

TABLE 5 - SUMMARY OF PRINCIPAL RESULTS OF TENSILE TESTS AND WIDE - PLATE TESTS SHEET 1 OF 2

STEEL	PLATE NO.	STD. 0.505-IN TENSILE BAR			3-IN EDGE-NOTCHED TENSILE BAR (H)			12-INCH TEST PLATE (D SIZE)					24-INCH TEST PLATE (C SIZE)					48-INCH TEST PLATE (B SIZE)					72-INCH TEST PLATE (A SIZE)						
		TEMP F. (b)	Y.S. K.S.I.	T.S. K.S.I.	TEMP. F. (b)	Y.S. K.S.I.	NOMINAL STRENGTH K.S.I. (a)	TYPE FRACTURE	TEMP. F. (b)	NOMINAL STRENGTH K.S.I. (a)	TYPE FRACTURE	GAGE LENGTH	ENERGY K-IN (d)	TEMP. F. (b)	NOMINAL STRENGTH K.S.I. (a)	TYPE FRACTURE	GAGE LENGTH	ENERGY K-IN	TEMP. F. (b)	NOMINAL STRENGTH K.S.I. (a)	TYPE FRACTURE	GAGE LENGTH	ENERGY (c) K-IN (d)	TEMP. F. (b)	NOMINAL STRENGTH K.S.I. (a)	TYPE FRACTURE	GAGE LENGTH	ENERGY (c) K-IN (d)	
A ¹ CARNegie-ILL CHATTANOOGA* C-0.23 Mn-0.87 AS ROLLED SEMI-KILLED	A-1	70°	35.6	58.8	(49°-45°)	45.9	66.0	3% SH 97% CL	86°	46.5	77% SH 23% CL (f)	9	98	37°	43.6	72% SH 28% CL (f)	18	291	68°	40.7	90% SH 10% Burn	36 135 (e)	93.5 94.6 (e)	75°	38.5	80% SH 20% Burn	24 54	1034 2081	
	A-2	71°	36.2	57.6	30°	43.4	61.6	2% SH 98% CL	31°-33°	48.1	26% SH 74% CL	9	104 180 (e)	84°	42.6	100% SH	18 65 (e)	336 367 (e)	31°-32°					30°-34°	38.5	2% SH 98% CL	24 54	520 684	
	A-3	72°	35.5	58.4	49°-51°	42.5	61.5	10% SH 90% CL	50°	48.1	100% SH	9	96 180 (e)	(7°)-(6°)	38.1	100% CL	18 94 (e)	51 77 (e)	48°	41.1	76% SH 24% Burn	36 135 (e)	981 1062 (e)	48°-50°	40.3	73% SH 27% Burn	24 54 170 (e)	1584 2273 2527 (e)	
	A-4				69°-73°	42.3	60.2	94% SH 3% CL	11°	39.3	100% CL	9	16.3 25 (e)											10°	35.8	100% CL	24 54 168 (e)	73 85 213 (e)	
	A-5				80°	43.1	58.1	97% SH 3% CL	(-97°)-(8°)	39.9	100% CL	9	14.4 43 (e)											43°-45°	40.0	90% SH 10% Burn	24 54 190 (e)	103 8100 2400 (e)	
	A-4IX								7°-8°	38.7	100% CL	9	19																
	A-42X								19°	38.5	100% CL	9	15																
B ² BETHLEHEM C-0.16 Mn-0.74 AS ROLLED SEMI-KILLED	B-1	73°	31.9	57.1	(20°)(49°)	38.7	65.8	6% SH 94% CL	32°	48.9	83% SH 17% CL	9	112 194 (e)	32°	46.3	88% SH 12% Torn	BROKE AT WELD WAS RETESTED						32°	38.5	3% SH 97% CL	24 54	600 1100 (g)		
	B-3	70°	32.1	55.9	6°-9°	40.5	65.5	16% SH 84% CL	70°-73°	46.1	94% SH 6% CL	9	115 181 (e)	72°	43.3	100% SH	18	566					72°	40.0	74% SH 26% Torn	24 54	1449 2200 (g)		
	B-6	74°	30.4	56.7	22	37.8	63.5	39% SH 61% CL	50°-51°	49.3	100% SH	9	114 173 (e)						45°-46°	42.6	83% SH 17% Torn	36 135 (e)	1160 1275 (e)	48°-51°	40.2	40% SH 60% CL	24 54 170 (e)	123 288 289 (e)	
	B-7				33°-39°	37.7	59.4	100% SH	(35°)(34°)	40.0	100% CL	9	21 30 (e)						9°	35.2	100% CL	36 129 (e)	177 201 (e)	8°-9°	34.6	100% CL	24 54 168 (e)	31.5 455 (e)	
	B-9								(-7°)-(6°)	41.8	100% CL	9	36 41 (e)																
B ³ BETHLEHEM C-0.16 Mn-0.74 NORMALIZED SEMI-KILLED	B-2	72°	37.1	57.9	(-22°)(46°)	43.1	64.8	13% SH 87% CL	32°-36°	48.1	78% SH 22% CL (f)	9	134 268 (e)	32°-33°	46.3	90% SH 10% Burn	18 96	405 457					33°-35°	33.2	100% CL	24 54	14.0 194 (g)		
	B-4	70°	33.5	57.3	(-3°)(40°)	42.8	62.7	31% SH 69% CL	89°	45.6	94% SH 6% CL	9	133	97°	41.5	100% SH	18	384					72°	37.9	91% SH 9% Burn	24 54 170 (e)	1417 2050 1713 (e)		
	B-5	70°	37.0	58.5	34°-40°	41.8	60.5	94% SH 6% CL	50°-51°	45.9	100% SH	9	121 192 (e)										49°-52°	39.5	100% SH	24 54 170 (e)	1158 8100 2568 (e)		
	B-8				55°	41.5	58.6	100% SH	(12°)(10°)	38.5	100% CL	9	22 29 (e)																
	B-10								10°-15°	48.7	87% SH 13% CL	9	116 212 (e)																
	B-2IX								10°	42.2	100% CL	9	53 70 (e)																
C ² CARNegie-ILL C-0.24 Mn-0.49 AS ROLLED SEMI-KILLED	C-1	70°	36.3	61.8	34°-35°	42.9	64.9	2% SH 98% CL	32°-33°	40.0	100% CL	9	134	27°-31°	37.0	100% CL	18 91 (e)	19 43 (e)					30°-31°	37.0	100% CL	24 54	100 119		
	C-2	75°	36.0	68.8	49°	42.5	64.4	3% SH 97% CL	84°	42.8	3% SH 97% CL	9	203	88°	40.4	1% SH 99% CL	18	141	80°	37.2	100% CL	36 135 (e)	56 152 (e)	78°	37.8	9% SH 91% CL	24 54	24 102	
	C-3				75°	41.6	63.2	4% SH 96% CL	101°	51.1	51% SH 49% CL	9	85 132 (e)						101°	44.9	83% SH 1% CL 16% Burn	36 135 (e)	717 820 (e)	100°-104°	43.2	25% SH 50% CL 25% Burn	24 54 170 (e)	823 1183 1452 (e)	
	C-4				104°-108°	40.7	62.2	98% SH 2% CL												27°-29°	37.2	100% CL	36 135 (e)	55 98 (e)	80°-82°	35.7	100% CL	24 54 170 (e)	47 77 314 (e)
	C-5				87°	40.7	63.8	6% SH 94% CL	141°-145°	54.7	91% SH 9% CL	9	78 119 (e)											152°	43.0	86% SH 8% CL 16% Burn	24 54 162 (e)	472 683 883 (e)	
	C-6				96°	40.2	61.9	36% SH 64% CL												32°	37.0	100% CL	36 130 (e)	46 93 (e)					
	C-5IX				128°	42.1	63.5	95% SH 5% CL	120°-123°	48.7	100% SH	9	83 (e) 114 (e)																
	C-52X				144°	42.1	61.5	100% SH	90°	46.6	10% SH 90% CL	9	72 160																
	C-1IX								132°-136°	53.2	93% SH 7% CL	9	83 227																

