figure C-5. Static Tensile Test Load-Strain Plots - Specimen No. TT802016-123-1

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Table C-6. Static Tensile Test Strain Data - Specimen No. TT802016-127-1



LOAD (lbs)	STRAIN DATA - μ in./in.			NOTES
	GAGE #1	GAGE #2	AVERAGE	
0	0	0	0	
100	-528	595	34	
500	-528	756	114	
1000	-542	940	199	
1500	-550	1140	295	
2000	-558	1344	393	
2500	-568	1540	486	
3000	-576	1720	572	
3500	-582	1892	655	
4000	-572	2054	741	
4500	-562	2192	815	
5000	-552	2362	905	
5500	-544	2522	989	
6000	-542	2712	1085	
6500	-541	2912	1186	
7000	-546	3144	1299	
7500	-552	3418	1433	
8000	-564	3700	1568	
9000	-602	4540	1969	
9500	-640	5080	2220	
10K	-662	5614	2476	
10.5K	-704	6282	2789	
11K	-742	7000	3129	
11.5K	-780	7790	3505	
12K	-836	8820	3992	
12.5K	-855	9844	4495	
13.K	-900	10994	5047	
13.5K	-934	12290	5678	
14K	-924	13152	6114	
14.5K	-964	14870	6953	
15K	-938	16210	7636	
15.5K	-910	18414	8752	
16.0K	-868	-	-	Failure: 22.7 kips

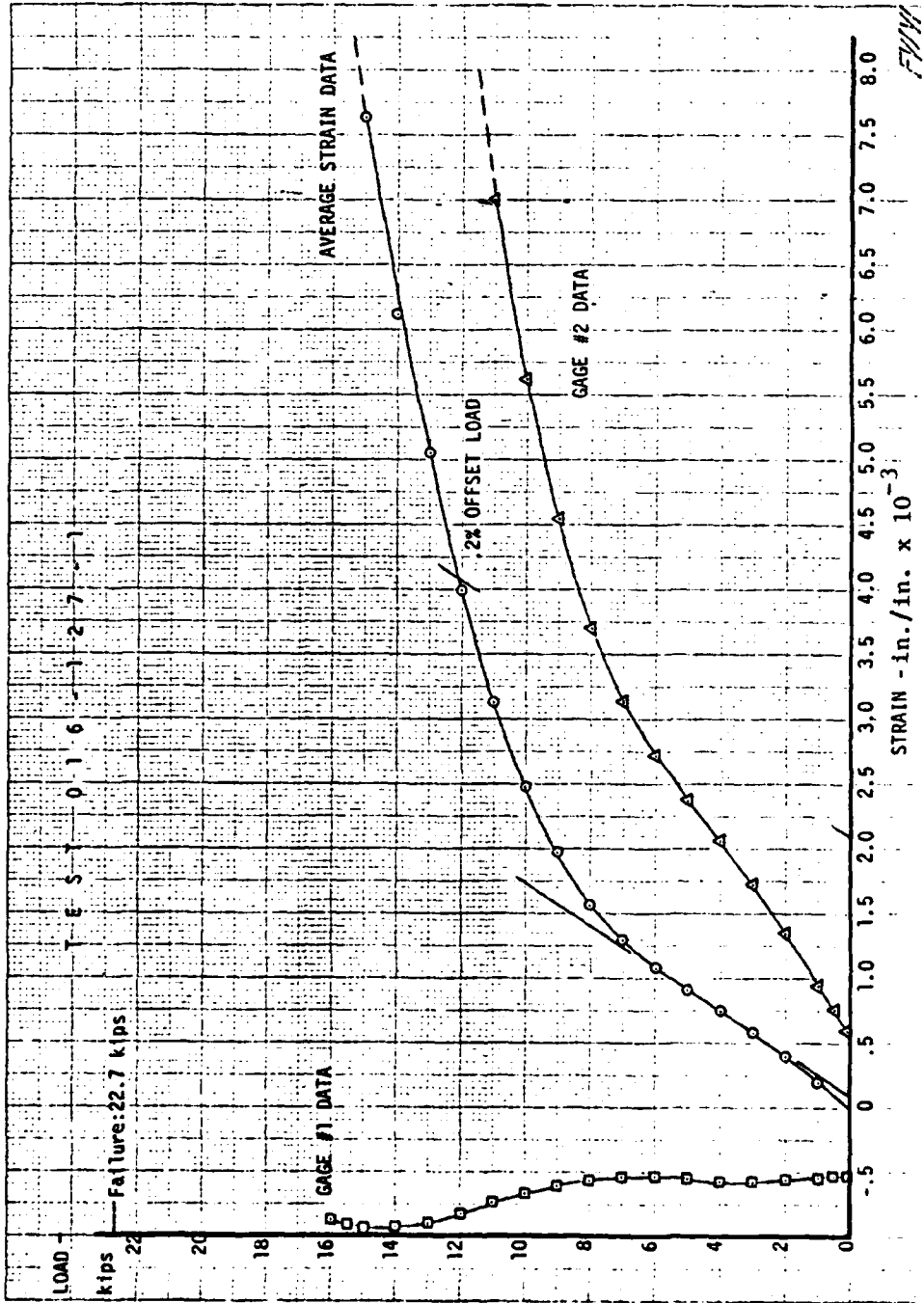


Figure C-6. Static Tensile Test Load-Strain Plots - Specimen No. TT802016-127-1

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Table C-7. Average Strain Comparisons for Mismatched and Misaligned Welded Plate Specimens.

LOAD (kip)	SPECIMEN NUMBER - STRAIN - in./in. / $\times 10^{-3}$			
	016-25-1	016-27-2	016-33-2	016-123-1
0	.005	.0155	.022	.01
.1		.016		
.2			.056	
.5		.13		.0765
1	.1495	.239	.1775	.1555
1.5		.374		
2	.353	.585	.383	.37
2.5		.7755		
3	.56	.996	.7335	.58
3.5		1.278		
4	.7545	1.638	1.1515	.8005
4.5		2.1455		
5	.978	2.817	1.6	1.116
5.5		2.825		
6	1.276	2.672	2.16	1.616
6.5		2.752		
7	1.78	2.522	2.7845	2.3595
7.5		2.593		
8	2.6225	3.047	3.522	3.466
8.5		3.8425		
9	3.866	5.012	4.2795	4.959
9.5		7.09		
10	5.554	9.7175	5.101	6.923

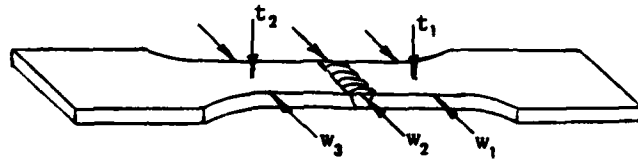
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2 / FATIGUE TEST DATA

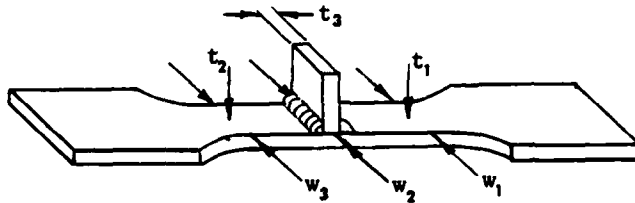
This section contains various detailed data pertinent to the welded plate coupon tensile fatigue and bending fatigue tests.

2.1 SPECIMEN DIMENSIONS

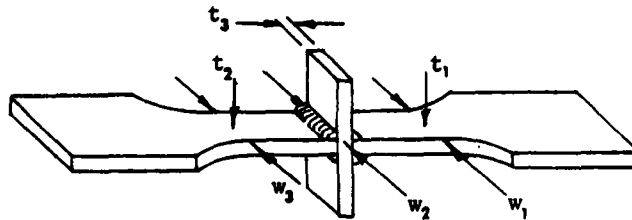
Specimen pretest measurement locations and the actual test section dimensions are presented in Figure C-7 and Table C-8, respectively.



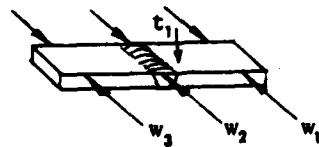
a) Transverse Butt Joint Tensile Fatigue Specimen



b) Transverse Tee Joint Tensile Fatigue Specimen



c) Transverse Cruciform Joint Tensile Fatigue Specimen



d) Transverse Butt Joint Bending Fatigue Specimen

Figure C-7. Welded Plate Fatigue Test Specimen Pretest Measurement Locations.

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 1 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	△ OFFSET
Butt Jt. Tens. Fat.	019 -1 -1	.160	.161		1.503	1.502	1.502	
	-1 -2	.158	.160		1.504	1.505	1.503	
	-1 -3	.160	.161		1.503	1.505	1.502	
	-3 -1	.317	.313		1.500	1.500	1.499	
	-3 -2	.312	.313		1.496	1.498	1.498	
	-3 -3	.317	.314		1.500	1.499	1.498	
	-5 -1	.197	.312		1.497	1.501	1.502	
	-5 -2	.187	.308		1.497	1.501	1.503	
	-5 -3	.188	.308		1.512	1.508	1.506	
	-7 -1	.159	.159		1.503	1.504	1.503	.080
	-7 -2	.159	.158		1.502	1.504	1.502	"
	-7 -3	.159	.159		1.501	1.503	1.501	"
	-9 -1	.313	.314		1.497	1.496	1.496	.069
	-9 -2	.313	.314		1.499	1.499	1.499	"
	-9 -3	.313	.314		1.501	1.495	1.496	"
	-11 -1	.312	.312		1.502	1.500	1.500	
	-11 -2	.312	.312		1.490	1.474	1.479	
	-11 -3	.312	.312		1.508	1.508	1.508	
	-13 -1	.186	.312		1.503	1.504	1.508	
	-13 -2	.187	.312		1.501	1.504	1.504	
-13 -3	.187	.313		1.500	1.500	1.498		
-15 -1	.187	.315		1.500	1.502	1.503	.080	
-15 -2	.187	.315		1.501	1.502	1.502	"	
-15 -3	.187	.315		1.505	1.505	1.506	"	
-17 -1	.315	.315		1.505	1.505	1.504		
Butt Jt. Tens. Fat.	019 -17-2	.314	.314		1.501	1.501	1.503	

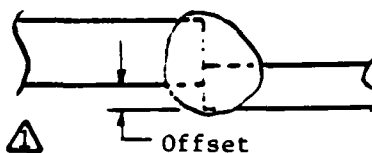


Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 2 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	OFFSET
Butt Jt. Tens. Fat.	019-17-3	.315	.314		1.507	1.508	1.506	
	-19-1	.185	.312		1.492	1.495	1.499	
	-19-2	.185	.311		1.497	1.498	1.501	
	-19-3	.185	.310		1.494	1.494	1.497	
	-21-1	.186	.312		1.495	1.496	1.494	
	-21-2	.186	.313		1.499	1.499	1.499	
	-21-3	.186	.313		1.505	1.502	1.505	
	-23-1	.160	.160		1.496	1.497	1.496	
	-23-2	.161	.160		1.494	1.492	1.493	
	-23-3	.160	.160		1.500	1.498	1.499	
	-25-1	.187	.313		1.497	1.500	1.500	
	-25-2	.187	.313		1.493	1.497	1.499	
	-25-3	.186	.312		1.500	1.498	1.500	
	-27-1	.164	.163		1.497	1.495	1.499	
	-27-2	.165	.165		1.499	1.499	1.496	
	-27-3	.164	.164		1.500	1.497	1.500	
	-29-1	.313	.313		1.503	1.501	1.503	
	-29-2	.312	.314		1.497	1.495	1.497	
	-29-3	.312	.313		1.500	1.501	1.501	
	-31-1	.185	.321		1.502	1.500	1.503	
-31-2	.185	.320		1.500	1.500	1.500		
-31-3	.185	.319		1.499	1.497	1.498		
-33-1	.163	.163		1.506	1.505	1.505		
-33-2	.163	.163		1.501	1.504	1.502		
-33-3	.163	.163		1.505	1.506	1.505		
Butt Jt. Tens. Fat.	019-35-1	.315	.311		1.501	1.501	1.500	

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements (Sheet 3 of 10).

All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	△ OFFSET
Butt Jt. Tens. Fat.	019-35-2							
▲	-35-3	.313	.315		1.502	1.503	1.503	
	-37-1	.313	.316		1.503	1.504	1.504	
	-37-2	.316	.313		1.497	1.494	1.498	
	-37-3	.315	.312		1.499	1.499	1.500	
	-39-1	.314	.318		1.505	1.506	1.503	.050
	-39-2	.309	.314		1.500	1.500	1.500	.050
	-39-3	.315	.319		1.503	1.505	1.506	.050
	-41-1	.313	.184		1.502	1.500	1.502	
	-41-2	.313	.184		1.502	1.502	1.502	
	-41-3	.313	.184		1.503	1.502	1.501	
	-43-1	.301	.3135		1.500	1.500	1.499	
	-43-2	.301	.313		1.495	1.492	1.494	
	-43-3	.302	.313		1.500	1.500	1.501	
	-45-1	.185	.313		1.490	1.497	1.497	
	-45-2	.185	.313		1.500	1.501	1.503	
	-45-3	.185	.313		1.499	1.499	1.499	
	-47-1	.157	.158		1.499	1.501	1.499	
	-47-2	.158	.159		1.498	1.498	1.497	
	-47-3	.158	.159		1.500	1.501	1.501	
	-49-1	.311	.311		1.505	1.505	1.505	
	-49-2	.310	.311		1.504	1.504	1.504	
	-49-3	.311	.311		1.503	1.500	1.501	
	-51-1	.306	.306		1.503	1.502	1.503	
▼	-51-2	.306	.307		1.500	1.500	1.500	
Butt Jt. Tens. Fat.	019-51-3	.307	.307		1.502	1.500	1.500	

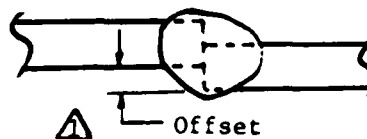


Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 4 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	OFFSET
Butt Jt. Tens. Fat.	019-65-1	.161	.161		1.499	1.498	1.497	
	-65-2	.161	.160		1.500	1.501	1.499	
	-65-3	.161	.161		1.500	1.499	1.500	
	-67-1	.314	.314		1.498	1.499	1.499	
	-67-2	.314	.314		1.502	1.502	1.501	
	-67-3	.314	.314		1.502	1.502	1.501	
	-75-1	.314	.314		1.503	1.502	1.501	
	-75-2	.314	.314		1.505	1.504	1.505	
	-75-3	.314	.313		1.507	1.506	1.506	
	-83-1	.314	.314		1.506	1.506	1.506	
	-83-2	.314	.315		1.503	1.502	1.501	
	-83-3	.314	.315		1.501	1.501	1.500	
	-85-1	.313	.313		1.504	1.503	1.502	
	-85-2	.313	.312		1.495	1.495	1.493	
	-85-3	.313	.313		1.499	1.499	1.499	
	-101-1	.313	.313		1.506	1.506	1.506	
	-101-2	.319	.314		1.500	1.500	1.502	
	-101-3	.319	.314		1.502	1.497	1.502	
	-103-1	.760	.769		1.505	1.505	1.502	
	-103-2	.760	.769		1.495	1.495	1.495	
-103-3	.767	.766		1.508	1.509	1.509		
-105-1	.377	.513		1.498	1.495	1.496		
-105-2	.377	.508		1.499	1.501	1.501		
-105-3	.378	.509		1.477	1.501	1.500		
-109-1	.314	.315		1.502	1.504	1.502		
Butt Jt. Tens. Fat.	019-109-2	.314	.313		1.509	1.506	1.506	

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 5 of 10).

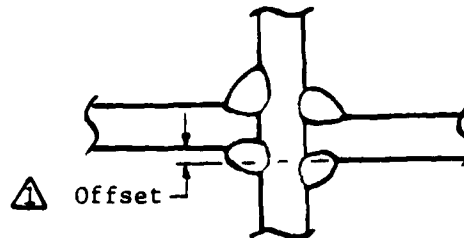
(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	OFFSET	
Butt Jt. Tens. Fat.	019-109-3	.314	.315		1.505	1.505	1.502		
	-111-1	.765	.765		1.509	1.503	1.503		
	-111-2	.765	.765		1.509	1.509	1.503		
	-111-3	.765	.765		1.504	1.502	1.505		
	-113-1	.376	.505		1.502	1.502	1.502		
	-113-2	.376	.505		1.502	1.506	1.502		
	-113-3	.377	.504		1.502	1.502	1.501		
	-115-1	.307	.312		1.508	1.508	1.508		
	-115-2	.312	.313		1.502	1.503	1.499		
	-115-3	.312	.313		1.505	1.505	1.504		
	-121-1	.310	.313		1.503	1.503	1.503		
	-121-2	.310	.313		1.501	1.501	1.502		
	Butt Jt. Tens. Fat.	-121-3	.311	.312		1.501	1.500	1.500	
	Tee Jt. Tens. Fat.	-201-1	.160	.160	.163	1.501	1.501	1.501	
		-201-2	.160	.160	.162	1.497	1.501	1.501	
-201-3		.160	.160	.163	1.504	1.502	1.503		
-203-1		.313	.319	.319	1.509	1.502	1.504		
-203-2		.313	.314	.315	1.506	1.506	1.504		
-203-3		.313	.319	.315	1.503	1.501	1.503		
-205-1		.315	.319	.317	1.503	1.503	1.503		
-205-2		.313	.319	.317	1.502	1.502	1.502		
-205-3		.319	.319	.317	1.502	1.500	1.499		
-209-1		.204	.203	.379	1.497	1.502	1.502		
-209-2		.203	.204	.377	1.505	1.503	1.504		
-209-3		.203	.202	.376	1.498	1.499	1.496		
Tee Jt. Tens. Fat.	019-211-1	.319	.320	.312	1.507	1.507	1.508		

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 6 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	△ OFFSET
Tee Jt. Tens. Fat.	019-211-2	.319	.320	.312	1.503	1.501	1.502	
	-211-3	.319	.324	.312	1.500	1.498	1.497	
	-213-1	.318	.315	.308	1.505	1.505	1.505	
	-213-2	.318	.315	.311	1.499	1.499	1.499	
	-213-3	.317	.314	.305	1.507	1.506	1.507	
	-221-1	.313	.315	.309	1.497	1.497	1.499	
	-221-2	.313	.315	.310	1.502	1.501	1.502	
	-223-1	.310	.311	.312	1.503	1.503	1.502	
Tee Jt. Tens. Fat.	-223-2	.310	.311	.314	1.502	1.503	1.501	
Cruc. Jt. Tens. Fat.	-301-1	.160	.160	.161	1.506	1.505	1.506	
	-301-2	.161	.161	.160	1.506	1.506	1.505	
	-301-3	.161	.161	.160	1.505	1.506	1.509	
	-303-1	.169	.162	.164	1.501	1.500	1.501	.040
	-303-2	.163	.163	.164	1.500	1.499	1.499	.040
	-303-3	.163	.163	.164	1.501	1.499	1.501	.040
	-305-1	.277	.277	.280	1.506	1.505	1.504	.050
	-305-2	.276	.276	.280	1.502	1.502	1.502	"
	-305-3	.277	.277	.279	1.501	1.502	1.502	"
	-307-1	.276	.277	.280	1.500	1.500	1.500	.025
	-307-2	.277	.275	.280	1.499	1.499	1.498	"
	-307-3	.275	.276	.279	1.499	1.499	1.499	"
	-309-1	.278	.276	.281	1.505	1.505	1.507	
	-309-2	.276	.279	.282	1.504	1.505	1.504	
	-309-3	.276	.279	.282	1.503	1.500	1.503	
	-311-1	.280	.280	.282	1.505	1.507	1.505	
Cruc. Jt. Tens. Fat.	019-311-2	.280	.280	.280	1.510	1.500	1.509	



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Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 7 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t ₁	t ₂	t ₃	w ₁	w ₂	w ₃	OFFSET
Cruc. Jt. Tens. Fat.	019-311-3	.220	.220	.291	1.503	1.502	1.504	
	-313-1	.161	.161	.163	1.505	1.505	1.509	
	-313-2	.161	.161	.162	1.505	1.504	1.505	
	-313-3	.161	.161	.162	1.502	1.502	1.503	
	-315-1	.275	.279	.285	1.504	1.509	1.502	
	-315-2	.274	.278	.285	1.502	1.500	1.502	
Cruc. Jt. Tens. Fat.	-315-3	.273	.273	.265	1.502	1.501	1.502	
Butt Jt. Tens. Fat. (with imperf.)	-401-1	.194	.194		1.510	1.507	1.510	
	-401-2	.194	.194		1.505	1.505	1.505	
	-401-3	.187	.191		1.504	1.506	1.501	
	-401-4	.192	.193		1.501	1.504	1.501	
	-401-5	.192	.193		1.503	1.506	1.508	
	-401-6	.191	.192		1.506	1.505	1.506	
	019-401-7	.189	.192		1.509	1.512	1.503	
	019-401-8X	.191	.190		1.509	1.510	1.510	
	-403-1	.194	.194		1.510	1.509	1.510	
	-403-2	.194	.194		1.508	1.512	1.511	
	-403-3	.195	.195		1.509	1.512	1.510	
	-403-4	.195	.195		1.494	1.494	1.494	
	-403-5	.193	.193		1.509	1.512	1.510	
	-403-6	.193	.193		1.509	1.511	1.509	
	-405-1	.194	.194		1.505	1.505	1.505	
	-405-2	.194	.194		1.505	1.504	1.505	
	-405-3	.194	.194		1.505	1.503	1.505	
-405-4	.194	.193		1.504	1.504	1.504		
-405-5	.194	.195		1.504	1.504	1.503		
-405-6	.194	.195		1.504	1.504	1.511		
Butt Jt. Tens. Fat. (with imperf.)	019-407-1	.193	.194		1.508	1.505	1.507	

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 8 of 10).

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	OFFSET
Butt Jt. Tens. Fat. (with imperf.)	019-407-2	.193	.194		1.503	1.502	1.502	
	-407-3	.193	.194		1.503	1.503	1.502	
	-407-4	.195	.195		1.504	1.504	1.504	
	-407-5	.195	.195		1.502	1.502	1.502	
	-407-6	.195	.195		1.501	1.501	1.501	
	-413-1	.195	.194		1.503	1.502	1.502	
	-413-2	.193	.193		1.508	1.508	1.508	
	-413-3	.191	.195		1.504	1.502	1.502	
	-413-4	.195	.195		1.503	1.503	1.503	
	-415-1	.193	.194		1.505	1.505	1.505	
	-415-2	.194	.194		1.496	1.497	1.497	
	-415-3	.194	.193		1.495	1.495	1.494	
	-415-4	.194	.192		1.501	1.500	1.501	
	-417-R1	.192	.192		1.497	1.496	1.497	
	-417-R2	.193	.194		1.496	1.497	1.496	
	-417-R3	.193	.193		1.496	1.495	1.495	
	-417-R4	.192	.193		1.500	1.500	1.500	
	-419-1	.370	.370		1.506	1.506	1.506	
	-419-2	.363	.370		1.506	1.506	1.506	
	-419-3	.370	.370		1.504	1.504	1.504	
-419-4	.366	.370		1.507	1.507	1.507		
-419-5	.370	.372		1.503	1.502	1.502		
-419-6X	.369	.371		1.502	1.503	1.502		
-419-7X	.369	.371		1.502	1.501	1.502		
-421-1	.358	.358		1.500	1.500	1.500		
-421-2	.357	.356		1.502	1.503	1.503		
Butt Jt. Tens. Fat. (with imperf.)	019-421-3	.357	.358		1.506	1.504	1.504	

Table C-8. Welded Plate Fatigue Test Specimen Pretest Measurements
(Sheet 10 of 10)

(All dimensions in inches)

SPECIMEN TYPE	SPECIMEN NUMBER	t_1	t_2	t_3	w_1	w_2	w_3	OFFSET
					BENDING SPECIMENS			
Butt Jt. Bend. Fat.	020-1-1	.314			2.000	2.000	2.000	
	-1-2	.314			2.000	2.000	2.000	
	-1-3	.313			2.004	2.004	2.004	
	-1-4	.312			1.999	1.999	1.999	
	-1-5	.313			2.000	2.000	2.000	
	-1-6	.312			1.999	1.999	1.999	
	-3-1	.314			2.003	2.003	2.003	
	-3-2	.316			2.005	2.005	2.005	
	-3-3	.313			2.004	2.004	2.004	
	-3-4	.310			2.002	2.002	2.002	
	-3-5	.310			2.005	2.005	2.005	
	-3-6	.311			2.001	2.001	2.001	
	-5-1	.313			2.003	2.003	2.003	
	-5-2	.311			2.005	2.005	2.005	
	-5-3	.310			2.002	2.002	2.002	
	-9-1	.314			2.000	2.000	2.000	
	-9-2	.314			2.000	2.000	2.000	
	-9-3	.314			2.000	2.000	2.000	
	-11-1	.313			2.002	2.002	2.002	
	-11-2	.312			2.003	2.003	2.003	
	-11-3	.312			2.002	2.002	2.002	
	-13-1	.314			2.001	2.001	2.001	
	020-13-2	.313			2.001	2.001	2.001	
	020-13-3	.313			2.000	2.000	2.000	
	-15-1	.192			2.000	2.000	2.000	
	-15-2	.193			2.000	2.000	2.000	
	-15-3	.193			2.001	2.001	2.001	
	-101-1	.313			2.001	2.001	2.001	
	-101-2	.312			1.996	1.996	1.996	
Butt Jt. Bend. Fat.	020-101-3	.312			1.995	1.005	1.005	

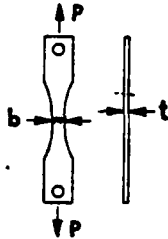
2.2 TEST DATA SHEETS

This section contains copies of the test laboratory data sheets summarizing the recorded data for all welded plate specimen fatigue tests. Minor additions and deletions have been made on these sheets to enhance clarification.

Data sheets for the butt weld specimen tensile fatigue tests are presented on pages B-504 through B-508. The tensile fatigue data sheets for transverse tee specimens are provided on pages B-508 and B-509 for transverse cruciform specimens, on pages B-509 and B-510. Data sheets for the tensile fatigue tests on butt welded specimens containing weld imperfections are presented on pages B-510 through B-513. Tensile fatigue retest data for all original run-out specimens is tabulated on page B-514. Pages B-515 through B-517 present the butt welded plate bending fatigue test data sheets.

TER073

TIR TG. NO. 2991	ENGINEERING LABORATORY TEST REPORT	TEST SPECIFICATION
WORK ORDER 444-11-0-40		SPECIMEN DWG. NO.
REQUESTER F. WEBER		



TENSION FATIGUE PLATE/SHEET

TEST TEMP Room °F FREQUENCY (cpm) 1000
 BASE MAT'L. 5456 AL
 GRAIN DIRECTION N/A

Transverse Butt Joint

SPECIMEN NO.	b (in)	t (in)	A = b x t (in) ²	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				DATE	P (lBS.)	KSI		
019-1-1	1.502	.160	.2403	9/15	3605	15	108.7	FAILED
-1-2	1.505	.158	.2378	9/18	3091	13	200.4	FAILED
-1-3	1.505	.160	.2408	9/19	3130	13	383.5	FAILED
019-3-1	1.500	.313	.4695	9/19	7043	15	360.3	FAILED
-3-2	1.498	.313	.4689	9/25	6095	13	1623.1	FAILED
-3-3	1.499	.314	.4707	9/25	6119	13	423.5	FAILED
019-5-1	1.507	.187	.2807	10/20	4210	15	137.7	FAILED
-5-2	1.501	.187	.2807	10/24	3640	13	697.7	FAILED
-5-3	1.508	.188	.2825	10/25	3686	13	75.0	FAILED
019-7-1	1.504	.158	.2376	9/20	3564	13	59.3	FAILED
-7-2	1.504	.158	.2376	9/21	2614	11	81.7	FAILED
-7-3	1.503	.159	.2390	9/25	1673	7	2501.8	FAILED
019-9-1	1.496	.313	.4682	9/20	7024	15	52.1	FAILED
-9-2	1.499	.313	.4692	9/21	5161	11	1752.8	FAILED
-9-3	1.495	.313	.4679	9/26	3155	13	112.7	FAILED
019-11-1	1.500	.312	.4680	10/5	3424	12	495.0	FAILED
-11-2	1.474	.312	.4599	10/9	9193	20	258.9	FAILED
-11-3	1.508	.312	.4705	10/12	3469	18	1597.7	FAILED
019-13-1	1.504	.186	.2797	10/17	4196	15	3950.0	NO FAILURE
-13-2	1.504	.187	.2812	10/20	5625	20	73.2	FAILED
-13-3	1.500	.187	.2805	10/23	4769	17	126.9	FAILED
019-15-1	1.502	.187	.2809	10/23	4213	15	104.5	FAILED
-15-2	1.502	.187	.2809	10/27	3651	13	17.1	FAILED
-15-3	1.505	.187	.2814	10/30	3659	13	19.2	FAILED

TESTED BY: WOODS / WIDMER

DATE: 8-17-79

TER073

TIA TG. NO. 2991		ENGINEERING LABORATORY		TEST SPECIFICATION	
WORK ORDER 444-11-0-40		TEST REPORT		SPECIMEN DWG. NO.	
REQUESTER F. WEBER					

↑ P
○
b ← → t
○
↓ P

TENSION FATIGUE PLATE/SHEET

TEST TEMP _____ °F FREQUENCY (cpm) 1000

BASE MAT'L. 5456 AL

GRAIN DIRECTION N/A

SPECIMEN NO.	b (in)	t (in)	A = b x t (in) ²	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				DATE	P (lbs.)	KSI		
019-17-1	1.505	.315	.4741	10/4	3533	18	11.8	FAILED
-17-2	1.501	.314	.4713	10/9	7070	15	1037.9	NO FAILURE *
-17-3	1.508	.314	.4735	10/11	8523	18	342.6	FAILED
019-19-1	1.495	.185	.2766	10/23	4149	15	142.3	FAILED
-19-2	1.488	.185	.2771	11/25	3603	13	495.1	FAILED
-19-3	1.494	.185	.2771	10/27	3603	13	531.3	FAILED
019-21-1	1.496	.186	.2783	10/24	4175	15	7.9	FAILED
-21-2	1.496	.186	.2786	10/25	2507	9	15.7	FAILED
-21-3	1.502	.186	.2794	10/27	1397	5	48.3	FAILED
019-23-1	1.497	.160	.2395	9/6	4311	18	35.8	FAILED
-23-2	1.492	.160	.2387	9/8	3581	15	101.6	FAILED
-23-3	1.498	.160	.2397	9/11	3116	13	151.7	FAILED
019-25-1	1.500	.187	.2805	10/23	4769	17	101.3	FAILED
-25-2	1.497	.187	.2799	10/24	4199	15	246.6	FAILED
-25-3	1.498	.186	.2786	10/27	3622	13	624.3	FAILED
019-27-1	1.495	.163	.2437	9/25	3168	13	48.4	FAILED
-27-2	1.499	.165	.2473	9/28	2720	11	1167.0	NO FAILURE *
-27-3	1.497	.164	.2455	10/3	3192	13	120.6	FAILED
019-29-1	1.501	.313	.4693	10/4	7097	15	357.3	FAILED
-29-2	1.495	.312	.4664	10/6	7929	17	99.1	FAILED
-29-3	1.501	.312	.4683	10/9	7025	15	256.1	FAILED
019-31-1	1.500	.185	.2775	4/10	3608	13	482.5	FAILED
-31-2	1.500	.185	.2775	4/11	3608	13	507.3	FAILED
-31-3	1.497	.185	.2769	4/9	4985	18	24.6	FAILED

* RETURN (DATA AT END OF SPECIMEN LIST)

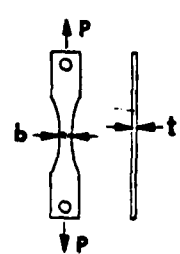
TESTED BY: WOODS/WIDMER DATE: 8-17-79

Transverse Butt Joint

TER073

AIR TC. NO. <u>2991</u>	ENGINEERING LABORATORY	TEST SPECIFICATION SPECIMEN DWG. NO.
WORK ORDER <u>444-11-0-40</u>	TEST REPORT	
REQUESTER <u>F. W. RAER</u>		

TENSION FATIGUE PLATE/SHEET

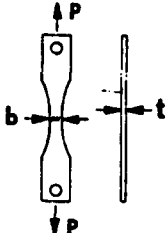


TEST TEMP ROOM °F FREQUENCY (cpm) 1000
 BASE MAT'L. 525621
 GRAIN DIRECTION 1/1

SPECIMEN NO.	b (in)	t (in)	A ₀ D ₀ L ₀ (in) ²	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				σ (ksi)	P (lbs.)	R		
019-33-1	1.506	.163	.2455	9/28	4419	18	125.4	FAILED
-33-2	1.509	.163	.2452	10/2	3678	15	1017.3	NO FAILURE *
-33-3	1.506	.163	.2470	9/27	3211	13	1533.1	NO FAILURE *
019-35-1	1.501	.311	.4668	9/28	6069	13	629.9	FAILED
-35-2	1.506	.313	.4714	10/6	7071	15	1075	NO FAILURE *
-35-3	1.503	.312	.4659	11/6:11/19	7972	17	1320.0	FAILED
019-37-1	1.504	.312	.4708	9/29	8474	18	162.0	FAILED
-37-2	1.499	.313	.4676	10/3	7014	15	1757.1	NO FAILURE
-37-3	1.499	.312	.4677	10/9	8418	18	218.3	FAILED
019-39-1	1.505	.314	.4725	4/2	8536	18	70.2	FAILED
-39-2	1.500	.309	.4635	3/23	9270	20	176.5	FAILED
-39-3	1.503	.314	.4719	3/29	9495	18	341.2	FAILED
019-41-1	1.500	.184	.2760	4/5	4692	17	25.7	FAILED
-41-2	1.502	.184	.2764	4/6	3593	13	950.9	FAILED
-41-3	1.502	.184	.2764	4/6	4142	15	102.9	FAILED
019-43-1	1.500	.301	.4515	10/5	5870	13	1281.3	NO FAILURE *
-43-2	1.492	.301	.4491	10/6	7635	17	114.8	FAILED
-43-3	1.500	.302	.4530	10/6	6795	15	128.4	FAILED
019-45-1	1.497	.185	.2769	10/27	3600	13	81.8	FAILED
-45-2	1.501	.185	.2777	10/30	3055	11	420.6	FAILED
-45-3	1.499	.185	.2773	10/30	3050	11	191.7	FAILED
019-47-1	1.501	.157	.2357	9/12	4243	18	88.0	FAILED
-47-2	1.498	.158	.2367	9/14	3550	15	158.6	FAILED
-47-3	1.501	.158	.2372	9/19	3093	13	1683.6	FAILED
* RETURN (DATA AT END OF SPECIMEN LIST)								
TESTED BY: <u>WOODS/WIOMER</u>				DATE: <u>8-17-79</u>				

Transverse Butt Joint

TER073

TIR TG. NO. 2991		ENGINEERING LABORATORY		TEST SPECIFICATION				
WORK ORDER 444-11-0-40		TEST REPORT		SPECIMEN DWG. NO.				
REQUESTER F. WEBER								
			TENSION FATIGUE PLATE/SHEET					
TEST TEMP <u>Room</u> °F			FREQUENCY (cpm) <u>1000</u>					
BASE MAT'L. <u>5456 AL</u>								
GRAIN DIRECTION <u>N/A</u>								
SPECIMEN NO.	b (in)	t (in)	A = b x t (in ²)	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				Stress (ksi)	P (lbs.)	ksi		
09-49-1	1.505	.311	.4681	"/21	9361	20	574.3	FAILED
-49-2	1.504	.310	.4662	"/22	10257	22	129.3	FAILED
-49-3	1.500	.311	.4665	"/27	9330	20	300.2	FAILED
09-51-1	1.502	.306	.4596	"/22	6894	15	540.2	FAILED
-51-2	1.500	.306	.4590	"/22	7803	17	31.7	FAILED
-51-3	1.500	.307	.4605	"/29	6908	15	2606.3	NO FAILURE *
09-65-1	1.498	.161	.2412	9/5	4341	18	108.5	FAILED
-65-2	1.501	.160	.2402	9/5	4323	18	71.8	FAILED
-65-3	1.499	.161	.2413	9/7:1/5	3620	15	823.3	FAILED
09-67-1	1.494	.314	.4691	9/28	7035	15	1069.4	NO FAILURE *
-67-2	1.502	.314	.4716	9/27	6131	13	1326.9	NO FAILURE *
-67-3	1.502	.314	.4716	10/2	8489	18	800.0	FAILED IN GRIP
09-75-1	1.502	.314	.4716	3/22	10375	22	167.7	FAILED
-75-2	1.504	.314	.4723	3/26	9445	20	883.6	FAILED
-75-3	1.506	.313	.4719	3/28	10371	22	444.3	FAILED
09-83-1	1.506	.314	.4729	3/27	10404	22	300.7	FAILED
-83-2	1.502	.314	.4716	3/30	10376	22	224.3	FAILED
-83-3	1.501	.314	.4713	3/22: 4/3	9426	20	514.2	FAILED IN GRIP
09-85-1	1.503	.313	.4704	3/29	10350	22	250.6	FAILED
-85-2	1.495	.313	.4679	4/3	9359	20	2166.0	NO FAILURE
-85-3	1.499	.305	.4572	4/5	10058	22	68.2	FAILED
09-101-1	1.506	.313	.4714	10/10	8485	18	115.9	FAILED
-101-2	1.500	.314	.470	10/13	7065	15	367.7	FAILED
-101-3	1.477	.314	.4701	10/16	7051	15	727.6	FAILED
* RETURN DATA AT END OF SPECIMEN LIST								
TESTED BY: <u>WOODS / WIDMER</u>			DATE: <u>8-17-79</u>					

Transverse Butt Joint

TER073

TIR TG. NO. <u>2991</u>	ENGINEERING LABORATORY		TEST SPECIFICATION
WORK ORDER <u>444-11-0-40</u>	TEST REPORT		SPECIMEN DWG. NO.
REQUESTER <u>F. W. WEBER</u>			

Butt Tee

TENSION FATIGUE PLATE/SHEET

TEST TEMP ROOM °F FREQUENCY (cpm) 1000

BASE MAT'L. 5456 AL

GRAIN DIRECTION 1/2 ▲ TESTED @ G.D./CONVAIR DIV.

SPECIMEN NO.	b (in)	t (in)	A B d x t (in)²	CYCLING DATA			K	CYCLES TO FAILURE	REMARKS
				—	P (lbs.)	KSI			
019-103-1	1.505	.768	1.156	5/14		18	77.0	FAILED	▲
-103-2	1.495	.768	1.148	5/14		15	178.0	FAILED	▲
-103-3	1.508	.766	1.155	5/14		12	1975.0	FAILED	▲
019-105-1	1.495	.377	5636	10/31	10145	18	15.4	FAILED	
-105-2	1.501	.377	5659	10/31	7356	13	97.2	FAILED	
-105-3	1.501	.379	5674	11/1	6241	11	354.6	FAILED	
019-109-1	1.504	.314	4720	3/21: 4/3	9445	20	605.2	FAILED IN GRIP	
-109-2	1.506	.313	4719	3/23	11313	24	39.8	FAILED	
-109-3	1.505	.314	4725	4/5	9451	20	2692.1	NO FAILURE	
019-111-1	1.503	.765	1.150	5/14		20	61.0	FAILED	▲
-111-2	1.503	.765	1.150	5/14		17	179.0	FAILED	▲
-111-3	1.502	.765	1.149	5/14		14	593.0	FAILED	▲
019-113-1	1.502	.376	5647	4/11	12425	22	37.1	FAILED	
-113-2	1.506	.376	5663	4/13	8394	15	2097.3	NO FAILURE	
-113-3	1.502	.377	5663	4/15	10193	18	444.3	FAILED	
019-115-1	1.508	.307	49630	3/23	11112	24	163.8	FAILED	
-115-2	1.503	.312	4690	3/22	9379	20	1411.8	NO FAILURE	
-115-3	1.505	.311	4681	3/22	10297	22	489.6	FAILED	
019-121-1	1.503	.310	4659	10/1	8386	18	534.7	FAILED	
-121-2	1.501	.310	4653	10/12	9306	20	637.9	FAILED	
-121-3	1.500	.311	4665	10/13	9330	20	158.7	FAILED	
019-201-1	1.501	.160	2402	12/1	3603	15	1804.6	NO FAILURE *	
-201-2	1.501	.160	2402	12/4	4323	18	445.8	NO FAILURE *	
-201-3	1.502	.160	2403	12/5	5287	22	326.7	FAILED	
* RETURN (DATA AT END OF SPECIMEN LIST)									

TESTED BY: WOODS / WIDMER
DATE: 8-17-79

Transverse Butt Joint

Transverse Tee Joint

TER073

TIR TC. NO. <u>2991</u>		ENGINEERING LABORATORY		TEST SPECIFICATION	
WORK ORDER <u>444-11-0-40</u>		TEST REPORT		SPECIMEN DWG. NO.	
REQUESTER <u>F. WEBER</u>					

Tee Cruciform

TENSION FATIGUE PLATE/SHEET

TEST TEMP ROOM °F FREQUENCY (cpm) 1000
 BASE MAT'L. 5456 AL

GRAIN DIRECTION N/A

SPECIMEN NO.	b (in)	t (in)	A = D x t (in)²	CYCLING DATA			CYCLES TO FAILURE	REMARKS
				Waveform	P (lbs.)	KSI		
019-203-1	1.502	.313	.4701	1/10	8462	18	501.1	FAILED
-203-2	1.506	.313	.4798	1/10	9428	20	132.7	FAILED
-203-3	1.501	.313	.4698	1/17	8457	18	360.5	FAILED
019-205-1	1.503	.315	.4734	1/16	8521	18	510.2	FAILED
-205-2	1.502	.313	.4701	1/20	9403	20	182.6	FAILED
-205-3	1.502	.314	.4710	1/22	8478	18	181.1	FAILED
019-207-1	1.502	.203	.3049	1/20:1/3	5488	18	1858.2	FAILED
-207-2	1.503	.203	.3051	1/30	6002	20	299.5	FAILED
-207-3	1.499	.202	.3028	1/30	6056	20	211.6	FAILED
019-211-1	1.507	.319	.4807	1/16	8653	18	175.0	FAILED
-211-2	1.501	.319	.4788	1/20	8619	18	328.1	FAILED
-211-3	1.498	.319	.4779	1/22	7168	15	565.5	FAILED
019-213-1	1.505	.315	.4791	3/29	9482	20	71.8	FAILED
-213-2	1.499	.313	.4692	3/29	8426	18	101.1	FAILED
-213-3	1.506	.314	.4729	3/30	7093	15	261.7	FAILED
019-221-1	1.497	.313	.4686	1/12	8439	18	416.0	FAILED
-221-2	1.501	.313	.4698	1/13:1/4	9396	20	285.2	FAILED IN SRIP
019-223-1	1.503	.310	.4659	3/29	9318	20	163.4	FAILED
-223-2	1.503	.304	.4569	1/7	8224	18	41.7	FAILED
019-304-1	1.505	.160	.2403	1/8	2649	11	831.8	FAILED
-304-2	1.506	.161	.2425	1/8	3153	13	232.5	FAILED
-304-3	1.506	.161	.2425	1/9	3153	13	291.7	FAILED
019-304-1	1.501	.162	.2432	1/1	2675	11	515.1	FAILED
-304-2	1.499	.163	.2443	1/6	3176	13	274.0	FAILED
-304-3	1.499	.163	.2443	1/6	2688	11	1255.1	FAILED

TESTED BY: WOODS/WIDMER DATE: 8-17-79

Transverse Tee Joint

Transverse Cruciform Joint

TER073

TIR TG. NO. <u>2991</u>		ENGINEERING LABORATORY		TEST SPECIFICATION				
WORK ORDER <u>444-11-D-40</u>		TEST REPORT		SPECIMEN DWG. NO.				
REQUESTER <u>F. WEBER</u>								
		TENSTION FATIGUE PLATE/SHEET		TEST TEMP <u>Room</u> °F				
				FREQUENCY (cpm) <u>1000</u>				
				BASE MAT'L. <u>5456 AL</u>				
		Butt		Cruciform				
				GRAIN DIRECTION <u>N/A</u>				
SPECIMEN NO.	b (in)	t (in)	A = b x t (in)²	CYCLING DATA			CYCLES TO FAILURE	REMARKS
					P (lbs.)	KSI		
019-305-1	1.505	.277	4169	1/6	4586	11	470.5	FAILED
-305-2	1.502	.276	4146	1/6	5232	12	147.9	FAILED
-305-3	1.502	.277	4161	1/12	4577	11	398.3	FAILED
019-307-1	1.500	.276	4140	1/7	4554	11	215.3	FAILED
-307-2	1.499	.275	4122	1/9	4534	11	115.1	FAILED
-307-3	1.499	.275	4122	1/5	3710	9	467.8	FAILED
019-309-1	1.503	.276	4162	1/9	4578	11	2446.3	NO FAILURE *
-309-2	1.505	.276	4154	1/10	5400	13	75.7	FAILED
-309-3	1.500	.276	4140	1/14	4554	11	258.4	FAILED
019-311-1	1.507	.280	4220	1/21	5435	13	67.6	FAILED
-311-2	1.510	.280	4228	1/21	4651	11	155.8	FAILED
-311-3	1.502	.280	4206	1/25	3785	9	759.6	FAILED
019-313-1	1.505	.161	2423	1/10	4361	13	115.2	FAILED
-313-2	1.504	.161	2421	1/13	3632	15	335.8	FAILED
-313-3	1.502	.161	2418	1/13	3627	15	253.5	FAILED
019-315-1	1.499	.275	4122	1/14	7420	18	147.5	FAILED
-315-2	1.500	.274	4110	1/15	6165	15	606.1	FAILED
-315-3	1.501	.273	4098	1/17	6147	15	560.9	FAILED
019-401-1	1.507	.194	2924	1/27	4395	15	561.6	FAILED
-401-2	1.505	.194	2920	1/2	4380	15	414.5	FAILED
-401-3	1.506	.187	2816	1/3	4224	15	284.3	FAILED
-401-4	1.504	.192	2888	1/6	4332	15	261.2	FAILED
-401-5	1.506	.192	2892	1/11	4337	15	334.5	FAILED
-401-6	1.505	.191	2875	1/11	4313	15	197.8	FAILED
* RETURN (DATA AT END OF SPECIMEN LIST)								
TESTED BY: <u>WOODS/WIDMER</u>				DATE: <u>8-17-79</u>				

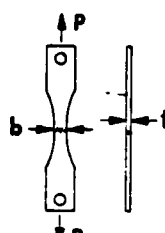
Transverse Butt Joint with Imperfections
 Transverse Cruciform Joint

TER073

TIR TG. NO. <u>2991</u> WORK ORDER <u>444-11-0-40</u> REQUESTER <u>F. WEBER</u>	ENGINEERING LABORATORY TEST REPORT	TEST SPECIFICATION SPECIMEN DWG. NO.						
TENSION FATIGUE PLATE/SHEET								
	TEST TEMP <u>ROOM</u> °F BASE MAT'L. <u>5456AL</u> GRAIN DIRECTION <u>1/A</u>	FREQUENCY (cpm) <u>1000</u>						
SPECIMEN NO.	b (in)	t (in)	A = b x t (in ²)	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				—	P (lbs.)	KSI		
019-4031	1.509	.194	2927	6/29	4391	15	595.2	FAILED
-4032	1.512	.194	2933	7/3	4400	15	534.0	FAILED
-4033	1.512	.195	2942	7/5	4423	15	339.9	FAILED
-4034	1.494	.195	2913	7/9	4370	15	256.3	FAILED
-4035	1.512	.193	2918	7/11	4377	15	292.2	FAILED
-4036	1.511	.193	2916	7/12	4374	15	1022.2	FAILED
019-4051	1.505	.194	2920	6/6	4370	15	101.3	FAILED
-4052	1.504	.194	2915	6/7	3793	13	155.9	FAILED
-4053	1.503	.194	2916	6/11	3207	11	158.1	FAILED
-4054	1.504	.193	2903	6/13	2903	10	821.8	FAILED
-4055	1.504	.194	2918	6/18	3210	11	2983.9	FAILED
-4056	1.504	.194	2918	6/21	3210	11	1694.9	NO FAILURE
019-4071	1.505	.193	2905	6/5	4357	15	70.9	FAILED
-4072	1.502	.193	2899	6/8	3189	11	1541.6	FAILED
-4073	1.503	.192	2901	6/12	2901	10	482.1	FAILED
-4074	1.504	.195	2933	6/22	3226	11	265.7	FAILED
-4075	1.502	.195	2929	6/19	2639	9	2711.7	NO FAILURE
-4076	1.501	.195	2927	6/22	3220	11	713.5	FAILED
019-4131	1.502	.194	2919	7/2	3788	12	774.0	FAILED
-4132	1.508	.193	2910	7/5	3784	13	719.0	FAILED
-4133	1.502	.195	2929	7/6	3505	13	1162.5	FAILED
-4134	1.503	.195	2931	7/9	3810	13	522.1	FAILED
TESTED BY: <u>WOODS/WIDMER</u>						DATE: <u>8-17-79</u>		

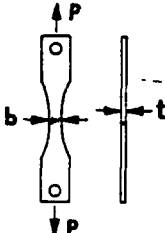
Transverse Butt Joint with Imperfections

TER073

TIR TG. NO. <u>2991</u> WORK ORDER <u>444-11-0-40</u> REQUESTER <u>F. WEBER</u>	ENGINEERING LABORATORY TEST REPORT	TEST SPECIFICATION SPECIMEN DWG. NO.						
TENSION FATIGUE PLATE/SHEET								
	TEST TEMP <u>Room</u> °F BASE MAT'L. <u>5456 AL</u> GRAIN DIRECTION <u>N/A</u>	FREQUENCY (cpm) <u>1000</u>						
SPECIMEN NO.	b (in)	t (in)	A B D x t (in) 2	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				% UTS	P (lbs.)	KSI		
-415-1	1.505	.193	.2905	6/28	3776	13	635.0	FAILED
-415-2	1.497	.194	.2939	7/5	3756	13	1792.7	FAILED
-415-3	1.495	.193	.2935	7/9	3751	13	252.3	FAILED
-415-4	1.500	.194	.2910	7/10	3783	13	1146.9	FAILED
-417-1	1.496	.192	.2872	7/31	3120	11	311.9	FAILED
-417-2	1.497	.193	.2889	7/31	3756	13	202.5	FAILED
-417-3	1.495	.193	.2895	7/1	3174	11	456.0	FAILED
-417-4	1.500	.193	.2895	7/2	3764	13	121.0	FAILED
-419-1	1.506	.370	.5572	3/16: 3/24	10029	19	1093.2	FAILED
-419-2	1.506	.363	.5467	3/16	9841	19	103.1	FAILED
-419-3	1.504	.370	.5565	3/27	10017	19	415.6	FAILED
-419-4	1.507	.366	.5516	3/28	9729	19	170.1	FAILED
-419-5	1.502	.370	.5557	3/28	12003	19	147.3	FAILED
-421-1	1.500	.358	.5370	7/11	9666	18	392.3	FAILED
-421-2	1.503	.356	.5351	7/16	9631	18	317.2	FAILED
-421-3	1.504	.357	.5369	7/12	9665	18	337.7	FAILED
-421-4	1.506	.359	.5407	7/17	9732	18	210.0	FAILED
-421-5	1.503	.356	.5351	7/13	9631	18	33.2	FAILED
-421-6	1.499	.356	.5336	7/16	9606	18	157.3	FAILED
TESTED BY: <u>WOODS/WIDMER</u>				DATE: <u>8-17-79</u>				

Transverse Butt Joint with Imperfections

TER073

TIR TC. NO. 2991	ENGINEERING LABORATORY	TEST SPECIFICATION RMI TTP0001GA
WORK ORDER 444-11-0-40		SPECIMEN DWG. NO.
REQUESTER F. WEBER		
TENSTION FATIGUE PLATE/SHEET		
		TEST TEMP <u>ROOM</u> °F BASE MAT'L. <u>5456 AL.</u>
GRAIN DIRECTION <u>V/A</u>		FREQUENCY (cpm) <u>1000</u>

SPECIMEN NO.	b (in)	t (in)	A = b x t (in) ²	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
				% UTS	P (lbs.)	KSI		
019-4721	1.505	.371	.559A	3/12	8375	15	334.3	FAILED
-4872	1.502	.370	.5557	3/13	8335	15	650.4	FAILED
-4873	1.504	.368	.5535	3/14	8302	15	417.8	FAILED
-4874	1.515	.369	.5553	3/14	8330	15	170.1	FAILED
019-4721	1.502	.371	.5572	3/12	7244	13	429.4	FAILED
-4892	1.502	.371	.5572	3/13	8358	15	696.5	FAILED
-4893	1.505	.371	.5535	3/13	8302	15	267.3	FAILED
-4874	1.508	.370	.5580	3/14	8369	15	366.9	FAILED
TESTED BY: WOODS/NIOMER			DATE: 8-17-79					

Transverse Butt Joint with Imperfections

TER073

VIN TO. NO. 2991	ENGINEERING LABORATORY	TEST SPECIFICATION RMI TTP00016A
WORK ORDER 444-11-0-10		SPECIMEN DWG. NO.
REQUESTER F. WEBER		TEST REPORT

TENSION FATIGUE PLATE/SHEET

↑ P
○
b ← t
○
↓ P

TEST TEMP Room °F
BASE MAT'L. 5456 AL

FREQUENCY (cpm) 1000

GRAIN DIRECTION N/A

SPECIMEN NO.	b (in)	t (in)	A = D x t (in) ²	CYCLING DATA			CYCLES TO FAILURE	REMARKS
					P (lbs.)	KSI		
019-67-1	1.499	.314	.4691	11/15	9302	20	401.2	FAILED (REWIN)
019-67-2	1.502	.314	.4716	11/17	8482	18	1636.2	FAILED (REWIN)
019-19-1	1.502	.369	.5546	3/15	9983	18	946.7	FAILED
019-19-2	1.501	.369	.5539	3/16	9970	18	1080.2	FAILED
019-41-1	1.512	.189	.2858	7/13	4257	15	205.5	FAILED
019-41-2	1.510	.190	.2869	7/13	4304	15	93.7	FAILED
019-17-2	1.501	.314	.4713	12/20		20	35.2	FAILED R12
019-27-2	1.499	.165	.2473	1/12		15	6555.1	NO FAILURE R12
019-33-2	1.504	.163	.2452	12/18		20	259.9	FAILED R12
019-33-3	1.506	.163	.2470	12/21		18	1685.0	FAILED R12
019-35-2	1.506	.313	.4714	12/19		20	306.6	FAILED R12
019-43-1	1.500	.301	.4515	12/20		17	329.3	FAILED R12
019-51-3	1.500	.307	.4605	1/3		20	827.1	FAILED R12
019-201-1	1.501	.160	.2402	1/5		18	4148.9	NO FAILURE R12
019-201-2	1.501	.160	.2402	1/12		24	154.2	FAILED R12
019-303	1.508	.276	.4162	1/3		15	35.6	FAILED R12
019-201-1	1.501	.160	.2402	1/15		22	350.6	FAILED R12

SPECIMEN CONFIGURATION:

	Transverse Butt Joint	_____
	Transverse Tee Joint	_____
	Transverse Cruciform Joint	_____
	Transverse Butt Joint with Imperfections	_____

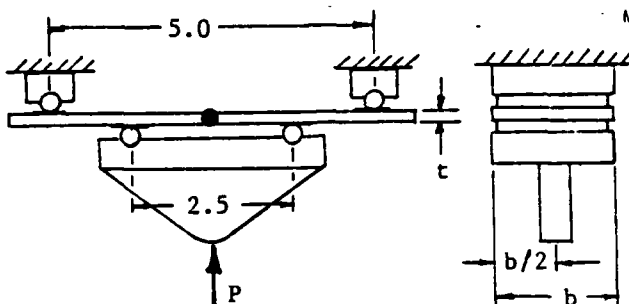
TESTED BY: WOODS/WIDMER DATE: 8-17-79

TER073

TIT. NO. 2991	ENGINEERING LABORATORY	TEST SPECIFICATION RMITTP00016A
WORK ORDER 444-11-0-40		SPECIMEN (S.S.), NO.
REQUESTER E. WEBER		TEST REPORT

BENDING FATIGUE

TEST TEMPERATURE Room °F



MAT'L. 5456 A1

$$F'_s = \frac{1.875 P}{t^2}$$

SPEC. NO.	b (in)	h (in)	DATE	F-FACE R-Roof IN TENS	AREA (in) ²	CYCLING DATA		K CYCLES TO FAILURE	REMARKS
						P max (lb)	F's (KSI)		
20-1-1	2.000	.314	9/1	F	947	18	2164	NO FAILURE	
-1-2	2.000	.314	9/5	F	1052	20	1358	NO FAILURE	
-1-3	2.004	.313	9/6	F	1204	23	1893	NO FAILURE	
-1-4	1.999	.312	9/11	R	1193	23	189	FAILED	
-1-5	2.020	.313	9/28	F	1045	20	2625	NO FAILURE	
-1-6	1.999	.312	9/28	F	1193	23	630	FAILED	
-3-1	2.003	.314	10/2	F	1211	23	62	NO FAILURE	
-3-2	2.005	.316	10/3	F	1442	27	2242	NO FAILURE	
-3-3	2.004	.313	10/3	F	1571	30	1000	NO FAILURE	
-3-4	2.002	.310	10/2	R	1180	23	7014	NO FAILURE	
-3-5	2.005	.310	10/4	R	1387	27	1058	FAILED	
-3-6	2.001	.311	10/4	R	1548	30	369	FAILED	
-5-1	2.003	.313	10/6	R	1570	30	120	FAILED	
-5-2	2.005	.311	10/8	R	1396	27	467	FAILED	

TESTED BY: WOODS/WIDMER

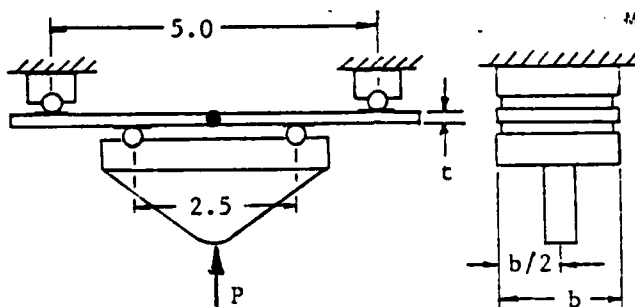
DATE: 8-17-79

TER073

TEST SPECIFICATION RMITTP00016A SPECIMEN DWG. NO.	ENGINEERING LABORATORY TEST REPORT	TEST NO. 2901
WORK ORDER 444-11-0-40		
REQUESTER F. WEBER		

BENDING FATIGUE

TEST TEMPERATURE ROOM OF _____



MAT'L. 5456 Al

$$F_s' = \frac{1.875 P}{t^2}$$

SPEC. NO.	b (in)	h (in)	DATE	F-RACE	AREA (in) ²	CYCLING DATA			K CYCLES TO FAILURE	REMARKS
						P max (lbs.)	F _s ' (ksi)			
080-53	2.002	.310	10/23	R		1385	27	349	FAILED	
-9-1	2.000	.314	9/12	R		1209	23	393	FAILED STRAINED	
-9-2	2.000	.314	9/11	R		1209	23	1109	FAILED	
-9-3	2.000	.314	9/13	R		1209	23	1010	FAILED	
-11-1	2.004	.313	7/9/79	R		1308	25	2260	NO FAILURE	
-11-2	2.003	.312	7/9/79	R		1558	30	139	FAILED	
-11-3	2.002	.312	7/12/79	R		1403	27	5028	NO FAILURE	
-13-1	2.001	.314	8/7/79	R		1570	30	271	FAILED	
-13-2	2.001	.313	9/8/79	R		1464	28	1333	NO FAILURE	
-13-3	2.000	.313	9/9/79	R		1568	30	533	FAILED	
-15-1	2.000	.192	10/18	R		492	25	2432	FAILED	
-15-2	2.000	.193	10/12	R		596	30	235	FAILED	
-15-3	2.001	.193	10/11/79	R		538	27	11,263	NO FAILURE	
-101-1	2.001	.313	7/25	F		1255	24	1034	FAILED	
101-2	1.976	.272	9/24	F		1347	26	93	FAILED	
101-3	1.995	.312	10/5	F		1243	24	604	FAILED	

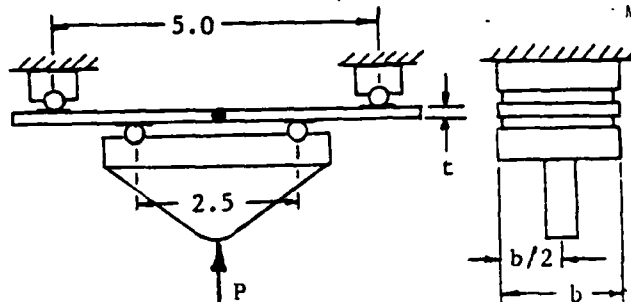
TER073

TIR TEL. NO. 2991	ENGINEERING LABORATORY	TEST SPECIFICATION RMT TTPOOD16A
WORK ORDER 444-11-0-40		SPECIMEN DWG. NO.
REQUESTER F. WEBER		TEST REPORT RERUNS

BENDING FATIGUE

TEST TEMPERATURE Room OF

MAT'L. 5456/11



$$F_s = \frac{1.875 P}{t^2}$$

SPEC. NO.	b (in)	h (in)	DATE	R-FACTOR R-ROCK IN TENSION	AREA (in ²)	CYCLING DATA		K CYCLES TO FAILURE	REMARKS
						P max (lbs.)	F _s (KSI)		
020-1-1	2.000	.314	9/14	R		1209	23	292	FAILED
1-2	2.000	.314	9/14	R		1104	21	246	FAILED
1-3	2.004	.313	9/8	F		1204	23	905	ROLLERS ONLY
3-1	2.005	.314	10/2	F		1317	25	2426	NO FAILURE
3-2	2.005	.314	1/19	F		1915	34	96	FAILED
3-3	2.009	.313	1/19	F		1885	36	42	FAILED
11-3	2.009	.313	8/6	R		1569	30	7599*	NO FAILURE
11-1	2.002	.313	8/10	R		1571	30	2442	NO FAILURE
3-4	2.002	.310	1/18	R		1642	32	111	FAILED
3-1	2.003	.314	1/18	F		1685	32	149	FAILED
* RESULT IS NOT VALID, DUE TO MALFUNCTIONING OF MACHINE									

TESTED BY: WIDMER/WOODS

DATE: 8-17-77

APPENDIX D / STIFFENED PANEL TENSILE TEST DATA

TABLE OF CONTENTS

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LIST OF ILLUSTRATIONS

Figure Number	Page
D-1 Strain Gage Identifications, Locations and Orientations on Stiffened Panel Static Tensile Test Specimens	B-521
D-2 Annotated Example of Data Printout	B-522
D-3 Strain Gage Identifications, Locations and Orientations on Stiffened Panel Tensile Fatigue Test Specimens	B-540

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1 / STATIC TEST DATA

This section contains all recorded test data for the single bay length stiffened panel static tensile test specimens. The data set presented for each specimen starts with an autographic plot of applied load versus axial strain averaged over a 10-inch gage length of the panel center section. Tabulations of the recorded strain gage readings for all applied load increments and calibration checks complete the data set presented for each specimen. Preceding the first data set are an illustration of strain measurement locations on the specimens correlated to data channel numbers, Figure D-1, and an annotated example of data printout, Figure D-2.

Index of Data Sets

Specimen Number	Page
TT802022-3-S1	D-4
TT802022-3-S2	D-8
TT802022-201-S1	D-12
TT802022-201-S2	D-16

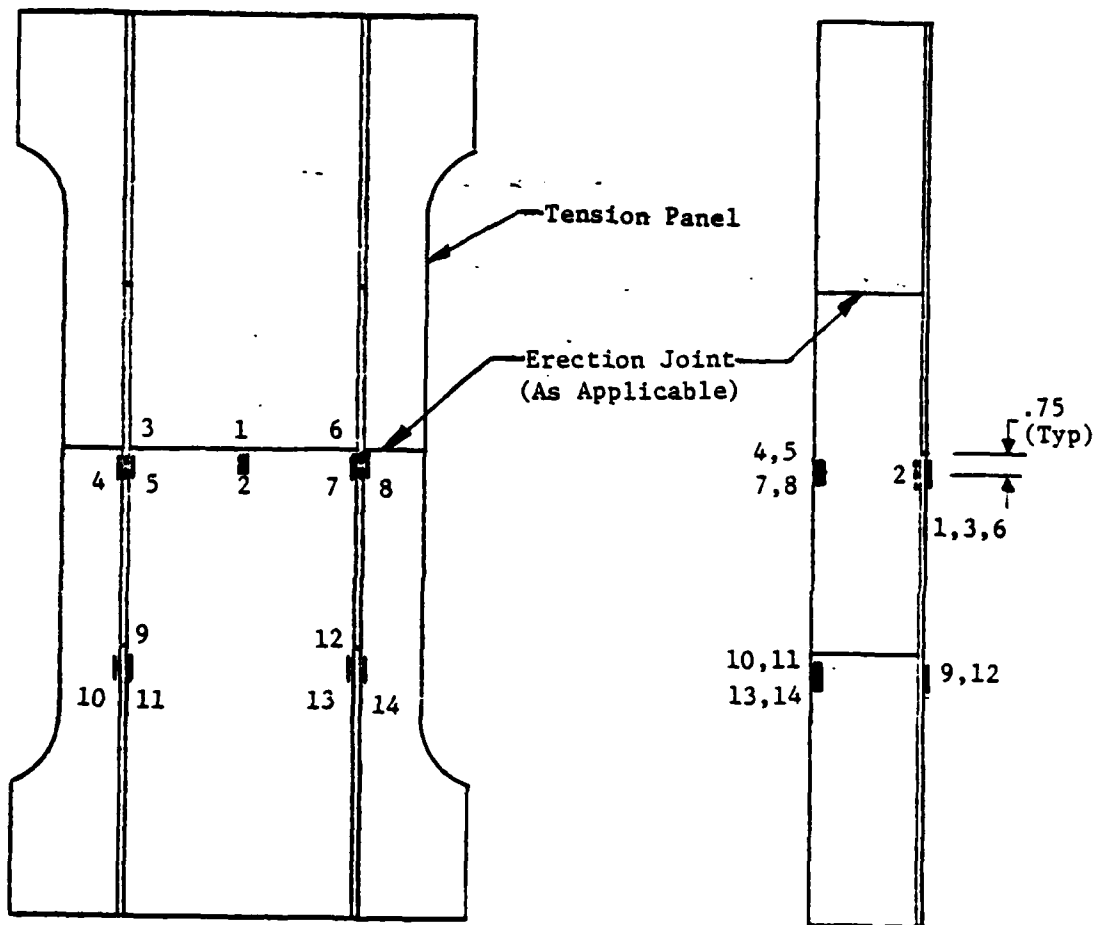


Figure D-1. Strain Gage Identifications, Locations and Orientations on Stiffened Panel Static Tensile Test Specimens.

```

14+02559
13+01780
12+01064
11+01924
10+02341
09+01133
08+02235
07+02511
06+01322
05+02035
04+02062
03+01297
02+01471
01+01176
00917070
+0223510075

```

```

14+00A66
13+00564
12+00321
11+00679
10+00828
09+00637
08+00602
07+00M30
06+00369
05+00750
04+00766
03+00376
02+00433
01+00330
00916010
+0223510025

```

```

14+03949
13+02703
12+01465
11+02649
10+03196
09+01561
08+02769
07+02663
06+02061
05+02576
04+02659
03+01669
02+02104
01+01731
00917360
+0223510100

```

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14+01649
13+01130
12+00694
11+01299
10+01581
09+00724
08+01519
07+01572
06+00201
05+01401
04+01434
03+00124
02+00528
01+00726
00916370
+0223510030

```

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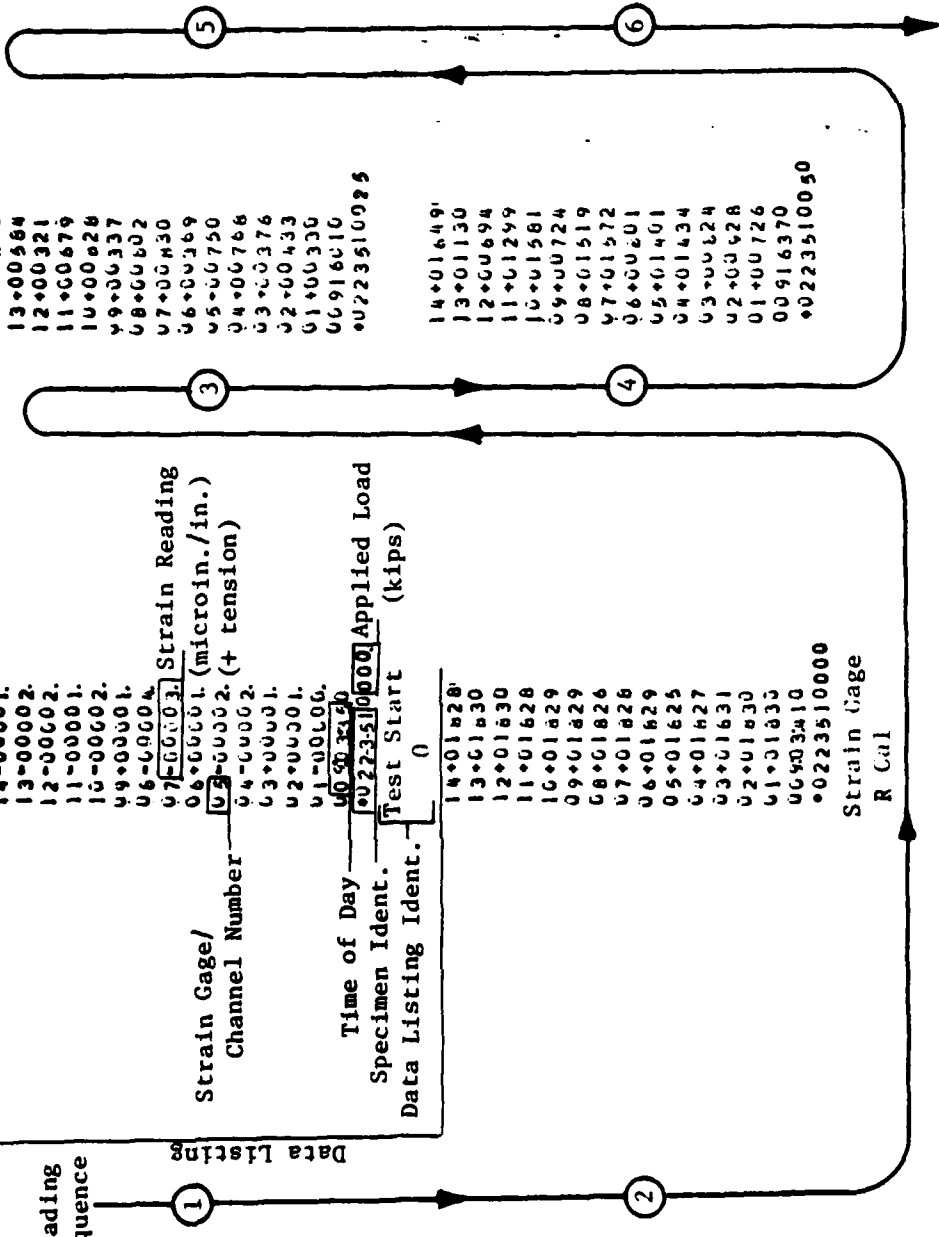
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12+00002.
11+00001.
10+00002.
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08+00004.
07+00003. Strain Reading
06+00001. (microin./in.)
05+00002. (+ tension)
04+00002.
03+00001.
02+00001.
01+00006.
00903430
+0223510000 Applied Load
Test Start (kips)
0
Specimen Ident.
Data Listing Ident.
Time of Day

