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WATERTOWN ARSENAL LABORATORY

EXPERIMENTAL REPORT

NO. WAL. 640/157

WELDING OF ARMOR

Summary of Ballistic Shock Test Results for
1/2, 3/8, 5/16 and 1/4 Inch Homogeneous Armor "H" Plates
Welded with Austenitic Electrodes and Tested at
Aberdeen Proving Ground during the Period of
1 April 1943 through 31 March 1944

BY

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Asst. Phy. Sci. Aide

S. A. Herres
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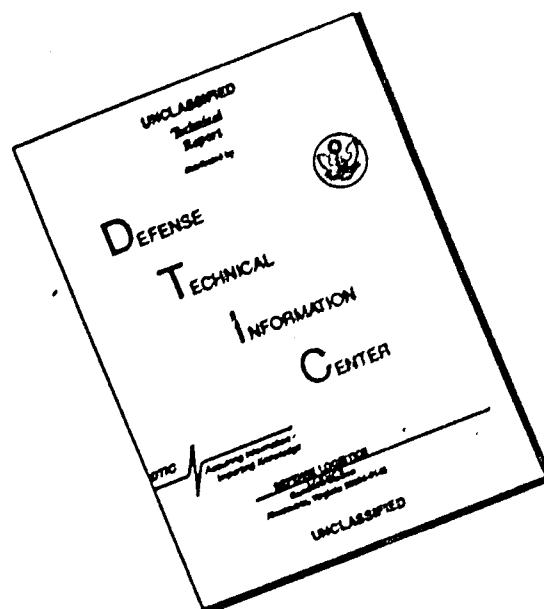
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7 August 1945

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Pentagon Building
Washington 25, D. C.

Attn: SPOTX - Technical Reports & Reference Section

1. Inclosed herewith are seven (7) copies of Watertown Arsenal Laboratory Report No. WAL 640/157, entitled "Welding of Armor - Summary of Ballistic Shock Test Results for 1/2, 3/8, 5/16 and 1/4 inch Homogeneous Armor "B" Plates Welded with Austenitic Electrodes and Tested at Aberdeen Proving Ground during the Period of 1 April 1943 through 31 March 1944".

2. These reports are for distribution as follows:

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3. Copies of this report have been sent to the following:

Office, Chief of Ordnance-Detroit
Rock Island Arsenal
Ordnance Research & Development Center, Aberdeen Proving
Ground, Maryland

4. This report covers tabulation and summary of data from Aberdeen Proving Ground firing records for 300 welded armor "B" plates. With the exception of an experimental .45% C, .90% Mn armor plate which showed excessive plate cracking, no correlation is evident between chemical composition of the armor plate and ballistic performance. Steel quality (cleanliness and directional properties) appears to affect the amount of both plate and weld cracking. No single joint design or welding procedure variable was indicated as affecting the ballistic cracking significantly.

For the Commanding Officer:

E. A. MATTHEWS
Lt. Col., Ord. Dept.
Assistant

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Watertown Arsenal Laboratory
Report Number WAL 640/157
Problem Number D-13.3

15 February 1945

WELDING OF ARMOR

Summary of Ballistic Shock Test Results for
1/2, 3/8, 5/16 and 1/4 Inch Homogeneous Armor "H" Plates
Welded with Austenitic Electrodes and Tested at
Aberdeen Proving Ground during the Period of
1 April 1943 through 31 March 1944.

OBJECT

To tabulate firing record data for subject plates and to present a comparison of ballistic shock performance of plates made with various materials and welding procedures.

SUMMARY

1. Data from Aberdeen Proving Ground firing records for 309 welded armor "H" plates have been tabulated on the accompanying charts and tables.
2. With the exception of an experimental .45% C, .90% Mn armor plate which showed excessive plate cracking, no correlation is evident between chemical composition of the armor plate and ballistic performance. Steel quality (cleanliness and directional properties) appears to affect the amount of both plate and weld cracking.
3. No single joint design or welding procedure variable was indicated as affecting the ballistic cracking significantly.

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Acting Director of Laboratory

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INTRODUCTION

This is the ninth of a series of reports presenting tabulations of ballistic shock test results and welding procedure variables for "H" plates welded by commercial fabricators. A previous report (WAL 640/90) dealt with "H" plates of 1/2, 3/8, and 1/4 inch thickness which were welded with austenitic electrodes and tested at Aberdeen Proving Ground during the period of 1 October 1942 through 31 March 1943. The present tabulation includes all firing records received by this arsenal for "H" plates of 1/2, 3/8, 5/16, and 1/4 inch thick rolled homogeneous armor which were welded with austenitic electrodes and tested at Aberdeen Proving Ground between 1 April 1943 and 1 April 1944.

Data from 309 firing records (161 - 1/2", 67 - 3/8", 9 - 5/16", and 72 - 1/4") are tabulated in the charts of Appendix A. An index of fabricators, armor manufacturers, and electrode manufacturers is given in Table I. A summary of current ballistic shock test specification requirements and a key to tabulation methods and symbols used in this report are included in Appendix A.

GENERAL COMMENTS

For the purpose of this report all cracking in weld or plate metal within 1/8 inch of the edge of weld is included as weld cracking and the remainder as plate cracking. Table II shows the average plate and weld cracking in terms of variations in the conditions of ballistic testing, but the results do not provide a basis for correction or allowances for variation in number or velocity of impacts on any one test plate. If the distance from the center of impact to the center of weld is greater than 1-3/4 inches for tests made with the 37 mm. H.E. projectile, the impact is not considered as a fair test of the weld.

However a considerable amount of cracking was caused by unfair rounds, and therefore all rounds are included in calculating average weld and plate cracking, but the number of rounds outside specification limits for velocity and location are listed and may be taken into consideration in comparing effects of armor and welding variables.

There follows a summary discussion based on comparisons of average cracking per round for all plates in this tabulation in terms of welding fabricator, armor manufacturer and processing, electrode, joint design, welding procedure, and radiographic soundness data.

Fabricators - Table III

The performance of "H" plates welded by any one fabricator is dependent upon armor and electrodes used as well as welding procedure and inspection control.

Armor Data - Table IV

Both machineable homogeneous and hard homogeneous are included in this table because the two types overlap and a number of plates could qualify as

either type. With the exception of an experimental .45% C, .90% Mn armor plate which showed excessive plate metal cracking, no correlation is evident between chemical composition of the armor plate and ballistic performance. A high ratio of plate to weld cracking is indicative of poor steel quality (cleanliness and directional properties). Previous tabulations have shown that poor steel quality armor plate consistently causes excessive weld cracking. Both plate and weld cracking would be expected to increase with hardness of armor plate unless there has been a commensurate improvement in steel quality.

Electrode Data - Table V

These data do not justify any definite conclusions. It is probable that any changes in chemical composition of the weld deposits within the limits shown in these tables do not influence ballistic cracking provided a crack free weld is made with the electrode.

Joint Design - Table VI

For 1/2 inch thick armor: 74 plates were tested with 45° included angle single V, 14 plates with 60° included angle double V, and 60 plates with 60° included double V joint preparation. There was no significant difference in the amount of ballistic cracking in these three groups. Similarly, there is no definite superiority for single or double V joints with 60° included angles for either 3/8 or 1/4 inch thick armor. The performance of 3/8 inch thick plates with 45° included angle single V joint preparation was inferior to those with 60° included angle, either single or double V joint preparation. It appears that joint preparation either does not have a large effect on ballistic shock performance, or that its effect is masked by the effect of other variables. Ballistic cracking averages do not indicate any influence of width of root gap or method of backup.

Welding Procedure - Table VII

The majority of the 1/2 inch thick plates were welded with 4 or 5 passes, 3/8 inch thick plates with 3 or 4, and 5/16 and 1/4 inch thick plates entirely with 2 passes. Variations in number of passes for either the single or the double V joint preparations do not correlate with any definite trends in ballistic performance. No consistent effects of variations in order or technique of deposition, single or multiple beads in crown, or utilization or number of seal beads are evident. It is probable that the geometry of the completed weld joint does influence ballistic performance, but the firing record data are inadequate to classify the joint geometry.

Preheat temperatures of 150° - 610°F were employed for fourteen 1/2 inch thick plates. No improvement in average weld cracking is shown for the preheated plates.

One 3/8 inch thick plate was welded with a single unionmelt pass (chart No. 106, Appendix A). The plate failed radiographic inspection and developed excessive plate metal cracking.

Radiographic Data - Table VIII

Radiographic unsoundness was associated with increased weld cracking for 1/2, 3/8, and 1/4 inch thick plates. All 5/16 inch plates passed radiographic inspection.

TABLE IIndex to PlatesHand Welded 1/2 Inch Thick Rolled Armor "H" Plates

<u>Chart No.</u>	<u>No. of Plates</u>	<u>Fabricator</u>	<u>Armor Mfr.</u>	<u>Electrode Mfr.</u>
1	2	American Locomotive	Youngstown	Harnischfeger
2	1	Ames Baldwin Wyoming Company	Youngstown Great Lakes	Crucible
3-15	33	Buick Motor	Republic Great Lakes Jones & Laughlin Youngstown	Alloy Rods Harnischfeger
16	2	Buick Youngstown	Great Lakes Youngstown	Crucible
17-24	17	Cadillac	Great Lakes	McKay Harnischfeger
25-26	3	Chicago Vitreous Enamel Prod. Co.	Jones & Laughlin Youngstown	Crucible
27	1	Federal Machine	Republic	Harnischfeger
28	2	Fisher Tank Division	Jones & Laughlin Great Lakes	McKay
29-31	9	Fisher Body Lansing Div.	Jones & Laughlin	Harnischfeger
32-33	4	Fitzgibbons Boiler Company	Jones & Laughlin Carnegie-Illinois Great Lakes Youngstown	Harnischfeger Lincoln Electric
34-35	2	Florence Stove	Great Lakes Jones & Laughlin	Crucible
36-46	30	Ford Motor Company	Ford Motor Company	Crucible Arcos Reid Avery Page Metal & Thermit
47-48	6	General American Transportation Corp.	Carnegie-Illinois	McKay Crucible
49	1	General Spring Bumper Division	Great Lakes Jones & Laughlin	Crucible
50-51	2	Gority-Adrian	Great Lakes Jones & Laughlin	Crucible
52	1	Gordon Mfg.	Jones & Laughlin	Crucible
53	1	Holland Furnace	Youngstown	Crucible

TABLE I (Cont'd)

<u>Chart No.</u>	<u>No. of Plates</u>	<u>Fabricator</u>	<u>Armor Mfr.</u>	<u>Electrode Mfr.</u>
54-60	16	Ilco Ordnance	Republic Great Lakes Carnegie-Illinois Ingersoll Steel	Harnischfeger Alloy Rods A. O. Smith
61	1	Ingram Richardson	Jones & Laughlin Great Lakes	Crucible
62	1	W. B. Jarvis	Great Lakes Jones & Laughlin	Crucible
63-64	2	Kalamazoo	Youngstown Great Lakes	Crucible
65-70	5	Marmion-Herrington	Ingersoll Great Lakes	McKay
71	1	Midland Steel	Jones & Laughlin	Crucible
72	1	McInerney Spring & Wire Company	Jones & Laughlin Great Lakes	Crucible
73-77	10	Ternstedt	Jones & Laughlin	Alloy Rods McKay Hollup Page

Hand Welded 3/8 Inch Thick Rolled "H" Plates

78	3	Buick Motor Div.	Republic	Harnischfeger Crucible
79	1	Cadillac	Great Lakes	Reid-Avery McKay
80-81	5	Chevrolet	E. C. Atkins Chevrolet Forge	Lincoln Electric Crucible
82-86	11	Deere & Company	Youngstown Jones & Laughlin	Crucible Arcos Lincoln Electric A. O. Smith
87-103	45	Ford Motor Co.	Ford Motor Co.	Arcos Crucible Lincoln Electric Metal & Thermit Alloy Rods Harnischfeger McKay Reid-Avery Page

TABLE I (Cont'd)

<u>Chart No.</u>	<u>No. of Plates</u>	<u>Fabricator</u>	<u>Armor Mfr.</u>	<u>Electrode Mfr.</u>
104	1	International Harvester	E. C. Atkins	Crucible
105	1	Standard Steel Spring Company	Ford Motor Co.	Crucible
<u>Unionmelt</u>				
106	1	Ford Motor Co.	Ford Motor Co.	Crucible
<u>Hand Welded 5/16 Inch Thick Rolled "H" Plates</u>				
107-109	9	Buick Motor Div.	Jones & Laughlin Great Lakes	Harnischfeger
<u>Hand Welded 1/4 Inch Thick Rolled "H" Plates</u>				
110-116	20	Buick Motor Div.	Jones & Laughlin Great Lakes Republic Steel Corp.	Harnischfeger Alloy Rods
117-121	12	Chevrolet Motor Company	Chevrolet Forge	Harnischfeger Crucible