FOR NOTES SEE SHEET 2

TABLE 5-SUMMARY OF PRINCIPAL RESULTS OF TENSILE TESTS AND WIDE-PLATE TESTS

STEEL	PLATE NO.	TEMP. Y.S. T.S.	F (b) K.S.I.	TEMP. Y.S. T.S.	F (b) K.S.I.	3-IN. EDGE-NOTCHED TENSILE BAR		12-INCH TEST PLATE (D-SIZE)		12-INCH TEST PLATE (D-SIZE)		12-INCH TEST PLATE (D-SIZE)		72-INCH TEST PLATE (A-SIZE)		
						NOMINAL STRENGTH K.S.I. (a)	FRACTURE TYPE	NOMINAL STRENGTH K.S.I. (a)	FRACTURE TYPE	NOMINAL STRENGTH K.S.I. (a)	FRACTURE TYPE	NOMINAL STRENGTH K.S.I. (a)	FRACTURE TYPE	NOMINAL STRENGTH K.S.I. (a)	FRACTURE TYPE	NOMINAL STRENGTH K.S.I. (a)
N ¹ -LUXEMUS C-0.13% Mn-0.49% Ni-3.4% AS ROLLED	N-1	64.0	83.5	64.0	83.5	64.0	83.5	68.1	100%SH	68.1	100%SH	68.1	100%SH	64.2	73%SH	
	N-2	64.9	83.2	64.9	83.2	68.4	84.0	68.4	100%SH	68.4	100%SH	68.4	100%SH	60.9	73%SH	
	N-3	64.4	81.9	64.4	81.9	70.4	83.5	70.4	65%CL	70.4	65%CL	70.4	65%CL	59.8	27%BLRN	
	N-4	63.0	79.5	63.0	79.5	70.4	83.5	71.1	83%CL	71.1	83%CL	71.1	83%CL			
	N-4X	65.0	85.5	65.0	85.5	68.9	84.0	69.6	93%CL	69.6	93%CL	69.6	93%CL			
	N-4IX	65.3	80.5	65.3	80.5	60.0	80.5	61.9	100%SH	61.9	100%SH	61.9	100%SH			
	N-1X	67.4	80.1	67.4	80.1	61.0	80.1	62.2	18%CL	62.2	18%CL	62.2	18%CL			
	Q-2	68.6	83.4	68.6	83.4	61.0	83.4	62.2	82%SH	62.2	82%SH	62.2	82%SH			
	Q-1	69.3	82.8	69.3	82.8	57.3	82.8	60.0	100%SH	60.0	100%SH	60.0	100%SH			
	N-4IX					69.9	81%SH	66.7	100%CL	66.7	100%CL	66.7	100%CL			
	Q-1 REPUBLIC C-0.21% Mn-1.05% QENCHED & DRAWN	Q-1	69.3	82.8	69.3	82.8	57.3	82.8	60.0	100%SH	60.0	100%SH	60.0	100%SH		
		Q-2	68.6	83.4	68.6	83.4	61.0	83.4	62.2	18%CL	62.2	18%CL	62.2	18%CL		
Q-3		67.4	80.1	67.4	80.1	61.0	80.1	61.9	100%SH	61.9	100%SH	61.9	100%SH			
Q-1IX		65.3	80.5	65.3	80.5	60.0	80.5	61.9	100%SH	61.9	100%SH	61.9	100%SH			
Q-12X		62.2	80.9	62.2	80.9	60.7	80.9	60.7	100%SH	60.7	100%SH	60.7	100%SH			
		64.3	81.2	64.3	81.2											
		57°		57°												
		41°		41°												
		16°		16°												
		29°		29°												