```

```

14+01828
13+01830
12+01830
11+01828
10+01829
09+01829
08+01826
07+01826
06+01829
05+01825
04+01827
03+01831
02+01830
01+01830
00903410
+0223510000
Strain Gage
R Cal

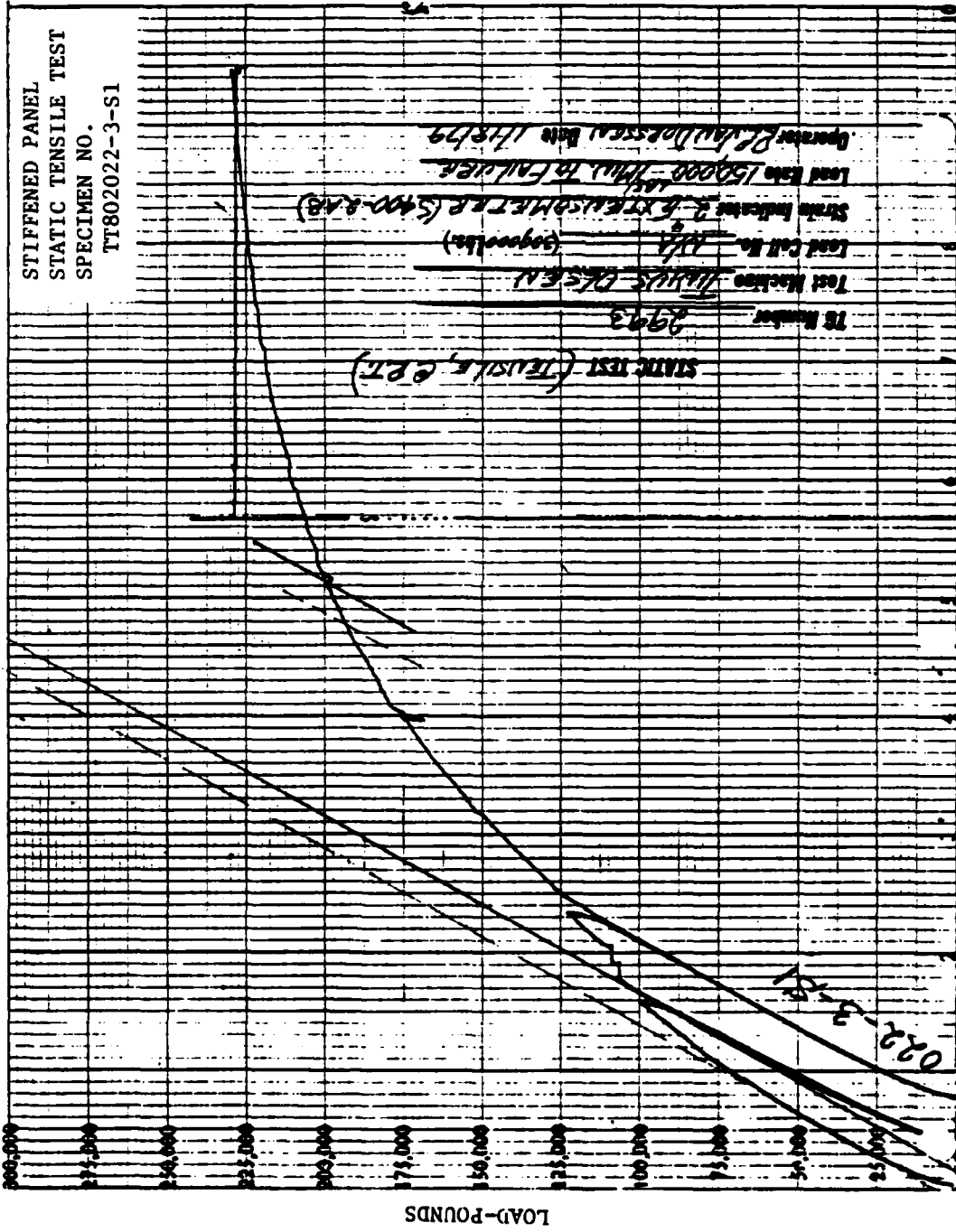
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Reading Sequence

Data Listing

Figure D-2. Annotated Example of Data Printout.



Panel TT802022-3-S1

1/18/79

14+00001
 13+00002
 12+00002
 11+00001
 10+00002
 09+00001
 08+00004
 07+00003
 06+00001
 05+00002
 04+00002
 03+00001
 02+00001
 01+00000
 00903250
 *0223510000

Test Start

0

14+01628
 13+01630
 12+01630
 11+01628
 10+01629
 09+01629
 08+01626
 07+01628
 06+01629
 05+01625
 04+01627
 03+01631
 02+01630
 01+01630
 00903210
 *0223510000

Strain Gage
R Cal

14+00876
 13+00584
 12+00321
 11+00679
 10+00828
 09+00337
 08+00802
 07+00830
 06+00369
 05+00750
 04+00766
 03+00376
 02+00433
 01+00330
 00916010
 *0223510075

Load - kips

14+01649
 13+01130
 12+00694
 11+01299
 10+01581
 09+00724
 08+01519
 07+01572
 06+00201
 05+01401
 04+01434
 03+00624
 02+00528
 01+00726
 00916370
 *0223510050

14+01168
 13+00593
 12+00020
 11+00168
 10+00264
 09+00034
 08+00101
 07+00097
 06+00436
 05+00067
 04+00077
 03+00093
 02+00230
 01+00211
 00925090
 *0223510000

Perm. Set Check

0

14+02029
 13+01198
 12+00309
 11+00877
 10+01118
 09+00379
 08+00703
 07+00733
 06+00810
 05+00698
 04+00709
 03+00297
 02+00668
 01+00549
 00934150
 *0223510025

Panel TT802022-3-S1

1/18/79

14*02779	14*06672	14*13009
13*01743	13*04327	13*09997
12*00661	12*01284	12*01934
11*01521	11*02709	11*06077
10*01885	10*03267	10*06662
09*00751	09*01552	09*03146
08*01426	08*02770	08*03358
07*01478	07*02862	07*03470
06*01209	06*02080	06*03998
05*01390	05*02625	05*03526
04*01421	04*02689	04*03443
03*00723	03*01643	03*03417
02*01132	02*02113	02*03624
01*00923	01*01735	01*03093
0093400	00935360	00947530
*0223510050	*0223510100	*0223510150

14*03501	14*07319	14*07677
13*02280	13*04839	13*01133
12*01042	12*01670	12*02559
11*02146	11*03604	11*11071
10*02615	10*00709	10*07952
09*01150	09*00179	09*04263
08*02123	08*00258	08*03426
07*02196	07*00248	07*03543
06*01643	06*00623	06*05539
05*02045	05*00051	05*03731
04*02043	04*00058	04*03889
03*01182	03*00126	03*04788
02*01625	02*00404	02*04465
01*01327	01*00376	01*03952
00935160	00942640	00948240
*0223510075	*0223510000	*0223510175

Perm. Set Check
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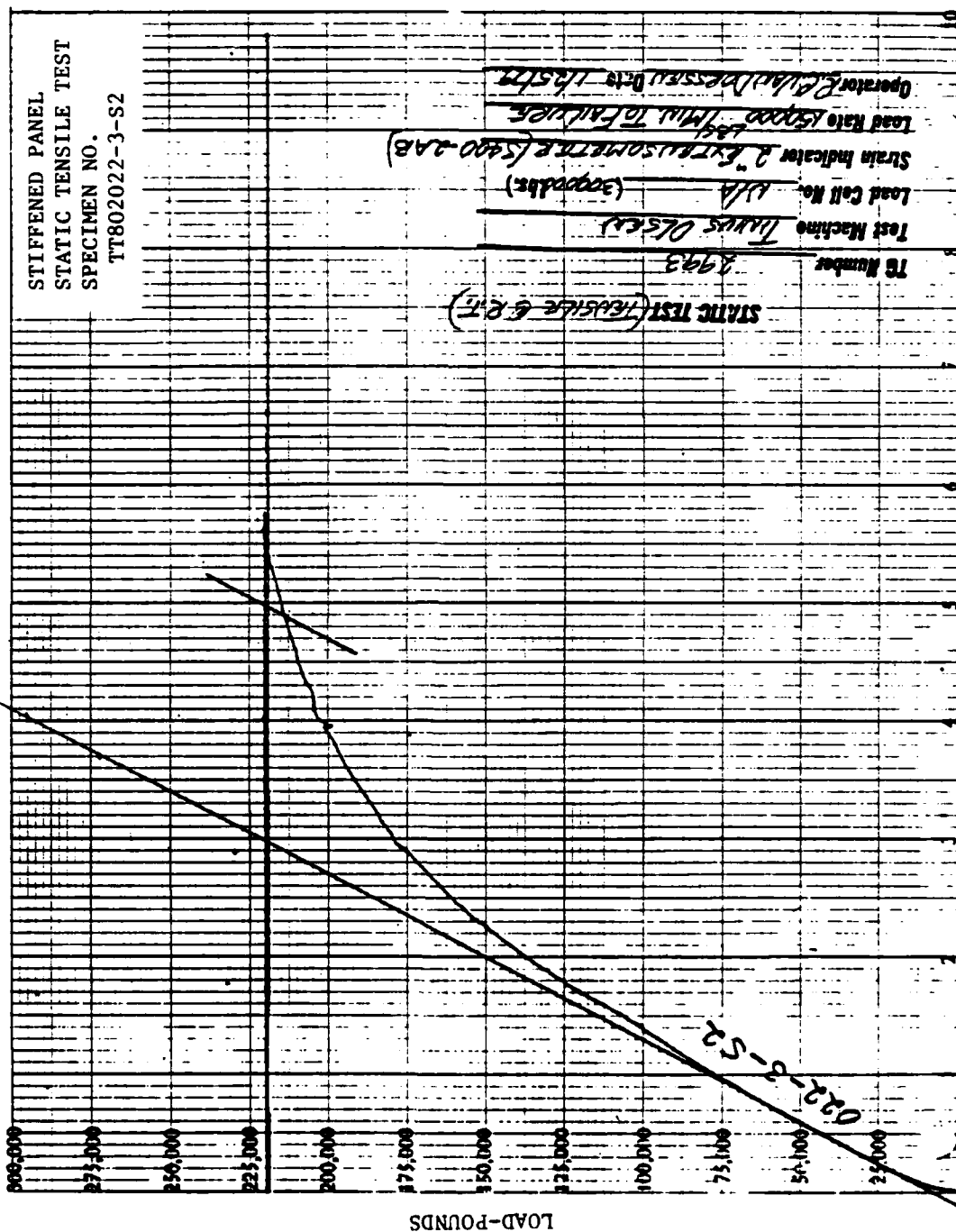
1/18/79

Panel TT802022-3-S1

14+04396	14+03653	14+03719
13+00963	13+00928	13+00900
12+03697	12+05150	12+10593
11+12635	11+12218	11+04745
10+08064	10+03541	10+02994
09+05017	09+06150	09+16747
08+03322	08+03507	08+06573
07+03430	07+03673	07+08705
06+08138	06+12294	06+04477
05+03757	05+04261	05+06954
04+03955	04+04404	04+14850
03+07088	03+11559	03+03310
02+05611	02+06898	02+01599
01+04918	01+07208	01+09778
00952480	00954480	00957310
*0223510200	*0223510220	*0223510240

14+03786	14+03703	14+03754
13+00939	13+00915	13+00896
12+04520	12+07640	12+09930
11+12131	11+07946	11+04719
10+03887	10+03067	10+02995
09+05642	09+06913	09+17662
08+03293	08+04274	08+04175
07+03413	07+04571	07+04219
06+09922	06+15409	06+04299
05+03771	05+07431	05+02517
04+04013	04+07952	04+14522
03+08409	03+15009	03+03156
02+06701	02+05662	02+01503
01+05576	01+11076	01+09378
00954090	00955280	00958090
*0223510210	*0223510230	*0223510245

End of Test



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Panel TT802022-3-S2

Strain Gage	Load-Kips	Strain Gage	Load-Kips
14+00001	14+00583	14+01704	14+05299
13+00000	13+00629	13+01676	13+04747
12+00000	12+00257	12+00493	12+02099
11+00000	11+00702	11+02449	11+16276
10+00000	10+00529	10+01614	10+11345
09+00001	09+00244	09+00788	09+01724
08+00001	08+00503	08+01400	08+02509
07+00001	07+00573	07+01579	07+02411
06+00001	06+00309	06+01034	06+02976
05+00001	05+00554	05+01571	05+02466
04+00001	04+00545	04+01544	04+02427
03+00000	03+00309	03+01281	03+03783
02+00001	02+00321	02+01084	02+02705
01+00002	01+00294	01+00995	01+02574
01449410	015062301	015071501	01509410
0223520000	0223520025	0223520075	0223520125
14+00000			
14449400			
0223520000			
Test Start			
0			
14+01421	14+01115	14+02381	14+05299
13+01417	13+01216	13+02508	13+04747
12+01418	12+00550	12+01318	12+02099
11+01417	11+01420	11+05116	11+16276
10+01419	10+01422	10+02690	10+11345
09+01417	08+00956	09+01050	09+01724
08+01417	07+01083	08+01806	08+02509
07+01418	06+00662	07+02033	07+02411
06+01417	05+01080	06+01565	06+02976
05+01417	04+01061	05+01503	05+02466
04+01420	03+00659	04+01947	04+02427
03+01419	02+00679	03+01402	03+03783
02+01417	01+00623	02+01569	02+02705
01+01417	01506500	01+01454	01+02574
01449460	0223520050	01507480	01509410
0223520000		0223520100	0223520150

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Panel TT802022-3-S2

14*07497
 13*00590
 12*03543
 11*04545
 10*02*30
 09*04898
 08*02619
 07*02972
 06*05786
 05*02539
 04*02605
 03*07640
 02*04000
 01*04473
 01510490
 *0223520200

14*04422
 13*00510
 12*04895
 11*04202
 10*02513
 09*07320
 08*02661
 07*03064
 06*08996
 05*02746
 04*02735
 03*11327
 02*06470
 01*07607
 01512310
 *0223520230

14*06293
 13*00457
 12*14458
 11*04049
 10*02366
 09*05976
 08*09070
 07*09766
 06*02775
 05*07380
 04*07207
 03*20370
 02*17340
 01*03456
 01514150
 *0223520240

14*07442
 13*00439
 12*12213
 11*03987
 10*02328
 09*05230
 08*06846
 07*04204
 06*02625
 05*17128
 04*02005
 03*29796
 02*06136
 01*02611
 01515360
 *0223520260

14*07497
 13*00590
 12*03543
 11*04545
 10*02*30
 09*04898
 08*02619
 07*02972
 06*05786
 05*02539
 04*02605
 03*07640
 02*04000
 01*04473
 01511320
 *0223520200

14*04791
 13*00471
 12*07420
 11*04104
 10*02463
 09*10098
 08*03225
 07*03695
 06*11535
 05*03468
 04*03516
 03*13940
 02*09506
 01*05198
 01513310
 *0223520230

14*05490
 13*00432
 12*14563
 11*04000
 10*02311
 09*04727
 08*10001
 07*10580
 06*02599
 05*09831
 04*10196
 03*21920
 02*18234
 01*02664
 01515670
 *0223520250

14*06523
 13*00484
 12*08655
 11*03812
 10*02272
 09*04920
 08*04042
 07*03481
 06*02593
 05*16624
 04*01897
 03*28130
 02*04933
 01*01926
 01516470
 *0223520270

Panel TT802022-3-S2 1/25/79

14+07369
 13+00489
 12+09289
 11+03784
 10+02262
 09+05428
 08+02651
 07+03441
 06+02608
 05+03698
 04+01914
 03+31504
 02+04173
 01+01208
 01517460
 +0223520380

14+07752
 13+00446
 12+06322
 11+03494
 10+02175
 09+04294
 08+02505
 07+03510
 06+02623
 05+03631
 04+01519
 03+12594
 02+04098
 01+01194
 01534320
 +0223520390

14+09444
 13+00389
 12+04428
 11+03154
 10+02100
 09+04116
 08+02444
 07+03319
 06+02598
 05+03586
 04+01822
 03+11748
 02+03874
 01+01139
 016065701
 +0223520295

14+05147
 13+00403
 12+04340
 11+03070
 10+02118
 09+02855
 08+02457
 07+03307
 06+02606
 05+03629
 04+01601
 03+10630
 02+03852
 01+01181
 01617160
 +0223520302

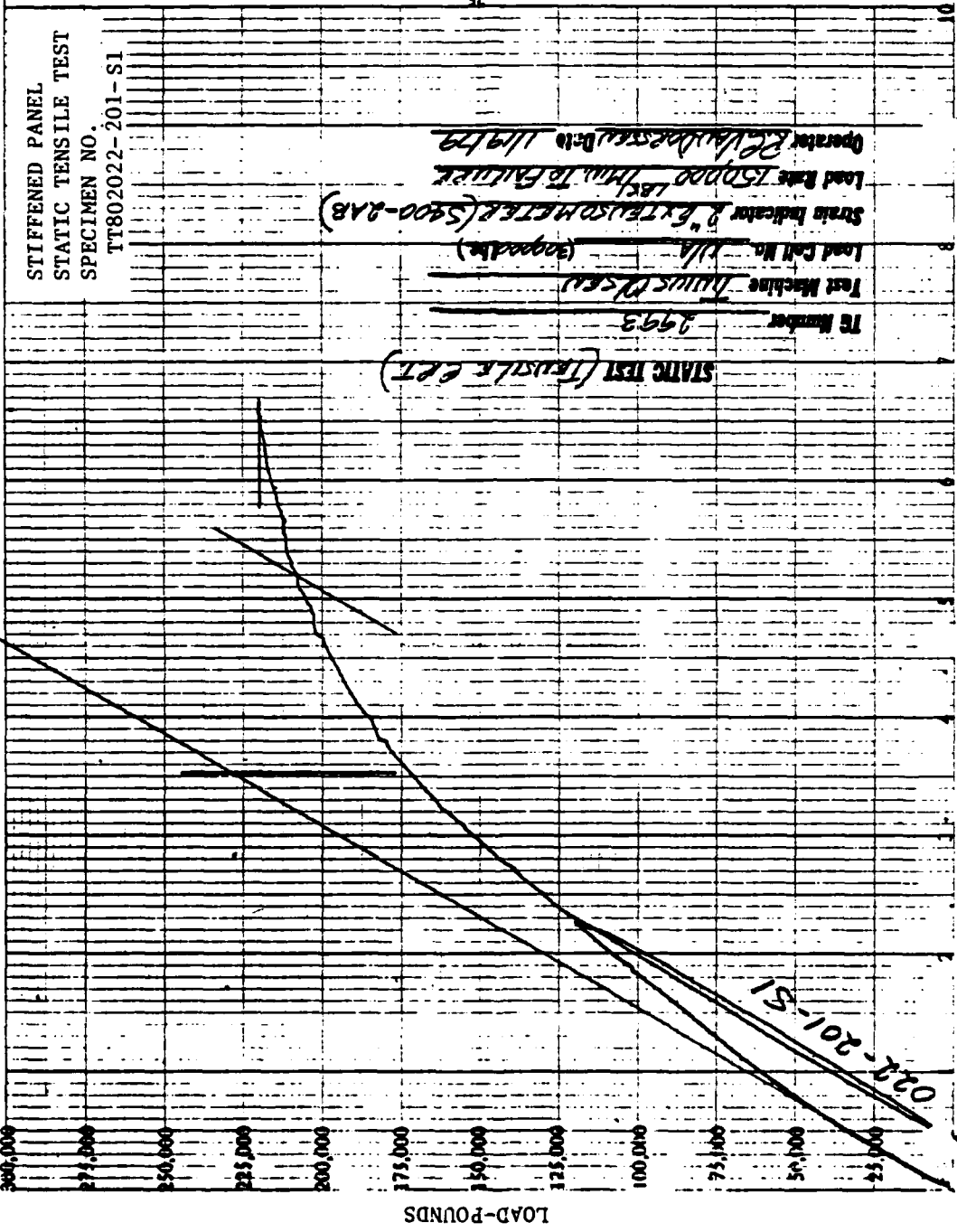
302K

Test Machine Limit

14+07049
 13+00494
 12+07427
 11+03753
 10+02235
 09+04499
 08+02465
 07+03534
 06+02608
 05+03502
 04+01905
 03+16088
 02+04106
 01+01213
 01519090
 +0223520388

14+06496
 13+00451
 12+06019
 11+03495
 10+02174
 09+04000
 08+02450
 07+03505
 06+02623
 05+03629
 04+01915
 03+12464
 02+04099
 01+01198
 01535060
 +0223520293

14+08519
 13+00407
 12+04430
 11+03156
 10+02087
 09+04165
 08+02443
 07+03524
 06+02606
 05+03593
 04+01830
 03+10983
 02+03884
 01+01153
 01607180
 +0223520300



1/19/79

Panel TT802022-201-S1

14*01285
 13*01150
 12*00163
 11*01310
 10*00995
 09*00366
 08*01142
 07*01144
 06*03417
 05*01222
 04*01073
 03*03065
 02*02373
 01*02280
 01535430
 *2220151120

14*00771
 13*00680
 12*00120
 11*00761
 10*00595
 09*00232
 08*00899
 07*00889
 06*02051
 05*00713
 04*00629
 03*01693
 02*01346
 01*01293
 01532520
 *2220151075

14*00251
 13*00192
 12*00049
 11*00266
 10*00165
 09*00073
 08*00227
 07*00222
 06*00006
 05*00240
 04*00211
 03*00406
 02*00399
 01*00377
 01531260
 *2220151025

Load - kips

14*00001
 13*00001
 12*00000
 11*00000
 10*00002
 09*00001
 08*00002
 07*00002
 06*00004
 05*00001
 04*00003
 03*00001
 02*00003
 01*00001
 01525330
 *2220151000

Test Start

14*00045
 13*00028
 12*00063
 11*00055
 10*00039
 09*00020
 08*00205
 07*00201
 06*01482
 05*00152
 04*00201
 03*01060
 02*00403
 01*00407
 01537160
 *2220151000

Perm Set Check

14*01045
 13*00925
 12*00153
 11*01048
 10*00608
 09*00296
 08*00441
 07*00926
 06*02778
 05*00983
 04*00670
 03*02527
 02*01504
 01*01830
 01533130
 *2220151100

14*00517
 13*00447
 12*00095
 11*00520
 10*00381
 09*00156
 08*00471
 07*00464
 06*01144
 05*00507
 04*00449
 03*00479
 02*00847
 01*00806
 01531510
 *2220151050

14*01428
 13*01430
 12*01427
 11*01428
 10*01424
 09*01426
 08*01426
 07*01428
 06*01425
 05*01427
 04*01425
 03*01428
 02*01425
 01*01427
 01525400
 *2220151000

Strain Gage
RCal

1/19/79

Panel TT802022-201-S1

14*03214
 13*02905
 12*00308
 11*03210
 10*02398
 09*00807
 08*03137
 07*03068
 06*12868
 05*03225
 04*03026
 03*14817
 02*03968
 01*10031
 01546010
 *2220151230

14*02403
 13*02117
 12*00168
 11*02483
 10*01490
 09*00593
 08*01948
 07*01903
 06*08863
 05*02146
 04*01962
 03*07481
 02*04847
 01*04414
 01542450
 *2220151200

14*01826
 13*01625
 12*00176
 11*01862
 10*01410
 09*00482
 08*01664
 07*01637
 06*05224
 05*01767
 04*01610
 03*04544
 02*03325
 01*03128
 01541220
 *2220151160

14*01300
 13*01150
 12*00169
 11*01314
 10*00497
 09*00356
 08*01190
 07*01170
 06*03452
 05*01242
 04*01111
 03*03054
 02*02372
 01*02276
 01540250
 *2220151120

14*03627
 13*03330
 12*00241
 11*03639
 10*02744
 09*00952
 08*08674
 07*08865
 06*03975
 05*07987
 04*08228
 03*21664
 02*03229
 01*02253
 01546230
 *2220151280

14*02801
 13*02465
 12*00181
 11*02888
 10*02168
 09*00703
 08*02254
 07*02192
 06*12931
 05*02437
 04*02230
 03*11295
 02*05022
 01*07260
 01543530
 *2220151220

14*02106
 13*01881
 12*00170
 11*02164
 10*01659
 09*00537
 08*01848
 07*01812
 06*06603
 05*01497
 04*01828
 03*05635
 02*03840
 01*03579
 01541550
 *2220151180

14*01553
 13*01379
 12*00175
 11*01571
 10*01163
 09*00421
 08*01422
 07*01396
 06*04275
 05*01466
 04*01343
 03*03760
 02*02835
 01*02699
 01540550
 *2220151140

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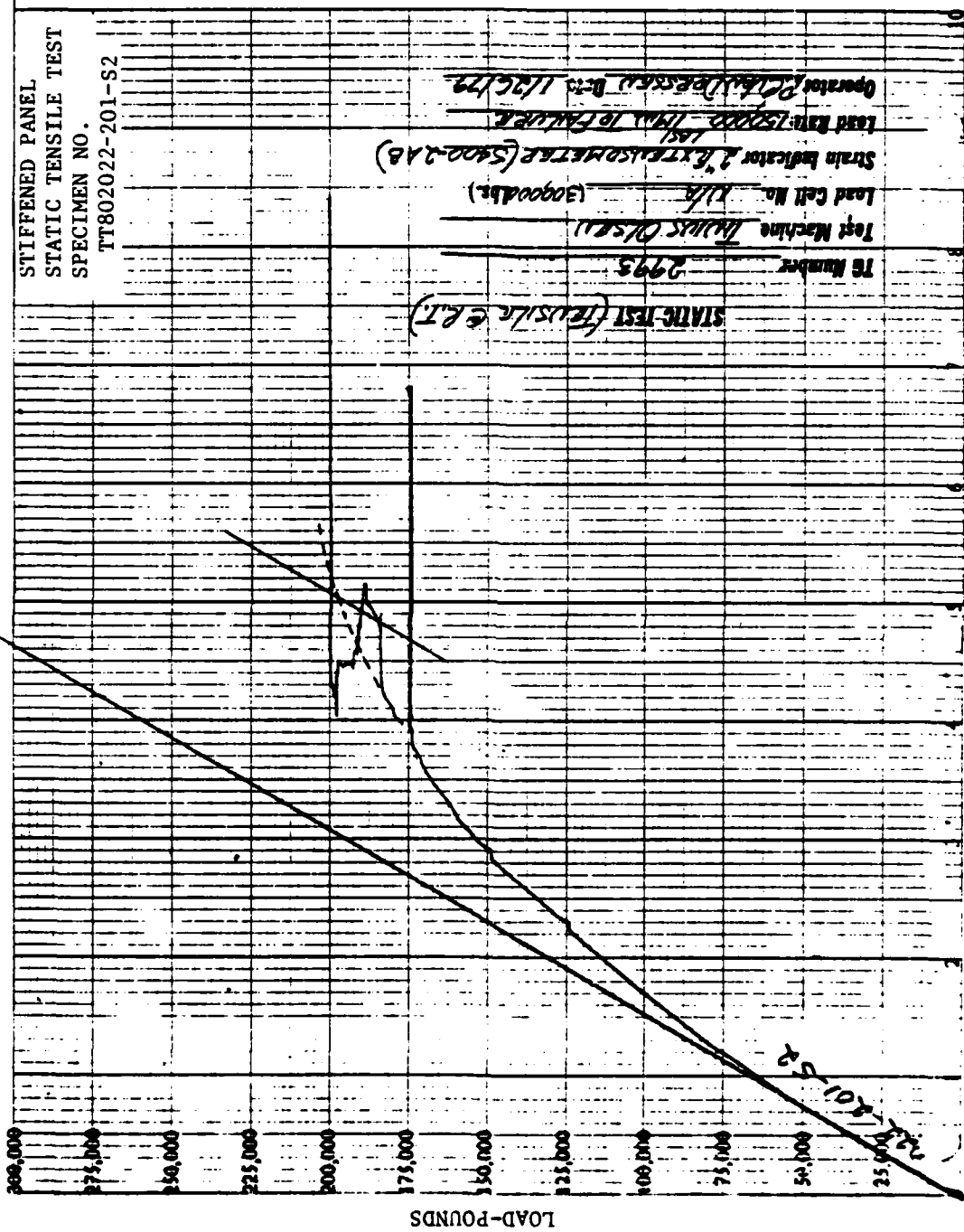
Panel TT802022-201-S1

14*01735
 13*01635
 12*00253
 11*01908
 10*00885
 09*01197
 08*05462
 07*05612
 06*03887
 05*01921
 04*13966
 03*05587
 02*03039
 01546330
 *22201512455

245.5 K

14*00989
 13*00983
 12*00138
 11*01040
 10*00086
 09*00394
 08*04952
 07*05086
 06*03567
 05*01665
 04*10194
 03*05218
 02*01463
 01*01744
 01548050
 *2220151000

Post Failure
0



TER073

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Panel TT802022-201-S2

Strain Gage	Load - kips	R Cal
14*00001	14*00285	14*01432
13*00000	13*00127	13*01019
12*00001	12*00070	12*00262
11*00001	11*00249	11*01194
10*00001	10*00125	10*01165
09*00000	09*00140	09*00433
08*00001	08*00269	08*01406
07*00001	07*00293	07*01420
06*00000	06*00381	06*02433
05*00000	05*00317	05*01471
04*00000	04*00301	04*01392
03*00000	03*00370	03*02721
02*00001	02*00371	02*02255
01*00001	01*00374	01*02286
01511240	01519420	01521420
*2220152000	*2220152045	*2220152125
Test Start	Load - kips	
0		
18*01430	14*00554	14*01767
13*01428	13*00267	13*01308
12*01426	12*00131	12*00269
11*01428	11*00494	11*01491
10*01428	10*00376	10*01452
09*01428	09*00266	09*00491
08*01426	08*00576	08*01766
07*01424	07*00586	07*01778
05*01424	06*00785	06*03754
04*01424	05*00631	05*01419
03*01428	04*00600	04*01726
02*01427	03*00737	03*03439
01*01428	02*00771	02*02432
01511300	01*00775	01*02232
*2220152000	01520190	01522160
	*2220152050	*2220152150

Panel TT802022-201-S2 1/26/79

14*02105	14*03106	14*01904
13*01610	13*02458	13*00484
12*00277	12*00472	12*00713
11*01614	11*02799	11*03376
10*01748	10*02240	10*03089
09*00528	09*00611	09*00601
08*02104	08*02266	08*01488
07*02121	07*02288	07*07347
06*04796	06*06092	06*02396
05*02150	05*02598	05*02637
04*02050	04*02489	04*01017
03*04405	03*07554	03*02495
02*03627	02*06819	02*01446
01*03380	01*05303	01*01987
01522400	01524580	01526380
*2220152179	*2220152210	*2220152249

14*02455	14*03455	14*01373
13*01496	13*02793	13*00286
12*00316	12*00586	12*00077
11*02159	11*03216	11*01293
10*02085	10*03152	10*00197
09*00586	09*00768	09*00091
08*02295	08*07677	08*01140
07*02312	07*08848	07*07626
06*06675	06*02538	06*02222
05*02455	05*10253	05*01817
04*02347	04*01368	04*00842
03*06205	03*03156	03*02584
02*05072	02*01437	02*01386
01*04327	01*07439	01*01533
01523540	01525240	01534500
*2220152200	*2220152240	*2220152000

Post Failure
0

2 / FATIGUE TEST DATA

This section contains tabulations of all recorded data from the static tensile strain survey tests conducted on selected stiffened panel specimens prior to the start of fatigue testing. In general, such strain surveys were conducted only on those specimens which exceeded the specified distortion limits based on independent measurements made by the test laboratory. The peak localized strain recorded for each specimen was then used as a basis to establish the nominal stress level for fatigue cycling. The peak strain magnification factor for each survey load increment is also tabulated with the recorded strain readings in this section.

Figure D-3, which precedes the tabulated strain data, documents the identifications, locations and orientations of all strain gages installed in various patterns on the stiffened panel fatigue test specimens.

Index of Strain Survey Data Sets

Specimen Number	Page
TT802022-3-F1	B-542
TT802022-3-F2	B-542
TT802022-3-F3	B-543

Specimen Number	Page
TT802022-11-F1	B-543
TT802022-11-F2	B-543
TT802022-11-F3	B-544
TT802022-103-F1	B-544
TT802022-103-F2	B-544
TT802022-103-F3	B-545
TT802022-107-F1	R-545
TT802022-107-F2	B-546
TT802022-107-F3	B-546
TT802022-201-F3	B-546
TT802022-203-F1	B-547
TT802022-203-F2	B-547
TT802022-203-F3	B-548
TT802022-205-F1	B-548
TT802022-205-F2	B-549
TT802022-205-F3	B-549

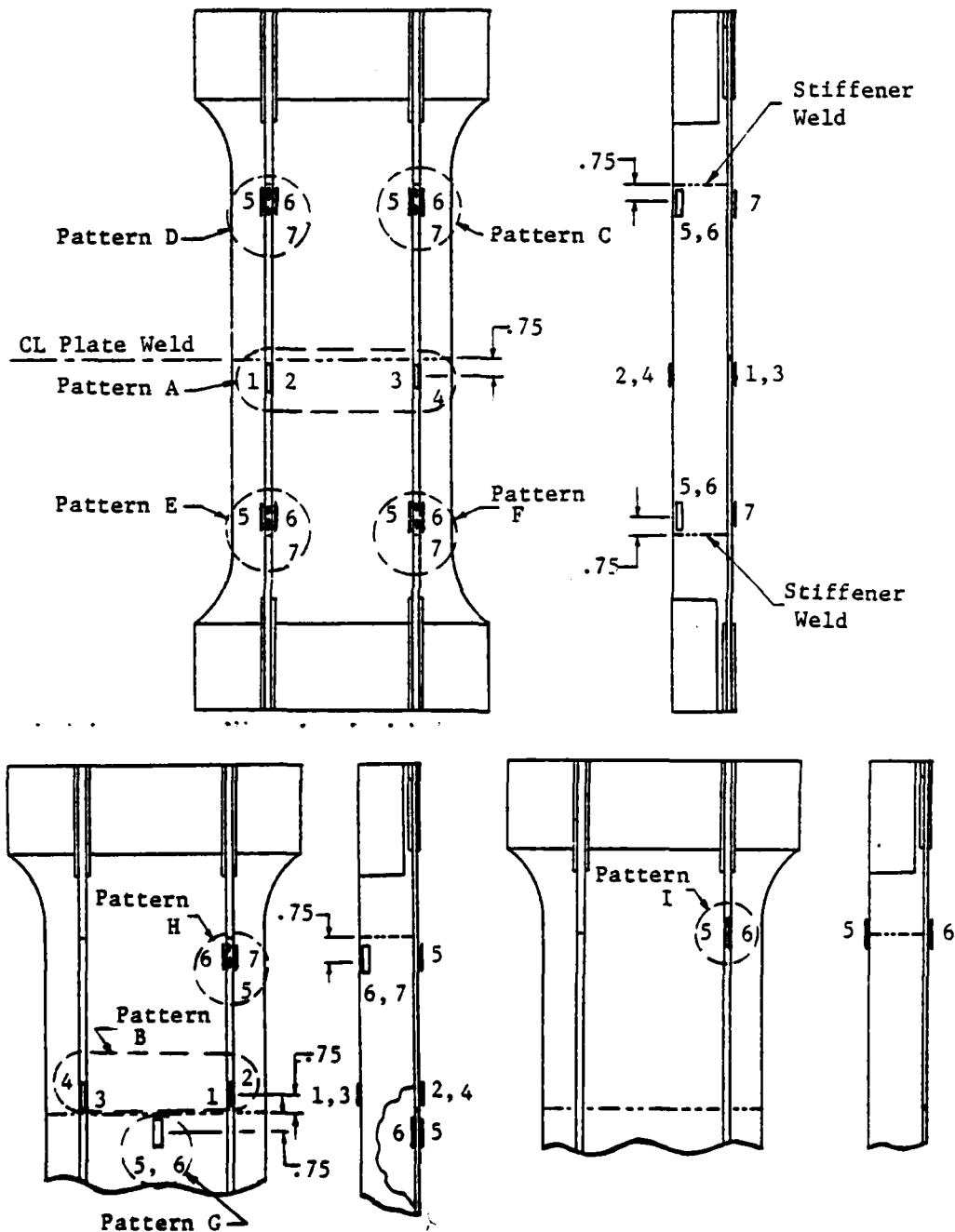


Figure D-3. Strain Gage Identifications, Locations and Orientations on Stiffened Panel Tensile Fatigue Test Specimens. (Sheet 1 of 2).

TER073

STIFFENED PANEL SPECIMEN NO.	APPLICABLE STRAIN GAGE PATTERNS from Sheet 1
TT802022-3-F1	B, H
TT802022-3-F2	A, C
TT802022-3-F3	A, E
TT802022-5-F1	A
TT802022-5-F2	A
TT802022-11-F1	A, H
TT802022-11-F2	A, F
TT802022-11-F3	A, D
TT802022-103-F1	A, D
TT802022-103-F2	A, D
TT802022-103-F3	A, C
TT802022-107-F1	A, C
TT802022-107-F2	A, C
TT802022-107-F3	A, D
TT802022-201-F1	A, G
TT802022-201-F2	A
TT802022-201-F3	A
TT802022-203-F1	A
TT802022-203-F2	A, D
TT802022-203-F3	A, D
TT802022-205-F1	A, I
TT802022-205-F2	A, E
TT802022-205-F3	A

Figure D-3. Strain Gage Identifications, Locations and Orientations on Stiffened Panel Tensile Fatigue Test Specimens (Sheet 2 of 2).

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksf)	*Strain Gage Readings - Microinches/inch							
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7
TT802022-3-F1	6.316	0	0	0	0	0	0	0	0	0
		1.58	300	100	200	100	83	279	275	
		3.17	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		4.75	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		6.33	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		7.92	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		9.50	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		11.08	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		11.88	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
		3.17	1.79	1.72	1.68	1.69	1.69	1.69	1.69	1.69
TT802022-3-F2	6.292	0	0	200	-80	60	74	112	136	
		1.59	105	242	104	257	246	343	74	
		3.18	231	461	221	475	474	659	172	
		4.76	359	682	345	709	710	980	271	
		6.36	486	896	471	937	945	1294	369	
		7.95	620	1102	600	1160	1167	1621	470	
		0	-10	12	5	23	5	-23	18	
		7.95	628	1081	605	1139	1155	1604	451	
		0	20	190	-80	160	-	-	-	
		11.08	1350	1600	1250	750	832	1851	1904	

*Reference Figure D-3 for strain gage locations and orientations.

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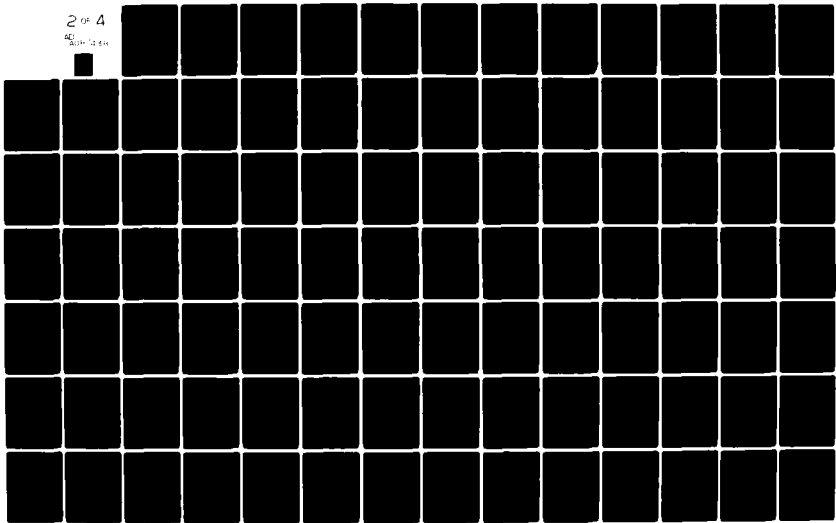
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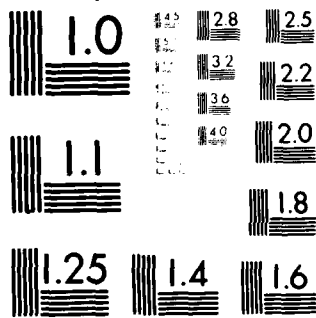
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Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	*Strain Gage Readings - Microinches/inch								
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4 †	SG 5	SG 6	SG 7	
TT802022-3-F3	6.304	0	-						0	0	
		1.59	1.3						200	170	
		3.17	1.2						370	300	
		4.75	1.3						600	500	
		6.35	1.38						850	700	370
		7.93	1.39						1070	900	
		9.50	1.38						1270	1080	550
		11.10	1.44						1550	1300	650
		0	-						0	0	0
		9.50	1.48						1350	1170	720
9.50	1.53						1400	1200	770		
TT802022-11-F1	6.279	0	-						3	2	
		2.0	2.41						152	252	
		4.0	2.32						326	473	
		6.0	2.25						500	685	
		8.0	2.19						690	890	
		0	-						15	-1	
		0	-						3	2	
		2.0	2.41						152	252	
		4.0	2.32						326	473	
		6.0	2.25						500	685	
TT802022-11-F2	6.263	0	-						0	0	
		2	2.74						146	260	
		4	2.76						308	513	
		5	2.68						394	621	
		6	2.72						474	750	
		0	-						4	-2	
		7	2.76						565	875	
		0	-						6	-1	
		0	-						0	0	
		140	532						47	532	
280	1070						112	1070			
354	1300						138	1300			
416	1582						174	1582			
18	12						12	12			
490	1876						225	1876			
10	36						2	36			

*Reference Figure D-3 for strain gage locations and orientations.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	*Strain Gage Readings - Microinches/inch									
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7		
TT802022-11-F3	6.316	0	-	0	0	0	0	0	0	0	0	0
		2	2.75	155	264	147	262	533	55	162		
		4	2.54	327	492	311	497	985	98	318		
		6	2.43	511	713	493	722	1417	137	498		
		7	2.39	611	814	582	822	1624	161	583		
		8	2.37	708	918	680	938	1841	186	672		
		0	-	21	-16	26	-15	22	10	27		
		0	-	0	0	0	0	0	0	0		
TT802022-103-F1	6.325	0	-	0	0	0	0	0	0	0	0	0
		2	.99	191	161	202	143	182	193	168		
		4	1.07	380	355	400	313	386	414	334		
		6	1.13	573	556	602	492	598	65C	508		
		8	1.17	766	761	814	645	816	908	682		
		10	1.21	958	975	1031	779	1041	1178	854		
		0	-	-15	62	23	-53	87	124	-19		
		0	-	0	0	0	0	0	0	0		
TT802022-103-F2	6.345	0	-	0	0	0	0	0	0	0	0	0
		2	1.26	190	238	162	219	257	245	172		
		4	1.20	389	417	359	400	474	467	350		
		6	1.21	597	586	559	584	697	702	538		
		8	1.21	812	751	763	758	918	936	735		
		9	1.22	929	834	868	847	1039	1068	835		
		2	-	222	108	162	218	286	304	198		
		10	1.24	1045	925	969	940	1167	1206	932		
2	-	236	203	161	219	305	328	205				
0	-	46	15	-26	30	63	83	45				

*Reference Figure D-3 for strain gage locations and orientations.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	*Strain Gage Readings - Microinches/inch									
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7		
TT802022-103-F3	6.302	0	0	3	-3	3	0	2	3	0	2	3
		2	179	236	161	258	286	309	160	160	309	160
		4	387	380	356	428	504	544	338	338	544	338
		6	601	520	561	589	722	778	524	524	778	524
		8	817	660	770	744	934	1000	711	711	1000	711
		9	925	732	877	821	1050	1119	804	804	1119	804
		0	4	-1	0	10	29	14	-6	-6	14	-6
		10	1029	831	981	907	1193	1256	891	891	1256	891
		0	4	2	6	-10	58	31	-10	-10	31	-10

TT802022-107-F1	6.344	0	0	0	0	0	0	0	0	0	0	
		2	162	248	164	246	324	314	146	146	314	146
		4	345	451	353	437	596	575	314	314	575	314
		6	538	639	550	604	823	800	494	494	800	494
		8	732	814	747	778	1068	1034	673	673	1034	673
		9	839	880	850	869	1212	1171	752	752	1171	752
		10	942	954	947	960	1352	1303	843	843	1303	843
		2	180	176	187	182	270	259	170	170	259	170
		11	1042	1044	1045	1063	1494	1436	922	922	1436	922
		12	1145	1133	1149	1156	1637	1566	1030	1030	1566	1030
2	161	191	185	299	273	186	7	7	186	7		
0	4	-15	7	12	88	61	-10	-10	61	-10		

*Reference Figure D-3 for strain gage locations and orientations.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	Max./Nom Stress	#Strain Gage Readings - Microinches/inch									
				SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7			
TT802022-107-F2	6.311	0	-	0	0	0	0	0	0	0	0		
		2	1.31	190	177	185	175	239	254	159			
		4	1.35	380	372	375	372	506	525	313			
		6	1.39	576	569	569	571	792	811	477			
		8	1.41	775	745	766	761	1072	1098	638			
		10	1.40	978	920	975	930	1318	1358	816			
		0	-	4	2	2	13	44	68	5			
		TT802022-107-F3	6.311	0	-	0	0	0	0	0	0	0	0
				2	2.0	167	262	163	268	388	195	154	
				4	1.86	358	441	347	486	721	359	324	
6	1.83			554	628	537	703	1065	531	517			
7	1.80			656	712	635	806	1225	611	620			
8	1.78			758	790	736	905	1386	692	727			
2	-			179	212	172	267	430	208	200			
9	1.78			861	868	841	1002	1557	777	839			
0	-			10	-6	12	25	94	40	68			
TT802022-201-F3	6.277			0	-	0	0	0	0	0	0	0	0
		13.54	1.37	1660	860	1805	925	-	925	-			
		0	-	340	-200	470	-220	0	0	0			
		Δ 0	-	0	0	0	0	0	0	0			
		13.54	-	1370	1030	1340	1140	0	1140	0			

*Reference Figure D-3 for strain gage locations and orientations.

Δ Strain gages re-zeroed for repeat run.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	*Strain Gage Readings - Microinches/inch										
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7			
TT802022-203-F1	6.317	0	-	0	0	0	0	0	0	0	0	0	0
		1.58	1.10	125	168	123	160	123	160	123	160	123	160
		3.16	1.08	263	332	258	327	258	327	258	327	258	327
		4.75	1.07	409	494	400	493	400	493	400	493	400	493
		6.33	1.06	560	651	549	641	549	641	549	641	549	641
		7.90	1.06	713	809	703	780	703	780	703	780	703	780
		9.50	1.05	870	972	858	925	858	925	858	925	858	925
		11.10	1.07	1023	1150	1003	1096	1003	1096	1003	1096	1003	1096
		12.65	1.08	1184	1323	1158	1250	1158	1250	1158	1250	1158	1250
		13.45	1.10	1287	1437	1250	1318	1250	1318	1250	1318	1250	1318
		0	-	35	58	32	-73	32	-73	32	-73	32	-73
TT802022-203-F2	6.351	0	-	0	0	0	0	0	0	0	0	0	0
		1.58	1.45	144	168	142	164	142	164	142	164	142	164
		3.15	1.54	296	353	276	347	276	347	276	347	276	347
		4.72	1.58	412	542	416	533	416	533	416	533	416	533
		6.30	1.61	550	729	555	714	555	714	555	714	555	714
		7.87	1.62	693	907	696	899	696	899	696	899	696	899
		8.65	1.63	765	993	768	988	768	988	768	988	768	988
		0	-	17	4	6	19	6	19	6	19	6	19
		8.65	1.70	750	1048	753	1042	753	1042	753	1042	753	1042
		0	-	0	0	0	0	0	0	0	0	0	0
		132		150	222	150	222	150	222	150	222	150	222
256		297	471	297	471	297	471	297	471	297	471		
383		448	726	448	726	448	726	448	726	448	726		
514		600	982	600	982	600	982	600	982	600	982		
650		750	1238	750	1238	750	1238	750	1238	750	1238		
720		823	1365	823	1365	823	1365	823	1365	823	1365		
30		17	9	17	9	17	9	17	9	17	9		
706		750	1415	753	1415	753	1415	753	1415	753	1415		

*Reference Figure D-3 for strain gage locations and orientations.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	%Strain Gage Readings - MicroInches/inch								
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7	
TT802022-203-F3	6.342	0	-	0	0	0	0	0	0	0	0
		1.56	1.45	113	202	114	195	223	218	100	
		3.15	1.53	246	395	248	394	468	431	205	
		4.73	1.52	380	577	383	589	700	635	318	
		6.31	1.50	532	744	521	782	918	823	441	
		7.88	1.45	686	893	665	961	1111	992	577	
		8.67	1.42	765	966	737	1046	1198	1072	651	
		0	-	12	-55	-15	15	-82	-45	49	
		7.88	1.39	694	860	672	937	1063	946	601	
		0	-	9	-57	-16	+15	-85	-48	49	

TT802022-205-F1	6.316	0	-	0	0	0	0	0	0	0	0
		2	1.16	165	205	170	225	171	174		
		4	1.09	347	395	345	423	330	350		
		6	1.06	535	576	528	617	486	531		
		8	1.02	730	750	710	789	621	713		
		9	1.00	829	779	707	870	687	805		
		10	.98	930	855	902	949	755	894		
		0	-	5	27	-1	24	22	-4		
		11	.99	1026	970	992	1060	844	879		
		12	.99	1123	1056	1089	1154	911	1063		
		0	-	4	-26	-4	29	25	-31		

*Reference Figure D-3 for strain gage locations and orientations.

Static Loading Strain Survey Results - Stiffened Panel
Fatigue Test Specimens.

Specimen No.	Section Area (in ²)	Nominal Stress (ksi)	*Strain Gage Readings - Microinches/Inch									
			Max./Nom Stress	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7		
TT802022-205-F2	6.306	0	-	0	0	0	0	0	0	0	0	0
		2	1.69	166	228	154	247	328	226	160		
		4	1.56	346	434	322	452	606	415	323		
		6	1.48	536	600	498	647	864	590	500		
		8	1.42	730	775	682	826	1099	754	682		
		9	-	5	-53	1	12	-4	10	9		
		9	1.43	834	861	781	922	1252	848	778		
		0	-	4	-58	0	15	14	8	14		
		10	1.57	931	952	874	1015	1521	903	877		
		0	-	3	-53	2	6	163	-27	22		
TT802022-205-F3	6.318	0	-	0	0	0	0	0	0	0	0	0
		2	1.23	166	238	173	217	328	217	160		
		4	1.12	349	434	359	409	606	409	323		
		6	1.08	537	630	551	584	864	590	500		
		8	1.06	725	824	751	736	1099	754	682		
		9	1.05	820	917	848	778	1252	848	778		
		10	1.04	918	1007	952	1015	1521	903	877		
		0	-	2	126	20	-26	163	-27	22		

*Reference Figure D-3 for strain gage locations and orientations.

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APPENDIX E / STIFFENED PANEL COMPRESSION TEST DATA

This appendix contains all recorded test data for the stiffened panel compression test specimens. The data set presented for each specimen consists of an autographic plot of applied load versus total compressive deformation and a tabulation of displacement transducer and strain gage readings for calibration and each applied load increment. Preceding the first data set are illustrations of strain and displacement measurement locations correlated to data channel numbers (Figure E-1 and E-2) and an annotated example of data printout (Figure E-3).

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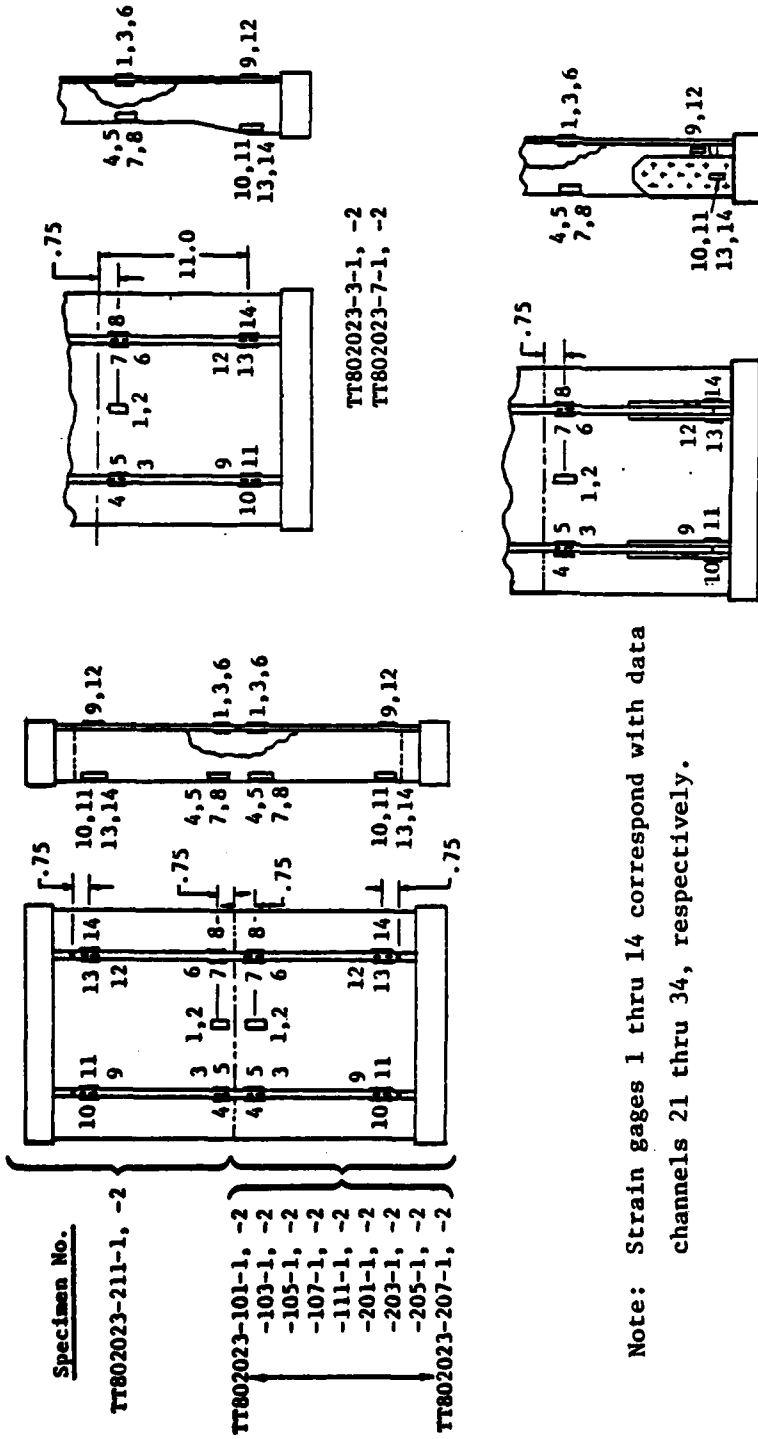
List of Illustrations

Figure Number		Page
E-1	Strain Gage Identification and Locations for Com- pression Test Panels	B-554
E-2	Displacement Gage Identification and Locations for Compression Test Panels	B-555
E-3	Annotated Example of Data Printout	B-556

List of Data Sets

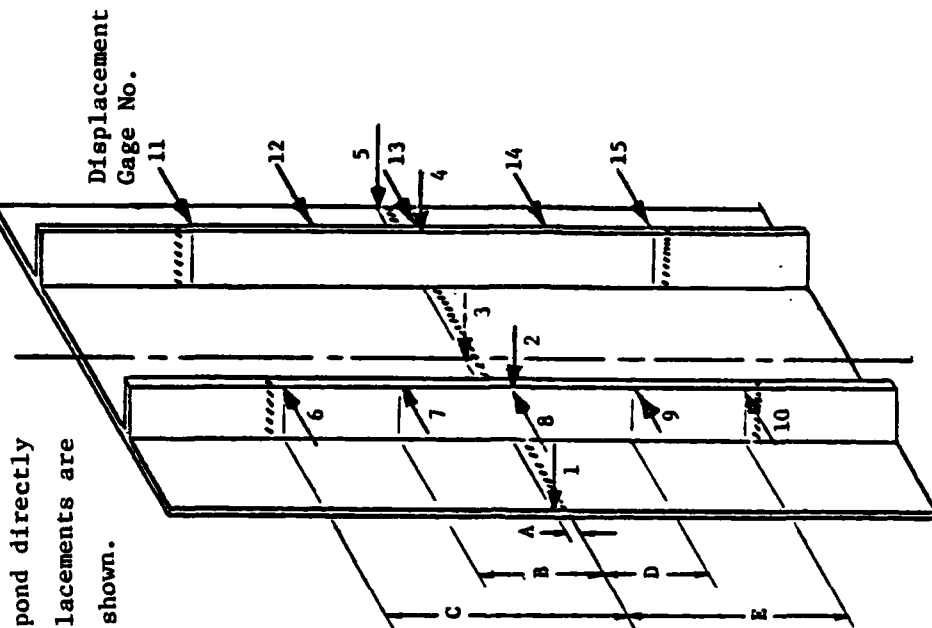
Specimen No.		Page
TT802023-3-1		B-556
TT802023-3-2		B-562
TT802023-7-1		B-567
TT802023-7-2		B-572
TT802023-11-1		B-577
TT802023-11-2		B-588
TT802023-101-1		B-589
TT802023-101-2		B-594
TT802023-103-1		B-599
TT802023-103-2		B-604
TT802023-105-1		B-609
TT802023-105-2		B-613
TT802023-107-1		B-618
TT802023-107-2		B-623
TT802023-111-1		B-628
TT802023-111-2		B-632
TT802023-201-1		B-637
TT802023-201-2		B-642
TT802023-203-1		B-648
TT802023-203-2		B-653
TT802023-205-1		B-658
TT802023-205-2		B-663
TT802023-207-1		B-668
TT802023-207-1		B-673
TT802023-211-1		B-678
TT802023-211-2		B-683

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Note: Strain gages 1 thru 14 correspond with data channels 21 thru 34, respectively.

Figure E-1. Strain Gage Identification and Locations for Compression Test Panels.



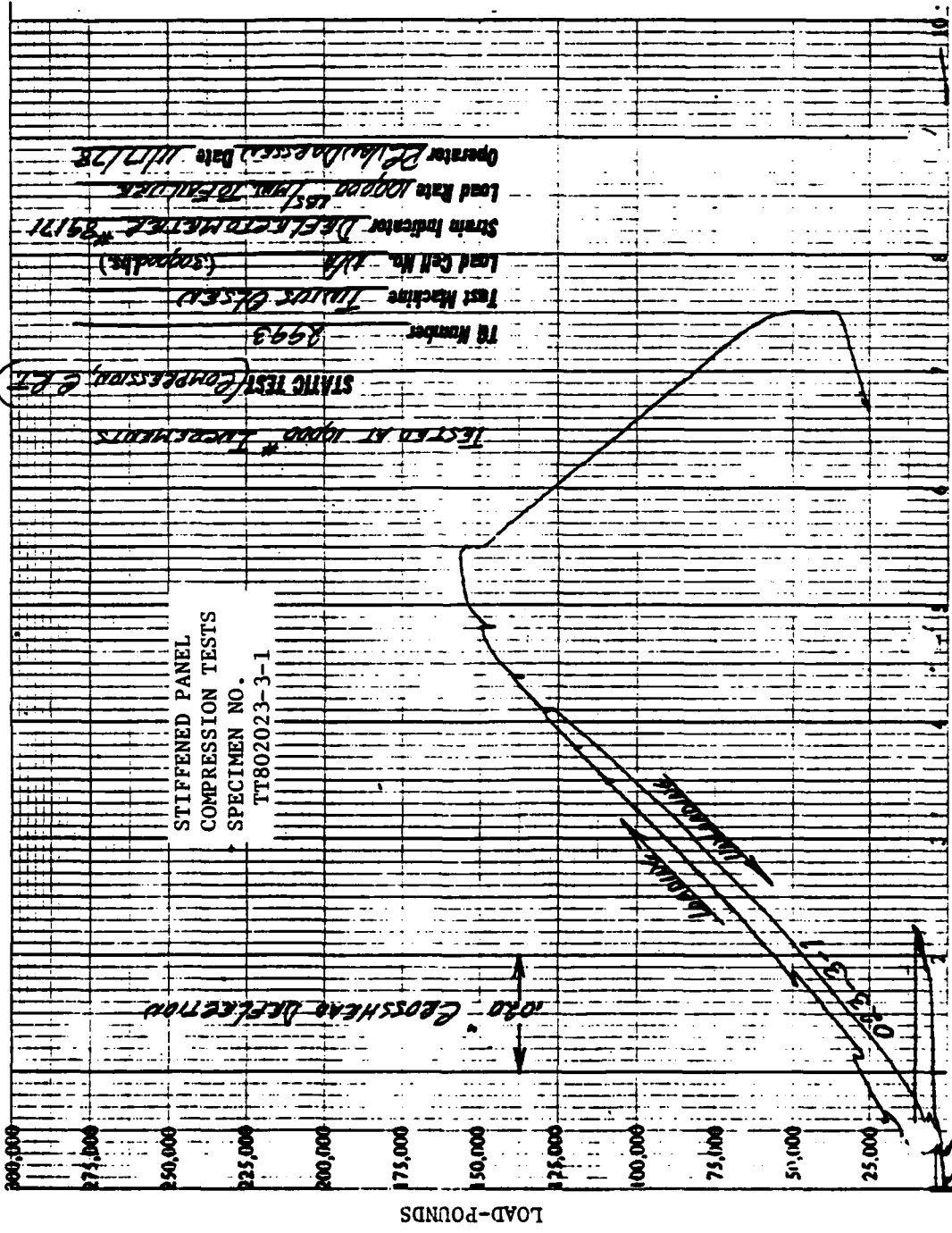
Note: Displacement gage numbers correspond directly with data channel numbers. Displacements are positive in the arrow direction shown.

Specimen No.	Dimensions (inches)				
	A	B	C	D	E
TT802023 -					
-3-1	.5	6.0	11.5	6.0	11.5
-3-2	.5	6.0	11.5	6.0	11.5
-7-1	.5	6.0	11.5	6.0	11.5
-7-2	.5	6.0	11.5	6.0	11.5
-11-1	.5	3.0	11.5	3.0	11.5
-11-2	.5	3.0	11.5	3.0	11.5
-101-1	.5	6.0	11.5	6.0	11.5
-101-2	.5	6.0	11.5	6.0	11.5
-103-1	.5	6.0	11.25	6.0	11.25
-103-2	.5	6.0	11.25	6.0	11.25
-105-1	.5	6.0	11.5	6.0	11.5
-105-2	.5	6.0	11.5	6.0	11.5
-107-1	.5	6.0	11.5	6.0	11.5
-107-2	.5	6.0	11.5	6.0	11.5
-111-1	.5	6.0	11.5	6.0	11.5
-111-2	.5	6.0	11.25	6.0	11.25
-201-1	.5	6.0	11.25	6.0	11.25
-201-2	.5	6.0	11.25	6.0	11.25
-203-1	.5	6.0	11.0	6.0	11.0
-203-2	.5	6.0	11.0	6.0	11.0
-205-1	.5	6.0	11.25	6.0	11.25
-205-2	.5	6.0	11.25	6.0	11.25
-207-1	.25	5.75	11.5	6.25	11.5
-207-2	.5	6.0	11.5	6.0	11.5
-211-1	.5	6.0	11.5	6.0	11.5
-211-2	.5	6.0	11.5	6.0	11.5

Figure E-2. Displacement Gage Identification and Locations for₃ for Compression Test Panels.

Strain gage numbers 1 thru 14 respectively; gage readings in microinches per inch.	}	34-01215	}	Strain gage No. 7; Strain = 1785 μ in./in. compression.
		33-01162		
		32-01539		
		31-00898		
		30-00987		
		29-01422		
		28-01737		
		27-01785		
		26-01546		
		25-01472		
		24-01560		
		23-01395		
		22-01500		
		21-01534		
Displacement gage numbers 1 thru 15; gage readings in .001 inch.	}	20-00003	}	Displacement gage No. 8; Displacement = .019 in. outboard.
		19-00004		
		18-00008		
		17-00006		
		16-00011		
		15-00001.		
		14-00004.		
		13-00001.		
		12-00009.		
		11-00012.		
		10-00004.		
		09-00010.		
		08-00019.		
		07-00020.		
		06-00012.		
05-00009.				
04-00014.				
03-00014.				
02-00014.				
01-00010.				
01359220	Time = 13h 59 m 22s.	} Last digit is ignored.		
01117700	Date = Nov. 17, 1978			
100K	Applied load in kips			

Figure E-3. Annotated Example of Data Printout.



COMPRESSIVE DEFORMATION - INCHES x 0.02

LOAD-POUNDS

0

34-00002
 33-00002
 32-00000
 31-00001
 30-00002
 29-00001
 28-00000
 27-00000
 26-00000
 25-00000
 24-00001
 23-00001
 22-00000
 21-00000
 20-00000
 19-00000
 18-00000
 17-00000
 16-00000
 15-00000
 14-00000
 13-00001
 12-00000
 11-00000
 10-00001
 09-00000
 08-00002
 07-00001
 06-00000
 05-00000
 04-00000
 03-00001
 02-00000
 01-00000
 01343490
 01117780

34-01412
 33-01414
 32-01416
 31-01415
 30-01417
 29-01411
 28-01413
 27-01412
 26-01410
 25-01408
 24-01409
 23-01411
 22-01410
 21-01410
 01344380
 01117780

Strain Gage
R Cal

34-00142
 33-00137
 32-00155
 31-00125
 30-00051
 29-00096
 28-00186
 27-00191
 26-00157
 25-00093
 24-00094
 23-00084
 22-00120
 21-00122
 20-00094
 19-00093
 18-00098
 17-00097
 16-00094
 15-00001
 14-00001
 13-00000
 12-00005
 11-00005
 10-00002
 09-00004
 08-00007
 07-00006
 06-00006
 05-00009
 04-00009
 03-00010
 02-00008
 01-00005
 01349180
 01117780

10K

20K

34-00409
 33-00396
 32-00465
 31-00226
 30-00244
 29-00379
 28-00570
 27-00764
 26-00410
 25-00389
 24-00405
 23-00362
 22-00416
 21-00421
 20-00402
 19-00404
 18-00406
 17-00405
 16-00404
 15-00001
 14-00004
 13-00004
 12-00009
 11-00008
 10-00003
 09-00004
 08-00009
 07-00011
 06-00009
 05-00004
 04-00009
 03-00010
 02-00009
 01-00009
 01351170
 01117780

30K

40K

Test Start
 0

34-00652	34-00768	34-00882	34-01003	34-01112	34-01215
33-00634	33-00747	33-00858	33-00975	33-01081	33-01182
32-00760	32-00908	32-01057	32-01222	32-01377	32-01539
31-00424	31-00523	31-00619	31-00721	31-00813	31-00898
30-00457	30-00563	30-00670	30-00784	30-00888	30-00987
29-00664	29-00808	29-00954	29-01121	29-01263	29-01422
28-00918	28-01087	28-01254	28-01429	28-01589	28-01737
27-00640	27-01113	27-01284	27-01451	27-01628	27-01785
26-00756	26-00905	26-01055	26-01218	26-01376	26-01546
25-00709	25-00866	25-01024	25-01181	25-01335	25-01472
24-00743	24-00910	24-01076	24-01252	24-01412	24-01560
23-00641	23-00783	23-00927	23-01084	23-01235	23-01395
22-00712	22-00863	22-01014	22-01171	22-01335	22-01500
21-00719	21-00871	21-01024	21-01181	21-01335	21-01534
20-00604	20-00765	20-00925	20-00085	20-06662	20-00003
19-00603	19-00764	19-00906	19-00065	19-06664	19-00004
18-00609	18-00766	18-00906	18-00066	18-06664	18-00004
17-00606	17-00766	17-00906	17-00066	17-06664	17-00004
16-00611	16-00767	16-00909	16-00067	16-06667	16-00004
15-00601	15-00761	15-00801	15-00601	15-00601	15-00601
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13-00003	13-00004	13-00004	13-00004	13-00004	13-00601
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10-00003	10-00003	10-00003	10-00004	10-00003	10-00004
09-00007	09-00009	09-00009	09-00005	09-00009	09-00010
08-00014	08-00014	08-00014	08-00015	08-00018	08-00019
07-00010	07-00015	07-00015	07-00015	07-00017	07-00020
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03-00012	03-00012	03-00012	03-00014	03-00014	03-00014
02-00013	02-00013	02-00013	02-00013	02-00013	02-00014
01-00010	01-00009	01-00005	01-00010	01-00009	01-00010
01353380	01355050	01356010	01357130	01358080	01359220
*1117780	*111778C	*1117780	*1117780	*1117780	*1117780
	50K	60K	70K	80K	90K
					100K

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33-01276	33-00081	33-00051	33-01451	33-01368	33-01451	33-01451	33-01368	33-01276	33-01451	33-01451
32-01717	32-00407	32-00258	32-02132	32-01905	32-02132	32-02132	32-01905	32-01717	32-02132	32-02132
31-00976	31-00050	31-00076	31-01118	31-01052	31-01118	31-01118	31-01052	31-00976	31-01118	31-01118
30-01660	30-00046	30-00081	30-01221	30-01164	30-01221	30-01221	30-01164	30-01660	30-01221	30-01221
29-01590	29-00209	29-00184	29-01962	29-01768	29-01962	29-01962	29-01768	29-01590	29-01962	29-01962
28-01872	28-00113	28-00064	28-02492	28-02004	28-02492	28-02492	28-02004	28-01872	28-02492	28-02492
27-01935	27-00151	27-00034	27-02222	27-02004	27-02222	27-02222	27-02004	27-01935	27-02222	27-02222
26-01738	26-00487	26-00346	26-02203	26-01983	26-02203	26-02203	26-01983	26-01738	26-02203	26-02203
25-01596	25-00025	25-00103	25-01804	25-01620	25-01804	25-01804	25-01620	25-01596	25-01804	25-01804
24-01693	24-00041	24-00121	24-01912	24-01820	24-01912	24-01912	24-01820	24-01693	24-01912	24-01912
23-01573	23-00347	23-00251	23-02001	23-01766	23-02001	23-02001	23-01766	23-01573	23-02001	23-02001
22-01677	22-00362	22-00248	22-02055	22-01859	22-02055	22-02055	22-01859	22-01677	22-02055	22-02055
21-01739	21-00500	21-00361	21-02250	21-01963	21-02250	21-02250	21-01963	21-01739	21-02250	21-02250
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14-00004	14-00004	14-00004	14-00004	14-00004	14-00004	14-00004	14-00004	14-00004	14-00004	14-00004
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08-00016	08-00009	08-00004	08-00026	08-00023	08-00026	08-00026	08-00023	08-00016	08-00009	08-00009
07-00019	07-00027	07-00003	07-00028	07-00024	07-00028	07-00028	07-00024	07-00019	07-00027	07-00027
06-00-13	06-00005	06-00001	06-00012	06-00012	06-00012	06-00012	06-00012	06-00-13	06-00005	06-00005
05-00009	05-00017	05-00015	05-00013	05-00009	05-00013	05-00013	05-00009	05-00009	05-00017	05-00017
04-00018	04-00031	04-00029	04-00022	04-00022	04-00022	04-00022	04-00022	04-00018	04-00031	04-00031
03-00020	03-00036	03-00027	03-00032	03-00023	03-00032	03-00032	03-00023	03-00020	03-00036	03-00036
02-00017	02-00027	02-00016	02-00027	02-00017	02-00027	02-00027	02-00017	02-00017	02-00027	02-00027
01-00011	01-00023	01-00015	01-00012	01-00010	01-00012	01-00012	01-00010	01-00011	01-00023	01-00023
01400260	01407060	01405220	01404040	01403040	01404040	01404040	01403040	01400260	01407060	01407060
01117780	01117780	01117780	01117780	01117780	01117780	01117780	01117780	01117780	01117780	01117780

130K

10K

0 after 130K

Perm. Set Check

130K

120K

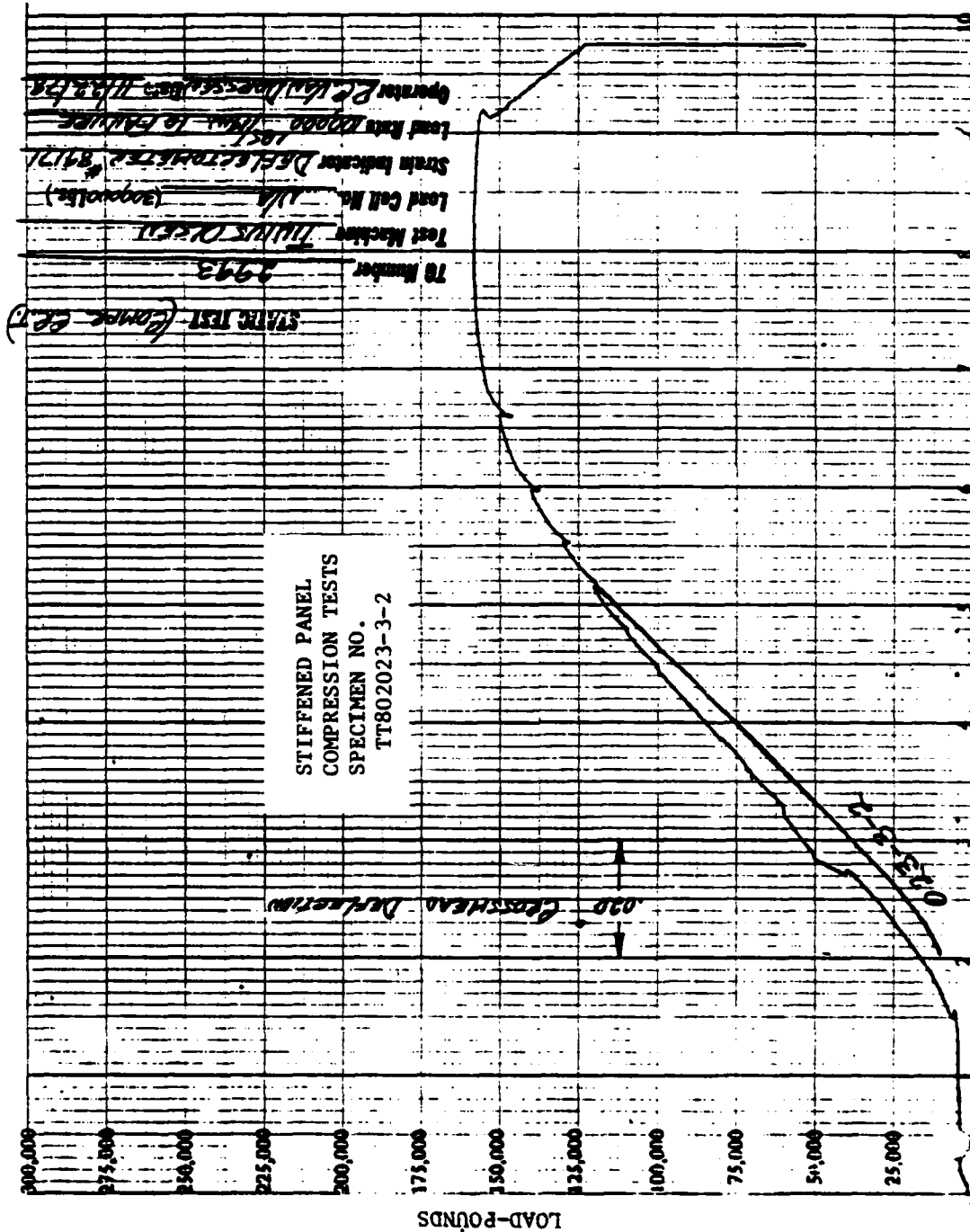
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30-01235	30-01647	30-00188
29-02221	29-02525	29-00540
28-02170	28-02027	28-01120
27-02382	27-02504	27-07971
26-02493	26-02979	26-00163
25-01909	25-01939	25-04229
24-02007	24-01459	24-03497
23-02267	23-02677	23-01136
22-02231	22-02198	22-01469
21-02522	21-02529	21-01279
20-00002	20-00004	20-00004
19-00004	19-00004	19-00007
18-00000	18-00009	18-00012
17-00006	17-00006	17-00010
16-00011	16-00004	16-00015
15-00001	15-00001	15-00025
14-00018	14-00063	14-00388
13-00014	13-00041	13-00130
12-00009	12-00045	12-00055
11-00011	11-00009	11-00006
10-00005	10-00003	10-00013
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08-00032	08-00054	08-00073
07-00040	07-00074	07-00050
06-00014	06-00014	06-00012
05-00018	05-00009	05-00023
04-00036	04-00049	04-00716
03-00048	03-00088	03-00689
02-00033	02-00047	02-00732
01-00014	01-00009	01-00801
01410220	01411080	01416490
01117780	01117780	01117780

Post Buckling
0

150K

140K



COMPRESSIVE DEFORMATION - INCHES x 0.02

34-00000	34-00195	34-00102	34-00007	15-00001	34-00000	34-00000	34-00292
33-00001	33-00184	33-00094	33-00006	33-00094	33-00006	33-00001	33-00276
32-00002	32-00288	32-00122	32-00004	32-00122	32-00004	32-00000	32-00443
31-00000	31-00184	31-00088	31-00007	31-00088	31-00007	31-00000	31-00282
30-00001	30-00184	30-00083	30-00006	30-00083	30-00006	30-00000	30-00286
29-00000	29-00314	29-00144	29-00010	29-00144	29-00010	29-00000	29-00471
28-00001	28-00292	28-00140	28-00008	28-00140	28-00008	28-00000	28-00439
27-00000	27-00306	27-00147	27-00008	27-00147	27-00008	27-00000	27-00462
26-00000	26-00267	26-00122	26-00005	26-00122	26-00005	26-00000	26-00408
25-00000	25-00311	25-00139	25-00010	25-00139	25-00010	25-00000	25-00473
24-00000	24-00473	24-00128	24-00010	24-00128	24-00010	24-00000	24-00473
23-00001	23-00295	23-00138	23-00008	23-00138	23-00008	23-00000	23-00441
22-00000	22-00249	22-00116	22-00008	22-00116	22-00008	22-00000	22-00377
21-00001	21-00304	21-00140	21-00009	21-00140	21-00009	21-00000	21-00464
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19-00000	19-00404	19-00005	19-00005	19-00005	19-00005	19-00000	19-00404
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17-00000	17-00404	17-00008	17-00008	17-00008	17-00008	17-00000	17-00404
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15-00000	15-00000	15-00000	15-00000	15-00000	15-00000	15-00000	15-00000
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05-00018	05-00018	05-00017	05-00005	05-00017	05-00005	05-00000	05-00018
04-00016	04-00016	04-00014	04-00008	04-00016	04-00008	04-00000	04-00016
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01505210	01504490	01504190	01503220	01504190	01503220	01500000	01505210