TABLE II
Ballistic Severity Table for 161 - 1/2 Inch Thick Rolled Armor "H" Plates

Velocity	1st Round		2nd Round		3rd Round	
	No.	Av. Plate Cracking	No.	Av. Weld Cracking	No.	Av. Weld Cracking
	Rds.	Av. Plate Cracking	Rds.	Av. Weld Cracking	Rds.	Av. Plate Cracking
Projectile - 37 mm. HE A-54						
0 - 1-3/4"	9	4.7	11	7.0	8	4.3
Below 2500	89	9.3	22	9.5	43	9.2
2500-2550*	20	9.7	15	9.3	7	3.4
2551-2600	2	10.3	1	9.3	1	7.5
2601-2678						
1-3/4 - 3"	3	3.0	1	0	2	1.4
Below 2500	25	.6	23	1.7	16	3.0
2500-2550	1	0	5	.4	4	5.3
2551-2600						
2601-2678						
Over 3"						
Below 2500	4	2.5	9	0	3	1.7
2500-2550	7	0	4	.5	7	.6
2551-2600						
2601-2678						
4th Round						
0 - 1-3/4"	6	5.5	1	5.8	1	9.5
Below 2500	20	11.1	2	10.0		
2500-2550*	8	12.6	4	5.1		
2551-2600	1	9.0				
2601-2678						
5th Round						
1-3/4 - 3"	4	2.4	1	0	1	0
Below 2500	1	0			1	0
2500-2550	1	0				
2551-2600						
2601-2678						
Over 3"						
Below 2500	4	0			1	0
2500-2550						
2551-2600						
2601-2678						
6th Round						
0 - 1-3/4"						
Below 2500						
2500-2550*						
2551-2600						
2601-2678						
Over 3"						
Below 2500						
2500-2550						
2551-2600						
2601-2678						

*5, scified Velocity

TABLE II (Cont'd)

Velocity	7th Round		No. Rds.	5th Round		No. Rds.	9th Round	
	Av. Weld Cracking	Av. Plate Cracking		Av. Weld Cracking	Av. Plate Cracking		Av. Weld Cracking	Av. Plate Cracking
Projectile - 37 mm. HE M-54								
0 - 1-3/4"								
Below 2500								
2500-2550*	1	13.0	0	1	10.7	1.5	1	8.0
2551-2600								2.5
2601-2678								
1-3/4 - 3"								
Below 2500								
2500-2550								
2551-2600								
2601-2678								
Over 3"								
Below 2500	1	0	0					
2500-2550								
2601-2678	1	0	0	1	.5	0		

*Specified Velocity

TABLE II (Cont'd)

Ballistic Severity Table for 3/8 Inch Thick Rolled Armor "H" Plates

Velocity	1st Round				2nd Round				3rd Round			
	No. Rds.	Av. Weld Cracking	Av. Plate Cracking	No. Rds.	Av. Weld Cracking	Av. Plate Cracking	No. Rds.	Av. Weld Cracking	Av. Plate Cracking	No. Rds.	Av. Weld Cracking	Av. Plate Cracking
Projectile - 37 mm. HE M-54												
0 - 1-3/4"	6	2.33	3.2	7	6.5	1.1	4	13.1	2.0			
Below 2000	24	7.1	.36	32	4.2	.66	16	7.2	2.2			
2000-2050*	20	7.0	.67	7	9.1	0	7	4.8	.14			
2051-2100	2	14.4	.75	3	11.2	5.7	2	7.5	0			
2101-2150	1	15.0	0									
2151-2200	1	14.5	8.3									
2201-2250	1	5.0	18.0				1	6.5	11.3			
2251-2300												
2492-2550												
1-3/4 - 3"												
Below 2000	5	0	0	1	2.3	0	3	1.9	.41			
2000-2050	3	0	0	7	.14	0	2	0	0			
2051-2100	1	0	0	3	1.83	0	1	0	0			
2101-2150												
2201-2250	1	18.0	2.8									
2492-2550												
Over 3"												
2051-2100	1	0	0	3	0	0	3	1.33	0			
2407-2492	1	0	0									

*Specified Velocity

TABLE II (Cont'd)

Velocity	No. Rds.	4th Round		No. Rds.	5th Round		No. Rds.	6th Round	
		Avg. Weld Cracking	Avg. Plate Cracking		Avg. Weld Cracking	Avg. Plate Cracking		Avg. Weld Cracking	Avg. Plate Cracking
Projectile - 37 mm. HE M-54									
0 - 1-3/4"	1	0	0	2	.25	8.8	1	17.3	.58
Below 2000	7	6.4	.07	3	5.2	0	2	3.0	0
2000-2050*	2	10.5	5.8						
2051-2100	5	11.8	0	1	16.8	2.3			
2101-2150	1	0	0						
2151-2200									
2201-2250	1	10.0	0						
2251-2300									
2492-2550									
1-3/4 - 3"									
Below 2000	4	.69	0	1	0	0			
2000-2050									
2051-2100	1	0	0						
2101-2150	1	13.0	18.0						
2201-2250									
2492-2550									
Over 3"									
2051-2100									
2407-2492									
Ballistic Severity Table for 3/8 Inch Thick Rolled Unionmelt "H" Plates									
		1st Round			2nd Round			3rd Round	
0 - 1-3/4"	1	0	19.8	1	0	36.0			
2100									

*Specified Velocity

*Specified Velocity

Ballistic Severity Table for 5/16 Inch Thick Rolled Armor "H" Plates

<u>Velocity</u>	<u>Projectile - 37 mm. HE M-54</u>					
	<u>1st Round</u>		<u>2nd Round</u>		<u>3rd Round</u>	
No. Rds.	Avg. Cracking	Avg. Plate Cracking	No. Rds.	Avg. Weld Cracking	Avg. Plate Cracking	Avg. Weld Cracking
0 - 1-3/4"						
1800-1850			1	0	0	12.0
1851-1900	5	1.4	0	1.1	0	6.6
1901-1937			6			4.12
1-3/4 - 3"						
1800-1850	2	0				0
1851-1900	2	0	0			0
Over 3"						
1900	1	0	0	0	0	0
0 - 1-3/4"						
1800-1850	1	20.0	4.5			
1851-1900	2	0	0	2	0	
1901-1937						
1-3/4" - 3"						
1800-1850						
1851-1900						
Over 3"						
1900						
0 - 1-3/4"						
1800-1850						
1851-1900						
Over 3"						
1900						

TABLE II (Cont'd)

Ballistic Severity Table for 1/4 Inch Thick Rolled Armor "H" Plates

Velocity	No. Rds.	1st Round		No. Rds.	2nd Round		No. Rds.	3rd Round	
		Avg. Weld Cracking	Avg. Plate Cracking		Avg. Weld Cracking	Avg. Plate Cracking		Avg. Weld Cracking	Avg. Plate Cracking
Projectile - 37 mm. HE M-54									
0 - 1-3/4"	1	3.5	9.8	5	8.8	7.9	3	5.9	5.0
Lost Velocity	3	13.4	0	16	8.7	2.5	4	6.9	8.6
1500-1600	26	8.0	1.9	8	9.9	3.5			
1601-1700									
1701-1800									
1-3/4 - 3"	1	24.3	11.8	1	7.8	5	1	0	0
1600-1700									
Over 3"				1	3.8	0			
1800									
4th Round									
0 - 1-3/4"									
Lost Velocity									
1500-1600	1	0	0						
1601-1700									
1701-1800									
1-3/4 - 3"									
1600-1700									
Over 3"									
1800									

Specified Velocity 1600-1650 f/s

TABLE III

Fabricators of Hand Welded 1/2 Inch Thick Rolled Homogeneous Armor "H" Plates

Armor Fabricator	No. of Plates	No. of Rounds	Av. Crkg/Rd		Remarks
			Weld	Plate	
American Locomotive	2	4	21.06"	2.38"	3 rds. above specified velocity 1 rd. outside 1-3/4" limit
Ames Baldwin Wyoming Co.	1	4	.50"	0	2 rds. outside 1-3/4" limit
Buick Motor Division	31	98	6.13"	2.41"	31 rds. above specified velocity 37 rds. outside 1-3/4" limit 8 rds. below specified velocity 3 rds. velocity lost
Buick Youngstown	2	5	9.27"	2.62"	1 rd. outside 1-3/4" limit
Cadillac	16	41	7.42"	3.78"	9 rds. outside 1-3/4" limit 4 rds. above specified velocity 1 rd. below specified velocity
Chicago Vitrecous	3	10	5.00"	3.29"	2 rds. above specified velocity 3 rds. outside 1-3/4" limit
Federal Machine	1	3	2.83"	0	
Fisher Tank Div.	2	5	7.55"	0	1 rd. outside 1-3/4" limit
Fisher Lansing Body Div.	9	29	4.91"	.19"	8 rds. outside 1-3/4" limit
Fitzgibbons Boiler Co.	4	7	13.41"	1.73"	2 rds. outside 1-3/4" limit
Florence Stove	2	7	5.50"	1.82"	1 rd. above specified velocity 2 rds. outside 1-3/4" limit
Ford Motor	30	88	7.07"	2.50"	4 rds. above specified velocity 24 rds. outside 1-3/4" limit

TABLE III (Cont'd)

Armor Fabricator	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld	Plate	Remarks
General American	6	15	7.41"	1.51"	3 rds. outside 1-3/4" limit
General Spring Bumper	1	2	5.00"	0	1 rd. outside 1-3/4" limit
Gerity Adrian Mfg. Corp.	2	4	7.44"	4.81"	1 rd. outside 1-3/4" limit
Gordon Mfg. Co.	1	5	5.85"	0	2 rds. above specified velocity 3 rds. outside 1-3/4" limit
Holland Furnace	1	4	1.38"	.19"	1 rd. outside 1-3/4" limit
Ilco Ordnance	16	50	5.07"	.92"	5 rds. above specified velocity 14 rds. outside 1-3/4" limit 1 rd. velocity lost
Ingram Richardson	1	3	5.25"	0	1 rd. above specified velocity 1 rd. outside 1-3/4" limit
W. B. Jarvis	1	3	6.00"	0	2 rds. outside 1-3/4" limit
Kalamazoo Stove and Furnace Co.	2	4	6.90"	1.50"	
Marmon Herrington	13	36	10.02"	.44"	2 rds. above specified velocity 9 rds. outside 1-3/4" limit 6 rds. below specified velocity
Midland Steel	1	4	6.84"	.21"	2 rds. outside 1-3/4" limit
McInerney Spring & Wire Co.	1	2	13.50"	0	
Tornstedt Mfg.	10	34	6.50"	1.97"	2 rds. above specified velocity 5 rds. outside 1-3/4" limit 10 rds. below specified velocity

TABLE III (Cont'd)

Fabricators of Hand Welded 3/8 Inch Thick Armor "H" Plates					
Armor Fabricator	No. of Plates	No. of Rounds	Av. Weld	Orkg/rd Plate	Remarks
Buick	3	6	8.0"	.3"	1 rd. outside of 1-3/4" limit
Cadillac	1	3	5.9"	0	1 rd. below specified velocity
Chevrolet	5	21	3.3"	.7"	7 rds. outside 1-3/4" limit 1 rd. below specified velocity
Deere and Company	11	30	5.8"	2.5"	1 rd. lost velocity 5 rds. outside 1-3/4" limit 19 rds. above specified velocity 4 rds. below specified velocity
Ford Motor Company	45	136	5.9"	1.0"	35 rds. above specified velocity 10 rds. below specified velocity 29 rds. outside 1-3/4" limit 1 rd. Velocity lost
International Harvester Co.	1	4	1.3"	0	1 rd. above specified velocity
Standard Steel Spring	1	4	4.0"	0	1 rd. outside 1-3/4" limit
Fabricators of Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates					
Bulck Motor	20	44	9.3"	3.8"	8 rds. below specified velocity 1 rd. velocity lost 3 rds. outside 1-3/4" limit
Chevrolet Motor	12	28	7.1"	3.2"	1 rd. outside 1-3/4" limit