NOTES:
 (a)-NOMINAL STRESS IS COMPUTED ON THE BASIS OF NET SECTION AT THE NOTCH LINE.
 (b)-TEMPERATURE RANGE IS THAT OBSERVED DURING THE INTERVAL FROM ZERO LOAD TO MAXIMUM LOAD.
 (c)-ENERGY VALUES GIVE THE ENERGY ABSORBED BY THE PLATE UP TO MAXIMUM LOAD.
 (d)-ENERGY VALUES ARE PRESUMABLY CORRECT TO WITHIN PLUS OR MINUS FIVE PERCENT UNLESS OTHERWISE NOTED.
 (e)-BASED ON EXTENSION MEASURED BETWEEN PINS OF PULLING HEADS.
 (f)-THE PERCENTAGE OF SHEAR AND CLEAVAGE NOTED IS PROBABLY DUE TO A TEARING ACTION CAUSED BY ONE SIDE OF THE PLATE FRACTURING BY SHEAR AND LEAVING THE OTHER TO BE TORN. IT HAS BEEN OBSERVED THAT OTHER TYPE SPECIMENS HAVING A NOTCH ON ONE EDGE ONLY FAIL BY CLEAVAGE AT MUCH HIGHER TEMPERATURES THAN DO SYMMETRICAL SPECIMENS WITH CENTRAL NOTCHES.
 (g)-ENERGY ABSORBED IN 54-INCH GAGE LENGTH ESTIMATED FROM DATA FOR OTHER GAGE LENGTHS.
 (h)-3-INCH EDGE NOTCHED TENSILE BAR VALUES DO NOT CORRESPOND TO THE PARTICULAR PLATE NUMBERS. ALL 3-INCH BARS CUT FROM ONE PLATE OF EACH LOT OF STEEL.