01122780	01122780	01122780	01122780	01122780	01122780	01122780	01122780

30K

20K

10K

Test Start "0"
@ .5K

Strain Gage
Zero Ref.

DEFL. IND.
ZERO REF.
@ 1K

Strain Gage
R Cal

PANEL TT802023-3-2

11/22/78

SHEET 2 of 4

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33-00372	33-00568	33-00750	33-00529
32-00595	32-00911	32-01224	32-01387
31-00379	31-00577	31-01068	31-00844
30-00389	30-00502	30-00716	30-00521
29-00625	29-00774	29-01232	29-01389
28-00586	28-00737	28-01156	28-01261
27-00618	27-00782	27-01266	27-01421
26-00551	26-00704	26-01173	26-01344
25-00637	25-00604	25-01255	25-01451
24-00578	24-00724	24-01122	24-01222
23-00587	23-00736	23-01159	23-01372
22-00504	22-00634	22-00958	22-01101
21-00627	21-00689	21-01399	21-01669
20-00607	20-00607	20-00600	20-00607
19-00604	19-00604	19-00604	19-00604
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17-00608	17-00608	17-00608	17-00608
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10-00604	10-00604	10-00604	10-00604
09-00001	09-00001	09-00001	09-00001
08-00601	08-00601	08-00601	08-00601
07-00600	07-00600	07-00600	07-00600
06-00600	06-00600	06-00600	06-00600
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04-00016	04-00016	04-00016	04-00016
03-00013	03-00013	03-00013	03-00013
02-00015	02-00015	02-00015	02-00015
01-00018	01-00018	01-00018	01-00018
01505590	01507230	01509520	01510560
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40K

50K

60K

70K

80K

90K

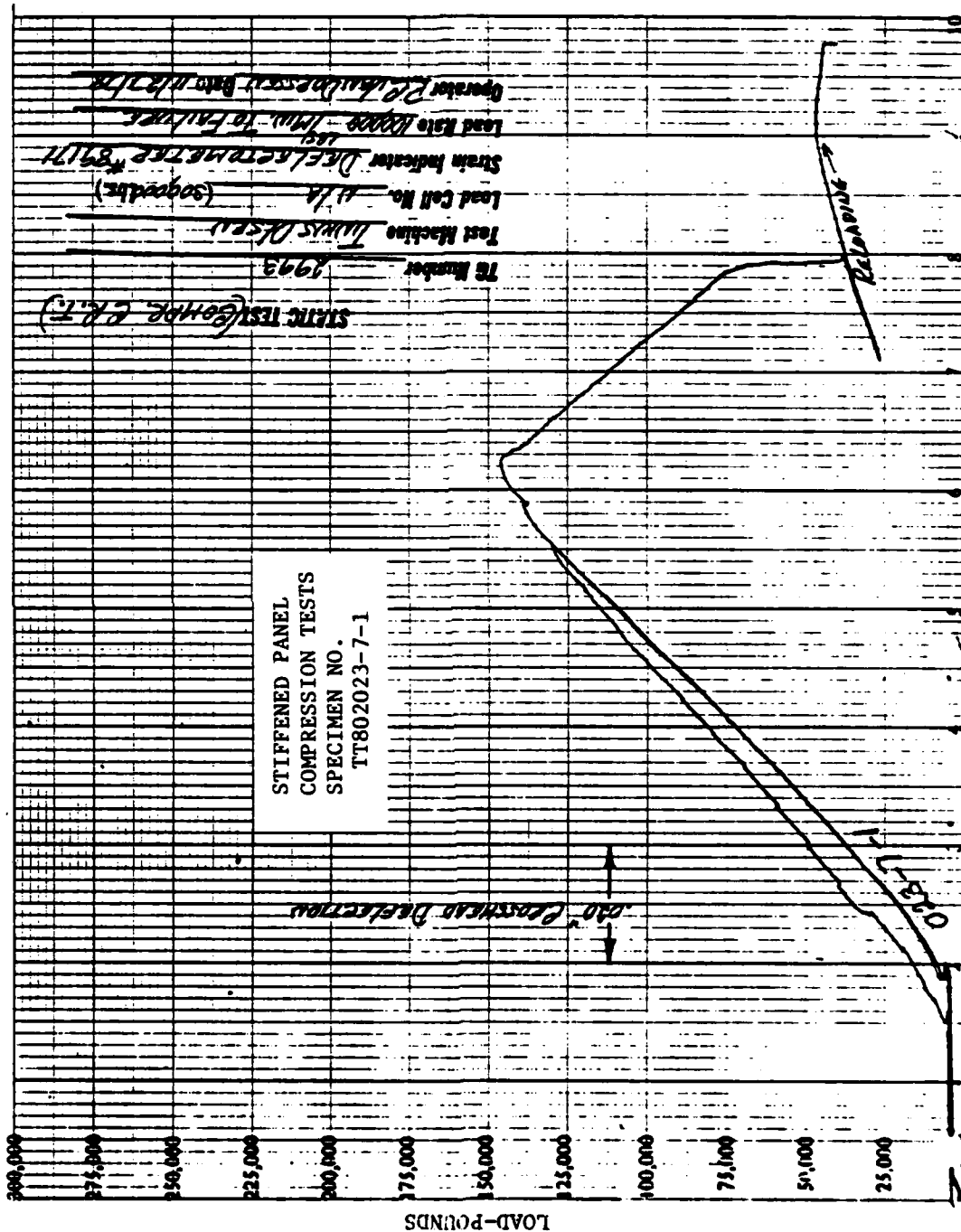
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27-01982	27-01739	27-01905	27-00086	27-01908	27-02099
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01-00027	01-00027	01-00027	01-00009	01-00024	01-00027
01511550	01513240	01514370	01515420	01518230	01519250
*1122760	*1122760	*1122760	*1122780	*1122780	*1122780
100K	110K	120K	10K	120K	130K

34-01547	34-00918
33-00876	33-00051
32-02815	32-01335
31-00940	31-00029
30-01496	30-00788
29-02783	29-01348
28-00001	28-00589
27-02765	27-19929
26-03343	26-04125
25-02751	25-03516
24-00009	24-08421
23-03516	23-04774
22-00133	22-01159
21-05449	21-04765
20-00001	20-00030
19-00006	19-00004
18-00011	18-00014
17-00009	17-00011
16-00011	16-00015
15-00002	15-00012
14-00063	14-00096
13-00066	13-00222
12-00073	12-00483
11-00004	11-00058
10-00008	10-00001
09-00059	09-00120
08-00043	08-00189
07-00075	07-00598
06-00013	06-00054
05-00023	05-01075
04-00041	04-00954
03-00107	03-00841
02-00042	02-00967
01-00019	01-01039
01521250	01522250
01122780	01122780

Post Buckling

150K

140K



STIFFENED PANEL
COMPRESSION TESTS
SPECIMEN NO.
TT802023-7-1

STATIC TEST (GEMME, R.K.F.)
TG Number 1993
Test Machine THOMAS TESTER
Load Cell No. 117A (5000 lbs.)
Strain Indicator DIELCTROMETER #89171
Load Rate 10000 - 1mm. to failure.
Operator P. J. MURPHY

80" Crosshead Deflection

COMPRESSIVE DEFORMATION - INCHES x 0.02

11/27/78

PANEL TT802023-7-1

34+00001	34+00006	34+00153	34+00247
33+00002	33+00007	33+0013A	33+00224
32+00001	32+00004	32+00304	32+00480
31+00002	31+00008	31+00194	31+00300
30+00002	30+00006	30+00196	30+00297
29+00002	29+00007	29+00293	29+00454
28+00001	28+00005	28+00398	28+00445
27+00001	27+00003	27+00271	27+00436
26+00002	26+00005	26+00257	26+00400
25+00001	25+00001	25+00461	25+00709
24+00002	24+00002	24+00307	24+0046A
23+00002	23+00007	23+00259	23+00399
22+00003	22+00004	22+00260	22+0043A
21+00002	21+00005	21+00251	21+00391
02256460	20+00017	20+00216	20+00417
*1122780	19+00004	19+00001	19+00401
Strain Gage	18+00005	18+00005	18+00405
Zero Ref.	17+00003	17+00004	17+00404
	16+00007	17+00003	17+00402
	15+00001	16+00005	16+00406
	14+00001	15+00001	15+00002
	13+00000	14+00001	14+00002
	12+00000	13+00000	13+00004
	11+00000	12+00001	12+00001
	10+00000	11+00000	11+00001
	09+00000	10+00000	10+00001
	08+00000	09+00000	09+00001
	07+00001	08+00000	08+00001
	06+00000	07+00001	07+00001
	05+00009	06+00000	06+00001
	04+00008	05+00001	05+00008
	03+00008	04+00000	04+00003
	02+00012	03+00005	03+00008
	01+00009	02+00005	02+00004
	02301300	01+00000	01+00004
*1122780	*1122780	02302500	02303220
Strain Gage	Test Start "0"	*1122780	*1122780
R Cal	@ .5K	20K	30K

34-00342	34-00443	34-00538	34-00640	34-00733	34-00821
33-00315	33-00412	33-00504	33-00601	33-00692	33-00779
32-00281	32-00375	32-00469	32-00564	32-00657	32-00744
31-00249	31-00342	31-00436	31-00531	31-00624	31-00710
30-00216	30-00309	30-00403	30-00498	30-00592	30-00686
29-00183	29-00276	29-00369	29-00463	29-00557	29-00650
28-00150	28-00243	28-00336	28-00430	28-00524	28-00617
27-00117	27-00210	27-00303	27-00397	27-00490	27-00584
26-00084	26-00177	26-00270	26-00364	26-00457	26-00551
25-00051	25-00144	25-00237	25-00331	25-00424	25-00518
24-00018	24-00111	24-00204	24-00298	24-00391	24-00485
23-00000	23-00093	23-00186	23-00280	23-00373	23-00467
22-00000	22-00093	22-00186	22-00280	22-00373	22-00467
21-00000	21-00093	21-00186	21-00280	21-00373	21-00467
20-00000	20-00093	20-00186	20-00280	20-00373	20-00467
19-00000	19-00093	19-00186	19-00280	19-00373	19-00467
18-00000	18-00093	18-00186	18-00280	18-00373	18-00467
17-00000	17-00093	17-00186	17-00280	17-00373	17-00467
16-00000	16-00093	16-00186	16-00280	16-00373	16-00467
15-00000	15-00093	15-00186	15-00280	15-00373	15-00467
14-00000	14-00093	14-00186	14-00280	14-00373	14-00467
13-00000	13-00093	13-00186	13-00280	13-00373	13-00467
12-00000	12-00093	12-00186	12-00280	12-00373	12-00467
11-00000	11-00093	11-00186	11-00280	11-00373	11-00467
10-00000	10-00093	10-00186	10-00280	10-00373	10-00467
09-00000	09-00093	09-00186	09-00280	09-00373	09-00467
08-00000	08-00093	08-00186	08-00280	08-00373	08-00467
07-00000	07-00093	07-00186	07-00280	07-00373	07-00467
06-00000	06-00093	06-00186	06-00280	06-00373	06-00467
05-00000	05-00093	05-00186	05-00280	05-00373	05-00467
04-00000	04-00093	04-00186	04-00280	04-00373	04-00467
03-00000	03-00093	03-00186	03-00280	03-00373	03-00467
02-00000	02-00093	02-00186	02-00280	02-00373	02-00467
01-00000	01-00093	01-00186	01-00280	01-00373	01-00467
0143980	0144020	0144060	0144100	0144140	0144180
*1127780	*1127780	*1127780	*1127780	*1127780	*1127780

40K

50K

60K

70K

80K

90K

34-00007	34-00094	34-010A4	34-00094	34+00094	34-010B4
33-00A65	33-009M1	33-01014	33-010B7	33+00098	33-010A5
32-017A7	32-017A7	32-01991	32-02216	32-00242	32-0224A
31-01070	31-01192	31-01317	31-01459	31+00007	31-01470
30-00674	30-01065	30-01149	30-0122A	30+00025	30-01231
29-01522	29-01A85	29-01A59	29-0204A	29-00157	29-02066
2A-02461	2A-02A88	2A-03380	2A-03969	2A-00A5A	2A-04052
27-011A4	27-01106	27-01012	27-00R36	27+00W21	27-00792
26-01325	26-01462	26-0159A	26-0173A	26-0009A	26-01751
25-02521	25-02A11	25-03121	25-03465	25-00063	25-03485
24-01535	24-016A9	24-01A47	24-02421	24-00064	24-02034
23-01360	23-01511	23-01A71	23-01A4A	23-00165	23-01A661
22-01A14	22-01A35	22-02067	22-02A00	22-00306	22-023351
21-01315	21-01A47	21-01573	21-01494	21-00128	21-017031
20-00017	20-00016	20-00016	20-00016	20-0001A	20-0001A
19-00004	19-00000	19-00000	19-00000	19+00000	19-00000
18-00005	18-00005	18-00004	18-00005	18+00004	18-00004
17-00003	17-00002	17-00003	17-00003	17+00003	17-00003
16-00003	16-00002	16-00002	16-00002	16+00002	16-00002
15-00001	15-00001	15-00001	15-00003	15-00003	15-00005
14-00001	14-00001	14-00004	14-00004	14-00001	14-00004
13-00021	13-0002A	13-00032	13-00041	13-00023	13-00045
12-00000	12-00000	12-00000	12+00001	12+00001	12+00002
11-00001	11-00001	11-00001	11-00001	11-00001	11-00001
10-00000	10-00000	10-00000	10-00000	10+00000	10+00000
09+00000	09+00000	09+00000	09+00000	09+00002	09+000019
08+00000	08+00001	08+00004	08+00004	08+00004	08+00008
07+00000	07+00009	07+00013	07+00013	07+00004	07+00017
06+00000	06+00000	06+00000	06+00002	06-00000	06+00004
05+00030	05+00035	05+00043	05+00043	05-00001	05+00051
04+00021	04+00022	04+00026	04+00031	04-00005	04+00031
03+00036	03+00040	03+00045	03+00054	03+00004	03+00054
02+00017	02+00021	02+00021	02+00024	02-00014	02+00021
01+00017	01+00017	01+00017	01+00019	01-00011	01+00017
01445060	01445470	014462A0	01447170	01448210	01449550
*1127780	*1127780	*1127780	*1127780	*1127780	*1127780
110K	110K	120K	130K	130K	130K
				Perm Set Check	
				@ 0	

TER073

SHEET 4 of 4

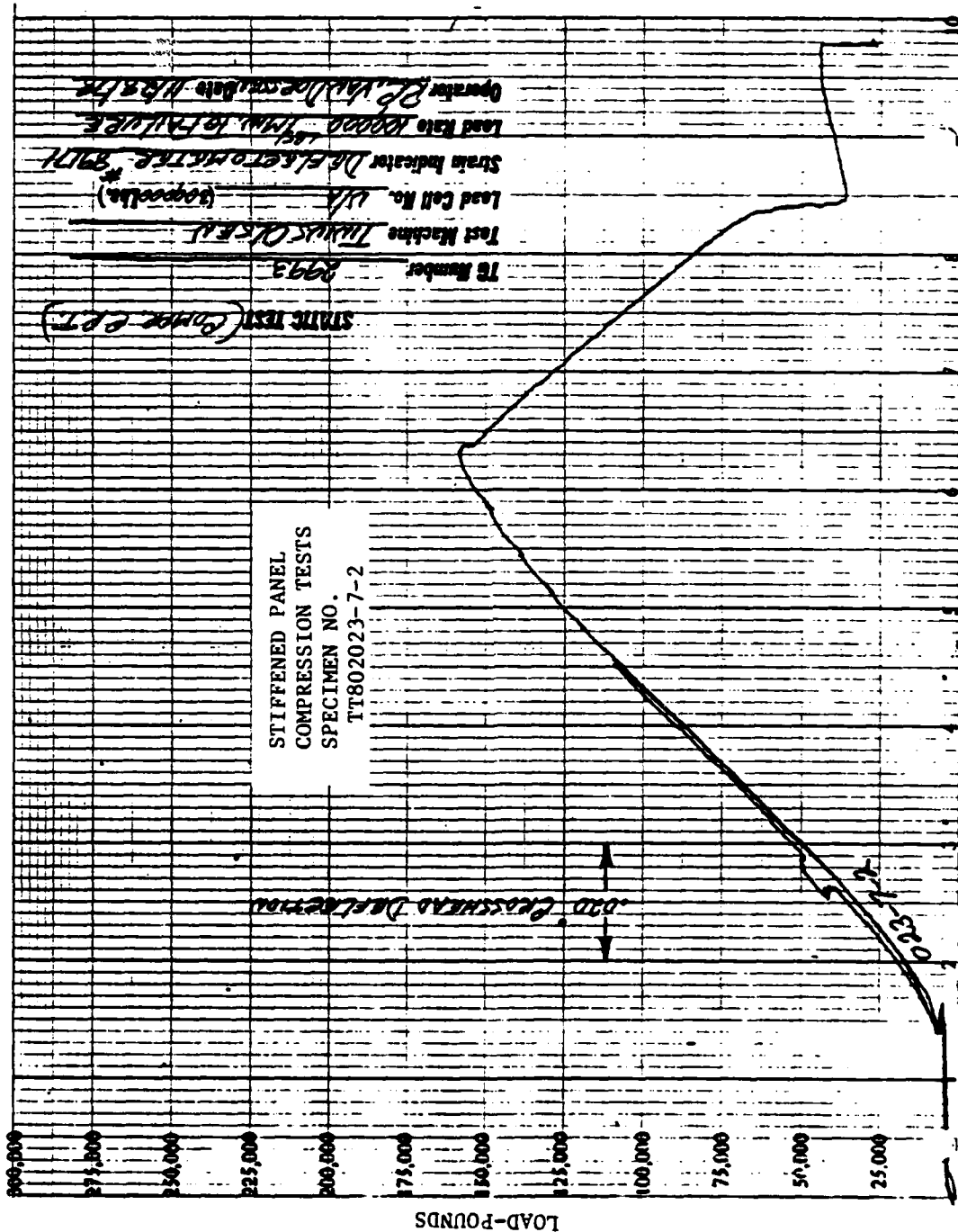
11/27/78

PANEL TT802023-7-1

34-01092	34+00144
33-01163	33-00048
32-02475	32-00371
31-01452	31+00076
30-01308	30+00094
29-02246	29-00280
28-04747	28-04067
27-00473	27+05361
26-01867	26+02678
25-03916	25-06085
24-02220	24+02617
23-02033	23+03407
22-02491	22-02402
21-01784	21+01844
20-00044	20-00004
19+00000	19+06004
18+00000	18+00000
17+00002	17+00000
16+00000	16+00000
15-00005	15+00003
14+00012	14+00023
13-00060	13-00007
12+00001	12-00046
11-00001	11-00056
10+00000	10+00009
09+00027	09+00030
08+00000	08-00094
07+00018	07+00073
06+00000	06+00091
05+00005	05+00232
04+00037	04-00062
03+00061	03-01077
02+00030	02+00298
01+00023	01+00430
01450290	01453350
01127780	01127780

Post Buckling
@ 0

140K



COMPRESSIVE DEFORMATION - INCHES x 0.02

SHEET 1 of 4

11/28/78

PANEL TT602023-7-2

34-00000	34-00003	34-00201	34-00316
33-00000	33-00004	33-00100	33-00287
32-00001	32-00004	32-00269	32-00427
31-00001	31-00007	31-00178	31-00268
30-00000	30-00000	30-00193	30-00307
29-00000	29-00012	29-00300	29-00464
28-00001	28-00001	28-00356	28-00559
27-00001	27-00001	27-00323	27-00503
26-00002	26-00002	26-00231	26-00369
25-00001	25-00002	25-00300	25-00611
24-00000	24-00003	24-00304	24-00485
23-00001	23-00011	23-00278	23-00424
22-00001	22-00005	22-00281	22-00411
21-00001	21-00006	21-00259	21-00406
01309070	20-00009	19-00000	18-00000
01128780	19-00006	18-00000	17-00000
Strain Gage	18-00005	17-00003	16-00005
Zero Ref.	17-00002	16-00006	15-00000
	16-00005	15-00000	14-00001
	15-00001	14-00001	13-00000
	14-00001	13-00001	12-00001
	13-00001	12-00000	11-00000
	12-00001	11-00000	10-00000
	11-00001	10-00000	09-00001
	10-00000	09-00000	08-00001
	09-00001	08-00000	07-00001
	08-00000	07-00000	06-00000
	07-00000	06-00000	05-00000
	06-00000	05-00000	04-00000
	05-00000	04-00000	03-00000
	04-00000	03-00000	02-00000
	03-00000	02-00000	01-00000
	02-00000	01-00000	01318270
	01-00000	01318060	01128780
	01128780	10K	30K
	Test Start "0"		
	@ .5K		

SHEET 2 of 4

11/28/78

PANEL TT802023-7-2

34-00433	34-00666	34-00785	34-00896	34-01011
33-00595	33-00612	33-00722	33-00824	33-00930
32-00576	32-00724	32-00872	32-01165	32-01319
31-00395	31-00611	31-00720	31-00824	31-00932
30-00419	30-00529	30-00744	30-00847	30-00953
29-00621	29-00774	29-01022	29-01231	29-01388
28-00759	28-00955	28-01162	28-01368	28-01772
27-00578	27-00851	27-01022	27-01194	27-01522
26-00205	26-00642	26-00779	26-00919	26-01198
25-00840	25-010721	25-01304	25-01542	25-02028
24-00661	24-00834	24-01004	24-01172	24-014821
23-00564	23-007011	23-00839	23-00978	23-012511
22-00528	22-007051	22-00850	22-00997	22-012851
21-00550	21-006931	21-00836	21-00987	21-012821
19-00000	19-00000	19-00000	19-00000	19-00000
18-00000	18-00000	18-00000	18-00000	18-00000
17-00000	17-00000	17-00000	17-00000	17-00000
16-00000	16-00000	16-00000	16-00000	16-00000
15-00000	15-00000	15-00000	15-00000	15-00000
14-00000	14-00000	14-00000	14-00000	14-00000
13-00000	13-00000	13-00000	13-00000	13-00000
12-00000	12-00000	12-00000	12-00000	12-00000
11-00000	11-00000	11-00000	11-00000	11-00000
10-00000	10-00000	10-00000	10-00000	10-00000
09-00000	09-00000	09-00000	09-00000	09-00000
08-00000	08-00000	08-00000	08-00000	08-00000
07-00000	07-00000	07-00000	07-00000	07-00000
06-00000	06-00000	06-00000	06-00000	06-00000
05-00000	05-00000	05-00000	05-00000	05-00000
04-00000	04-00000	04-00000	04-00000	04-00000
03-00000	03-00000	03-00000	03-00000	03-00000
02-00000	02-00000	02-00000	02-00000	02-00000
01-00000	01-00000	01-00000	01-00000	01-00000
01319160	01320470	01321360	01322510	01324260
01128780	01128780	01128780	01128780	01128780

90K

80K

70K

60K

50K

40K

SHEET 3 of 4

11/28/78

PANEL TT802023-7-2

34-01118	34-01222	34-01340	34-01441
33-01029	33-01123	33-01231	33-01319
32-01471	32-00066	32-01620	32-02017
31-01036	31-00032	31-01246	31-01345
30-01052	30-00032	30-01239	30-01310
29-01582	29-00086	29-01897	29-02102
28-01971	28-00030	28-02418	28-02651
27-01679	27-00023	27-01997	27-02135
26-01339	26-00060	26-01666	26-01891
25-02303	25-00121	25-03033	25-03473
24-01615	24-00057	24-01827	24-01899
23-01319	23-00069	23-01697	23-01667
22-01431	22-00031	22-01742	22-01879
21-01430	21-00084	21-01771	21-01967
20-00036	20-00036	20-00035	20-00036
19-00001	19-00001	19-00001	19-00001
18-00005	18-00005	18-00005	18-00005
17-00003	17-00003	17-00003	17-00003
16-00004	16-00004	16-00004	16-00004
15-00000	15-00000	15-00000	15-00000
14-00002	14-00001	14-00001	14-00002
13-00004	13-00002	13-00004	13-00009
12-00000	12-00000	12-00000	12-00000
11-00000	11-00000	11-00000	11-00000
10-00001	10-00001	10-00001	10-00000
09-00005	09-00002	09-00006	09-00011
08-00008	08-00012	08-00013	08-00017
07-00006	07-00001	07-00008	07-00010
06-00001	06-00005	06-00001	06-00000
05-00012	05-00014	05-00008	05-00008
04-00018	04-00014	04-00018	04-00017
03-00028	03-00013	03-00029	03-00033
02-00015	02-00014	02-00016	02-00016
01-00029	01-00013	01-00052	01-00033
01325220	01328340	01331050	01331530
01128780	01128780	01128780	01128780
100K	110K	120K	130K

Perm. Set Check @ 0

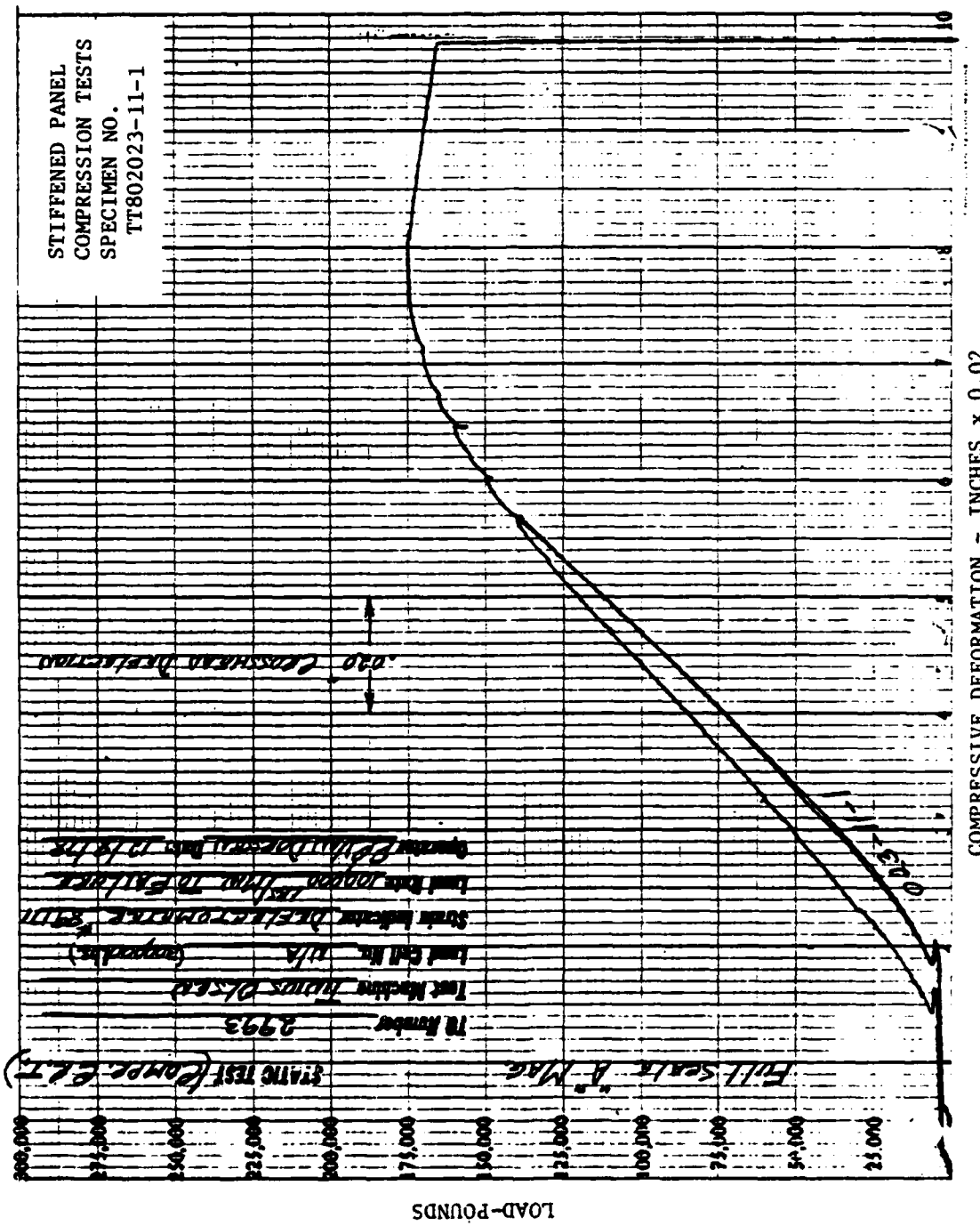
34-01537	34-01621	34-00165
33-01573	33-01465	33-00002
32-02281	32-02517	32-00758
31-01453	31-01603	31-00881
30-01360	30-01354	30-00194
29-02332	29-02615	29-00807
28-02508	28-03199	28-00539
27-02261	27-02381	27-05258
26-02062	26-02321	26-01710
25-03975	25-04621	25-03835
24-01961	24-01994	24-02269
23-02056	23-02286	23-05104
22-02006	22-02079	22-02820
21-02190	21-02486	21-02413
20-00035	20-00033	20-00059
19-00001	19-00004	19-00004
18-00006	18-00006	18-00006
17-00003	17-00007	17-00007
16-00006	16-00007	16-00007
15-00003	15-00004	15-00062
14-00002	14-00002	14-00395
13-00014	13-00013	13-00137
12-00001	12-00000	12-00101
11-00001	11-00001	11-00122
10-00001	10-00001	10-01043
09-00011	09-00020	09-01076
08-00017	08-00026	08-00556
07-00014	07-00017	07-01034
06-00001	06-00001	06-01031
05-00004	05-00000	05-00513
04-00016	04-00018	04-00533
03-00032	03-00029	03-00506
02-00016	02-00015	02-00475
01-00033	01-00038	01-00470
0133300	0133370	0133710
01128/61	01128/61	01128/60

Post Buckling
0

150K

140K

TER073



B-577

12/8/78

PANEL TT802023-11-1

Strain Gage Zero Ref.	Strain Gage R Cal	DEFL. IND. ZERO REF.	Test Start
2A-00003	2A-01414	2A-00049	2A-00002
27-00001	27-01414	27-00045	27-00109
26-00004	26-01415	26-00053	26-00114
25-00003	25-01417	25-00042	25-00116
24-00000	24-01417	24-00037	24-00107
23-00000	23-01415	23-00053	23-00127
22-00003	22-01417	22-00052	22-00122
21-00003	21-01415	21-00048	21-00114
20-00003	20-00044	20-00046	20-00018
19-00000	19-00004	19-00009	19-00008
18-00003	18-00004	18-00013	18-00011
17-00003	17-00004	17-00011	17-00009
16-00003	16-00011	16-00013	16-00013
15-00208	15-00044	15-00001	15-00001
14-01946	14-00943	14-00001	14-00000
13-00684	13-00911	13-00001	13-00001
12-00752	12-0093A	12-00001	12-00000
11-0059A	11-00455	11-00001	11-00005
10-0018A	10-0045A	10-00000	10-00000
04-00200	09-0084A	09-00000	09-00000
0A-00154	0A-00A9A	0A-00000	0A-00000
07-00173	07-0086A	07-00000	07-00000
06-00080	06-0098A	06-00001	06-00001
05-00111	05-00932	05-00001	05-00000
04-00105	04-00941	04-00000	04-00000
03-00187	03-00912	03-00001	03-00003
02-00155	02-00993	02-00000	02-00001
01-00052	01-01020	01-00000	01-00000
0017270	0017370	00158270	00201130
*1615780	*1615780	*1615780	*1615780

Strain Gage
Zero Ref.

Strain Gage
R Cal

DEFL. IND.
ZERO REF.

Test Start

@5K

10K

20K

SHEET 2 of 5

12/8/78

PANEL TT802023-11-1

28-00421	28-00714	28-00A57	28-0100A	28-01116
27-00383	27-00649	27-00779	27-00914	27-0103A
26-0051A	26-00707	26-00A55	26-01014	26-01172
25-00430	25-00725	25-00A77	25-01023	25-01165
24-00395	24-00665	24-00797	24-00932	24-01057
23-00430	23-00722	23-00A69	23-01025	23-01176
22-0052A	22-00729	22-00880	22-01046	22-0121A
21-00396	21-00674	21-00814	21-00966	21-01112
20-00619	20-00014	20-00114	20-00619	20-00619
19-00014	19-00004	19-00004	19-00004	19-00004
18-00014	18-00014	18-00014	18-00014	18-00014
17-00010	17-00010	17-00010	17-00010	17-00010
16-00014	16-00014	16-00014	16-00014	16-00014
15-00001	15-00001	15-00001	15-00001	15-00001
14-00001	14-00001	14-00001	14-00001	14-00001
13-00001	13-00001	13-00001	13-00001	13-00001
12-00001	12-00001	12-00001	12-00001	12-00001
11-00006	11-00008	11-00009	11-00009	11-00009
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09-00000	09-00000	09-00000	09-00000	09-00000
08-00000	08-00000	08-00001	08-00001	08-00000
07-00000	07-00003	07-00003	07-00003	07-00003
06-00004	06-00004	06-00004	06-00004	06-00004
05-00000	05-00000	05-00000	05-00000	05-00000
04-00000	04-00000	04-00002	04-00002	04-00002
03-00000	03-00000	03-00000	03-00000	03-00000
02-00003	02-00002	02-00003	02-00002	02-00002
01-00005	01-00005	01-00005	01-00005	01-00005
00202400	00203030	00203440	00204370	00204440
*16157801	*1615780	*1615780	*1615780	*16157801

30K

40K

50K

60K

70K

80K

2A-01287
 27-01154
 26-01334
 25-01304
 24-01177
 23-01334
 22-01403
 21-01255
 20-00119
 19-00002
 18-00112
 17-00010
 16-00010
 15-00001
 14-00000
 13-00001
 12-00000
 11-00009
 10-00000
 09-00000
 08-00000
 07-00000
 06-00003
 05-00001
 04-00000
 03-00000
 02-00005
 01-00005
 00205420
 *1615780

90K

28-01415
 27-01263
 26-01512
 25-01434
 24-01287
 23-01497
 22-01615
 21-01401
 20-00014
 19-00008
 18-00012
 17-00010
 16-00012
 15-00012
 14-00000
 13-00002
 12-00000
 11-00010
 10-00000
 09-00000
 08-00000
 07-00001
 06-00003
 05-00000
 04-00000
 03-00004
 02-00009
 01-00010
 00206330
 *1615780

100K

28-01542
 27-01364
 26-01694
 25-01558
 24-01384
 23-01674
 22-01862
 21-01401
 20-00014
 19-00002
 18-00012
 17-00010
 16-00012
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 12-00000
 11-00010
 10-00000
 09-00000
 08-00000
 07-00002
 06-00004
 05-00000
 04-00004
 03-00009
 02-00009
 01-00010
 00206330
 *1615780

110K

28-01450
 27-01444
 26-01889
 25-01662
 24-01469
 23-01866
 22-02102
 21-01684
 20-00014
 19-00004
 18-00012
 17-00010
 16-00012
 15-00001
 14-00001
 13-00002
 12-00001
 11-00009
 10-00000
 09-00003
 08-00004
 07-00001
 06-00004
 05-00004
 04-00009
 03-00010
 02-00014
 01-00010
 00207050
 *1615780

120K

28-01749
 27-01504
 26-02100
 25-01755
 24-01542
 23-02083
 22-02360
 21-01817
 20-00014
 19-00004
 18-00012
 17-00010
 16-00012
 15-00001
 14-00003
 13-00001
 12-00004
 11-00010
 10-00000
 09-00004
 08-00005
 07-00000
 06-00004
 05-00009
 04-00014
 03-00014
 02-00014
 01-00015
 00207350
 *1615780

130K

28-01847
 27-01554
 26-02345
 25-01834
 24-01605
 23-02339
 22-02444
 21-01957
 20-00014
 19-00004
 18-00012
 17-00010
 16-00012
 15-00001
 14-00004
 13-00002
 12-00003
 11-00009
 10-00000
 09-00004
 08-00005
 07-00000
 06-00006
 05-00014
 04-00017
 03-00022
 02-00027
 01-00021
 00208240
 *1615780

140K

26-00104	28-01983	28-02037	28-02099	1615780	160K	165K
27-00133	27-01545	27-01476	27-01362	1615780	160K	165K
26-00357	26-02815	26-03442	26-03296	1615780	160K	165K
25-00111	25-01878	25-01431	25-01742	1615780	160K	165K
24-00128	24-01678	24-01704	24-01729	1615780	160K	165K
23-00343	23-02804	23-03021	23-03259	1615780	160K	165K
22-00522	22-03130	22-03329	22-03562	1615780	160K	165K
21-00128	21-02107	21-02094	21-02036	1615780	160K	165K
20-00049	20-00020	20-00020	20-00014	1615780	160K	165K
19-00008	19-00008	19-00008	19-00008	1615780	160K	165K
18-00011	18-00011	18-00011	18-00011	1615780	160K	165K
17-00010	17-00010	17-00010	17-00010	1615780	160K	165K
16-00012	16-00012	16-00012	16-00012	1615780	160K	165K
15-00001	15-00004	15-00004	15-00005	1615780	160K	165K
14-00004	14-00004	14-00004	14-00004	1615780	160K	165K
13-00008	13-00003	13-00002	13-00002	1615780	160K	165K
12-00001	12-00003	12-00003	12-00001	1615780	160K	165K
11-00004	11-00011	11-00010	11-00011	1615780	160K	165K
10-00001	10-00001	10-00002	10-00002	1615780	160K	165K
09-00002	09-00009	09-00009	09-00006	1615780	160K	165K
08-00000	08-00006	08-00010	08-00012	1615780	160K	165K
07-00000	07-00007	07-00001	07-00009	1615780	160K	165K
06-00001	06-00007	06-00001	06-00009	1615780	160K	165K
05-00017	05-00019	05-00007	05-00009	1615780	160K	165K
04-00021	04-00021	04-00026	04-00040	1615780	160K	165K
03-00027	03-00027	03-00034	03-00049	1615780	160K	165K
02-00023	02-00028	02-00035	02-00059	1615780	160K	165K
01-00018	01-00024	01-00029	01-00041	1615780	160K	165K
0021090	00211520	002122601	002132901	1615780	160K	165K
*1615780	*1615780	*1615780	*1615780	1615780	160K	165K

Perm. Set Check @ 0

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PANEL TT802023-11-1

28-02177
 27-01056
 26-03745
 25-01474
 24-01738
 23-03665
 22-03831
 21-01792
 20-00000
 19-00000
 18-00000
 17-00000
 16-00000
 15-00006
 14-00005
 13-00002
 12-00009
 11-00011
 10-00003
 09-00000
 08-00018
 07-00020
 06-00008
 05-00070
 04-00069
 03-00089
 02-00076
 01-00061
 0021400
 *1615780

170K

28-02253
 27-01295
 26-07151
 25-00476
 24-01277
 23-06430
 22-04138
 21-00144
 20-00000
 19-00000
 18-00000
 17-00000
 16-00000
 15-00006
 14-00080
 13-00006
 12-00073
 11-00013
 10-00000
 09-00062
 08-00030
 07-00079
 06-00009
 05-00145
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 03-00187
 02-00136
 01-00105
 0021590
 *1615780

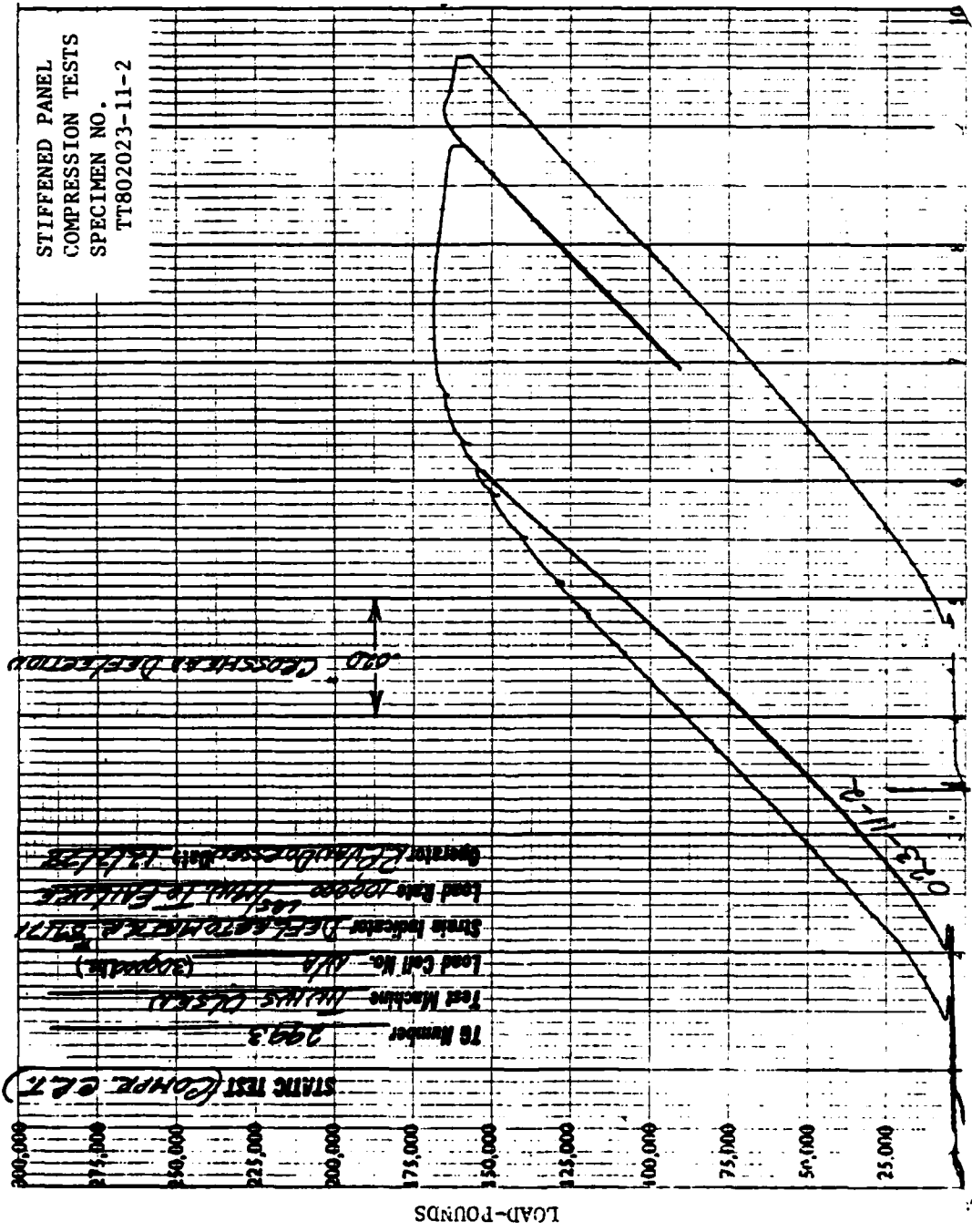
175K

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 26-26950
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 24-05866
 23-25529
 22-03791
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 18-00000
 17-00000
 16-00000
 15-00006
 14-00204
 13-00083
 12-00045
 11-00004
 10-00018
 09-00198
 08-00061
 07-00053
 06-00031
 05-00769
 04-00556
 03-00631
 02-00574
 01-00586
 0021660
 *1615780

Post Buckling @ 140.6K

28-04851
 27-12279
 26-24487
 25-11109
 24-05830
 23-23300
 22-02523
 21-01655
 20-00000
 19-00000
 18-00000
 17-00000
 16-00000
 15-00012
 14-00166
 13-00066
 12-00063
 11-00000
 10-00023
 09-00177
 08-00036
 07-00075
 06-00013
 05-00475
 04-00556
 03-00631
 02-00573
 01-00499
 00217290
 *1615780

Post Buckling @ 0



PANEL TT802023-11-2

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SHEET 1 of 5

Strain Gage Zero Ref.	Strain Gage R Cal.	DEFL. IND. ZERO REF.	Test Start	10K	20K
34-00001	34+001417	34-00026	34-00002	34-00074	34-00164
33-00001	33+01415	33-00026	33-00003	33-00062	33-00166
32-00002	32+01415	32-00014	32-00007	32-00026	32-00043
31-00002	31+01414	31-00036	31-00006	31-00066	31-00190
30-00001	30+01414	30-00040	30-00009	30-00109	30-00221
29-00003	29+01414	29-00012	29-00006	29-00025	29-00043
28-00003	28+01411	28-00022	28-00003	28-00074	28-00203
27-00002	27+01413	27-00021	27-00002	27-00066	27-00186
26-00003	26+01413	26-00062	26-00013	26-00138	26-00290
25-00000	25+01415	25-00081	25-00012	25-00186	25-00348
24-00001	24+01413	24-00067	24-00010	24-00157	24-00310
23-00002	23+01415	23-00056	23-00016	23-00130	23-00283
22-00004	22+01412	22-00052	22-00009	22-00125	22-00274
21-00003	21+01412	21-00052	21-00008	21-00124	21-00272
20-00017	20+00666	20-00018	20-00024	20-00027	20-00027
19-00006	19+00602	19-00007	19-00006	19-00006	19-00006
18-00010	18+00006	18-00010	18-00010	18+00010	18-00010
17-00009	17+00004	17-00004	17+00007	17+00007	17-00007
16-00004	16+00004	16-00004	16-00010	16+00010	16-00010
15-00193	15-00183	15-00000	15+00000	15-00000	15-00000
14-00098	14-00098	14-00001	14+00000	14-00000	14-00001
13-00161	13-00161	13-00000	13+00000	13-00000	13-00001
12-00125	12-00125	12-00000	12+00000	12-00000	12-00001
11-00195	11-00195	11-00000	11+00002	11-00000	11-00001
10-00193	10-00193	10-00000	10+00001	10+00001	10+00001
09-00224	09-00225	09-00001	09-00000	09-00001	09-00001
08-00164	08-00165	08-00000	08-00000	08+00000	08+00000
07-00176	07-00176	07-00000	07-00000	07+00001	07+00000
06-00060	06-00059	06-00000	06+00000	06+00004	06+00004
05-00109	05-00108	05-00000	05-00000	05+00004	05+00001
04-00095	04-00095	04-00000	04-00009	04+00000	04-00000
03-00156	03-00156	03-00000	03-00013	03-00001	03-00002
02-00188	02-00188	02-00000	02-00011	02-00002	02-00002
01-00216	01+00215	01-00001	01-00010	01-00002	01-00001
00305120	00305300	00303370	00301240	00301500	00302080
*1204780	*1204780	*1204780	*1204780	*1204780	*1204780

Strain Gage
Zero Ref.

Strain Gage
R Cal.

DEFL. IND.
ZERO REF.
@5K

Test Start

10K

20K

SHEET 2 of 5

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PANEL TT802023-11-2

34-00253	34-00552	34-00448	34-00448	34-00650	34-00751
33-00265	33-00551	33-00454	33-00454	33-00641	33-00753
32-00057	32-00094	32-00082	32-00082	32-00105	32-00116
31-00271	31-00549	31-00362	31-00449	31-00632	31-00722
30-00320	30-00407	30-00320	30-00494	30-00673	30-00761
29-00057	29-00069	29-00079	29-00079	29-00101	29-00112
28-00341	28-00481	28-00619	28-00619	28-00692	28-01019
27-00314	27-00445	27-00574	27-00574	27-00833	27-00957
26-00435	26-00585	26-00732	26-00732	26-01040	26-01200
25-00530	25-00691	25-00847	25-01011	25-01164	25-01321
24-00444	24-00575	24-00699	24-00825	24-00939	24-01047
23-00429	23-00574	23-00719	23-00872	23-01024	23-01165
22-00418	22-00562	22-00703	22-00855	22-01013	22-01187
21-00416	21-00562	21-00706	21-00860	21-01015	21-01172
20-00024	20-00024	20-00024	20-00029	20-00028	20-00029
19-00006	19-00006	19-00006	19-00005	19-00006	19-00006
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13-00001	13-00002	13-00002	13-00001	13-00004	13-00007
12-00003	12-00003	12-00003	12-00003	12-00003	12-00003
11-00002	11-00003	11-00002	11-00002	11-00006	11-00006
10-00001	10-00000	10-00000	10-00000	10-00001	10-00000
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02-00001	02-00002	02-00002	02-00003	02-00002	02-00002
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0032270	00322470	00323110	00324060	00324300	00324540
*1204780	*1204780	*1204780	*1204780	*1204780	*1204780
30K	40K	50K	60K	70K	80K

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33-00825	33-00981	33-01051	33-01111	33-01174
32-00128	32-00146	32-00157	32-00164	32-00172
31-00813	31-00990	31-01080	31-01164	31-01260
30-00652	30-00941	30-01108	30-01179	30-01244
29-00121	29-00146	29-00176	29-00215	29-00266
28-01139	28-01341	28-01416	28-01452	28-01490
27-01367	27-01309	27-01424	27-01531	27-01663
26-01367	26-01722	26-01933	26-02157	26-02444
25-01477	25-01774	25-01922	25-02065	25-02240
24-01144	24-01296	24-01339	24-01340	24-01274
23-01359	23-01727	23-01440	23-02164	23-02443
22-01376	22-01752	22-01454	22-02115	22-02228
21-01329	21-01661	21-01646	21-02036	21-02333
20-00023	20-00029	20-00029	20-00029	20-00036
19-00005	19-00005	19-00005	19-00006	19-00005
18-00010	18-00009	18-00009	18-00010	18-00004
17-00008	17-00007	17-00007	17-00007	17-00008
16-00010	16-00010	16-00010	16-00010	16-00010
15-00001	15-00001	15-00001	15-00001	15-00001
14-00010	14-00010	14-00015	14-00014	14-00018
13-00006	13-00011	13-00011	13-00014	13-00014
12-00005	12-00007	12-00008	12-00010	12-00010
11-00006	11-00006	11-00007	11-00008	11-00007
10-00000	10-00000	10-00000	10-00001	10-00001
09-00001	09-00005	09-00009	09-00009	09-00014
08-00006	08-00010	08-00014	08-00019	08-00024
07-00000	07-00000	07-00000	07-00000	07-00002
06-00004	06-00003	06-00005	06-00007	06-00008
05-00001	05-00003	05-00005	05-00005	05-00010
04-00005	04-00004	04-00014	04-00018	04-00027
03-00009	03-00013	03-00027	03-00036	03-00050
02-00006	02-00012	02-00016	02-00020	02-00029
01-00005	01-00006	01-00007	01-00010	01-00014
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*1204780	*1204780	*1204780	*1204780	*1204780
90K	100K	120K	130K	140K

SHEET 4 of 5

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PANEL TT802023-11-2

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33-01230	33-01254	33-01258	33-01287	33-01348
32-00178	32-00179	32-00173	32-00173	32-00173
31-01360	31-01411	31-00039	31-01425	31-01558
30-01288	30-01301	30-00029	30-01296	30-01264
29-00327	29-00358	29-00030	29-00366	29-00447
28-01266	28-01111	28-00345	28-01051	28-00068
27-01834	27-01949	27-00129	27-01968	27-02408
26-02827	26-03051	26-00710	26-03101	26-03944
25-02860	25-02601	25-00048	25-02628	25-03221
24-01046	24-00859	24-00373	24-00788	24-00290
23-02782	23-02979	23-00703	23-03027	23-03863
22-02196	22-02109	22-00837	22-02051	22-01089
21-02866	21-03240	21-00242	21-03404	21-06026
20-06030	20-00034	20-00036	20-00030	20-00030
19-00046	19-00045	19-00005	19-00004	19-00006
18-00009	18-00009	18-00009	18-00009	18-00009
17-00007	17-00007	17-00007	17-00007	17-00007
16-00009	16-00009	16-00009	16-00009	16-00009
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13-00024	13-00033	13-00033	13-00042	13-00067
12-00012	12-00015	12-00003	12-00012	12-00021
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07-00005	07-00005	07-00002	07-00006	07-00013
06-00008	06-00008	06-00001	06-00008	06-00009
05-00013	05-00013	05-00026	05-00019	05-00014
04-00036	04-00044	04-00031	04-00040	04-00075
03-00071	03-00089	03-00054	03-00094	03-00165
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00329490	00329490	00330470	00332560	00333420
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165K

160K

155K

155K

150K

Perm. Set Check / @ 0

12/7/78

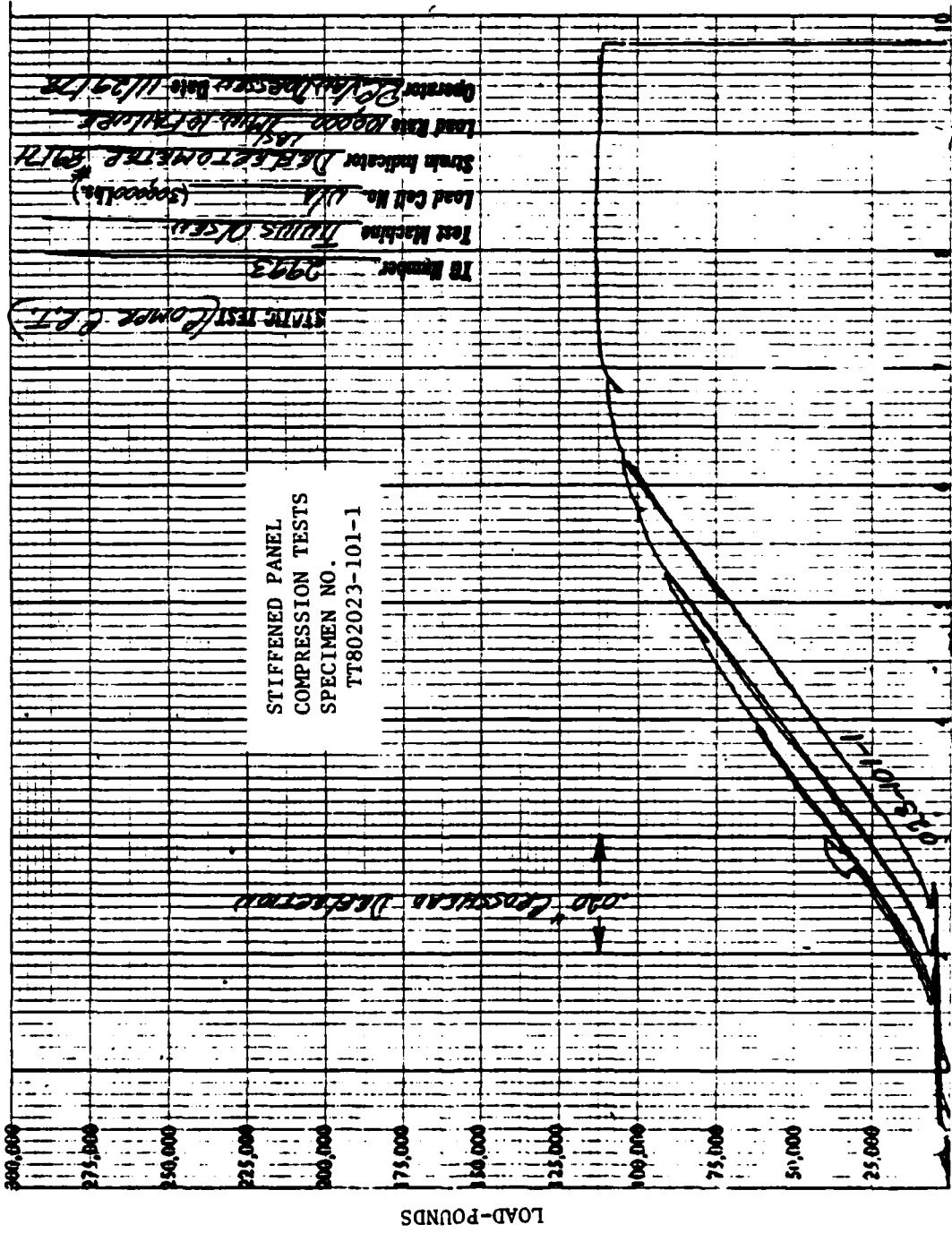
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23-06039	23-11605	23-08673
22-02188	22-09385	22-08118
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19-00006	19-00006	19-00006
18-00010	18-00010	18-00010
17-00007	17-00007	17-00007
16-00010	16-00010	16-00010
15-00001	15-00008	15-00000
14-00116	14-00167	14-00120
13-00135	13-00211	13-00144
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09-00125	09-00187	09-00130
08-00145	08-00217	08-00149
07-00031	07-00046	07-00059
06-00017	06-00026	06-00009
05-00022	05-00089	05-00075
04-00116	04-00222	04-00177
03-06274	03-00497	03-00421
02-00115	02-00216	02-00181
01-00003	01-00040	01-00031
003300001	00335450	00339360
012047800	01204780	01615780

Post Buckling
0

Post Buckling
165.5K

169K
MAXIMUM
LOAD



34-00001	15-00000	34-00005	34-00478	34-00722
33-00000	14-00001	33-00002	33-00064	33-00119
32-00000	13-00001	32-00006	32-00109	32-00304
31-00000	12-00000	31-00012	31-00053	31-00185
30-00001	11-00000	30-00011	30-00120	30-00797
29-00001	10-00000	29-00005	29-00244	29-00490
28-00001	09-00001	28-00001	28-00021	28-00305
27-00000	08-00001	27-00001	27-00112	27-00384
26-00002	07-00001	26-00018	26-00252	26-00730
25-00001	06-00000	25-00005	25-00215	25-00387
24-00001	05-00000	24-00004	24-00111	24-00470
23-00002	04-00000	23-00007	23-00080	23-00256
22-00001	03-00000	22-00000	22-00203	22-00180
21-00000	02-00000	21-00011	21-00071	21-00714
01530550	01-00000	20-00034	20-00171	20-00002
*1129780	01540660	19-00004	19-00252	21-00925
Strain Gage	*1129780	18-00004	18-00001	16-00004
Zero Ref.	DEFL. IND.	17-00003	17-00046	16-00004
	ZERO REF.	16-00002	16-00003	16-00004
	@5K	15-00000	16-00006	16-00006
		14-00001	15-00000	15-00000
		13-00000	14-00000	14-00004
		12-00000	13-00000	13-00009
		11-00001	12-00001	12-00005
		10-00000	11-00000	11-00000
		09-00001	10-00001	10-00003
		08-00001	09-00000	09-00000
		07-00000	08-00001	08-00003
		06-00000	07-00000	07-00000
		05-00004	06-00000	06-00000
		04-00010	05-00000	05-00002
		03-00009	04-00001	04-00005
		02-00009	03-00001	03-00000
		01-00009	02-00000	02-00001
		01540460	01-00001	01-00002
		*1129780	01543210	01546150
		Test Start "0"	*1129780	*1129780
		@ .5K	10K	20K
				30K

34-01418
 33-01420
 32-01416
 31-01415
 30-01415
 29-01415
 28-01413
 27-01413
 26-01412
 25-01413
 24-01415
 23-01414
 22-01414
 21-01415
 01531000
 *1129780

Strain Gage
 R Cal

SHEET 2 of 4

11/29/78

PANEL TT802023-101-1

34-0149A	34-00030	34-01491	34-01793
33-00226	33+00004	33-00226	33-00246
32-01043	32-00013	32-01044	32-01226
31-00315	31+00107	31-00305	31-00292
30-01446	30-00033	30-01651	30-01499
29-01011	29-00018	29-01024	29-01209
28-00544	28+00054	28-00538	28-00598
27-00710	27+00050	27-00697	27-00761
26-01664	26-00171	26-01686	26-02089
25-00715	25+00073	25-00706	25-00788
24-00430	24-00081	24-00425	24-00454
23-01667	23-00233	23-01687	23-02064
22+00436	22+00329	22+00468	22+00725
21-02158	21-00491	21-02192	21-02647
20-00037	20-00037	20-00437	20-00437
19-00404	19+00007	19-00400	19-00406
18-00405	18+00007	18-00406	18-00406
17-00403	17+00004	17-00404	17-00409
16-00404	16+00007	16-00406	16-00407
15-00001	15-00005	15-00003	15-00003
14-00014	14-00000	14-00012	14-00014
13-00014	13+00000	13-00014	13-00014
12-00007	12-00002	12-00007	12-00007
11-00001	11+00000	11-00000	11-00001
10+00008	10+00005	10+00009	10+00012
09-00005	09+00004	09-00001	09-00001
08-00003	08-00003	08-00004	08-00003
07+00008	07+00004	07+00008	07+00013
06+00004	06+00002	06+00005	06+00006
05-00004	05-00009	05-00004	05-00013
04-00014	04-00009	04-00014	04-00018
03+00014	03+00000	03+00014	03+00014
02-00008	02-00009	02-00012	02-00017
01-00000	01-00009	01-00004	01-00013
01553190	01557180	01601550	01603530
*1129780	*1129780	*1129780	*1129780

70K

60K

Perm Set Check @ .5K

60K

50K

40K

SHEET 3 of 4

11/29/78

PANEL TT802023-101-1

34-02162	34-02485	34-00414	34-02490	34-02778	34-02816
33-00173	33-00115	33-00311	33-00095	33-00028	33-00009
32-01418	32-01630	32-00084	32-01662	32-01894	32-02080
31-00223	31-00204	31-00524	31-00194	31-00094	31-00016
30-02672	30-03179	30-01065	30-03270	30-03673	30-04128
29-01408	29-01653	29-00060	29-01673	29-01917	29-02159
28-00596	28-00587	28-00240	28-00549	28-00411	28-00215
27-00742	27-00721	27-00255	27-00672	27-00501	27-00281
26-02642	26-03218	26-00868	26-03347	26-04262	26-05146
25-00600	25-00829	25-00242	25-00795	25-00728	25-00618
24-00416	24-00377	24-00265	24-00341	24-00175	24-00032
23-02528	23-03001	23-00725	23-03103	23-03610	23-04449
22-01043	22-01277	22-00626	22-01329	22-01635	22-01874
21-02950	21-03131	21-00979	21-03128	21-03209	21-03220
20-00037	20-00040	20-00039	20-00037	20-00036	20-00034
19-00004	19-00004	19-00006	19-00006	19-00006	19-00006
18-00004	18-00005	18-00005	18-00006	18-00005	18-00005
17-00003	17-00003	17-00003	17-00003	17-00003	17-00002
16-00003	16-00003	16-00003	16-00003	16-00003	16-00003
15-00001	15-00004	15-00006	15-00003	15-00012	15-00021
14-00013	14-00014	14-00005	14-00010	14-00000	14-00018
13-00008	13-00001	13-00004	13-00001	13-00008	13-00012
12-00002	12-00002	12-00002	12-00000	12-00006	12-00016
11-00000	11-00001	11-00000	11-00000	11-00000	11-00008
10-00017	10-00017	10-00010	10-00026	10-00034	10-00048
09-00003	09-00006	09-00012	09-00013	09-00026	09-00048
08-00006	08-00008	08-00004	08-00009	08-00015	08-00018
07-00018	07-00021	07-00006	07-00021	07-00021	07-00017
06-00008	06-00006	06-00005	06-00009	06-00008	06-00009
05-00031	05-00044	05-00027	05-00049	05-00060	05-00110
04-00027	04-00036	04-00022	04-00040	04-00054	04-00067
03-00019	03-00022	03-00006	03-00022	03-00022	03-00018
02-00027	02-00034	02-00022	02-00039	02-00053	02-00067
01-00027	01-00036	01-00028	01-00040	01-00062	01-00077
01605420	01608090	01610110	01612060	01613080	01613530
*1129780	*112978C	*112978U	*1129780	*112978C	*1129780

Perm. Set Check @ .5K

90K

80K

100K

105K

SHEET 4 of 4

11/29/78

PANEL TT802023-101-1

34-00817	34-00960	34-02633	34-02773	34-00817	34-00209
33-00781	33-01202	33-00136	33-00112	33-00136	33-00485
32-00253	32-00496	32-02541	32-02121	32-02541	32-02584
31-01165	31-01861	31-00242	31-00040	31-00242	31-01190
30-02146	30-02941	30-04175	30-04175	30-04175	30-01649
29-00301	29-01440	29-02204	29-02606	29-02204	29-03160
28-00543	28-01467	28-00127	28-00173	28-00127	28-01477
27-00571	27-03471	27-00226	27-00173	27-00226	27-03459
26-02103	26-05716	26-05268	26-05268	26-05268	26-05716
25-00448	25-01984	25-00589	25-00589	25-00589	25-01976
24-00523	24-02697	24-00078	24-00078	24-00078	24-02723
23-01550	23-06190	23-04542	23-04542	23-04542	23-06186
22-01097	22-04065	22-01911	22-05649	22-01911	22-04620
21-01076	21-02294	21-03200	22-02216	21-03187	21-02701
20-00000	20-00055	20-00044	21-03187	20-00044	20-00055
19-00000	19-00061	19-00001	20-00044	19-00001	19-00061
18-00000	18-00064	18-00006	19-00006	18-00006	18-00064
17-00000	17-00001	17-00003	17-00003	17-00003	17-00001
16-00000	16-00006	16-00006	17-00006	16-00006	16-00006
15-00004	15-00146	15-00022	15-00022	15-00022	15-00146
14-00015	14-00384	14-00022	14-00022	14-00022	14-00384
13-00013	13-00020	13-00013	13-00013	13-00013	13-00020
12-00002	12-00264	12-00020	12-00020	12-00020	12-00264
11-00002	11-00063	11-00010	11-00010	11-00010	11-00063
10-00024	10-00164	10-00046	10-00046	10-00046	10-00164
09-00026	09-00495	09-00053	09-00053	09-00053	09-00495
08-00014	08-00720	08-00023	08-00023	08-00023	08-00720
07-00006	07-00304	07-00014	07-00014	07-00014	07-00304
06-00004	06-00109	06-00009	06-00009	06-00009	06-00109
05-00057	05-00500	05-00114	05-00114	05-00114	05-00500
04-00040	04-00516	04-00071	04-00071	04-00071	04-00516
03-00005	03-00481	03-00014	03-00014	03-00014	03-00481
02-00040	02-00495	02-00071	02-00071	02-00071	02-00495
01-00054	01-00453	01-00085	01-00085	01-00085	01-00453
01015410	01623320	01617240	01617500	01617500	01623320
01129780	01129780	01129780	01129780	01129780	01129780