TABLE IV

Armor Data for Hand Welded 1/2 Inch Thick Rolled Armor "H" Plates

Mfr.	Armor Type	Chemical Composition	°F.	Heat Treatment		BHN	No. of		Remarks
				Hrs. (Hold)	Quench		Plates	Av. Crkg/Rd Rounds	
Carnegie Illinois	I	.26 - .28 C	1544	3/4 -		340-	7	16	3 rds. outside 1-3/4" limit
	Mn-Ni	1.12 - 1.22 Mn		1	Water	364			
	Cr-Mo	.20 - .22 Si	860-	3/4 -					
		.78 - .82 Cr	896	1-3/4	Water				
		.83 - 1.03 Ni	1540	3/4	Water	351-			
Ford Motor		.19 - .30 Mo	450	3/4		364			
	II	.25 - .30 C	1650	1-1/2 -			30	85	23 rds. outside 1-3/4" limit
	Mn-Cr-Mo	1.18 - 1.46 Mn		4	Platen	321-			
		.21 - .29 Si	965-	2-1/2 -		352			4 rds. above spec. vel.
		.48 - .75 Cr	1000	4	Air				8 rds. below spec. vel.
Great Lakes	IV	.24 - .29 C	1600-	1/2	Water	321-	40	114	36 rds. outside 1-3/4" limit
	Mn-Cr	.77 - .98 Mn	1650			388			
	Mo-Si	.65 - .85 Si	830-	1 -					19 rds. above spec. vel.
		.58 - .76 Cr	950	1-1/2	Air				13 rds. below spec. vel.
		.15 - .24 Mo							
Ingersoll Steel		.04 - .10 Zr							
	Mn-Cr-Mo	.23 C	1650	1/2	Water	321-	1	3	1 rd. outside 1-3/4" limit
		1.46 Mn	930	1/2	Air	321			
		.25 Si							
		.33 Cr							
Ingersoll Steel	IV	.28 - .30 C	1600	1/2	Water	352-	10	33	4 rds. outside 1-3/4" limit
	Mn-Ni-Si	.82 - .86 Mn	1050-	1	Water or furnace	387			
		.90 - 1.01 Si	1080						9 rds. above spec. vel.
	Cr-Mo	.62 - .66 Cr							1 rd. below spec. vel.
		.67 - .75 Ni							
		.30 - .32 Mo							

TABLE IV (Cont'd)

TABLE IV (Cont'd)

Armor Data for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates

Mfr.	Armor Type	Chemical Composition	°F.	Heat Treatment Hrs. (Hold)	Quench	BHN	No. of		Remarks
							Plates	Rounds	
Chevrolet Forgo	RIV	.27 - .29 C	1600	1/2	Water	295-	12	28	2 rds. outside 1-3/4" limit
		.84 - .90 Mn	950-			341			
		.70 - .76 Si	1050	4	Air				26 rds. above spec. vel.
		.55 - .65 Cr							
		.19 - .22 Mo							
Great Lakes	RIV	.27 - .28 C	1600-	1/2 -		341-	8	17	2 rds. outside 1-3/4" limit
		.70 - .71 Mn	1650	1	Water	363			5 rds. above spec. vel.
		.50 - .70 Si	900-	1 -					2 rds. below spec. vel.
		.61 - .64 Cr	910	1-1/2	Air				1 rd. velocity lost
		.22 - .25 Mo							
Jones & Laughlin	RIV	.08 Zr							
		.21 C	1600	1		341-	3	9	1 rd. outside 1-3/4" limit
		1.38 Mn				363			8 rds. above spec. vel.
		.20 Si							
		.32 Mo	900	1					
Republic Steel	RV	.29 - .33 C	1650	1 - 2	Water	352	9	18	6 rds. below spec. vel.
		1.00 - 1.01 Mn	860	2 - 3	Water or				
		.24 - .27 Si			Air				
		.24 - .44 Cr							
		.42 - .48 Ni							
		.11 - .12 Mo							

TABLE V (Cont'd)

Electrode Mfg.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Avg. Cn Weld	g/Rd Plate	Remarks
Crucible Steel	Resistal Armorize	.07 - .14 C 1.74 - 2.23 Mn .18 - .45 Si 14.57 - 20.28 Cr 7.29 - 10.64 Ni .82 - 2.01 Mo		16	54	6.0"	2.2"	21 rds. outside 1-3/4" limit 13 rds. above specified velocity 4 rds. below specified velocity
Harnischfeger	AW3	.07 - .12 C 2.13 - 4.18 Mn .50 - .63 Si 21.02 - 21.32 Cr 9.56 - 10.80 Ni .05 - .10 Mo	Lime	4	13	5.53"	1.07"	3 rds. outside 1-3/4" limit 2 rds. above specified velocity
Harnischfeger		.07 - .15 C 1.43 - 3.96 Mn .39 - .60 Si 18.49 - 20.38 Cr 9.00 - 10.51 Ni .70 - 1.87 Mo tr. - .05 V .06 - .07 Cu	Lime	27	84	6.31"	1.4"	40 rds. above specified velocity 23 rds. outside 1-3/4" limit 7 rds. below specified velocity
Harnischfeger	AW3C Smoothare	.03 - .12 C 1.80 - 3.90 Mn .27 - .58 Si 18.8 - 19.7 Cr 9.39 - 10.7 Ni .76 - 1.82 Mo	Titania	2	6	2.99"	2.5"	3 rds. below specified velocity
Harnischfeger	AW3C	.10C 4.0 - 4.34 Mn .30 - .66 Si 19.0 - 19.4 Cr 9.2 - 9.5 Ni .70 - .80 Mo	Lime	10	29	6.3"	1.2"	1 rd. above specified velocity 4 rds. outside 1-3/4" limit

TABLE V

Electrode Data for Hand Welded 1/2 Inch Thick Rolled "H" Plates

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld. Plate	Remarks
Alloy Rods	Armorarc	.08 - .10 C 1.04 - 1.36 Mn .22 - .28 Si 18.51 - 18.97 Cr 9.79 - 10.06 Ni 2.01 - 2.35 Mo .07 - .15 C	Lime	5	15	5.47" 5.29"	13 rds. above specified velocity 1 rd. below specified velocity 7 rds. outside 1-3/4" limit
Alloy Rods	Armorarc	3.30 - 4.75 Mn .08 - .75 Si 18.0 - 20.0 Cr 8.25 - 10.5 Ni 1.25 Mo		11	40	5.6" 1.5"	13 rds. outside 1-3/4" limit 4 rds. above specified velocity 5 rds. below specified velocity
Arcos Corp.	Chromang	.091 C 3.26 - 3.85 Mn .26 - .43 Si 16.6 - 19.06 Cr 9.34 - 9.7 Ni .59 - .62 Mo	Titania	4	10	10.10" 3.75"	3 rds. outside 1-3/4" limit
Arcos Corp.	Chromang	.065 - .08 C 3.78 - 4.01 Mn .27 - .54 Si 19.03 - 19.96 Cr 9.61 - 9.95 Ni .63 - .97 Mo	Lime	4	13	6.26" .22"	8 rds. outside 1-3/4" limit
Crucible Steel	Rezilal Armorize	.09 - .16 C 2.01 - 4.44 Mn .21 - .52 Si 13.52 - 21.0 Cr 9.40 - 10.70 Ni .62 - 1.94 Mo		19	53	6.5" 1.7"	11 rds. outside 1-3/4" limit 4 rds. above specified velocity 3 rds. below specified velocity

TABLE V (Cont'd)

Electrode Mfg.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
Hollup Corp.	Armored	.14 C 4.26 Mn 19.78 Cr .51 Si 9.72 Ni .74 Mo	Lime	1	2	23.12" 0"	1 rd. below specified velocity
Lincoln Electric	Armorweld	.08 - .12 C 3.50 - 4.25 Mn .45 - .80 Si 19.0 - 20.5 Cr 8.5 - 10.0 Ni	Lime	2	3	14.00" .42" 1 rd.	outside 1-3/4" limit
McKay Co.	Armorloy	.095- .16 C 3.80 - 4.60 Mn .32 - .64 Si 9.12 - 10.30 Ni 18.55 - 20.80 Cr .06 - .89 Mo	Lime	27	73	8.7" 2.3"	13 rds. outside 1-3/4" limit 4 rds. above specified velocity 12 rds. below specified velocity
Metal & Thermit	Murex	.09 C 3.38 Mn .37 Si 18.55 Cr 9.14 Ni .64 Mo	Lime	1	2	16.92" 0	
Page Steel & Wire	Page	.095- .101 C 3.81 - 4.08 Mn .24 - .40 Si 20.51 - 22.46 Cr 9.74 - 10.21 Ni .63 - .78 Mo .13 - .15 C 3.54 - 3.74 Mn 20.10 Cr 9.28 - 9.64 Si .34 - .35 Mo	Titania	4	12	6.43" 4.03"	5 rds. below specified velocity 2 rds. outside 1-3/4" limit
			Lime	2	5	6.10" .35"	1 rd. above specified velocity

TABLE V (Cont'd)

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
A. C. Smith	S-4-164	.08 C 3.20 - 3.70 Mn .50 - .75 Si 18.00 - 19.5 Cr 9.0 - 10.5 Ni .75 - 1.2 Mo	Line	7	20	6.06" 1.07"	2 rds. above specified velocity 6 rds. outside 1-3/4" limit
Reid-Avery	Raco	.11 C 1.62 - 2.00 Mn .40 - .50 Si 18.79 - 19.50 Cr 4.25 - 10.60 Ni 2.05 - 2.20 Mo	Titanium	2	5	1.70" 2.82"	1 rd. outside 1-3/4" limit
Electrode Data for Hand Welded 3/8 Inch Thick Rolled Armor "H" Plates							
Alloy Rods	Alloy Manganese	.14 C 3.7 Mn .06 Si 19.00 Cr 9.25 Ni	Titanium	1	4	10.2" 0	
Alloy Rods	Armorarc	.11 C 4.56 Mn .80 Si 19.83 Cr 10.2 Ni .98 Mo	Titanium	1	3	0 0	
Arcos Corp.	Chromang	.065- 3.26 - 4.75 Mn .26 - .30 Si 18.0 - 21.0 Cr 8.9 - 10.7 Ni .54 - 1.10 Mo	Line	10	30	8.1" 2.7"	7 rds. outside 1-3/4" limit

TABLE V (Cont'd)

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
Crucible Steel	Armorize Rezistol	.10 - .15 C 3.75 - 4.44 Mn .19 - .42 Si 18.76 - 20.04 Cr 9.36 - 10.31 Ni .63 - 1.25 Mo		15	42	8.2" 1.7"	6 rds. outside 1-3/4" limit
Crucible Steel	Armorize Rezistol	.10 - .11 C 1.76 - 1.92 Mn .18 - .26 Si 16.31 - 18.8 Cr 3.78 - 10.2 Ni .82 - .87 Mo	Titanium	6	16	5.5" 0	3 rds. outside 1-3/4" limit
Crucible Steel	Armorize Rezistol	.095 - .12 C 1.76 - 2.23 Mn .31 Si 18.68 - 19.70 Cr 10.48 - 10.64 Ni 2.22 - 2.28 Mo	Titanium Shielded Arc	5	20	2.5" .8"	11 rds. outside 1-3/4" limit
Crucible Steel	Armorize Rezistol	.06 C 2.10 Mn 19.16 Cr 9.21 Ni 1.61 Mo .20 V	Titanium	1	4	1.3" 0	
Harnischfeger AW3C		.10 C 3.80 Mn .24 Si 19.41 Cr 9.11 Ni .61 Mo	Lime	2	4	2.8" 0	

TABLE V (Cont'd)

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
Harnischfeger	P&H	.11 C 1.65 Mn .67 Si 18.4 Cr 9.71 Ni .73 Mo	Lime	1	2	15.5" 0	
Lincoln Electric	ARM-1 Armoweld	.06 - .12 C 4.0 - 4.85 Mn .50 - .79 Si 17.0 - 20.2 Cr 9.7 - 10.4 Ni	Lime	8	33	6.8" 2.0"	9 rds. outside 1-3/4" limit
Metal & Thermit	Murex	.07 - .08 C 1.0 - 1.40 Mn .50 Si 18.0 Cr 10.0 - 10.3 Ni 2.0 Mo	Titanium Lime	2	6	5.5" 0	1 rd. outside 1-3/4" limit
Metal & Thermit	Murex	.09 C 3.40 Mn .36 Si 20.0 Cr 9.59 Ni .61 Mo	Lime	1	2	14.7" 1.4"	
McKay Co.	Armorloy	.06 C 6.0 Mn 19.22 Cr 9.86 Ni .06 Mo	Titanium	1	2	4.4" 0	

TABLE V (Cont'd)

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
McKay Co.	Armorloy	.12 C 4.60 Mn .55 Si 19.20 Cr 9.44 Ni	Lime	1	2	10.6" 5.7"	
Page Steel & Wire Co.	Page	.10 C 4.08 Mn .40 Si 21.02 Cr 10.21 Ni .78 Mo	Titania	3	9	2.3" 0	1 rd. outside 1-3/4" limit
Page Steel & Wire Co.	Page	.035 C 1.72 Mn .22 Si 19.73 Cr 10.50 Ni 1.70 Mo	Titania	1	2	10.1" 0	1 rd. outside 1-3/4" limit
Reid-Avery	Raco Shield Arc #18	Not Given		1	3	8.0" 0	2 rds. outside 1-3/4" limit
Reid-Avery	Racolley	--- C 4.10 Mn .33 Si 19.60 Cr 9.70 Ni .63 Mo	Lime	2	7	.9" 0	
Reid-Avery	Racolley	--- C 5.74 Mn .42 Si 19.38 Cr 10.28 Ni .56 Mo	Lime	2	5	9.7" 1.1"	