TABLE 6-

THICKNESS REDUCTION ALONG FRACTURE LINES
OF NOTCHED FLAT PLATES *

SHEET 1 OF 2

STEEL	PLATE WIDTH IN.	SPECIMEN NO.	TESTING TEMP °F.	DISTANCE FROM NOTCH, INCHES.																							
				LEFT SIDE OF PLATE												RIGHT SIDE OF PLATE											
				26	16	8	4	2	1	1/2	1/4	1/8	1/16	0	0	1/16	1/8	1/4	1/2	1	2	4	8	16	26		
"A"	72"	A-1A	75°	18.5 S	20.0 S	19.5 S	17.0 S	14.0 S	12.5 S	11.5 S	13.0 S	12.5 S		12.0 S	8.0 S		9.0 S	10.5 S	10.0 S	12.0 S	13.5 S	16.0 S	19.0 S	20.5 S			
		A-3A	48°-50°	17.5 S	20.0 S	21.0 S	19.5 S	8.5 S	15.5 S	14.5 S	13.5 S	12.0 S		4.0 S			9.5 S	11.5 S	12.5 S	15.5 S	16.5 S	19.0 S	20.0 S				
		A-2A	30°-34°	14.5 C	25.5 C	25.5 C		5.5 C	11.5 C	17.0 S		14.0 S		11.5 S	6.0 S		15.5 S		18.0 S	10.0 C	5.0 C		3.0 C	3.0 C	2.5 C		
		A-4A	10°	2.5 C	3.0 C	2.0 C	2.5 C	2.0 C	2.0 C	3.0 C	5.0 C	5.5 C	6.5 C	7.0 C	6.0 C	5.5 C	5.0 C	4.0 C	3.0 C	2.0 C	1.0 C	1.0 C	1.0 C	1.5 C	2.0 C		
		A-5A	43°-45°		17.0 S	20.0 S	18.5 S	15.5 S	15.0 S	11.5 S	11.5 S	10.0 S	7.5 S	2.0 S	3.5 S	6.5 S	9.5 S	12.5 S	12.5 S	13.5 S	16.0 S	19.0 S	19.0 S				
	48"	A-1B	68°		18.0 S	18.0 S	19.0 S	17.5 S	16.5 S	14.0 S	13.5 S	10.5 S		5.0 S	5.5 S		8.5 S	11.0 S	12.0 S	15.0 S	16.5 S	19.0 S	19.0 S				
		A-3B	48°		18.0 S	17.5 S	16.0 S	12.0 S	9.5 S	7.5 S	7.0 S	6.0 S		0.0 S	4.0 S		7.0 S	9.5 S	9.5 S	12.0 S	15.0 S		19.5 S				
		A-2C	84°			19.5 S	17.5 S	15.5 S	12.5 S	12.0 S	11.5 S	10.5 S		4.5 S	4.5 S		10.0 S	10.5 S	12.0 S	13.0 S	16.0 S	18.0 S	18.5 S				
	24"	A-1C	37°			3.0 C		16.5 S	14.5 S	12.5 S		8.0 S		5.0 S	3.5 S		7.0 S		9.0 S	10.5 S	13.5 S	15.5 S	18.5 S				
		A-3C	(77°-6°)			2.0 C	2.0 C	2.5 C	3.0 C	4.5 C	6.0 C	7.0 C	7.5 C	8.5 C	8.0 C	7.5 C	6.5 C	5.5 C	3.5 C	2.5 C	2.5 C	2.0 C	1.5 C				
		A-1D	86°				4.5 S	14.0 S	17.0 S	14.5 S	12.0 S	10.5 S		6.5 S	11.5 S		15.0 S	16.0 S	18.5 S	21.0 S	16.5 S	17.5 C					
		A-3D	50°					3.0 C	9.5 C	12.5 S	10.5 S	9.5 S	8.0 S		6.5 S	6.0 S		15.0 S	16.5 S	18.0 S	18.0 S	7.5 C	3.0 C				
		A-2D	31°-33°					1.0 C	2.0 C	2.5 C	2.5 C	4.0 C	4.0 C	4.5 C	1.5 C	2.0 C	4.5 C	4.0 C	4.0 C	3.0 C	2.5 C	2.0 C	1.5 C				
	12"	A-42XD	19°					2.0 C	2.5 C	2.5 C	4.0 C	5.0 C	5.5 C	5.5 C	6.0 C	6.5 C	6.0 C	5.5 C	4.5 C	4.5 C	2.5 C	2.0 C	1.5 C				
		A-4D	11°					0.5 C	1.0 C	1.5 C	2.0 C	3.0 C	3.0 C	3.0 C	3.0 C	3.0 C	3.0 C	3.0 C	2.5 C	2.0 C	1.5 C	1.5 C	1.0 C				
A-41XD		7°-8°					1.5 C	2.5 C	2.5 C	3.0 C	4.0 C	4.5 C	4.0 C	2.5 C	3.0 C	4.5 C	5.0 C	4.5 C	3.0 C	2.5 C	2.5 C	1.5 C					
A-5D		(-9°-(-8°)												8.5 S	15.5 S		16.0 S	21.0 S	23.5 S	25.5 S	27.5 S	29.0 S	33.0 S				
														5.5 S	4.5 S		9.0 S	12.5 S	12.5 S	15.0 S	17.5 S	21.5 S	22.0 S	8.0 C	4.0 C		
"Bn"	72"	B-3A	72°		24.5 S	22.5 S	21.0 S	16.0 S	13.5 S	14.0 S	12.0 S	13.5 S		5.5 S	4.5 S		9.0 S	12.5 S	12.5 S	15.0 S	17.5 S	21.5 S	22.0 S	8.0 C	4.0 C		
		B-6A	48°-51°	3.5 C	8.5 C	20.5 S	19.0 S	17.0 S	16.0 S	13.0 S	12.0 S	9.0 S		6.5 S	7.5 S		16.0 S		18.0 S	7.5 C	4.5 C	3.5 C	2.5 C	2.5 C			