71K

Perm. Set Check @ .5K

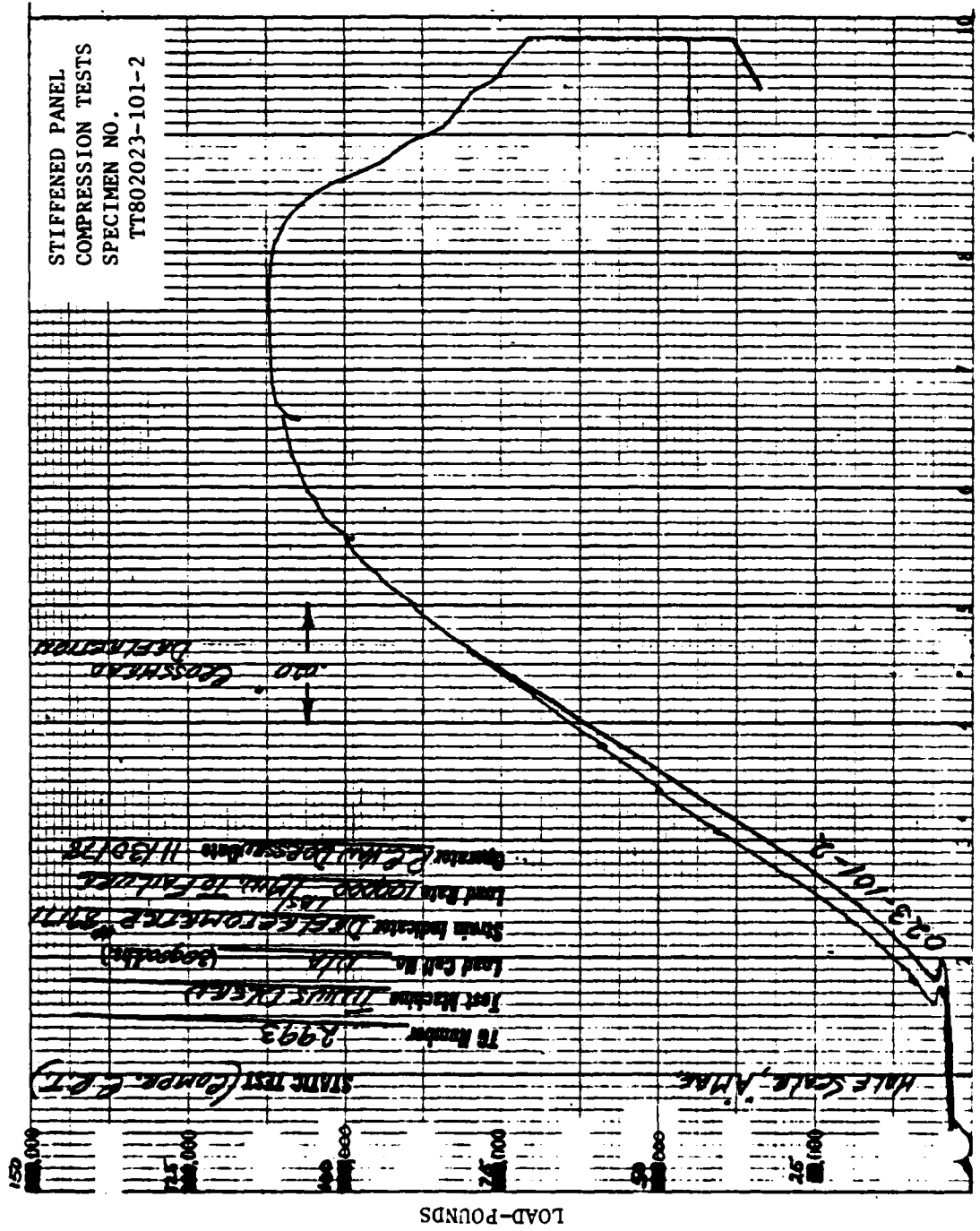
115K

110K

105K

Perm. Set Check @ .5K

POST-BUCKLING MAX. LOAD



STIFFENED PANEL
COMPRESSION TESTS
SPECIMEN NO.
TT802023-101-2

NO. CROSSHEAD
DEFORMATION

STATIC TEST (POND. P.T.)
TO Number 2993
Foot Reaction (TURNS CIRC.)
Load Cell No. 1114 (logarithmic)
Strain Indicator DEFORMATION 2171
Load Rate TOPPED DOWN TO FAILURE
Operator R. E. W. DESSAULTON 11/30/78

SCALE, INCHES

COMPRESSION DEFORMATION - INCHES x 0.02

PANEL TT802023-101-2

11/30/78

SHEET 1 of 4

34-00000	15-00000	34-00144	34-00331	34-00514
33-00001	14-00000	33-00071	33-00146	33-00217
32-00001	13-00000	32-00071	32-00318	32-00484
31-00000	12-00001	31-00079	31-00187	31-00276
30-00000	11-00001	30-00181	30-00446	30-00684
29-00002	10-00001	29-00142	29-00341	29-00510
28-00001	09-00000	28-00092	28-00215	28-00320
27-00000	08-00000	27-00124	27-00296	27-00454
26-00001	07-00002	26-00124	26-00412	26-00643
25-00000	06-00007	26-00170	25-00277	25-00417
24-00001	05-00000	25-00110	24-00271	24-00401
23-00000	04-00001	24-00110	23-00467	23-00704
22-00000	03-00013	23-00201	22-00042	22-00641
21-00002	02-00001	22-00023	21-00042	21-00926
01124370	01-00014	21-00256	21-00603	21-00926
01130780	00-00000	20-00042	20-00042	20-00042
Strain Gage	+5-00004	+9-00001	+9-00001	+9-00001
Zero Ref.	+7-00005	+8-00005	+7-00005	+7-00005
	+6-00006	+6-00005	+6-00005	+6-00006
	15-00000	15-00000	15-00000	15-00000
	14-00001	14-00000	14-00000	14-00000
	13-00000	13-00000	13-00001	13-00000
	12-00001	12-00001	12-00001	12-00003
	11-00000	11-00000	11-00000	11-00000
	10-00001	10-00000	10-00001	10-00001
	09-00000	09-00000	09-00000	09-00000
	08-00000	08-00000	08-00001	08-00003
	07-00001	07-00001	07-00001	07-00002
	06-00000	06-00002	06-00004	06-00004
	05-00010	05-00001	05-00001	05-00001
	04-00009	04-00000	04-00000	04-00000
	03-00009	03-00000	03-00004	03-00004
	02-00011	02-00001	02-00000	02-00001
	01-00009	01-00000	01-00001	01-00005
	01124420	01129450	01130170	01130540
	01130780	01130780	01130780	01130780
Strain Gage	Test Start "0"	10K	20K	30K
R Cal	@ .5K			

SHEET 2 of 4

11/30/78

PANEL TT802023-101-2

34-00721	34-01551	34-01399	34-01454	34-00055
33-00293	33-00438	33-00492	33-00513	33-00051
32-00452	32-00413	32-01142	32-01322	32-00047
31-00360	31-00491	31-00545	31-00564	31-00029
30-00426	30-01176	30-01410	30-02037	30-00045
29-00483	29-00464	29-01023	29-01392	29-00047
28-00412	28-00485	28-00517	28-00518	28-00159
27-00621	27-00794	27-00938	27-01109	27-00092
26-00405	26-01200	26-01488	26-01842	26-00333
25-00551	25-00475	25-00475	25-00771	25-00129
24-00520	24-00619	24-00688	24-00740	24-00142
23-00461	23-01254	23-01564	23-01976	23-00433
22-00611	22-00102	22-00294	22-00573	22-00045
21-01327	21-01873	21-02503	21-03241	21-01497
20-00443	20-00443	20-00443	20-00443	20-00043
19-00400	19-00400	19-00400	19-00400	19-00040
18-00604	18-00604	18-00604	18-00604	18-00064
17-00403	17-00403	17-00403	17-00403	17-00043
16-00404	16-00404	16-00404	16-00404	16-00044
15-00001	15-00001	15-00001	15-00001	15-00000
14-00000	14-00000	14-00000	14-00000	14-00000
13-00000	13-00000	13-00000	13-00000	13-00000
12-00005	12-00011	12-00017	12-00025	12-00002
11-00001	11-00002	11-00004	11-00005	11-00000
10-00001	10-00001	10-00001	10-00001	10-00000
09-00000	09-00000	09-00000	09-00000	09-00000
08-00004	08-00005	08-00005	08-00009	08-00005
07-00006	07-00006	07-00010	07-00016	07-00001
06-00005	06-00005	06-00009	06-00009	06-00004
05-00001	05-00001	05-00000	05-00005	05-00001
04-00004	04-00004	04-00004	04-00009	04-00004
03-00004	03-00005	03-00005	03-00005	03-00004
02-00002	02-00002	02-00002	02-00008	02-00002
01-00006	01-00009	01-00014	01-00023	01-00014
0113314	0113314	0113400	0113529	0113751
01130780	01130780	01130780	01130780	01130780
	50K	60K	70K	80K

Perm. Set Check @ .5K

SHEET 3 of 4

11/30/78

PANEL TT802023-101-2

34-02748'	34-02490	34-02287	34-01905	34-01487
33-00641	33-00169	33-00365	33-00495	33-00405
32-01365	32-07200	32-01942	32-01921	32-01328
31+01184	31+00026	31+00272	31-00524	31-00565
30-06231	30-05004	30-04002	30-02497	30-02051
29-01175	29-02073	29-01905	29-01572	29-01394
28+01474	28+01451	28+00856	28-00307	28-00449
27-00000	27-01971	27-01633	27-01514	27-01236
26-05753	26-04975	26-03842	26-02650	26-02223
25-00000	25-01027	25-00917	25-00645	25-00614
24+01633	24+01144	24+00663	24-00327	24-00737
23-06493	23-05767	23-04443	23-03415	23-02460
22+02339	22+02588	22+01974	22+01235	22+00420
21-03219	21-04864	21-04697	21-04542	21-03909
20-00022	20-09648	20-08047	20-06044	20-00443
19-00103	19+00048	19+00041	19+06004	19+00001
18+00002	18+00005	18-00004	18+00005	18+00006
17+00004	17+00007	17+00007	17+00007	17+00009
16+00004	16+00004	16+00004	16+00005	16+00006
15-00004	15+00009	15+00009	15+00010	15+00006
14-00233	14-00074	14-00047	14-00034	14-00013
13-00031	13+00026	13+00009	13+00004	13+00001
12+01105	12+00250	12+00141	12+00094	12+00038
11+00177	11+00059	11+00032	11+00022	11+00009
10-00004	10+00004	10+00005	10+00005	10+00003
09-00020	09-00103	09-00062	09-00040	09-00004
08+00108	08+00105	08+00053	08+00040	08+00014
07+00954	07+00070	07+00143	07+00093	07+00028
06+00179	06+00039	06+00036	06+00024	06+00017
05+00623	05+00070	05-00036	05-00031	05-00017
04+00019	04-00049	04-00020	04-00035	04-00018
03+00648	03-00052	03-00004	03-00000	03+00004
02+00613	02-00004	02-00043	02-00034	02-00015
01+00537	01-00137	01-00105	01-00082	01-00037
01142560	01142210	01142000	01140470	01139070
01130780	01130780	01130780	01130780	01130780
112.5K	110K	105K	90K	80K

TER073

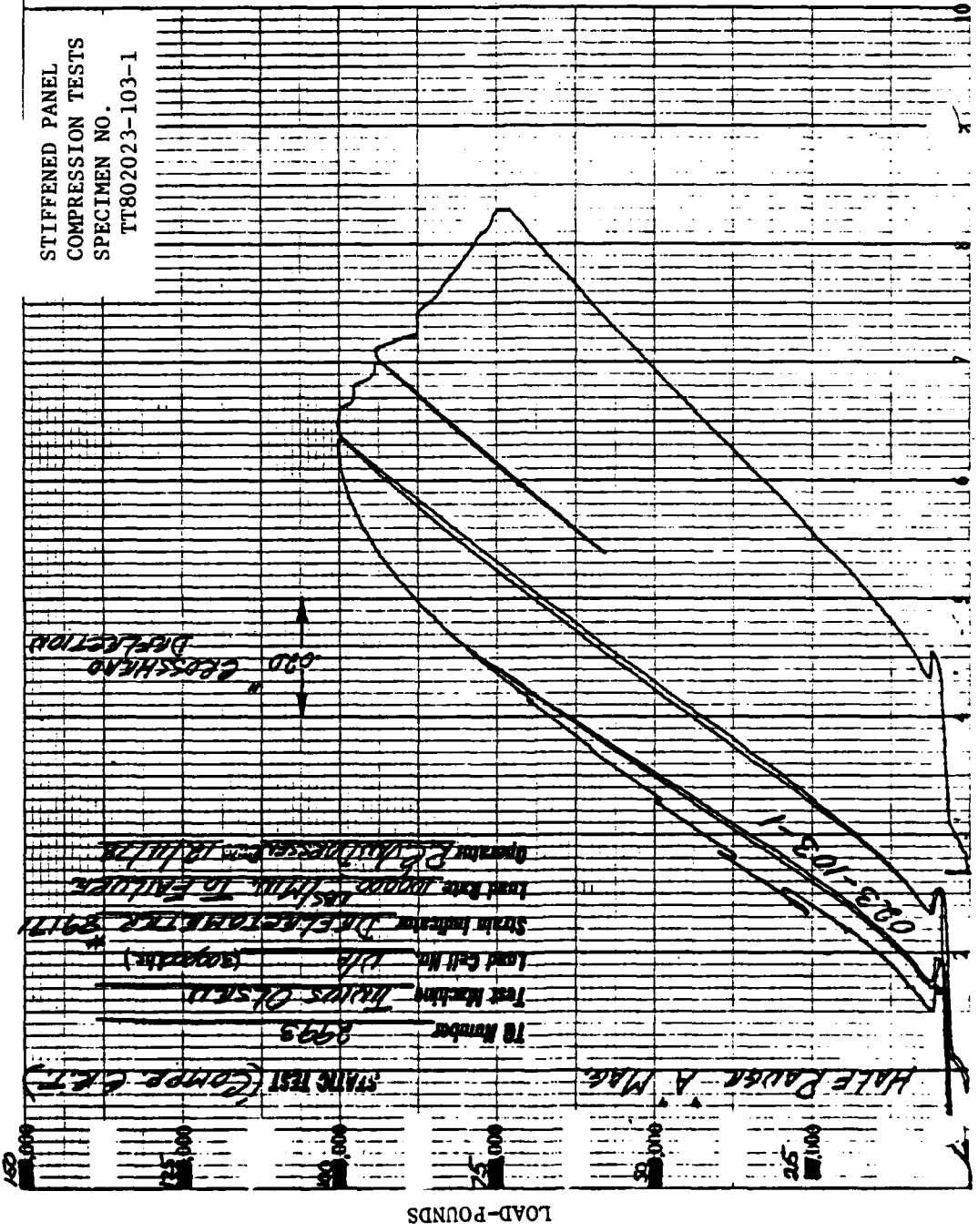
PANEL TT802023-101-2

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SHEET 4 of 4

34-02550
33-00729
32-01120
31-01261
30-05993
29-00930
28-01729
27-00000
26-05317
25-16215
24-01643
23-06075
22-01744
21-02594
20-00000
19-00005
18-00010
17-00003
16-00014
15-00001
14-00210
13-00033
12-01153
11-00190
10-00005
09-00266
08-00143
07-00954
06-00196
05-00995
04-00981
03-00971
02-00976
01-00941
0114090
01130780

Post Buckling
@ 52.5K



COMPRESSIVE DEFORMATION - INCHES x 0.02

SHEET 1 of 4

12/11/78

PANEL TT802023-103-1

34-00002	34+01417	34-00003	34-00070	34-00175	34-00349
33-00001	33+01420	33-00004	33-00082	33-00211	33-00447
32-00000	32+01419	32-00001	32-00063	32-00142	32-00297
31-00002	31+01416	31-00004	31-00007	31-00010	31-00011
30-00001	30+01417	30-00003	30-00070	30-00189	30-00417
29-00001	29+01418	29-00002	29-00040	29-00122	29-00104
28-00002	28+01417	28-00003	28-00074	28-00169	28-00403
27-00001	27+01418	27-00001	27-00052	27-00135	27-00280
26-00002	26+01418	26-00003	26-00063	26-00149	26-00316
25-00000	25+01416	25-00001	25-00032	25-00088	25-00201
24-00003	24+01416	24-00003	24-00063	24-00168	24-00351
23-00001	23+01416	23-00003	23-00073	23-00178	23-00375
22-00002	22+01419	22-00002	22-00061	22-00149	22-00318
21-00000	21+01418	21-00000	21-00062	21-00156	21-00341
20-00000	20+00000	20-00000	20-00000	20-00000	20-00000
19-00000	19+00000	19-00000	19-00000	19-00000	19-00000
18-00000	18+00000	18-00000	18-00000	18-00000	18-00000
17-00000	17+00000	17-00000	17-00000	17-00000	17-00000
16-00000	16+00000	16-00000	16-00000	16-00000	16-00000
15-00000	15+00000	15-00000	15-00000	15-00000	15-00000
14-00107	14+00107	14-00005	14+00000	14+00000	14+00000
13+00673	13+00687	13+00001	13+00000	13+00006	13+00017
12+00735	12+00767	12-00002	12+00000	12+00004	12+00018
11+00746	11+00745	11-00003	11+00001	11+00001	11+00005
10-00194	10-00194	10-00001	10-00000	10+00000	10+00005
09-00199	09-00199	09+00003	09-00000	09+00004	09+00014
08-00156	08-00159	08+00004	08-00001	08+00004	08+00013
07-00168	07-00168	07-00005	07-00001	07+00002	07+00007
06-00076	06-00076	06-00001	06-00000	06-00002	06-00004
05+00338	05+00338	05-00003	05-00000	05-00001	05-00010
04-00115	04-00115	04+00003	04-00000	04+00001	04+00001
03-00141	03-00141	03-00003	03-00001	03+00003	03+00009
02-00148	02-00148	02+00001	02-00000	02-00000	02+00004
01-00046	01-00046	01-00000	01-00001	01-00004	01-00011
015370901	015370901	015462101	015415301	01543420	015442901
*12117801	*12117801	*12117801	*12117801	*1211780	*12117801
Strain Gage	Strain Gage	Test Start	DEFL. IND.	Repeat 0	20K
R Cal	R Cal	0	ZERO REF.		
Zero Ref.	Zero Ref.				

@5K

SHEET 2 of 4

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PANEL TT802023-103-1

34-00520	34-00987	34-00954	34-00833	34-00887	34-00814	34-00520
33-00440	33-01183	33-01062	33-00921	33-00784	33-00719	33-00440
32-00447	32-00970	32-00888	32-00719	32-00589	32-00530	32-00447
31-00014	31-00176	31-00055	31-00055	31-00030	31-00016	31-00014
30-00651	30-01367	30-01102	30-01102	30-00884	30-00651	30-00651
29-00484	29-01179	29-00834	29-00834	29-00663	29-00484	29-00484
28-00617	28-01124	28-01339	28-01339	28-00641	28-00617	28-00617
27-00414	27-00828	27-00760	27-00760	27-00583	27-00414	27-00414
26-00486	26-01233	26-01034	26-01034	26-00660	26-00486	26-00486
25-00311	25-00576	25-00562	25-00500	25-00412	25-00311	25-00311
24-00627	24-01131	24-01158	24-01158	24-00882	24-00627	24-00627
23-00565	23-00347	23-01463	23-00945	23-00754	23-00565	23-00565
22-00477	23-00556	23-01148	22-00781	22-00627	22-00477	22-00477
21-00530	22-00713	22-00913	21-00932	21-00730	21-00530	21-00530
20-00609	21-00933	21-01266	20-00609	20-00609	20-00609	20-00609
19-00010	20-00010	19-00010	19-00010	19-00010	19-00010	19-00010
18-00014	19-00014	18-00014	18-00014	18-00014	18-00014	18-00014
17-00012	18-00012	17-00012	17-00012	17-00012	17-00012	17-00012
16-00014	17-00014	16-00014	16-00014	16-00014	16-00014	16-00014
15-00000	16-00014	15-00000	15-00001	15-00002	15-00000	15-00000
14-00013	15-00209	14-00003	14-00033	14-00020	14-00013	14-00013
13-00033	14-00674	14-00052	13-00077	13-00051	13-00033	13-00033
12-00032	13-00370	13-00117	12-00075	12-00052	12-00032	12-00032
11-00017	12-00238	12-00110	11-00035	11-00026	11-00017	11-00017
10-00009	11-00079	11-00043	10-00021	10-00014	10-00009	10-00009
09-00022	10-00476	10-00028	09-00053	09-00035	09-00022	09-00022
08-00031	09-00598	08-00075	08-00075	08-00049	08-00031	08-00031
07-00011	08-00362	07-00055	07-00034	07-00020	07-00011	07-00011
06-00009	07-00187	06-00018	06-00018	06-00013	06-00009	06-00009
05-00022	06-00005	05-00018	05-00018	05-00037	05-00022	05-00022
04-00006	05-00151	04-00014	04-00014	04-00005	04-00006	04-00006
03-00021	04-00221	03-00058	03-00058	03-00035	03-00021	03-00021
02-00013	03-00362	02-00044	02-00044	02-00017	02-00013	02-00013
01-00016	02-00229	01-00039	01-00039	01-00029	01-00016	01-00016
0155560	01-00134	01557250	01557250	015562101	0155560	0155560
*1211780	016081501	*1211780	*1211780	*1211780	*1211780	*1211780
30K	50K	60K	70K	80K	90K	100K

Perm. Set Check @ 0

SHEET 3 of 4

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PANEL TT802023-103-1

34-0101A	34-00307	34-0127A	34-0234A	34-03331
33-01237	33+00105A	33-01196	33-01121	33-00916
32-01110	32+0004A	32-01095	32-01172	32-01311
31-00184	31+00220	31-00167	31+00069	31+00370
30-01373	30-00059	30-01299	30-01313	30-01461
29-01389	29+00054	29-01401	29-01415	29-01A5A
2A-01923	2A+00057	2A-01917	2A-0211A	2A-02340
27-00A63	27+00050	27-00A5A	27-00A59	27-00774
26-0143A	26-00100	26-01437	26-01453	26-01A52
25-00535	25+00033	25-00530	25-00471	25-00193
24-0213A	24+00029	24-02127	24-0235A	24-02B50
23-01595	23-00103	23-01599	23-01732	23-02091
22-00A67	22+00035	22-00640	22-00580	22-00497
21-02180	21-00530	21-02199	21-02297	21-02300
20-000A5	20+00009	20-00015	20+00014	20-00017
19-00010	19+00010	19-00010	19-00009	19-00010
18-00014	18+00014	18-00014	18-00014	18-00013
17-00012	17+00012	17-00012	17-00012	17-00011
16-00015	16+00015	16-00014	16-00014	16-00014
15-00004	15+00007	15-00007	15+00011	15+00029
14-00142	14+00017	14-00144	14+00180	14+00300
13-00250	13+00024	13-00255	13+00303	13+00459
12-0021A	12+00021	12-00223	12+00260	12+00361
11+00080	11+00015	11+00084	11+00043	11+00132
10+0005A	10+00010	10+00054	10+00067	10+00110
09+00181	09+0001A	09+00181	09+00229	09+00362
0A-0024A	0A+00009	0A+00247	0A+00296	0A+00452
07+0012A	07+00007	07+00127	07-00154	07+0023A
0A-00022	06-00011	06-00031	06-00031	06-00036
05-00173	05-00027	05-00181	05-00217	05-00322
04+0006A	04-00008	04+00062	04+00080	04+00141
03+00180	03+00003	03+00177	03+0020A	03+00319
02+00093	02-00000	02+00093	02+00112	02+00186
01-00142	01-00016	01-00144	01-00174	01-00269
015590701	01600110	01602210	01602410	016030501
*12117801	*1211780	*12117801	*12117801	*12117801

Perm. Set Check @ 0

80K

80K

85K

90K

95K

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PANEL TT802023-103-1

34-04992
 33-00103
 32-01335
 31-01705
 30-02362
 29-02186
 28-02796
 27-00744
 26-02125
 25-00230
 24-0329A
 23-02429
 22-00402
 21-02002
~~20-00619~~
~~19-00000~~
~~18-00014~~
~~17-00012~~
~~16-00014~~
 15-0006A
 14-00473
 13-00421
 12-00495
 11-00172
 10-00171
 09-00320
 08-0061A
 07-00323
 06-00045
 05-00421
 04-00226
 03-00435
 02-00279
 01-00355
 0103440
 1211780

100K

34-06445
 33-03592
 32-00050
 31-02407
 30-02470
 29-00515
 28-00116
 27-00136
 26-00382
 25-00195
 24-00047
 23-00475
 22-00542
 21-01151
~~20-00019~~
~~19-00000~~
~~18-00014~~
~~17-00011~~
~~16-00014~~
 15-00041
 14-00172
 13-00161
 12-00140
 11-00061
 10-00094
 09-00185
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 06-0001A
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 02-00053
 01-00115
 0160430
 1211780

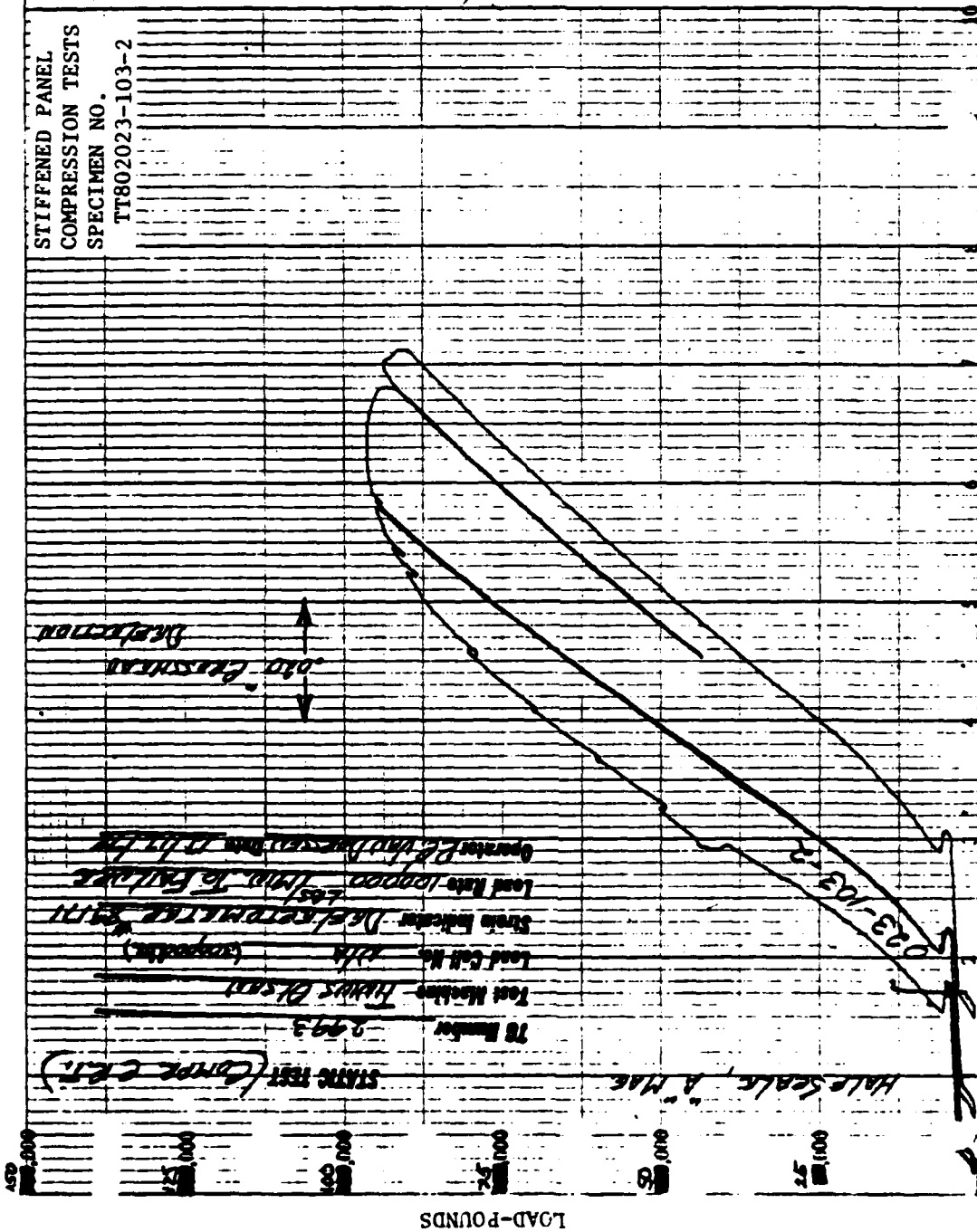
Perm. Set Check @ 0

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 05-0043A
 04-00287
 03-00520
 02-00363
 01-00365
 01606190C
 1211780C

100.5K

STIFFENED PANEL
COMPRESSION TESTS
SPECIMEN NO.

TT802023-103-2



COMPRESSION DEFORMATION - INCHES x 0.02

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PANEL TT802023-103-2

34-00001	34-00001	34-00001	34-00001
33-00002	33-00004	33-00004	33-00380
32-00001	32-00005	32-00007	32-00128
31-00001	31-00006	31-00000	31-00017
30-00000	30-00003	30-00004	30-00230
29-00002	29-00050	29-00008	29-00147
28-00001	28-00001	28-00002	28-00203
27-00002	27-00004	27-00000	27-00122
26-00000	26-00059	26-00007	26-00326
25-00002	25-00041	25-00002	25-00153
24-00000	24-00059	24-00003	25-00112
23-00001	23-00071	23-00012	24-00170
22-00002	22-00072	23-00012	23-00189
21-00000	21-00060	22-00012	22-00181
20-00003	20-00064	21-00008	21-00157
19-00004	19-00004	20-00007	20-00007
18-00004	18-00003	19-00008	19-00008
17-00004	17-00003	18-00007	18-00007
16-00007	16-00003	17-00007	17-00007
15-00197	15-00000	16-00003	16-00003
14-00107	14-00000	15-00004	15-00004
13-00165	13-00000	14-00000	14-00002
12-00116	12-00000	13-00000	13-00002
11-00201	11-00000	12-00006	12-00019
10-00193	10-00192	11-00000	11-00006
09-00194	09-00194	10-00001	10-00003
08-00183	08-00182	09-00000	09-00009
07-00167	07-00167	08-00000	08-00003
06-00072	06-00072	07-00001	07-00003
05-00117	05-00117	06-00001	06-00006
04-00117	04-00117	05-00005	05-00006
03-00163	03-00163	04-00005	04-00006
02-00171	02-00171	03-00011	03-00007
01-00078	01-00078	02-00012	02-00013
01054390	01-00078	01-00000	01-00009
01211780	011301401	01-00000	01-00004
	01211780	01131401	01133201
		01211780	01211780
Strain Gage	DEFL. IND.	Test Start	20K
R Cal	ZERO REF.	0	10K
Strain Gage			
Zero Ref.			

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PANEL TT802023-103-2

34-00009	34+0000A	34+00100	34+00330	34+0074A
33-01170	33-02433	33-03632	33-05239	33-0741A
32-00417	32-00667	32-00781	32-00883	32-00967
31-00063	31-00150	31-00238	31-00359	31-00419
30-00787	30-00789	30-01380	30-01436	30-01485
29-00489	29-00488	29-01001	29-01196	29-01441
28-00432	28-00671	28-01171	28-01400	28-02085
27-00335	27-00435	27-00520	27-00580	27-00538
26-00495	26-00689	26-00644	26-01031	26-01462
25-00387	25-00511	25-00627	25-00719	25-00771
24-00415	24-00844	24-01096	24-01375	24-02069
23-00563	23-00750	23-00943	23-01144	23-01610
22-00459	22-00752	22-00964	22-01162	22-00898
21-00494	21-00661	21-00869	21-01258	21-02160
20-00668	20-00669	20-00809	20-00809	20-00667
19-00008	19-00668	19-00808	19-00808	19-00007
18-00019	18-00667	18-00807	18-00807	18-00018
17-00014	17-00666	17-00806	17-00806	17-00013
16-00013	16-00665	16-00805	16-00805	16-00012
15-00009	15-00022	15-00022	15-00029	15-00008
14-00008	14-00014	14-00014	14-00031	14-00088
13-00031	13-00053	13-00080	13-00115	13-00252
12-00033	12-00051	12-00078	12-00113	12-00234
11-00014	11-00022	11-00034	11-00046	11-00048
10-00007	10-00009	10-00015	10-00021	10-00043
09-00017	09-00030	09-00044	09-00069	09-00168
08-00028	08-00045	08-00068	08-00104	08-00248
07-00010	07-00017	07-00030	07-00053	07-00141
06-00010	06-00015	06-00018	06-00023	06-00032
05-00013	05-00026	05-00044	05-00070	05-00163
04-00007	04-00015	04-00016	04-00029	04-00074
03-00022	03-00035	03-00049	03-00076	03-00171
02-00013	02-00031	02-00049	02-00062	02-00098
01-00005	01-00018	01-00032	01-00054	01-00141
01134060	01134560	01135560	01137190	01139280
*1211780	*1211760	*1211760	*1211780	*1211780
30K	40K	50K	60K	80K

PANEL TT802023-103-2

34-01558	34-02337	34-02067	34-03011	34-03030
33-10895	33-13509	33-07752	33-16552	33-17022
32-01019	32-01040	32-00174	32-00957	32-00837
31-00174	31-00284	31-01336	31-00614	31-00656
30-01608	30-01703	30-00739	30-07306	30-02240
29-01735	29-01494	29-00314	29-01949	29-01890
28-02583	28-02913	28-00086	28-03202	28-03235
27-00989	27-00135	27-00124	27-00079	27-00026
26-01711	26-01867	26-00244	26-01979	26-01895
25-00530	25-00444	25-00092	25-00225	25-00283
24-02581	24-02904	24-00029	24-02924	24-02507
23-01903	23-02103	23-00292	23-02117	23-02305
22-00779	22-00737	22-00326	22-00589	22-00414
21-02317	21-02163	21-01028	21-01764	21-01432
20-06616	20-06612	20-00610	20-00419	20-00421
19-06007	19-00007	19-00004	19-00007	19-00008
18-00011	18-00007	18-00011	18-00011	18-00011
17-00010	17-00006	17-00010	17-00009	17-00009
16-00012	16-00012	16-00012	16-00012	16-00012
15-00058	15-00069	15-00030	15-00071	15-00091
14-00159	14-00218	14-00662	14-00278	14-00295
13-00354	13-00509	13-00093	13-00527	13-00735
12-00357	12-00465	12-00106	12-00478	12-00787
11-00124	11-00164	11-00060	11-00175	11-00403
10-00074	10-00096	10-00032	10-00101	10-00112
09-00269	09-00353	09-00081	09-00365	09-00423
08-00351	08-00518	08-00090	08-00534	08-00416
07-00234	07-00333	07-00077	07-00347	07-00749
06-00041	06-00046	06-00014	06-00049	06-00103
05-00289	05-00311	05-00071	05-00319	05-00343
04-00132	04-00198	04-00021	04-00208	04-00395
03-00278	03-00374	03-00059	03-00388	03-00612
02-00164	02-00235	02-00022	02-00244	02-00483
01-00226	01-00305	01-00074	01-00312	01-00412
01-00550	01-03030	01-04370	01-05320	01-07050
01211780	01211780	01211780	01211780	01211780

Post Buckling @ 93.6K

FAILURE LOAD

95K

Perm. Set Check @ 0

95K

90K

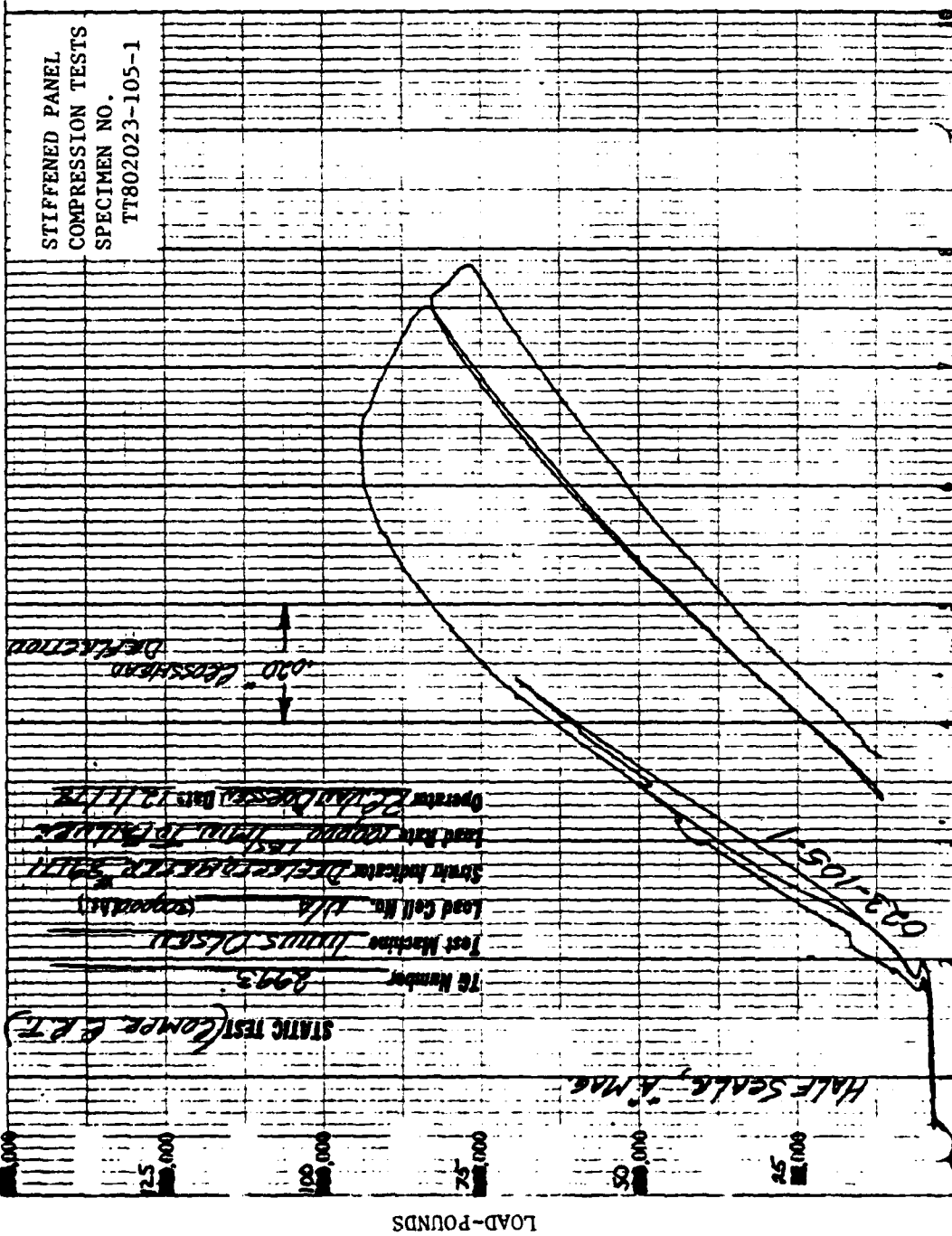
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PANEL TT802023-103-2

34-00005
33-10001
32-00202
31-01557
30-00989
29-00385
28-00611
27-00188
26-00394
25-00109
24-00074
23-00558
22-00494
21-01216
20-00015
19-00208
18-00012
17-00010
16-00012
15-00035
14-00124
13-00243
12-00317
11-00226
10-00052
09-00171
08-00296
07-00356
06-00063
05-00137
04-00104
03-00214
02-00125
01-00190
01147550
*1211780

Post Buckling
@ 0



COMPRESSION DEFORMATION - INCHES x 0.02

PANEL TT802023-105-1

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SHEET 1 of 3

34*00000	15*00001	34*00112	34*00201	34*00285
33*00001	14*00000	33*00140	33*00304	33*00500
32*00000	13*00000	32*00006	32*00309	32*00474
31*00001	12*00001	31*00001	31*00288	31*00465
30*00000	11*00000	30*00003	30*00414	30*00607
29*00001	10*00000	29*00139	29*00304	29*00466
28*00000	09*00001	28*00008	28*00382	28*00419
27*00001	08*00000	27*00003	27*00189	27*00287
26*00000	07*00000	26*00004	26*00162	26*00528
25*00001	06*00000	25*00135	25*00383	25*00424
24*00000	05*00001	24*00001	24*00481	24*00753
23*00000	04*00000	23*00011	23*00341	23*00518
22*00001	03*00001	22*00007	22*00202	22*00416
21*00000	02*00001	21*00007	21*00375	21*00571
0111310	01*00001	20*00007	20*00400	20*00640
*1201780	01118430	19*00007	19*00400	19*00701
Strain Gage	*1201780	18*00006	18*00405	18*00605
Zero Ref.	DEFL. IND.	17*00004	17*00403	17*00603
	ZERO REF.	16*00003	16*00406	16*00606
	@5K	15*00001	15*00401	15*00606
		14*00004	14*00022	14*00039
		13*00001	13*00028	13*00049
		12*00001	12*00013	12*00028
		11*00000	11*00000	11*00000
		10*00001	10*00001	10*00201
		09*00004	09*00019	09*00035
		08*00005	08*00027	08*00049
		07*00001	07*00018	07*00030
		06*00001	06*00008	06*00008
		05*00007	05*00015	05*00034
		04*00008	04*00009	04*00016
		03*00014	03*00020	03*00035
		02*00004	02*00006	02*00012
		01*00007	01*00012	01*00026
		01119460	01120260	01123060
		*1201780	*1201780	*1201780
Strain Gage	Test Start "0"			
R Cal	@ .5K			
			10K	30K

34-00353	34-00390	34-00389	34-00398	34-00272	34-00400
33-00691	33-00843	33-00339	33-00969	33-00683	33-00964
32-00631	32-00749	32-00866	32-00749	32-00075	32-00985
31-00672	31-00879	31-01068	31-01201	31-00340	31-01196
30-00767	30-00877	30-00953	30-01010	30-00114	30-01011
29-00624	29-00782	29-00917	29-01046	29-00015	29-01048
28-00800	28-01148	28-01440	28-01792	28-00036	28-01798
27-00370	27-00420	27-00419	27-00329	27-00056	27-00325
26-00724	26-00914	26-01122	26-01367	26-00084	26-01376
25-00349	25-00651	25-00713	25-00716	25-00033	25-00716
24-01048	24-01367	24-01716	24-02138	24-00028	24-02139
23-00698	23-00881	23-01068	23-01276	23-00079	23-01284
22-00261	22-00667	22-00657	22-00573	22-00025	22-00552
21-00744	21-01025	21-01387	21-01719	21-00326	21-01746
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03-00000	03-00000	03-00000	03-00000	03-00000	03-00000
02-00000	02-00000	02-00000	02-00000	02-00000	02-00000
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01201780	01201780	01201780	01201780	01201780	01201780
40K	50K	60K	70K	70K	70K

Perm. Set Check @ 0

PANEL TT802023-105-1

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SHEET 3 of 3

34-00402	34-00423	34-00464	34-00528	34-00300	34-00697
33-00966	33-00909	33-00804	33-00653	33-00491	33-00196
32-01036	32-01080	32-01106	32-01127	32-00583	32-00244
31-01225	31-01199	31-01109	31-00911	31-00595	31-00134
30-01040	30-01050	30-01108	30-01306	30-01670	30-01751
29-01115	29-01193	29-01268	29-01339	29-01448	29-01191
28-02008	28-02258	28-02528	28-02876	28-04423	28-05770
27-00233	27-00075	27-00154	27-00533	27-02031	27-02391
26-01506	26-01673	26-01872	26-02155	26-02934	26-02674
25-00682	25-00597	25-00455	25-00203	25-02613	25-04440
24-02389	24-02688	24-03026	24-03496	24-07316	24-08533
23-01387	23-01517	23-01663	23-01650	23-02605	23-02525
22-00534	22-00530	22-00519	22-00515	22-00271	22-00010
21-01826	21-01880	21-01856	21-01717	21-00614	21-00111
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09-00204	09-00248	09-00301	09-00360	09-00264	09-00556
08-00283	08-00341	08-00412	08-00512	08-00395	08-00166
07-00167	07-00199	07-00236	07-00291	07-00379	07-00240
06-00027	06-00033	06-00041	06-00045	06-00045	06-00018
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02-00083	02-00105	02-00131	02-00179	02-00494	02-00799
01-00169	01-00206	01-00252	01-00315	01-00506	01-00436
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Post Buckling @ 83.5K

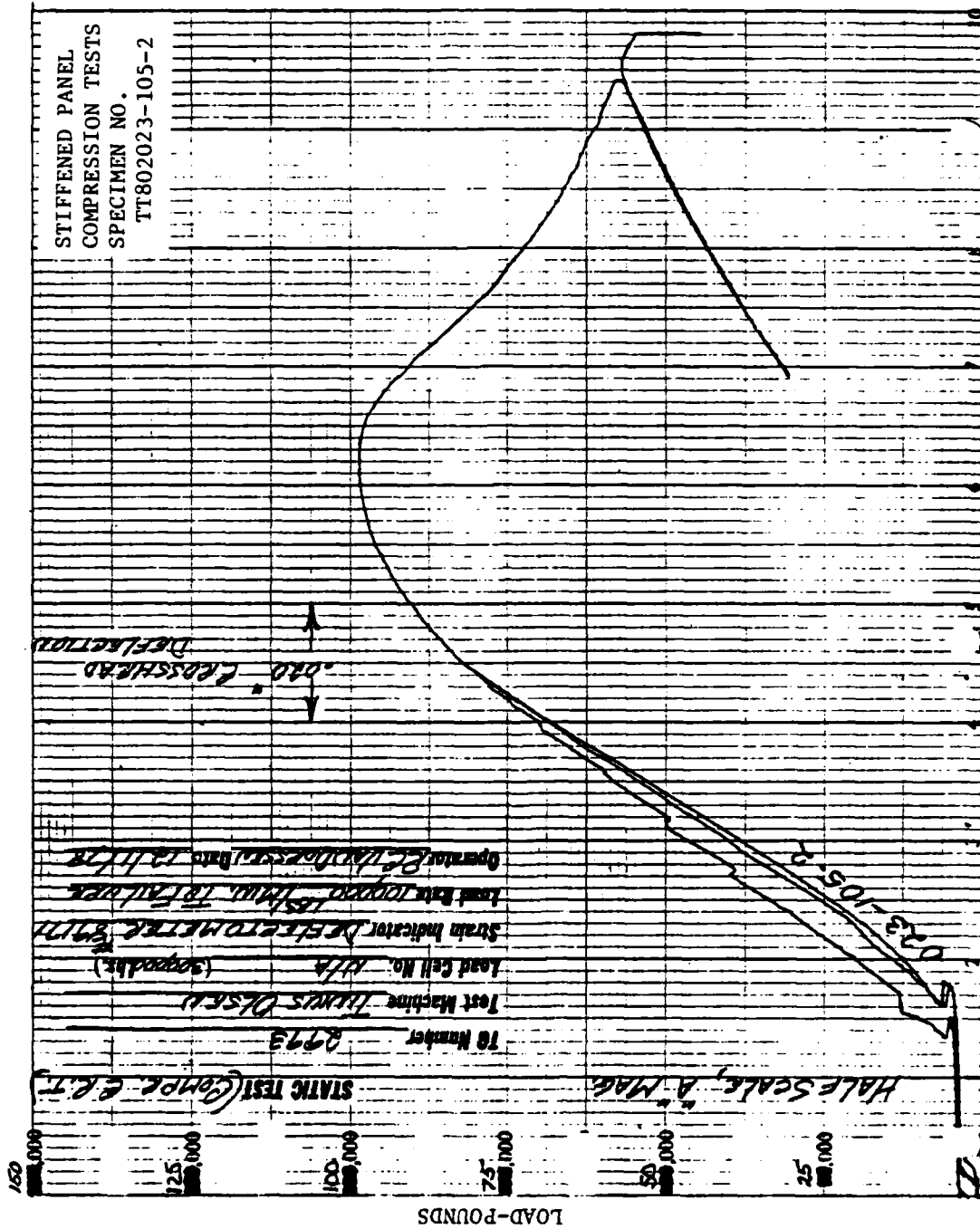
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90K

85K

80K

75K



COMPRESSION DEFORMATION - INCHES x 0.02

SHEET 1 of 4

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PANEL TT802023-105-2

34+00001
 33+00001
 32+00001
 31+00000
 30+00000
 29+00000
 28+00000
 27+00001
 26+00002
 25+00000
 24+00000
 23+00001
 22+00001
 21+00001
 01524040
 01201780
 Strain Gage
 Zero Ref.
 34+01416
 33+01415
 32+01417
 31+01413
 30+01414
 29+01413
 28+01414
 27+01415
 26+01417
 25+01416
 24+01414
 23+01415
 22+01414
 21+01417
 01524090
 01201780
 Strain Gage,
 R Cal

15+00000
 14+00000
 13+00000
 12+00000
 11+00000
 10+00000
 09+00001
 08+00001
 07+00000
 06+00001
 05+00001
 04+00001
 03+00000
 02+00000
 01+00001
 01529540
 01201780
 DEF. IND.
 ZERO REF.
 @5K

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 33+00130
 32+00135
 31+00107
 30+00152
 29+00152
 28+00171
 27+00124
 26+00137
 25+00095
 24+00197
 23+00180
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 01201780

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 29+00330
 28+00385
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 15+00000
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 13+00021
 12+00009
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 10+00002
 09+00020
 08+00022
 07+00013
 06+00002
 05+00010
 04+00008
 03+00018
 02+00004
 01+00010
 01531260
 01201780

Test Start 0
 @ .5K
 10K
 20K
 30K

PANEL TT802023-105-2

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SHEET 2 of 4

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32-00628	32-00781	32-00929	32-01135	32-01191
31-00570	31-00723	31-00980	31-00981	31-00641
30-00617	30-00701	30-00761	30-00765	30-00760
29-00650	29-00607	29-01108	29-01177	29-01240
28-00627	28-01343	28-01654	28-01826	28-01497
27-00506	27-00614	27-00738	27-00740	27-00712
26-00659	26-00845	26-01250	26-01366	26-01462
25-00403	25-00469	25-00448	25-00340	25-00295
24-00791	24-01286	24-01600	24-02162	24-02365
23-00746	23-00435	23-01371	23-01496	23-01634
22-00498	22-00597	22-00511	22-00459	22-00413
21-00634	21-01131	21-01503	21-02041	21-02122
20-00600	20-00602	20-00604	20-00606	20-00607
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03-00011	03-00012	03-00013	03-00014	03-00015
02-00012	02-00013	02-00014	02-00015	02-00016
01-00013	01-00014	01-00015	01-00016	01-00017
01532540	01533320	01534140	01535020	01536040
*1201780	*1201780	*1201780	*1201780	*1201780

40K

50K

60K

70K

75K

80K

SHEET 3 of 4

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PANEL TT802023-105-2

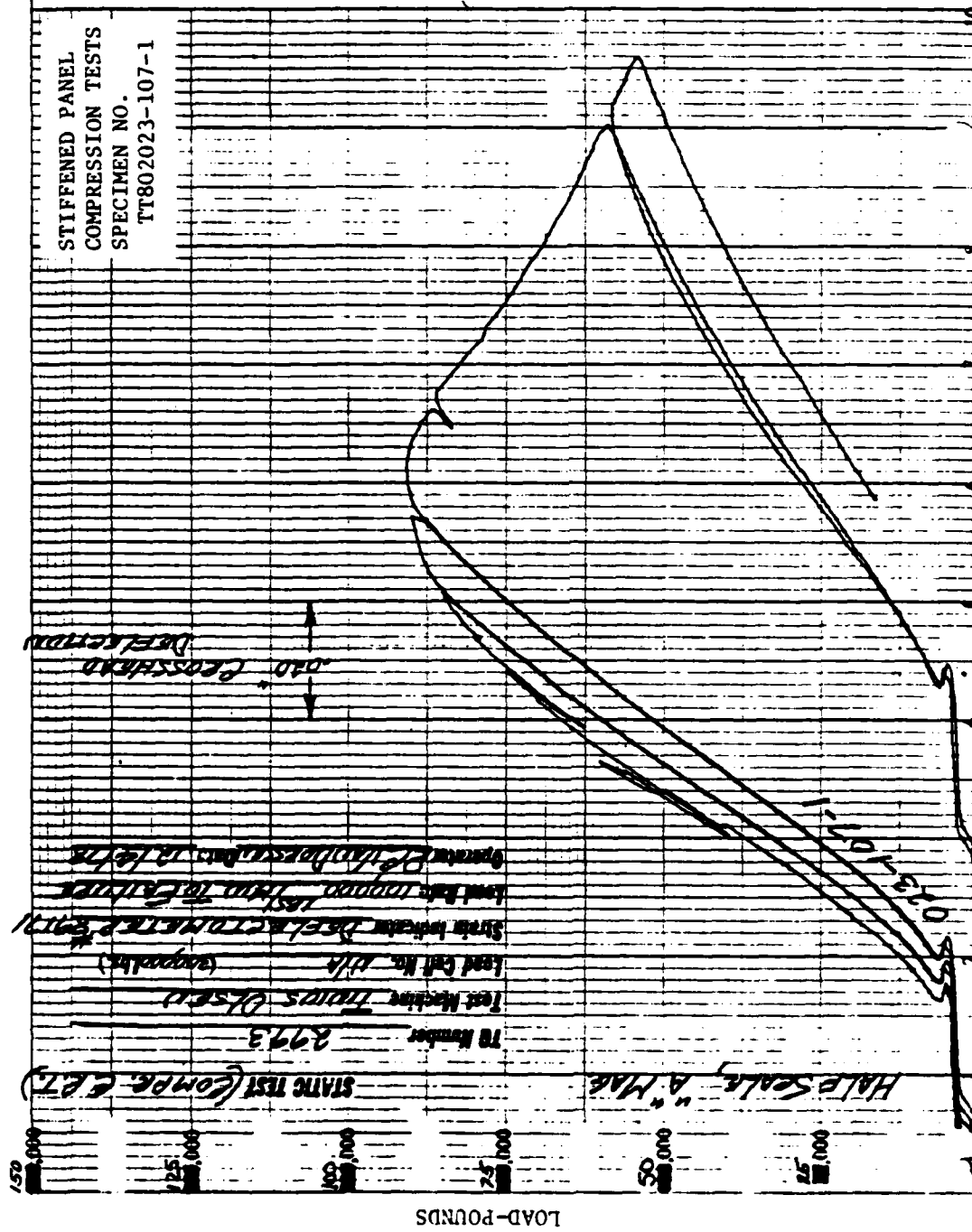
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31-00041	31-00781	31-00650	31-00461	31-00335
30-00041	30-00750	30-00734	30-00081	30-00070
29-00007	29-01298	29-01364	29-01441	29-01432
28-00037	28-02209	28-02479	28-02634	28-04130
27-00045	27-00644	27-00489	27-00194	27-01422
26-00050	26-01617	26-01794	26-02062	26-02907
25-00066	25-00132	25-00157	25-00676	25-03513
24-00042	24-02363	24-02521	24-03352	24-06649
23-00152	23-01645	23-02197	23-02356	23-03495
22-00134	22-00393	22-00401	22-00422	22-00257
21-00531	21-02139	21-02114	21-02003	21-00280
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19-00004	19-00004	19-00004	19-00004	19-00002
18-00005	18-00006	18-00004	18-00002	18-00004
17-00007	17-00002	17-00002	17-00002	17-00002
16-00001	16-00005	16-00006	16-00006	16-00002
15-00023	15-00018	15-00031	15-00044	15-00085
14-00026	14-00204	14-00297	14-00379	14-00652
13-00019	13-00287	13-00407	13-00490	13-00656
12-00012	12-00172	12-00227	12-00261	12-00333
11-00005	11-00014	11-00016	11-00017	11-00009
10-00012	10-00040	10-00048	10-00079	10-00118
09-00030	09-00240	09-00281	09-00431	09-00690
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03-00014	03-00207	03-00242	03-00287	03-00578
02-00000	02-00088	02-00104	02-00131	02-00413
01-00031	01-00219	01-00256	01-00315	01-00481
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01201780	01201780	01201780	01201780	01201780
	80K	85K	90K	95K
				99K

Perm. Set Check @ 0

PANEL TT802023-105-2 12/1/78 SHEET 4 of 4

- 54-03431
- 53-00647
- 52-00400
- 51-00750
- 30-01092
- 29-00723
- 26-01106
- 27-02492
- 26-00931
- 25-06679
- 24-07177
- 23-01921
- 22-00209
- 21-01970
- ~~19-00031~~
- ~~18-00061~~
- ~~18-00007~~
- ~~17-00004~~
- ~~16-00004~~
- ~~15-00085~~
- 14-00575
- 13-01480
- 12-00113
- 11-00012
- 10-00121
- 09-00526
- 08-00012
- 07-00047
- 06-00023
- 05-00215
- 04-01468
- 03-01289
- 02-01503
- 01-00169
- 01541100
- 01201780

Post Buckling
@ 57.5K



COMPRESSIVE DEFORMATION - INCHES x 0.02

SHEET 1 of 4

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PANEL TT802023-107-1

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 0120000

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DEF. IND.
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 @5K
 Strain Gage
 Zero Ref.
 R Cal
 Strain Gage
 Test Start 0
 @ .5K
 10K
 20K
 30K

SHEET 2 of 4

12/4/78

PANEL TT802023-107-1

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30-00455	30-00507	30-00520	30-00516	30-00494
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28-01123	28-01939	28-02430	28-02703	28-03003
27-00247	27-00215	27-00097	27-00003	27-00123
26-00651	26-00635	26-01025	26-01355	26-01485
25-00097	25-00039	25-00090	25-00325	25-00736
24-01247	24-01616	24-02035	24-02512	24-03073
23-00715	23-00892	23-01090	23-01322	23-01603
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21-00555	21-00775	21-01066	21-01346	21-01489
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40K	50K	60K	70K	80K

SHEET 3 of 4

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PANEL TT802023-107-1

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31-00747	31-01783	31-01874	31-00945	31-01934
30-00275	30-00426	30-00267	30-00374	30-00221
29-00112	29-01126	29-01726	29-00186	29-01760
28-00012	28-03403	28-04196	28-00246	28-04418
27-00092	27-00332	27-00799	27-00126	27-00927
26-00147	26-01658	26-01504	26-00253	26-01951
25-00225	25-01136	25-02005	25-00425	25-02182
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90K

Perm. Set Check @ 0

90K

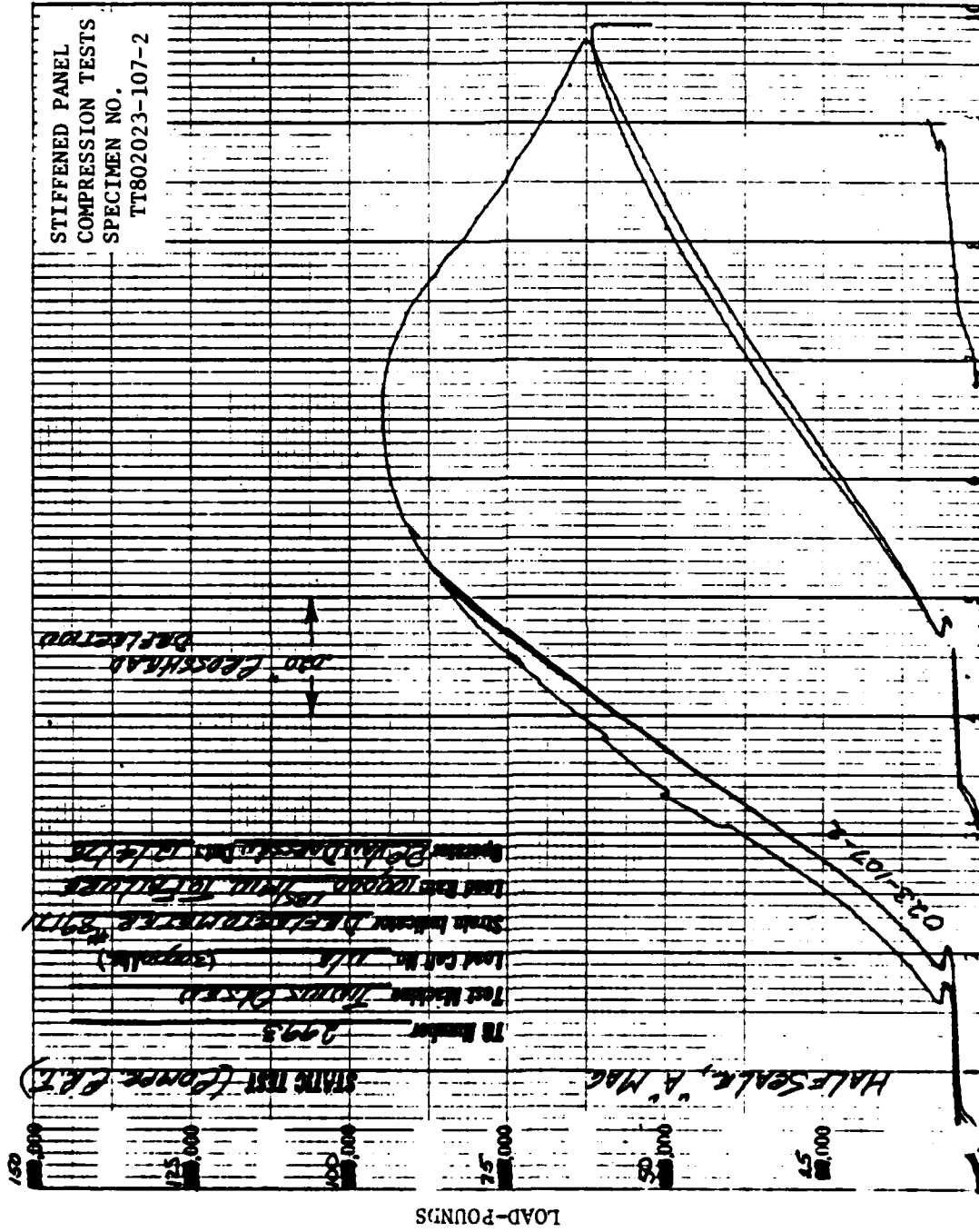
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Perm. Set Check @ 0

85K

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29-01053	29-00214	29-01760
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27-01785	27-01777	27-02346
26-01877	26-01230	26-02176
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21-01132	21-00045	21-00724
20-00044	20-00052	20-06097
19-00001	19-00000	19-00002
18-00005	18-00004	18-06004
17-00002	17-06662	17-00002
16-00005	16-00004	16-00004
15-00003	15-06004	15-00002
14-00100	14-00080	14-00425
13-00709	13-00709	13-00909
12-00050	12-00300	12-00580
11-00112	11-00063	11-00112
10-00006	10-00006	10-00025
09-00142	09-00076	09-00398
08-00071	08-00072	08-00058
07-00590	07-00329	07-00576
06-00003	06-00023	06-00040
05-00044	05-00159	05-00465
04-01416	04-00002	04-00487
03-01107	03-00498	03-00614
02-01420	02-00589	02-00522
01-00141	01-00237	01-00497
01322090	01321210	01319330
01204780	01204780	01204780

9.1K
 Post Buckling Post Buckling Load
 Perm. Set Check @ 58.5K
 @ 0 (Channels 8 & 13
 disconnected)
 (Channels 8 & 13
 disconnected)



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PANEL TT802023-107-2

34-00001	15+00000	34-00012	34-00590
33-00002	14+00001	33-00171	33-00559
32-00001	13+00000	32-00127	32-00455
31-00001	12+00001	31-00172	31-00593
30-00001	11+00001	30-00124	30-00356
29-00001	10+00000	29-00149	29-00507
28-00001	09+00000	28-00224	28-00769
27-00000	08+00000	27-00070	27-00200
26-00000	07+00001	26-00154	26-00509
25-00001	06+00001	25-00097	25-00306
24-00001	05+00001	24-00201	24-00707
23-00000	04+00001	23-00166	23-00520
22-00001	03+00001	22-00190	22-00608
21+00000	02+00001	21-00118	21-00393
01551500	01+00000	20-00047	20-00047
01204780	01+00000	19-00000	19-00000
Strain Gage	01557390	18-00005	18-00005
Zero Ref	01204780	17-00002	17-00002
34+01415	DEFL. IND.	16-00005	16-00005
33+01414	ZERO REF.	15-00004	15-00004
32+01416		14+00005	14+00005
31+01416	@5K	13+00010	13+00010
30+01415		12+00004	12+00016
29+01417		11-00001	11-00002
28+01414		10-00000	10-00003
27+01414		09+00004	09+00015
26+01419		08+00009	08+00032
25+01415		07+00004	07+00035
24+01413		06+00003	06+00008
23+01412		05-00002	05-00026
22+01415		04+00001	04+00016
21+01412		03+00005	03+00041
01551580		02+00000	02+00013
01204780		01-00005	01-00026
Strain Gage		01550690	01610400
R Cal		01204780	01204780
		Test Start 0	30K
		0.5K	20K
		10K	

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PANEL TT802023-107-2

34-00700	34-01035	34-01183	34-01292	34-01414
33-00758	33-01115	33-01268	33-01282	33-01359
32-00617	32-00913	32-01042	32-01075	32-01144
31-00836	31-01396	31-01675	31-01712	31-01803
30-00518	30-00693	30-00783	30-00817	30-00878
29-00675	29-01013	29-01187	29-01253	29-01392
28-01112	28-01636	28-02276	28-02456	28-02765
27-00239	27-00206	27-00097	27-00031	27-00092
26-00694	26-01084	26-01316	26-01418	26-01578
25-00351	25-00479	25-00454	25-00419	25-00347
24-00391	24-01311	24-02073	24-02253	24-02942
23-00696	23-01666	23-01291	23-01386	23-01532
22-00603	22-01168	22-01216	22-01180	22-01120
21-00581	21-01062	21-01490	21-01646	21-01617
20-00650	20-00654	20-00657	20-00659	20-00660
19-00664	19-00660	19-00661	19-00664	19-00664
18-00665	18-00664	18-00665	18-00665	18-00665
17-00662	17-00662	17-00662	17-00662	17-00662
16-00665	16-00664	16-00666	16-00666	16-00666
15-00660	15-00004	15-00014	15-00017	15-00024
14-00654	14-00112	14-00161	14-00192	14-00236
13-00605	13-00174	13-00251	13-00295	13-00357
12-00643	12-00066	12-00142	12-00169	12-00205
11-00602	11-00001	11-00010	11-00011	11-00018
10-00602	10-00002	10-00003	10-00006	10-00008
09-00644	09-00094	09-00138	09-00166	09-00205
08-00657	08-00172	08-00249	08-00290	08-00352
07-00655	07-00113	07-00161	07-00193	07-00230
06-00608	06-00017	06-00022	06-00026	06-00030
05-00647	05-00107	05-00161	05-00192	05-00232
04-00623	04-00055	04-00081	04-00098	04-00121
03-00659	03-00126	03-00179	03-00210	03-00252
02-00621	02-00049	02-00075	02-00093	02-00115
01-00046	01-00073	01-00145	01-00178	01-00210
01611301	01611560	01613250	01614010	01615100
01204780	01204780	01204780	01204780	01204780

80K

75K

70K

60K

50K

40K

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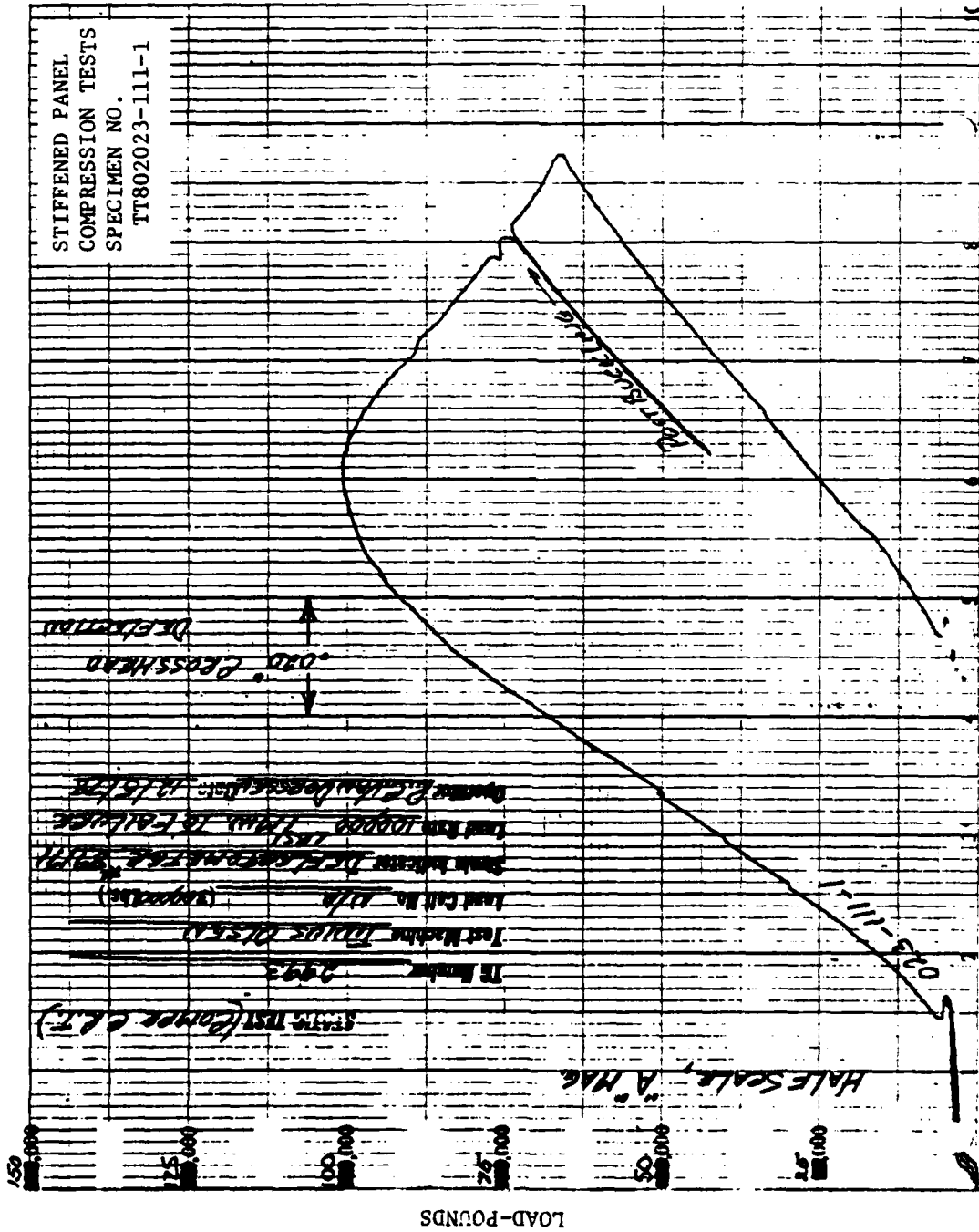
PANEL TT802023-107-2

34-01650	34-01757	34-01086	34-01796	34-02343	34-05755
33-01323	33-01306	33-01033	33-01287	33-01115	33-00351
32-01198	32-01226	32-00093	32-01220	32-01255	32-01134
31-01623	31-01684	31-00780	31-01890	31-01972	31-03775
30-00987	30-01006	30-00813	30-01014	30-01140	30-01344
29-01428	29-01462	29-00014	29-01466	29-01513	29-01615
28-03054	28-03146	28-00008	28-03157	28-03374	28-04527
27-00242	27-00307	27-00103	27-00317	27-00470	27-01668
26-01742	26-01801	26-00196	26-01811	26-01940	26-02605
25-00243	25-00193	25-00099	25-00184	25-00065	25-00999
24-02620	24-02912	24-00010	24-02924	24-03147	24-04273
23-01679	23-01729	23-00166	23-01738	23-01849	23-02393
22-01615	22-00956	22-00123	22-00941	22-00872	22-00250
21-01932	21-01961	21-00902	21-01965	21-01942	21-01443
20-00055	20-00657	20-00049	20-00657	20-00658	20-00061
19-00000	19-00604	19-00000	19-00604	19-00602	19-00061
18-00004	18-00604	18-00005	18-00604	18-00003	18-00604
17-00002	17-00604	17-00002	17-00604	17-00001	17-00604
16-00005	16-00605	16-00004	16-00604	16-00006	16-00064
15-00036	15-00039	15-00001	15-00038	15-00038	15-00141
14-00294	14-00316	14-00045	14-00323	14-00374	14-00073
13-00437	13-00470	13-00045	13-00474	13-00541	13-00098
12-00250	12-00270	12-00034	12-00272	12-00313	12-00508
11-00023	11-00022	11-00004	11-00023	11-00031	11-00051
10-00016	10-00015	10-00002	10-00015	10-00020	10-00064
09-00259	09-00293	09-00037	09-00285	09-00334	09-00626
08-00426	08-00457	08-00041	08-00493	08-00529	08-00095
07-00260	07-00301	07-00031	07-00306	07-00346	07-00549
06-00035	06-00035	06-00006	06-00034	06-00044	06-00052
05-00267	05-00308	05-00049	05-00313	05-00357	05-00559
04-00156	04-00174	04-00005	04-00174	04-00206	04-00427
03-00305	03-00327	03-00028	03-00332	03-00374	03-00000
02-00121	02-00164	02-00000	02-00168	02-00199	02-00017
01-00255	01-00274	01-00042	01-00277	01-00313	01-00450
01615360	01617200	01618210	01619310	01619520	01620430
*1204780	*1204780	*1204760	*1204780	*1204780	*1204760
85K	87K	87K	87K	90K	94.75K

Perm. Set Check @ 0

34-05691
 33-01797
 32-00110
 31-00445
 30-02340
 29-00067
 28-03428
 27-02058
 26-01141
 25-01924
 24-03401
 23-00831
 22-00311
 21-00750
~~20-00658~~
~~19-00601~~
~~18-00609~~
~~17-00601~~
~~16-00604~~
 15-00101
 14-00119
 13-00122
 12-00705
 11-00027
 10-00042
 09-00383
 08-00954
 07-00317
 06-00001
 05-00306
 04-00592
 03-00520
 02-00571
 01-00282
 01621580
 01204780

Post Buckling @ 0
 (Channel 13 dis-
 connected)



COMPRESSION DEFORMATION - INCHES x 0.02

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PANEL TT802023-111-1

34-00001	34-00055	34-00005	34-00134
33-00000	33-00018	33-00005	33-00049
32-00003	32-00066	32-00018	32-00159
31-00003	31-00053	31-00004	31-00145
30-00002	30-00067	30-00004	30-00196
29-00004	29-00054	29-00005	29-00141
28-00001	28-00032	28-00002	28-00081
27-00002	27-00062	27-00003	27-00154
26-00001	26-00074	26-00018	26-00168
25-00001	25-00066	25-00001	25-00190
24-00002	24-00034	24-00000	24-00096
23-00000	23-00064	23-00002	23-CU174
22-00000	22-00049	22-00007	22-00118
21-00001	21-00079	21-00010	21-00194
20-00000	20-00051	20-00000	20-00000
19-00000	19-00001	19-00000	19-00000
18-00000	18-00000	18-00000	18-00000
17-00000	17-00000	17-00000	17-00000
16-00000	16-00000	16-00000	16-00000
15-00012	15-00012	15-00001	15-00000
14-00017	14-00022	14-00000	14-00004
13-00140	13-00140	13-00000	13-00000
12-00086	12-00076	12-00000	12-00000
11-00476	11-00473	11-00001	11-00002
10-00529	10-00522	10-00000	10-00000
09-00249	09-00241	09-00001	09-00000
08-00141	08-00132	08-00000	08-00000