TABLE V (Cont'd)

Electrode Mfr.	Brand	Weld Metal Composition	Coating	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld Plate	Remarks
A. O. Smith	SW-164	.08 C 3.5 Mn .35 Si 39.0 Cr 10.0 Ni 1.0 Mo	Lime	2	5	4.3" .2"	
Electrode Data for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates							
Alloy Rods	Armorarc	.08 C 1.04 Mn .26 Si 18.97 Cr 10.08 Ni 2.01 Mo	Lime	1	1	24.3" 11.8"	1 rd. outside 1-3/4" limit
Crucible Steel	Armorize Mn	.10 - .12 C 4.10 - 4.36 Mn .39 - .71 Si 19.7 - 20.8 Cr 10.0 - 10.7 Ni 1.00 - 1.30 Mo	Titanium	6	14	6.7" 2.8"	1 rd. outside 1-3/4" limit 12 rds. above specified velocity
Harnischfeger	AW3C	.07 - .15 C 3.50 - 4.47 Mn .26 - .65 Si 19.5 - 21.02 Cr 9.0 - 10.7 Ni .50 - .86 Mo	Lime	21	48	8.4" 3.9"	1 rd. outside 1-3/4" limit 1 rd. velocity lost 18 rds. above specified velocity 7 rds. below specified velocity
Harnischfeger	AW3	.15 C 1.48 Mn .47 Si 20.03 Cr 10.21 Ni 1.84 - 1.89 Mo	Lime	4	9	9.8" 1.4"	5 rds. above specified velocity 1 rd. below specified velocity

TABLE VI

Joint Design Data for 1/2 Inch Thick Rolled Armor "H" Plates

Angle of Bevel	No. of Plates	No. of Rounds	Av. Crkg/Rd Weld	Plate 1.52"	Remarks
45° SV	74	206	7.43"	1.52"	50 rds. outside 1-3/4" limit 20 rds. above specified velocity 16 rds. below specified velocity
60° SV	15	42	6.96"	1.01"	17 rds. outside 1-3/4" limit 10 rds. above specified velocity
90° SV	3	10	7.30"	2.85"	2 rds. outside 1-3/4" limit 1 rd. above specified velocity 1 rd. below specified velocity
30° DV	1	4	3.89"	0"	
60° DV	60	181	6.3"	2.7"	59 rds. above specified velocity 23 rds. below specified velocity
90° DV	8	27	4.07"	1.07"	9 rds. outside 1-3/4" limit 1 rd. above specified velocity

Joint Design Data for 3/8 Inch Thick Rolled Armor "H" Plates					
45° SV	44	130	7.8"	1.3"	25 rds. outside 1-3/4" limit
60° SV	10	32	4.9"	.4"	10 rds. outside 1-3/4" limit
30° SV	3	8	9.6"	4.8"	
60° DV	9	30	4.5"	.6"	8 rds. outside 1-3/4" limit
90° DV	1	4	1.3"	0	

TABLE VI (Cont'd)

Joint Design Data for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates

Angle of Bevel Not given	No. of Plates	No. of Rounds	Av. Crkg/Rd		Remarks
			Weld	Plate	
	4	10	4.3"	2.1"	9 rds. above specified velocity 1 rd. outside 1-3/4" limit
60° SV	8	18	8.7"	3.8"	1 rd. outside 1-3/4" limit 17 rds. above specified velocity
60° DV	20	44	9.3"	3.8"	14 rds. above specified velocity 1 rd. velocity lost 3 rds. outside 1-3/4" limit 8 rds. below specified velocity

Joint Design Data for 1/2 Inch Thick Rolled Armor "H" Plates

Root Gap	No. of Plates	No. of Rounds	Av. Cracking/Rd.		Remarks
			Weld	Plate	
1/16"	2	7	5.60"	0	3 rds. outside 1-3/4" limit 5 rds. above specified velocity
1/8"	8	21	6.95"	.81"	6 rds. outside 1-3/4" limit 2 rds. above specified velocity
5/32"	9	21	7.43"	5.68"	3 rds. outside 1-3/4" limit
3/16"	46	123	8.54"	2.61"	28 rds. outside 1-3/4" limit 25 rds. above specified velocity 6 rds. below specified velocity
1/4"	68	206	6.34"	1.5"	54 rds. outside 1-3/4" limit 24 rds. above specified velocity 14 rds. below specified velocity
9/32"	1	3	10.62"	.33"	1 rd. outside 1-3/4" limit

TABLE VI (Cont'd)

Root Gap	No. of Plates	No. of Rounds	Av. Cracking/Rd. Weld	Plate	Remarks
5/16"	22	74	4.87"	1.76"	36 rds. outside 1-3/4" limit 40 rds. above specified velocity 2 rds. below specified velocity
3/8"	2	5	7.55"	0	1 rd. outside 1-3/4" limit
1/2"	2	7	5.28"	1.82"	2 rds. outside 1-3/4" limit
Not given	1	3	15.36"	0	2 rds. below specified velocity
Joint Design Data for Hand Welded 3/8 Inch Thick Rolled "H" Plates					
None Given	1	6	.4	0	5 rds. outside 1-3/4" limit
3/32"	1	2	29.33"	1.3"	
3/32 to 1/8"	1	4	1.4"	0	
1/8"	1	5	5.4"	0	1 rd. outside 1-3/4" limit
1/8 to 1/4"	8	26	4.9"	1.2"	10 rds. outside 1-3/4" limit
5/32"	12	34	5.3"	1.4"	4 rds. outside 1-3/4" limit
3/16"	36	105	7.6"	1.1"	18 rds. outside 1-3/4" limit
3/16 to 1/4"	2	7	3.2"	1.5"	3 rds. outside 1-3/4" limit
1/4"	5	15	4.8"	0	2 rds. outside 1-3/4" limit

TABLE VI (Cont'd.)

Joint Design Data for Hand Welded 1/4 Inch Thick Rolled "H" Plates

Root Gap	No. of Plates	No. of Rounds	Av. Cracking/Rd.		Remarks
			Weld	Plate	
3/16"	18	41	8.4"	2.8"	2 rds. outside 1-3/4" limit 2 rds. below specified velocity
1/4"	14	31	8.4"	4.6"	6 rds. below specified velocity 2 rds. outside 1-3/4" limit 1 rd. velocity lost

Joint Design Data for 1/2 Inch Thick Rolled Armor "H" Plates

Backing	No. of Plates	No. of Rounds	Av. Cracking/Rd.		Remarks
			Weld	Plate	
Copper	86	260	7.91"	1.85"	21 rds. above specified velocity 57 rds. outside 1-3/4" limit 17 rds. below specified velocity 1 rd. velocity lost
Brass	5	13	9.03"	.5"	2 rds. above specified velocity 1 rd. outside 1-3/4" limit 2 rds. below specified velocity
None	9	23	4.92"	4.7"	3 rds. above specified velocity 6 rds. outside 1-3/4" limit
Not Given	61	174	6.49"	2.40"	35 rds. above specified velocity 58 rds. outside 1-3/4" limit 4 rds. below specified velocity

Joint Design Data for 3/8 Inch Thick Rolled Armor "F" Plates

Copper	44	132	6.0"	1.2"	26 rds. outside 1-3/4" limit
None	3	12	6.7"	1.0"	5 rds. outside 1-3/4" limit
Not Given	20	60	5.4"	1.0"	10 rds. outside 1-3/4" limit

TABLE VI (Cont'd)

Joint Design Data for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates

Backing	No. of Plates	No. of Rounds	Av. Cracking/Rd.		Remarks
			Weld	Plate	
Copper	12	28	9.5"	3.3"	3 rds. outside 1-3/4" limit 21 rds. above specified velocity 2 rds. below specified velocity
Not Given	20	38	10.2"	4.6"	20 rds. above specified velocity 6 rds. below specified velocity 2 rds. outside 1-3/4" limit 1 rd. velocity lost

TABLE VII

Welding Procedure for Hand Welded 1/2 Inch Thick Rolled Armor "H" Plates

No. of Passes	No. of Plates	No. of Rounds	Av. Cracking/Rd. Weld	Plate	Remarks
SV					
2	1	4	4.4"	1.6"	1 rd. outside 1-3/4" limit
3	4	10	6.3"	.6"	1 rd. outside 1-3/4" limit 1 rd. above specified velocity 2 rds. below specified velocity
4	38	95	7.5"	2.3"	26 rds. outside 1-3/4" limit 14 rds. above specified velocity 1 rd. below specified velocity
5	28	85	8.1"	1.3"	27 rds. outside 1-3/4" limit 12 rds. above specified velocity 12 rds. below specified velocity 1 rd. velocity lost
6	8	38	2.3"	.4"	10 rds. outside 1-3/4" limit 2 rds. above specified velocity
7	4	9	12.5"	1.1"	1 rd. outside 1-3/4" limit 2 rds. above specified velocity
8	3	8	4.0"	.9"	2 rds. below specified velocity
9	2	6	7.4"	3.4"	1 rd. outside 1-3/4" limit
11	1	4	10.8"	0	2 rds. outside 1-3/4" limit
12	2	4	8.8"	4.3"	

TABLE VII (Cont'd)

No. of Passes	No. of Plates	No. of Rounds	Av. Cracking/Rd. Weld	Plate	Remarks
DV					
2	2	6	2.8"	9.0"	1 rd. velocity lost 5 rds. below specified velocity
3	7	22	4.5"	1.0"	4 rds. outside 1-3/4" limit 1 rd. above specified velocity 1 rd. velocity lost
4	33	100	9.0"	4.6"	21 rds. outside 1-3/4" limit 12 rds. above specified velocity 8 rds. below specified velocity
5	17	59	6.5"	2.1"	23 rds. outside 1-3/4" limit 5 rds. above specified velocity 13 rds. below specified velocity
6	1	1	6.7"	33.0"	1 rd. outside 1-3/4" limit
8	7	20	3.9	.4"	5 rds. outside 1-3/4" limit

Welding Procedure for Hand Welded 3/8 Inch Thick Rolled Armor "H" Plates

SV					
3	27	85	6.0"	.9"	14 rds. outside 1-3/4" limit
4	17	52	6.9"	1.2"	15 rds. outside 1-3/4" limit
5	6	16	6.1"	2.1"	3 rds. outside 1-3/4" limit
11	3	8	2.5"	0	3 rds. outside 1-3/4" limit
12	4	9	8.7"	2.1"	

TABLE VII (Cont'd)

No. of Passes	No. of Plates	No. of Rounds	Av. Cracking/Rd. Weld	Plate	Remarks
D7					
2	2	4	2.7"	0	
3	6	23	4.7"	0.8"	7 rds. outside 1-3/4" limit
8	2	7	3.3"	0	1 rd. outside 1-3/4" limit

Welding Procedure for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates

SV					
2	10	22	9.7"	3.2"	1 rd. outside 1-3/4" limit 18 rds. above specified velocity 2 rds. below specified velocity
D7					
2	20	43	7.4"	3.3"	3 rds. outside 1-3/4" limit 1 rd. velocity lost 23 rds. above specified velocity 8 rds. below specified velocity
2	2	6	4.4"	1.3"	6 rds. above specified velocity

Bevel
Not Given

Welding Procedure for Hand Welded 1/2 Inch Thick Rolled Armor "H" Plates

Deposition	No. of Plates	No. of Rounds	Av. Cracking/Rd. Weld	Plate	Remarks
SV					
weaves and single crown	53	152	8.21"	1.9"	49 rds. outside 1-3/4" limit 29 rds. above specified velocity 7 rds. below specified velocity

TABLE VII (Cont'd)

<u>Disposition</u>	<u>No. of Plates</u>	<u>No. of Rounds</u>	<u>Av. Cracking/Rd Weld</u>	<u>Plate</u>	<u>Remarks</u>
SV					
bead and a single crown	2	6	2.0"	0	6 rds. below specified velocity 1 rd. above specified velocity
weaves and a multiple crown	17	56	5.8"	.5"	3 rds. outside 1-3/4" limit 1 rd. above specified velocity
beads and multiple crown	3	7	8.0"	2.7"	18 rds. outside 1-3/4" limit 2 rds. below specified velocity
combination weaves and beads and single crown	1	2	5.5"	3.0"	
combination weaves and beads and multiple crown	16	44	6.9"	1.5"	4 rds. above specified velocity 10 rds. outside 1-3/4" limit
seal bead	90	250	7.3"	1.5"	30 rds. above specified velocity 54 rds. outside 1-3/4" limit 17 rds. below specified velocity
no seal bead	2	6	6.3"	1.9"	1 rd. outside 1-3/4" limit 1 rd. below specified velocity
DV					
all weaves	59	180	6.5"	2.6"	41 rds. outside 1-3/4" limit 32 rds. below specified velocity
weaves and multiple crown	8	19	4.5"	.4"	5 rds. outside 1-3/4" limit
combination weaves and beads multiple crown	2	4	8.1"	1.3"	1 rd. outside 1-3/4" limit 1 rd. below specified velocity