		B-1A	30°-32°	2.5 C	2.5 C	3.0 C	2.0 C	2.0 C	7.5 C	18.0 S	20.0 S	8.5 S															
		B-7A	8°-9°	2.0 C	2.0 C	1.5 C	2.0 C	2.5 C	3.5 C	6.0 C	10.0 C	12.0 C	14.0 C	6.5 C	5.5 C	13.0 C	15.0 C	12.0 C	8.0 C	4.5 C	2.5 C	2.0 C	1.5 C	2.0 C	1.0 C		
	48"	B-6B	48°-51°		22.0 S	23.5 S	20.5 S	19.0 S	14.5 S	12.5 S	11.0 S	7.5 S		0.5 S	1.5 S		8.0 S	10.0 S	15.0 S	19.5 S	19.0 S	23.0 S	23.0 S				
		B-3C	72°				25.0 S	25.0 S	23.5 S	22.0 S	20.0 S	14.5 S		12.0 S	5.5 S		13.5 S	17.0 S	18.5 S	20.5 S	23.5 S	22.0 S	23.5 S				
	24"	B-1C	43°				20.5 S	19.5 S	19.0 S	16.5 S	15.0 S	12.5 S		5.0 S	10.0 S		13.5 S	13.5 S	13.5 S	16.0 S	19.5 S	21.5 S	19.0 S				
		B-3D	70°-73°					25.0 S	24.5 S	22.0 S	19.0 S	16.0 S		7.5 S	8.0 S		15.0 S	18.0 S	20.0 S	23.0 S	20.5 S	13.0 S					
		B-6D	46°				19.0 S	18.5 S	16.0 S	13.5 S	11.0 S	3.5 S		0.5 S	4.0 S		12.5 S	13.0 S	13.0 S	16.0 S	17.5 S	6.5 S					
		B-1D	32°				19.5 S	20.0 S	17.5 S	15.5 S	13.5 S	12.5 S		5.0 S	10.0 S		12.0 S	15.5 S	15.5 S	17.5 S	19.5 S	5.0 C					
B-31XD		12°-15°				3.5 C	8.5 C	20.5 C	22.5 C	20.5 C	17.0 C	14.0 S	3.0 S	3.0 S	8.5 S	11.5 S	16.0 S	18.5 S	19.5 C	8.0 C	3.0 C	2.5 C					
B-9D		(77°-(-6°)				0.5 C	2.0 C	2.0 C	3.5 C	5.0 C	6.5 C	7.0 C	9.0 C	8.5 C	8.5 C	7.5 C	6.0 C	4.5 C	3.0 C	2.0 C	2.0 C	1.5 C					
B-7D	(35°-(-34°)				2.0 C	2.0 C	2.5 C	3.0 C	4.0 C	5.5 C	5.5 C	4.5 C	5.5 C	5.5 C	5.0 C												
"Bn"	72"	B-4A	72°	25.0 S	26.0 S	25.5 S	22.5 S	21.0 S	18.0 S	17.0 S	17.0 S	15.5 S		13.5 S	17.0 S	17.5 S	18.0 S	18.0 S	16.5 S	18.0 S	21.0 S	23.5 S	26.5 S				
		B-5A	49°-52°	20.0 S	22.0 S	20.0 S	21.0 S	20.5 S	17.5 S	15.5 S	16.5 S	14.0 S		6.5 S	3.5 S		13.0 S	15.5 S	17.5 S	18.5 S	22.0 S	23.0 S	22.0 S	22.5 S	14.5 S		
		B-2A	33°-35°				3.5 C	3.5 C	4.0 C	5.5 C				10.0 C	10.5 C				6.0 C	5.5 C	4.0 C	3.5 C					
	48"																										
		B-4C	97°				19.5 S	19.5 S	16.5 S	14.5 S	13.5 S	13.5 S		10.5 S	16.5 S		19.0 S	22.0 S	23.5 S	23.5 S	25.5 S	25.0 S					
	24"	B-2C	32°-33°			20.5 S	21.0 S	19.0 S	17.0 S	16.0 S	15.0 S	10.5 S		8.5 S	12.0 S		17.5 S	21.0 S	23.5 S	25.0 S	26.0 S	24.5 S					
		B-4D	89°				24.5 S	24.0 S	23.0 S	22.5 S	21.0 S	16.5 S		12.5 S	9.0 S		17.0 S	20.0 S	21.5 S	21.5 S	23.5 S	17.5 S					
		B-5D	50°-51°				15.5 S	21.5 S	23.0 S	23.5 S	21.0 S	18.5 S		9.0 S	5.5 S		11.5 S	14.5 S	16.0 S	17.5 S	19.0 S	24.5 S					
		B-2D	32°-36°				10.5 C	20.5 S	18.0 S	16.0 S	15.5 S	15.0 S		7.5 S	5.5 S		12.5 S	14.0 S	14.5 S	16.0 S	19.5 S	19.0 S					
		B-10D	10°-15°				5.5 C	17.5 S	15.0 S	14.0 S	12.5 S	11.0 S	9.0 S	2.5 S	6.0 S	10.5 S	11.5 S	12.5 S	14.0 S	16.0 S	19.0 S	20.0 S					
B-21XD		10°				1.5 C	2.5 C	3.5 C	5.5 C	7.5 C	9.0 C	11.0 C	2.0 C	7.0 C	9.5 C	9.0 C	6.5 C	4.5 C	3.0 C	2.5 C	1.5 C						
B-8D		(12°-(-10°)				1.5 C	2.0 C	3.0 C	4.0 C	5.5 C	6.5 C	7.0 C	7.0 C	7.0 C	5.5 C	7.0 C	6.5 C	5.5 C	4.5 C	3.0 C	2.5 C	2.0 C					