07-00352	07-00325	07-00002	07-00002
06-00690	06-00664	06-00001	06-00001
05-00368	05-00368	05-00001	05-00001
04-00341	04-00341	04-00001	04-00000
03-00077	03-00077	03-00000	03-00000
02-00197	02-00197	02-00002	02-00002
01-00270	01-00270	01-00000	01-00000
01541450	01541450	015514701	01553430
01204780	01204780	012047801	01204780

Test Start
0

DEFL. IND.
ZERO REF.
@ 5K

5K

Strain Gage
R Cal

Strain Gage
Zero Ref.

10K

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PANEL TT802023-111-1

34-00327	34-00513	34-00702	34-00885	34-01035	34-01160
33-00128	33-00209	33-00303	33-00387	33-00440	33-00490
32-00344	32-00508	32-00678	32-00633	32-00984	32-01130
31-00298	31-00446	31-00607	31-00747	31-00876	31-00971
30-00391	30-00560	30-00724	30-00853	30-00901	30-00966
29-00316	29-00471	29-00628	29-00783	29-00928	29-01070
28-00181	28-00267	28-00338	28-00382	28-00384	28-00324
27-00355	27-00553	27-00768	27-01006	27-01263	27-01557
26-00355	26-00639	26-00735	26-00947	26-01172	26-01420
25-00419	25-00637	25-00874	25-01128	25-01365	25-01611
24-00197	24-00273	24-00328	24-00353	24-00349	24-00298
23-00385	23-00594	23-00825	23-01071	23-01332	23-01613
22-00246	22-00351	22-00442	22-00539	22-00616	22-00617
21-00428	21-00664	21-00922	21-01144	21-01328	21-01546
20-00324	20-00391	20-00431	20-00491	20-00524	20-00629
19-00404	19-00402	19-00404	19-00404	19-00404	19-00404
18-00404	18-00404	18-00404	18-00404	18-00404	18-00404
17-00404	17-00404	17-00404	17-00404	17-00404	17-00404
16-00404	16-00404	16-00404	16-00404	16-00404	16-00404
15-00005	15-00006	15-00009	15-00013	15-00018	15-00027
14-00009	14-00013	14-00025	14-00035	14-00053	14-00079
13-00000	13-00000	13-00000	13-00000	13-00000	13-00000
12-00003	12-00008	12-00012	12-00017	12-00021	12-00028
11-00005	11-00005	11-00008	11-00009	11-00011	11-00013
10-00000	10-00001	10-00004	10-00009	10-00011	10-00018
09-00008	09-00013	09-00023	09-00035	09-00052	09-00080
08-00001	08-00000	08-00001	08-00001	08-00001	08-00001
07-00007	07-00015	07-00020	07-00029	07-00041	07-00055
06-00001	06-00000	06-00000	06-00006	06-00006	06-00014
05-00001	05-00000	05-00000	05-00000	05-00000	05-00000
04-00001	04-00000	04-00001	04-00000	04-00000	04-00000
03-00001	03-00003	03-00005	03-00005	03-00004	03-00005
02-00002	02-00003	02-00003	02-00002	02-00002	02-00006
01-00009	01-00014	01-00019	01-00028	01-00033	01-00040
01558120	015543601	015553101	01555550	01557110	01558280
012047801	012047801	012047801	012047801	012047801	012047801
20K	30K	40K	50K	60K	70K

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PANEL TT802023-111-1

34-01256	34-01394	34-01518	34-01897	34-03250	34-01671
33-00505	33-00374	33-00154	33-00567	33-02551	33-04124
32-01277	32-01468	32-01606	32-01857	32-0144A	32-01388
31-00988	31-00833	31-00581	31-00307	31-02689	31-04655
30-00930	30-01060	30-01392	30-02573	30-04637	30-03210
29-01208	29-0139A	29-01511	29-01642	29-01165	29-01606
28-00187	28-00104	28-00330	28-00806	28-02082	28-05716
27-01660	27-02202	27-02397	27-02773	27-03995	27-07707
26-01689	26-02055	26-02278	26-02600	26-02761	26-02240
25-01431	25-02073	25-02200	25-0247A	25-03311	25-05837
24-00186	24-00039	24-00200	24-00564	24-01539	24-0426A
23-01916	23-02287	23-02480	23-02803	23-02929	23-02310
22-00494	22-00240	22-00057	22-00271	22-00682	22-00865
21-01508	21-02083	21-02206	21-02307	21-02046	21-00678
20-00029	20-00027	20-00028	20-00026	20-00024	20-00019
19-00004	19-00004	19-00004	19-00004	19-00004	19-00005
18-00009	18-00009	18-00009	18-00010	18-00010	18-00011
17-00007	17-00006	17-00007	17-00007	17-00007	17-00009
16-00009	16-00009	16-00009	16-00010	16-00010	16-00011
15-00036	15-00056	15-00073	15-00115	15-00214	15-00478
14-00119	14-00186	14-00236	14-00350	14-00560	14-01026
13-00000	13-00000	13-00000	13-00003	13-00009	13-00023
12-00039	12-00058	12-00070	12-00090	12-00094	12-00071
11-00020	11-00028	11-00031	11-00040	11-00042	11-00036
10-00029	10-00045	10-00060	10-00097	10-00186	10-00053
09-00114	09-00177	09-00025	09-00336	09-00541	09-01041
08-00001	08-00001	08-00001	08-00002	08-00006	08-00015
07-00073	07-00096	07-00114	07-00139	07-00148	07-00106
06-00018	06-00028	06-00032	06-00045	06-00049	06-00036
05-00000	05-00008	05-00012	05-00030	05-00071	05-00305
04-00000	04-00001	04-00004	04-00022	04-00079	04-0035A
03-00005	03-00005	03-00004	03-00022	03-00060	03-00365
02-00005	02-00004	02-00004	02-00024	02-00078	02-00365
01-00006	01-00005	01-00006	01-00067	01-00104	01-00351
01559030	01559520	01600200	01600530	01601090	016021801
*1204780	*1204780	*1204780	*1204780	*1204780	*12047801

Post Buckling
@ 74.25K

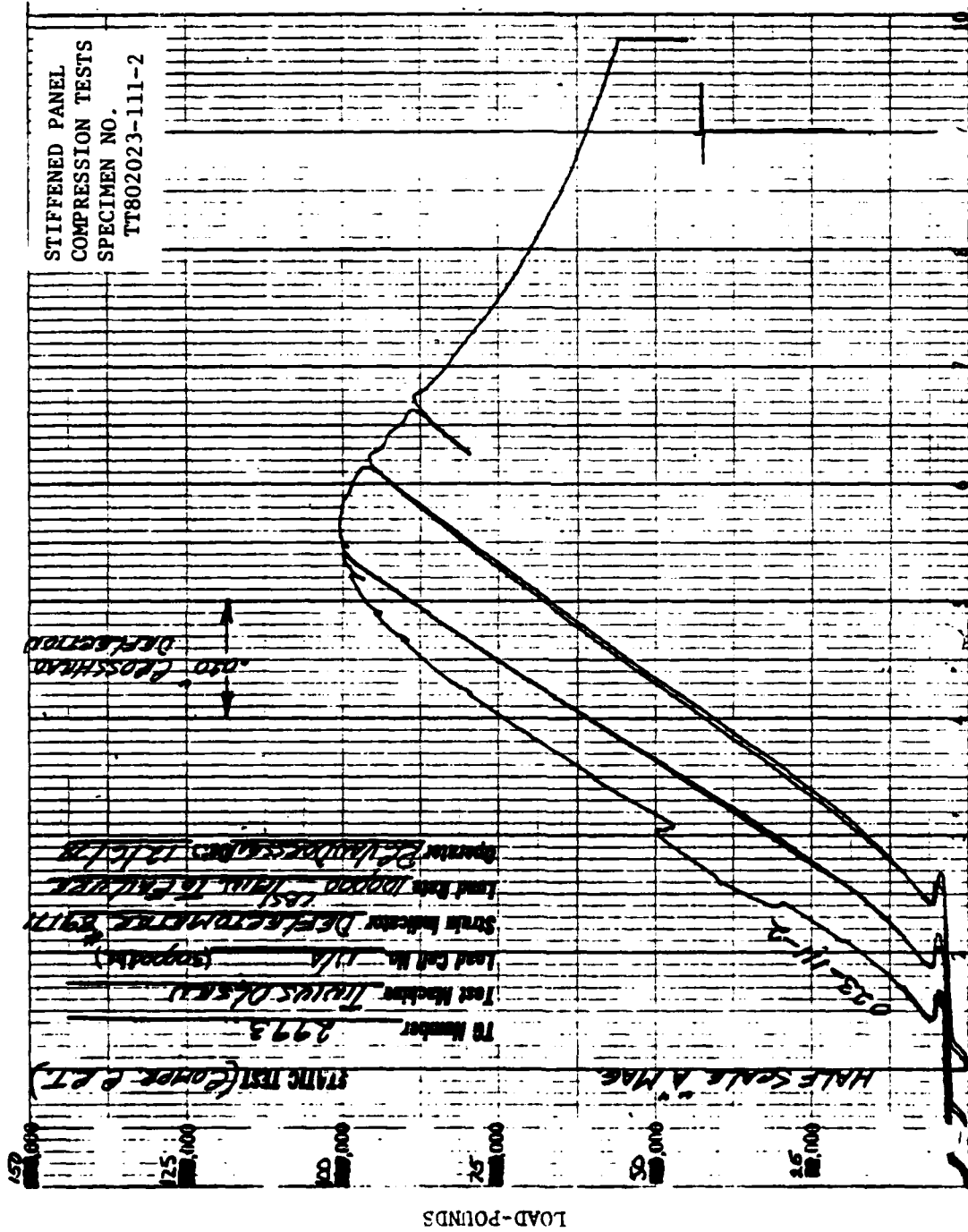
101K

100K

95K

90K

80K



SHEET 1 of 4

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PANEL TT802023-111-2

Strain Gage Zero Ref.	Strain Gage R Cal	DEFL. IND. ZERO REF.	Test Start 0	10K	20K
34-00003	34+01414	34+01343	34+00002	34-00199	34-00409
33-00004	33+01417	33+01385	33-00001	33-00091	33-00197
32-00003	32+01417	32+01362	32-00006	32-00143	32-00315
31-00003	31+01414	31+01374	31-00003	31-00105	31-00229
30-00003	30+01415	30+01336	30-00001	30-00203	30-00450
29-00002	29+01416	29+01354	29-00013	29-00157	29-00336
28-00003	28+01415	28+01372	28-00000	28-00127	28-00274
27-00001	27+01416	27+01352	27-00002	27-00168	27-00360
26-00000	26+01416	26+01358	26-00001	26-00146	26-00325
25-00000	25+01419	25+01363	25-00001	25-00144	25-00333
24-00002	24+01416	24+01361	24-00003	24-00138	24-00296
23-00002	23+01415	23+01338	23-00019	23-00162	23-00378
22-00001	22+01416	22+01363	22-00006	22-00128	22-00264
21-00002	21+01417	21+01342	21-00008	21-00181	21-00399
20-00002	20+00055	20-00036	20-00035	20-00033	20-00039
19-00006	19+00007	19-00005	19-00004	19-00004	19-00003
18-00009	18+00003	18-00004	18-00006	18-00009	18-00008
17-00009	17+00004	17-00004	17-00006	17-00006	17-00008
16-00007	16+00007	16-00009	16-00004	16-00009	16-00008
15-00061	15-00061	15-00001	15-00000	15+00000	15+00000
14+00450	14+00450	14-00000	14-00001	14+00001	14+00003
13+00251	13+00251	13-00000	13-00000	13-00000	13-00000
12+00589	12+00589	12-00000	12-00000	12-00000	12-00000
11+00460	11+00460	11-00001	11-00000	11-00002	11-00002
10+00476	10+00476	10-00000	10-00000	10+00001	10+00000
09+00214	09+00214	09-00001	09-00001	09+00004	09+00013
08+00451	08+00451	08-00001	08-00000	08+00000	08+00000
07+00270	07+00270	07-00000	07-00001	07+00003	07+00005
06+00649	06+00649	06-00000	06-00000	06+00000	06+00002
05+00133	05+00133	05-00002	05-00010	05+00003	05+00006
04+00261	04+00261	04-00001	04-00011	04+00001	04+00001
03-00002	03-00002	03+00000	03-00008	03+00001	03-00000
02+00148	02+00148	02-00001	02-00111	02-00002	02-00002
01+00106	01+00106	01-00004	01-00014	01-00004	01-00004
0032200	0032200	0033102	0033460	00336130	00336360
*1204780	*1204780	*1204780	*1204780	*1204780	*1204780

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PANEL TT802023-111-2

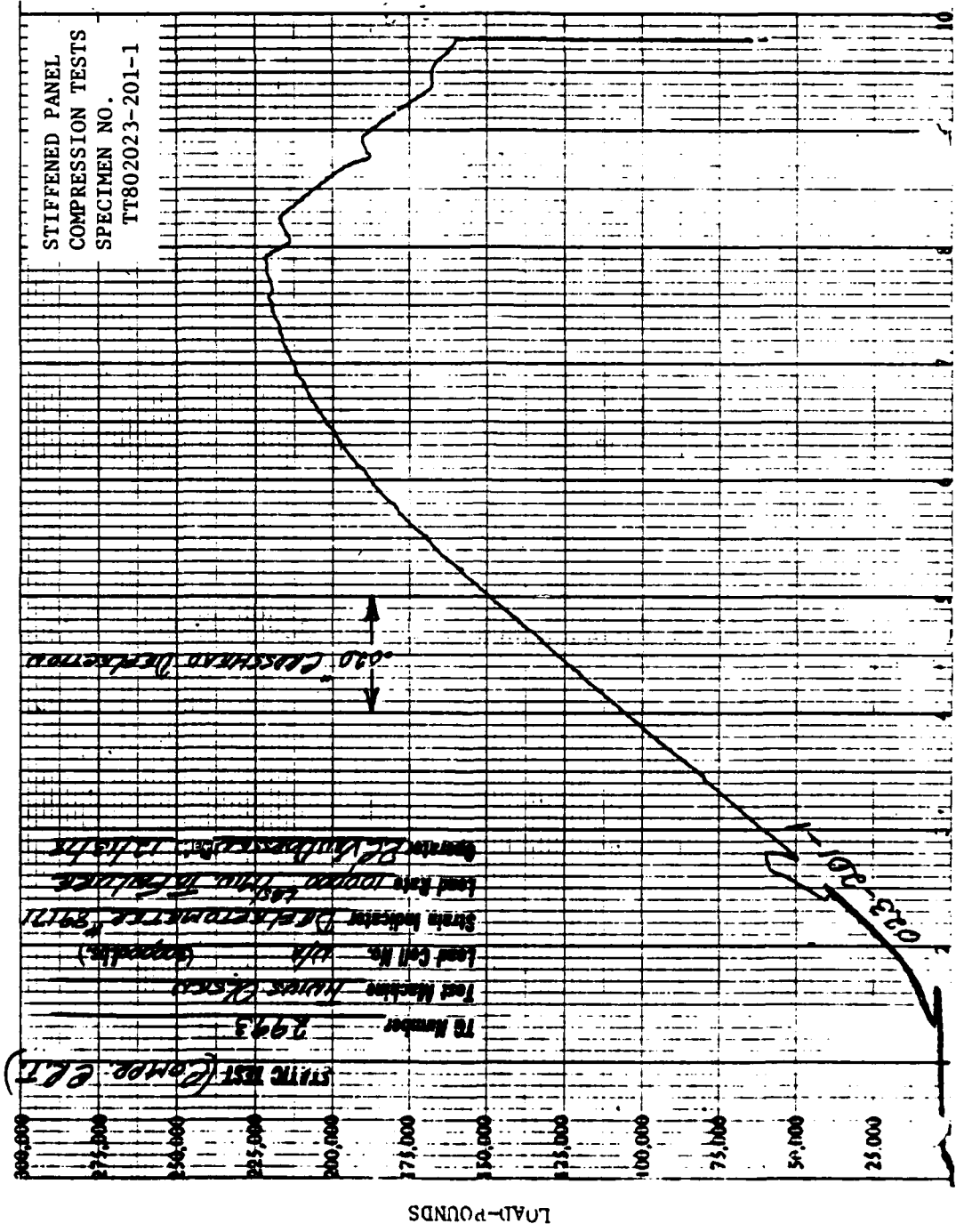
34-00620	34-01087	34-01238	34-01378	34-01437
33-00312	33-00545	33-00624	33-00714	33-00780
32-00482	32-00637	32-00783	32-00937	32-01199
31-00350	31-00468	31-00578	31-00687	31-00586
30-00674	30-00393	30-01099	30-01312	30-02038
29-00459	29-00667	29-00816	29-00968	29-01287
28-00410	28-00536	28-00634	28-00705	28-00734
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24-00434	24-00556	24-00651	24-00717	24-00655
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22-00383	22-00492	22-00632	22-00753	22-00792
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19-00603	19-00604	19-00604	19-00604	19-00604
18-00668	18-00606	18-00606	18-00606	18-00606
17-00667	17-00606	17-00606	17-00606	17-00606
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09-00022	09-00031	09-00041	09-00059	09-00031
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02-00002	02-00008	02-00005	02-00002	02-00002
01-00004	01-00008	01-00008	01-00009	01-00004
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	30K		60K	80K
			70K	

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31-00067	31-00434	31-01903	31-03634	31-02754	31-04164
30-03124	30-03880	30-05698	30-05641	30-06533	30-08351
29-01542	29-01677	29-01667	29-00361	29-01858	29-01817
28-00603	28-00470	28-00097	28-00095	28-00029	28-00185
27-01983	27-02143	27-02501	27-00505	27-02573	27-02747
26-02033	26-02197	26-02451	26-00481	26-02479	26-02530
25-01659	25-02026	25-02252	25-00483	25-02292	25-02374
24-00455	24-00307	24-00044	24-00101	24-00129	24-00280
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14-00154	14-00198	14-00303	14-00089	14-00326	14-00379
13-00000	13-00001	13-00000	13-00001	13-00000	13-00001
12-00015	12-00021	12-00036	12-00008	12-00037	12-00039
11-00005	11-00006	11-00017	11-00002	11-00016	11-00018
10-00054	10-00068	10-00110	10-00050	10-00122	10-00149
09-00187	09-00236	09-00343	09-00107	09-00367	09-00419
08-00005	08-00005	08-00009	08-00005	08-00009	08-00010
07-00019	07-00023	07-00032	07-00010	07-00037	07-00036
06-00016	06-00022	06-00027	06-00009	06-00027	06-00027
05-00052	05-00057	05-00066	05-00022	05-00070	05-00079
04-00008	04-00014	04-00028	04-00006	04-00037	04-00049
03-00005	03-00009	03-00026	03-00000	03-00031	03-00045
02-00002	02-00007	02-00022	02-00000	02-00025	02-00038
01-00005	01-00010	01-00022	01-00009	01-00029	01-00037
00342530	00344370	00346060	00347010	00348250	00348450
*1204780	*1204780	*1204780	*1204780	*1204780	*1204780
90K	95K	100K	Perm. Set Check @ 0	100K	100.6K

34-03854	34-03324
33-02913	33-02624
32-00074	32-00467
31-08861	31-10728
30-12372	30-13832
29-00287	29-00734
28-00252	28-01532
27-00001	27-04035
26-00644	26-02450
25-00299	25-03021
24-00056	24-01175
23-00892	23-02723
22-00127	22-00595
21-00400	21-01402
20-00037	20-00029
19-00004	19-00004
18-00004	18-00009
17-00007	17-00007
16-00010	16-00010
15-00128	15-00283
14-00235	14-00612
13-00000	13-00002
12-00008	12-00026
11-00002	11-00013
10-00139	10-00294
09-00245	09-00623
08-00006	08-00018
07-00010	07-00024
06-00008	06-00027
05-00040	05-00142
04-00040	04-00134
03-00036	03-00126
02-00034	02-00119
01-00014	01-00096
00349540	00351460
†1204780	†1204780

Post Buckling
Perm Set Check @ 0

Post Buckling
@ 96K



COMPRESSIVE DEFORMATION - INCHES x 0.02

SHEET 1 of 4

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 03-000008
 02-000008
 01-000008
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 *12117801

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 33+014201
 32+014201
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 30+014211
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 23+014191
 22+014201
 21+014211
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 03+00004
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 01+00003
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 06+00003
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 03+00004
 02+00003
 01+00003
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Test Start

DEFL. IND.
ZERO REF.

Strain Gage
R Cal

Strain Gage
Zero Ref.

40K

20K

@5K

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PANEL TT802023-201-1

34-00521	34-01274	34-02077	34-02496	34-03087
33-00559	33-00076	33-00060	33-00049	33-00127
32-00573	32-00761	32-01131	32-01310	32-01494
31-00594	31-00132	31-00224	31-00220	31-00119
30-01031	30-01309	30-02101	30-02675	30-03623
29-00543	29-00716	29-01058	29-01218	29-01379
26-00434	26-00572	26-00692	26-00648	26-00877
27-00620	27-00843	27-01062	27-01463	27-01698
26-00715	26-00981	26-01260	26-01876	26-02224
25-00623	25-00830	25-01036	25-01438	25-01648
24-00546	24-00718	24-00877	24-01128	24-01217
23-00683	23-00922	23-01171	23-01751	23-02104
22-00282	22-00379	22-00452	22-00430	22-00347
21-00523	21-01249	21-02127	21-02744	21-03469
20-00505	20-00808	20-00505	20-00007	20-00006
19-00012	19-00603	19-00013	19-00013	19-00013
18-00017	18-00018	18-00019	18-00017	18-00018
17-00015	17-00015	17-00015	17-00015	17-00015
16-00017	16-00017	16-00017	16-00017	16-00017
15-00006	15-00010	15-00016	15-00023	15-00025
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13-00005	13-00008	13-00013	13-00014	13-00016
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07-00006	07-00011	07-00001	07-00005	07-00003
06-00007	06-00012	06-00016	06-00021	06-00033
05-00003	05-00002	05-00013	05-00016	05-00034
04-00001	04-00002	05-00002	05-00003	05-00007
03-00004	04-00003	04-00004	04-00003	04-00003
02-00000	03-00009	03-00013	03-00015	03-00017
01-00002	02-00005	02-00004	02-00004	02-00004
01325020	01-00003	01-00004	01-00003	01-00004
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60K	*1211780	*1211780	*1211780	*1211780
	80K	100K	140K	160K

170K	180K	190K	200K	210K	220K
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33-00256	33-00449	33-00685	33-01042	33-01612	33-02639
32-01585	32-01675	32-01769	32-01854	32-01926	32-01882
31-00026	31-00120	31-00337	31-00682	31-01261	31-02631
30-04208	30-05073	30-06153	30-07870	30-10472	30-16865
29-01458	29-01531	29-01601	29-01657	29-01688	29-01568
28-00870	28-00848	28-00808	28-00734	28-00611	28-00329
27-01810	27-01932	27-02066	27-02239	27-02481	27-02987
26-02404	26-02607	26-02816	26-03047	26-03283	26-03531
25-01590	25-01890	25-02024	25-02141	25-02429	25-02440
24-01256	24-01278	24-01260	24-01258	24-01199	24-01027
23-02287	23-02493	23-02713	23-02953	23-03195	23-03436
22-00303	22-00234	22-00149	22-00042	22-00107	22-00338
21-03802	21-04226	21-04755	21-05299	21-05568	21-06771
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18-00016	18-00016	18-00016	18-00016	18-00016	18-00016
17-00015	17-00015	17-00015	17-00015	17-00015	17-00015
15-00033	15-00037	15-00046	15-00055	15-00068	15-00099
14-00037	14-00041	14-00049	14-00054	14-00067	14-00089
13-00022	13-00026	13-00027	13-00031	13-00035	13-00044
12-00063	12-00071	12-00064	12-00098	12-00123	12-00175
11-00031	11-00038	11-00047	11-00056	11-00078	11-00122
10-00022	10-00025	10-00031	10-00040	10-00053	10-00083
09-00024	09-00026	09-00033	09-00037	09-00049	09-00068
08-00010	08-00010	08-00010	08-00014	08-00014	08-00020
07-00038	07-00046	07-00052	07-00064	07-00082	07-00122
06-00038	06-00042	06-00051	06-00063	06-00082	06-00126
05-00006	05-00008	05-00012	05-00011	05-00011	05-00006
04-00003	04-00003	04-00007	04-00008	04-00016	04-00034
03-00017	03-00017	03-00022	03-00026	03-00031	03-00057
02-00006	02-00007	02-00009	02-00009	02-00018	02-00036
01-00003	01-00002	01-00003	01-00002	01-00008	01-00025
0130300	0130300	0130300	0130300	0130300	0130300
01211780	01211780	01211780	01211780	01211780	01211780

AD-A087 438

ROHR MARINE INC NATIONAL CITY CA
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MAY 80

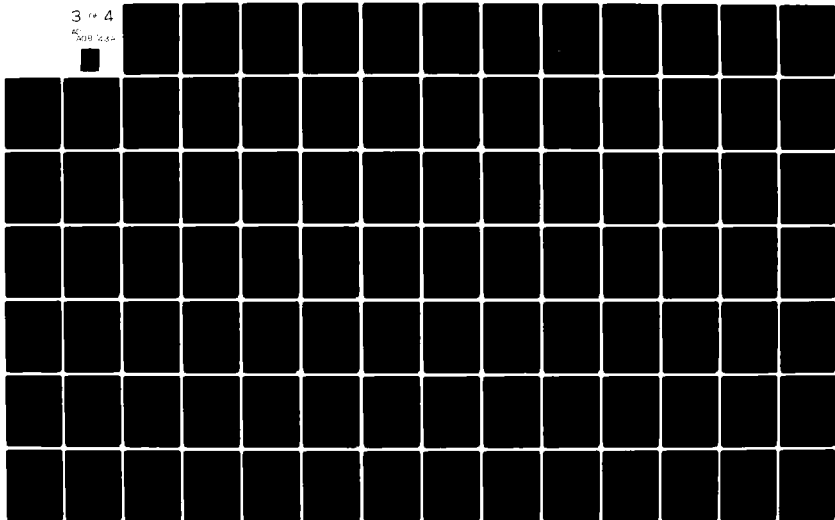
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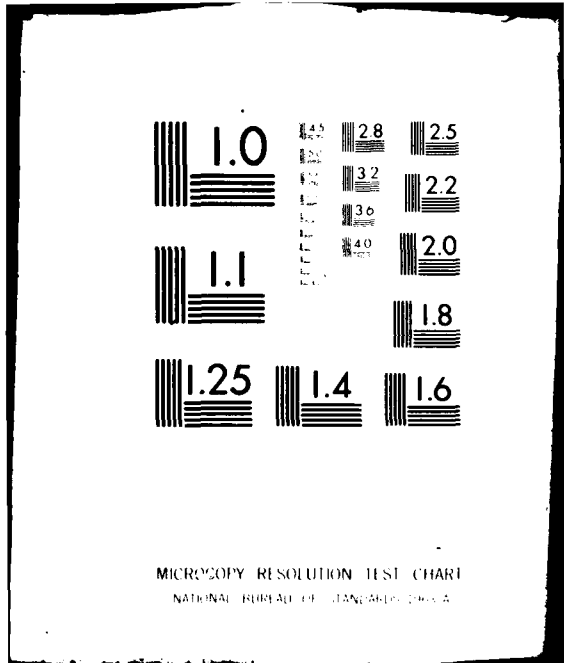
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UNCLASSIFIED

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5010 201-



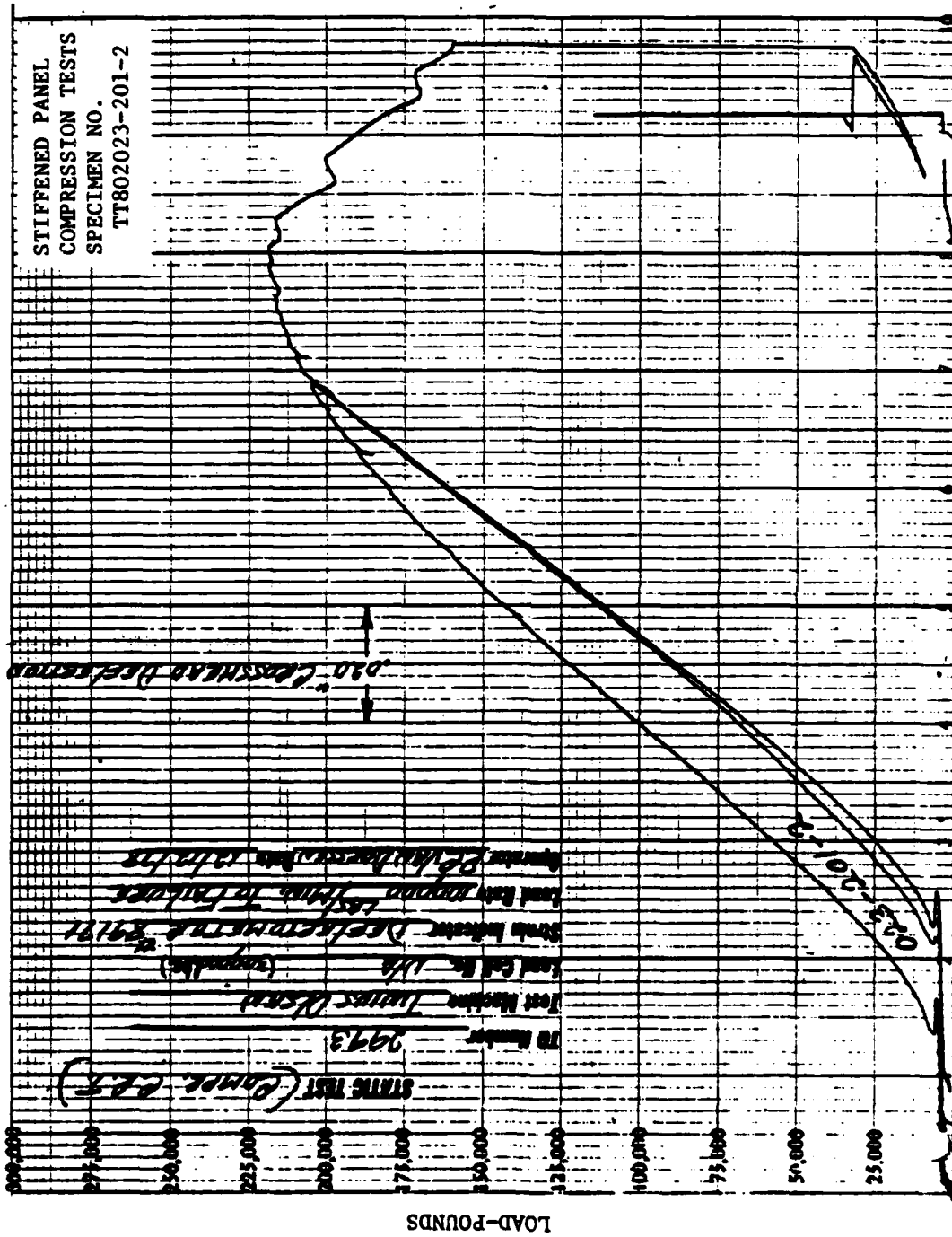


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

34-14541	34-10616
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31-03943	31-03461
30-19260	30-15973
29-00996	29-00352
28-00488	28-00781
27-03433	27-00445
26-02209	26-00999
25-03307	25-00029
24-00517	24-00273
23-02796	23-01041
22-00782	22-00756
21-05969	21-03005
20-00041	20-00099
19-00016	19-00015
18-00018	18-00020
17-00016	17-00018
16-00020	16-00020
15-00112	15-00073
14-00089	14-00054
13-00076	13-00071
12-00433	12-00727
11-00435	11-01001
10-00097	10-00074
09-00068	09-00054
08-00023	08-00034
07-00354	07-00643
06-00431	06-00253
05-00112	05-00600
04-00172	04-00644
03-00205	03-00651
02-00169	02-00638
01-00143	01-00628
0133050	0133020
01211780	01211780

Post Buckling
@ 0

222.25K



PANEL TT802023-201-2

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34-00003	34-01420	34-00060	34-00013	34-00010	34-00340
33-00000	33-01421	33-00002	33-00000	33-00002	33-00021
32-00000	32-01419	32-00032	32-00005	32-00005	32-00184
31-00000	31-01420	31-00012	31-00003	31-00002	31-00070
30-00001	30-0141A	30-00037	30-00005	30-00005	30-00255
29-00001	29-01420	29-00035	29-00003	29-00003	29-00290
28-00001	28-01422	28-00028	28-00001	28-00000	28-00160
27-00000	27-01421	27-00040	27-00003	27-00002	27-00206
26-00000	26-01420	26-00044	26-00007	26-00007	26-00222
25-00000	25-01421	25-00030	25-00000	25-00001	25-00191
24-00001	24-01419	24-00024	24-00001	24-00002	24-00156
23-00001	23-01417	23-00043	23-00004	23-00005	23-00233
22-00001	22-01419	22-00011	22-00000	22-00000	22-00167
21-00000	21-01418	21-00059	21-00006	21-00007	21-00307
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18-00019	18-00005	18-00015	18-00014	18-00014	18-00014
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14-00104	14-00106	14-00001	14-00001	14-00001	14-00001
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Strain Gage	Strain Gage	DEFL. IND.	Test Start	Test Start	20K
Zero Ref.	R Cal	ZERO REF.	0	0 Recheck	
		@ 5K			

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32-00370	32-00564	32-00745	32-01077	32-01225
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25-00A05	25-00A11	25-00A25	25-01265	25-01447
24-00321	24-00474	24-00626	24-00760	24-00971
23-0087A	23-00722	23-0098R	23-01272	23-01A9A
22-0018A	22-00230	22-00284	22-00292	22-00162
21-00A35	21-0094A	21-01307	21-01794	21-03090
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18-00115	18-00014	18-00014	18-00014	18-00014
17-00017	17-00017	17-00017	17-00017	17-00017
16-00015	16-00015	16-00015	16-00015	16-00015
15-00001	15-00003	15-0000R	15-0001A	15-00021
14-00004	14-00008	14-00013	14-00016	14-00030
13-00000	13-00000	13-00000	13-00004	13-00008
12-00003	12-0000A	12-00012	12-00017	12-00023
11-00000	11-00000	11-00004	11-00007	11-00015
10-00000	10-00004	10-00005	10-00009	10-00017
09-00004	09-00007	09-00009	09-00013	09-00026
08-00005	08-00009	08-00009	08-00014	08-0001A
07-0000A	07-00012	07-00017	07-00024	07-0003A
06-00005	06-00009	06-00014	06-00017	06-00024
05-00005	05-00007	05-00007	05-00001	05-00001
04-0000A	04-00005	04-00006	04-00010	04-00009
03-0000A	03-0000R	03-00014	03-00016	03-00023
02-00003	02-00005	02-00005	02-00007	02-00010
01-00001	01-00001	01-00001	01-00001	01-00001
0101020	01011010	01011300	01013390	01019200
01211780	01211780	01211780	01211780	01211780
40K	60K	80K	100K	120K
				140K

34-07386	34-12613	34-13383	34-15225	34-17282
33+00630	33+01947	33+02154	33+02613	33+03058
32-01364	32-01450	32-01584	32-01584	32-01600
31-00041	31+00275	31+00562	31+00674	31+01310
30-03954	30-05450	30-06682	30-09054	30-10257
29-01472	29-01451	29-01736	29-01803	29-01831
28-00938	28-00918	28-00877	28-00805	28-00743
27-01681	27-01913	27-02050	27-02127	27-02351
26-02220	26-02647	26-02881	26-03127	26-03253
25-01721	25-01978	25-02129	25-02210	25-02455
24-01037	24-01052	24-01034	24-01023	24-00940
23-02237	23-02604	23-02799	23-02890	23-03102
22-00034	22+00122	22+00211	22+00258	22+00406
21-03462	21-04745	21-05174	21-05384	21-06620
20-00005	20-00007	20-00007	20-00007	20-00007
19-00011	19+00010	19+00010	19+00010	19+00010
18-00014	18+00014	18+00014	18+00014	18+00014
17-00012	17+00012	17+00012	17+00012	17+00012
16-00015	16+00015	16+00015	16+00015	16+00015
15+00029	15+00038	15+00047	15+00052	15+00064
14+00039	14+00052	14+00061	14+00069	14+00078
13+00017	13+00017	13+00022	13+00021	13+00025
12+00044	12+00044	12+00070	12+00084	12+00096
11+00026	11+00035	11+00046	11+00050	11+00065
10+00027	10+00035	10+00039	10+00044	10+00061
09+00035	09+00044	09+00053	09+00054	09+00074
08+00028	08+00029	08+00044	08+00036	08+00039
07+00052	07+00052	07+00066	07+00063	07+00101
06+00039	06+00052	06+00062	06+00065	06+00063
05-00003	05-00003	05-00003	05-00006	05-00006
04+00009	04+00009	04+00013	04+00016	04+00017
03+00025	03+00029	03+00034	03+00034	03+00042
02+00014	02+00014	02+00014	02+00014	02+00022
01-00002	01-00004	01-00004	01-00004	01-00009
0101460	0101450	01015260	01016160	01016560
*1211780	*1211780	*1211780	*1211780	*1211780
160K	180K	190K	200K	205K

SHEET 4 of 5

12/14/78

PANEL TT802023-201-2

34-13185	34-20317	34-00000	34-00000
33-02938	33-03847	33-06889	33-06889
32-00122	32-01568	32-01500	32-01328
31-01911	31-01371	31-03981	31-04423
30-04854	30-10379	30-20593	30-20326
29-00047	29-01845	29-01672	29-01087
28-00412	28-00716	28-00411	28-00282
27-00185	27-02366	27-02517	27-03711
26-00882	26-03272	26-03521	26-02624
25-00124	25-02471	25-03132	25-03696
24-00369	24-00919	24-00642	24-00063
23-00729	23-03115	23-03333	23-02462
22-00529	22-00434	22-00669	22-01110
21-02422	21-06112	21-06869	21-05759
20-00003	20-00004	20-00004	20-00004
19-00001	19-00001	19-00001	19-00001
18-00005	18-00005	18-00005	18-00005
17-00003	17-00003	17-00003	17-00003
16-00005	16-00005	16-00005	16-00005
15-00029	15-00074	15-00105	15-00109
14-00027	14-00082	14-00114	14-00114
13-00016	13-00028	13-00035	13-00039
12-00030	12-00097	12-00132	12-00151
11-00026	11-00068	11-00101	11-00125
10-00031	10-00062	10-00070	10-00098
09-00027	09-00075	09-00101	09-00106
08-00022	08-00040	08-00041	08-00050
07-00030	07-00103	07-00114	07-00155
06-00035	06-00084	06-00097	06-00141
05-00016	05-00008	05-00003	05-00010
04-00008	04-00016	04-00022	04-00044
03-00008	03-00045	03-00052	03-00071
02-00001	02-00027	02-00031	02-00049
01-00010	01-00000	01-00003	01-00017
01017580	010203000	01021010	01021520
*1211780	*1211780C	*1211780	*1211780

Perma Set Check @ 0

205K

210K

215K

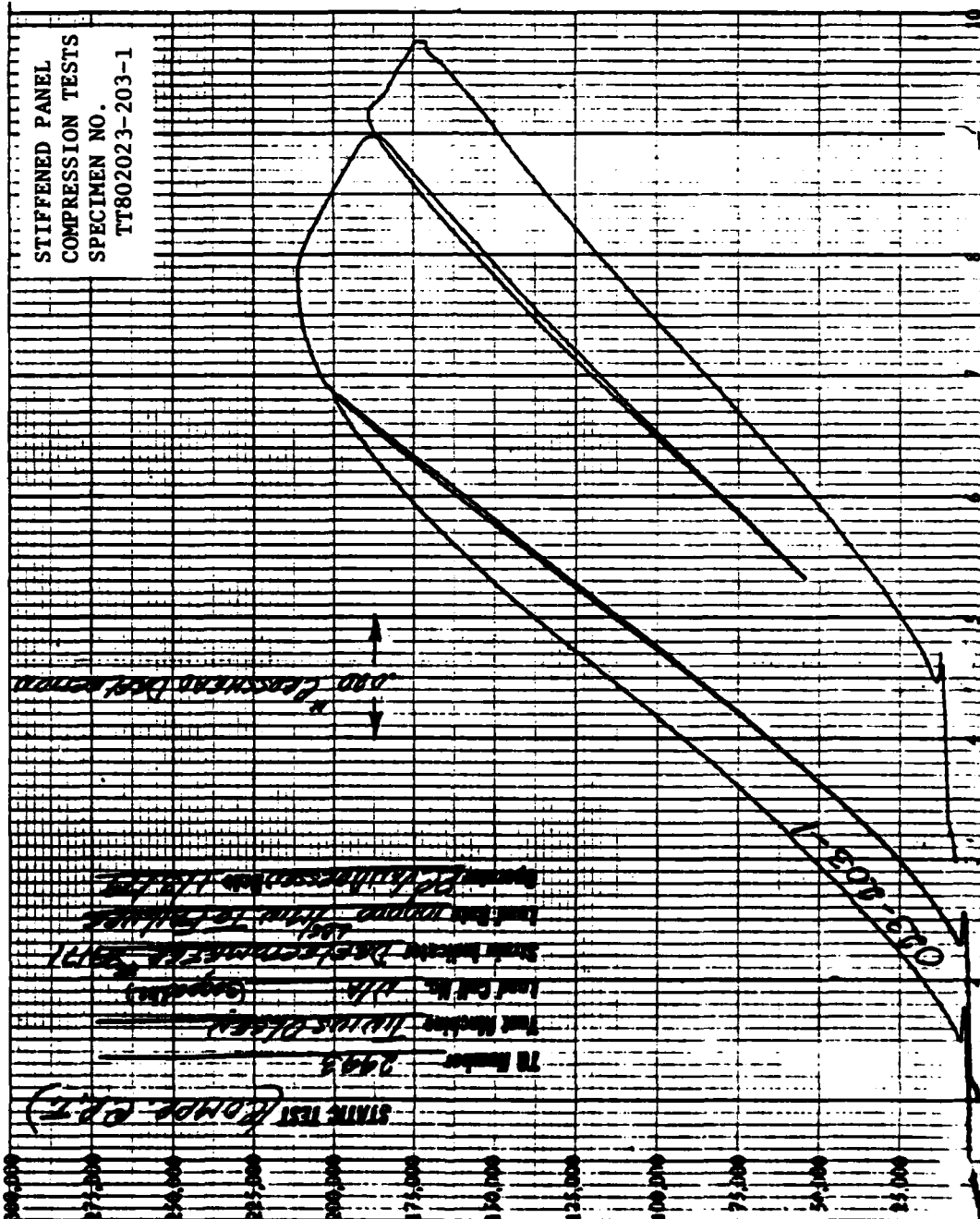
216K

219K

34-26451'
 33-06388'
 32-00383'
 31-04329'
 30-16988
 29-00084
 28-00662
 27-00418
 26-01077
 25-00438
 24-00588
 23-00854
 22-00896
 21-03107
 20-00020
 19-00019
 18-00017
 17-00015
 16-00018
 15-00087
 14-00074
 13-00070
 12-00597
 11-00852
 10-00085
 09-00080
 08-00058
 07-00578
 06-00803
 05-00844
 04-00487
 03-00509
 02-00492
 01-00459
 01025110
 *1211780
 Post Buckling
 @ 0

34-00000
 33-07124
 32-00409
 31-04591
 30-19763
 29-00729
 28-00201
 27-03308
 26-02145
 25-03231
 24-00336
 23-01459
 22-01137
 21-04781
 20-00027
 19-00017
 18-00017
 17-00017
 16-00018
 15-00114
 14-00064
 13-00031
 12-00645
 11-00935
 10-00104
 09-00047
 08-00050
 07-00222
 06-00963
 05-00595
 04-00583
 03-00596
 01-00615
 01028160
 *1211780
 Post Buckling
 @ 115K

STIFFENED PANEL
COMPRESSION TESTS
SPECIMEN NO.
TT802023-203-1



0.00
LOAD-POUNDS

STATE TEST (RMPD. P.P.T.)
 Test Number 2493
 Test Method: TYPICAL
 Test Cell No. 117
 State: MICHIGAN
 Date: 10/10/57
 Test: STIFFENED PANEL
 Test: COMPRESSION TEST
 Test: TYPICAL

COMPRESSION DEFORMATION - INCHES x 0.02

LOAD-POUNDS

SHEET 1 of 4

1/3/79

PANEL TT802023-203-1

34-00001	34-00016	34-00262	34-00434
33-00000	33-00040	33-00512	33-00421
32-00001	32-00034	32-00341	32-00496
31-00001	31-00013	31-00066	31-00099
30-00000	30-00064	30-00480	30-00838
29-00001	29-00032	29-00442	29-00666
28-00000	28-00042	28-00533	28-00651
27-00001	27-00019	27-00195	27-00295
26-00001	26-00033	26-00359	26-00549
25-00001	25-00018	25-00179	25-00244
24-00000	24-00061	24-00477	24-01020
23-00001	23-00045	23-00414	23-00616
22-00000	22-00042	22-00441	22-00674
21-00001	21-00034	21-00337	21-00500
01130101	20-00024	19-00026	18-00027
001037901	19-00004	18-00005	17-00004
	18-00004	17-00007	16-00007
	17-00007	16-00007	15-00001
	16-00008	15-00001	14-00014
	15-00001	14-00001	14-00023
	14-00001	13-00003	13-00054
	13-00000	12-00010	12-00044
	12-00002	11-00010	11-00029
	11-00001	10-00009	10-00029
	10-00000	09-00000	09-00038
	09-00001	08-00000	08-00041
	08-00001	07-00002	07-00006
	07-00001	06-00007	06-00018
	06-00000	05-00006	05-00019
	05-00001	04-00005	04-00015
	04-00001	03-00010	03-00031
	03-00001	02-00010	02-00025
	02-00001	01-00009	01-00000
	01-00000	01121306	01123460
	0112050	00103790	00103790
	00103790		

Strain Gage
Zero Ref.

60K

40K

20K

DEFL. IND.
ZERO REF.

@5K

5K

Strain Gage
R Cal

SHEET 2 of 4

1/3/79

PANEL TT802023-203-1

34-00627	34-01068	34-01012	34-02616
33-01125	33-01514	33-01749	33-01685
32-00648	32-00920	32-01154	32-01284
31-00125	31-00073	31-00358	31-00633
30-01115	30-01409	30-02569	30-03364
29-00885	29-01092	29-01759	29-02026
28-01188	28-01533	28-02739	28-03294
27-00380	27-00445	27-00438	27-00315
26-00740	26-00932	26-01348	26-01857
25-00293	25-00321	25-00195	25-00650
24-01371	24-01728	24-02886	24-03349
23-00818	23-01023	23-01772	23-02095
22-00908	22-01145	22-01498	22-01904
21-00668	21-00834	21-01704	21-01995
20-00026	20-00027	20-00027	20-00027
19-00005	19-00005	19-00004	19-00004
18-00006	18-00006	18-00008	18-00008
17-00006	17-00006	17-00007	17-00006
16-00008	16-00008	16-00008	16-00004
15-00001	15-00001	15-00002	15-00002
14-00048	14-00065	14-00115	14-00195
13-00105	13-00138	13-00237	13-00308
12-00089	12-00114	12-00186	12-00240
11-00051	11-00062	11-00097	11-00119
10-00022	10-00027	10-00040	10-00067
09-00070	09-00092	09-00123	09-00212
08-00081	08-00108	08-00141	08-00250
07-00021	07-00032	07-00076	07-00107
06-00028	06-00033	06-00041	06-00041
05-00040	05-00055	05-00072	05-00131
04-00026	04-00035	04-00044	04-00084
03-00057	03-00075	03-00120	03-00159
02-00043	02-00054	02-00083	02-00109
01-00004	01-00009	01-00036	01-00059
0112400	0112505	0112610	0112650
0103790	0103790	0103790	0103790
80K	100K	160K	180K

34-03285	34-04229	34-03537	34-04259	34-05521	34-06002
33-01977	33-02085	33-01592	33-02100	33-02530	33-02466
32-01272	32-01279	32-01866	32-01273	32-01230	32-01236
31-01213	31-01747	31-02470	31-01736	31-02720	31-04188
30-04096	30-05126	30-03419	30-05149	30-06542	30-09824
29-02169	29-02318	29-00206	29-02333	29-02405	29-02018
28-03685	28-04330	28-00279	28-04365	28-06513	28-12354
27-00201	27-00008	27-00097	27-00020	27-00608	27-03666
26-02005	26-02163	26-00370	26-02168	26-02342	26-02368
25-00057	25-00205	25-00152	25-00208	25-00510	25-00704
24-03633	24-03995	24-00066	24-04002	24-04737	24-05498
23-02280	23-02489	23-00547	23-02497	23-02752	23-02790
22-02035	22-02185	22-00061	22-02194	22-02362	22-02377
21-02120	21-02223	21-01019	21-02221	21-02149	21-01663
20-00026	20-00029	20-00027	20-00029	20-00020	20-00027
19-00005	19-00005	19-00004	19-00004	19-00004	19-00005
18-00006	18-00009	18-00009	18-00009	18-00009	18-00009
17-00006	17-00007	17-00006	17-00007	17-00006	17-00007
16-00008	16-00008	16-00008	16-00008	16-00008	16-00008
15-00006	15-00010	15-00001	15-00010	15-00011	15-00002
14-00186	14-00225	14-00052	14-00230	14-00302	14-00319
13-00362	13-00438	13-00067	13-00443	13-00112	13-00031
12-00278	12-00333	12-00067	12-00335	12-00441	12-00535
11-00136	11-00158	11-00046	11-00160	11-00197	11-00214
10-00080	10-00098	10-00032	10-00098	10-00134	10-00170
09-00247	09-00300	09-00060	09-00300	09-00404	09-00504
08-00297	08-00361	08-00054	08-00361	08-00496	08-00631
07-00138	07-00173	07-00034	07-00173	07-00276	07-00392
06-00041	06-00041	06-00015	06-00041	06-00032	06-00010
05-00147	05-00174	05-00041	05-00174	05-00032	05-000250
04-00106	04-00140	04-00015	04-00141	04-00223	04-00361
03-00186	03-00226	03-00041	03-00230	03-00318	03-00413
02-00127	02-00158	02-00022	02-00159	02-00229	02-00309
01-00073	01-00092	01-00020	01-00092	01-00129	01-00156
01127140	01127400	01129180	01132060	011323401	01132440
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190K

200K

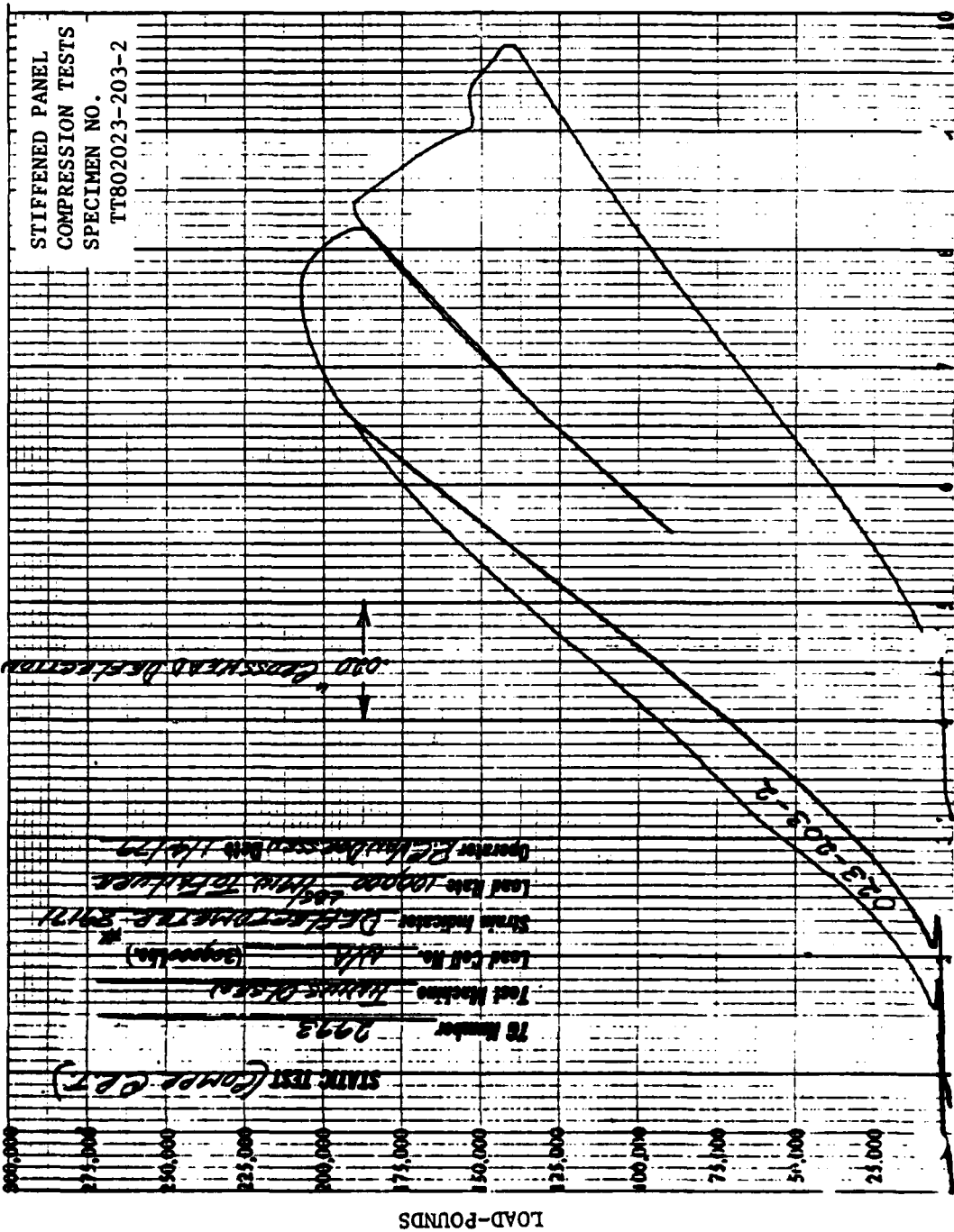
Perm. Set Check @ 0

200K

210K

211K

34-06600	34-05993	Post Buckling
33-01178	33-01696	@ 0
32-01169	32-00258	
31-06834	31-07766	
30-14179	30-13833	
29-00772	29-00607	
28-00000	28-24249	
27-02079	27-01587	
26-01607	26-00552	
25-00034	25-00036	
24-05131	24-00468	
23-02492	23-00836	
22-02037	22-00553	
21-00506	21-00786	
20-00024	20-00024	
19-00005	19-00005	
18-00010	18-00009	
17-00007	17-00007	
16-00009	16-00006	
15-00020	15-00043	
14-00252	14-00053	
13-01286	13-00759	
12-00626	12-00288	
11-00227	11-00114	
10-00259	10-00202	
09-00695	09-00372	
08-00915	08-000429	
07-00782	07-00483	
06-00057	06-00052	
05-00134	05-00009	
04-00795	04-000427	
03-00644	03-00329	
02-00546	02-00224	
01-00160	01-00093	
01135100	011364301	
0103790	01037901	
Post Buckling	Post Buckling	
@ 188.5K	@ 0	



COMPRESSIVE DEFORMATION - INCHES x 0.02

34-00000	34-00067	34-00011	34-00185	34-00335	34-00522
33-00000	33-00049	33-00009	33-00213	33-00447	33-00700
32-00001	32-00033	32-00008	32-00181	32-00358	32-00517
31-00001	31-00020	31-00006	31-00083	31-00160	31-00284
30-00000	30-00050	30-00009	30-00277	30-00448	30-00794
29-00000	29-00047	29-00011	29-00230	29-00463	29-00686
28-00000	28-00062	28-00006	28-00284	28-00579	28-00897
27-00001	27-00031	27-00008	27-00101	27-00177	27-00285
26-00002	26-00027	26-00006	26-00159	26-00340	26-00527
25-00000	25-00013	25-00005	25-00087	25-00177	25-00350
24-00001	24-00056	24-00010	24-00321	24-00678	24-01044
23-00000	23-00060	23-00015	23-00234	23-00445	23-00650
22-00001	22-00047	22-00008	22-00229	22-00470	22-00716
21-00000	21-00034	21-00008	21-00153	21-00300	21-00440
06902550	20-00037	20-00027	20-00037	20-00027	20-00024
*0104790	19-00064	19-00064	19-00064	19-00064	19-00064
Strain Gage	18-00007	18-00008	18-00009	18-00009	18-00004
Zero Ref.	17-00005	17-00005	17-00004	17-00004	17-00004
	16-00007	16-00007	16-00007	16-00007	16-00004
	15-00001	15-00000	15-00001	15-00000	15-00000
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33+01430	13-00000	13-00001	13-00013	13-00034	13-00063
32+01429	12-00000	12-00000	12-00010	12-00027	12-00048
31+01430	11-00000	11-00001	11-00007	11-00010	11-00024
30+01430	10-00000	10-00003	10-00000	10-00002	10-00004
29+01428	09-00000	09-00001	09-00010	09-00021	09-00029
28+01428	08-00001	08-00005	08-00009	08-00022	08-00040
27+01429	07-00000	07-00000	07-00006	07-00009	07-00013
26+01429	06-00001	06-00000	06-00000	06-00002	06-00009
25+01425	05-00000	05-00009	05-00005	05-00005	05-00027
24+01430	04-00000	04-00013	04-00000	04-00000	04-00010
23+01430	03-00000	03-00008	03-00009	03-00015	03-00027
22+01431	02-00001	02-00013	02-00000	02-00006	02-00014
21+01429	01-00000	01-00004	01-00001	01-00005	01-00005
00903000	00912290	00913400	00915100	00915370	00916090
*0104790	*0104790	*0104790	*0104790	*0104790	*0104790

60K

40K

20K

Test Start
0

DEFL. IND.
ZERO REF.
@ 5K

Strain Gage
R Cal

34-00731	34-02149	34-03032	34-04238
33-00872	33-01107	33-01108	33-01059
32-00668	32-00932	32-01149	32-01277
31-00321	31-00384	31-00416	31-00242
30-01081	30-01850	30-03550	30-04965
29-00904	29-01113	29-01531	29-02035
28-01235	28-01574	28-02751	28-03284
27-00298	27-00326	27-00172	27-00014
26-00718	26-00905	26-01108	26-01465
25-00306	25-00340	25-00310	25-00050
24-01424	24-01810	24-02220	24-03810
23-00850	23-01050	23-01262	23-02087
22-00972	22-01245	22-01547	22-02346
21-00563	21-00678	21-00800	21-01344
20-00024	20-00024	20-00024	20-00024
19-00003	19-00003	19-00003	19-00003
18-00004	18-00004	18-00004	18-00004
17-00005	17-00005	17-00005	17-00005
16-00004	16-00004	16-00004	16-00004
15-00001	15-00005	15-00011	15-00016
14-00045	14-00063	14-00103	14-00177
13-00094	13-00126	13-00209	13-00348
12-00073	12-00100	12-00205	12-00261
11-00033	11-00088	11-00076	11-00116
10-00009	10-00014	10-00026	10-00052
09-00043	09-00054	09-00099	09-00174
08-00058	08-00081	08-00143	08-00261
07-00023	07-00031	07-00042	07-00124
06-00013	06-00022	06-00027	06-00037
05-00036	05-00044	05-00063	05-00134
04-00018	04-00027	04-00040	04-00099
03-00045	03-00062	03-00080	03-00172
02-00026	02-00040	02-00052	02-00113
01-00005	01-00005	01-00010	01-00062
00914370	00917120	00918190	00919180
00104790	00104790	00104790	00104790
80K	100K	120K	140K
			160K
			180K

Sheet 3 of 4

1/4/79

PANEL TT802023-203-2

34-05027	34-05094	34-06084	34-07022	34-09250
33-01004	33-00997	33-00920	33-01007	33-00122
32-01320	32-0016A	32-01331	32-01337	32-00421
31-00070	31-00050	31-00187	31-00456	31-00774
30-05911	30-05904	30-06976	30-08204	30-08409
29-02166	29-02174	29-0229A	29-02406	29-01461
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24-0421A	24-00099	24-04224	24-0672A	24-12272
23-02260	23-00365	23-02262	23-0271A	23-01583
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21-01429	21-00436	21-0142A	21-01226	21-01440
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14-00204	14-00043	14-00213	14-00314	14-00221
13-00059	13-00041	13-00491	13-00472	13-01282
12-00052	12-00030	12-00366	12-00474	12-00617
11-00034	11-00039	11-00157	11-00150	11-00216
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02-00011	02-00145	02-00185	02-00286	02-00087
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	Perm. Set Check @ 0			Post Buckling @ 190.5K

TER073

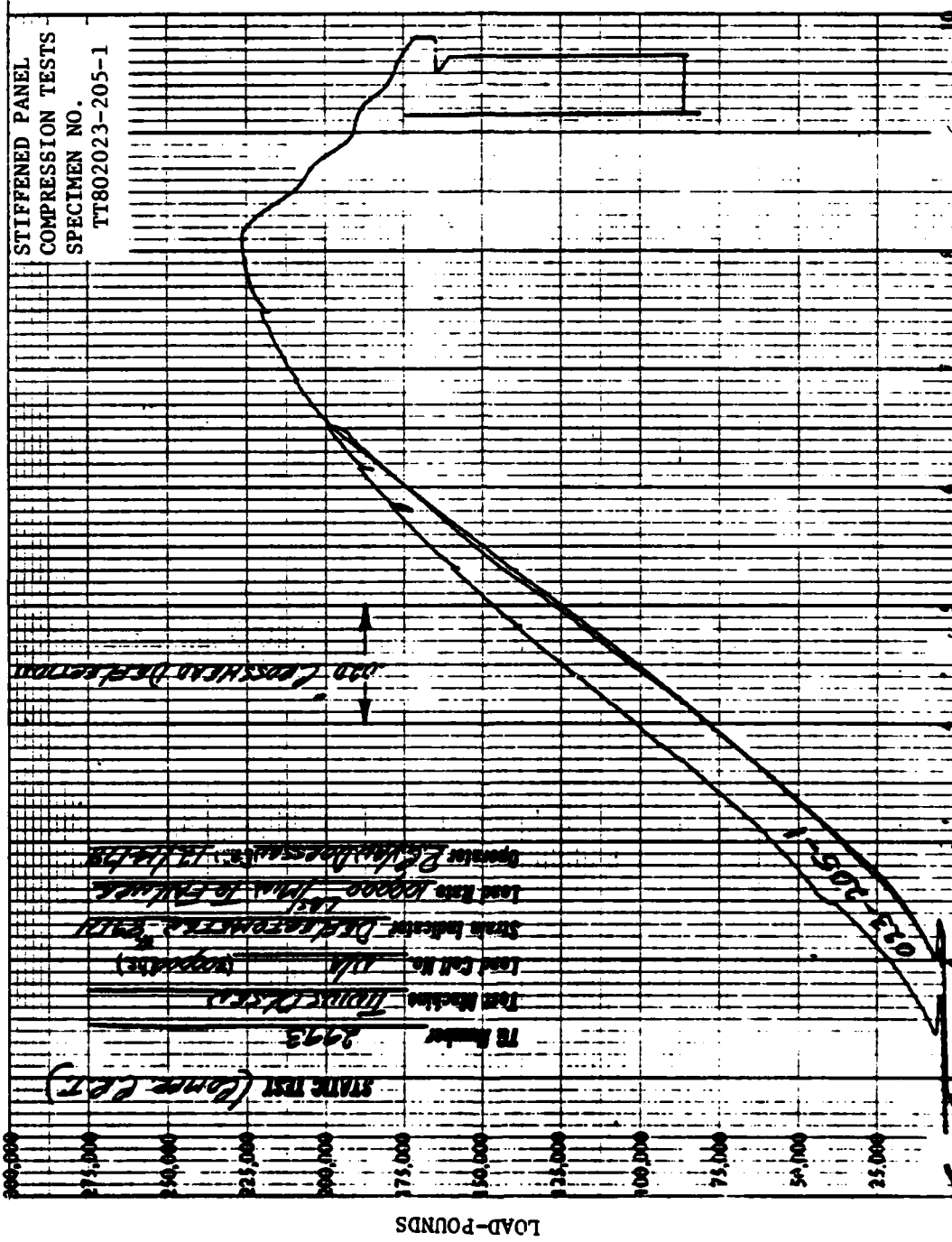
Sheet 4 of 4

1/4/79

PANEL TT802023-203-2

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31-01873
30-06407
29-00257
28-16126
27-01081
26-00063
25-02543
24-07210
23-00320
22-01368
21-00242
20-00617
19-05508
18-00612
17-06616
16-06612
15-00003
14-00058
13-00808
12-00296
11-00113
10-00040
09-00117
08-00819
07-00225
06-00050
05-00049
04-00487
03-00372
02-00512
01-00103
00928190
001047901

Post Buckling
e
0



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PANEL TT802023-205-1

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31-00001	31-00118	31-00003	31-00233	31-00453
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29-00001	29-00035	29-00005	29-00194	29-00389
28-00000	28-00044	28-00001	28-00251	28-00534
27-00001	27-00142	27-00000	27-00082	27-00117
26-00000	26-00149	26-00003	26-00194	26-00403
25-00000	25-00142	25-00000	25-00096	25-00187
24-00001	24-00142	24-00002	24-00287	24-00593
23-00003	23-00146	23-00009	23-00205	23-00410
22-00002	22-00141A	22-00006	22-00202	22-00417
21-00002	21-00141A	21-00004	21-00180	21-00366
20-00034	20-00044	20-00000	20-00001	20-00504
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18-00012	18-00012	18-00015	18-00015	18-00414
17-00012	17-00011	17-00013	17-00013	17-00013
16-00012	16-00011	16-00016	16-00015	16-00014
15-00043	15-00001	15-00001	15-00001	15-00001
14-00095	14-00095	14-00000	14-00004	14-00013
13-00072	13-00072	13-00000	13-00005	13-00014
12-00577	12-00577	12-00002	12-00001	12-00003
11-00542	11-00542	11-00001	11-00007	11-00006
10-00451	10-00451	10+00001	10+00000	10+00000
09-00500	09+00500	09+00001	09+00000	09+00016
08-00484	08+00484	08+00001	08+00015	08+00032
07-00594	07+00594	07+00001	07+00010	07+00023
06-00457	06+00457	06-00002	06-00004	06+00015
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04-00045	04+00045	04-00009	04+00004	04+00004
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01211780	012117801	01211780	01211780	01211780
Strain Gage Zero Ref.	Strain Gage R Cal	Test Start 0	20K	40K
		DEFL. IND. ZERO REF.		

@5K

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PANEL TT802023-205-1

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29-00583	29-0095A	29-01141	29-01319	29-01500
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27-00246	27-00310	27-00385	27-00381	27-00339
26-00411	26-00A20	26-01265	26-01505	26-0178A
25-00265	25-00376	25-00404	25-00394	25-00347
2A-0090A	2A-01231	2A-01924	2A-02277	2A-02669
23-00415	23-01022	23-01239	23-01470	23-01737
22-00436	22-01090	22-01291	22-01446	22-01565
21-00581	21-00883	21-01123	21-01382	21-0148A
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19-00011	19-00011	19-00011	19-00010	19-00011
1A-00015	1A-00015	1A-00015	1A-00015	1A-00016
17-00013	17-00013	17-00013	17-00013	17-00013
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60K	80K	100K	120K	140K
				160K

PANEL TT802023-205-1

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SHEET 3 of 4

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29-01682	29-01771	29-00032	29-01871	29-01937
28-02705	28-02695	28-00124	28-03114	28-03388
27-00259	27-00203	27-00161	27-00121	27-00027
26-02106	26-02260	26-00482	26-02493	26-02689
25-00253	25-00185	25-00114	25-00079	25-00079
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16-00016	16-00016	16-00016	16-00016	16-00016
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07+00152	07+00171	07+00197	07+00036	07+00235
06+00051	06+00055	06+00061	06+00014	06+00073
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180K

190K

200K

210K

Perm. Set Check @ 0

12/14/73

PANEL TT802023-205-1

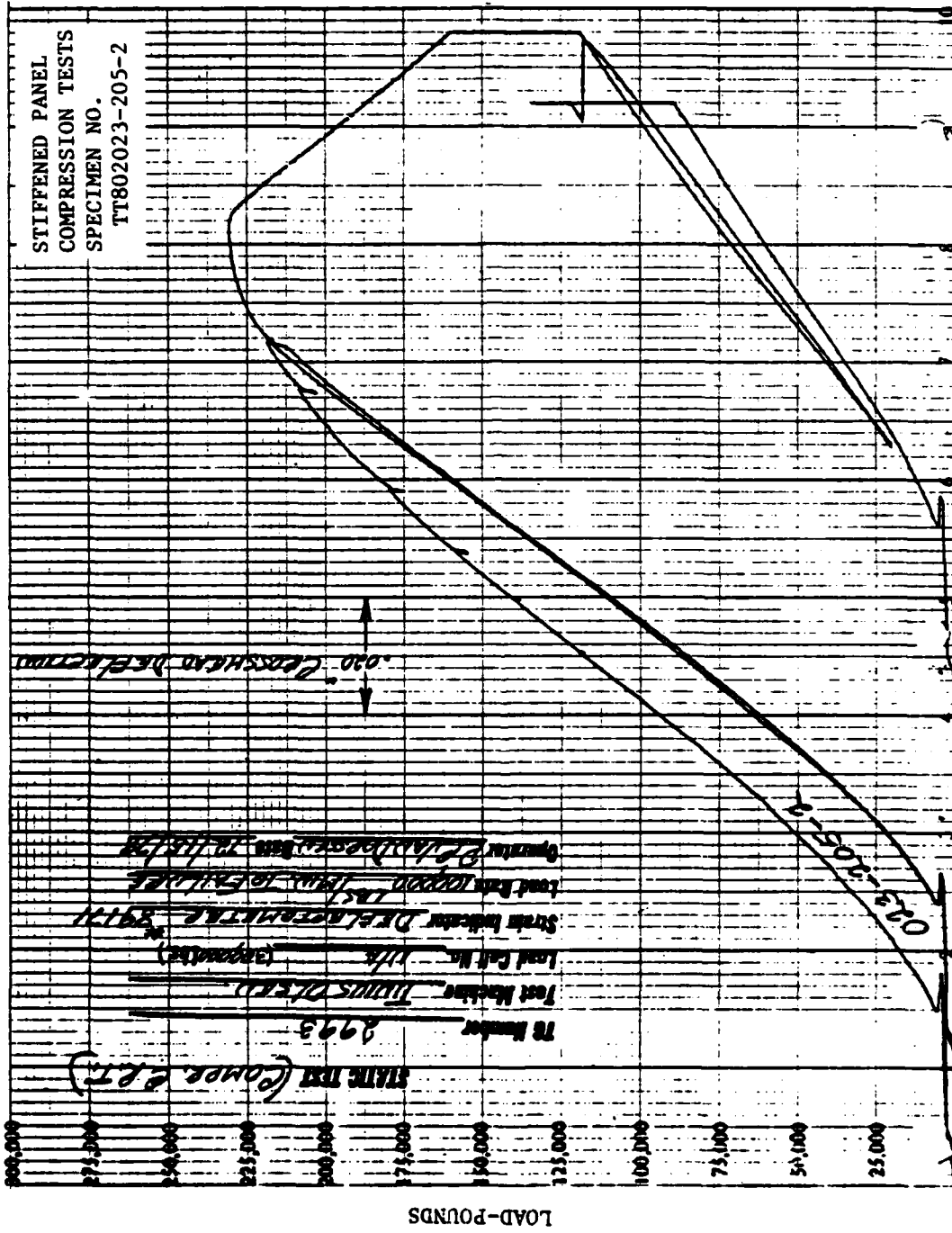
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05-00154	05-00213	05-00215	05-00515
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03-00235	03-00373	03-0096A	03-01275
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01-00158	01-00196	01-00711	01-00011
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Post-Buckling @ 91K

Post-Buckling @ 0

227K

220K



COMPRESSIVE DEFORMATION - INCHES x 0.02

Sheet 1 of 4

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PANEL TT802023-205-2

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 32-00A80
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 29-00544
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 ZERO REF.
 @ 5K

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 Strain Gage
 Zero Ref.

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 Strain Gage
 R Cal

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26-00720	26-01130	26-01368	26-01404
25-00284	25-00310	25-00305	25-00142
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23-00887	23-01324	23-01585	23-02177