TABLE VII (Cont'd)

Welding Procedure for Hand Welded 3/8 Inch Thick Rolled Armor "H" Plates

Deposition	No. of Plates	No. of Rounds	Avg. Cracking/Rd Weld	Plate	Remarks
SV					
weaves and single crown with one seal bead	47	123	6.4"	3.6"	29 rds. outside 1-3/4" limit
weaves and multiple crown with one seal bead	6	15	5.3"	1.4"	2 rds. outside 1-3/4" limit
beads with a multiple crown and 4 seal beads	3	4	.9"	0	2 rds. outside 1-3/4" limit
weaves and beads with a multiple crown and 3 seal beads	4	24	7.7"	1.9"	1 rd. outside 1-3/4" limit
weaves and beads with a single crown and 1 seal bead	1	4	5.2"	2.1"	1 rd. outside 1-3/4" limit
DV					
weaves with a multiple crown	1	7	5.9"	0	1 rd. outside 1-3/4" limit
weaves and single crown	5	27	3.3"	.7"	7 rds. outside 1-3/4" limit

TABLE VII (Cont'd)

Welding Procedure for Hand Welded 1/4 Inch Thick Rolled Armor "H" Plates

<u>Deposition</u>	<u>No. of Plates</u>	<u>No. of Rounds</u>	<u>Av. Cracking/Rd Weld</u>	<u>Plate</u>	<u>Remarks</u>
SV 2 weaves only	10	22	9.7"	3.2"	1 rd. outside 1-3/4" limit 18 rds. above specified velocity 2 rds. below specified velocity
DV 2 weaves only	20	48	7.4"	3.3"	3 rds. outside 1-3/4" limit 1 rd. velocity lost 23 rds. above specified velocity 8 rds. below specified velocity
Bevel not given 2 weaves only	2	6	4.4"	1.8"	6 rds. above specified velocity

Welding Procedure for Hand Welded 1/2 Inch Thick Rolled Armor "H" Plates

<u>Preheat °F</u>	<u>No. of Plates</u>	<u>No. of Rounds</u>	<u>Av. Cracking/Rd Weld</u>	<u>Plate</u>	<u>Remarks</u>
70° - 115°	147	422	6.7"	2.1"	63 rds. above specified velocity 112 rds. outside 1-3/4" limit 33 rds. below specified velocity 6 rds. velocity lost
150°	8	24	5.9"	.7"	2 rds. above specified velocity 7 rds. outside 1-3/4" limit 1 rd. not given
200°	2	6	6.4"	2.0"	1 rd. outside 1-3/4" limit 1 rd. below specified velocity
250°	3	9	9.0"	0	4 rds. outside 1-3/4" limit 2 rds. below specified velocity
610°	1	2	8.4"	0	

TABLE VIII

Radiographic Data for 1/2 Inch Thick Rolled Armor "H" Plates

Radiographic Results	No. of Plates	No. of Rounds	Av. Cracking/Rd		Remarks
			Weld	Plate	
Passed	135	393	6.64"	1.92"	102 rds. outside 1-3/4" limit 82 rds. above specified velocity 31 rds. below specified velocity
Failed	26	77	7.2"	1.8"	4 rds. above specified velocity 22 rds. outside 1-3/4" limit 8 rds. below specified velocity

Radiographic Data for 3/8 Inch Thick Rolled Armor "H" Plates

Passed	60	184	5.8"	.8"	32 rds. outside 1-3/4" limit
Failed	7	20	7.3"	3.7"	11 rds. outside 1-3/4" limit

Radiographic Data for 1/4 Inch Thick Rolled Armor "H" Plates

Passed	30	72	9.5"	4.3"	3 rds. outside 1-3/4" limit 49 rds. above specified velocity 12 rds. below specified velocity 1 rd. velocity lost
Failed	2	4	13.4"	2.5"	1 rd. outside 1-3/4" limit 3 rds. above specified velocity

APPENDIX A

1. Key to tabulation method and symbols.
2. Specification requirements for H plates welded with austenitic electrodes.
3. Tabulation of firing record data for subject H plates.

KEY TO TABULATION METHOD AND SYMBOLS

1. Identification of Test

Information in the first column identifies the test.

2. Armor Data

A. Plate Thicknesses

Plates in this tabulation are of 1 inch and 3/4 inch thick homogeneous armor.

B. Type Armor

Armor compositions are typed as follows:

Typical Analyses

R (Rolled)

	Type	C	Mn	Si	Cr	Mo	Ni	Zr
I	Mn-Ni-Cr-Mo	.26	1.15	.20	.60	.20	1.00	
II	Mn-Cr-Mo	.27	1.30	.25	.55	.42		
III	Mn-Mo	.25	1.60	.22	—	.37		
IV	Mn-Cr-Mo-Si	.27	.86	.79	.62	.17		.09
V	Special	(noted in tabulation)						

C (Cast)

I	Mn-Ni-Cr-Mo	.32	.80	.35	.55	.40	.45	
II	Mn-Cr-Mo	.28	1.55	.45	.40	.12		
III	Mn-Mo	.30	1.58	.40	—	.30		
IV	Special	(noted in tabulation)						

C. Carbon Content

Carbon content is listed as given.

D. Brinell Hardness Number (BHN)

The Brinell hardness numbers on both the front and back of plate are tabulated.

E. Process

This refers to the melting practice and is given as basic open hearth (B.O.H.), acid open hearth (A.O.H.), basic electric (B. Elec.), and acid electric (A. Elec.).

F. Heat Treatment

The temperature, time of hold, and type of quench and draw are given in the firing record.

3. Electrode Data

These data are listed as given in each firing record.

A. Type

Since alloys are sometimes added in the coating, electrodes are typed according to the chemical analysis of the weld metal when given. The types are as follows:

A (Austenitic)

I Mn-Mo Modified 18/8 (Cr-Ni-Fe alloy)
Weld Analysis - at least 1% Mn and .3% Mo.

II Mn Modified 18/8 (Cr-Ni-Fe alloy)
Weld Analysis - at least 1% Mn and less than .3% Mo.

III Mo Modified 18/8 (Cr-Ni-Fe alloy)
Weld Analysis - at least .3% Mo and less than 1% Mn.

B. Current and Polarity

These are to be tabulated as DC straight (str.), DC reversed (rev.) or AC.

4. Joint Design

A. Groove, etc.

This item notes the type of groove - single vee (SV) bevel or double vee (DV) bevel - the included angle, and the width of the root face (RF).

B. Root Gap

This is the distance in inches between the plates as set up for welding.

C. Plate Preparation

This indicates whether the plate edges to be welded together were flame cut, ground, machined, buttered, etc.

5. Welding Procedure

A. Backing

Backing if used, i.e. back-up bar, chill, filler, and spacer strip is noted.

B. Deposition

Figure 1 shows how the weld is broken up into root, body, and crown types. The size electrode is noted with the number of passes, type of passes, and the current and voltage. Passes are divided into two kinds: (a) layer, if the pass bridges the gap; and (b) bead, if the pass does not bridge the gap. SB designates seal bead.

C. Total Welding Time and Interpass Temperature

These are listed as given.

D. Remarks

Any comments on chipping, grinding, or other special techniques used, not noted above but which might affect ballistic properties of welded armor plate, are noted under "remarks".

6. Heat

Preheat and postheat of weldment are tabulated.

7. Ballistic Results

The type projectile used in testing is noted for each plate. Hits, velocity, and location of each, cracking and remarks on cracking, are recorded. Symbols used are as follows:

H. - impact number
F/S - feet per second
L.L. - left leg
R.L. - right leg
C.B. - cross bar
LOC. - location
R. - right of
L. - left of
X - on weld
U - above
D - below
IMP - running from or through impact
O - not running from or through impact

Types of cracking:

I - Weld (including weld, fusion zone, and heat-affected zone cracking within 1/8 inch from weld)
IV - Star plate cracking
V - Linear plate cracking

Cracking is measured on the back of the plate.

8. The remarks on cracking and results of radiographic examination are recorded in the last column. P signifies the welded plate passed radiographic inspection, and F that it failed.

SPECIFICATION REQUIREMENTS FOR "H" PLATES
WELDED WITH AUSTENITIC ELECTRODES

From 3 May 1944, to the present, the following requirements have been in effect (as abstracted from Specification AXS-497, Rev. 5, 15 December 1943).

"F-3. Ballistic tests. Test plates required by paragraph F-2a(1)a shall be supported solidly on each of the two sides parallel to the longest welds and with these welds upright. The plate shall be tested for compliance with the requirements of Table II.

TABLE II

Thickness of shock test plate, inches	Type of homogeneous armor	Projectile	Striking velocity f/s, plus or minus 25 f/s	Allowable weld crack- ing, inches, maximum
1-1/2	rolled	75 mm. T21	1200	15
1-1/2	cast	"	1050	10
1	rolled	"	725	17
1	cast	57 mm. T1	975	6
3/4	rolled	"	800	12
1/2	rolled	37 mm. H.E. M54	2525	12
3/8	rolled	"	2025	15
1/4	rolled	"	1625	12

"F-3a. Cracks in the armor parallel to the weld and within 1/8 inch of the edge of the weld shall be considered in the total weld cracking.

"F-3b. All impact velocities specified for cast homogeneous armor are subject to variation depending on the actual armor thickness. This variation shall be based on the velocities specified for testing primary armor and results in velocity of 6 f/s for each increase of 0.01 inch in armor thickness.

"F-3c. Cracking of the plate outside a circle of 6 inches radius, the center of which is the center of impact, or plate cracks greater than 6 inches in length not passing through the point of impact shall be considered cause for reporting "no test". Other types of armor cracking which indicate that the test of the welding procedure is insufficient may also be cause for reporting "no test". The phrase "no test" is defined as that condition existing when the results of the ballistic test are such that it is impossible to arrive at a decision as to the acceptability of the welding procedure.

"F-3d. The impact of the 75 mm. proof projectile T21 or the 57 mm. proof projectile T1 shall touch the edge of the weld to be considered as conforming to the requirements of the test.

"F-3e. The impact of the 37 mm. H.E. projectile M54 shall be within 1-3/4 inches of the weld as measured from the center of the impact to the center of the weld to be considered as conforming to the requirements of the test.

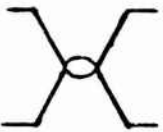
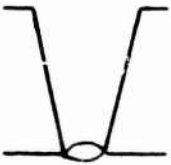
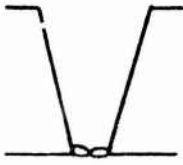
"F-3f. Impacts, the edges of which are more than 2 inches from the edge of the crossbar weld, which cause cracking in the crossbar either on the front or back of the plate, which is not an extension of cracking a leg weld, shall be cause for rejection of the welding procedure.

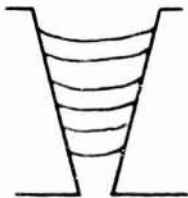
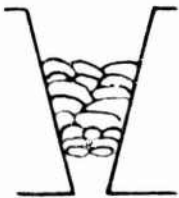
"F-3g. Any inconsistency in the quality of the welding procedure revealed by impact on a ballistic test plate may be considered cause for reporting "no test" at the discretion of the proof officer.

"F-3h. Any length of weld cracking revealed as a result of an impact outside the acceptable limits for impacts shall be cause for rejection of the welding procedure.

"F-3i. Impacts less than 6 inches from the top or bottom edge of the plate, which cause excessive weld cracking, shall be considered as not conforming to the requirements of the test. If, however, the cracking is not excessive and the requirements referred to in paragraph F-3d are met, the impact will be considered acceptable.

"F-3j. Thicknesses not covered by Table II shall be tested as directed by the Chief of Ordnance.

Root types	Type I	Type II
Double V bevel	 Single root bead at center of root	 More than one bead at root etc.
Single V bevel	 Single bead bridging root gap	 More than one bead bridging root gap etc.

Body types	Type I	Type II	Type III	Type IV	Type V
Double V bevel	 Layers only	 Beads only	 Layers & beads	Unionmelt	Special
Single V bevel	 Layers only	 Beads only	 Layers & beads	Unionmelt	Special

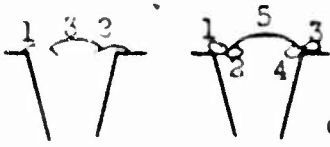
Crown types	Type I	Type II	Type III
Double V & Single V bevel	 Single Crown Single pass bridges gap	 Multiple Crown Last bead touches parent metal	 Multiple Crown Last bead does not touch parent metal etc.