* VALUES IN TABLE INDICATE PERCENT REDUCTION. LETTER FOLLOWING VALUE INDICATES TYPE OF FRACTURE: S=SHEAR, C=CLEAVAGE.

TABLE 7. -- RECORD OF LOADS AT WHICH CRACKS STARTED DURING TESTS
OF LARGE FLAT PLATES

Specimen Number	Development of Crack			Max. Nom. Stress, ksi	Break, percent shear
	Temp., °F	Load, Kips	Neutral Stress, ksi		
A3A	49	1320	32.6	40.3	100
A4A	10	1300	32.1	35.8	0
A1B	68	910	33.7	40.7	100
A3B	48	950	35.2	41.1	100
A3C	-6	505	37.4	38.1	0
A3D	50	250	38.0	48.1	100
A5D	-8	220	32.6	39.9	0
B7A	9	1250	30.8	34.6	0
B6B	45	900	33.3	42.6	100
B5D	50	240	35.6	45.9	100
B6D	50	325	48.1	49.3	100
B7D	-34	270	40.0	40.0	0
B9D	-7	240	35.6	41.8	0
B10D	12	265	39.3	48.7	87
B21X	10	275	40.0	42.2	0
C4A	81	1320	32.6	35.7	0
C5A	152	1350	33.3	43.0	98
C1D	32	257	38.1	40.0	0
C3D	101	270	40.0	51.1	51
C5D	143	275	40.8	54.7	91
C51XD	121	290	43.0	48.7	100
C52XD	90	270	40.0	46.6	10
N1A	-53	1650	40.7	64.2	4
N2A	-32	2250	55.5	60.9	13
N3A	2	2000	49.4	59.8	73
N1D	-29	385	55.6	69.3	84
N2D	-60	435	64.4	75.9	6
N3D	72	360	53.3	66.4	100
N41XD	-45	430	63.7	69.9	81
Q2D	134	390	57.8	61.0	100
Q12XD	86	385	57.0	60.7	100