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05-00008	05-00009	05-00030	05-00062
04-00017	04-00027	04-00035	04-00080
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01437530	01438510	01439440	01440570
*1215780	*1215780	*1215780	*1215780
80K	100K	140K	180K

Sheet 3 of 4

12/15/78

PANEL TT802023-205-2

34-08587	34-07582	34-06033	34-07783	34-10984
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32-02686	32-02230	32-02366	32-02399	32-02497
31-00529	31-00380	31-00105	31-00073	31-00264
30-02664	30-03178	30-04063	30-08078	30-05434
29-01722	29-01774	29-01786	29-01755	24-01627
28-03306	28-04017	28-04019	28-04064	28-05191
27-00620	27-00570	27-00481	27-00479	27-00182
26-02225	26-02402	26-02591	26-02607	26-02624
25-00628	25+00148	25+00346	25+00376	25+01019
24-03879	24-03791	24-03307	24-04395	24-06104
23-02534	23-02731	23-02948	23-02968	23-03220
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13+00241	13+00287	13+00344	13+00354	13+00461
12+00133	12+00161	12+00196	12+00202	12+00263
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10+00038	10+00042	10+00055	10+00023	10+00077
09+00197	09+00230	09+00275	09+00280	09+00382
08+00288	08+00335	08+00397	08+00401	08+00452
07+00181	07+00213	07+00253	07+00253	07+00320
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230K

220K

Perm. Set Check @ 0

220K

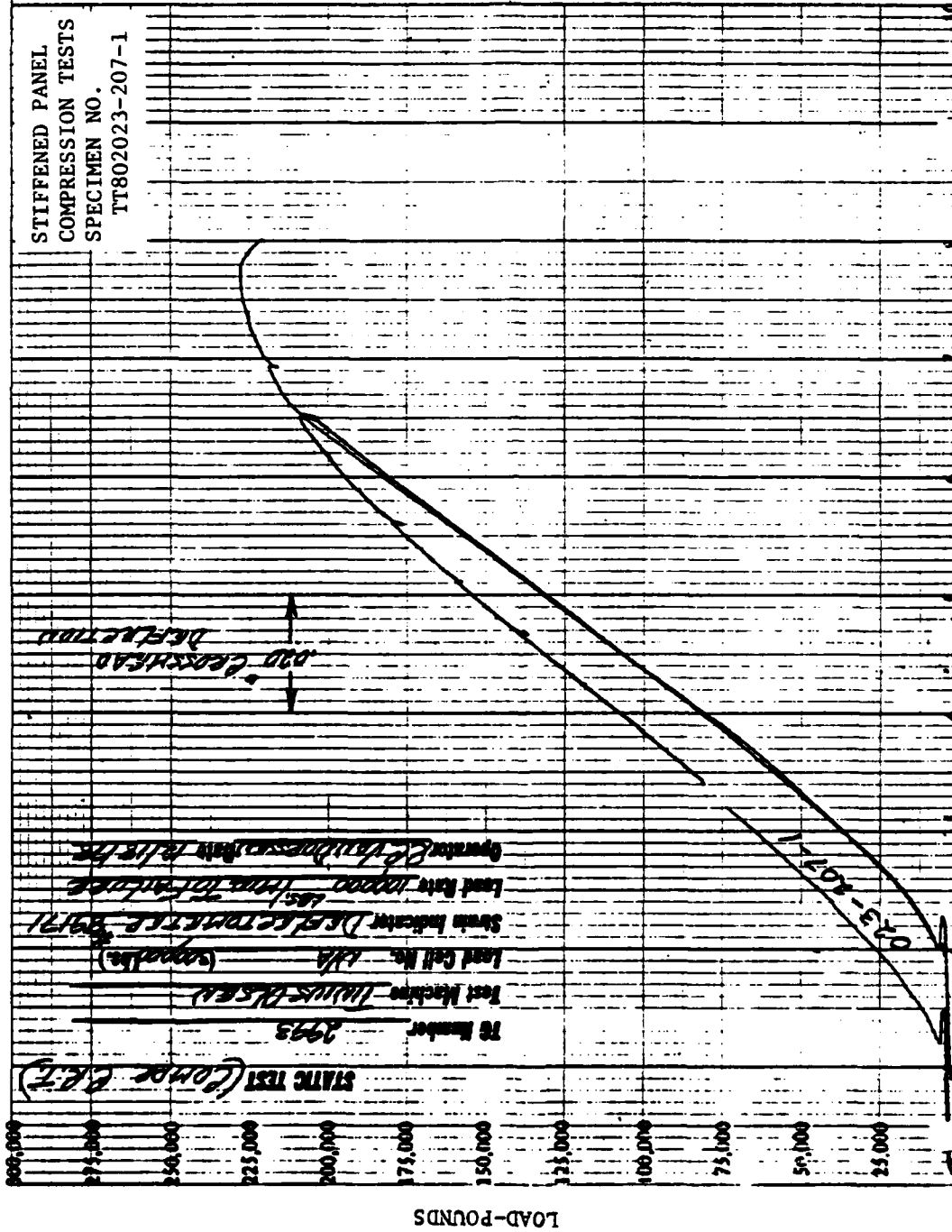
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200K

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08-00711	08-01495	08-01057
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0148300	0145040	01451450
*1215780	*1215780	*1215780

Post Buckling @ 0
Post Buckling @ 135.5K

232K



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25-00001	25-01417	25-00017	25-00000	25-00100	25-00161
24-00002	24-01423	24-00048	24-00002	24-00246	24-00543
23-00002	23-01416	23-00040	23-00006	23-00200	23-00405
22-00002	22-01417	22-00036	22-00003	22-00196	22-00404
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01218780	01218780	01218780	01218780	01218780	01218780

Strain Gage
Zero Ref.

Strain Gage
R Cal

DEFL. IND.
ZERO REF.
@ 5K

Test Start
0

20K

40K

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27-00417	27-00557	27-00785	27-00870	27-00927
26-00561	26-00782	26-01175	26-01392	26-01630
25-00251	25-00309	25-00363	25-00355	25-00314
24-00692	24-01199	24-01792	24-02093	24-02404
23-00609	23-00616	23-01238	23-01473	23-01733
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60K	80K	100K	120K	140K
				160K

Sheet 3 of 4

12/18/78

TT802023-207-1

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180K

190K

200K

210K

Perm. Set Check @ 0

210K

PANEL TT802023-207-1

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 31-01025
 30-03523
 29-01906
 28-04598
 27-00828
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 25-00120
 24-03832
 23-02796
 22-01799
 21-02688
 20-06633
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 17-06009
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 15-00040
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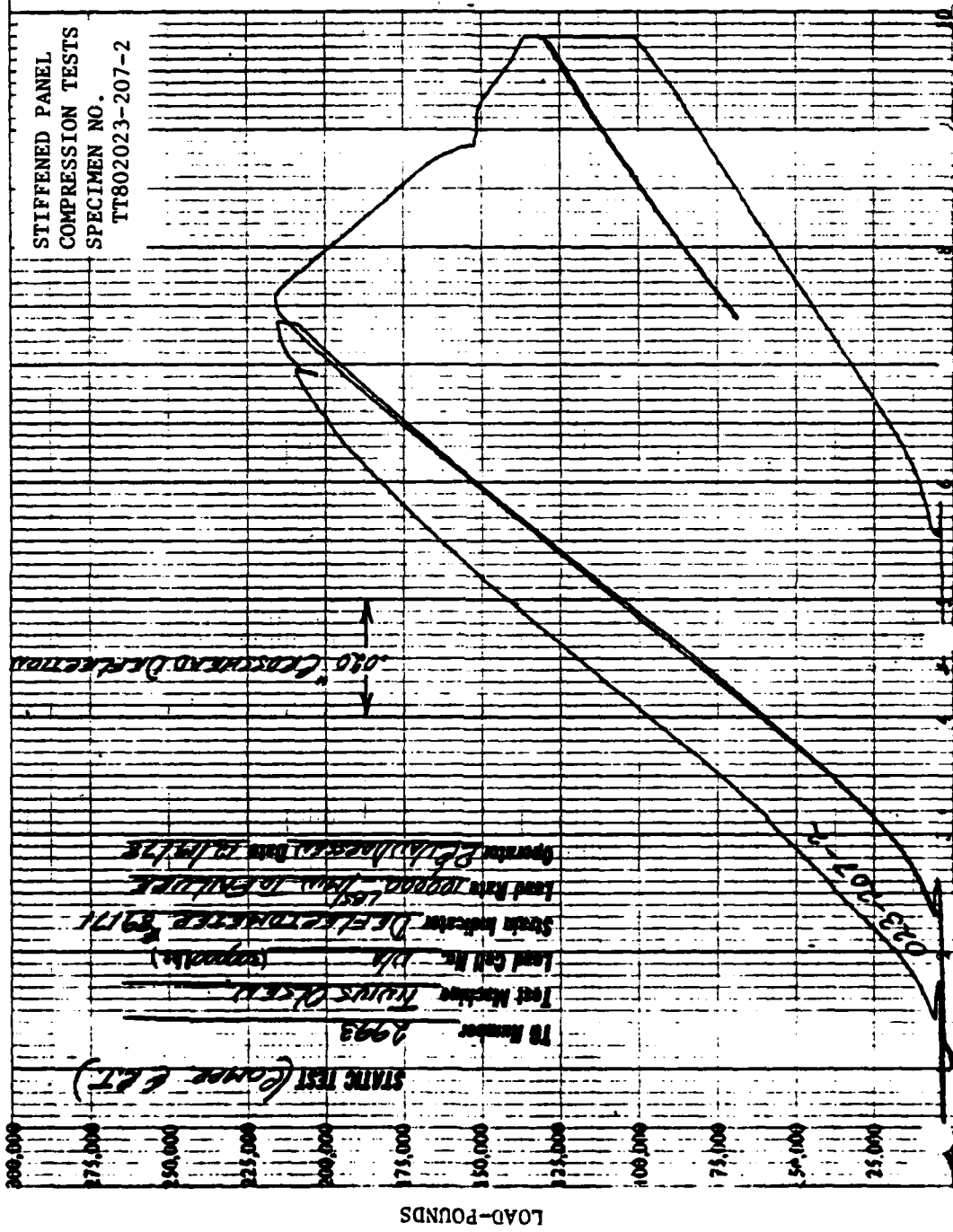
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220K

228.75K
(BUCKLING
LOAD)

Post-Buckling
@ 0

171.25K
(POST BUCKLING
LOAD)



COMPRESSIVE DEFORMATION - INCHES x 0.02

C

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31-00001	31-01428	31-00040	31-00002	31-00188	31-00405
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Strain Gage
Zero Ref.

Strain Gage
R Cal

DEFL. IND.
ZERO REF.

Test Start
0

20K

40K

@5K

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30-00390	30-00677	30-00829	30-00953	30-01192
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28-00971	28-01673	28-02043	28-02435	28-02662
27-00292	27-00396	27-00409	27-00390	27-00326
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25-00192	25-00240	25-00265	25-00221	25-00131
24-00730	24-01295	24-02047	24-02446	24-02886
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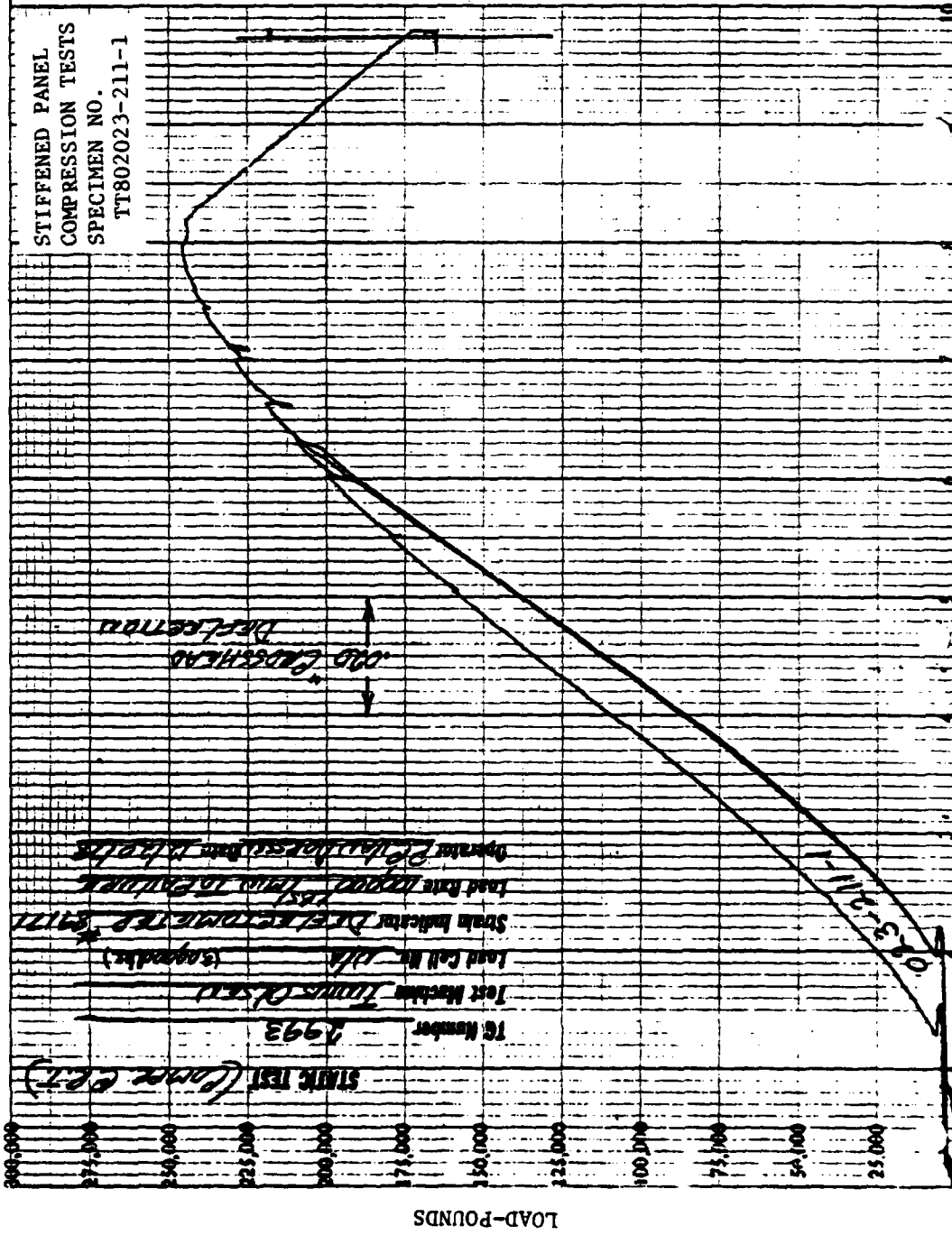
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200K
210K
Post Buckling
0
After 216.5K
217K
Post Buckling @

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29-00064	29-01310
28-17390	28-23764
27-62340	27-02373
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07-00206	07-00417
06-00023	06-00049
05-00249	05-00285
04-00765	04-01232
03-00491	03-00448
02-00732	02-01189
01-00287	01-00279
01326220	01325130
01219780	01219780

Post-Buckling @ 0

Post Buckling @

134.25K



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PANEL TT802023-211-1

34-00001	34-01429	34-00046	34-00001	34-00205	34-00449
33-00001	33-01428	33-00023	33-00001	33-00094	33-00183
32-00001	32-01427	32-00034	32-00002	32-00176	32-00356
31-00002	31-01429	31-00018	31-00005	31-00063	31-00120
30-00001	30-01429	30-00086	30-00013	30-00341	30-00634
29-00002	29-01428	29-00033	29-00008	29-00187	29-00387
28-00002	28-01425	28-00030	28-00000	28-00157	28-00334
27-00001	27-01428	27-00018	27-00008	27-00141	27-00332
26-00000	26-01428	26-00034	26-00003	26-00184	26-00382
25-00000	25-01429	25-00039	25-00003	25-00209	25-00404
24-00000	24-01428	24-00038	24-00005	24-00215	24-00428
23-00000	23-01429	23-00040	23-00010	23-00193	23-00389
22-00001	22-01428	22-00039	22-00006	22-00192	22-00394
21-00000	21-01428	21-00038	21-00005	21-00194	21-00401
19-00013	19-00049	19-00019	19-00010	19-00011	19-00014
18-00017	18-00014	18-00015	18-00015	18-00015	18-00016
17-00015	17-00012	17-00012	17-00013	17-00013	17-00013
16-00016	16-00016	16-00014	16-00016	16-00015	16-00015
15-00064	15-00661	15-00000	15-00000	15-00000	15-00001
14-00564	14-00454	14-00001	14-00001	14-00001	14-00001
13-00352	13-00926	13-00001	13-00001	13-00004	13-00003
12-00440	12-00956	12-00000	12-00000	12-00001	12-00001
11-00632	11-00908	11-00001	11-00002	11-00005	11-00006
10-00748	10-00871	10-00001	10-00001	10-00001	10-00001
09-00413	09-00843	09-00000	09-00000	09-00001	09-00001
08-00864	08-00922	08-00000	08-00000	08-00002	08-00004
07-00424	07-00892	07-00000	07-00001	07-00004	07-00004
06-00507	06-01004	06-00001	06-00002	06-00002	06-00000
05-00269	05-00926	05-00000	05-00010	05-00001	05-00004
04-00339	04-00944	04-00000	04-00011	04-00001	04-00003
03-00285	03-00987	03-00000	03-00009	03-00000	03-00004
02-00255	02-00958	02-00000	02-00010	02-00002	02-00001
01-00471	01-01070	01-00001	01-00010	01-00002	01-00001
01471560	01422040	01430530	01432560	014340201	01434460
*1220780	*1220780	*1220780	*1220780	*1220780	*1220780

40K

20K

Test Start
0

DEFL. IND.
ZERO REF.
@ 5K

Strain Gage
R Cal

Strain Gage
Zero Ref.

34-00716	34-01607	34-01359	34-01793	34-02230	34-02685
33-00273	33-00356	33-00394	33-00387	33-00551	33-00267
32-00538	32-00718	32-00689	32-01054	32-01220	32-01391
31-00177	31-00230	31-00269	31-00261	31-0216	31-00145
30-00525	30-01222	30-01549	30-01972	30-02557	30-03270
29-00581	29-00773	29-00957	29-01136	29-01317	29-01497
28-00512	28-00684	28-00641	28-00991	28-01135	28-01200
27-00532	27-00741	27-00933	27-01125	27-01308	27-01492
26-00591	26-00817	26-01045	26-01272	26-01509	26-01744
25-00591	25-00776	25-00955	25-01128	25-01294	25-01454
24-00642	24-00844	24-01034	24-01217	24-01398	24-01562
23-00580	23-00772	23-00959	23-01141	23-01330	23-01527
22-00592	22-00790	22-00981	22-01172	22-01362	22-01540
21-00607	21-00819	21-01030	21-01247	21-01475	21-01707
20-00607	20-00607	20-00607	20-00607	20-00607	20-00607
19-00612	19-00611	19-00610	19-00611	19-00611	19-00611
18-00615	18-00615	18-00615	18-00615	18-00615	18-00615
17-00613	17-00613	17-00613	17-00613	17-00613	17-00613
16-00615	16-00615	16-00615	16-00615	16-00615	16-00615
15-00601	15-00600	15-00600	15-00602	15-00604	15-00604
14-00601	14-00601	14-00601	14-00606	14-00603	14-00603
13-00603	13-00603	13-00603	13-00603	13-00603	13-00606
12-00603	12-00604	12-00608	12-00613	12-00621	12-00627
11-00605	11-00605	11-00605	11-00606	11-00605	11-00602
10-00601	10-00601	10-00601	10-00601	10-00602	10-00602
09-00601	09-00601	09-00601	09-00606	09-00601	09-00600
08-00604	08-00604	08-00605	08-00608	08-00608	08-00608
07-00613	07-00613	07-00616	07-00619	07-00624	07-00631
06-00607	06-00607	06-00608	06-00612	06-00616	06-00621
05-00603	05-00603	05-00604	05-00603	05-00601	05-00601
04-00604	04-00603	04-00604	04-00605	04-00604	04-00604
03-00609	03-00609	03-00609	03-00608	03-00611	03-00612
02-00601	02-00601	02-00602	02-00604	02-00604	02-00604
01-00602	01-00602	01-00602	01-00602	01-00602	01-00602
01436240	01436240	01437510	01438440	01439300	01440080
*1220780	*1220780	*1220780	*1220780	*1220780	*1220780
60K	70K	100K	120K	140K	160K

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PANEL TT802023-211-1

34-03335	34-04401	34-05173	34-02729	34-05260	34-06409
33-00111	33-00176	33-00396	33-01279	33-00407	33-00742
32-01572	32-01769	32-01870	32-00027	32-01680	32-01967
31-00030	31-00178	31-00348	31-00884	31-00348	31-00643
30-04172	30-05396	30-06233	30-03355	30-06301	30-07603
29-01684	29-01882	29-01981	29-00015	29-01991	29-02074
28-01369	28-01442	28-01464	28-00121	28-01456	28-01459
27-01691	27-01687	27-01997	27-00217	27-01997	27-02114
26-02003	26-02283	26-02435	26-00400	26-02453	26-02621
25-01619	25-01784	25-01880	25-00173	25-01878	25-01985
24-01713	24-01834	24-01891	24-00100	24-01881	24-01926
23-01739	23-01979	23-02113	23-00146	23-02124	23-02265
22-01709	22-01876	22-01962	22-00096	22-01961	22-02046
21-01942	21-02164	21-02273	21-00050	21-02274	21-02386
20-00011	20-00019	20-00011	20-00011	20-00010	20-00011
19-00015	19-00015	19-00015	19-00015	19-00015	19-00015
18-00015	18-00015	18-00015	18-00015	18-00015	18-00015
17-00015	17-00015	17-00015	17-00015	17-00015	17-00015
16-00015	16-00015	16-00015	16-00015	16-00015	16-00015
15-00008	15-00013	15-00015	15-00009	15-00015	15-00018
14-00003	14-00008	14-00009	14-00009	14-00009	14-00017
13-00000	13-00005	13-00005	13-00000	13-00005	13-00005
12-00039	12-00052	12-00063	12-00014	12-00063	12-00077
11-00002	11-00009	11-00012	11-00004	11-00011	11-00017
10-00004	10-00008	10-00008	10-00003	10-00009	10-00013
09-00001	09-00001	09-00000	09-00000	09-00001	09-00001
08-00013	08-00015	08-00017	08-00002	08-00018	08-00016
07-00040	07-00053	07-00062	07-00013	07-00062	07-00075
06-00025	06-00034	06-00039	06-00007	06-00039	06-00047
05-00005	05-00009	05-00014	05-00018	05-00014	05-00019
04-00004	04-00004	04-00002	04-00011	04-00014	04-00003
03-00013	03-00013	03-00011	03-00009	03-00013	03-00013
02-00004	02-00004	02-00001	02-00010	02-00003	02-00003
01-00002	01-00004	01-00007	01-00016	01-00008	01-00011
01441550	01443180	01444570	01446200	01445400	01450210
*1220780	*1220780	*1220780	*1220780	*1220780	*1220780

220K

210K

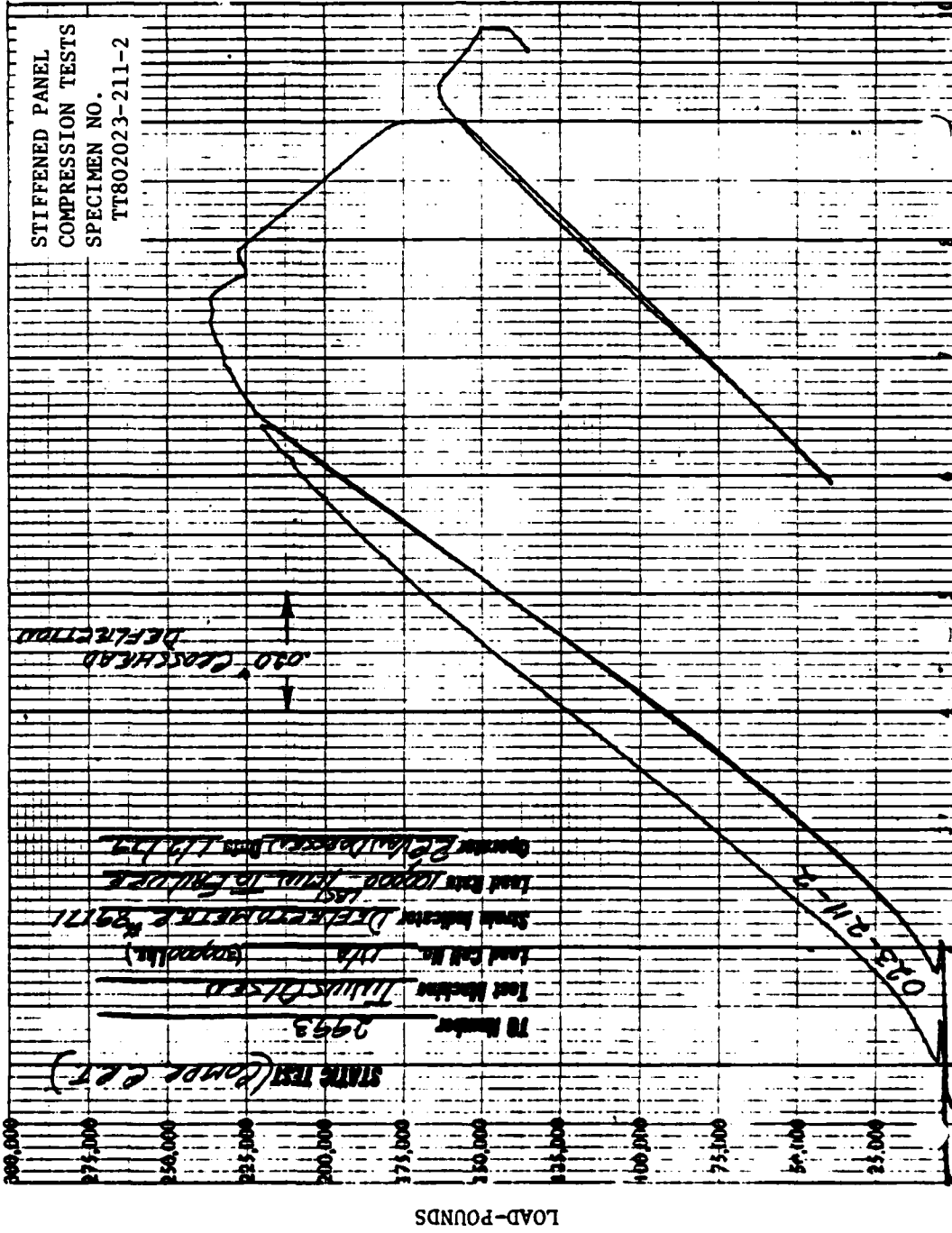
Perm. Set Check @ 0

210K

200K

180K

	230K	240K	246.5K (Maximum Load)	Post-Buckling @ 105K	Post Buckling @ 0
34-07728	34-09951	34-13357	34-11324	34-13529	
33-01173	33-01931	33-08076	33-09457	33-09889	
32-02084	32-02216	32-05599	32-09799	32-09947	
31-01094	31-01970	31-09914	31-08432	31-08506	
30-09376	30-12536	30-22843	30-20152	30-14625	
29-02173	29-02238	29-05545	29-09360	29-09599	
28-01426	28-01318	28-00513	28-00244	28-00972	
27-02272	27-02497	27-04295	27-03809	27-01332	
26-02820	26-03060	26-02073	26-01676	26-00993	
25-02119	25-02317	25-02563	25-02363	25-00295	
24-01949	24-01917	24-00769	24-01078	24-00300	
23-02440	23-02643	23-01762	23-01355	23-00622	
22-02130	22-02183	22-00184	22-00051	22-00092	
21-02513	21-02660	21-01540	21-00695	21-00037	
20-00002	20-00012	20-00001	20-00024	20-00030	
19-00000	19-00010	19-00012	19-00014	19-00015	
18-00004	18-00016	18-00016	18-00018	18-00019	
17-00013	17-00012	17-00014	17-00017	17-00017	
16-00014	16-00015	16-00014	16-00014	16-00019	
15-00021	15-00030	15-00030	15-00031	15-00027	
14-00016	14-00020	14-00016	14-00034	14-00029	
13-00005	13-00014	13-00031	13-00007	13-00014	
12-00095	12-00128	12-00723	12-01059	12-01090	
11-00025	11-00047	11-00546	11-00689	11-00545	
10-00016	10-00021	10-00021	10-00023	10-00021	
09-00001	09-00000	09-00012	09-00043	09-00037	
08-00021	08-00028	08-00039	08-00066	08-00080	
07-00091	07-00124	07-00017	07-00039	07-00064	
06-00056	06-00078	06-00055	06-00039	06-00082	
05-00019	05-00022	05-00242	05-00752	05-00799	
04-00002	04-00010	04-00293	04-00784	04-00836	
03-00013	03-00022	03-00303	03-00790	03-00839	
02-00003	02-00008	02-00279	02-00787	02-00846	
01-00012	01-00012	01-00161	01-00766	01-00828	
0152190	0145210	01454510	01456480	01458090	
01220780	01220780	01220780	01220780	01220780	



COMPRESSIVE DEFORMATION - INCHES x 0.02

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PANEL TT802023-211-2

Strain Gage R Cal	DEFL. IND. ZERO REF.	Test Start 0	20K	40K	60K
34-00000	34-00055	34-00012	34-00209	34-00472	34-00758
33-00001	33-00034	33-00010	33-00109	33-00202	33-00301
32-00000	32-00045	32-00012	32-00212	32-00403	32-00597
31-00000	31-00004	31-00001	31-00029	31-00064	31-00100
30-00001	30-00092	30-00024	30-00383	30-00703	30-01046
29-00000	29-00032	29-00006	29-00165	29-00352	29-00542
28-00001	28-00041	28-00010	28-00177	28-00366	28-00558
27-00000	27-00033	27-00006	27-00161	27-00369	27-00564
26-00000	26-00045	26-00013	26-00199	26-00391	26-00586
25-00001	25-00051	25-00010	25-00237	25-00440	25-00638
24-00001	24-00037	24-00005	24-00206	24-00405	24-00602
23-00001	23-00037	23-00009	23-00173	23-00360	23-00556
22-00002	22-00044	22-00011	22-00260	22-00404	22-00609
21-00001	21-00041	21-00009	21-00141	21-00387	21-00589
01048390	20-00036	20-00007	20-00034	20-00275	20-00473
01027901	19-00009	19-00001	19-00001	19-00001	19-00001
Strain Gage	18-00005	18-00001	18-00005	18-00005	18-00005
Zero Ref	17-00003	17-00002	17-00003	17-00002	17-00003
	16-00004	16-00001	16-00004	16-00004	16-00004
	15-00000	15-00001	15-00001	15-00001	15-00001
34-01430	14-00000	14-00000	14-00000	14-00000	14-00000
33-01427	13-00000	13-00000	13-00001	13-00000	13-00000
32-01429	12-00000	12-00000	12-00003	12-00004	12-00000
31-01430	11-00000	11-00000	11-00002	11-00002	11-00004
30-01428	10-00001	10-00001	10-00000	10-00000	10-00000
29-01428	09-00000	09-00000	09-00000	09-00003	09-00005
28-01425	08-00000	08-00000	08-00000	08-00002	08-00005
27-01429	07-00000	07-00000	07-00004	07-00009	07-00014
26-01429	06-00000	06-00000	06-00004	06-00009	06-00013
25-01429	05-00001	05-00012	05-00001	05-00002	05-00002
24-01428	04-00001	04-00008	04-00001	04-00000	04-00001
23-01428	03-00000	03-00007	03-00001	03-00004	03-00004
22-01428	02-00001	02-00012	02-00004	02-00003	02-00002
21-01428	01-00000	01-00009	01-00000	01-00000	01-00000
01048450	01059010	0101140	01103310	01104030	01104360
0102790	0102790	0102790	0102790	0102790	0102790

34-01050	34-01412	34-01601	34-02257	34-02775	34-03602
33-00369	33-00475	33-00542	33-00560	33-00541	33-00321
32-00792	32-00981	32-01161	32-01346	32-01525	32-01706
31-00132	31-00146	31-00142	31-00106	31-00028	31-00324
30-01439	30-01864	30-02376	30-02953	30-03670	30-04852
29-00721	29-00904	29-01077	29-01256	29-01428	29-01610
28-00731	28-00902	28-01060	28-01219	28-01355	28-01482
27-00608	27-01030	27-01243	27-01459	27-01664	27-01698
26-00782	26-00982	26-01181	26-01390	26-01598	26-01629
25-00628	25-01019	25-01200	25-01383	25-01555	25-01734
24-00791	24-00973	24-01143	24-01311	24-01451	24-01572
23-00761	23-00977	23-01196	23-01426	23-01658	23-01909
22-00806	22-01008	22-01206	22-01404	22-01582	22-01748
21-00794	21-01007	21-01222	21-01453	21-01679	21-01909
20-00834	20-00934	20-00934	20-00934	20-00934	20-00934
19-00602	19-00601	19-00601	19-00602	19-00601	19-00601
18-00604	18-00604	18-00605	18-00606	18-00605	18-00606
17-00603	17-00603	17-00603	17-00603	17-00603	17-00603
16-00605	16-00605	16-00605	16-00605	16-00605	16-00606
15-00606	15-00602	15-00604	15-00604	15-00609	15-00609
14-00600	14-00600	14-00600	14-00603	14-00605	14-00609
13-00600	13-00600	13-00601	13-00600	13-00600	13-00600
12-00602	12-00605	12-00609	12-00619	12-00624	12-00636
11-00604	11-00602	11-00600	11-00601	11-00604	11-00608
10-00604	10-00604	10-00604	10-00607	10-00609	10-00613
09-00605	09-00605	09-00610	09-00605	09-00614	09-00619
08-00604	08-00605	08-00606	08-00609	08-00609	08-00609
07-00614	07-00618	07-00618	07-00629	07-00636	07-00644
06-00614	06-00614	06-00616	06-00623	06-00624	06-00631
05-00602	05-00603	05-00602	05-00602	05-00602	05-00603
04-00600	04-00602	04-00603	04-00603	04-00604	04-00602
03-00609	03-00608	03-00610	03-00613	03-00613	03-00613
02-00600	02-00600	02-00600	02-00602	02-00602	02-00604
01-00601	01-00603	01-00603	01-00604	01-00603	01-00601
0105110	01105470	01106180	01106590	01107430	01108240
00102790	00102790	00102790	00102790	00102790	00102790
80K	100K	120K	140K	160K	180K

34-0527A	34-09109	34-06250	34-09186	34-12838
33-00207	33-01251	33-02432	33-01338	33-02270
32-01876	32-02007	32-00023	32-02034	32-02057
31-00837	31-02019	31-02288	31-02097	31-03883
30-08839	30-10949	30-07751	30-11122	30-14989
29-01783	29-01917	29-00268	29-01930	29-01933
28-01568	28-01612	28-00665	28-01598	28-01548
27-02158	27-02327	27-00165	27-02563	27-02659
26-02081	26-02214	26-00341	26-02390	26-02533
25-01912	25-02022	25-00242	25-02165	25-02351
24-01852	24-01680	24-00170	24-01684	24-01624
23-02176	23-02317	23-00483	23-02490	23-02627
22-01900	22-01979	22-00118	22-02055	22-02092
21-02123	21-02234	21-00324	21-02369	21-02511
20-00834	20-00835	20-00635	20-00635	20-00835
19-00002	19-00002	19-00001	19-00001	19-00001
18-00005	18-00005	18-00005	18-00005	18-00005
17-00002	17-00002	17-00006	17-00005	17-00005
16-00005	16-00005	16-00005	16-00005	16-00005
15-00017	15-00026	15-00011	15-00026	15-00035
14-00013	14-00014	14-00009	14-00022	14-00031
13-00005	13-00009	13-00005	13-00009	13-00013
12-00051	12-00063	12-00082	12-00087	12-00121
11-00016	11-00023	11-00034	11-00024	11-00054
10-00022	10-00026	10-00033	10-00013	10-00044
09-00023	09-00027	09-00031	09-00011	09-00041
08-00014	08-00016	08-00016	08-00018	08-00023
07-00062	07-00071	07-00088	07-00022	07-00116
06-00040	06-00045	06-00058	06-00023	06-00076
05-00007	05-00008	05-00011	05-00020	05-00012
04-00003	04-00004	04-00004	04-00009	04-00013
03-00012	03-00017	03-00017	03-00021	03-00030
02-00004	02-00004	02-00008	02-00008	02-00017
01-00001	01-00001	01-00004	01-00001	01-00005
01109110	01109300	01110430	01113560	01114240
0102790	0102790	0102790	0102790	0102790

230K

220K

Perm. Set Check @

220K

210K

200K

0

34-24716	34-23553	34-26215
33-04964	33-09013	33-10239
32-01787	32-02384	32-02624
31-08748	31-13582	31-12796
30-23644	30-21196	30-21663
29-01505	29-03909	29-03946
28-01118	28-00470	28-00609
27-03577	27-04745	27-01239
26-02640	26-01851	26-00557
25-02837	25-03378	25-00418
24-01299	24-00378	24-00643
23-02675	23-01830	23-00585
22-01670	22-00277	22-00223
21-02738	21-01975	21-00305
20-00634	20-00022	20-60624
19-00001	19-00005	19-00002
18-00006	18-00006	18-00007
17-00004	17-00004	17-00004
16-00005	16-00006	16-00006
15-00049	15-00040	15-00027
14-00040	14-00031	14-00018
13-00026	13-00039	13-00036
12-00225	12-00718	12-00550
11-00113	11-00498	11-00426
10-00058	10-00048	10-00031
09-00054	09-00049	09-00023
08-00032	08-00039	08-00027
07-00193	07-00516	07-00384
06-00135	06-00490	06-00410
05-00011	05-00262	05-00192
04-00040	04-00303	04-00229
03-00057	03-00320	03-00280
02-00041	02-00300	02-00234
01-00023	01-00274	01-00219
0111490	01117010	01118100
00102790	00102790	00102790
236.5K	Post Buckling @	Post Buckling @
	163.5K	0

APPENDIX F / DECK/BULKHEAD ELEMENT TEST DATA

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1 / STATIC TEST DATA	B-691
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LIST OF ILLUSTRATIONS

Figure Number		Page
F-1	Strain Gage Identifications, Locations and Orientations on Deck/Bulkhead Element Static Tensile Test Specimens	B-692
F-2	Annotated Example of Data Printout	B-693
F-3	Strain Gage Identifications, Locations and Orientations on Deck/Bulkhead Element Tensile Fatigue Test Specimens	B-702

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1 / STATIC TEST DATA

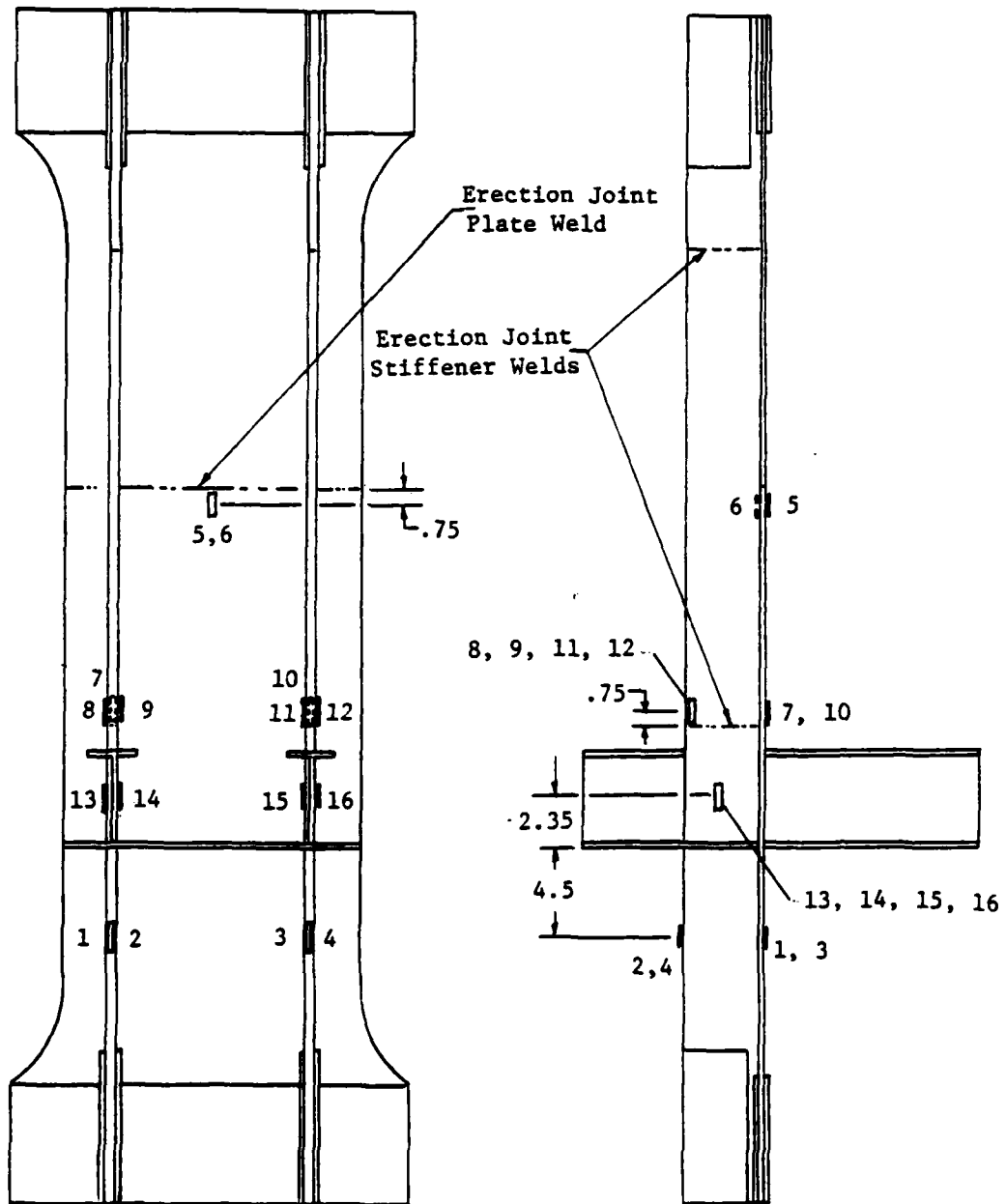
This section contains all recorded test data for the deck/bulkhead element static tensile test specimens. The data set presented for each specimen starts with an autographic plot of applied load versus axial strain averaged over a 10-inch gage length of the element mid-section centered on the deck plate butt weld. Tabulations of the recorded strain gage readings for all applied load increments and calibration checks complete the data set for each specimen. Preceding the first data set are an illustration of strain measurement locations on the specimens correlated to data channel numbers, Figure F-1, and an annotated example of data printout, Figure F-2.

Index of Data Sets

Specimen Number	Page
TT802033-1-S1	B-694
TT802033-1-S2	B-697

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TER073



Note: All dimensions shown in inches.

Figure F-1. Strain Gage Identifications, Locations and Orientations for Deck/Bulkhead Element Static Tensile Test Specimens.

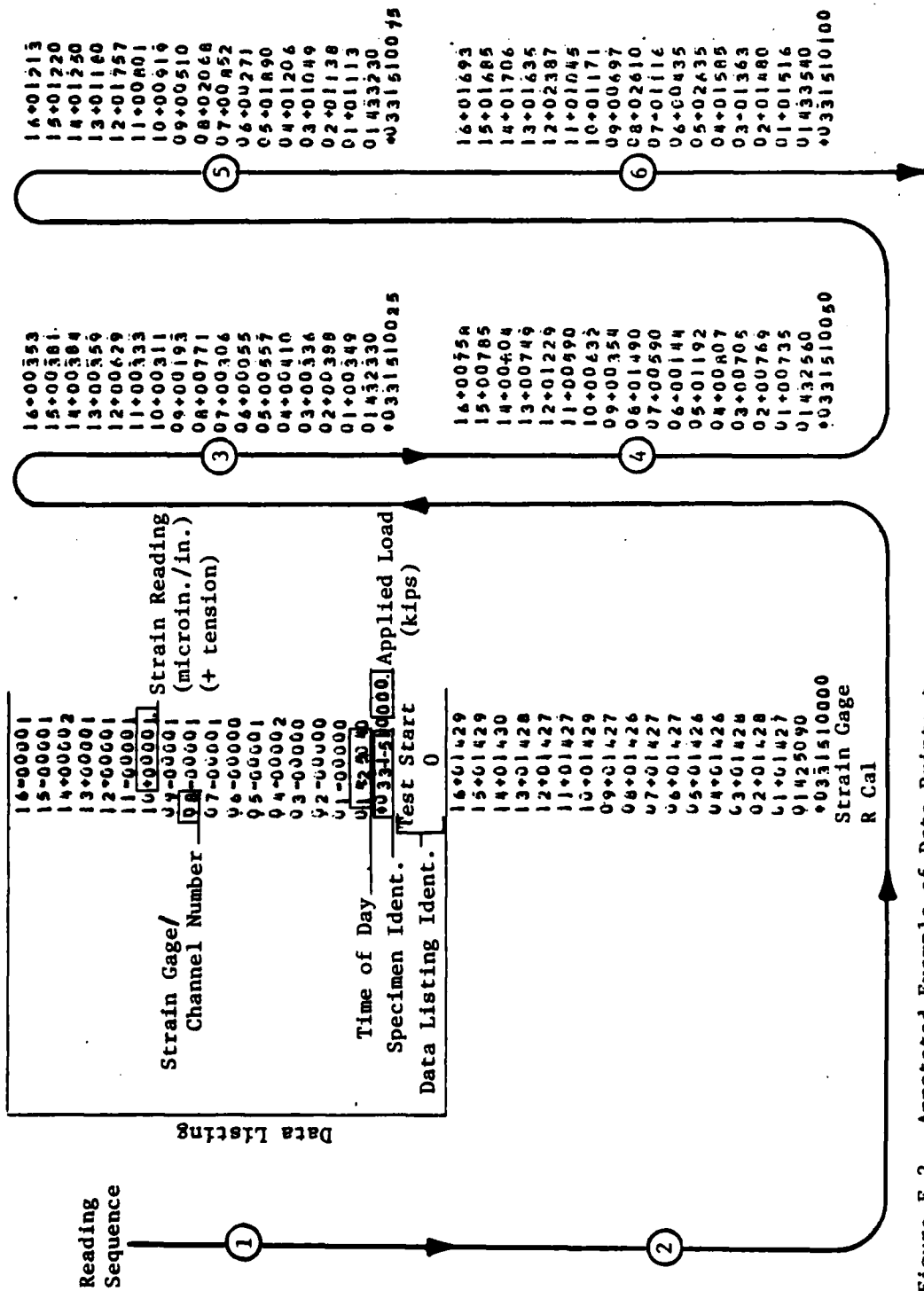
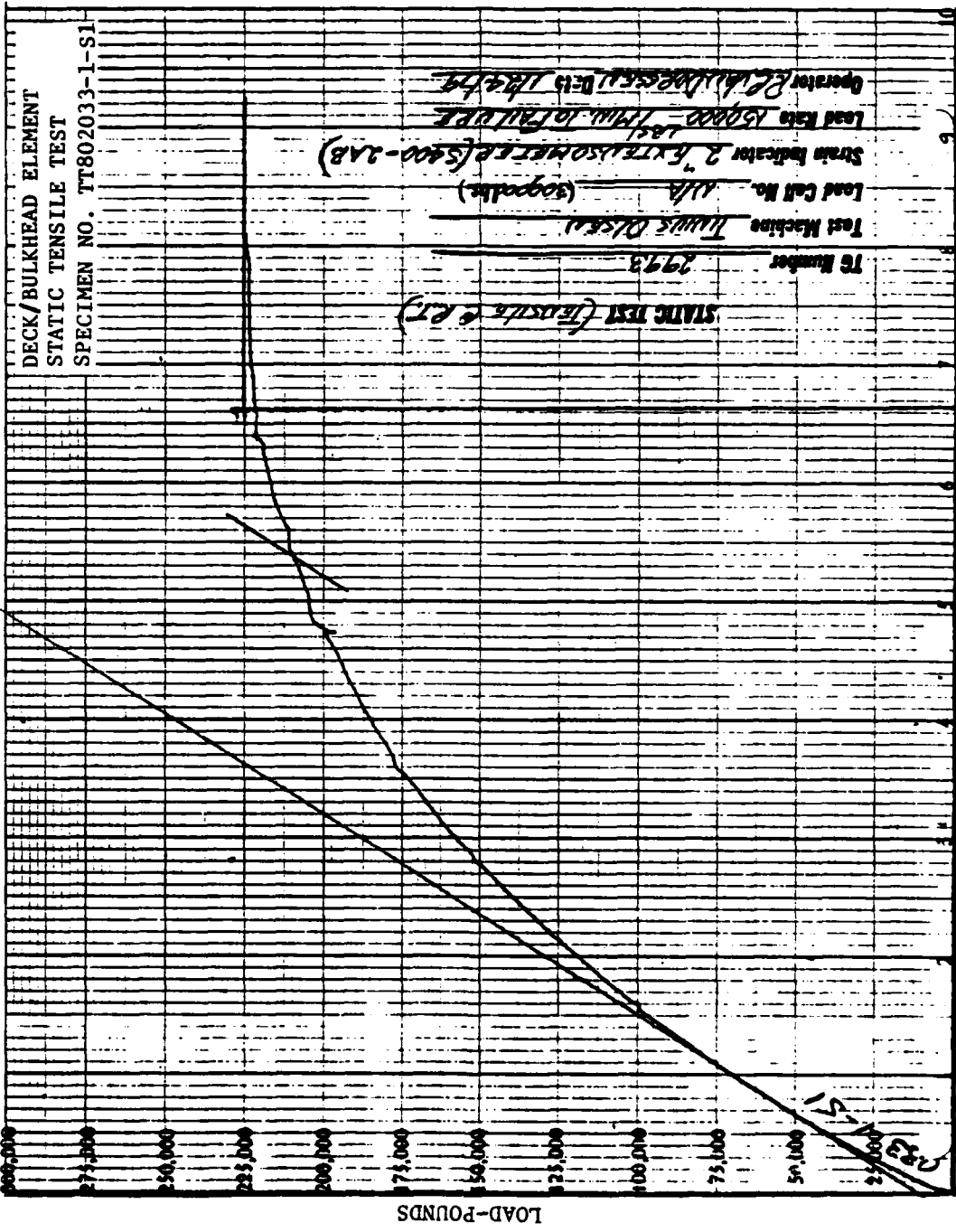


Figure F-2. Annotated Example of Data Printout.



TENSILE STRAIN - IN/IN x 10⁻³

1/24/79

Deck/Bulkhead Element No. TR802033-1-S1
Strain Data - Initial Static Tensile Test

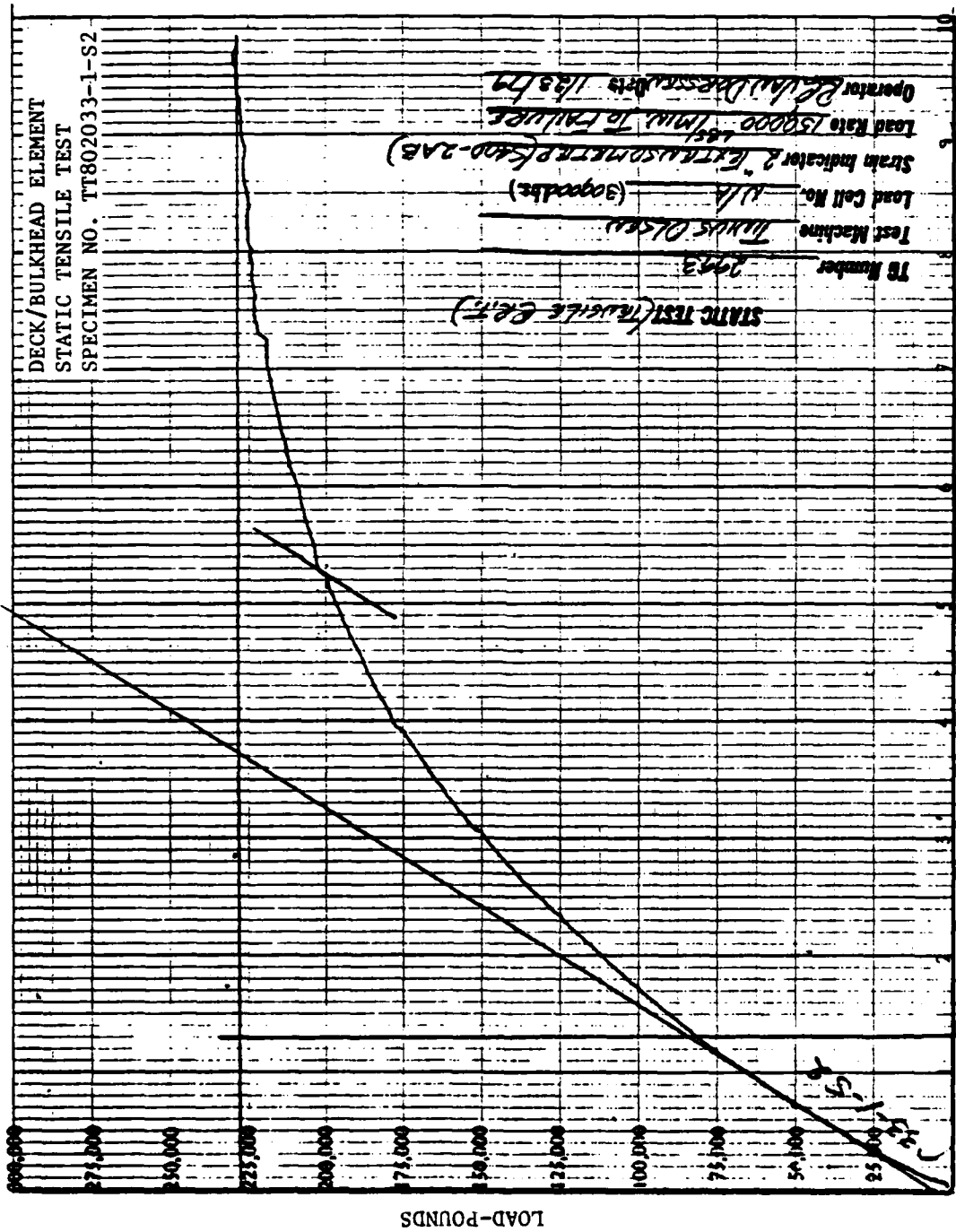
Test Start	Load - kips	Strain Gage	R Cal
16+00001	16+00353	14+01213	16+02184
15+00001	15+00381	15+01220	15+02155
14+00002	14+00384	14+01230	14+02165
13+00001	13+00359	13+01160	13+02119
12+00001	12+00429	12+01757	12+03045
11+00001	11+00333	11+00801	11+01670
10+00001	10+00311	10+00919	10+01508
09+00001	09+00193	09+00510	09+01220
08+00001	08+00771	08+02068	08+03652
07+00001	07+00306	07+00852	07+01671
06+00000	06+00055	06+00271	06+00457
05+00001	05+00557	05+01890	05+03493
04+00002	04+00410	04+01206	04+01905
03+00000	03+00336	03+01049	03+01908
02+00000	02+00389	02+01138	02+01775
01+00000	01+00349	01+01113	01+02515
01425040	01432330	01433230	01435370
+0331510000	+0331510045	+0331510075	+0331510125
0			
16+01429	16+00754	16+01693	16+02657
15+01429	15+00785	15+01485	15+02601
14+01430	14+00404	14+01706	14+02606
13+01428	13+00749	13+01635	13+02597
12+01427	12+01229	12+02387	12+04847
11+01427	11+00590	11+01045	11+02559
10+01429	10+00432	10+01171	10+02084
09+01427	09+00354	09+00497	09+02058
08+01426	08+01490	08+02610	08+03085
07+01427	07+00590	07+01116	07+02591
06+01427	06+00144	06+00435	06+00930
05+01426	05+01192	05+02435	05+04849
04+01426	04+00807	04+01585	04+02170
03+01428	03+00705	03+01363	03+02652
02+01428	02+00769	02+01480	02+02043
01+01427	01+00735	01+01516	01+03187
01425090	01432560	01433540	01436010
+0331510000	+0331510050	+0331510100	+0331510150

Deck/Bulkhead Element No. TT802033-1-S1 1/24/79
Strain Data - Initial Static Tensile Test

16+03128	16+03709
15+03062	15+03712
14+03055	14+03667
13+03103	13+03798
12+05421	12+01276
11+03948	11+00429
10+03277	10+010794
09+03084	09+07966
08+01981	08+00369
07+03581	07+04922
06+01208	06+02095
05+05589	05+08394
04+02413	04+02727
03+03343	03+04307
02+02327	02+02598
01+03430	01+04493
01436250	01439410
*0331510175	*0331510210

16+03561	16+03857
15+03540	15+03914
14+03513	14+03699
13+03425	13+04064
12+02495	12+01263
11+02119	11+00353
10+04912	10+07098
09+05203	09+07594
08+00564	08+00294
07+04594	07+05376
06+01684	06+02875
05+07521	05+09679
04+02648	04+02779
03+04033	03+04715
02+02553	02+02678
01+04673	01+05387
01436570	01441200
*0331510200	*0331510220

Post Failure
0



TENSILE STRAIN - IN/IN x 10⁻³

LOAD-POUNDS

Deck/Bulkhead Element No. TT802033-1-S2 1/23/79
Strain Data - Initial Static Tensile Test

Strain	Load - Kips	Strain	Load - Kips
16+00001	16+00376	16+01216	16+02136
15+00002	15+00364	15+01176	15+02024
14+00000	14+00378	14+01210	14+02178
13+00001	13+00335	13+01091	13+01975
12+00000	12+00554	12+01569	12+02511
11+00000	11+00311	11+00859	11+01723
10+00002	10+00435	10+01190	10+02284
09+00001	09+00263	09+0712	09+01252
08+00000	08+00338	08+00956	08+01540
07+00002	07+00637	07+01674	07+02977
06+00002	06+00554	06+01853	06+03452
05+00001	05+00089	05+00368	05+00421
04+00001	04+00365	04+01130	04+02401
03+00002	03+00375	03+01112	03+01683
02+00000	02+00342	02+01043	02+01949
01+00002	01+00398	01+01139	01+01851
01017530	01020590	01024330	01026420
0331520000	0331520050	0331520075	0331520125
Test Start			
0			
16+01416	16+00779	16+01673	16+02599
15+01417	15+00758	15+01606	15+02428
14+01419	14+00782	14+01681	14+02672
13+01421	13+00697	13+01524	13+02432
12+01418	12+01068	12+02063	12+04751
11+01417	11+00599	11+01150	11+02557
10+01415	10+00836	10+01509	10+04475
09+01416	09+00501	09+00936	09+01928
08+01416	08+00064	08+01227	08+02306
07+01417	07+01209	07+02170	07+04394
06+01419	06+01173	06+02417	06+04269
05+01415	05+00211	05+00568	05+01166
04+01418	04+00754	04+01462	04+03025
03+01416	03+00744	03+01421	03+01413
02+01416	02+00711	02+01328	02+02713
01+01414	01+00773	01+01515	01+02157
01017580	01021350	01025630	01027370
0331520000	0331520050	0331520100	0331520150
Strain Cage			
R Cal			

1/23/79

Deck/Bulkhead Element No. TT802033-1-S2

Strain Data - Initial Static Tensile Test

16+03078	16+04134	16+02002	16+01335
15+02832	15+03649	15+01500	15+00699
14+03176	14+04310	14+02564	14+01615
13+02287	13+03761	13+02114	13+00600
12+07015	12+03112	12+01830	12+01715
11+03539	11+06316	11+02175	11+01680
10+02996	10+01109	10+00673	10+00599
09+02906	09+08947	09+01885	09+01071
08+03305	08+06072	08+12233	08+09514
07+05046	07+01660	07+01253	07+01173
06+05987	06+00456	06+00161	06+00004
05+01423	05+05960	05+12862	05+09683
04+03670	04+05442	04+07544	04+04001
03+02141	03+02434	03+02713	03+00896
02+03314	02+04481	02+05862	02+02288
01+02450	01+02972	01+03408	01+00179
01029180	01031490	01035310	01050150
*0331520175	*0331520240	*0331520335	*0331520000
			Post Failure
			0
16+03622	16+04872		
15+03271	15+03871		
14+03753	14+04773		
13+03363	13+04074		
12+07665	12+02055		
11+04628	11+10840		
10+01138	10+01048		
09+04575	09+13048		
08+04549	08+08585		
07+04937	07+01201		
06+02880	06+00119		
05+02377	05+12736		
04+04450	04+07203		
03+02361	03+02453		
02+03695	02+05069		
01+02752	01+03172		
01030210	01033310		
*0331520200	*0331520230		

2 / FATIGUE TEST DATA

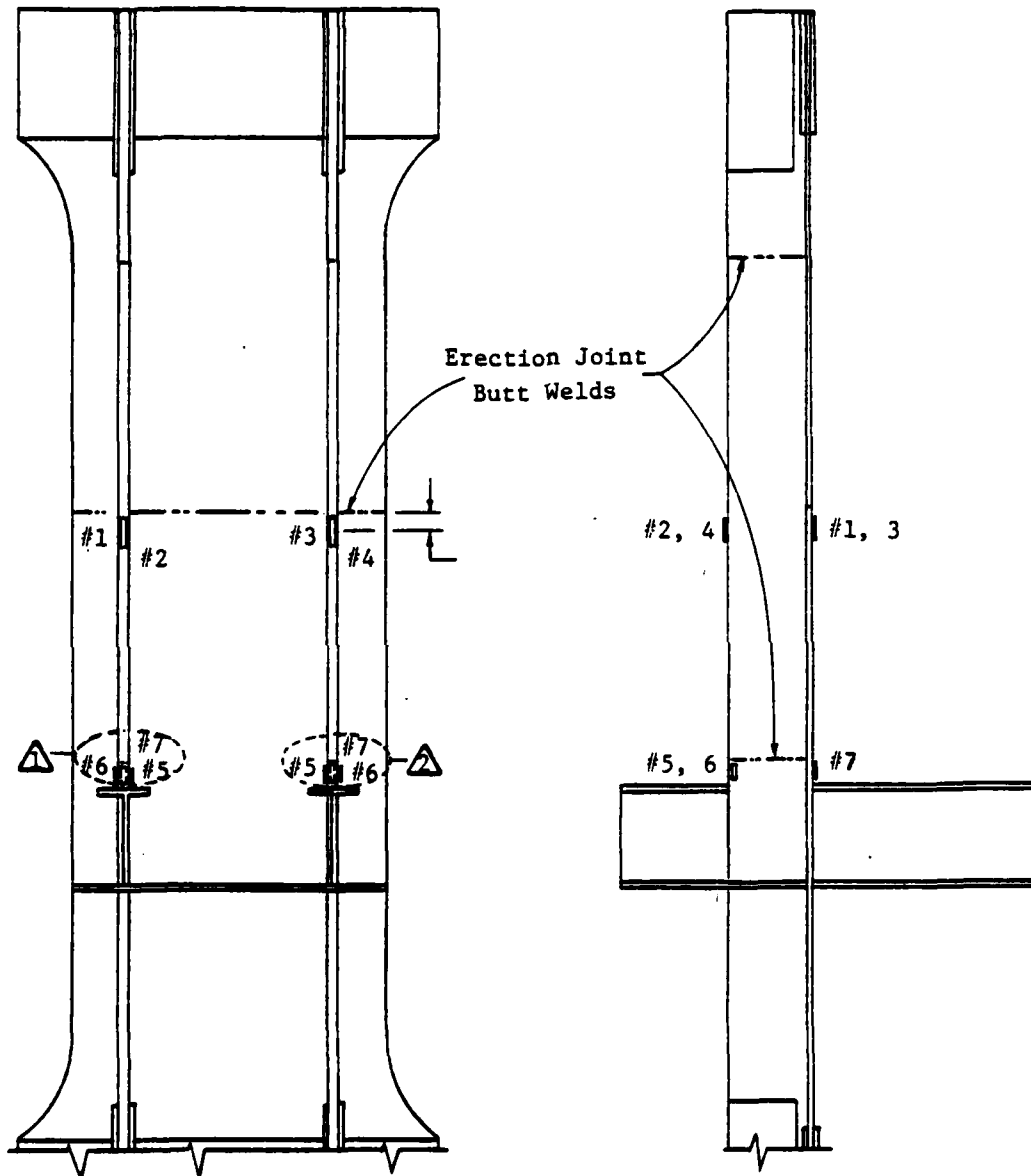
This section contains tabulations of all recorded data from the static tensile strain survey test conducted on each deck/bulkhead element fatigue test specimen prior to the start of cyclic testing. These surveys were conducted on all three fatigue test specimens since independent measurements made by the test laboratory revealed that each specimen, as delivered, had longitudinal bowing distortion exceeding the specified limit. The peak localized strain recorded for each specimen during the survey was then used as a basis to establish the peak nominal stress level for fatigue cycling.

Figure F-3, which precedes the tabulated strain data, documents the identifications, locations and orientations of all strain gages installed in various patterns on the deck/bulkhead element fatigue test specimens.

Index of Strain Survey Data Sets

Specimen Number	Page
TT802033-1-F1	B-703
TT802033-1-F2	B-704
TT802033-1-F3	B-705

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- Notes:
- ▲ For Specimen No. TT802033-1-F1 only.
 - ▲ For Specimens No. TT802033-1-F2 and -F3 only.
 - 3. All gages were Micro-Measurements Type EA-13-250BG-120W except gages no. 5 and 6 on Specimen No. TT802033-1-F2 were Micro-Measurements Type EA-13-125AD-120.

Figure F-3. Strain Gage Identifications, Locations and Orientations for Deck/Bulkhead Element Tensile Fatigue Test Specimens.

Static Loading Strain Survey Results - Deck/Bulkhead
Element No. TT802033-1-F1.

Cross-Section Area = 6.231 sq. in. Test Date: 10/9/79
Note: Reference Figure F-3 for locations of strain gages on test specimen.

Axial Load (kips)	Nominal Stress (ksi)	Strain Gage Reading - Microinches/inch						
		SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7
0	0	0	-2	1	-7	4	-5	0
12.46	2	187	277	176	281	483	211	214
24.92	4	401	504	381	513	892	408	456
37.39	6	623	723	596	737	1311	789	768
0	0	0	-15	-2	-10	30	218	38
43.62	7	724	852	693	873	1588	1202	950
0	0	-1	-12	-2	0	88	585	148
43.62	7	NR	NR	NR	NR	NR	NR	NR
0	0	NR	NR	NR	NR	NR	33	NR
40.50	6.5	698	806	631	812	1504	686	910
0	0	20	5	-11	5	90	46	148

Selected maximum load for fatigue testing

NR - Not Recorded

△ SG 6 rebalanced to a zero reading before repeat loading to 7 ksi nominal stress.

Static Loading Strain Survey Results - Deck/Bulkhead Element
 No. TT8020333-1-F2

Test Date: 11/8/79

Cross-Section Area = 6.266 sq. in.

Note: Reference Figure F-3 for locations of strain gages on test specimen.

Axial Load (kips)	Nominal Stress (ksi)	Strain Gage Reading - Microinches/inch						
		SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7
0	0	0	0	0	0	0	0	0
12.55	2	203	187	200	193	367	190	197
25.10	4	415	396	408	409	770	405	400
0	0	1	-13	0	-2	3	1	1
31.40	5	522	507	513	524	974	517	509
0	0	1	-12	-1	-1	4	2	6
37.60	6	632	606	621	625	1154	616	652
0	0	2	-12	-1	-2	0	3	40
43.90	7	750	695	718	716	1321	707	852
0	0	5	-17	-16	-3	-3	3	133

Selected maximum load for fatigue testing

Static Loading Strain Survey Results - Deck/Bulkhead Element
 No. TT802033-1-F3.

Test Date: 10/16/79

Cross-Section Area = 6.148 sq. in.

Note: Reference Figure F-3 for locations of strain gages on test specimen.

Axial Load (kips)	Nominal Stress (Ksi)	Strain Gage Readings - Microinches/inch						
		SG 1	SG 2	SG 3	SG 4	SG 5	SG 6	SG 7
0	0	0	1	-1	-2	-2	-4	0
12.30	2	184	251	189	247	368	263	224
24.60	4	388	449	399	446	677	485	475
30.80	5	492	549	508	546	829	599	638
0	0	2	4	1	4	-5	13	40
36.90	6	611	612	623	604	927	669	987
0	0	2	2	1	4	-10	12	255

Selected maximum load for fatigue testing

APPENDIX G / THREE-BAY PANEL ELEMENT TEST DATA

This appendix contains all data recorded during testing of the three-bay panel element specimens under various combinations of normal pressure and axial compression loading. In general, the data set presented for each specimen and test condition consists of three elements. The first element is a summary table listing the test loading/data recording increments including, as applicable, the normal pressure measurements, applied axial load and corresponding nominal compression stress, and dial deflection indicator readings. For the test conditions involving axial load, the second element in the data set is a copy of the X-Y-Y recorder plot of applied compression load versus loading head travel measured at each end of the head. Completing each data set are tabulations of the strain gage and deflection transducer readings recorded at each load increment.

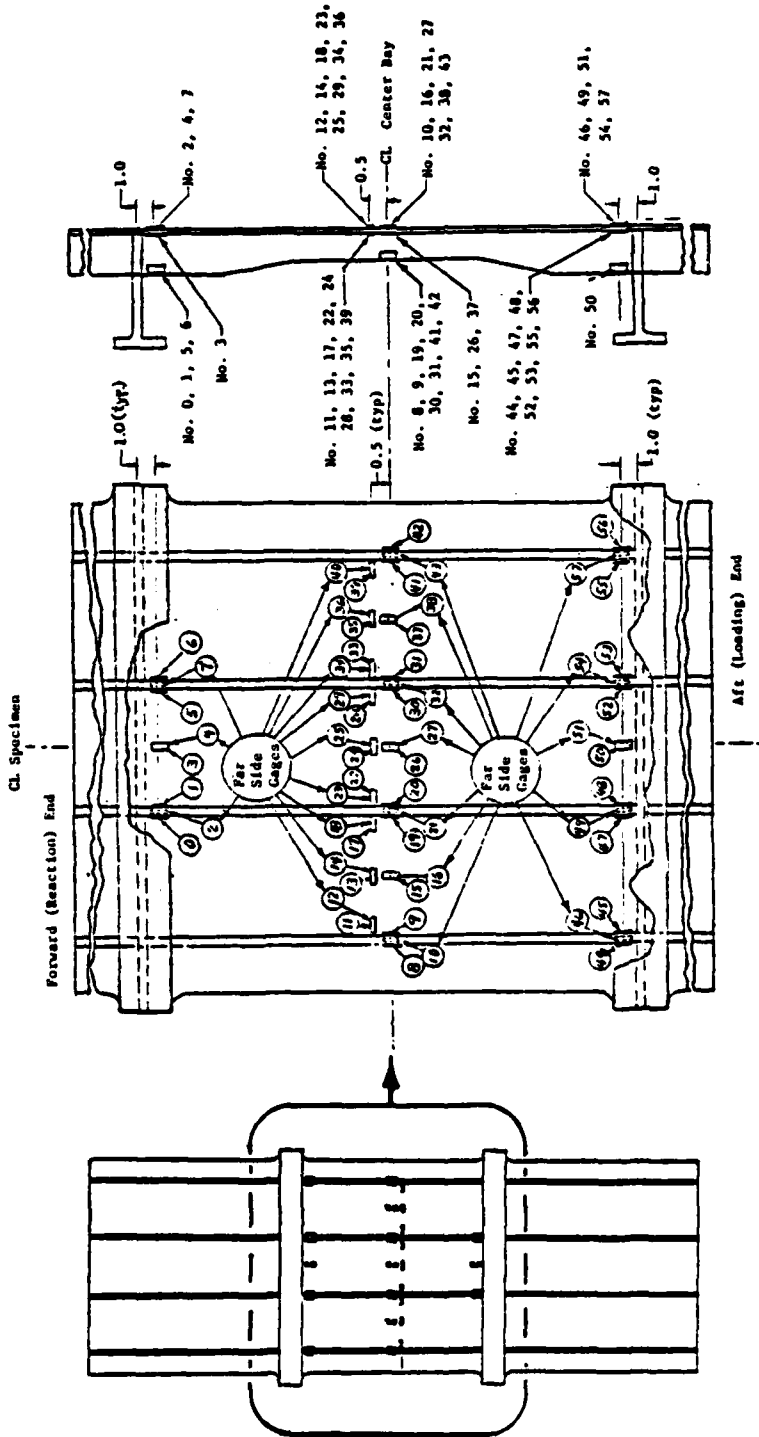
Preceding the initial data set are illustrations of the strain and displacement (transducer) measurement locations on the three-bay element specimens (Figures G-1 and G-2, respectively) and an annotated example of the strain and deflection data printout (Figure G-3).

INDEX OF DATA SETS

<u>Specimen No.</u>	<u>Test Condition</u>	<u>Page</u>
TT802041-1	Normal Pressure (Elastic)	B-712
	Axial Compression (Elastic)	B-715

TER073

<u>Specimen No.</u>	<u>Test Condition</u>	<u>Page</u>
TT802041-1 (Cont'd)	Axial Compression w/4 psig Normal Pressure (Elastic)	B-719
	Axial Compression w/8 psig Normal Pressure (Elastic)	B-723
	Proportional Axial Compression and Normal Pressure (Plastic)	B-727
	Proportional Axial Compression and Normal Pressure to Failure	B-733
TT802041-1B	Axial Compression to Failure	B-739
TT802041-3	Normal Pressure (Elastic)	B-744
	Axial Compression (Elastic)	B-749
	Axial Compression w/4 psig Normal Pressure (Elastic)	B-754
	Axial Compression w/8 psig Normal Pressure (Elastic)	B-759
TT802041-3 Mod.	Normal Pressure (Elastic)	B-766
	Axial Compression (Elastic)	B-771
	Axial Compression w/4 psig Normal Pressure (Elastic)	B-775
	Axial Compression w/8 psig Normal Pressure (Elastic)	B-781
	Proportional Axial Compression and Normal Pressure to Failure	B-786
TT802041-3A Mod.	Normal Pressure (Elastic)	B-792
	Axial Compression to Failure	B-795

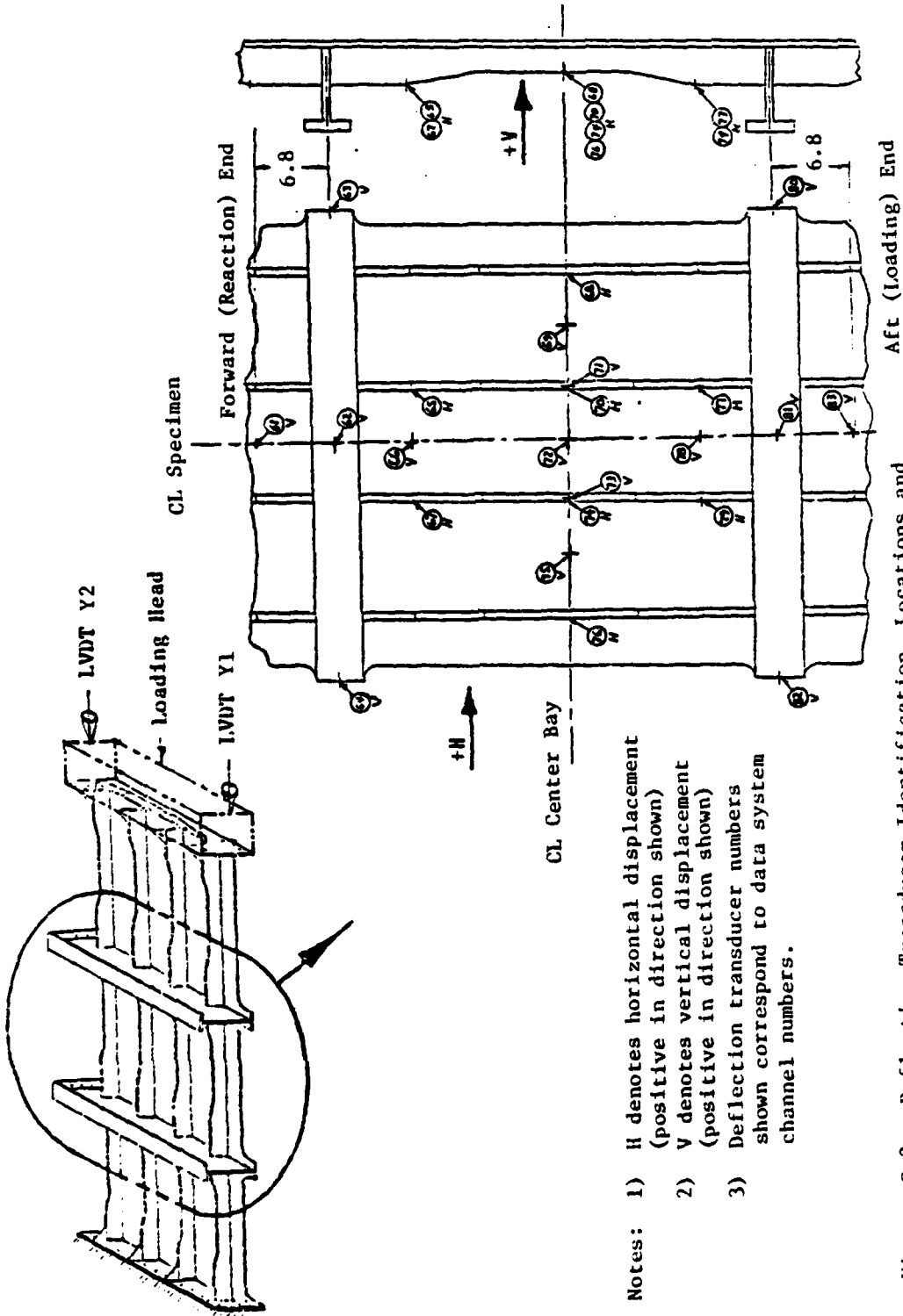


Notes: 1) Strain gage numbers shown correspond to data system channel numbers.

2) Strain gages No. 11, 12, 13, 14, 24, 25, 35, 36, 39 and 40 not installed on Element No. TT802041-1B.

3) Strain gages No. 15, 26, and 37 shifted laterally 3/16 inch on Element No. TT802041-3A Mod to avoid punch marks.

Figure G-1. Strain Gage Identification, Locations and Orientations on Three-Bay Element Specimens.



- Notes:
- 1) H denotes horizontal displacement (positive in direction shown)
 - 2) V denotes vertical displacement (positive in direction shown)
 - 3) Deflection transducer numbers shown correspond to data system channel numbers.

Figure G-2. Deflection Transducer Identification, Locations and Orientation on Three-Bay Element Specimens.

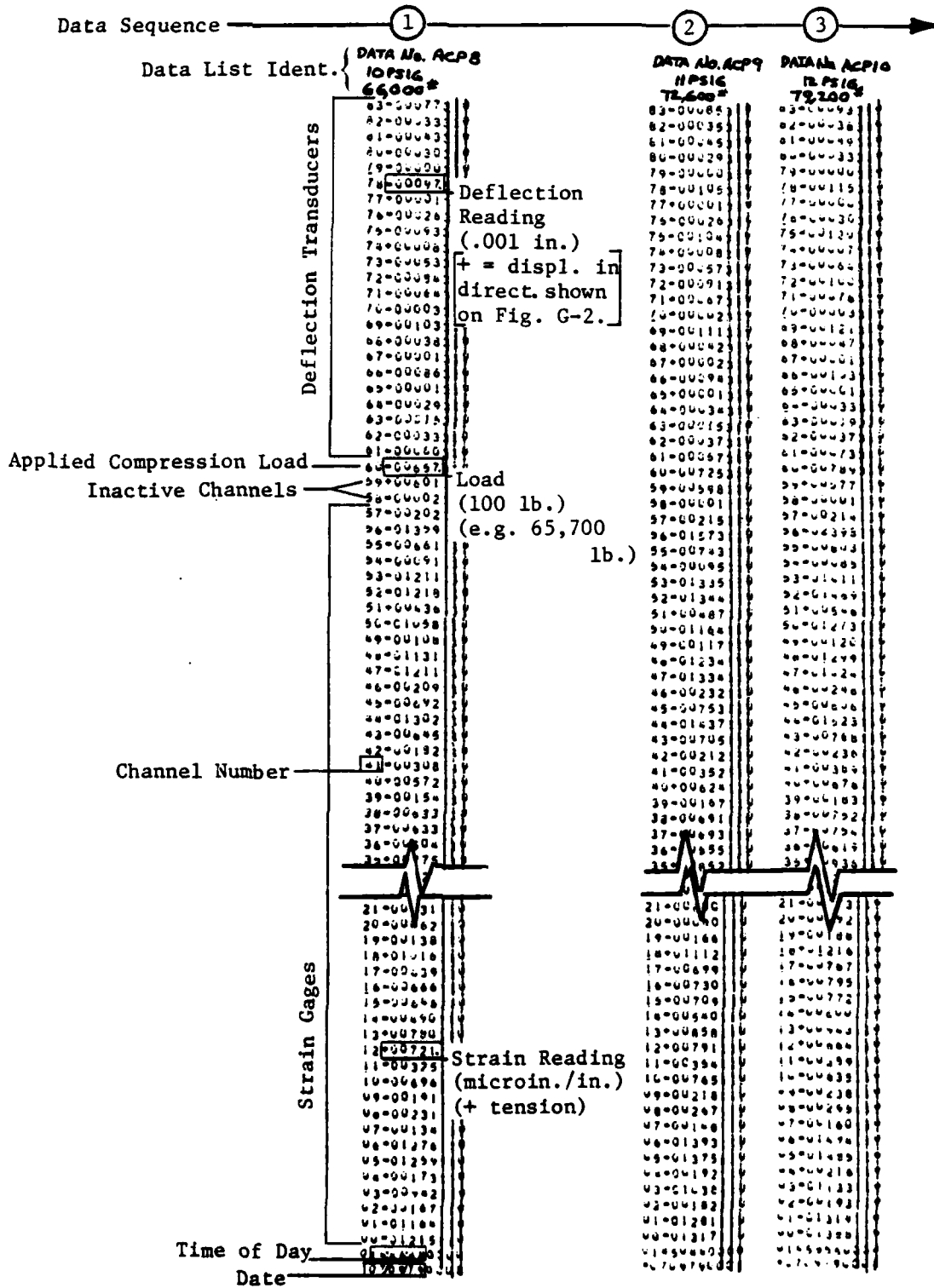


Figure G-3. Annotated Example of Data Printout.

THREE-BAY ELEMENT COMBINED LOADING TEST
NORMAL PRESSURE TEST ON TT 802041-1
REF TIP 00017 P 3.5.2.1 TEST DATE 6-26-79

DATA No.	PRESSURE		PSIG	IN. Hg	P1	P2	P3	P4	P5	P6	P7	P8
	PSIG	IN. Hg										
P1	0	0										
P2	2	4.07										
P3	4	8.14										
P4	6	12.22										
P5	8	16.29										
P6	10	20.36										
P7	2	4.07										
P8	0	0										

TER073

Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
Elastic Normal Pressure

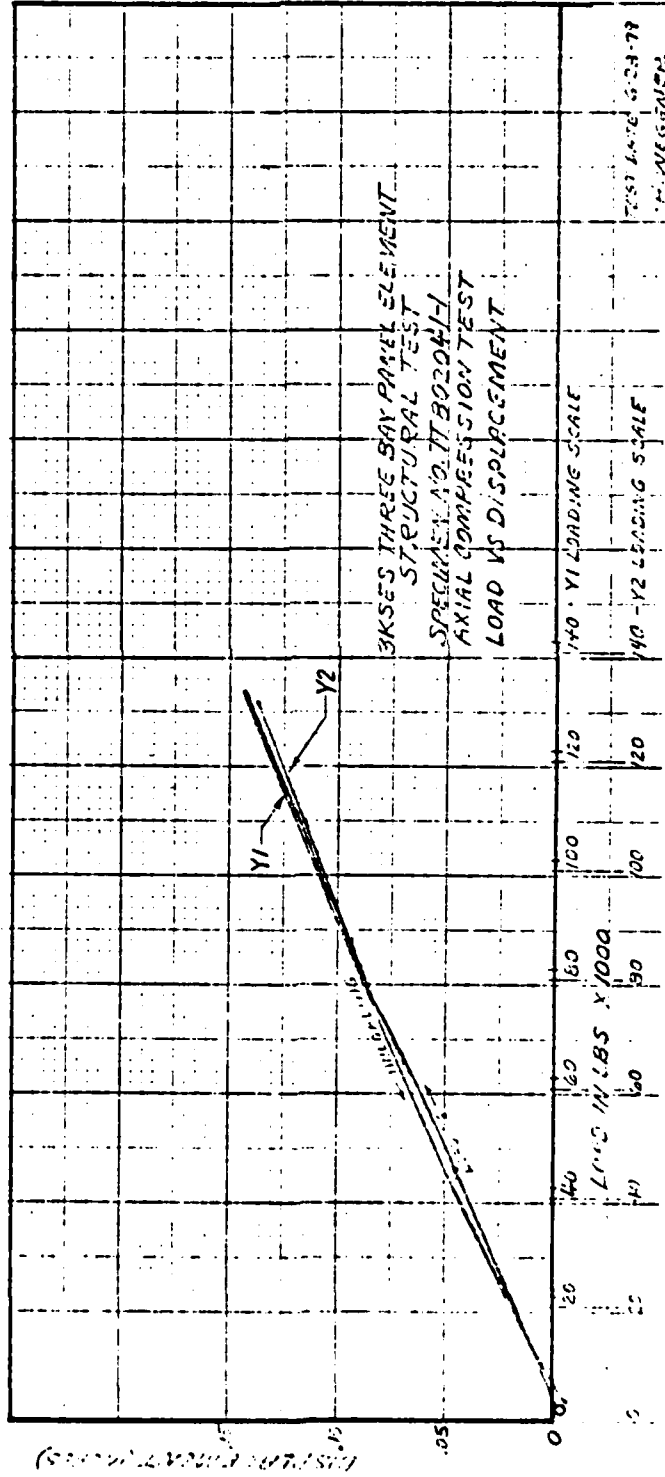
Page 2 of 2

DATA No. P3

CP51C
AFTER 1051C
83-00001
82-00002
81-00003
80-00004
79-00001
78-00003
77-00001
76-00003
75-00001
74-00002
73-00001
72-00004
71-00003
70-00002
69-00003
68-00001
67-00001
66-00001
65-00004
64-00004
63-00003
62-00002
61-00002
60-00030
59-00030
58-00035
57-00001
56-00034
55-00114
54-00007
53-00147
52-00033
51-00002
50-00001
49-00007
48-00004
47-00034
46-00003
45-00022
44-00006
43-00002
42-00010
41-00012
40-00002
39-00000
38-00002
37-00003
36-00003
35-00001
34-00001
33-00001
32-00001
31-00000
30-00011
29-00003
28-00001
27-00003
26-00001
25-00001
24-00001
23-00003
22-00001
21-00004
20-00005
19-00002
18-00003
17-00001
16-00002
15-00000
14-00002
13-00003
12-00002
11-00003
10-00000
09-00003
08-00003
07-00004
06-00015
05-00023
04-00002
03-00001
02-00002
01-00020
00-00025
01-00040
00-00040

TT 602041-1
 CALCULATED
 PANEL AREA = 10.917 m²
 THREE-BAY ELEMENT COMBINED LOADING TEST
 AXIAL COMPRESSION TEST ON TT 602041-1
 TEST DATE 6-23-79
 REF TT 600017 H-3-5-2-2

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	DI (OPPOSITE TO POSITIVE Y)	D2 (OPPOSITE TO POSITIVE Y)	HYD. CYL. P.W. IN	HYD. CYL. P.W. OUT
AC1	0	0	.1000	.1000		
AC1a	0	0	.1005	.1005	HYD. CYL. P.W. IN	HYD. CYL. P.W. OUT
AC2	2,000	21,934	.1025	.1028		
AC3	4,000	43,668	.1055	.1061		
AC4	6,000	65,502	.1100	.1117		
AC5	8,000	87,336	.1122	.1172		
AC6	10,000	109,170	.1130	.1184		
AC7	12,000	131,004	.1142	.1209		
AC8	2,000	21,500	.0990	.1038		
AC9	0	0	.0938	.0910	HYD. CYL. P.W. IN	HYD. CYL. P.W. OUT
AC10	0	0	.0935	.0910	HYD. CYL. P.W. IN	HYD. CYL. P.W. OUT

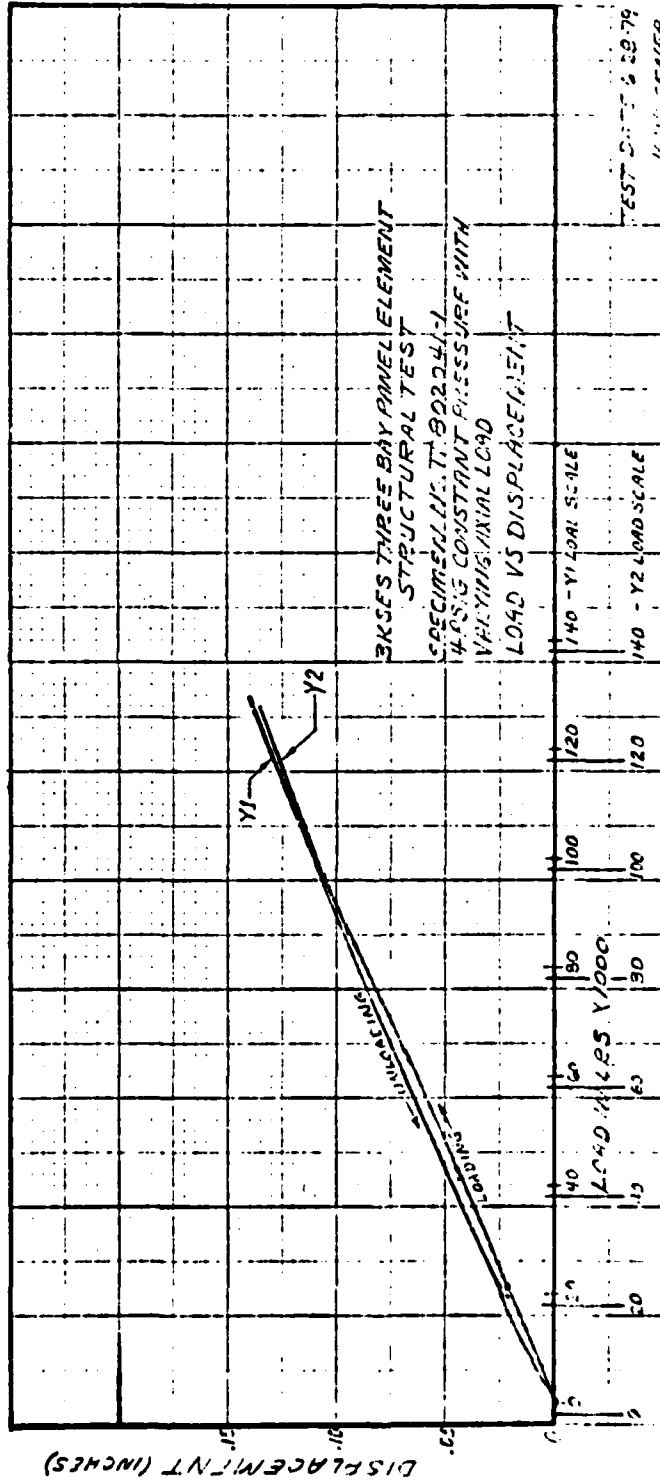


Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
Elastic Axial Compression

LOAD NO. PLY	LOAD NO. PLY	LOAD NO. PLY	LOAD NO. PLY
131,000#	115,000#	100,000#	85,000#
1	1	1	1
1	1	1	1
83+00003	83+00003	83+00003	83+00003
82+00014	82+00014	82+00014	82+00014
81+00018	81+00018	81+00018	81+00018
80+00015	80+00015	80+00015	80+00015
79+00020	79+00020	79+00020	79+00020
78+00004	78+00004	78+00004	78+00004
77+00009	77+00009	77+00009	77+00009
76+00036	76+00036	76+00036	76+00036
75+00068	75+00068	75+00068	75+00068
74+00013	74+00013	74+00013	74+00013
73+00036	73+00036	73+00036	73+00036
72+00050	72+00050	72+00050	72+00050
71+00035	71+00035	71+00035	71+00035
70+00019	70+00019	70+00019	70+00019
69+00057	69+00057	69+00057	69+00057
68+00003	68+00003	68+00003	68+00003
67+00005	67+00005	67+00005	67+00005
66+00007	66+00007	66+00007	66+00007
65+00026	65+00026	65+00026	65+00026
64+00006	64+00006	64+00006	64+00006
63+00026	63+00026	63+00026	63+00026
62+00020	62+00020	62+00020	62+00020
61+00003	61+00003	61+00003	61+00003
60+01310	60+01310	60+01310	60+01310
59+00048	59+00048	59+00048	59+00048
58+00000	58+00000	58+00000	58+00000
57+00030	57+00030	57+00030	57+00030
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35+00071	35+00071	35+00071	35+00071
34+00058	34+00058	34+00058	34+00058
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23+00019	23+00019	23+00019	23+00019
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18+00053	18+00053	18+00053	18+00053
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12+00142	12+00142	12+00142	12+00142
11+00271	11+00271	11+00271	11+00271
10+01094	10+01094	10+01094	10+01094
09+01011	09+01011	09+01011	09+01011
08+02021	08+02021	08+02021	08+02021
07+00066	07+00066	07+00066	07+00066
06+00099	06+00099	06+00099	06+00099
05+00030	05+00030	05+00030	05+00030
04+00765	04+00765	04+00765	04+00765
03+01044	03+01044	03+01044	03+01044
02+01039	02+01039	02+01039	02+01039
01+00068	01+00068	01+00068	01+00068
00+00831	00+00831	00+00831	00+00831
0135210	0135210	0135210	0135210