Fig. 1 Weld Metal Deposition Types

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		SEAT		BALLISTIC RESULTS					REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	B. TRADE NAME	A. GROOVE INCLUDED	B. ANGLE	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ANP. V.	A. PRE	B. POST	H	VEL.	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.		
C. PLATE NO.	D. ANODE MANUFACTURER	C. CARBON CONTENT	E. BHN	C. COATING	D. CURRENT & POLARITY	C. ROOT GAP		1. ROOT TYPE	2. BODY TYPE			F/S	L.L.	R.L.	C.R.	LOC. TYPE		
E. ELECTRODE MPGS.	F. ANODE FABRICATOR	F. HEAT TREATMENT	TEMP. TIME QUENCH					3. CROWN TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE									
A. AD 365	B. 4/7/43	A. 1/2"	B. P III	A. A I	.11C 1.58 Mn	A. 45° SV	B. 1/8"	A. None	1. I 5/32" 1a 90 26	A. None	B. None	1	2800	6"	1"	-	F	
C. 556	D. Youngstown	.0055-.020P	.60Mo	.60S1	Tr S	C. Flame cutting		2. I 3/16" 1a 175 27	2. I 3/16" 1a 175 27			2	2800 1 1/2"	4"	IMP	I 27"	Plate is not acceptable for soundness.	
E. Harnischfeger Corp.	F. American Locomotive Co.	.020-.024P	.03Cr .03Ni	.087P	18.49Cr			3. I 1/4" 1a 270-275 28-30	3. I 1/4" 1a 270-275 28-30									
								One seal bead--										
								1/4" 1a 280-300 29										
								C. 9 hours 85-250 F										
								D. Grinding time 1/2 hour.										
A. AD 404	B. 4/21/43	A. 1/2"	B. P III	A. A I	.11C 1.59Mn	A. 45° SV	B. 3/16"	A. Copper	1. I 5/32" 1a 170 32	A. None	B. None	1	2800 5/8"	X	IMP	I 24"	F	
C. 548	D. Youngstown	.025-.042S	.020-.024P	.087P	18.49Cr	C. Flame cutting		2. II 3/16" 2b 190 28	2. II 3/16" 2b 190 28			2	2800 1 1/2"	1 1/2"	IMP	I 33"	Plate is not acceptable. Welds are badly cracked.	
E. Harnischfeger Corp.	F. American Locomotive Co.	.03Cr .03Ni	.40S-.50Mo	.087P	10.51Ni			Seal bead 5/32" 2b 160 28	Seal bead 5/32" 2b 160 28									
								C. 8 hours 90°-130° F										
								D. Grinding time 1/2 hour.										

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	F'CAT	BALLISTIC RESULTS				REMARKS ON CRACKING	
							#	VEL.	LOCATION OF #	CRACKING		
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATION	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. MIN E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	F/S	L.L. M.L. C.B. LOC. TYPE	CRACKING TYPE AMT	RADIOGRAPHIC RESULTS, ETC.		
A. AT 781 B. 8/8/43 C. 2 D. Youngstown Sheet & Tube Co. E. Crucible Steel Co. F. Steel Company G. Ames Baldwin Wyoming Co.	A. 1/2" B. R 111 Y C. 1.50% D. 1.961 E. 0.45 F. 0.25P G. 0.25Mo H. 0.02Zr I. 0.25C J. Face 364 K. Back 264 L. R.C.H. M. 1600 F 2 hr. N. water O. 900 F 1 1/2 hr. P. water Q. 1/2" R. R IV 7 S. 0.98% T. 0.74S U. 0.02AS V. 0.018P W. 0.56Cr X. 0.21Mo Y. 0.27C Z. Face 375 AA. Back 375 AB. R.O.H. AC. 1600 F 2 hr. AD. water AE. 900 F 1 1/2 hr. AF. water	A. A I B. 0.09-10" C. 1.74-1.98% D. 2.77-2.88% E. 19.16-19.64 F. 10.24-10.28 G. 0.25Mo H. 0.02Zr I. 0.25C J. Face 364 K. Back 264 L. R.C.H. M. 1600 F 2 hr. N. water O. 900 F 1 1/2 hr. P. water Q. 1/2" R. R IV 7 S. 0.98% T. 0.74S U. 0.02AS V. 0.018P W. 0.56Cr X. 0.21Mo Y. 0.27C Z. Face 375 AA. Back 375 AB. R.O.H. AC. 1600 F 2 hr. AD. water AE. 900 F 1 1/2 hr. AF. water	A. 45° SV B. 1/2" C. Grinding	A. Copper B. 1. II 5/32" 2b 150 22 2. II 3/16" 2b 180 22 3. I 3/16" 1a 180 22 Seal bead-3/16" 1a 180 22 C. 2 hours 190°-290° F D. Grinding time 4 hours.	A. None B. None	1 2 3 4	2527 2533 2525 2533	1 1/2" R 1 1/4" R 4 1/2" R 2 1/2" L	- - - -	- - - -	P imperfect fusion	

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING	
							#	VEL.	LOCATION OF H	CRACKING		
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. ELECTRODE MFG. F. ARMOR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PROTECTORS F. SLAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. CURRENT A D. POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ARP. V. 1. ROOT TYPE 2. ROOT TYPE 3. GROOVE TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST							
A. AD 454 B. 6/2/43 C. P 22 D. Great Lakes E. Steel Corp. F. Harnischfeger G. Bulck Motor H. Division	A. 3" B. R IV C. 1.14% .0251 D. .0245 .016F E. .02CR .21Mo F. .122r G. .30C H. Face 341 I. Back 341 J. B. C. B. K. 1650F ± hr. L. water M. 830F 1 1/2 hrs. N. air	A. A I B. .11C C. 3.76A D. .45S1 E. .010S F. .03AP G. 19.92CR H. 9.97N1 I. 1.41Mo J. .04V .13O1 K. AW 3-C L. Lime M. DC-REV	A. 60° DV B. 1/4" C. Flame cutting D. Grinding	A. Not given B. 1.3 2.43. I 3/16" 2a 140 22 C. 40 minutes. 75°-175°F D. Grinding time 3 minutes.	A. None B. None	1 2	1835 1822 1"	- IMP I IMP V	- 5" 19 1/2"	- 5" 19 1/2"	P Weld is sound. Small slag inclusion	
A. AD 454 B. 6/2/43 C. B 23 D. Great Lakes E. Steel Corp. F. Harnischfeger G. Bulck Motor H. Division	A. 3" B. R IV C. 1.14% .0251 D. .0245 .016F E. .02CR .21Mo F. .122r G. .30C H. Face 341-243 I. Back 341-243 J. B. C. B. K. 1650F ± hr. L. water M. 830F 1 1/2 hrs. N. air	A. A I B. .11C C. 3.76A D. .45S1 E. .010S F. .03AP G. 19.92CR H. 9.97N1 I. 1.41Mo J. .04V .13O1 K. AW 3-C L. Lime M. DC-REV	A. 60° DV B. 1/4" C. Flame cutting D. Grinding	A. Not given B. 1.32.43. I 3/16" 1a 140 23 5/32" 1a 135 22 C. 40-1/2 minutes. 75°F-175°F D. Grinding time 4-1/2 mins.	A. None B. None	1 2 3 4	1758 1 1/2" 1835 1823 1 1/2" lost	IMP I - IMP I IMP V IMP I IMP V	4" - 9 1/2" 15" 2 1/2" 18 1/2" 46 1/2"	P Weld is sound.		
					</							

IDENTIFICATION	ABRUS DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAT	RADIOLOGIC RESULTS				REMARKS ON CRACKING
						A. PRE B. POST	#	VEL. F/B	LOCATION OF L.L. I L C B LOC. TYPE AMT	
A. AD 378 B. 4/9/43 C. K 56 D. Republic E. Alloy Rods Co. F. Buick Motor Division	A. 1/2" B. R V .90Mn .20Si .0308 .014P .04Cr Tr. Mo C. .45C D. Face 341 Back 341 E. B.O.H. F. 1600 F 1 hr. 1550 F 1 hr. caustic 825 F 2 hrs. air	A. A 1 1.04-1.18Mn .26-.28Si .013-.024S .040-.041P 18.76-18.97Cr 10.08Ni 2.01-2.35Mo .03-.06V .05-.07Cu B. Armotarc C. Lime D. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. II 5/32" 2a 125 26 2.43. II 5/32" 2b 125 25 2b 130 25 C. 110 minutes. 75°-200°F D. Grinding time 5 1/4 minutes.	A. None B. None		1	2600	X	4 1/2" IMP I 6 1/2" P D IMP IV 33"
A. AD 378 B. 4/9/43 C. K 57 D. Republic E. Alloy Rods Co. F. Buick Motor Division	A. 1/2" B. R V .90Mn .20Si .0308 .014P .04Cr Tr. Mo C. .45C D. Face 341 Back 341 E. B.O.H. F. 1600 F 1 hr. 1550 F 1 hr. caustic 825 F 2 hrs. air	A. A 1 1/2" .09C 3.52Mn .36Si .010S .042P 20.25Cr 10.39Ni .11Mo .08V .06Cu A1 5/32" 1/4" .08C 1.16-2.03Mn .21-.28Si .010-.013S .033-.040P 18.76- 19.43Cr 10.02- 10.08Ni .06-2.35Mo .03-.06V .07-.09Cu B. Armotarc C. Lime D. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 3/16" 1a 145 24 2. I 5/32" 1a 125 21 3. I 1/4" 2a 175 25 C. 78 minutes. 80°-155°F D. Grinding time 3 1/4 minutes.	A. None B. None		1 2 3	2600 2600 2600	1" R 2 1/2" L 1" R U 10 1/2" IMP I 11" IMP V 26 1/2" 60 1/2"	1 1/2" IMP I 9" P D IMP IV 24 1/2"

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SLAT	BALLISTIC RESULTS				REMARKS ON CRACKING			
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMO MANUFACTURER E. ELECTRODE MPER. F. ARMO FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. MIN E. PROCESS F. SLAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. ROOT TYPE 3. GROOVE TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF #		CRACKING	RADIOGRAPHIC RESULTS, ETC			
								L.L.	R.L.	C.B.	LOC.	TYPE	AMT	
A. AD 378 B. 4/9/43 C. K 52 D. Republic E. Alloy Rods Co F. Bulck Motor Division	A. 1/2" B. R V .0004 .0006 .014P .04Ni Tr. Mo .04Cr C. .45C D. Face 341 Back 341 E. B.C.H. F. 1600 F 1 hr. 1550 F 1 hr. caustic 825 F 2 hrs. air	A. A I .06C 1.04Mn .26Si .024S .041P 18.97Cr 10.06Ni 2.01Mo .05V B. Armorsarc C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 125 21 2. I 5/32" 2a 130 22 3. I 5/32" 2a 135 22 C. 104 minutes 80°F-196°F D. Grinding time 5 minutes.	A. None B. None	1 2 3	2800 2800 1800	3 1/2" R 1 1/2" R 1 1/2" R	7" D 8" U 3" D	- IMP IMP 0	- I V I	- 6 1/2" 12" 5/8"	- P Plate is accept- able for soundness.	
A. AD 378 B. 4/9/43 C. K 53 D. Republic E. Alloy Rods Co. F. Bulck Motor Division	A. 1/2" B. R V .0004 .0006 .014P .04Cr Tr. Mo .04Cr C. .45C D. Face 341 Back 341 E. B.C.H. F. 1600 F 1550 F caustic 825 F 2 hrs. air	A. A I .10C 1.36Mn .22Si .012S .044P 18.51Cr 9.72Ni 2.25Mo .04V .08Cu B. Armorsarc C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 130 27 2. I 5/32" 2a 125 25 3. I 5/32" 2a 125 25 C. 95.1 minutes 70°F-205°F D. Grinding time 1 1/2 minutes.	A. None B. None	1 2 3 4 5	2800 2800 2800 2800 2800	2 3/8" R 2 1/2" R 6 1/2" L 3 1/2" R 1 1/2" L	3 1/2" U 3 1/2" D 2 1/2" U 3 1/2" R 4" U	- IMP - IMP 0	- V - I V I	- 1 1/2" - 15 1/2" 15 1/2" 1 1/2"	- P Plate is accept- able for sound- ness.	
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IDENTIFICATION	ABSORB DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	REPAIR	BALLISTIC RESULTS				REMARKS ON CRACKING
						A. BACKING	LOCATION OF B	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FILING RECORD NO.	4. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. Not given	A. PAE					
B. DATE OF TEST	B. TYPE	B. TRADE MARK	B. 1/4"	B. 1. I 5/32" 1a 125 21	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	2. I 5/32" 2a 125 21						
D. ANNEAL MANUFACTURER	D. BEZ	D. CEMENT & POLARITY	C. PLATE PREPARATION	3. I 5/32" 2a 130 21						
E. ELECTRODE MPER.	E. PROCESS			C. 103 minutes 70°-205°F						
F. ANNEAL FABRICATOR	F. HEAT TREATMENT			D. Grinding time 3 minutes.						
	TEMP. TIME QUENCH									
A. AD 378	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None					P
B. 4/9/43	B. R V	.06C	B. 1/4"	B. 1. I 5/32" 1a 125 21	B. None					
C. K 50	.2081	1.04Hb	C. Flame	2. I 5/32" 2a 125 21						
D. Republic Steel	.0308	.024S	cutting	3. I 5/32" 2a 130 21						
E. Alloy Rods Co.	.014P	.041P		C. 103 minutes 70°-205°F						
F. Buick Motors	.04Cr .04Ni	18.97Cr		D. Grinding time 3 minutes.						
	trace Mo	10.08Ni								
	C. .45C	2.01Mo								
	D. Face 341	.05V								
	Back 341	.06Cu								
	E. B.O.H.	B. ArmoArc								
	F. 1600 F 1 hr.	"B"								
	air 0° F 1 hr.	C. Lime								
	1850 F 1 hr.	D. DC-REV								
	caustic									
	825 F 2 hrs.									
	air									
A. AD 378	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None					P
B. 4/9/43	B. R V	.10C	B. 1/4"	B. 1. I 5/32" 1a 125 21	B. None					
C. K 51	.2081	1.36Hb	C. Flame	2. I 5/32" 1a 125 21						
D. Republic Steel	.0308 .014P	.22S1	cutting.	3. I 5/32" 2a 130 21						
E. Alloy Rods Co.	.04Cr Tr. Mo	.01P3		C. 111 minutes. 86°F-200°F						
F. Buick Motor	.45C	C44P		D. Grinding time 2 minutes.						
	D. Face 341	18.51Cr								
	Back 341	9.78Ni								
	E. B.O.H.	2.25Mo								
	F. 1600 F	.04V								
	air 0° F	.08Cr								
	1850 F	B. ArmoArc								
	caustic	"B"								
	825 F 2 hrs.	C. Lime								
	air	D. DC-REV								