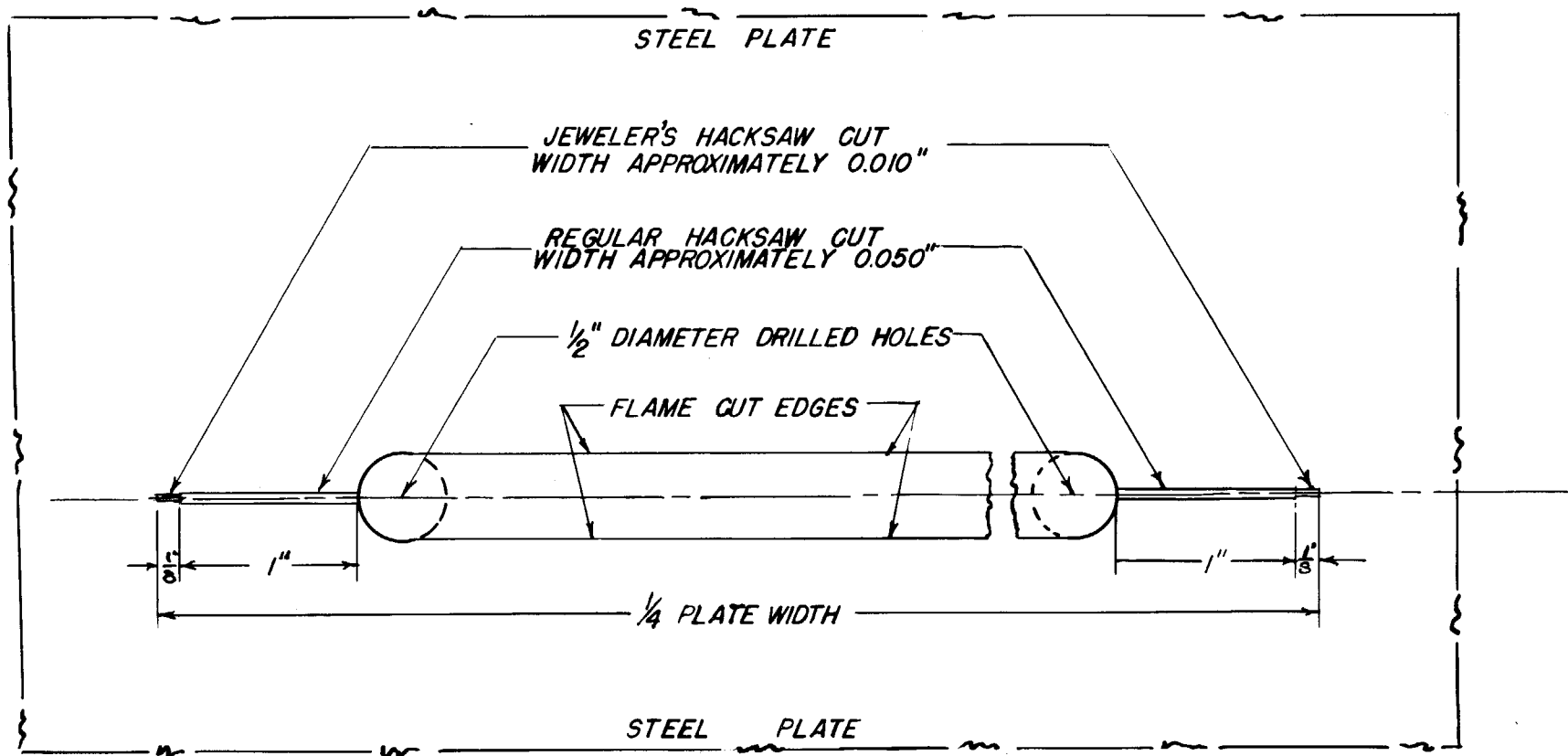


FIG. 1-DIMENSIONS OF NOTCH USED IN FLAT PLATE TESTS

FIG. 1

DWG. 44E15

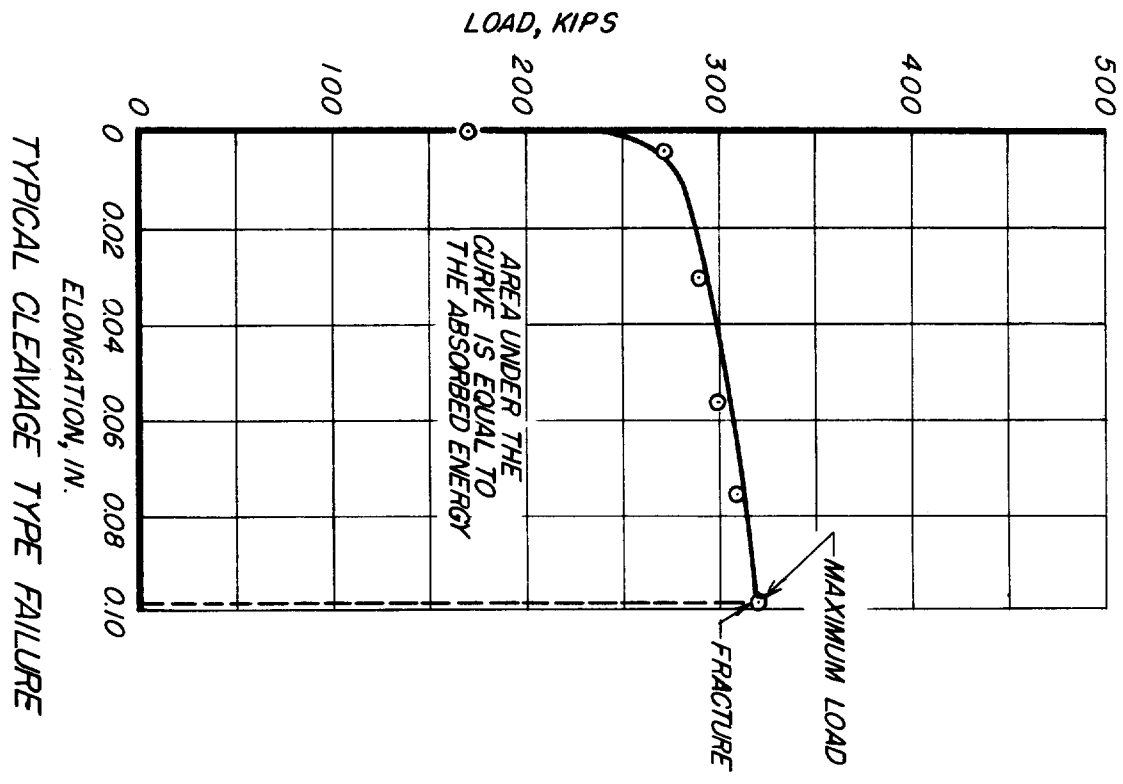
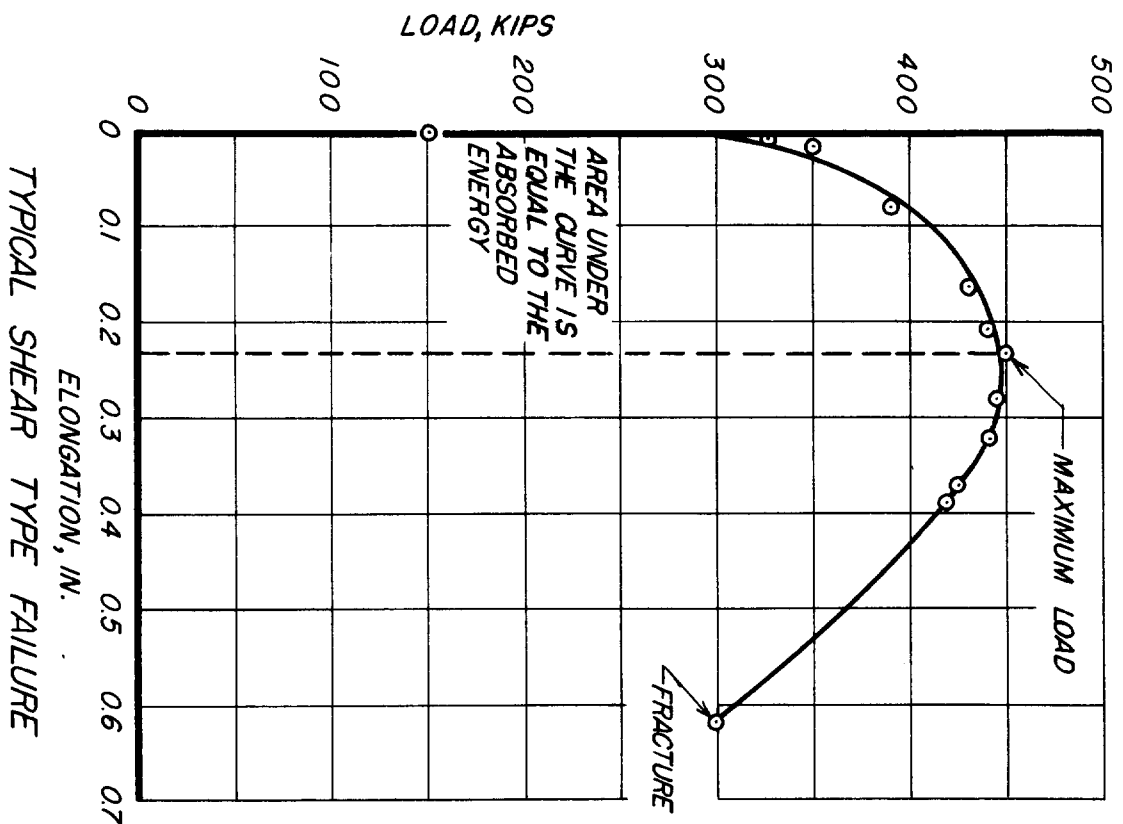
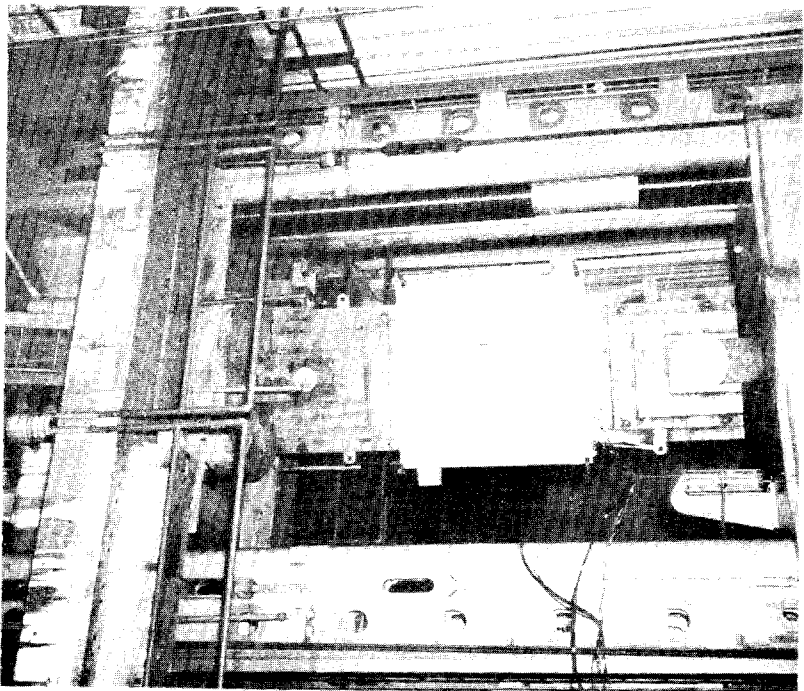