0628790	0628790	0628790	0628790

TT 802041-1
 CALCULATED
 THREE BAY ELEMENT COMBINED LOADING TEST
 PANEL AREA = 10.917 M² AXIAL COMPRESSION & PRESSURE TEST ON TT 802041-1 TEST DATE 6-28-79
 REF TT 800017 TP 3.5.2.3

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSIG	IN. HG	DIAM. INCL. DI	DIAL IND. L2							
ACP 0	0	0	0	0	.1000	1000							
ACP 1	0	0	0	0	.0978	1003				(PIN TO HYD. CYL. "OUT")			
ACP 12	0	0	4	8.14	.0978	1002				(PIN TO HYD. CYL. "IN")			
ACP 2	2,000	21,834	4	8.14	.1012	1019							
ACP 3	4,000	43,669	4	8.14	.1033	1039							
ACP 4	6,000	65,502	4	8.14	.1062	1074							
ACP 5	8,000	87,336	4	8.14	.1100	1123							
ACP 6	10,000	109,170	4	8.14	.1122	1151							
ACP 7	12,000	131,004	4	8.14	.1124	1157							
ACP 8	21,000	21,934	4	8.14	.1015	1035							
ACP 9	0	0	4	8.14	.0961	0962							
ACP 10	0	0	0	0	.0949	0951				(PIN TO HYD. CYL. "IN")			
ACP 11	0	0	0	0	.0949	0949				(PIN TO HYD. CYL. "OUT")			



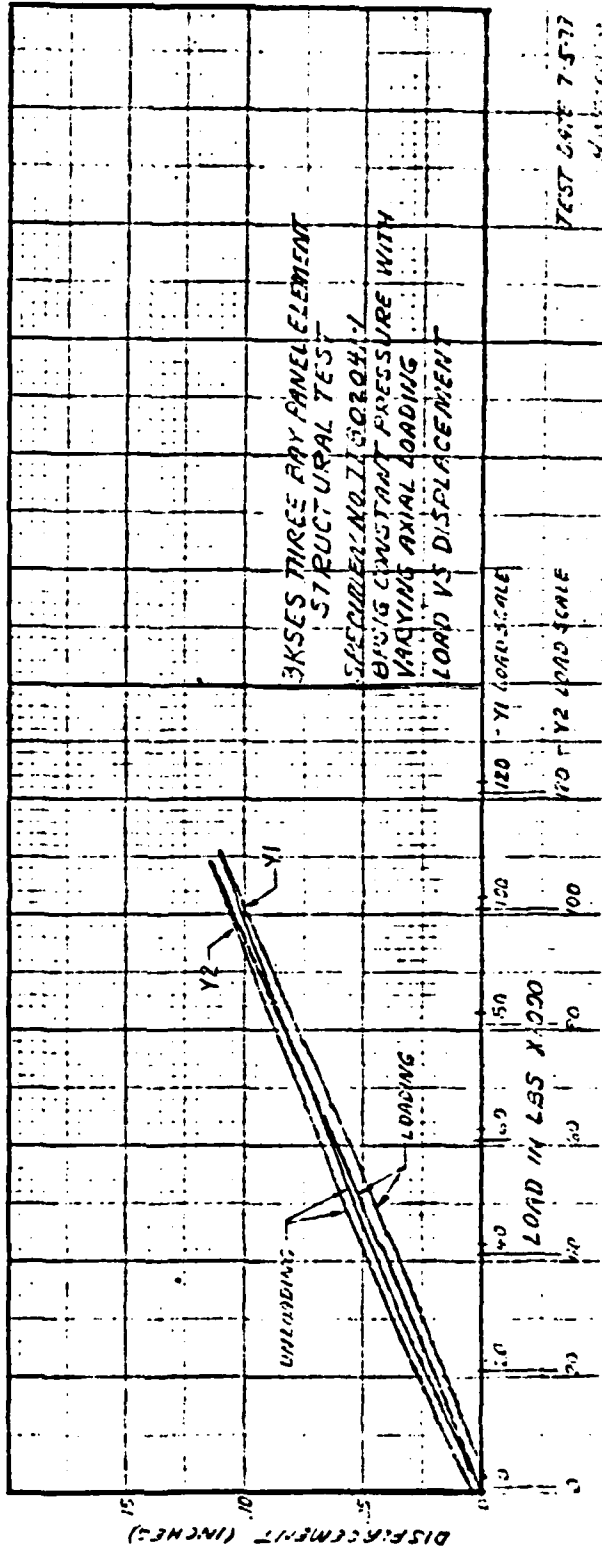
TER073

Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
Elastic Axial Compression with 4 psig Normal Pressure Page 1 of 2

DATA No.	ACF	ACF	ACF	ACF	ACF	ACF	ACF
2600	2600	2600	2600	2600	2600	2600	2600
4000	4000	4000	4000	4000	4000	4000	4000
6000	6000	6000	6000	6000	6000	6000	6000
8000	8000	8000	8000	8000	8000	8000	8000
10000	10000	10000	10000	10000	10000	10000	10000
12000	12000	12000	12000	12000	12000	12000	12000
14000	14000	14000	14000	14000	14000	14000	14000
16000	16000	16000	16000	16000	16000	16000	16000
18000	18000	18000	18000	18000	18000	18000	18000
20000	20000	20000	20000	20000	20000	20000	20000
22000	22000	22000	22000	22000	22000	22000	22000
24000	24000	24000	24000	24000	24000	24000	24000
26000	26000	26000	26000	26000	26000	26000	26000
28000	28000	28000	28000	28000	28000	28000	28000
30000	30000	30000	30000	30000	30000	30000	30000
32000	32000	32000	32000	32000	32000	32000	32000
34000	34000	34000	34000	34000	34000	34000	34000
36000	36000	36000	36000	36000	36000	36000	36000
38000	38000	38000	38000	38000	38000	38000	38000
40000	40000	40000	40000	40000	40000	40000	40000
42000	42000	42000	42000	42000	42000	42000	42000
44000	44000	44000	44000	44000	44000	44000	44000
46000	46000	46000	46000	46000	46000	46000	46000
48000	48000	48000	48000	48000	48000	48000	48000
50000	50000	50000	50000	50000	50000	50000	50000
52000	52000	52000	52000	52000	52000	52000	52000
54000	54000	54000	54000	54000	54000	54000	54000
56000	56000	56000	56000	56000	56000	56000	56000
58000	58000	58000	58000	58000	58000	58000	58000
60000	60000	60000	60000	60000	60000	60000	60000
62000	62000	62000	62000	62000	62000	62000	62000
64000	64000	64000	64000	64000	64000	64000	64000
66000	66000	66000	66000	66000	66000	66000	66000
68000	68000	68000	68000	68000	68000	68000	68000
70000	70000	70000	70000	70000	70000	70000	70000
72000	72000	72000	72000	72000	72000	72000	72000
74000	74000	74000	74000	74000	74000	74000	74000
76000	76000	76000	76000	76000	76000	76000	76000
78000	78000	78000	78000	78000	78000	78000	78000
80000	80000	80000	80000	80000	80000	80000	80000
82000	82000	82000	82000	82000	82000	82000	82000
84000	84000	84000	84000	84000	84000	84000	84000
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94000	94000	94000	94000	94000	94000	94000	94000
96000	96000	96000	96000	96000	96000	96000	96000
98000	98000	98000	98000	98000	98000	98000	98000
100000	100000	100000	100000	100000	100000	100000	100000

CALCULATED
 THREE BAY ELEMENT COMBINED LOADING TEST
 PANEL AREA = 10.97112 AXIAL COMPRESSION PRESSURE TEST ON T-502041-1 TEST DATE 7-5-79
 SEE T-10007 P. 2

DATA NO	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSIG	IN. HG	TIAL IND I/I	DIAL IND D/2	DIAL IND D/3	DIAL IND D/4	HYD C% P/W IN	HYD C% P/W OUT
ACP0	0	0	0	0	.100	.100	.100	.200		
ACP1	0	0	0	0	.100	.100	.100	.200		
ACP2	0	0	8	16.29	.101	.101	.130	.317		
ACP3	2,000	21,834	8	16.29	.103	.103	.129	.213		
ACP4	4,000	43,668	8	16.29	.105	.105	.126	.207		
ACP5	6,000	65,502	8	16.29	.109	.110	.1235	.198		
ACP6	7,000	76,419	8	16.29	.111	.1125	.1225	.194		
ACP7	8,000	87,336	8	16.29	.1125	.115	.122	.188		
ACP8	9,000	98,253	8	16.29	.114	.1165	.122	.182		
ACP9	10,000	109,170	8	16.29	.1155	.118	.122	.177		
ACP10	2,000	21,834	8	16.29	.109	.110	.1295	.211		
ACP11	0	0	0	16.29	.105	.105	.132	.220		
ACP12	0	0	0	0	.102	.102	.100	.201	HYD C% P/W IN	
	0	0	0	0	.102	.102	.100	.201	HYD C% P/W OUT	



TERO73

Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
 Elastic Axial Compression with 8 psig Normal Pressure Page 1 of 2

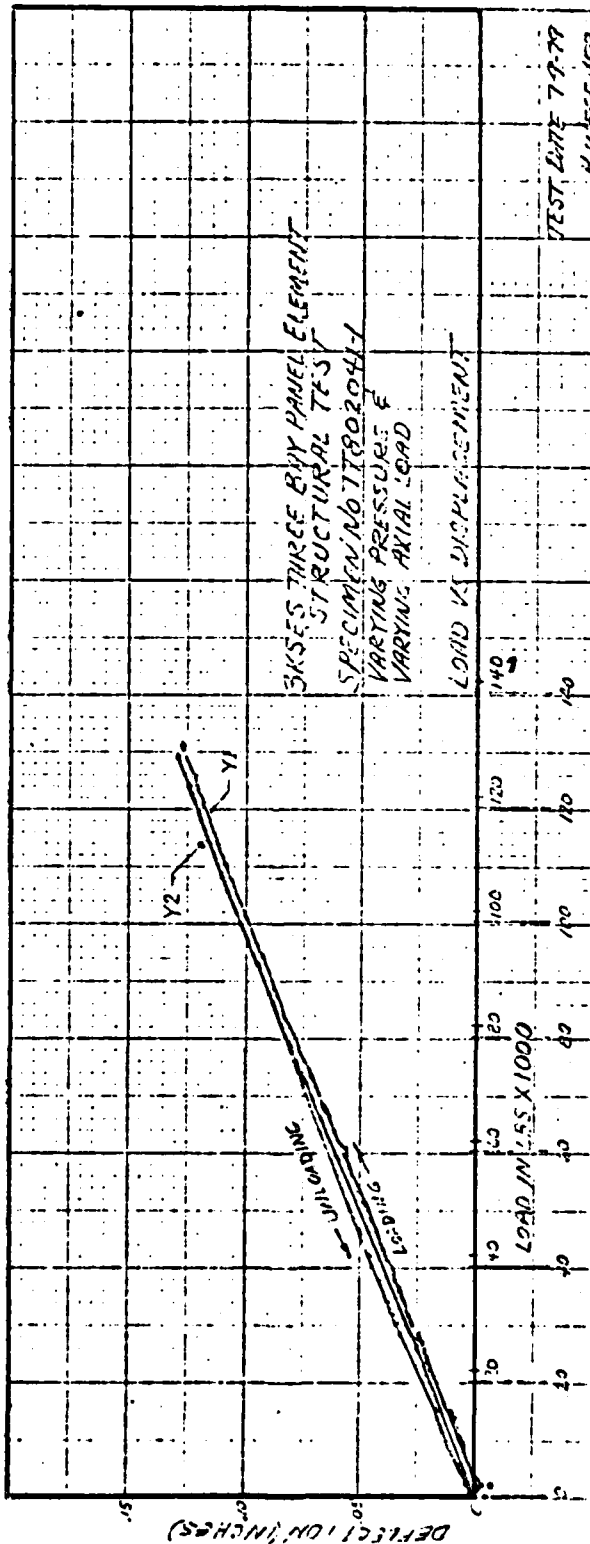
DATA No. ACP0 HYD. CYL. PIN OUT ZERO PSIG ZERO LOAD	DATA No. ACP1 HYD. CYL. PIN IN ZERO PSIG ZERO LOAD	DATA No. ACP2 5 PSIG ZERO LOAD	DATA No. ACP3 8 PSIG 20,900#	DATA No. ACP4 8 PSIG 43,700#	DATA No. ACP5 8 PSIG 65,500#	DATA No. ACP6 8 PSIG 76,400#
83-00000	83-00001	83-00002	83-00003	83-00004	83-00005	83-00006
82-00001	82-00002	82-00003	82-00004	82-00005	82-00006	82-00007
81-00000	81-00001	81-00002	81-00003	81-00004	81-00005	81-00006
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75-00000	75-00001	75-00002	75-00003	75-00004	75-00005	75-00006
74-00001	74-00002	74-00003	74-00004	74-00005	74-00006	74-00007
73-00000	73-00001	73-00002	73-00003	73-00004	73-00005	73-00006
72-00001	72-00002	72-00003	72-00004	72-00005	72-00006	72-00007
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01837630	01837630	01837630	01837630	01837630	01837630	01837630
01705700	01705700	01705700	01705700	01705700	01705700	01705700

THREE-BAY ELEMENT COMBINED LOADING TEST
 MIN. COMPRESSION PRESSURE TEST ON T1902041-1 TEST DATE 7-9-79
 REF T190017 # 3.5.2.3

TEST NO	NOMINAL STRESS PSI	AXIAL LOAD LBS X	PRESSURE PSIG X	IN. Hg	DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	HYD. CYC. PIN IN	HYD. CYC. PIN OUT
ACP1	0	0	0	0	.100	.100	.100	.200		
ACP2	0	0	0	0	.100	.100	.100	.200		
ACP3	1210	13,500	2	1.07	.102	.102	.120	.209		
ACP4	2420	26,400	4	3.14	.104	.104	.123	.209		
ACP5	3630	39,600	6	12.22	.106	.106	.124	.208		
ACP6	4840	46,200	7	14.25						
ACP7	5440	52,800	8	16.29	.108	.109	.124	.203		
ACP8	6050	59,400	7	18.32	.110	.111	.125	.193		
ACP9	6650	66,000	10	20.36	.111	.112	.125	.195		
ACP10	7250	72,600	11	22.40	.112	.114	.126	.192		
ACP11	7860	79,200	12	24.43	.114	.115	.128	.189		
ACP12	8460	85,800	13	26.47	.115	.116	.130	.185		
ACP13	9070	92,400	14	28.50	.115	.118	.131	.182		
ACP14	9670	99,000	15	30.54	.115	.119	.131	.177		
ACP15	10280	105,600	16	32.58	.117	.119	.132	.172		
ACP16	10880	112,200	17	34.61	.117	.120	.132	.167		
ACP17	11490	118,800	18	36.65	.117	.120	.132	.163		
ACP18	1210	125,400	19	38.68	.117	.120	.132	.155		
ACP19	0	13,200	2	4.07	.104	.105	.132	.218		
ACP20	0	0	0	0	.092	.100	.105	.200	HYD. CYC. PIN IN	HYD. CYC. PIN OUT

* LOADING SEQUENCE 215 AS FOLLOWS:

PRESTRESS PERFORMED THEN AXIAL LOAD - THEN PERFORM TAXES FOR EACH LOADING INCREMENT



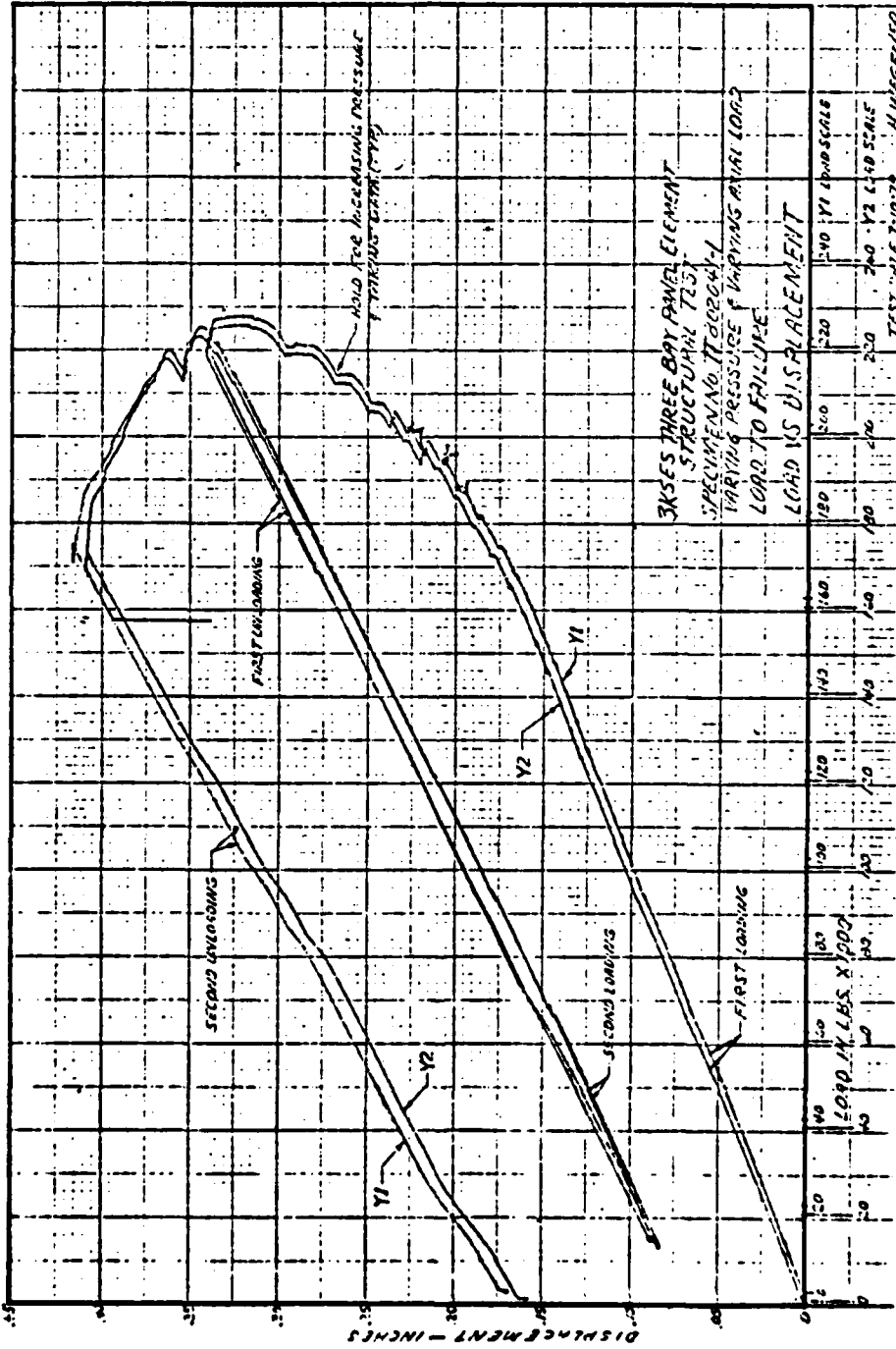
TERO73

Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
 Proportional Axial Compression and Normal Pressure Page 4 of 4

PRE TEST R CAL	POST TEST R CAL
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82*00009	82*00009
81*00022	81*00022
80*00123	80*00123
79*00024	79*00024
78*00040	78*00040
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24*01425	24*01426
23*01423	23*01431
22*01422	22*01413
21*01425	21*01397
20*01425	20*01495
19*01427	19*01514
18*01423	18*01488
17*01427	17*01412
16*01427	16*01403
15*01425	15*01406
14*01425	14*01408
13*01425	13*01439
12*01425	12*01423
11*01424	11*01440
10*01423	10*01392
9*01422	9*01498
8*01421	8*01501
7*01422	7*01476
6*01422	6*01746
5*01421	5*01937
4*01423	4*01432
3*01422	3*01389
2*01423	2*01473
1*01422	1*01436
00*01421	00*01439
01*13604	01*14610
07*97908	07*97908

CALCULATED THREE-BAY ELEMENT COMBINED LOADING TEST
 PANEL AREA = 10.917111: AXIAL COMPRESSION & PRESSURE TEST ON TT832041-1 TEST DATE 7-10-79.
 REF. T-10007 Pgs. 2, 5. LOAD TO FAILURE

DATA NO	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESS USE SSIG*	IN. IN.	DIAL IND. E1	DIAL IND. E2	DIAL IND. D3	DIAL IND. D4				
ACP 1	0	0	0	0	100	100	100	200	HYD. CYL. P.W. OUT			
ACP 12	0	0	0	0					HYD. CYL. P.W. IN			
ACP 2	1210	13,200	2	4.07	102	102	125	220				
ACP 3	5950	64,200	10	27.36	112	113	129	201				
ACP 4	6450	68,400	14	28.50	117	119	120	195				
ACP 5	10,350	109,500	18	36.65	119	122	120	162				
ACP 6	11,400	125,400	19	38.68	120	123	127	155				
ACP 7	12,040	132,000	20	40.72	120	123	126	149				
ACP 8	12,600	139,600	21	42.76	120	123	125	140				
ACP 9	13,210	145,200	22	44.79	121	123	124	129				
ACP 10	13,860	151,800	23	46.83	121	124	119	112				
ACP 11	14,510	158,400	24	48.86	121	124	119	109				
ACP 12	15,160	165,000	25	50.90	121	124	106	102				
ACP 13	15,810	171,600	26	52.94	121	124	105	105				
ACP 14	16,460	178,200	27	54.97	120	125	104	104				
ACP 15	17,110	184,800	28	57.01	120	125	117	103				
ACP 16	17,760	191,400	29	59.04	120	125	132	102				
ACP 17	18,410	198,000	30	61.08	119	123	244	108				
ACP 18	19,060	204,600	31	63.12	116	122	274	108				
ACP 19	19,710	211,200	32	65.15	115	121	314	103				
ACP 20	19,950	217,800	33	67.19	112	119	375	141				
ACP 21	20,550	224,400	34	67.22					** MAX. LOAD PRESSURE ATTAINABLE DATA TAKEN AFTER LOAD DROPPED TO 219,700 LBS.			
ACP 22	1210	13,200	2	4.07								
ACP 23	18,140	198,000	30	61.08	102	110	498	260				
ACP 24	19,350	211,200	32	65.15	102	109	515	274				
ACP 25	19,950	217,800	33	67.19	101	108	529	282				
ACP 26	20,340	222,000	33	67.19	108	104	613	420	*** MAX. LOAD PRESSURE ATTAINABLE DATA TAKEN AFTER LOAD DROPPED TO 218,500 LBS.			
*LOADING SEQUENCE WAS AS FOLLOWS:												
AXIAL LOAD APPLIED THEN PRESSURE APPLIED - THEN DATA TAKEN FOR EACH LOADING INCREMENT												



TRO73

Test Data - 3-Bay Element No. TT802041-1 (All stiffeners straight)
Proportional Axial Compression and Normal Pressure to Failure, Page 4 of 4

DATA No. ACP 21

32 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

DATA No. ACP 21

30 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

DATA No. ACP 23

32 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

DATA No. ACP 24

33 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

DATA No. ACP 25

33 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

DATA No. ACP 26

32 PSIG

DATA TAKEN AS LEAD DAMPPED
FROM MAX. OF 222,000 LBS

03-000001
02-000001
01-000137
00-000079
09-000465
08-000863
07-000434
06-001146
05-000750
04-000126
03-000316
02-000343
01-000390
00-000088
09-000734
08-000198
07-000197
06-000388
05-000291
04-000072
03-000007
02-000122
01-000370
00-021197
09-000631
08-000002
07-000719
06-19423
05-00032
04-0002670
03-000000
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01-000665
00-000320
09-001920
08-000507
07-000208
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05-0007470
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01-000444
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09-000224
08-000474
07-000328
06-000595
05-000649
04-000722
03-000400
02-000624
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00-003977
09-0003793
08-0001625
07-000157
06-000551
05-000580
04-000514
03-000383
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00-000183
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07-001787
06-0001663
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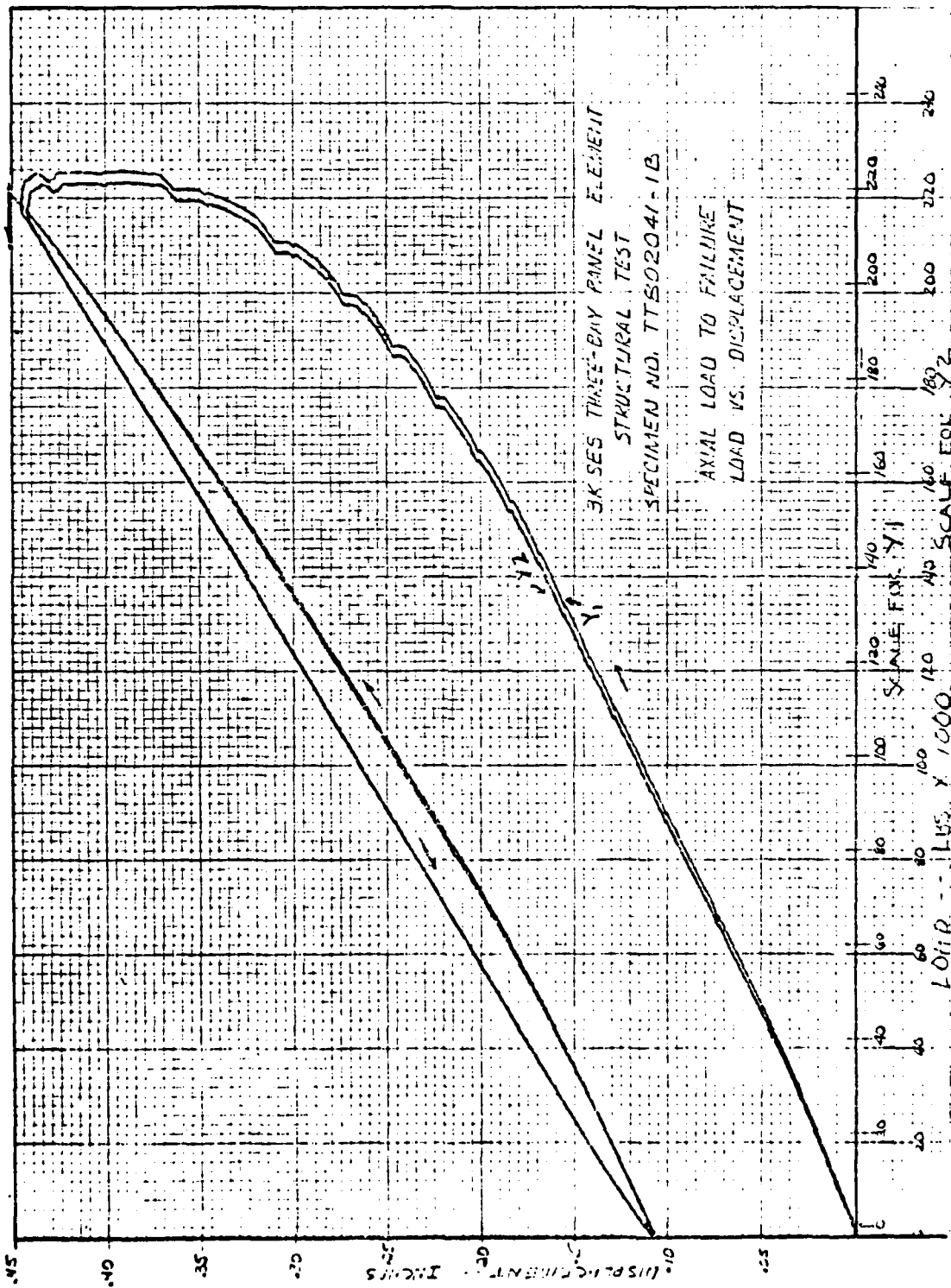
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TER073

CALCULATED PANEL AREA = 10.968 IN² THREE-BAY ELEMENT COMBINED LOADING TEST AXIAL COMPRESSION TEST ON TTB02041-1B TEST DATE 9-6-79

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	D1	D2	D3	D4	D5			
AC1A	0	ZERO MINIMUM	.100	.100	.400	.400	.550			
1B	0	ZERO MINIMUM	.100	.100	.400	.400	.550			
AC2	2,000	21,940	.103	.103	.396	.395	.534			
AC3	4,000	43,870	.108	.108	.391	.389	.515			
AC4	6,000	65,810	.114	.116	.387	.380	.494			
AC5	8,000	87,740	.121	.125	.383	.368	.472			
AC6	10,000	109,680	.128	.133	.350	.357	.450			
AC7	11,000	120,650	.131	.136	.377	.351	.440			
AC8	12,000	131,620	.134	.140	.374	.346	.424			
AC9	13,000	142,580	.137	.143	.370	.340	.414			
AC10	14,000	153,550	.141	.146	.360	.334	.407			
AC11	15,000	164,520	.144	.150	.338	.326	.393			
AC12	16,000	175,490	.147	.153	.300	.316	.378			
AC13	17,000	186,460	.149	.156	.263	.270	.351			
AC14	18,000	197,420	.152	.159	.222	.215	.332			
AC15	19,000	208,390	.154	.161	.180	.242	.308			
AC16	20,000	219,360	.156	.162	.175	.256	.258			
AC17	20,377	223,500	-	-	-	-	.095			MAX LOAD
AC18	0	0	.107	.108	.068	.313	.405			POST BUCKLING LOAD
		217,500	.158	.166	-	-	-.015			



AD-A087 438

ROHR MARINE INC NATIONAL CITY CA
SURFACE EFFECT SHIP STRUCTURAL PRODUCIBILITY. PART 3. (U)
MAY 80

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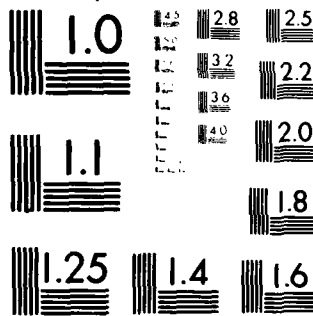
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4 of 4

AD-A087 438



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DATE
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

THREE-BAY ELEMENT COMBINED LOADING TEST
 NORMAL PRESSURE TEST OUTT802041-3 TEST DATE 7-18-72
 REF TTP00212 P. 3.5.2.1 (3/8" STIFFENER OFFSET)

DATA NO.	PRESSURE		DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	DIAL IND. D5	DIAL IND. D6	DIAL IND. D7	DIAL IND. D8	DIAL IND. D9	DIAL IND. D10	DIAL IND. D11	DIAL IND. D12	DIAL IND. D13	DIAL IND. D14	DIAL IND. D15	DIAL IND. D16	DIAL IND. D17	DIAL IND. D18	DIAL IND. D19	DIAL IND. D20	
	PSIG	IN. Hg.																					
P1	0	0	---	---	.100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P2	2	4.07	---	---	.132	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P3	4	8.14	---	---	.137	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P4	6	12.22	---	---	.140	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P5	8	16.29	---	---	.142	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P6	2	4.07	---	---	.135	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P7	9	18.32	---	---	.143	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P8	10	20.36	---	---	.145	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P9	11	22.40	---	---	.146	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P10	12	24.43	---	---	.147	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P11	2	4.07	---	---	.135	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P12	13	26.47	---	---	.148	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P13	14	28.50	---	---	.150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P14	15	30.54	---	---	.151	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P15	16	32.58	---	---	.153	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P16	17	34.61	---	---	.154	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P17	18	36.65	---	---	.156	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P18	19	38.68	---	---	.156	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P19	2	4.07	---	---	.138	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
P20	0	0	---	---	.105	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TER073

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
 Elastic Normal Pressure

Page 3 of 4

DATA No. P15	DATA No. P16	DATA No. P17	DATA No. P18	DATA No. P19	DATA No. P20
16 PSIG	17 PSIG	18 PSIG	19 PSIG	2 PSIG	0 PSIG
84-00137	84-00144	84-00150	84-00156	84-00162	84-00168
82-00063	82-00063	82-00063	82-00067	82-00072	82-00078
81-00000	81-00055	81-00085	81-00089	81-00093	81-00098
80-00053	80-00058	80-00058	80-00062	80-00066	80-00071
79-00000	79-00010	79-00012	79-00013	79-00016	79-00019
78-00161	78-00171	78-00171	78-00179	78-00186	78-00191
77-00006	77-00010	77-00009	77-00010	77-00011	77-00011
76-00044	76-00044	76-00051	76-00053	76-00057	76-00061
75-00178	75-00184	75-00197	75-00208	75-00224	75-00241
74-00015	74-00018	74-00016	74-00018	74-00021	74-00026
73-00130	73-00134	73-00143	73-00146	73-00158	73-00168
72-00168	72-00179	72-00186	72-00194	72-00206	72-00222
71-00123	71-00126	71-00137	71-00141	71-00155	71-00170
70-00042	70-00047	70-00046	70-00046	70-00053	70-00061
69-00172	69-00184	69-00196	69-00204	69-00220	69-00237
68-00046	68-00046	68-00052	68-00053	68-00061	68-00067
67-00007	67-00008	67-00006	67-00008	67-00013	67-00019
66-00153	66-00164	66-00173	66-00181	66-00194	66-00213
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64-00048	64-00049	64-00052	64-00052	64-00060	64-00067
63-00039	63-00039	63-00045	63-00044	63-00058	63-00066
62-00047	62-00073	62-00073	62-00077	62-00091	62-00106
61-00116	61-00123	61-00132	61-00137	61-00156	61-00171
60-00001	60-00000	60-00002	60-00002	60-00004	60-00009
59-00010	59-00053	59-00083	59-00086	59-00100	59-00115
58-00001	58-00000	58-00000	58-00000	58-00001	58-00002
57-00045	57-00074	57-00092	57-00094	57-00108	57-00124
56-00124	56-00150	56-00178	56-00184	56-00200	56-00216
55-00021	55-00090	55-00096	55-00106	55-00122	55-00138
54-00063	54-00060	54-00066	54-00075	54-00086	54-00097
53-00130	53-00199	53-00178	53-00181	53-00197	53-00213
52-00177	52-00269	52-00257	52-00257	52-00273	52-00289
51-00146	51-00244	51-00320	51-00397	51-00474	51-00551
50-00059	50-00035	50-00070	50-00070	50-00084	50-00098
49-00022	49-00054	49-00096	49-00096	49-00110	49-00124
48-00102	48-00194	48-00150	48-00146	48-00160	48-00174
47-00152	47-00223	47-00178	47-00166	47-00180	47-00194
46-00039	46-00022	46-00045	46-00043	46-00057	46-00071
45-00069	45-00060	45-00088	45-00100	45-00114	45-00128
44-00121	44-00128	44-00128	44-00128	44-00142	44-00156
43-00176	43-00193	43-00204	43-00220	43-00236	43-00252
42-00058	42-00013	42-00063	42-00069	42-00085	42-00101
41-00044	41-00042	41-00067	41-00078	41-00094	41-00110
40-00012	40-00076	40-00134	40-00193	40-00252	40-00311
39-00098	39-00088	39-00090	39-00095	39-00101	39-00107
38-00186	38-00199	38-00215	38-00212	38-00218	38-00224
37-00069	37-00072	37-00075	37-00077	37-00080	37-00083
36-00192	36-00164	36-00123	36-00130	36-00136	36-00142
35-00047	35-00117	35-00183	35-00233	35-00283	35-00333
34-00123	34-00123	34-00129	34-00154	34-00180	34-00206
33-00125	33-00134	33-00145	33-00153	33-00161	33-00169
32-00022	32-00034	32-00034	32-00036	32-00039	32-00042
31-00079	31-00096	31-00096	31-00104	31-00112	31-00120
30-00129	30-00137	30-00145	30-00152	30-00160	30-00168
29-00138	29-00148	29-00158	29-00166	29-00174	29-00182
28-00153	28-00163	28-00174	28-00184	28-00194	28-00204
27-00099	27-00104	27-00112	27-00118	27-00124	27-00130
26-00155	26-00163	26-00170	26-00177	26-00184	26-00191
25-00070	25-00076	25-00083	25-00089	25-00096	25-00102
24-00076	24-00084	24-00096	24-00106	24-00116	24-00126
23-00144	23-00159	23-00170	23-00187	23-00201	23-00215
22-00159	22-00170	22-00184	22-00190	22-00196	22-00202
21-00031	21-00031	21-00036	21-00044	21-00052	21-00060
20-00131	20-00139	20-00147	20-00155	20-00163	20-00171
19-00096	19-00104	19-00104	19-00117	19-00127	19-00137
18-00125	18-00130	18-00142	18-00150	18-00158	18-00166
17-00135	17-00145	17-00154	17-00162	17-00170	17-00178
16-00206	16-00203	16-00219	16-00230	16-00240	16-00250
15-00076	15-00081	15-00081	15-00081	15-00086	15-00091
14-00166	14-00180	14-00192	14-00208	14-00224	14-00240
13-00134	13-00125	13-00113	13-00106	13-00098	13-00090
12-00039	12-00046	12-00054	12-00061	12-00068	12-00075
11-00076	11-00076	11-00080	11-00084	11-00088	11-00092
10-00229	10-00243	10-00257	10-00271	10-00285	10-00299
9-00072	9-00076	9-00084	9-00092	9-00100	9-00108
8-00165	8-00162	8-00177	8-00185	8-00193	8-00201
7-00057	7-00061	7-00069	7-00076	7-00084	7-00092
6-00153	6-00167	6-00180	6-00194	6-00208	6-00222
5-00136	5-00150	5-00163	5-00176	5-00190	5-00204
4-00055	4-00069	4-00082	4-00096	4-00110	4-00124
3-00053	3-00067	3-00080	3-00094	3-00108	3-00122
2-00050	2-00064	2-00078	2-00092	2-00106	2-00120
1-00130	1-00144	1-00158	1-00172	1-00186	1-00200
0-00161	0-00175	0-00189	0-00203	0-00217	0-00231
0-00290	0-00304	0-00318	0-00332	0-00346	0-00360
0-00790	0-00804	0-00818	0-00832	0-00846	0-00860

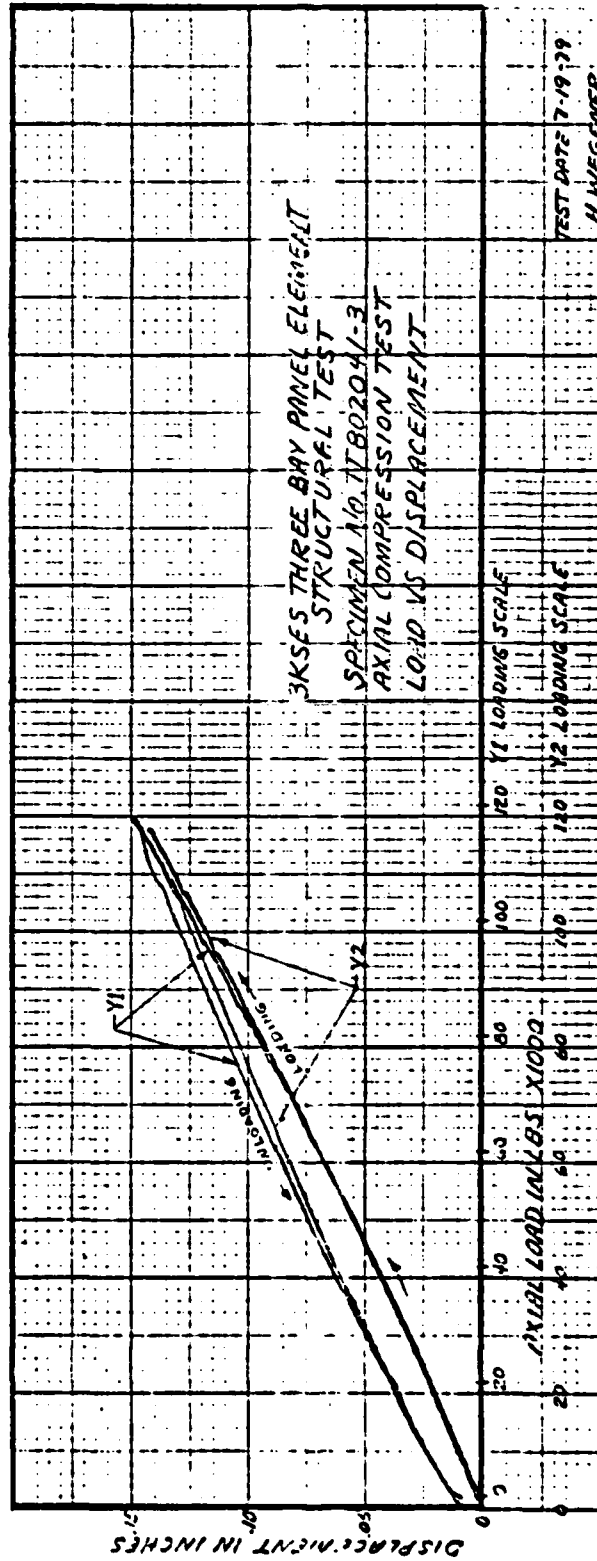
TER073

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
 Elastic Normal Pressure

PRE TEST R CAL	POST TEST R CAL
03*00013	03*00014
02*00095	02*00095
01*00107	01*00106
00*00065	00*00066
79*00343	79*00344
78*00031	78*00030
77*00030	77*00031
76*00069	76*00068
75*00041	75*00040
74*00564	74*00565
73*00080	73*00079
72*00034	72*00034
71*00017	71*00017
70*00302	70*00303
69*00077	69*00076
68*00027	68*00028
67*00356	67*00358
66*00046	66*00047
65*00017	65*00016
64*00075	64*00077
63*00167	63*00166
62*00050	62*00051
61*00023	61*00023
60*00002	60*00002
59*01083	59*01083
58*01031	58*01028
57*01027	57*01034
56*01044	56*01077
55*01037	55*01037
54*01025	54*01033
53*01042	53*01009
52*01040	52*01032
51*01026	51*01035
50*01031	50*01020
49*01025	49*01033
48*01030	48*01013
47*01039	47*01022
46*01024	46*01034
45*01034	45*01037
44*01041	44*01026
43*01032	43*01022
42*01020	42*01066
41*01022	41*01062
40*01020	40*01033
39*01041	39*01044
38*01034	38*01047
37*01031	37*01026
36*01035	36*01017
35*01020	35*01039
34*01027	34*01027
33*01035	33*01036
32*01037	32*01023
31*01035	31*01074
30*01023	30*01075
29*01025	29*01030
28*01033	28*01067
27*01030	27*01019
26*01027	26*01019
25*01030	25*01016
24*01026	24*01034
23*01020	23*01099
22*01032	22*01061
21*01033	21*01020
20*01017	20*01076
19*01027	19*01061
18*01023	18*01013
17*01030	17*01049
16*01028	16*01013
15*01027	15*01019
14*01020	14*01022
13*01019	13*01031
12*01023	12*01016
11*01026	11*01037
10*01026	10*01011
09*01029	09*01059
08*01022	08*01073
07*01024	07*01035
06*01021	06*01049
05*01023	05*01078
04*01021	04*01022
03*01023	03*01019
02*01027	02*01039
01*01026	01*01017
00*01023	00*01039
013250760	010340000
007107900	007107900

CALCULATED THREE-BAY ELEMENT COMBINED LOADING TEST
AXIAL COMPRESSION TEST ON TT 02041-3
 TEST DATE 7-19-79
 PANEL AREA 10.768 IN²
 REF. TP00017P.3.5.2.2 (3/8" STIFFENER OFFSET)

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	HYD. CYL. PIN IN	HYD. CYL. PIN OUT
AC1	0	0	.100	.100	.100	.100		
AC1a	0	0	.100	.100	.100	.100		
AC2	2,000	21,540	.102	.102	.104	.101		
AC3	4,000	43,070	.107	.107	.110	.099		
AC4	5,000	53,940						
AC5	6,000	64,610	.112	.114	.119	.096		
AC6	7,000	75,380	.115	.119	.124	.094		
AC7	8,000	86,140	.119	.122	.129	.092		
AC8	9,000	96,910	.122	.126	.134	.091		
AC9	10,000	107,680	.125	.130	.142	.091		
AC10	11,000	118,450	.129	.133	.150	.091		
AC11	2,000	21,540	.115	.118	.102	.090		
AC12	0	0	.107	.107	.097	.098	HYD. CYL. PIN IN	
AC13	0	0	.107	.107	.095	.098	HYD. CYL. PIN OUT	



Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
Elastic Axial Compression

DATA No. AC1 DATA No. AC2

HYD CYL PIN OUT 1/2 CYL PIN IN DATA No. AC2

DATA No. AC3

DATA No. AC5 DATA No. AC6

DATA No. AC7

21,500#	43,000#	64,600#	75,400#	86,100#
03-00002	03-00002	03-00001	03-00000	03-00002
02-00002	02-00003	02-00003	02-00005	02-00004
01-00002	01-00003	01-00006	01-00007	01-00004
00-00001	00-00001	00-00005	00-00005	00-00004
79-00001	79-00002	79-00002	79-00001	79-00001
78-00001	78-00001	78-00002	78-00000	78-00001
77-00002	77-00001	77-00002	77-00010	77-00010
76-00002	76-00001	76-00023	76-00042	76-00000
75-00004	75-00007	75-00016	75-00049	75-00007
74-00001	74-00002	74-00008	74-00027	74-00030
73-00004	73-00004	73-00006	73-00022	73-00020
72-00000	72-00000	72-00000	72-00000	72-00001
71-00002	71-00002	71-00003	71-00022	71-00032
70-00003	70-00003	70-00005	70-00025	70-00003
69-00007	69-00007	69-00010	69-00040	69-00005
68-00002	68-00002	68-00000	68-00010	68-00020
67-00002	67-00001	67-00002	67-00001	67-00001
66-00005	66-00005	66-00005	66-00010	66-00009
65-00001	65-00001	65-00001	65-00007	65-00010
64-00001	64-00001	64-00002	64-00005	64-00005
63-00003	63-00004	63-00005	63-00009	63-00009
62-00000	62-00000	62-00002	62-00009	62-00009
61-00001	61-00010	61-00011	61-00011	61-00006
60-00001	60-00002	60-00002	60-00042	60-00052
59-00003	59-00003	59-00046	59-00099	59-00093
58-00004	58-00002	58-00002	58-00003	58-00003
57-00003	57-00003	57-00076	57-00023	57-00002
56-00009	56-00009	56-00047	56-00077	56-00002
55-00007	55-00003	55-00003	55-00015	55-00004
54-00004	54-00003	54-00072	54-00035	54-00071
53-00002	53-00002	53-00032	53-00022	53-00003
52-00006	52-00005	52-00078	52-00045	52-00025
51-00003	51-00002	51-00044	51-00008	51-00007
50-00004	50-00004	50-00042	50-00087	50-00002
49-00002	49-00003	49-00092	49-00065	49-00003
48-00002	48-00003	48-00007	48-00000	48-00002
47-00003	47-00005	47-00010	47-00010	47-00001
46-00003	46-00006	46-00004	46-00000	46-00000
45-00001	45-00001	45-00001	45-00000	45-00002
44-00002	44-00003	44-00015	44-00045	44-00002
43-00000	43-00002	43-00074	43-00017	43-00007
42-00003	42-00006	42-00006	42-00018	42-00019
41-00001	41-00002	41-00027	41-00007	41-00001
40-00002	40-00004	40-00071	40-00041	40-00002
39-00003	39-00002	39-00026	39-00003	39-00002
38-00002	38-00004	38-00005	38-00024	38-00032
37-00000	37-00003	37-00009	37-00077	37-00000
36-00003	36-00001	36-00023	36-00014	36-00009
35-00003	35-00003	35-00017	35-00000	35-00003
34-00000	34-00000	34-00070	34-00023	34-00022
33-00003	33-00003	33-00014	33-00052	33-00002
32-00002	32-00006	32-00076	32-00046	32-00000
31-00006	31-00009	31-00035	31-00045	31-00010
30-00000	30-00006	30-00031	30-00068	30-00000
29-00002	29-00001	29-00002	29-00002	29-00010
28-00001	28-00001	28-00012	28-00016	28-00004
27-00000	27-00003	27-00000	27-00076	27-00077
26-00000	26-00003	26-00003	26-00063	26-00072
25-00001	25-00005	25-00010	25-00033	25-00007
24-00001	24-00003	24-00071	24-00021	24-00041
23-00002	23-00002	23-00007	23-00019	23-00007
22-00002	22-00002	22-00037	22-00028	22-00007
21-00002	21-00005	21-00079	21-00057	21-00030
20-00002	20-00009	20-00031	20-00037	20-00072
19-00005	19-00000	19-00023	19-00006	19-00002
18-00003	18-00002	18-00002	18-00020	18-00023
17-00002	17-00001	17-00007	17-00007	17-00019
16-00001	16-00003	16-00005	16-00009	16-00003
15-00002	15-00005	15-00017	15-00004	15-00004
14-00001	14-00002	14-00004	14-00003	14-00005
13-00003	13-00003	13-00031	13-00072	13-00027
12-00001	12-00002	12-00005	12-00017	12-00045
11-00003	11-00003	11-00010	11-00025	11-00003
10-00004	10-00007	10-00008	10-00077	10-00070
09-00002	09-00006	09-00020	09-00051	09-00076
08-00004	08-00009	08-00037	08-00051	08-00001
07-00000	07-00003	07-00070	07-00034	07-00004
06-00000	06-00000	06-00032	06-00000	06-00005
05-00000	05-00001	05-00022	05-00000	05-00003
04-00000	04-00002	04-00045	04-00027	04-00002
03-00001	03-00003	03-00022	03-00047	03-00070
02-00000	02-00002	02-00009	02-00025	02-00019
01-00000	01-00001	01-00017	01-00020	01-00031
00-00003	00-00002	00-00029	00-00000	00-00005
0719790	0719790	0719790	0719790	0719790

TERO73

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
Elastic Axial Compression

DATA No. AC8 96,900 [±]	DATA No. AC9 107,700 [±]	DATA No. AC10 118,500 [±]	DATA No. AC11 21,500 [±]	DATA No. AC12 2,000 LOAD	DATA No. AC13 HYD LOAD HYD PIN ON
63-00002	63-00002	63-00002	63-00002	63-00002	63-00002
62-00007	62-00008	62-00016	62-00010	62-00009	62-00015
61-00012	61-00012	61-00017	61-00012	61-00007	61-00008
60-00016	60-00016	60-00011	60-00016	60-00005	60-00005
59-00001	59-00001	59-00001	59-00002	59-00002	59-00011
58-00001	58-00001	58-00001	58-00001	58-00001	58-00008
77-00016	77-00021	77-00024	77-00023	77-00032	77-00002
76-00070	76-00070	76-00093	76-00093	76-00096	76-00006
75-00000	75-00006	75-00010	75-00012	75-00016	75-00014
74-00004	74-00001	74-00005	74-00005	74-00002	74-00002
73-00039	73-00044	73-00048	73-00044	73-00043	73-00044
72-00000	72-00000	72-00001	72-00004	72-00004	72-00009
71-00036	71-00040	71-00045	71-00043	71-00009	71-00009
70-00050	70-00059	70-00067	70-00067	70-00005	70-00006
69-00073	69-00084	69-00096	69-00092	69-00015	69-00015
68-00029	68-00034	68-00039	68-00041	68-00008	68-00008
67-00001	67-00001	67-00002	67-00001	67-00001	67-00001
66-00014	66-00018	66-00016	66-00014	66-00012	66-00013
65-00010	65-00010	65-00014	65-00008	65-00002	65-00004
64-00010	64-00010	64-00010	64-00010	64-00010	64-00010
63-00014	63-00014	63-00014	63-00013	63-00008	63-00008
62-00014	62-00015	62-00018	62-00013	62-00006	62-00006
61-00001	61-00005	61-00005	61-00007	61-00007	61-00007
60-00066	60-01071	60-01160	60-01122	60-00001	60-00003
59-00079	59-00098	59-00080	59-00095	59-00024	59-00024
58-00004	58-00004	58-00004	58-00005	58-00004	58-00009
57-00076	57-00065	57-00055	57-00070	57-00014	57-00009
56-00050	56-00073	56-00081	56-00094	56-00027	56-00023
55-00222	55-00230	55-00249	55-00059	55-00018	55-00017
54-00003	54-00004	54-00004	54-00014	54-00002	54-00004
53-00075	53-00026	53-00067	53-00017	53-00019	53-00018
52-00030	52-00036	52-00040	52-00059	52-00003	52-00003
51-00061	51-00070	51-00067	51-00030	51-00091	51-00087
50-01136	50-01174	50-01160	50-00025	50-00080	50-00082
49-00083	49-00094	49-01072	49-00025	49-00047	49-00042
48-00096	48-00061	48-00026	48-00010	48-00005	48-00003
47-00062	47-00095	47-00051	47-00010	47-00000	47-00003
46-00027	46-00024	46-01023	46-00021	46-00002	46-00016
45-00258	45-00263	45-00256	45-00006	45-00015	45-00015
44-00064	44-00012	44-00024	44-00010	44-00018	44-00018
43-00074	43-00083	43-00054	43-00062	43-00006	43-00008
42-01355	42-01320	42-01691	42-00030	42-00026	42-00019
41-01015	41-01015	41-01017	41-00020	41-00017	41-00011
40-00025	40-00036	40-00016	40-00004	40-00002	40-00018
39-000100	39-00016	39-000109	39-00021	39-00003	39-00005
38-000707	38-00073	38-00067	38-00019	38-00002	38-00007
37-00029	37-00049	37-00007	37-00001	37-00003	37-00013
36-00070	36-000767	36-000369	36-00012	36-00002	36-00005
35-000159	35-000192	35-00225	35-00025	35-00009	35-00009
34-00008	34-00008	34-00008	34-00077	34-00001	34-00001
33-00004	33-00008	33-00011	33-00002	33-00010	33-00014
32-00069	32-00064	32-00036	32-00004	32-00000	32-00000
31-01020	31-01124	31-01225	31-00021	31-00001	31-00006
30-01503	30-01001	30-01800	30-00035	30-00006	30-00006
29-00018	29-00021	29-00023	29-00004	29-00006	29-00006
28-00056	28-00073	28-00034	28-00021	28-00003	28-00007
27-00076	27-00080	27-00067	27-00003	27-00002	27-00008
26-00010	26-00006	26-00006	26-00010	26-00003	26-00008
25-00051	25-00005	25-00005	25-00003	25-00010	25-00010
24-00056	24-00034	24-00072	24-00017	24-00001	24-00004
23-00067	23-00076	23-00084	23-00017	23-00009	23-00006
22-00073	22-00063	22-00093	22-00042	22-00001	22-00004
21-00080	21-00093	21-00043	21-00177	21-00001	21-00006
20-01500	20-01678	20-01865	20-00037	20-00059	20-00050
19-01144	19-01208	19-01392	19-00020	19-00045	19-00037
18-00092	18-00030	18-00030	18-00000	18-00000	18-00008
17-000267	17-000305	17-000345	17-00005	17-00006	17-00008
16-00070	16-000738	16-00092	16-00038	16-00001	16-00005
15-00098	15-00094	15-01080	15-00013	15-00010	15-00004
14-00008	14-00023	14-01004	14-00010	14-00000	14-00003
13-000237	13-00030	13-00027	13-00012	13-00010	13-00010
12-00088	12-00049	12-00073	12-00022	12-00011	12-00009
11-000106	11-000134	11-000106	11-00021	11-00011	11-00010
10-00074	10-00075	10-00077	10-00021	10-00015	10-00008
9-000076	9-000103	9-000103	9-00027	9-00042	9-00034
8-01492	8-01659	8-01827	8-00032	8-00018	8-00009
7-000782	7-00072	7-00064	7-00017	7-00018	7-00008
6-000510	6-000539	6-000565	6-00017	6-00018	6-00022
5-000455	5-000616	5-000691	5-00025	5-00008	5-00008
4-000730	4-000837	4-000949	4-00020	4-00078	4-00073
3-01015	3-01124	3-01211	3-00026	3-00046	3-00039
2-00000	2-00006	2-00006	2-00000	2-00015	2-00009
1-000071	1-000024	1-000095	1-00002	1-00006	1-00009
0-000079	0-000054	0-000015	0-00011	0-00018	0-00022
-1030170	0148252	0148620	0148100	0148870	0150150
06719700	06719700	06719700	06719700	06719700	06719700

TERO73

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
 Elastic Axial Compression Page 3 of 3

PRE TEST R CAL	POST TEST R CAL
03*00020	03*00020
02*00007	02*00007
01*00097	01*00097
00*00074	00*00074
79*00340	79*00340
78*00017	78*00017
77*00036	77*00036
76*00094	76*00094
75*00020	75*00014
74*00567	74*00563
73*00060	73*00060
72*00046	72*00046
71*00027	71*00027
70*00022	70*00030
69*00040	69*00003
68*00020	68*00020
67*00307	67*00308
66*00000	66*00000
65*00012	65*00012
64*00084	64*00085
63*00172	63*00173
62*00056	62*00057
61*00012	61*00012
60*00002	60*00000
59*00079	59*00015
58*01025	58*01025
57*01028	57*01021
56*01021	56*01005
55*01023	55*01012
54*01035	54*01034
53*01029	53*01040
52*01024	52*01030
51*01030	51*01030
50*01020	50*01040
49*01030	49*01031
48*01023	48*01021
47*01022	47*01020
46*01023	46*01010
45*01024	45*01014
44*01023	44*01010
43*01026	43*01026
42*01020	42*01040
41*01029	41*01017
40*01029	40*01027
39*01024	39*01024
38*01023	38*01031
37*01020	37*01030
36*01025	36*01023
35*01022	35*01016
34*01026	34*01027
33*01026	33*01015
32*01020	32*01035
31*01021	31*01036
30*01025	30*01030
29*01029	29*01020
28*01026	28*01020
27*01025	27*01031
26*01020	26*01032
25*01022	25*01013
24*01020	24*01021
23*01020	23*01014
22*01026	22*01020
21*01026	21*01033
20*01023	20*01037
19*01025	19*01034
18*01020	18*01020
17*01023	17*01017
16*01025	16*01030
15*01023	15*01023
14*01020	14*01028
13*01021	13*01015
12*01027	12*01020
11*01022	11*01016
10*01021	10*01017
09*01023	09*01017
08*01021	08*01017
07*01020	07*01016
06*01022	06*01000
05*01024	05*01031
04*01022	04*01031
03*01020	03*01030
02*01025	02*01010
01*01020	01*01010
00*01027	00*01000
0719290	0719290
0719700	0719700

TT 802041-3
CORRELATED

PISTON AREA = 10.768 IN²

THREE-DAY ELEMENT COMBINED LOADING TEST

AXIAL COMPRESSION & PRESSURE TEST ON TT 802041-3

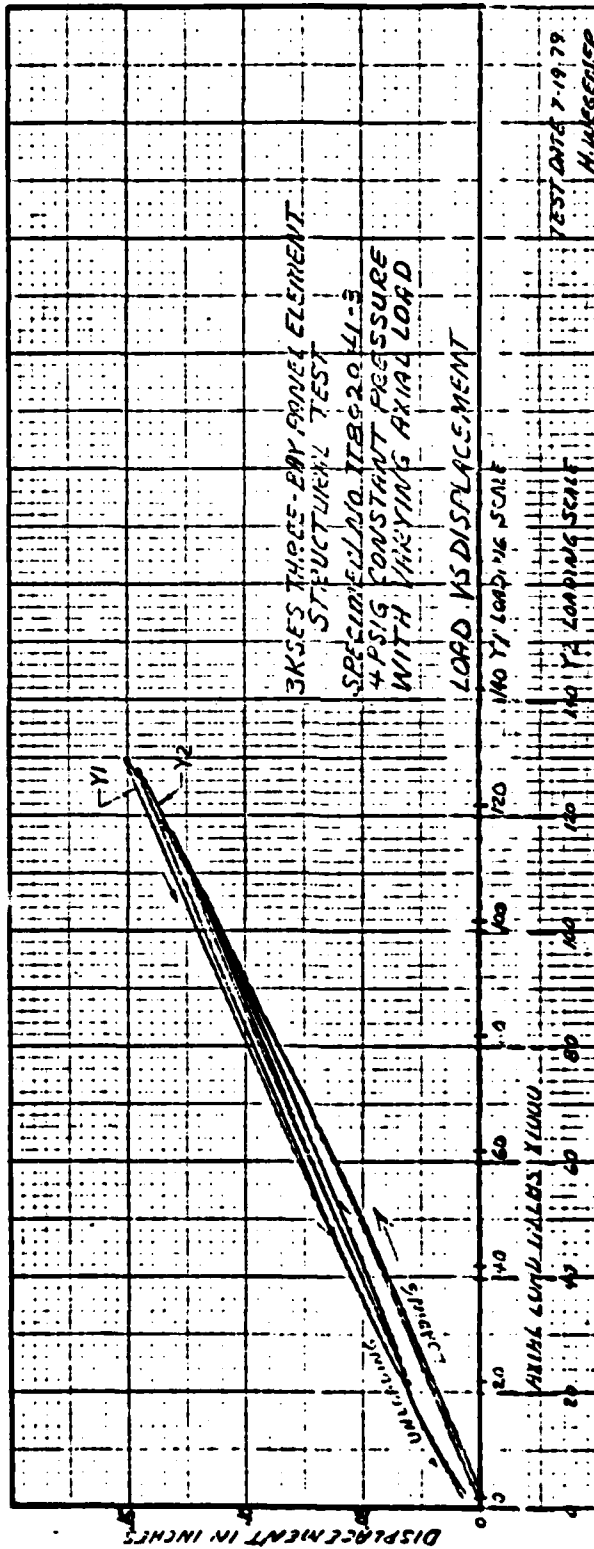
REF. TT 00017 1P 3, 5, 3

TEST DATE 7-19-79

(3/8" STIFFENER OFFSET)

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSIG	IN. IN	DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	HYD. CYL. PIN OUT
ACP 0	0	0	0	0	.100	.100	.100	.100	HYD. CYL. PIN OUT
ACP 1	0	0	0	0	.100	.100	.100	.100	" " " IN
ACP 2	2,000	21,540	4	8.14	.101	.101	.139	.130	
ACP 3	4,000	43,070	4		.103	.102	.144	.131	
ACP 4	5,000	53,840	4		.105	.105	.150	.130	
ACP 5	6,000	64,610	4		.109	.110	.158	.129	
ACP 6	7,000	75,380	4						
ACP 7	8,000	86,140	4		.114	.116	.171	.127	
ACP 8	9,000	96,910	4		.117	.120	.176	.126	
ACP 9	10,000	107,680	4		.119	.123	.184	.127	
ACP 10	2,000	21,540	4		.111	.123	.146	.129	
ACP 11	11,000	118,450	4		.123	.126	.193	.128	
ACP 12	12,000	129,220	4		.126	.130	.202	.129	
ACP 13	3,000	31,540	4		.113	.115	—	.129	
ACP 14	0	0	4	8.14	.107	.106	.140	.133	
ACP 15	0	0	0	0	.005	.004	.003	.002	HYD. CYL. PIN IN
ACP 16	0	0	0	0	.004	.004	.003	.002	HYD. CYL. PIN OUT

TER073



B-755

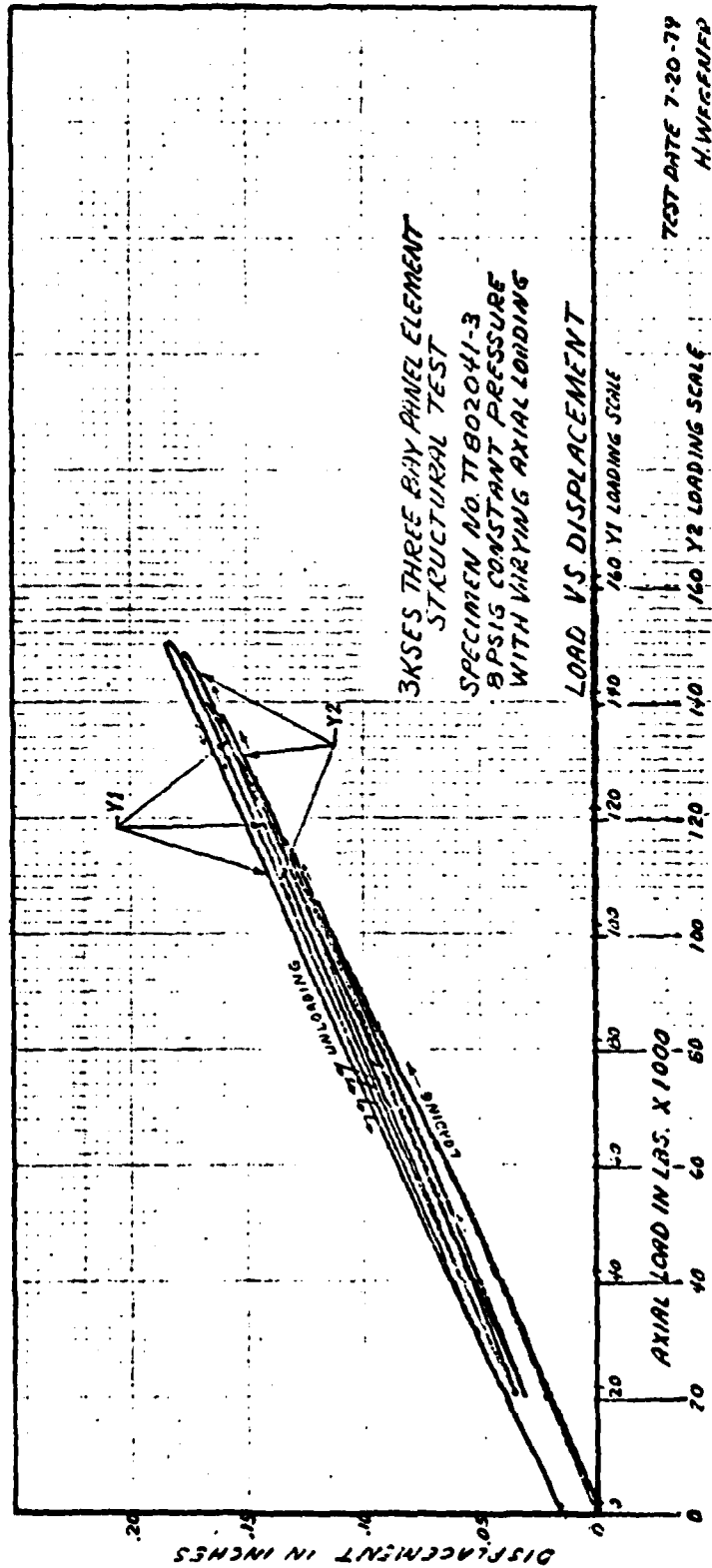
TER073

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
 Elastic Axial Compression with 4 psig Normal Pressure Page 3 of 3

DATA No. ACP15	DATA No. ACP16	PRE TEST R CAL	POST TEST R CAL
28*00000	28*00000	83*00L24	83*00U23
29*00000	29*00000	82*00U46	82*00U47
30*00000	30*00000	81*00U05	81*00U05
31*00000	31*00000	80*00U46	80*00U49
32*00000	32*00000	79*00U44	79*00U34
33*00000	33*00000	78*00U26	78*00U25
34*00000	34*00000	77*00U35	77*00U35
35*00000	35*00000	76*00U65	76*00U65
36*00000	36*00000	75*00U33	75*00U32
37*00000	37*00000	74*00U66	74*00U61
38*00000	38*00000	73*00U79	73*00U79
39*00000	39*00000	72*00U36	72*00U37
40*00000	40*00000	71*00U17	71*00U16
41*00000	41*00000	70*00U09	70*00U06
42*00000	42*00000	69*00U77	69*00U77
43*00000	43*00000	68*00U20	68*00U21
44*00000	44*00000	67*00U30	67*00U30
45*00000	45*00000	66*00U49	66*00U50
46*00000	46*00000	65*00U16	65*00U15
47*00000	47*00000	64*00U75	64*00U76
48*00000	48*00000	63*00U65	63*00U66
49*00000	49*00000	62*00U51	62*00U51
50*00000	50*00000	61*00U16	61*00U16
51*00000	51*00000	60*00U04	60*00U02
52*00000	52*00000	59*00U81	59*00U81
53*00000	53*00000	58*01U31	58*01U31
54*00000	54*00000	57*01U31	57*01U24
55*00000	55*00000	56*01U27	56*01U35
56*00000	56*00000	55*01U24	55*01U44
57*00000	57*00000	54*01U31	54*01U32
58*00000	58*00000	53*01U31	53*01U42
59*00000	59*00000	52*01U30	52*01U47
60*00000	60*00000	51*01U36	51*01U34
61*00000	61*00000	50*01U09	50*01U29
62*00000	62*00000	49*01U32	49*01U24
63*00000	63*00000	48*01U26	48*01U46
64*00000	64*00000	47*01U26	47*01U37
65*00000	65*00000	46*01U26	46*01U11
66*00000	66*00000	45*01U26	45*01U51
67*00000	67*00000	44*01U26	44*01U56
68*00000	68*00000	43*01U28	43*01U24
69*00000	69*00000	42*01U27	42*01U30
70*00000	70*00000	41*01U32	41*01U34
71*00000	71*00000	40*01U26	40*01U26
72*00000	72*00000	39*01U31	39*01U34
73*00000	73*00000	38*01U28	38*01U41
74*00000	74*00000	37*01U28	37*01U26
75*00000	75*00000	36*01U29	36*01U31
76*00000	76*00000	35*01U27	35*01U24
77*00000	77*00000	34*01U30	34*01U29
78*00000	78*00000	33*01U31	33*01U32
79*00000	79*00000	32*01U34	32*01U32
80*00000	80*00000	31*01U34	31*01U37
81*00000	81*00000	30*01U29	30*01U34
82*00000	82*00000	29*01U30	29*01U32
83*00000	83*00000	28*01U25	28*01U29
84*00000	84*00000	27*01U25	27*01U14
85*00000	85*00000	26*01U24	26*01U24
86*00000	86*00000	25*01U23	25*01U62
87*00000	87*00000	24*01U24	24*01U23
88*00000	88*00000	23*01U25	23*01U27
89*00000	89*00000	22*01U23	22*01U24
90*00000	90*00000	21*01U28	21*01U23
91*00000	91*00000	20*01U28	20*01U32
92*00000	92*00000	19*01U31	19*01U36
93*00000	93*00000	18*01U26	18*01U27
94*00000	94*00000	17*01U26	17*01U28
95*00000	95*00000	16*01U26	16*01U21
96*00000	96*00000	15*01U25	15*01U23
97*00000	97*00000	14*01U25	14*01U30
98*00000	98*00000	13*01U23	13*01U23