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		FAT		BALLISTIC RESULTS					REMARKS ON CRACKING	
A. FINISH RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FANNUICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PROCEDURE F. BEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ANP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PNE B. POST	N	F/S	VEL.	LOCATION OF N	CRACKING	LOC.	TYPE	AMT	RADIOGRAPHIC RESULTS, ETC.				
A. AD 388 B. 4/21/43 C. C 15 D. Great Lakes Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 1/2" B. IV C. .83Mn .68Si D. .025S .025P E. .66Cr .15Mo F. .08Zr G. .29C D. Face 341 E. Back 388 F. 1600 F ± hr. water 800 F ± hr. air	A. A II B. AW 3 C. Lime D. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 130 27 2. I 5/32" 2a 135 28 3. I 5/32" 2a 135 28 C. 114 minutes 90°-185° F D. Grinding time 3 minutes.	A. None B. None	1 2 3 4	2600 2600 2600 2600	4 1/2" R 1 1/2" U 1 1/2" R 1 1/2" D 1 1/2" U 1 1/2" U	4 1/2" U 1 1/2" D 14 1/2" D 1 1/2" U	- IMP 0 0 0	- I I I I	- 11" 1 1/2" 1 1/2" 1 1/2"	- P					
A. AD 388 B. 4/21/43 C. C 17 D. Jones & Laughlin E. Harnischfeger Corp. F. Buick Motor Division	A. 1/2" B. R III C. 1.50Mn D. .2081 .017S E. .016P .32Mo F. .25C D. Face 341 E. Back 388 F. 1600 F ± hr. water 800 F ± hr. air	A. A I B. AW 3 C. Lime D. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 125 21 2. I 5/32" 2a 135 22 3. I 5/32" 2a 145 23 C. 106 minutes 80° F-210° F D. Grinding time 4 1/2 minutes.	A. None B. None	1 2	2600 2600	1 1/2" R 1 1/2" R	11 1/2" D 1 1/2" R	- IMP IMP	- I I	- 11 1/2" 11 1/2"	- P					
A. AD 414 B. 5/7/43 C. C 16 D. Jones & Laughlin E. Harnischfeger Corp. F. Buick Motor Division	A. 1/2" B. R C. 1.50Mn D. .2081 .017S E. .016P .32Mo F. .25C D. Face 341 E. Back 388 F. 1600 F ± hr. water 800 F ± hr. air	A. A I B. .09C C. 3.77Mn D. .56Si E. 18.51Cr F. 9.86Ni G. .70Mo H. AW 3C I. Lime J. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 125 21 2. I 5/32" 1a 140 23 3. I 5/32" 1a 140 23 4. I 5/32" 1a 160 24 C. 104 minutes 75°-210° F D. Grinding time 7 minutes.	A. None B. None	1 2 3	2600 2600 2600	1 1/2" R 1 1/2" R 1 1/2" R	4 1/2" U 1 1/2" D 4 1/2" L X X	IMP IMP - IMP IMP	I V - IV IV	10" 1 1/2" - 15 1/2" 25 1/2"	- P					

IDENTIFICATION		ABRASE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	A. GROOVE, INCLUDED ANGLE, ROOT FACE	A. BACKING	S. DEPOSITION SIZE EL. NO. TYPE ANP. V.	A. PRE	B. POST	#	V/S	LOC. OF #	C. B. LOC.	TYPE	AMT	RADIOGRAPHIC RESULTS, ETC.	
C. PLATE NO.	D. ABRAS MANUFACTURER	C. CARBON CONTENT	E. PROCESS	B. TRADE NAME	H. ROOT GAP	1. ROOT TYPE	2. BODY TYPE										
E. ELECTRODE MFG.	F. ABRAS FABRICATOR	F. HEAT TREATMENT	G. TEMP. TIME QUENCH	D. CURRENT & POLARITY	C. PLATE PREPARATION	3. CHROM TYPE	C. TOTAL VELOCITY TIME & INTEN PASS TEMPERATURE										
A. AD 414	B. 5/7/43	A. 1/2"	B. P IV	A. A I	A. 60° DV	A. Not given	C. 77.6 minutes 85°-200°F	A. None		1	2600	X	15 IMP	I 13 1/2"		P	
C. C 16	D. Great Lakes	E. .83Mn	F. .68Si .025S	B. AW3-C	B. 5/16"	1. I 5/32" 1a 135 26	D. Grinding time 6 minutes	B. None		2	2600	2 1/8" R	8 1/2" U	-			
D. Steel Corp.	E. Harnischfeger Corp.	F. .024P .66Cr	G. .15Mo	C. Lime	C. Flame cutting	2. I 5/32" 1a 140 25				3	2600	1 1/2" L	10 1/2 IMP	I 4 1/2"			
F. Buick Motor Corp.		D. 341 Face	E. B.O.H.	D. DC-REV		3. I 5/32" 2a 140 26											
		C. .29C	F. 1600 F ± hr. water														
		D. 388 Back	G. 850 F ± hr. air														
		E. B.O.H.															
		F. 1600 F ± hr. water															
		G. 850 F ± hr. air															
A. AD 414	B. 5/7/43	A. 1/2"	B. R IV	A. A I	A. 60° DV	A. Not given	C. 101.5 minutes 85°-195°F	A. None		1	2600	4 1/2" R	3 1/2" U	-		P	
C. C 19	D. Great Lakes	E. .83Mn	F. .68Si .025S	B. AW3-C	B. 5/16"	1. I 5/32" 1a 125 25	D. Grinding time 5 1/2 minutes.	B. None		2	2600	1 1/8" R	3 1/2" D	-			
D. Steel Corp.	E. Harnischfeger Corp.	F. .024P .66Cr	G. .15Mo	C. Lime	C. Flame cutting	2. I 5/32" 2a 130 25				3	2600	6 1/2" R	8" D	-			
F. Buick Motor Division		C. .29C	D. 341 Face	D. DC-REV		3. I 5/32" 1a 150 27				4	2600	1 1/2" R	4 1/2" U	-			
		D. 388 Back	E. B.O.H.							5	2600	1 1/2" L	1 1/2" D	-			
		E. B.O.H.	F. 1600 F ± hr. water							6	2600	3" L	3 1/2" U	-			
		F. 1600 F ± hr. water	G. 850 F ± hr. air							7	2600	4 1/2" L	14 1/2" D	-			
		G. 850 F ± hr. air								8	2600	4 1/2" R	16" D	-			

8.

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	BUILDING	PROCEDURE	SEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	PASSES	A. PRE	M	VEL	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
B. DATE OF TEST	B. TYPE	B. TRADE MARK	B. ANGLE, ROOT FACE	B. DEPOSITION SIZE EL. NO. TYPE IMP. V.	B. POST	F/S	L.L. R.L. C.B.	LOC. TYPE AMT				
C. LATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	1. ROOT TYPE	2. BODY TYPE							
D. ARMOR MANUFACTURER	D. BHN	D. CURRENT & POLARITY	C. FLATE PREPARATION	3. GROW TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE							
E. ELECTRODE BPG.	E. PROCESS			D. REMARKS								
F. ARMOR FABRICATOR	F. REAT TREATMENT											
	TEMP. TIME QUENCH											
A. 414	A. 1/2"	A. A. I.	A. 90° DV	A. Not given		A. None	12800	3 1/2"	5 1/2"	-	P	
B. 5/7/43	B. R 111	.090	B. 5/16"	B. 1. I 5/32"	1. 130 2A	B. None	22800	1 1/2"	1 1/2"	-		
C. 20	.2061 .0122	3.77Mn	C. Flame cutting	2. I 5/32"	2. 130-135 2A		32800	1 1/2"	1 1/2"	-		
D. Jones & Laughlin Steel	.0187 .32M0	.56S1		3. I 5/32"	3. 135 2A		42800	1 1/2"	1 1/2"	-		
E. Harnischreger Corp.	C. Face 341	.032F			1A 140 2P							
F. Buick Motor Division	L. Back 388	18.51CF										
	E. P.O.H.	9.96N1										
	F. 1400 F ± hr.	.70M0										
	water	B. A43-C										
	900° F ± hr.	C. Lime										
	air	D. DC-REV										
A. 414	A. 1/2"	A. A. I.	A. 90° DV	A. Not given		A. None	12800	3 1/2"	5 1/2"	-	P	
B. 5/7/43	B. R 111	.15C	B. 5/16"	B. 1. I 5/32"	1. 120 21	B. None	22800	1 1/2"	5 1/2"	-		
C. 21	.2061 .0175	1.48Mn	C. Flame cutting	2. I 5/32"	2. 140 23		32800	1 1/2"	1 1/2"	-		
D. Jones & Laughlin	.0187 .32M0	.47S1		3. I 5/32"	3. 150 24							
E. Harnischreger	C. 25C	.0115			1A 145 24							
F. Buick Motor Division	D. Face 341	.033F										
	Back 388	20.03CF										
	E. P.O.H.	10.21N1										
	F. 1400 F ± hr.	1.84M0										
	water	.15V										
	900° F ± hr.	.06Cu										
	air	B. A43										
		C. Lime										
		D. DC-REV										
A. 414	A. 1/2"	A. A. I.	A. 90° DV	A. Not given		A. None	12800	3 1/2"	6"	-	P	
B. 5/7/43	B. R 111	.15C	B. 5/16"	B. 1. I 5/32"	1. 120 22	B. None	22800	1 1/2"	8"	-		
C. 25	.2061 .0175	1.48Mn	C. Flame cutting	2. I 5/32"	2. 130 23		32800	1 1/2"	8"	-		
D. Jones & Laughlin	.0187 .32M0	.47S1		3. I 5/32"	3. 135 24							
E. Harnischreger Corp.	C. 25C	.0115			1A 145 25							
F. Buick Motor Division	D. Face 341	.033F										
	Back 387	20.03CF										
	E. P.O.H.	10.21N1										
	F. 1440 F ± hr.	1.84M0										
	water	.05V										
	900° F ± hr.	.06Cu										
	air	B. A43										
		C. Lime										
		D. DC-REV										

9.