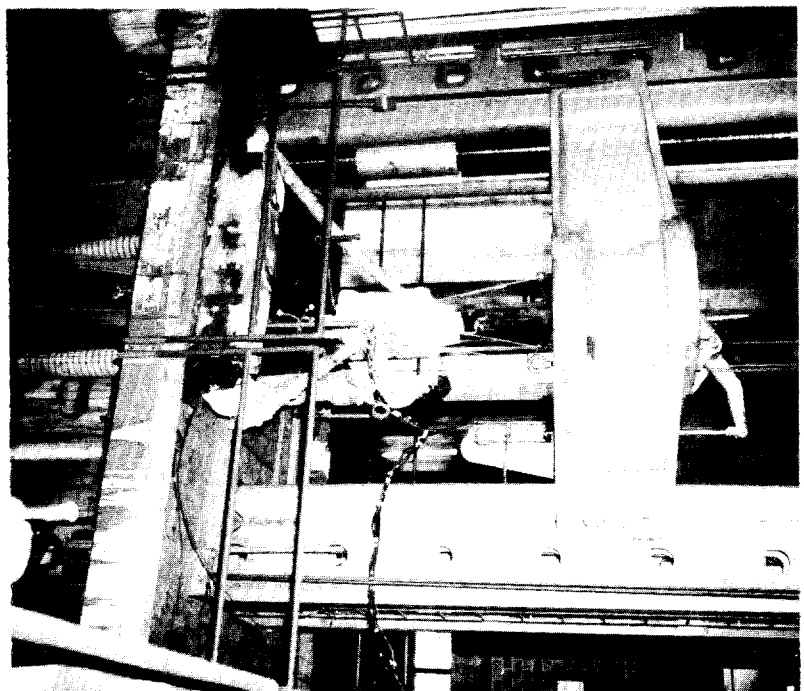


FIG. 2 TYPICAL LOAD-ELONGATION CURVES FOR OBTAINING ENERGY ABSORBED BY THE SPECIMENS UP TO THE MAXIMUM LOAD.



48-INCH SPECIMEN



12-INCH SPECIMEN

*FIG. 3 VIEW OF PLATES FOR TESTING UNDER CONTROLLED TEMPERATURE
CONDITIONS*