99*00000	99*00000	12*01U26	12*01U25
100*00000	100*00000	11*01U25	11*01U31
101*00000	101*00000	10*01U23	10*01U17
102*00000	102*00000	09*01U25	09*01U30
103*00000	103*00000	08*01U25	08*01U49
104*00000	104*00000	07*01U23	07*01U26
105*00000	105*00000	06*01U22	06*01U49
106*00000	106*00000	05*01U26	05*01U13
107*00000	107*00000	04*01U21	04*01U11
108*00000	108*00000	03*01U24	03*01U37
109*00000	109*00000	02*01U26	02*01U26
110*00000	110*00000	01*01U26	01*01U12
111*00000	111*00000	00*01U26	00*01U44
112*00000	112*00000	00*01U22	00*01U40
113*00000	113*00000	00*01U46	00*01U40
114*00000	114*00000	00*01U46	00*01U40
115*00000	115*00000	00*01U46	00*01U40

TT632041-3
 CALCULATED
 THREE-BAY ELEMENT COMBINED LOADING TEST
 ANIMAL COMPRESSION & PRESSURE TEST ON TT602041-3
 REF. II 200017 23 5 5 2 3 (30 STAT OFFSET) TEST DATE 7-20-79

DATA NO.	NOMINAL STRESS PSI	ANIMAL LOAD LBS.	PRESSURE PSIG	Wt. IN. Hg	DIAL IND. D1		DIAL IND. D2		DIAL IND. D3		DIAL IND. D4		DIAL IND. D5		HYD. CYC. IN	HYD. CYC. OUT
					0	100	100	100	100	100	100	100	100	100		
ACP0	—	0	0	0	0	.100	.100	.100	.100	.100	.100	.100	.100	.100	.500	.500
ACP1	—	0	0	4.07	.101	.130	.122	.503								
ACP2	—	0	6	12.22	.102	.138	.130	.504								
ACP3	—	0	2	4.07	.101	.133	.127	.504								
ACP4	—	0	7	14.25	.103	.139	.129	.499								
ACP5	—	0	2	4.07	.102	.133	.127	.504								
ACP6	—	0	8	16.29	.103	.140	.128	.497								
ACP7	—	0	2	4.07	.102	.133	.127	.506								
ACP8	—	0	8	16.29	.104	.140	.128	.477								
ACP9	2,000	21,540	8	1.05	.105	.144	.127	.482								
ACP10	4,000	43,070	8	1.08	.109	.150	.125	.462								
ACP11	6,000	64,610	8	1.12	.113	.153	.123	.440								
ACP12	7,000	75,380	8	1.14	.117	.164	.123	.429								
ACP13	8,000	86,140	8	1.17	.120	.170	.123	.418								
ACP14	9,000	96,910	8	1.20	.123	.177	.122	.406								
ACP15	2,000	21,500	8	1.13	.115	.149	.129	.472								
ACP16	10,000	107,680	8	1.23	.125	.184	.123	.396								
ACP17	11,000	118,450	8	1.25	.129	.193	.123	.383								
ACP18	12,000	129,220	8	1.29	.132	.202	.124	.372								
ACP19	2,000	21,500	8	1.16	.118	.150	.129	.468								
ACP20	13,000	140,000	8	16.29	.130	.135	.214	.363								
ACP21	14,000	150,750	8	16.29	.132	.137	.226	.349								
ACP22	2,000	21,540	8	16.29	.119	.121	.152	.465								
ACP23	—	0	8	16.29	.116	.116	.144	.495								
ACP24	—	0	0	0	.112	.112	.100	.485								
ACP25	—	0	0	0	.112	.112	.101	.485								



TERO73

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
Elastic Axial Compression with 8 psig Normal Pressure

Page 4 of 5

DATA No. ACP20 140,000# 8 PSIG	DATA No. ACP21 150,700# 8 PSIG	DATA No. ACP22 21,500# 8 PSIG	DATA No. ACP23 Zero Axial Load 8 PSIG	DATA No. ACP24 Zero Axial Load 8 PSIG	DATA No. ACP25 Zero Axial Load 8 PSIG
43-00105	43-00105	43-00105	43-00105	43-00105	43-00105
42-00105	42-00105	42-00105	42-00105	42-00105	42-00105
41-00105	41-00105	41-00105	41-00105	41-00105	41-00105
40-00105	40-00105	40-00105	40-00105	40-00105	40-00105
39-00105	39-00105	39-00105	39-00105	39-00105	39-00105
38-00105	38-00105	38-00105	38-00105	38-00105	38-00105
37-00105	37-00105	37-00105	37-00105	37-00105	37-00105
36-00105	36-00105	36-00105	36-00105	36-00105	36-00105
35-00105	35-00105	35-00105	35-00105	35-00105	35-00105
34-00105	34-00105	34-00105	34-00105	34-00105	34-00105
33-00105	33-00105	33-00105	33-00105	33-00105	33-00105
32-00105	32-00105	32-00105	32-00105	32-00105	32-00105
31-00105	31-00105	31-00105	31-00105	31-00105	31-00105
30-00105	30-00105	30-00105	30-00105	30-00105	30-00105
29-00105	29-00105	29-00105	29-00105	29-00105	29-00105
28-00105	28-00105	28-00105	28-00105	28-00105	28-00105
27-00105	27-00105	27-00105	27-00105	27-00105	27-00105
26-00105	26-00105	26-00105	26-00105	26-00105	26-00105
25-00105	25-00105	25-00105	25-00105	25-00105	25-00105
24-00105	24-00105	24-00105	24-00105	24-00105	24-00105
23-00105	23-00105	23-00105	23-00105	23-00105	23-00105
22-00105	22-00105	22-00105	22-00105	22-00105	22-00105
21-00105	21-00105	21-00105	21-00105	21-00105	21-00105
20-00105	20-00105	20-00105	20-00105	20-00105	20-00105
19-00105	19-00105	19-00105	19-00105	19-00105	19-00105
18-00105	18-00105	18-00105	18-00105	18-00105	18-00105
17-00105	17-00105	17-00105	17-00105	17-00105	17-00105
16-00105	16-00105	16-00105	16-00105	16-00105	16-00105
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12-00105	12-00105	12-00105	12-00105	12-00105	12-00105
11-00105	11-00105	11-00105	11-00105	11-00105	11-00105
10-00105	10-00105	10-00105	10-00105	10-00105	10-00105
9-00105	9-00105	9-00105	9-00105	9-00105	9-00105
8-00105	8-00105	8-00105	8-00105	8-00105	8-00105
7-00105	7-00105	7-00105	7-00105	7-00105	7-00105
6-00105	6-00105	6-00105	6-00105	6-00105	6-00105
5-00105	5-00105	5-00105	5-00105	5-00105	5-00105
4-00105	4-00105	4-00105	4-00105	4-00105	4-00105
3-00105	3-00105	3-00105	3-00105	3-00105	3-00105
2-00105	2-00105	2-00105	2-00105	2-00105	2-00105
1-00105	1-00105	1-00105	1-00105	1-00105	1-00105
0-00105	0-00105	0-00105	0-00105	0-00105	0-00105

TERO73

Test Data - 3-Bay Element No. TT802041-3 (All stiffeners bowed 3/8")
 Elastic Axial Compression with 8 psig Normal Pressure Page 5 of 5

PRETEST R CAL	POST TEST R CAL
63*00020	63*00029
62*00097	62*00056
61*00097	61*00091
60*00074	60*00079
79*00341	79*00342
78*00018	78*00017
77*00030	77*00039
76*00068	76*00054
75*00023	75*00022
74*00057	74*00055
73*00069	73*00060
72*00040	72*00042
71*00026	71*00025
70*00305	70*00303
69*00069	69*00067
68*00422	68*00424
67*00318	67*00320
66*00353	66*00054
65*00010	65*00008
64*00082	64*00083
63*00171	63*00171
62*00054	62*00055
61*00018	61*00016
60*00001	60*00001
59*00011	59*00070
58*01428	58*01426
57*01429	57*01411
56*01426	56*01386
55*01427	55*01410
54*01433	54*01434
53*01428	53*01377
52*01429	52*01397
51*01436	51*01463
50*01426	50*01427
49*01431	49*01427
48*01422	48*01416
47*01425	47*01373
46*01423	46*01396
45*01426	45*01374
44*01423	44*01436
43*01426	43*01416
42*01423	42*01396
41*01429	41*01409
40*01427	40*01430
39*01427	39*01425
38*01424	38*01371
37*01429	37*01431
36*01427	36*01430
35*01424	35*01414
34*01427	34*01440
33*01428	33*01415
32*01430	32*01419
31*01430	31*01419
30*01427	30*01409
29*01428	29*01441
28*01423	28*01409
27*01423	27*01381
26*01423	26*01415
25*01421	25*01382
24*01426	24*01446
23*01422	23*01433
22*01422	22*01413
21*01424	21*01410
20*01422	20*01395
19*01428	19*01413
18*01423	18*01434
17*01422	17*01410
16*01426	16*01419
15*01424	15*01429
14*01422	14*01428
13*01422	13*01403
12*01427	12*01435
11*01422	11*01417
10*01423	10*01406
09*01423	09*01396
08*01421	08*01406
07*01421	07*01428
06*01421	06*01382
05*01422	05*01399
04*01423	04*01419
03*01422	03*01436
02*01427	02*01429
01*01426	01*01403
00*01423	00*01386
01388480	01608420
00730790	00730790

THREE-BAY ELEMENT COMBINED LOADING TEST
 NORMAL PRESSURE TEST QUATT 802041-3 MOD. TEST DATE 7-26-79
 REF TTP00017 P.3.5.2.1 (3/16" STIFFENER OFFSET)

DATA NO.	PRESSURE		DIAL IND D1	DIAL IND D2	DIAL IND D3	DIAL IND D4	DIAL IND D5													
	PSIG	IN.Hg																		
P1	0	0	—	—	.100	.100	.500													
P2	2	4.07	—	—	.130	.124	.503													
P3	4	8.14	—	—	.134	.129	.502													
P4	6	12.22	—	—	.137	.131	.501													
P5	8	16.29	—	—	.138	.128	.498													
P6	2	4.07	—	—	.132	.129	.504													
P7	4	8.14	—	—	.139	.127	.497													
P8	2	4.07	—	—	.132	.128	.504													
P9	10	20.36	—	—	.141	.125	.496													
P10	11	22.40	—	—	.142	.124	.494													
P11	12	24.45	—	—	.143	.124	.493													
P12	2	4.07	—	—	.132	.129	.504													
P13*	2	4.07	—	—	.131	.127	.503													
P14	14	28.50	—	—	.145	.124	.490													
P15	16	32.58	—	—	.148	.124	.488													
P16	18	36.65	—	—	.150	.124	.486													
P17	2	4.07	—	—	.133	.129	.504													
P18	19	38.68	—	—	.151	.123	.487													
P19	20	40.72	—	—	.154	.125	.486													
P20	2	4.07	—	—	.133	.130	.505													
P21	0	0	—	—	.101	.103	.501													
* REPUDED PRESSURE TO 1 PSIG THEN EACH TO 2 PSIG																				

TER073

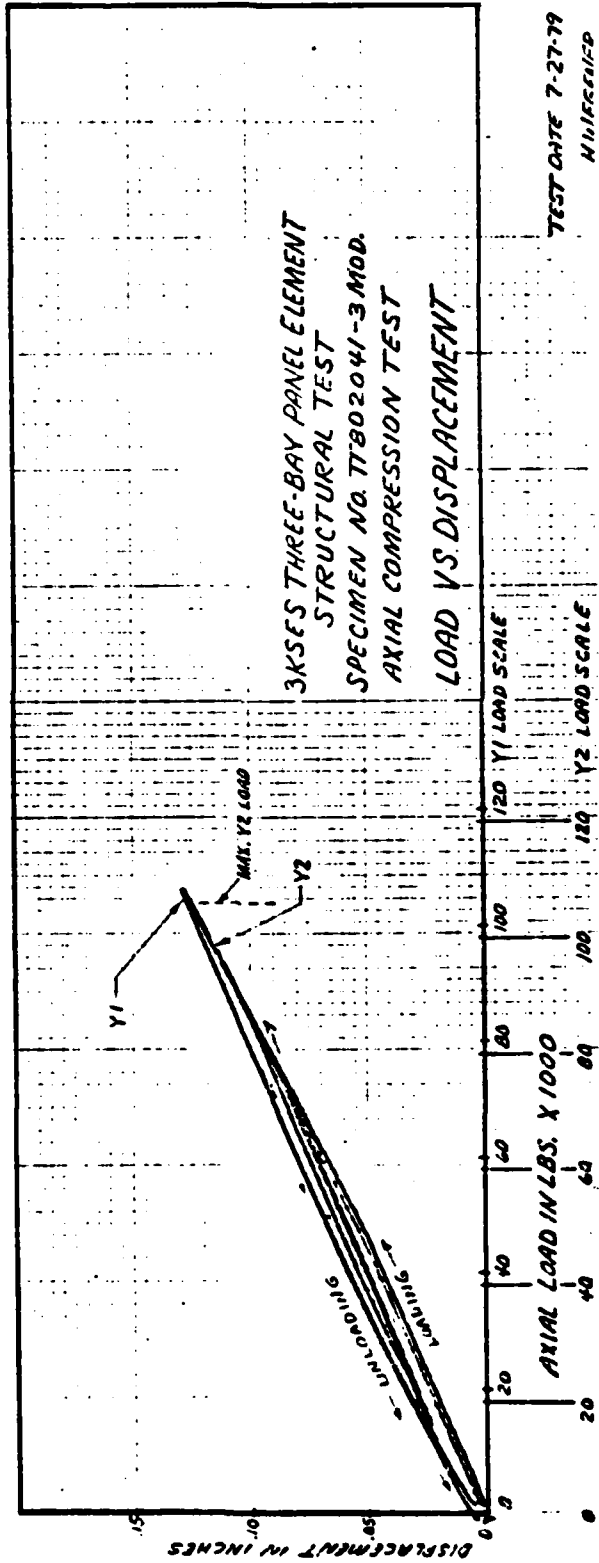
Test Data - 3-Bay Element No. TT802041-3 Mod. (All stiffeners bowed 3/16")
 Elastic Normal Pressure

PRE TEST K CAL	POST TEST K CAL
83-00060	82-00073
82-00074	81-00090
81-00086	80-00097
80-00095	79-00100
79-00199	78-00030
78-00040	77-00034
77-00034	76-00038
76-00037	75-00027
75-00028	74-00039
74-00039	73-00047
73-00047	72-00046
72-00045	71-00033
71-00035	70-00035
70-00033	69-00030
69-00081	68-00198
68-00197	67-00067
67-00256	66-00070
66-00069	65-00041
65-00043	64-00039
64-00087	63-00224
63-00221	62-00104
62-00102	61-00002
61-00002	60-00009
60-00002	59-00075
59-00077	58-01129
58-01131	57-01125
57-01133	56-01094
56-01131	55-01112
55-01130	54-01136
54-01134	53-01150
53-01133	52-01118
52-01134	51-01135
51-01131	50-01125
50-01131	49-01133
49-01134	48-01150
48-01126	47-01179
47-01126	46-01125
46-01127	45-01176
45-01129	44-01183
44-01127	43-01126
43-01128	42-01137
42-01124	41-01119
41-01124	40-01175
40-01130	39-01141
39-01136	38-02344
38-01128	37-01137
37-01133	36-01129
36-01132	35-01127
35-01126	34-01140
34-01133	33-01135
33-01133	32-01133
32-01136	31-01135
31-01137	30-01136
30-01130	29-01127
29-01131	28-01123
28-01124	27-01141
27-01127	26-01122
26-01126	25-01143
25-01124	24-01129
24-01126	23-01125
23-01128	22-01125
22-01131	21-01129
21-01132	20-01139
20-01125	19-01140
19-01131	18-01139
18-01127	17-01142
17-01127	16-01129
16-01128	15-01144
15-01128	14-01124
14-01126	13-01123
13-01126	12-01159
12-01128	11-01127
11-01126	10-01121
10-01128	09-01130
09-01136	08-01132
08-01126	07-01142
07-01126	06-01111
06-01126	05-01130
05-01126	04-01123
04-01125	03-01126
03-01124	02-01125
02-01127	01-01137
01-01129	00-01176
00-01176	0011200
0113130	00726760
00726760	

CALCULATED
THREE-BAY ELEMENT COMBINED LOADING TEST
PANEL AREA = 10.768 IN.² AXIAL COMPRESSION TEST ON TT 802041-3 MOD. TEST DATE 7-27-79
REF. TTP00017 TP 3.5.2.2 $(3/16"$ STIFFENER OFFSET)

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	DIAL IND. D5	HYD. CYL. PIN IN	HYD. CYL. PIN OUT
AC1	0	0	.100	.100	.100	.100	.500		
AC1a	0	0	.100	.100	.100	.100	.500		
AC2	2,000	21,540	.103	.103	.100	.098	.482		
AC3	4,000	43,070	.106	.106	.101	.074	.461		
AC4	6,000	64,600	.110	.112	.104	.088	.437		
AC5	8,000	86,140	.118	.121	.110	.081	.413		
AC6*	2,000	21,540	.109	.111	.097	.091	.471		
AC7	9,000	96,910	.121	.125	.114	.079	.400		
AC8	10,000	107,680	.125	.128	.115	.077	.389		
AC9*	2,000	21,540	.111	.113	.097	.089	.469		
AC10	0	0	.105	.105	.096	.096	.494	HYD. CYL. PIN IN	
AC11	0	0	.105	.105	.096	.096	.494	HYD. CYL. PIN OUT	

* DEPLETED LOAD TO 12,000 THEN BACK UP TO 21,600



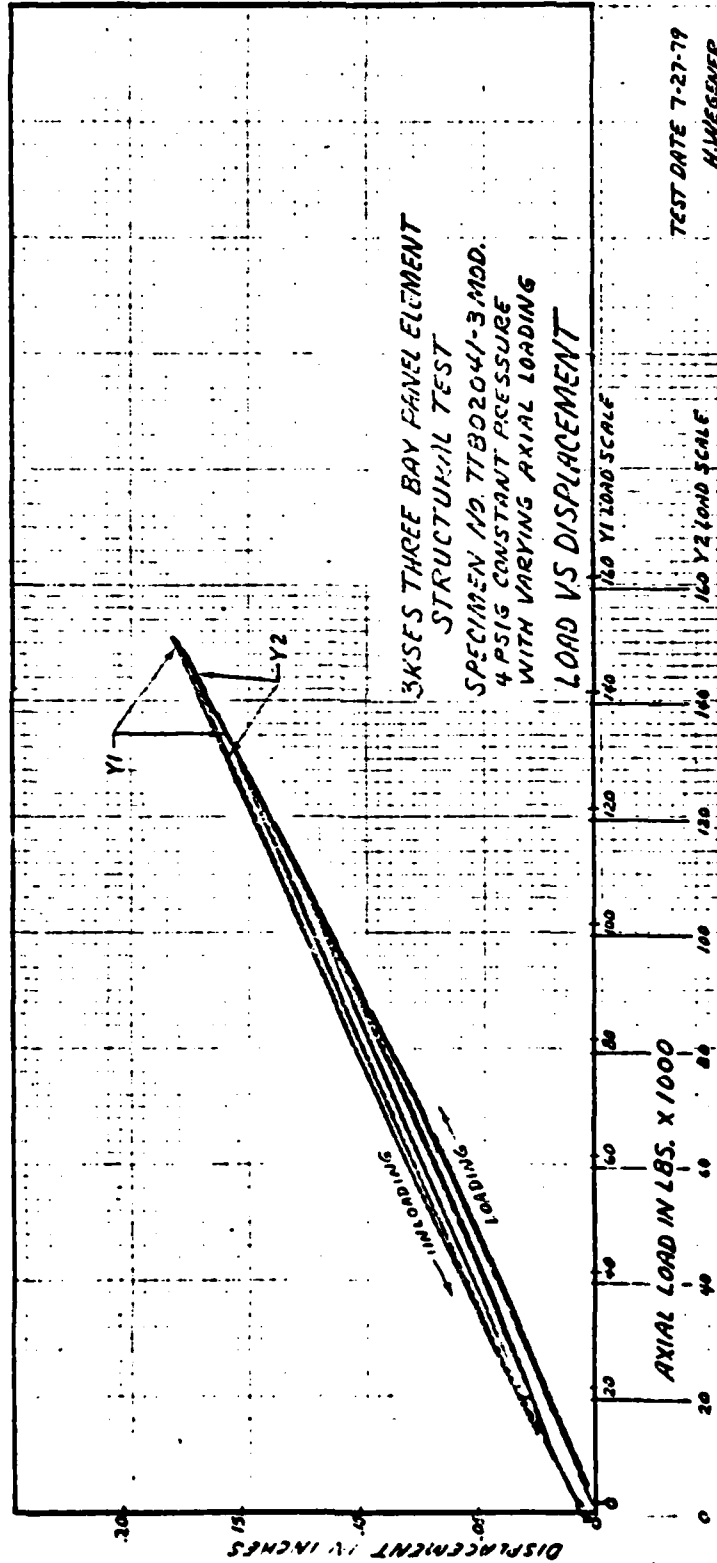
TERO73

Test Data - 3-Bay Element No. TT802041-3 Mod. (All stiffeners bowed 3/16")
Elastic Axial Compression

DATA No. AC1	DATA No. AC1e	DATA No. AC2	DATA No. AC3	DATA No. AC4	DATA No. AC5	DATA No. AC6
43-00000	43-00000	43-00000	43-00000	43-00000	43-00000	43-00000
42-00000	42-00000	42-00000	42-00000	42-00000	42-00000	42-00000
41-00000	41-00000	41-00000	41-00000	41-00000	41-00000	41-00000
40-00000	40-00000	40-00000	40-00000	40-00000	40-00000	40-00000
39-00000	39-00000	39-00000	39-00000	39-00000	39-00000	39-00000
38-00000	38-00000	38-00000	38-00000	38-00000	38-00000	38-00000
37-00000	37-00000	37-00000	37-00000	37-00000	37-00000	37-00000
36-00000	36-00000	36-00000	36-00000	36-00000	36-00000	36-00000
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29-00000	29-00000	29-00000	29-00000	29-00000	29-00000	29-00000
28-00000	28-00000	28-00000	28-00000	28-00000	28-00000	28-00000
27-00000	27-00000	27-00000	27-00000	27-00000	27-00000	27-00000
26-00000	26-00000	26-00000	26-00000	26-00000	26-00000	26-00000
25-00000	25-00000	25-00000	25-00000	25-00000	25-00000	25-00000
24-00000	24-00000	24-00000	24-00000	24-00000	24-00000	24-00000
23-00000	23-00000	23-00000	23-00000	23-00000	23-00000	23-00000
22-00000	22-00000	22-00000	22-00000	22-00000	22-00000	22-00000
21-00000	21-00000	21-00000	21-00000	21-00000	21-00000	21-00000
20-00000	20-00000	20-00000	20-00000	20-00000	20-00000	20-00000
19-00000	19-00000	19-00000	19-00000	19-00000	19-00000	19-00000
18-00000	18-00000	18-00000	18-00000	18-00000	18-00000	18-00000
17-00000	17-00000	17-00000	17-00000	17-00000	17-00000	17-00000
16-00000	16-00000	16-00000	16-00000	16-00000	16-00000	16-00000
15-00000	15-00000	15-00000	15-00000	15-00000	15-00000	15-00000
14-00000	14-00000	14-00000	14-00000	14-00000	14-00000	14-00000
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12-00000	12-00000	12-00000	12-00000	12-00000	12-00000	12-00000
11-00000	11-00000	11-00000	11-00000	11-00000	11-00000	11-00000
10-00000	10-00000	10-00000	10-00000	10-00000	10-00000	10-00000
9-00000	9-00000	9-00000	9-00000	9-00000	9-00000	9-00000
8-00000	8-00000	8-00000	8-00000	8-00000	8-00000	8-00000
7-00000	7-00000	7-00000	7-00000	7-00000	7-00000	7-00000
6-00000	6-00000	6-00000	6-00000	6-00000	6-00000	6-00000
5-00000	5-00000	5-00000	5-00000	5-00000	5-00000	5-00000
4-00000	4-00000	4-00000	4-00000	4-00000	4-00000	4-00000
3-00000	3-00000	3-00000	3-00000	3-00000	3-00000	3-00000
2-00000	2-00000	2-00000	2-00000	2-00000	2-00000	2-00000
1-00000	1-00000	1-00000	1-00000	1-00000	1-00000	1-00000
0-00000	0-00000	0-00000	0-00000	0-00000	0-00000	0-00000

CALCULATED THREE-BAY ELEMENT COMBINED LOADING TEST
PISTON AREA = 10.768 IN.² AXIAL COMPRESSION & PRESSURE TEST ON T7802041-3 MOD. TEST DATE 7-27-79
REF. YTP00017 P. 3.5, 2, 3 (3/16" STIFFNESS OFFSET)

DATA No.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSI	IN. Hg.	DIAL IND. D1		DIAL IND. D2		DIAL IND. D3		DIAL IND. D4		DIAL IND. D5		HYD. CYL. PIN IN.	HYD. CYL. PIN OUT
					PSIG											
ACP0	0	0	0	0	.100	.100	.100	.100	.100	.100	.100	.100	.100	.500		
ACP1	0	0	0	0	.100	.100	.100	.100	.100	.100	.101	.101	.101	.500		
ACP1A	0	0	4	8.14	.101	.101	.101	.101	.138	.132	.132	.132	.503			
ACP2	2,000	21,536	4	↑	.103	.103	.140	.140	.140	.131	.131	.131	.486			
ACP3	4,000	43,072	4		.105	.106	.142	.142	.142	.129	.129	.129	.468			
ACP4	6,000	64,608	4		.108	.110	.146	.146	.146	.125	.125	.125	.448			
ACP5	8,000	86,144	4		.113	.116	.152	.152	.152	.122	.122	.122	.425			
ACP6	10,000	107,680	4		.119	.123	.161	.161	.161	.118	.118	.118	.403			
ACP7	2,000	21,536	4		.109	.110	.142	.142	.142	.130	.130	.130	.481			
ACP8	11,000	118,448	4		.122	.126	.168	.168	.168	.118	.118	.118	.392			
ACP9	12,000	129,216	4		.125	.129	.177	.177	.177	.110	.110	.110	.381			
ACP10	2,000	21,536	4		.109	.110	.143	.143	.143	.131	.131	.131	.481			
ACP11	13,000	139,984	4		.127	.132	.182	.182	.182	.119	.119	.119	.370			
ACP12	14,000	150,752	4		.130	.135	.190	.190	.190	.122	.122	.122	.360			
ACP13	2,000	21,536	4	↑	.111	.113	.143	.143	.143	.130	.130	.130	.478			
ACP14	0	0	4	8.14	.106	.106	.140	.140	.140	.134	.134	.134	.501			
ACP15	0	0	0	0	.103	.103	.103	.103	.103	.102	.102	.102	.497	HYD. CYL. PIN IN.		
ACP16	0	0	0	0	.103	.103	.103	.103	.103	.102	.102	.102	.497	HYD. CYL. PIN OUT		



TERO73

Test Data - 3-Bay Element No. TT802041-3 Mod. (All stiffeners bowed 3/16")
Elastic Axial Compression with 4 psig Normal Pressure

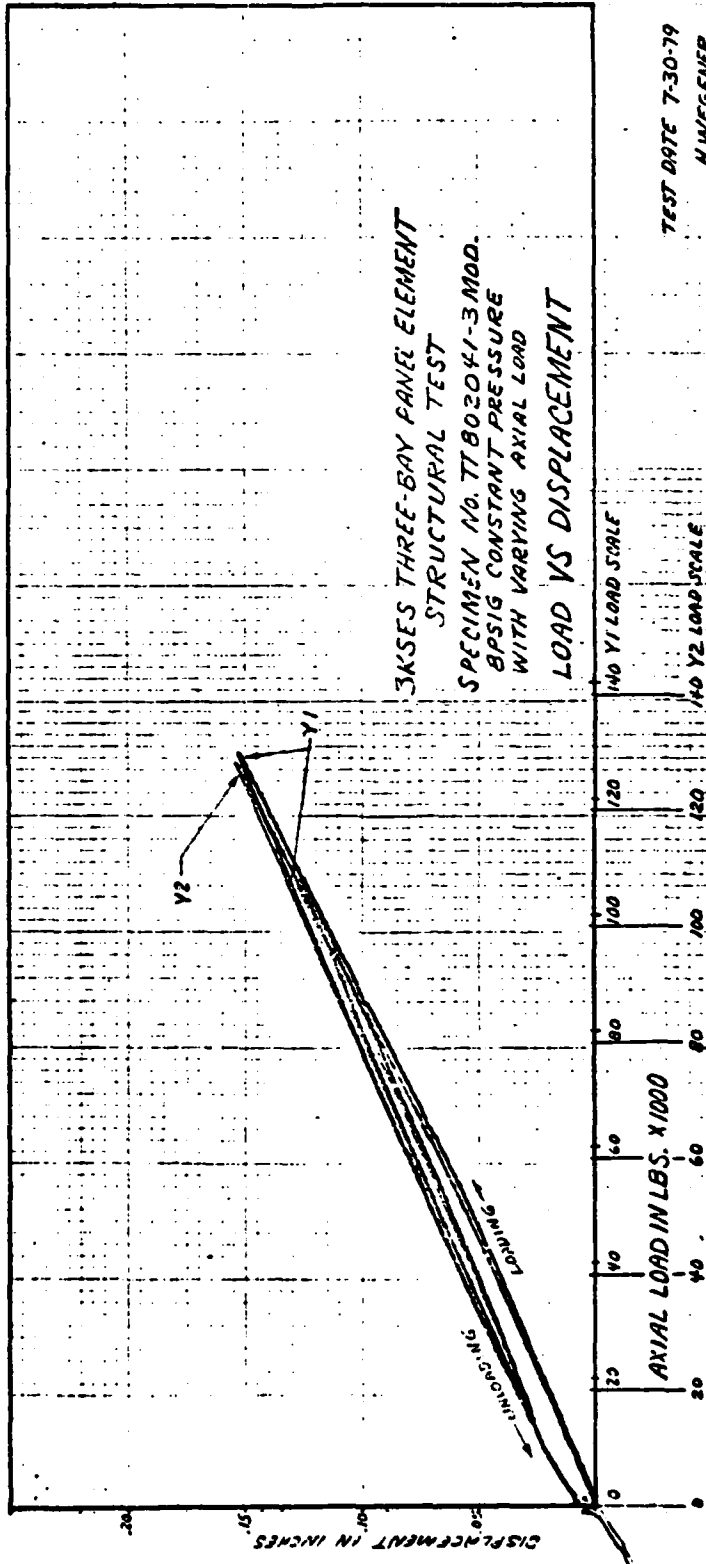
DATA NO. ACP 6 107,700# 4 PSIG	DATA NO. ACP 7 21,500# 4 PSIG	DATA NO. ACP 8 118,500# 4 PSIG	DATA NO. ACP 9 123,200# 4 PSIG	DATA NO. ACP 10 21,500# 4 PSIG	DATA NO. ACP 11 140,000# 4 PSIG	DATA NO. ACP 12 150,300# 4 PSIG
03-00002	13-00004	03-00002	03-00002	03-00002	03-00003	03-00003
02-00005	12-00001	02-00002	02-00001	02-00001	02-00002	02-00001
01-00005	11-00003	01-00003	01-00003	01-00003	01-00003	01-00003
00-00002	10-00003	00-00002	00-00002	00-00002	00-00002	00-00002
14-00001	14-00002	14-00001	14-00001	14-00001	14-00001	14-00001
18-00007	18-00007	18-00007	18-00007	18-00007	18-00007	18-00007
17-00001	17-00001	17-00001	17-00001	17-00001	17-00001	17-00001
16-00003	16-00003	16-00003	16-00003	16-00003	16-00003	16-00003
15-00002	15-00002	15-00002	15-00002	15-00002	15-00002	15-00002
14-00009	14-00009	14-00009	14-00009	14-00009	14-00009	14-00009
13-00000	13-00000	13-00000	13-00000	13-00000	13-00000	13-00000
12-00007	12-00007	12-00007	12-00007	12-00007	12-00007	12-00007
11-00007	11-00005	11-00005	11-00005	11-00005	11-00005	11-00005
10-00005	10-00004	10-00004	10-00004	10-00004	10-00004	10-00004
09-00001	09-00001	09-00001	09-00001	09-00001	09-00001	09-00001
08-00001	08-00001	08-00001	08-00001	08-00001	08-00001	08-00001
07-00003	07-00001	07-00001	07-00001	07-00001	07-00001	07-00001
06-00005	06-00001	06-00001	06-00001	06-00001	06-00001	06-00001
05-00001	05-00004	05-00004	05-00004	05-00004	05-00004	05-00004
04-00002	04-00002	04-00002	04-00002	04-00002	04-00002	04-00002
03-00026	03-00026	03-00026	03-00026	03-00026	03-00026	03-00026
02-00026	02-00026	02-00026	02-00026	02-00026	02-00026	02-00026
01-00004	01-00000	01-00000	01-00000	01-00000	01-00000	01-00000
00-00003	00-00004	00-00004	00-00004	00-00004	00-00004	00-00004
39-00102	39-00107	39-00107	39-00107	39-00107	39-00107	39-00107
38-00000	38-00001	38-00001	38-00001	38-00001	38-00001	38-00001
37-00001	37-00001	37-00001	37-00001	37-00001	37-00001	37-00001
36-00003	36-00003	36-00003	36-00003	36-00003	36-00003	36-00003
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32-00009	32-00009	32-00009	32-00009	32-00009	32-00009	32-00009
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24-00007	24-00007	24-00007	24-00007	24-00007	24-00007	24-00007
23-00004	23-00004	23-00004	23-00004	23-00004	23-00004	23-00004
22-00020	22-00020	22-00020	22-00020	22-00020	22-00020	22-00020
21-00003	21-00003	21-00003	21-00003	21-00003	21-00003	21-00003
20-00003	20-00003	20-00003	20-00003	20-00003	20-00003	20-00003
19-00005	19-00005	19-00005	19-00005	19-00005	19-00005	19-00005
18-00007	18-00007	18-00007	18-00007	18-00007	18-00007	18-00007
17-00007	17-00007	17-00007	17-00007	17-00007	17-00007	17-00007
16-00005	16-00005	16-00005	16-00005	16-00005	16-00005	16-00005
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14-00009	14-00009	14-00009	14-00009	14-00009	14-00009	14-00009
13-00005	13-00005	13-00005	13-00005	13-00005	13-00005	13-00005
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11-00101	11-00101	11-00101	11-00101	11-00101	11-00101	11-00101
10-00101	10-00101	10-00101	10-00101	10-00101	10-00101	10-00101
09-00102	09-00102	09-00102	09-00102	09-00102	09-00102	09-00102
08-00103	08-00103	08-00103	08-00103	08-00103	08-00103	08-00103
07-00104	07-00104	07-00104	07-00104	07-00104	07-00104	07-00104
06-00104	06-00104	06-00104	06-00104	06-00104	06-00104	06-00104
05-00075	05-00075	05-00075	05-00075	05-00075	05-00075	05-00075
04-00017	04-00017	04-00017	04-00017	04-00017	04-00017	04-00017
03-00120	03-00120	03-00120	03-00120	03-00120	03-00120	03-00120
02-00071	02-00071	02-00071	02-00071	02-00071	02-00071	02-00071
01-00070	01-00070	01-00070	01-00070	01-00070	01-00070	01-00070
00-00101	00-00101	00-00101	00-00101	00-00101	00-00101	00-00101
01503103	01503103	01503103	01503103	01503103	01503103	01503103
007277900	007277900	007277900	007277900	007277900	007277900	007277900

CALCULATED
 THREE-HAY ELEMENT COMBINED LOADING TEST
 PANEL AREA = 10.768 IN² AXIAL COMPRESSION & PRESSURE TEST ON TT80204-3 MOD TEST DATE 7-30-79
 REF. TP 00017 P. 3, 5, 2, 3 (3/16" STIFFENER OFFSET)

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSI	IN. Hg	DIAL IND.		DIAL IND.		DIAL IND.		HYD. CYL. PIN		HYD. CYL. PIN	
					D1	D2	D3	D4	D5	IN	OUT	IN	OUT	
ACP0	0	0	0	0	.100	.100	.100	.100	.500	.500				
ACP1	0	0	0	0	.100	.101	.100	.099	.500	.500				
ACP1a	0	0	8	16.29	.103	.104	.140	.128	.498					
ACP2	2,000	21,536	8	↑	.105	.106	.141	.126	.480					
ACP3	4,000	43,072	8		.108	.109	.143	.123	.460					
ACP4	6,000	64,608	8		.112	.114	.147	.118	.440					
ACP5	8,000	86,144	8		.118	.122	.154	.116	.417					
ACP6	10,000	107,680	8		.124	.128	.162	.113	.395					
ACP7*	2,000	21,530	8		.115	.116	.145	.127	.471					
ACP8	12,000	129,220	8		.128	.133	.175	.113	.375					
ACP9*	2,000	21,530	8		.116	.118	.145	.127	.470					
ACP10	0	0	8	16.29	.112	.112	.143	.130	.492					
ACP11	0	0	0	0	.107	.108	.100	.101	.492					
ACP12	0	0	0	0	.107	.108	.100	.101	.492					

* DROPPED LOAD TO 15,000 LBS. TOTAL BASK UP TO 24,530 LBS.

TER073



B-781

TER073

Test Data - 3-Bay Element No. TT802041-3 Mod. (All stiffeners bowed 3/16")
 Elastic Axial Compression with 8 psig Normal Pressure Page 3 of 3

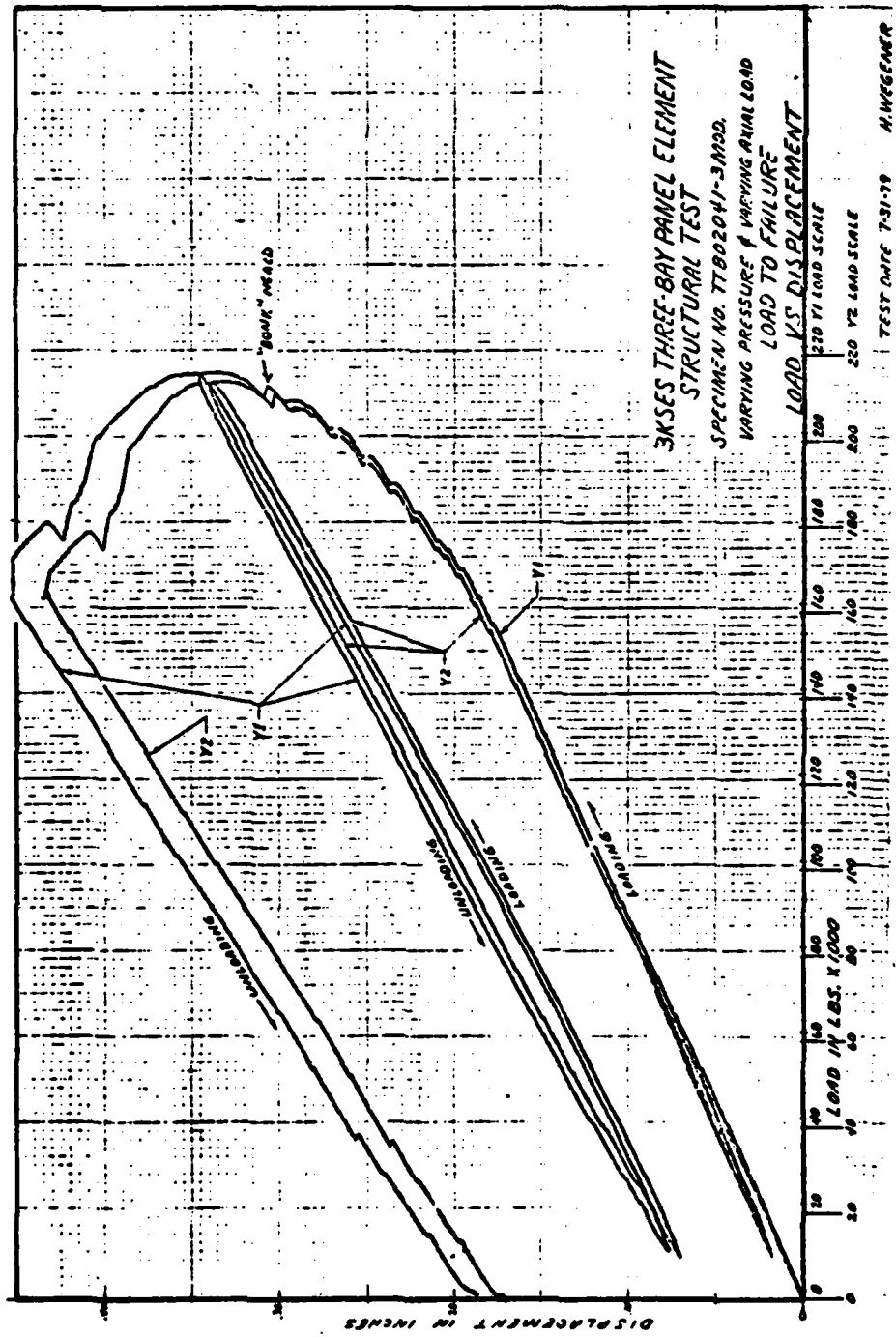
PRE-TEST R CAL	POST TEST R CAL
83-00064	83-00067
82-00067	82-00068
81-00081	81-00074
80-00100	80-00101
79-00109	79-00112
78-00034	78-00033
77-00061	77-00060
76-00316	76-00318
75-00028	75-00025
74-00338	74-00341
73-00033	73-00031
72-00054	72-00056
71-00025	71-00022
70-00038	70-00040
69-00077	69-00074
68-00194	68-00199
67-00269	67-00272
66-00075	66-00078
65-00035	65-00032
64-00093	64-00095
63-00226	63-00229
62-00103	62-00105
61-00007	61-00009
60-0170A	60-0176A
59-01107	59-00038
58-01432	58-01430
57-01433	57-01431
56-01430	56-01420
55-01431	55-01430
54-0142A	54-01432
53-0142B	53-01425
52-01429	52-01427
51-01433	51-01437
50-01430	50-01429
49-0143J	49-01434
48-01425	48-01424
47-0142B	47-01425
46-0142A	46-01422
45-01427	45-01423
44-0142B	44-0142J
43-01430	43-01429
42-01427	42-01429
41-0143B	41-01475
40-01432	40-01432
39-01427	39-01426
38-01432	38-01434
37-01432	37-01434
36-01431	36-01427
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32-01431	32-01428
31-01431	31-01430
30-01424	30-01426
29-0142B	29-01425
28-0142B	28-01424
27-01430	27-01428
26-01427	26-01426
25-01432	25-01426
24-01424	24-01430
23-01424	23-01423
22-01427	22-01425
21-01425	21-01421
20-01427	20-01426
19-01433	19-01436
18-0142B	18-01427
17-0142B	17-01425
16-01430	16-01431
15-0142B	15-01426
14-0142B	14-01427
13-01427	13-01427
12-0142B	12-01424
11-01427	11-01424
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09-0142A	09-01417
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06-01421	06-01420
05-01424	05-01420
04-01429	04-01422
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02-01424	02-01424
01-01427	01-01424
00-01423	00-01416
01330-000	014581900
007307900	007307900

CALCULATED **THREE-BAY ELEMENT COMBINED LOADING TEST**
SHRIL AREA = 10.768 IN² **AXIAL COMPRESSION & PRESSURE TEST ON T7 8020H-3 MOD. TEST DATE 7-31-79**
REF TO PWD 17 P. 3, 5, 2.5 LOAD TO FAILURE (3% STIFFNESS OFFSET)

DATA NO.	NOMINAL STRESS PSI	AXIAL LOAD LBS.	PRESSURE PSIG	M. IN	DIAL IND. D1		DIAL IND. D2		DIAL IND. D3		DIAL IND. D4		DIAL IND. D5		HYD. CYL. PIN IN	HYD. CYL. PIN OUT
					IND.	IND.	IND.	IND.	IND.	IND.	IND.	IND.				
ACP0	0	0	0	0	.100	.100	.100	.100	.100	.100	.100	.100	.100	.500		
ACP1	0	0	0	0	.100	.100	.100	.100	.100	.100	.100	.100	.100	.500		
ACP2	1,210	13,000	2	4.07	.102	.102	.102	.102	.130	.122	.122	.122	.122	.491		
ACP3	2,420	26,100	4	8.14	.105	.105	.105	.105	.135	.126	.126	.126	.126	.490		
ACP4	3,630	39,100	6	12.22	.108	.108	.108	.108	.141	.125	.125	.125	.125	.466		
ACP5	4,840	52,100	8	16.34	.111	.111	.111	.111	.144	.119	.119	.119	.119	.451		
ACP6	6,050	65,100	10	20.36	.115	.115	.115	.115	.149	.115	.115	.115	.115	.335		
ACP7	7,250	78,100	12	24.43	.117	.120	.120	.120	.154	.111	.111	.111	.111	.418		
ACP8	8,460	91,100	14	28.50	.121	.124	.124	.124	.161	.113	.113	.113	.113	.486		
ACP9	9,670	104,100	16	32.58	.124	.128	.128	.128	.169	.106	.106	.106	.106	.391		
ACP10	10,880	117,200	18	36.65	.126	.130	.130	.130	.178	.104	.104	.104	.104	.379		
ACP11	12,090	130,200	20	40.72	.128	.132	.132	.132	.191	.104	.104	.104	.104	.368		
ACP12	13,300	143,200	22	44.79	.129	.134	.134	.134	.209	.107	.107	.107	.107	.357		
ACP13	14,510	156,200	24	48.86	.130	.135	.135	.135	.236	.115	.115	.115	.115	.347		
ACP14	15,720	169,200	25	52.94	.130	.135	.135	.135	.254	.124	.124	.124	.124	.342		
ACP15	15,720	169,300	26	52.94	.130	.135	.135	.135	.276	.139	.139	.139	.139	.335		
ACP16	16,320	175,700	27	54.97	.130	.135	.135	.135	.286	.152	.152	.152	.152	.329		
ACP17	16,930	182,300	28	57.01	.130	.135	.135	.135	.309	.169	.169	.169	.169	.323		
ACP18	17,530	188,800	29	59.04	.130	.135	.135	.135	.330	.191	.191	.191	.191	.317		
ACP19	18,140	195,300	30	61.08	.129	.134	.134	.134	.375	.216	.216	.216	.216	.310		
ACP20	18,740	201,800	31	63.12	.129	.134	.134	.134	.419	.250	.250	.250	.250	.304		
ACP21	19,340	208,300	32	65.15	.129	.133	.133	.133	.480	.293	.293	.293	.293	.295		
ACP22	19,950	214,800*	33*	67.19	.126	.132	.132	.132	.515	.408	.408	.408	.408	.283		
ACP23	1,210	13,000	2	4.07	.097	.099	.099	.099	.382	.265	.265	.265	.265	.468		
ACP24	17,950	214,800**	33**	67.19	.117	.125										

MAX. LOAD & A-TYPE STRESS
 MAX. LOAD & PRESSURE AVAILABLE

TER073



THREE-BAY ELEMENT COMBINED LOADING TEST
NORMAL PRESSURE TEST ON T1802041-3A MOD. TEST DATE 8-15-79
REF. TTP00017 P. 3.5.2.1 (3/8" STIFFENER OFFSET)

DATA No.	PRESSURE		DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	DIAL IND. D5													
	PSIG	IN.Hg																		
P1	0	0	—	—	.100	.100	.500													
P2	2.0	4.07	—	—	.123	.128	.502													
P3	4.0	8.14	—	—	.126	.133	.500													
P4	6.0	12.22	—	—	.127	.135	.497													
P5	8.0	16.29	—	—	.127	.135	.492													
P6	2.0	4.07	—	—	.127	.130	.503													
P7	10.0	20.36	—	—	.130	.137	.488													
P8	12.0	24.43	—	—	.132	.139	.483													
P9	14.0	28.50	—	—	.135	.141	.477													
P10	2.0	4.07	—	—	.130	.136	.503													
P11	0	0	—	—	.115	.127	.503													

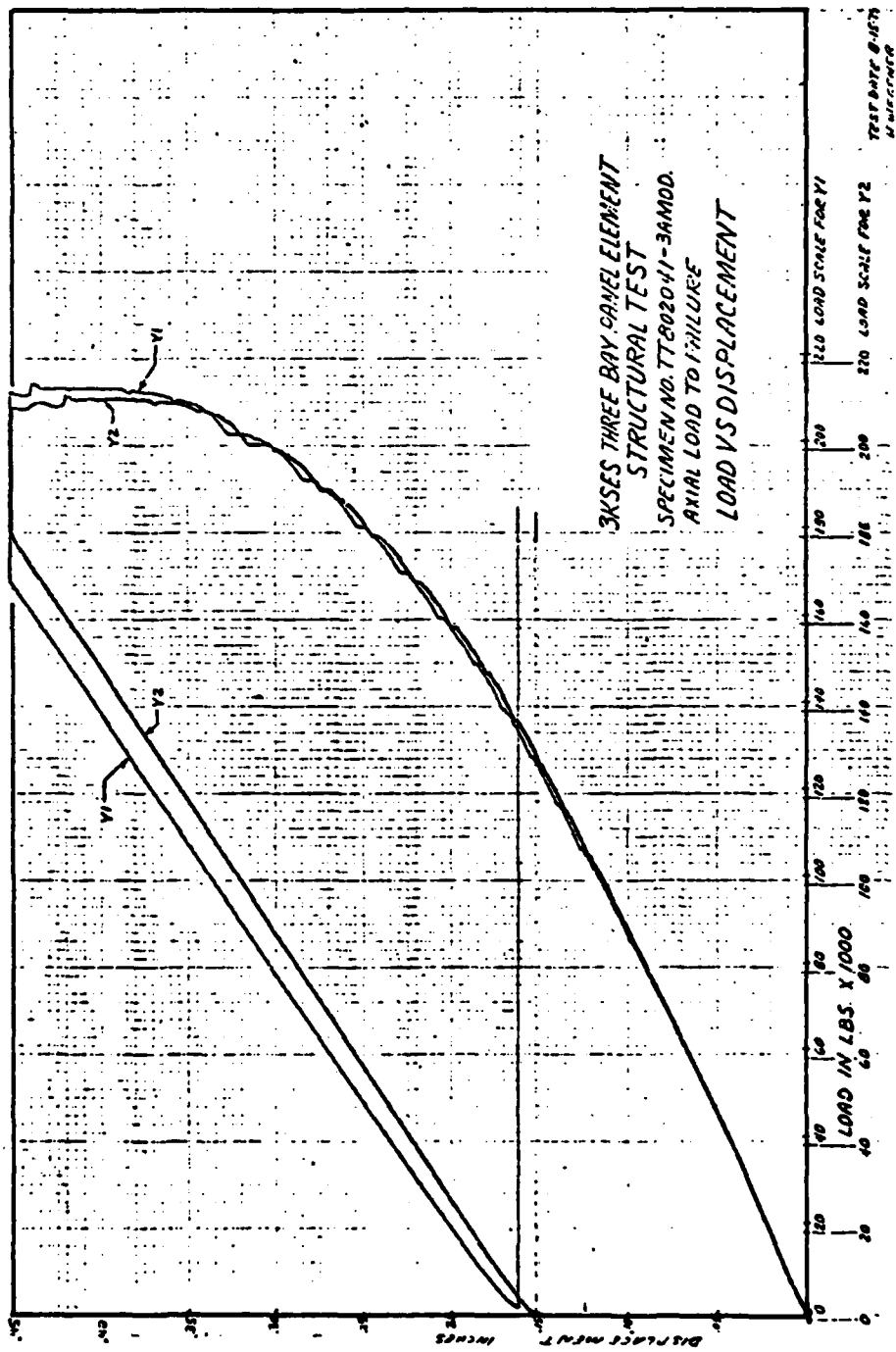
TER073

Test Data - 3-Bay Element No. TT802041-3A Mod. (All stiffeners bowed 3/16")
Elastic Normal Pressure

DATA No. P8 12 PSIG	DATA No. P9 14 PSIG	DATA No. P10 2.0 PSIG	DATA No. P11 0 PSIG	PRE TEST K CAL	POST TEST P CAL
83-00109	83-00124	83-00037	83-00021	83-00052	83-00053
82-00053	82-00057	82-00037	82-00017	82-00057	82-00059
81-00068	81-00077	81-00040	81-00021	81-00000	81-00002
80-00044	80-00048	80-00030	80-00020	80-00002	80-00005
79-00003	79-00005	79-00003	79-00000	79-00180	79-00119
78-00126	78-00144	78-00048	78-00026	78-00086	78-00086
77-00002	77-00002	77-00002	77-00005	77-00040	77-00036
76-00042	76-00044	76-00007	76-00002	76-00152	76-00150
75-00150	75-00166	75-00055	75-00028	75-00069	75-00072
74-00004	74-00004	74-00004	74-00001	74-00072	74-00074
73-00105	73-00110	73-00053	73-00033	73-00006	73-00006
72-00138	72-00157	72-00054	72-00030	72-00032	72-00034
71-00107	71-00120	71-00053	71-00030	71-00095	71-00092
70-00015	70-00014	70-00000	70-00005	70-00181	70-00178
69-00153	69-00170	69-00057	69-00032	69-00081	69-00077
68-00034	68-00037	68-00010	68-00003	68-00047	68-00044
67-00001	67-00004	67-00001	67-00001	67-00089	67-00089
66-00122	66-00136	66-00049	66-00031	66-00027	66-00029
65-00003	65-00003	65-00003	65-00003	65-00253	65-00253
64-00046	64-00049	64-00027	64-00019	64-00220	64-00222
63-00049	63-00053	63-00035	63-00030	63-00059	63-00061
62-00060	62-00070	62-00034	62-00024	62-00048	62-00049
61-00105	61-00112	61-00037	61-00025	61-00059	61-00057
60-00003	60-00004	60-00003	60-00007	60-00179	60-00106
59-00075	59-00073	59-00061	59-00031	59-00002	59-00057
58-00001	58-00002	58-00002	58-00004	58-00128	58-00127
57-00021	57-00031	57-00027	57-00008	57-00127	57-00122
56-00124	56-00169	56-00049	56-00026	56-00125	56-00124
55-00061	55-00064	55-00023	55-00010	55-00126	55-00133
54-00045	54-00048	54-00039	54-00007	54-00125	54-00120
53-00123	53-00147	53-00058	53-00040	53-00124	53-00127
52-00084	52-00117	52-00060	52-00033	52-00112	52-00112
51-00090	51-00101	51-00017	51-00004	51-00124	51-00134
50-00047	50-00051	50-00007	50-00002	50-00126	50-00106
49-00045	49-00047	49-00044	49-00001	49-00124	49-00130
48-00094	48-00132	48-00069	48-00051	48-00125	48-00126
47-00121	47-00121	47-00087	47-00092	47-00125	47-00120
46-00081	46-00036	46-00014	46-00003	46-00120	46-00123
45-00096	45-00037	45-00003	45-00073	45-00124	45-00123
44-00078	44-00120	44-00026	44-00033	44-00127	44-00127
43-00114	43-00109	43-00061	43-00032	43-00124	43-00134
42-00060	42-00077	42-00021	42-00013	42-00124	42-00126
41-00080	41-00046	41-00046	41-00039	41-00129	41-00128
40-00086	40-00047	40-00012	40-00017	40-00125	40-00143
39-00007	39-00017	39-00075	39-00002	39-00123	39-00127
38-00020	38-00024	38-00014	38-00039	38-00119	38-00127
37-00005	37-00001	37-00025	37-00020	37-00127	37-00110
36-00082	36-00126	36-00055	36-00026	36-00126	36-00122
35-00049	35-00044	35-00061	35-00030	35-00123	35-00123
34-00130	34-00132	34-00107	34-00023	34-00127	34-00140
33-00107	33-00109	33-00109	33-00013	33-00127	33-00110
32-00273	32-00311	32-00082	32-00036	32-00124	32-00129
31-00098	31-00092	31-00224	31-00095	31-00129	31-00120
30-00109	30-00123	30-00032	30-00100	30-00132	30-00101
29-00114	29-00137	29-00211	29-00037	29-00127	29-00127
28-00109	28-00129	28-00152	28-00032	28-00125	28-00126
27-00108	27-00120	27-00044	27-00025	27-00124	27-00107
26-00132	26-00146	26-00049	26-00020	26-00127	26-00107
25-00070	25-00036	25-00047	25-00004	25-00126	25-00122
24-00024	24-00039	24-00100	24-00014	24-00123	24-00123
23-00121	23-00158	23-00225	23-00038	23-00124	23-00124
22-00129	22-00126	22-00101	22-00032	22-00110	22-00125
21-00267	21-00306	21-00078	21-00032	21-00121	21-00124
20-00089	20-00107	20-00274	20-00106	20-00123	20-00123
19-00070	19-00040	19-00200	19-00112	19-00123	19-00123
18-00108	18-00120	18-00101	18-00120	18-00123	18-00124
17-00102	17-00106	17-00104	17-00012	17-00121	17-00114
16-00143	16-00137	16-00093	16-00020	16-00124	16-00126
15-00023	15-00024	15-00018	15-00010	15-00126	15-00127
14-00007	14-00000	14-00102	14-00025	14-00123	14-00100
13-00086	13-00102	13-00170	13-00030	13-00123	13-00125
12-00099	12-00072	12-00002	12-00016	12-00126	12-00122
11-00079	11-00075	11-00002	11-00003	11-00124	11-00122
10-00112	10-00107	10-00000	10-00023	10-00123	10-00103
09-00079	09-00064	09-00210	09-00000	09-00125	09-00125
08-00073	08-00038	08-00055	08-00002	08-00122	08-00126
07-00011	07-00000	07-00001	07-00004	07-00125	07-00124
06-00110	06-00134	06-00109	06-00016	06-00123	06-00121
05-00075	05-00112	05-00120	05-00035	05-00123	05-00120
04-00047	04-00093	04-00120	04-00001	04-00127	04-00126
03-00046	03-00017	03-00088	03-00024	03-00121	03-00121
02-00032	02-00045	02-00070	02-00004	02-00122	02-00120
01-00101	01-00116	01-00027	01-00022	01-00121	01-00121
00-00126	00-00180	00-00316	00-00118	00-00124	00-00124
01403260	01415200	01415200	01415200	01326330	01403260
00819790	00819790	00819790	00819790	00819790	00819790

CALCULATED
 PANEL AREA = 10.604 IN.²
 THREE-BAY ELEMENT COMBINED LOADING TEST
 AXIAL COMPRESSION TEST ON TT 802041-3A MOD. TEST DATE 8-15-79
 LOAD TO FAILURE (3/16" STIFFENEX OFFSET)

DATA NO.	NOMINAL STRESS KSI	AXIAL LOAD LBS.	DIAL IND. D1	DIAL IND. D2	DIAL IND. D3	DIAL IND. D4	DIAL IND. D5	HYD.	CYL. PIN IN	HYD.	CYL. PIN IN
AC1	0	0	.100	.100	.100	.100	.500	HYD.	CYL. PIN OUT		
AC2	0	0	.100	.100	.103	.103	.500	HYD.	CYL. PIN IN		
AC3	2	21,210	.102	.102	.092	.084	.491				
AC4	4	42,420	.106	.106	.092	.084	.463				
AC5	6	63,620	.112	.112	.095	.086	.445				
AC6	8	84,830	.118	.119	.100	.088	.422				
AC7	10	106,000	.125	.127	.107	.095	.400				
AC8	11	116,600	.128	.130	.113	.099	.390				
AC9	12	127,200	.132	.134	.120	.105	.378				
AC10	13	137,900	.135	.137	.130	.116	.365				
AC11	14	148,500	.138	.140	.141	.129	.350				
AC12	15	159,100	.141	.144	.155	.248	.334				
AC13	16	169,700	.144	.146	.180	.277	.316				
AC14	17	180,300	.147	.149	.218	.210	.304				
AC15	18	190,900	.149	.152	.267	.258	.271				
AC16	19	201,500	.151	.154	.337	.319	.240				
AC17	20	212,100	.154	.157	.475	.470	.150				
	20.9	221,600	MAX. LOAD ATTAINED - LOAD DROPPED								
AC18	0	0	.106	.106	.553	.580	.310	HYD.	CYL. PIN IN		
AC19	0	0	.106	.105	.552	.580	.311	HYD.	CYL. PIN OUT		



APPENDIX C

ALTERNATE STIFFENER CONFIGURATIONS

APPENDIX C

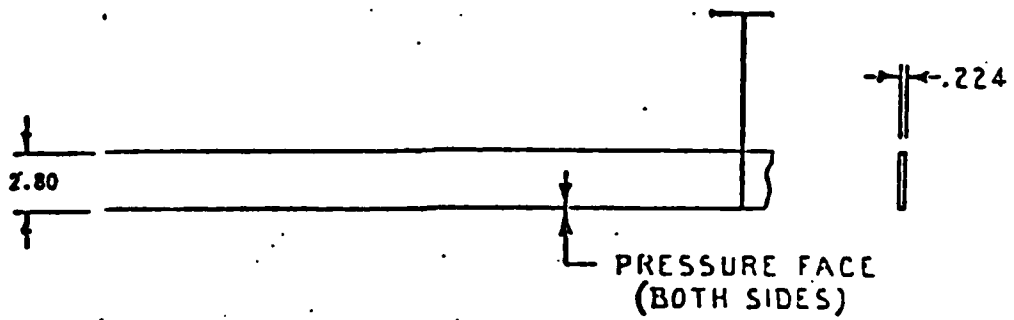
ALTERNATE STIFFENER CONFIGURATIONS

Design sketches listed in Figure C-1 for typical stiffener configurations are presented in Figures C-2 through C-5.

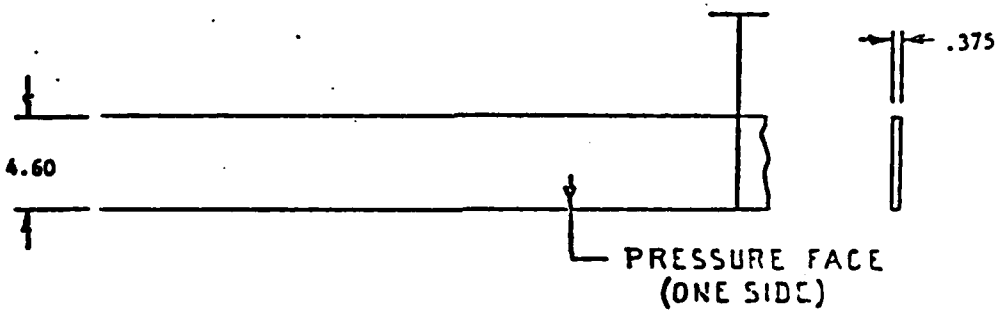
Baseline Stiffener Dash Number*	Straight Flat Bar Stringer	Light Weight Haunched Flat Bar Stringer	Rigid Haunched Flat Bar Stringer	Haunched Tee Stringer
201	C-2	---	---	C-5
209	C-2	C-3	C-4	C-5
213	C-2	C-3	C-4	C-5

*Drawing Number LL101004, Extrusions-Structural

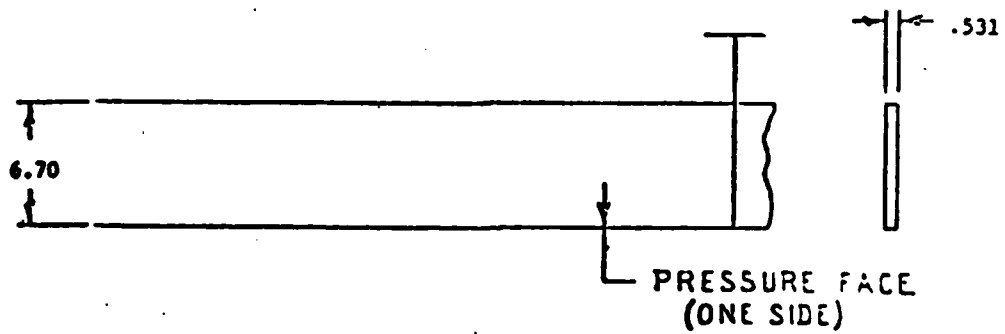
Figure C-1. Stiffener Configuration Matrix



REPLACES -201 TEE

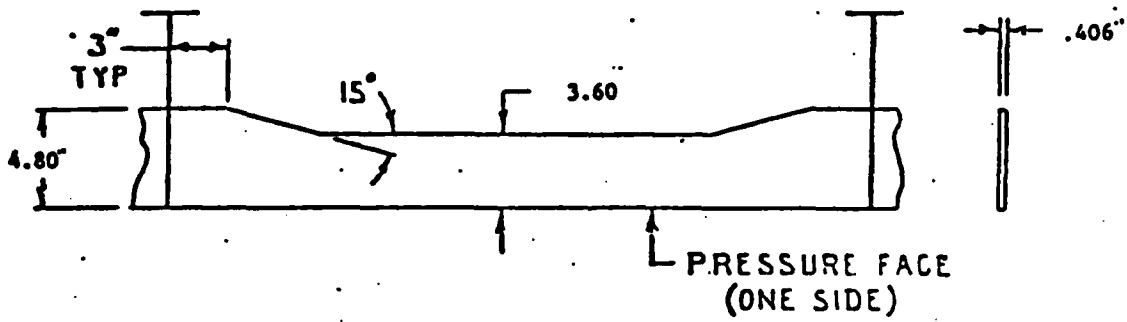


REPLACES -209 TEE

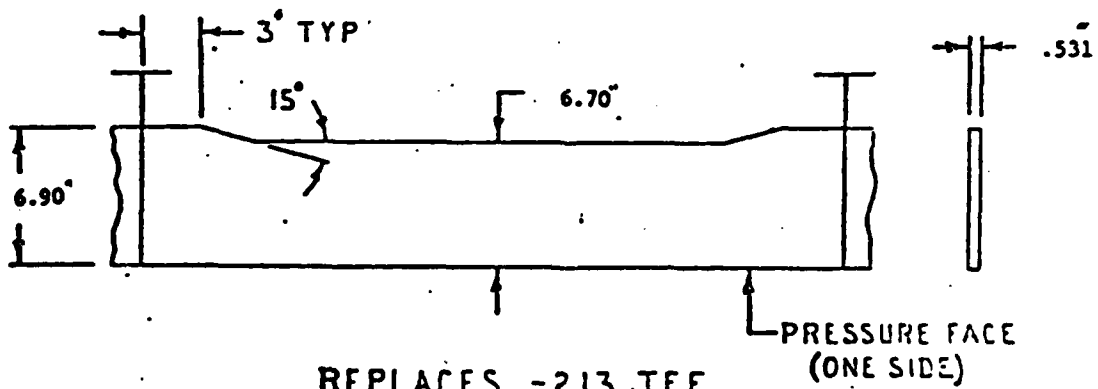


REPLACES -213 TEE

Figure C-2. Straight Flat Bar Stringer.

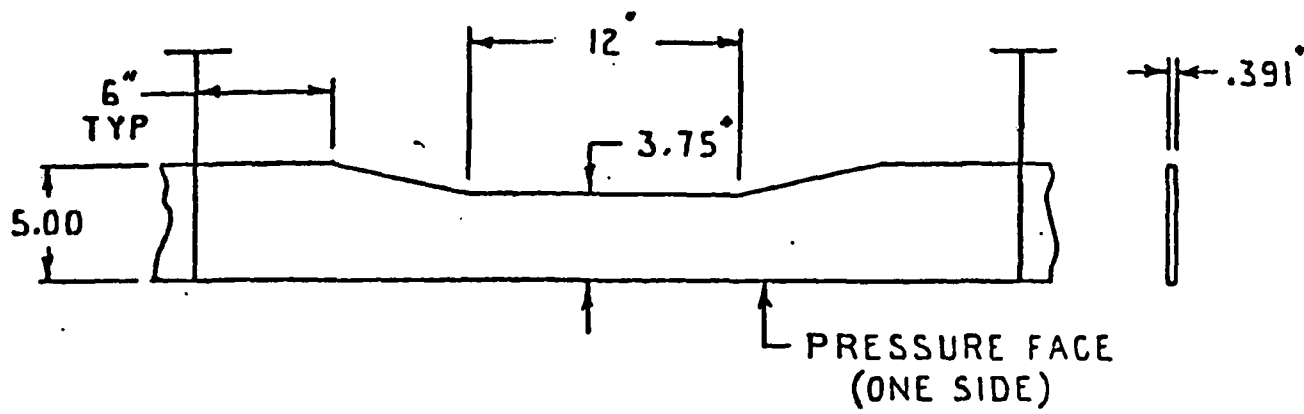


REPLACES -209 TEE

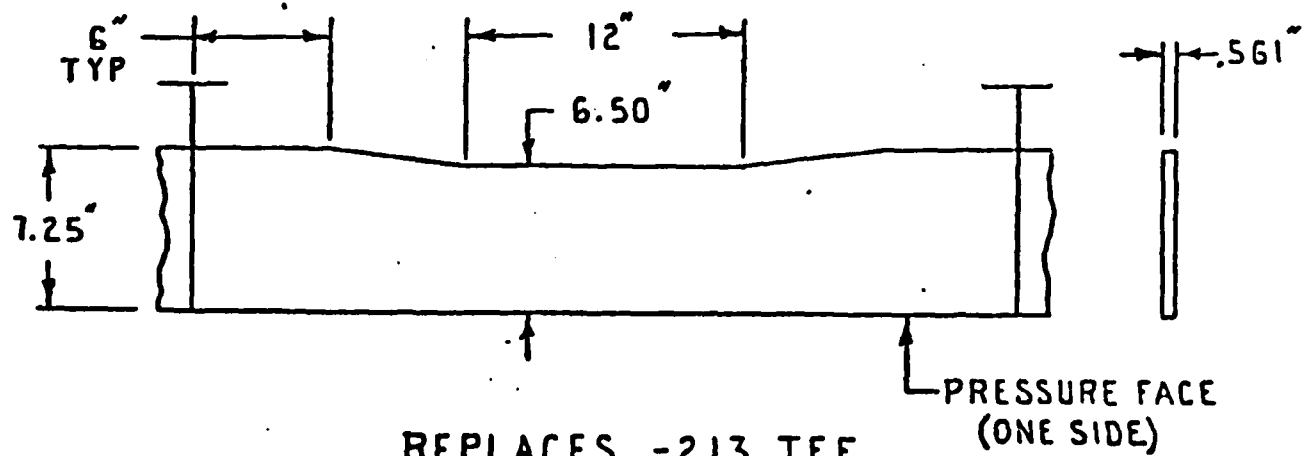


REPLACES -213 TEE

Figure C-3. Light Weight Haunched Flat Bar Stringer.



REPLACES -209 TEE



REPLACES -213 TEE

Figure C-4. Rigid Haunched Flat Bar Stringer.

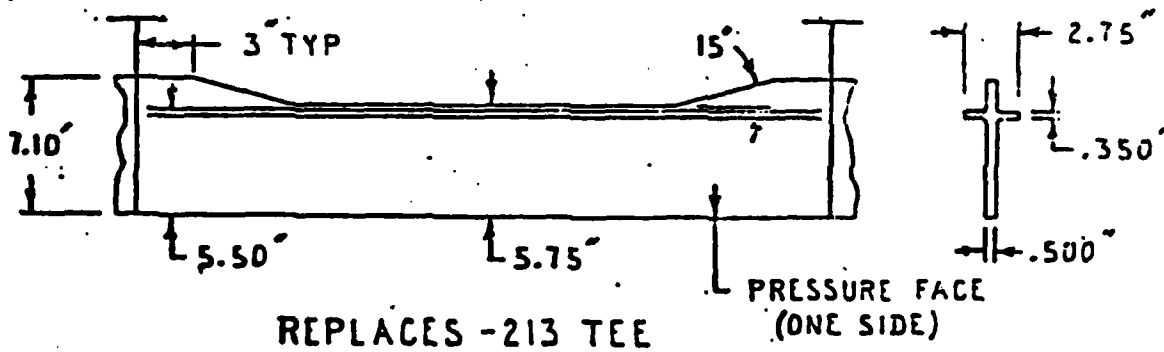
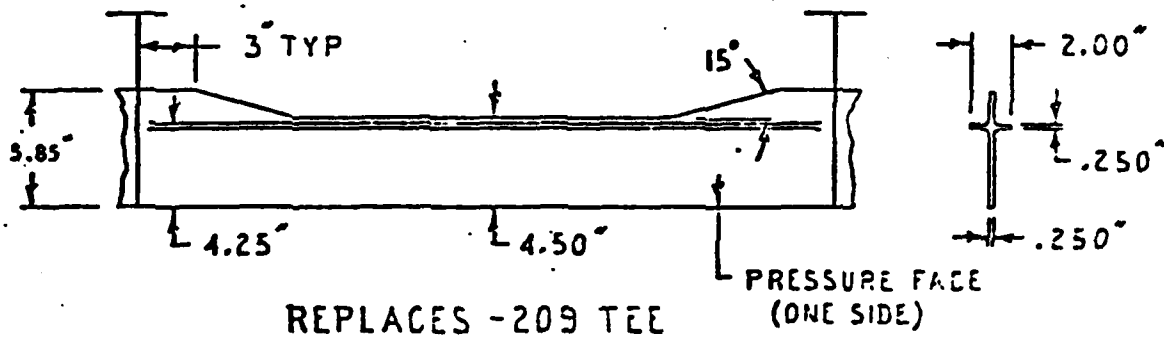
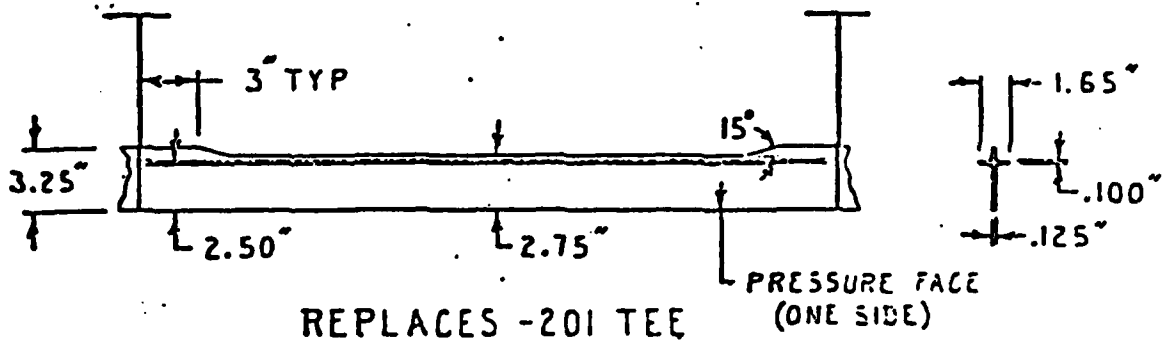


Figure C-5. Haunched Tee Stringer.

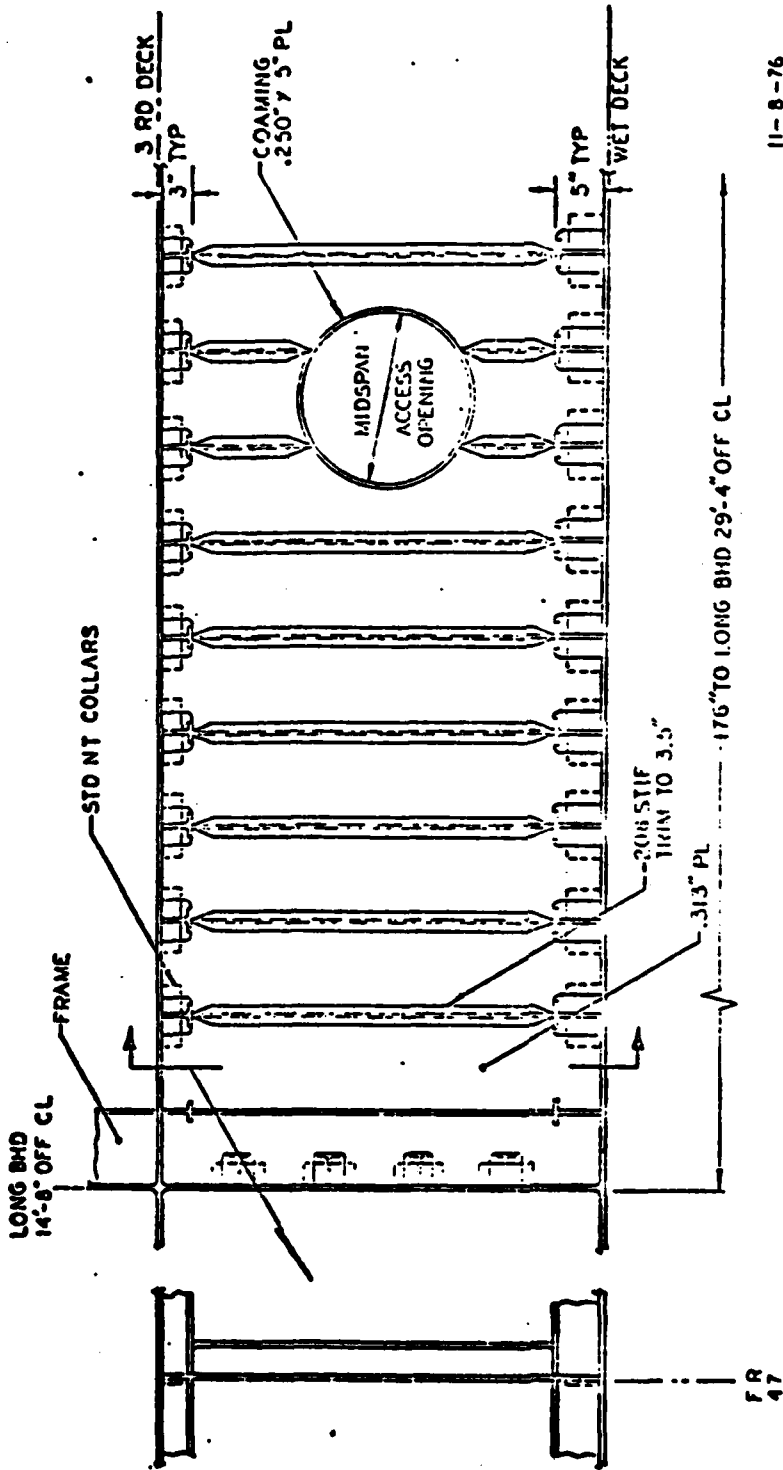
APPENDIX D

ALTERNATE INNER BOTTOM FLOOR CONFIGURATIONS

ALTERNATE INNER BOTTOM FLOOR CONFIGURATIONS

Included in this Appendix are typical design sketches of all alternate frame configurations included in this study. Scantlings are presented for wet deck hydrodynamic pressures of 30 and 60 psi.

<u>Drawing</u>	<u>Page</u>
Inner Bottom Girder, Const. Web without Trans. Flat Bars (30 psi)	D-2
Inner Bottom Girder, Const. Web without Trans, Flat Bars (60 psi)	D-3
Inner Bottom Girder, Stepped Web without Trans. Flat Bars (30 psi)	D-4
Inner Bottom Girder, Stepped Web without Trans. Flat Bars (60 psi)	D-5
Inner Bottom Girder, Const. Web with Trans. Flat Bars (30 psi) . .	D-6
Inner Bottom Girder, Const. Web with Trans. Flat Bars (60 psi) . .	D-7
Inner Bottom Girder, Stepped Web with Trans. Flat Bars (30 psi). .	D-8
Inner Bottom Girder, Stepped Web with Trans. Flat Bars (60 psi). .	D-9
Round Tube Concept, Inner Bottom Truss (30 psi)	D-10
Round Tube Concept, Inner Bottom Truss (60 psi)	D-11



11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	30	MAX TANK PRESSURE (PSI)	24.7	WEIGHT (LBS/DAY) *	312
--------------------------------------	----	-------------------------	------	--------------------	-----

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: SKES FRAME 47

**INNER BOTTOM GIRDER
 CONST WEB WITHOUT TRANSVERSE FLAT BARS**

Figure () -2. Inner Bottom Girder Const. Web without Trans. Flat Bars (30 psi).

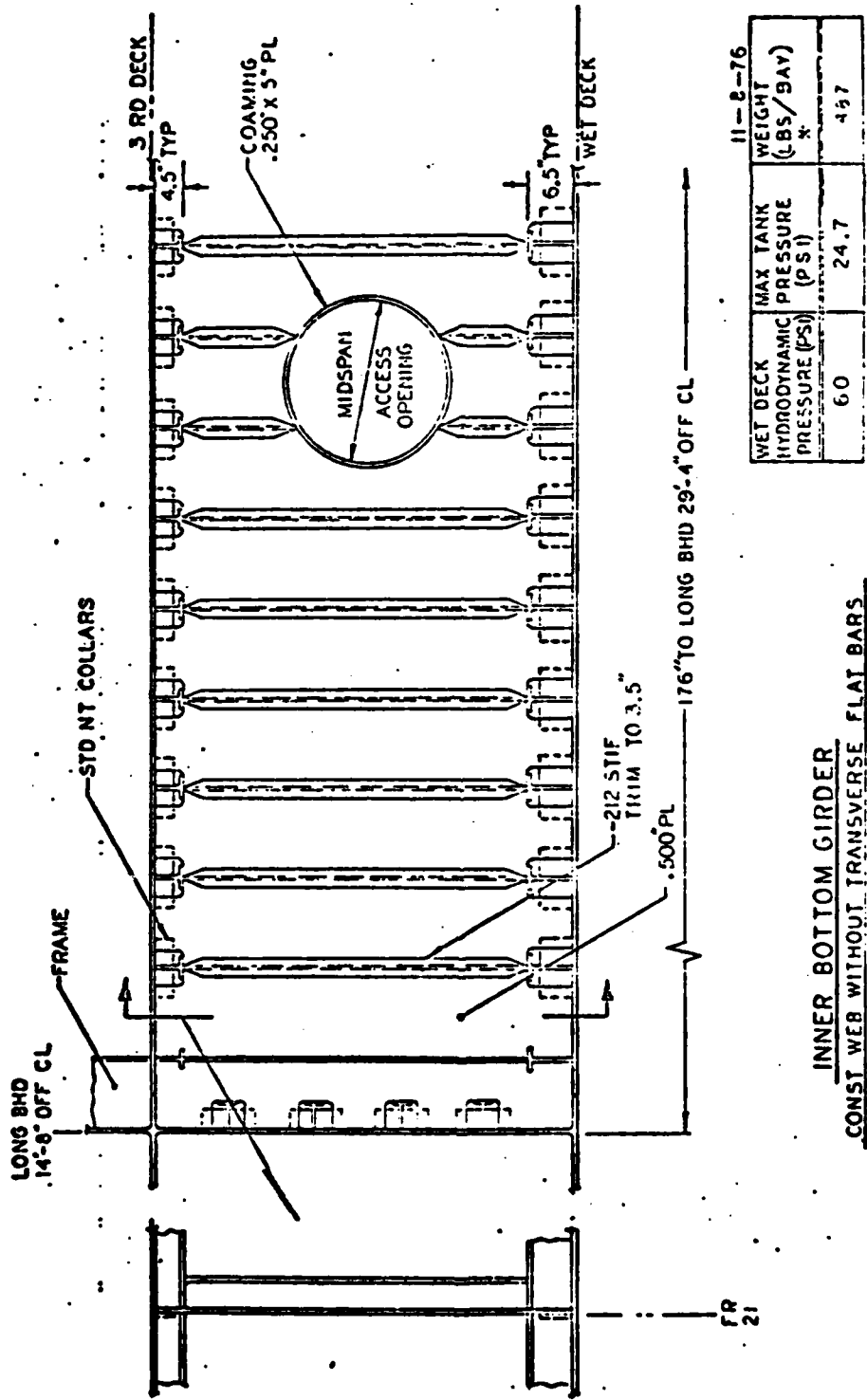
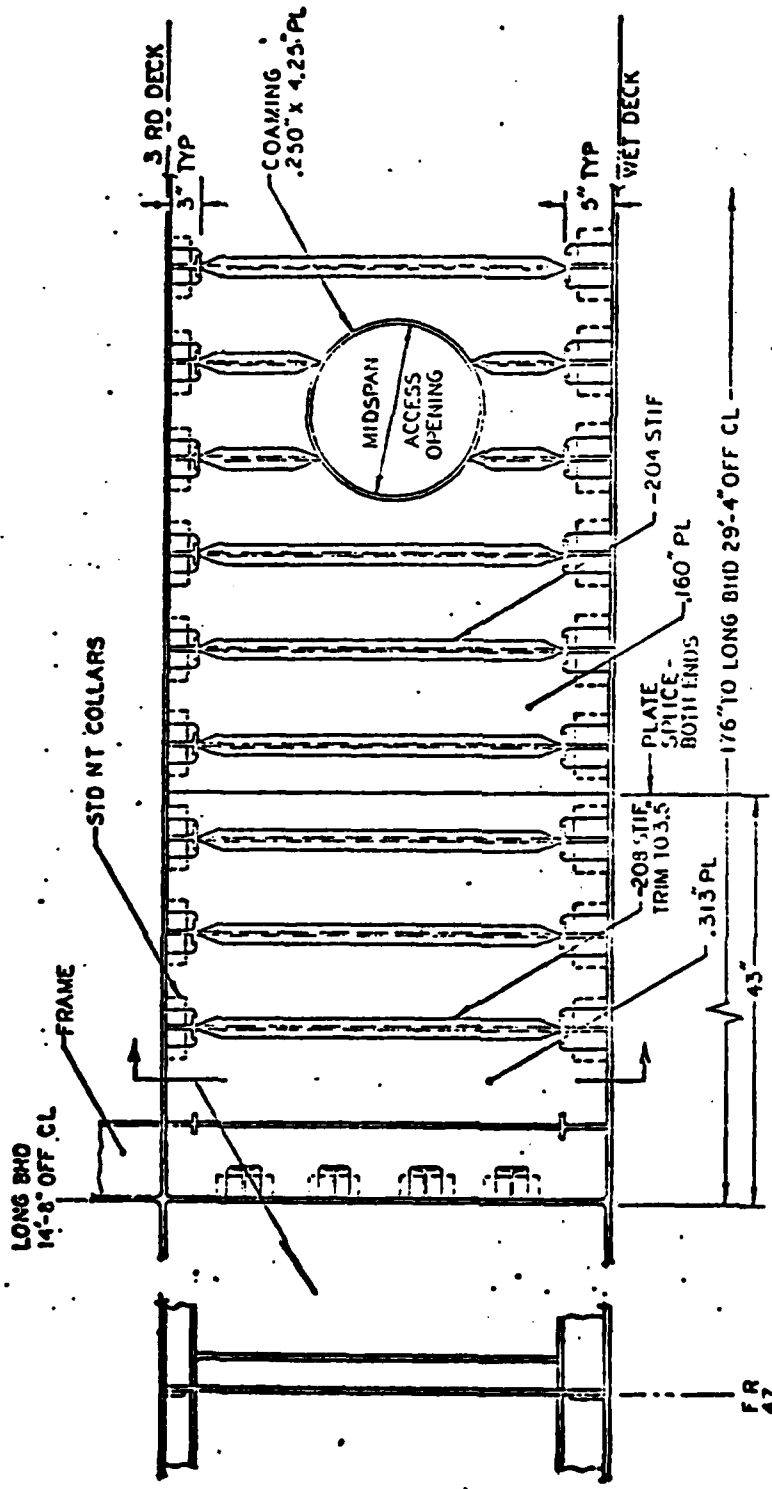


Figure 1, -3. Inner Bottom Girder, Const. Web without Trans. Flat Bars (60 psi).



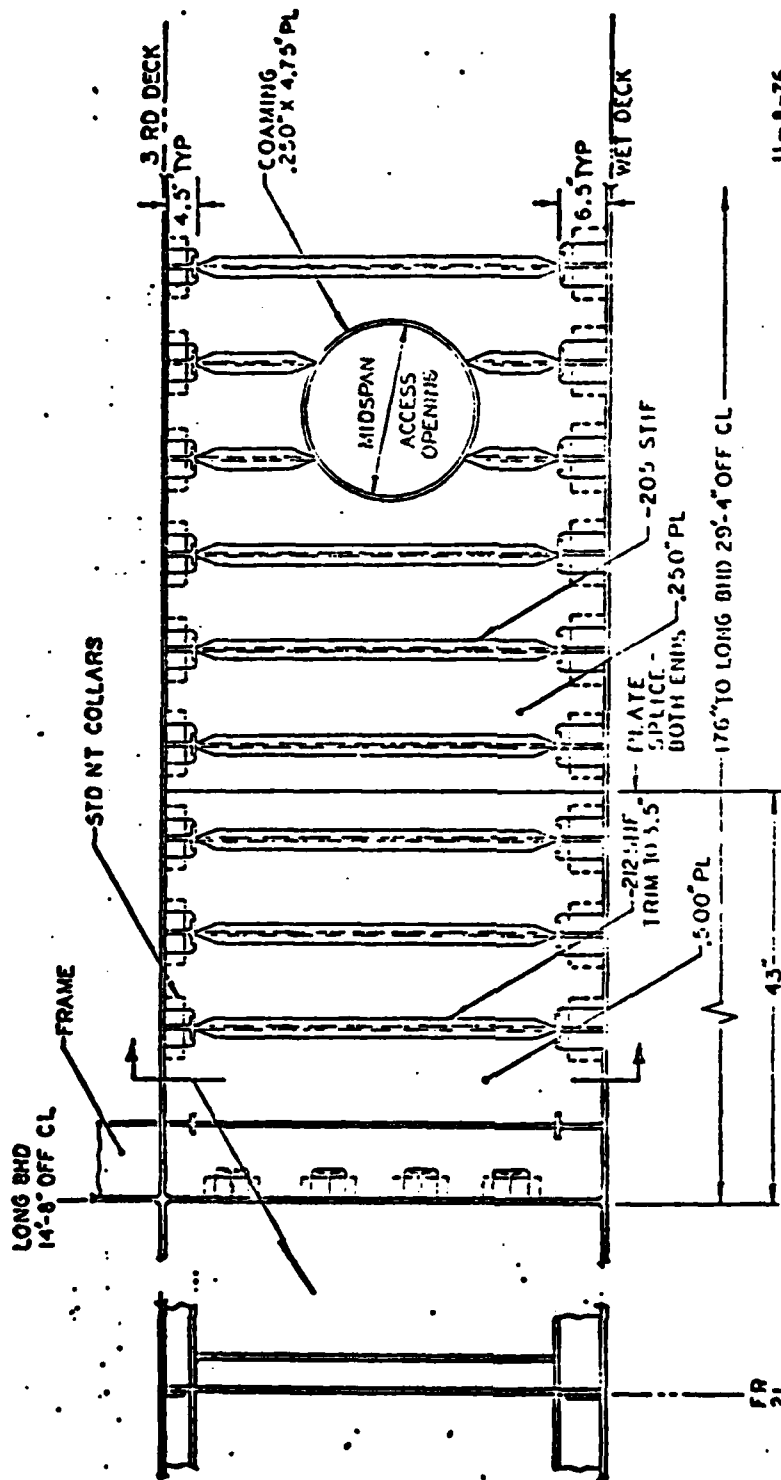
11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LBS/BAY) *
30	24.7	236

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: SKSES FRAME 47

**INNER BOTTOM GIRDER
 STEPPED WEB WITHOUT TRANSVERSE FLAT BARS**

Figure 1-4. Inner Bottom Girder, Stepped Web without Trans. Flat Bars (30 psi).



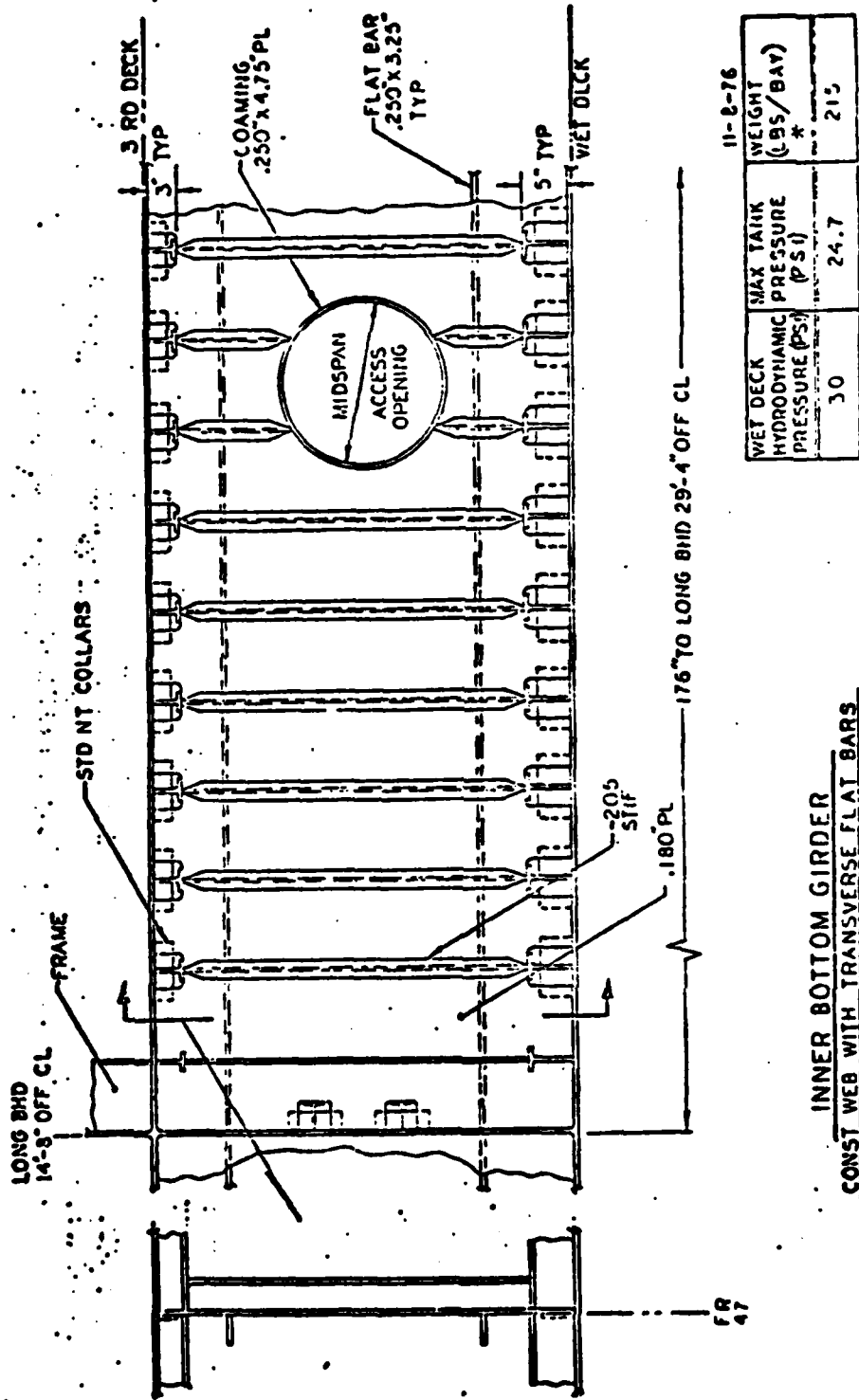
11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LBS/SAY) *
60	24.7	358

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: SKES FRAME 21

INNER BOTTOM GIRDER
STEPPED WEB WITHOUT TRANSVERSE FLAT BARS

Figure 1.-5. Inner Bottom Girder, Stepped Web without Trans. Flat Bars (60 psi).



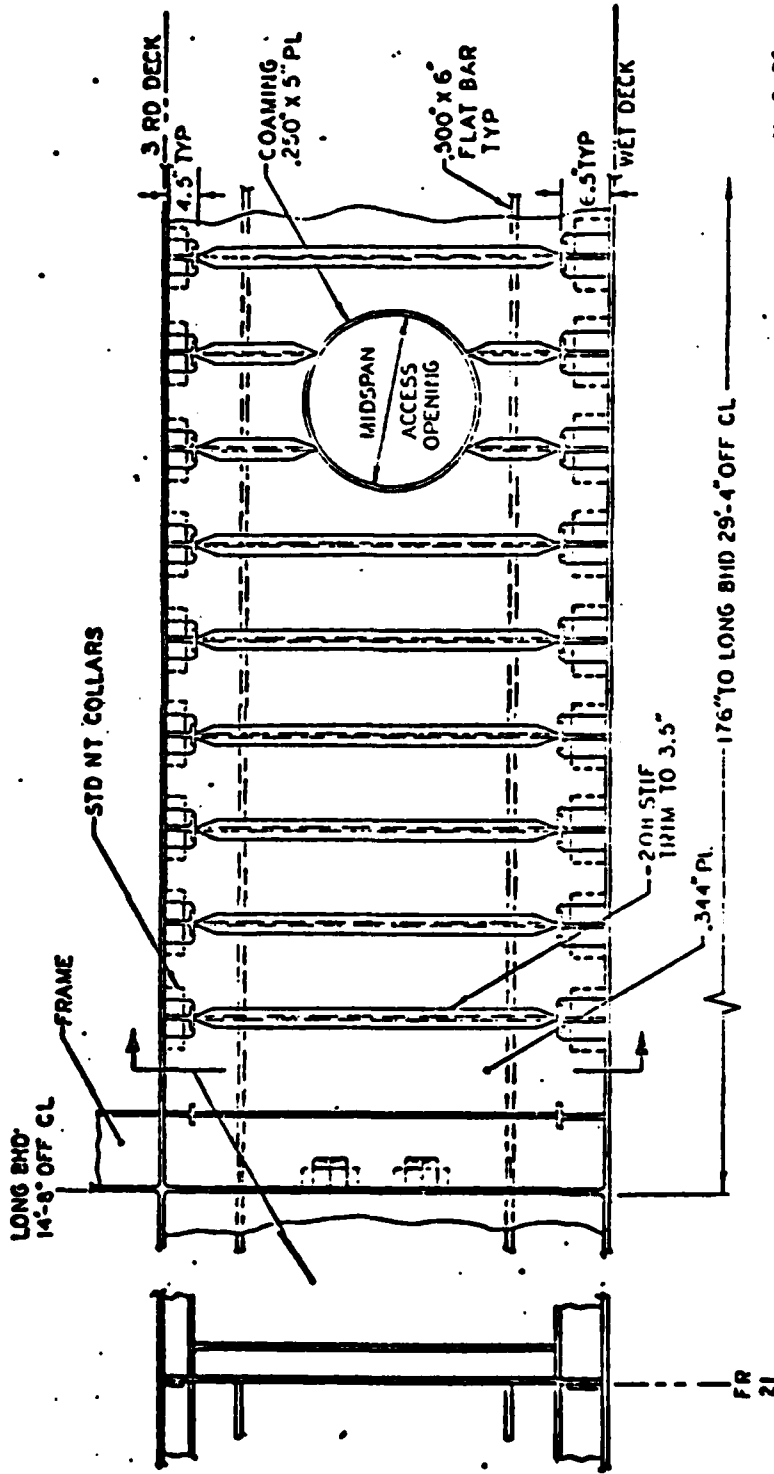
11-2-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LBS/BAY) *
30	24.7	215

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: 3 KES FRAME 47

**INNER BOTTOM GIRDER
 CONST WEB WITH TRANSVERSE FLAT BARS**

Figure D-6. Inner Bottom Girder, Web with Trans. Flat Bars (30 psi).



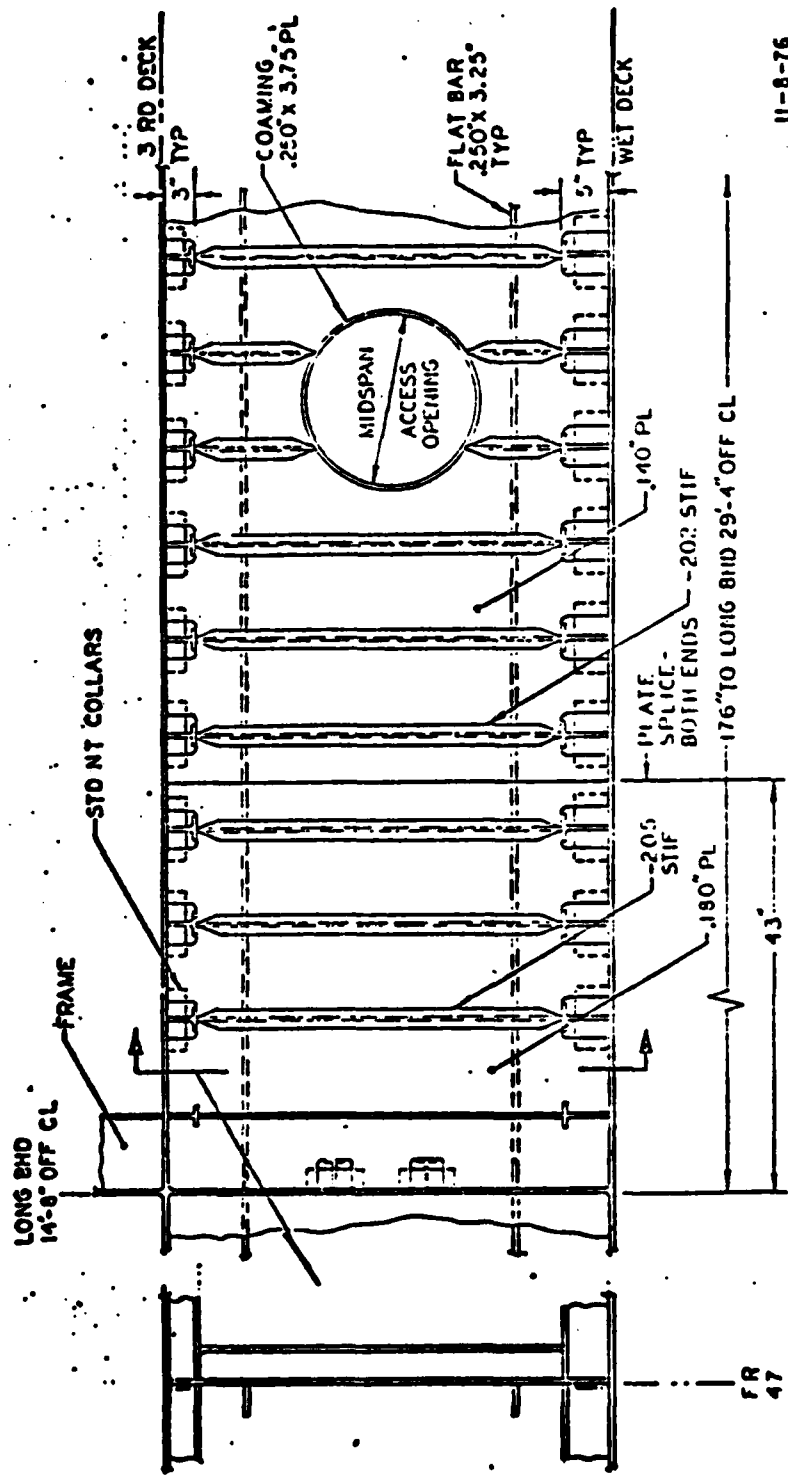
11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LBS/BAY)
60	24.7	4.24

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: 3K55 FRAME 21

INNER BOTTOM GIRDER
CONST WEB WITH TRANSVERSE FLAT BARS

Figure D-7. Inner Bottom Girder, Const. Web with Trans. Flat Bars (60 psi).



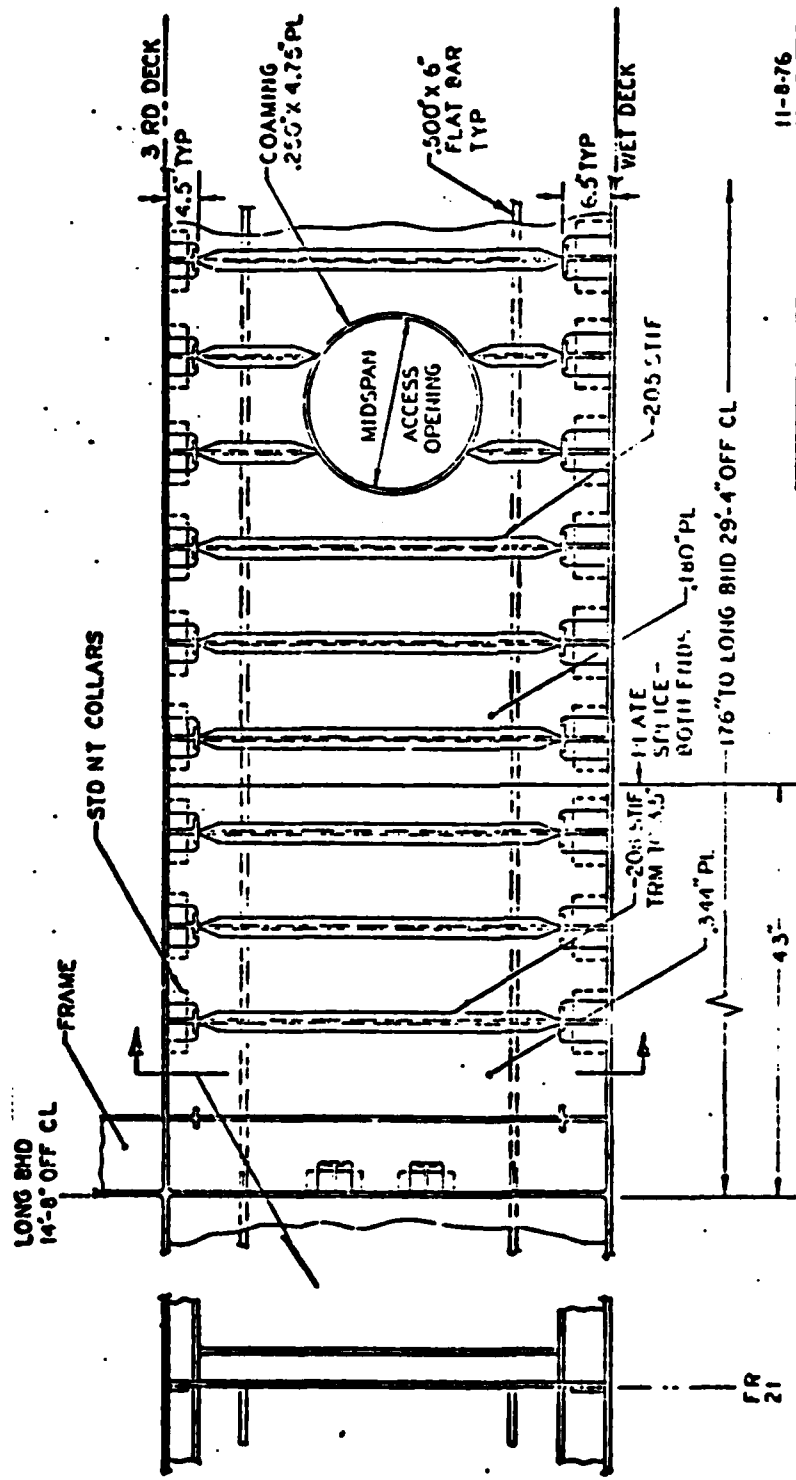
11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LBS/BAY) *
30	24.7	151

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: JKSSES FRAME 47

INNER BOTTOM GIRDER
STEPPED WEB WITH TRANSVERSE FLAT BARS

Figure D-8. Inner Bottom Girder, Stepped Web with Trans. Flat Bars (30 psf).



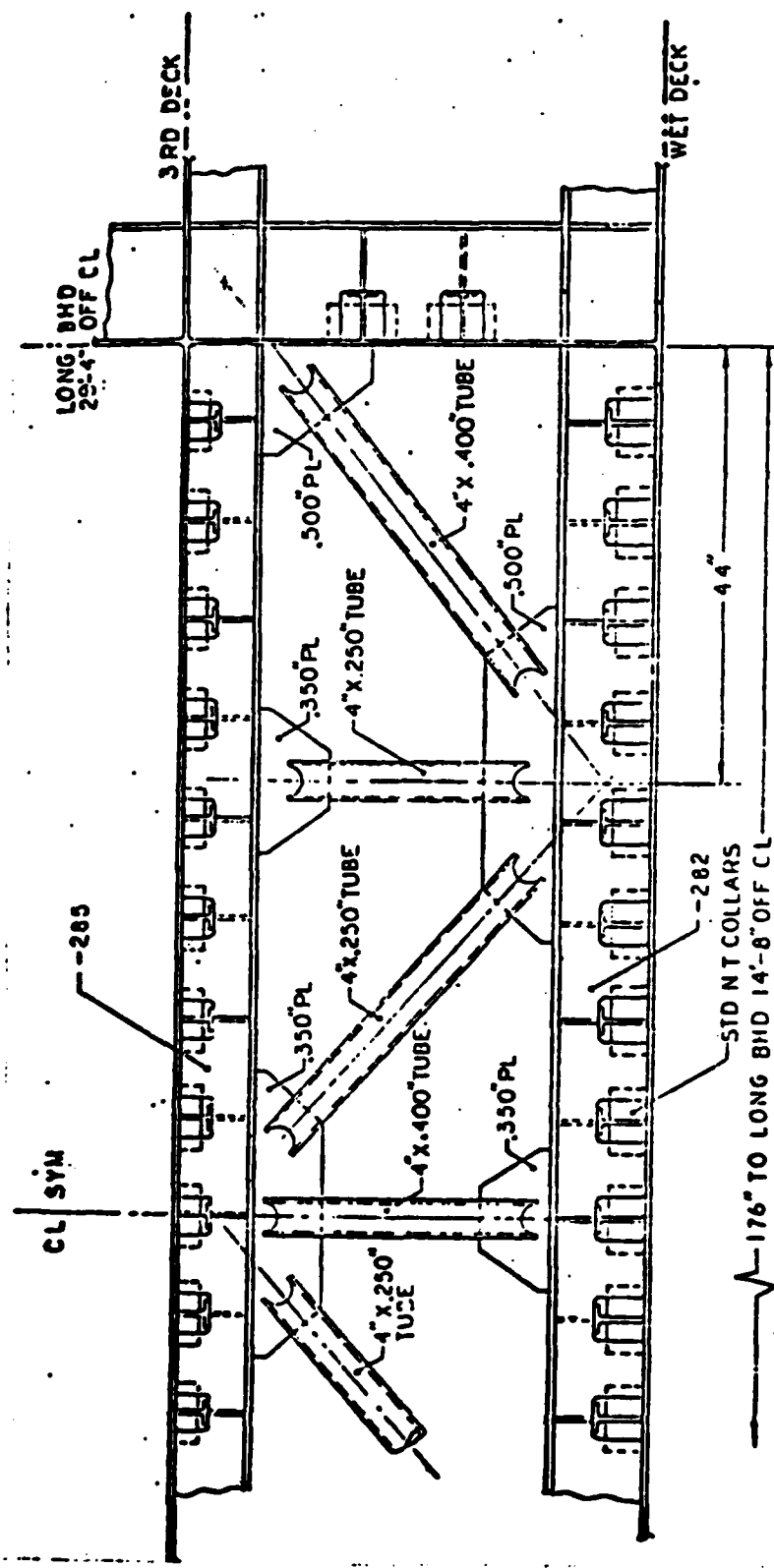
11-8-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	WEIGHT (LB/DAF) #
60	24.7	357

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: 3KSES FRAME 21

INNER BOTTEM GIRDER
STEPS WITH TRANSVERSE FLAT BARS

Figure D-9. Inner Bottom Girder, Stepped Web with Trans. Flat Bars (60 psi).



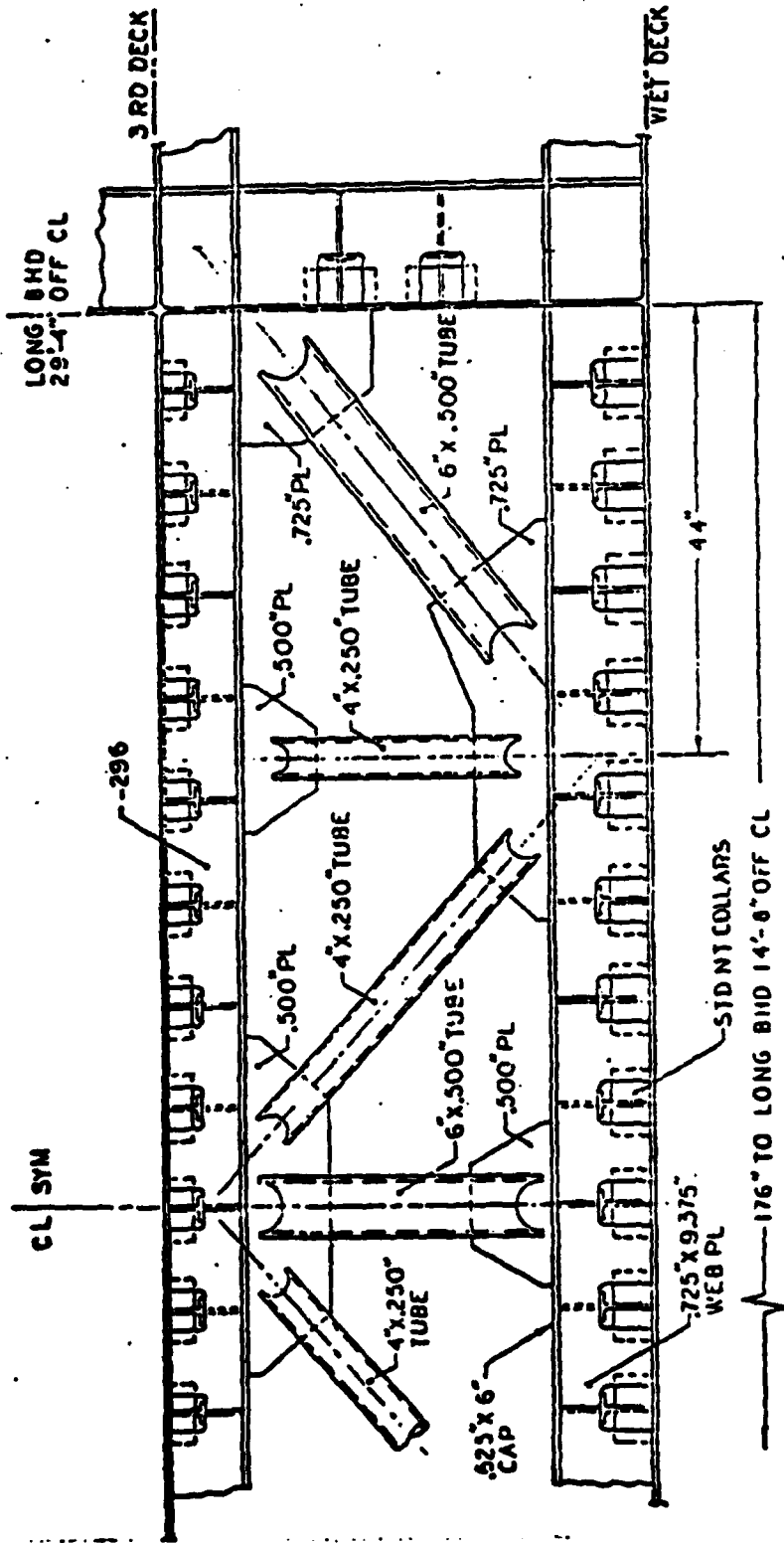
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WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK APPROX WT PRESSURE (LBS/9AY) #
30	24.7
	34.5

* EXCLUDING DECK PLATES & STRINGERS
 REFERENCE: 3KSES FRAME 47

ROUND TUBE CONCEPT
INNER BOTTOM TRUSS

Figure D-10. Round Tube Concept, Inner Bottom Truss (30 psi).



K.D.NICHOLS 11-5-76

WET DECK HYDRODYNAMIC PRESSURE (PSI)	MAX TANK PRESSURE (PSI)	APPROX WT (LBS/BAY)
60	24.7	578

* EXCLUDING DECK PLATES & STRINGERS
REFERENCE 3KSES FRAME 21

ROUND TUBE CONCEPT
INNER BOTTOM TRUSS

Figure D-11. Round Tube Concept, Inner Bottom Truss (60 psi).