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS OR CRACKING	
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. ELECTRODE MFG. F. ARMOR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. RHN E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	N	VEL.	LOCATION OF B.		CRACKING	RADIOGRAPHIC RESULTS, ETC.	
							F/S	L.L.	N.L.	C.B.	LOC.	TYPE AMT
A. AD 399 B. 6/2/43 C. C 22 D. Youngstown E. Sheet & Tube F. Harnischfeger Corp. G. Bulck Motor Division	A. 1 1/2" B. R 111 C. 1.40% D. .21% E. .0045 F. .001F G. .30Mc H. .25C I. Face 352 J. Back 352 K. B.O.H. L. 1800 F & hr. M. water N. 900 F : hr. O. air	A. A 7 B. 1.48% C. .47Si D. .011S E. .003P F. 20.03Cr G. 10.21Ni H. 1.64Mo I. .08V .08Cu J. .15C K. AW 3 L. C. Line M. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 120 23 2. I 5/32" 2a 120 24 3. I 5/32" 2a 140 24 C. 98 minutes 70°-205° F D. Grinding time 10 minutes.	A. None B. None	1 2 3 4 5 6 7 8 9	2800 2800 2800 Lost Lost 2483 2495 2544 2533	8" R 6" L 4 1/2" L 3" R 12 1/2" L 5 1/2" R 6 1/2" R 1 1/2" L 6 1/2" L	1" D 11 1/2" D 7 1/2" U 3" D 12 1/2" U 12 1/2" D 6 1/2" U 4 1/2" D 6 1/2" D 6 1/2" D	- IMP V 9 1/2" - - - - - IMP I 10 1/2" IMP V 1 1/2" IMP I 8" IMP V 2 1/2" 3 1/2"	P	
A. AD 399 B. 6/2/43 C. C 22 D. Youngstown E. Sheet & Tube F. Harnischfeger Corp. G. Bulck Motor Division	A. 1 1/2" B. R 111 C. 1.70% D. .20% E. .018C F. .022P G. .23Mc H. .26C I. Face 341 J. Back 341 K. B.O.H. L. .09Cu M. .600 F & hr. N. water O. 850 F 1 1/2 hr. P. air	A. A 7 B. .15C C. 1.48% D. .47Si E. .011S F. .003P G. 20.03Cr H. 10.21Ni I. 1.64Mo J. .08V K. AW 3 L. C. Line M. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 125 21 2. I 5/32" 2a 135 22 3. I 5/32" 1a 140 22 C. 94.5 minutes 70°-205° F D. Grinding time 9 1/2 minutes.	A. None B. None	1 2	2801 2846	1 1/2" L 6 1/2" L	8 1/2" D 6 1/2" U O I 1 1/2" IMP V 6 1/2" 18 1/2"	IMP I 2 1/2" IMP I 9 1/2" O I 1 1/2" IMP V 6 1/2" 18 1/2"	P	
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IDENTIFICATION	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING	
				A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ANP. V.	A. PRE B. POST	VEL.	LOCATION OF B	CRACKING
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANNO MANUFACTURER E. ELECTRODE MFG. F. WELD FABRICATOR	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ANP. V.	A. PRE B. POST	VEL.	LOCATION OF B	CRACKING
A. AD 399 B. 6/2/43 C. C 24 D. Youngstown E. Sheet & Tube F. Harnischfeger Corp. G. Buick Motor Division	A. 1/2" B. R 111 C. 1.48Mn .23C1 D. .024S .024P E. .44Mo F. .28C G. Face 383-375 Back 383-375 H. B.O.H. I. 1600 F 1 hr. water J. 950 F 1 hr. air	A. A I B. .15C C. 1.48Mn D. .47S1 E. .011S F. .033P G. 20.03Cr H. 10.21Ni I. 1.84Mo J. .05V K. .08Cu L. AW 3 M. C. Lime N. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 125 23 2. I 5/32" 1a 140 25 3. I 5/32" 1a 150 25 4. I 5/32" 1a 155 26 5. I 5/32" 1a 145 25 C. 94 minutes 75°-100° F D. Grinding time 6 minutes.	A. None B. None	1 2520 2 2528	1 6 1/2" L 2 24" R 3 16 1/2" U	- IMP I IMP V	- 15" 1 1/2"
A. AD 399 B. 6/2/43 C. C 24 D. Youngstown E. Sheet & Tube F. Harnischfeger Corp. G. Buick Motor Division	A. 1/2" B. R 111 C. 1.48Mn .23C1 D. .024S .024P E. .44Mo F. .28C G. Face 383-375 Back 383-375 H. B.O.H. I. 1600 F 1 hr. water J. 950 F 1 hr. air	A. A I B. .15C C. 1.48Mn D. .47S1 E. .011S F. .033P G. 20.03Cr H. 10.21Ni I. 1.84Mo J. .05V K. .08Cu L. AW 3 M. C. Lime N. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 120 25 2. I 5/32" 1a 125 25 3. I 5/32" 1a 130 25 4. I 5/32" 1a 130 25 C. 88.4 minutes 75°-185° F D. Grinding time 1 1/2 minutes.	A. None B. None	1 2533 2 2547	1 7 1/8" R 2 24" X 3 16 1/2" U	IMP I IMP V IMP I	10 1/2" 1 1/2" 16"
A. AD 399 B. 6/2/43 C. C 27 D. Youngstown E. Sheet & Tube F. Harnischfeger Corp. G. Buick Motor Division	A. 1/2" B. R 111 C. 1.60Mn .18C1 D. .020S .020P E. .018P F. .28C G. Face 352-363 Back 352-363 H. B.O.H. I. 1600 F 1 hr. water J. 900 F 1 hr. air	A. A I B. .15C C. 1.60Mn D. .47S1 E. .011S F. .033P G. 20.03Cr H. 10.21Ni I. 1.84Mo J. .05V K. .08Cu L. AW 3 M. C. Lime N. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 120 21 2. I 5/32" 1a 120 21 3. I 5/32" 1a 140 22 C. 90 minutes 70°-190° F D. Grinding time 8 1/2 minutes.	A. None B. None	1 2520 2 2533 3 2533	1 1" L 2 24" R 3 1 1/2" L	IMP I 7" U 7 1/2" IMP D O I	9 1/2" - 16" 1 1/2" 26 1/2"

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						VEL	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PRE	F/S	L.L. R.L. C.B.	LOC. TYPE AMT		
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. 1/4"	B. DEPOSITION SIZE EL. ND. TYPE AMP. V.	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. FLAME CUTTING	1. ROOT TYPE						
D. ARMOR MANUFACTURER	D. BHN	D. CURRENT & POLARITY	C. PLATE PREPARATION	2. ROOT TYPE						
E. ELECTRODE WFGN.	E. PROCESS			3. GROW TYPE						
F. ARMOR FABRICATOR	F. HEAT TREATMENT			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE						
	TEMP. TIME QUENCH			D. REMARKS						
A. AD 825	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1 12524	X 4 1/2"	IMP I 10 1/2"	P	
B. 10/19/43	B. F V	.09C	B. 1/4"	B. 1. II 5/32" 2a 140 25	B. None			IMP V 21		
C. K 59	.90Mn .20S1	3.77Mn	C. Flame cutting	2. & 3. I 5/32" 2a 140 25				40 1/2"		
D. Republic	.030S .014P	.56S1		C. 78 minutes. 75°-195°F						
E. Steel Corp.	.04Cr .04Ni	.008S		D. Grinding time 6 1/2 mins.						
F. Harnischfeger Corp.	Trace Mo	.032P								
G. Buick Motor Division	D. Face 331-341	18.59Cr								
	D. Back 331-341	9.86Ni								
	E. B.O.H.	.70Mo								
	F. 1700 F 1 hr.	B. AW3-C								
	1800°F 1 hr.	C. Lime								
	caustic	D. DC-REV								
	850°F 2 hrs.									
	air									
A. AD 825	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1 12525	X 5"	IMP I 16 1/2"	P	
B. 10/19/43	B. F V	.09C	B. 1/4"	B. 1. I 5/32" 1a - -	B. None			IMP V 10		
C. K 60	.90Mn .20S1	3.77Mn	C. Flame cutting	2. I 5/32" 2a - -						
D. Republic	.030S .014P	.56S1		3. I 5/32" 2a - -						
E. Steel Corp.	.04Cr .04Ni	.008S		C. 85 minutes. 75°-200°F		2 12528	1 1/2" L	IMP I 15 1/2"		
F. Harnischfeger Corp.	Trace Mo	.032P		D. Grinding time 3 minutes				0 I 1 1/2"		
G. Buick Motor Division	D. Face 331-341	18.59Cr						IMP I 15 1/2"		
	D. Back 331-341	9.86Ni								
	E. B.O.H.	.70Mo								
	F. 1700 F 1 hr.	B. AW3-C								
	1800°F 1 hr.	C. Lime								
	caustic	D. DC-REV								
	850°F 2 hrs.									
	air									
A. AD 825	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1 12529	1 1/2" L	IMP I 14 1/2"	F	
B. 10/19/43	B. F V	.09C	B. 1/4"	B. 1. II 5/32" 2a 130-140	B. None			IMP I 14 1/2"		
C. K 61	.90Mn .20S1	3.77Mn	C. Flame cutting	2. & 3. I 5/32" 2a 145 25		2 12523	1 1/2" R	IMP V 12"		
D. Republic	.030S .014P	.56S1		C. 90 minutes. 75°-195°F				26 1/2"		
E. Steel Corp.	.04Cr .04Ni	.008S		D. Grinding time 7-1/2 minutes.						
F. Harnischfeger Corp.	Trace Mo	.032P								
G. Buick Motor Division	D. Face 341	18.59Cr								
	D. Back 341	9.86Ni								
	E. B.O.H.	.70Mo								
	F. 1700 F 1 hr.	B. AW3-C								
	1850°F 1 hr.	C. Lime								
	caustic	D. DC-REV								
	850°F 2 hrs.									
	air									

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE ANP. V.	A. PRE	VEL.	LOCATION OF B.	CRACKING	RADIOGRAPHIC RESULTS, ETC.		
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE	B. 1. ROOT TYPE	1. ROOT TYPE	B. POST	F/S	L.L.	C.B.	LOC.	TYPE	ANT
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	2. ROOT TYPE	2. ROOT TYPE							
D. ANODE MANUFACTURER	D. SW	D. CURRENT & POLARITY	C. PLATE PREPARATION	3. GROW TYPE	3. GROW TYPE							
E. ELECTRODE WEG.	E. PROCESS			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE								
F. ANODE FABRICATOR	F. HEAT TREATMENT			D. REMARKS								
A. AD 825	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1	2527	5 8	D	IMP	I	14 1/2
B. 10/9/43	B. R V	.07C	B. 1/4"	B. 1. 11 5/32" 2a 145 32	B. None	2	2525 7/8	4 1/2	U	-	-	-
C. K 62	1.02% .50S1	3.98% .41S1	C. Flame cutting	2. 2. 1 5/32" 2a 145 32		3	2523 1 1/2	4 1/2	D	O	I	1 1/2
D. Republic Steel Corp.	.020% .012P	.010% .034P		C. 82.08 minutes. 75°-155° F								
E. Harnischfeger Corp.	.27Cr .50Ni	20.34Cr .82Mo		D. Grinding time 6 1/2 minutes								
F. Buick Motor Division	.12Mo .33C	9.70Ni .82Mo										
	D. Face 352	B. AW3-C										
	E. Back 352	C. Lime										
	F. 1650 F 2 hrs. water	D. DC-REV										
	880 F 3 hrs. air											
A. AD 825	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1	2528	1 1/2	D	IMP	I	22 1/2
B. 10/9/43	B. R V	.07C	B. 1/4"	B. 1. 1 5/32" 1a 135 30	B. None	2	254 1 1/2	8 1/2	U	IMP	I	15 1/2
C. K 63	1.02% .50S1	3.98% .41S1	C. Flame cutting	2. 2. 1 5/32" 1a 135 30								
D. Republic Steel Corp.	.016% .014P	.010% .034P		3. 1 5/32" 1a 145 31								
E. Harnischfeger Corp.	.25Cr .50Ni	20.38Cr .82Mo		C. 82 minutes. 75°-186° F								
F. Buick Motor Division	.13Mo .33C	9.70Ni .82Mo		D. Grinding time 7 minutes								
	D. Face 352	B. AW3-C										
	E. Back 352	C. Lime										
	F. 1650 F 2 hrs. water	D. DC-REV										
	880 F 3 hrs. air											
A. AD 824	A. 1/2"	A. A I	A. 60° DV	A. Not given	A. None	1	2514	X	U	IMP	I	17 1/2
B. 10/9/43	B. R V	.09C	B. 5/16"	B. 1. 1 5/32" 1a 130 35	B. None	2	2518 1 1/2	6 1/2	D	O	I	5 1/2
C. C 28	1.64% .16S1	3.77% .54S1	C. Flame cutting	2. 2. 1 5/32" 2a 125 23								
D. Jones & Laughlin Corp.	.047% .018P	.008% .032P		3. 1 5/32" 2a 130 25								
E. Harnischfeger Corp.	.28Mo .032P	18.57Cr .70Mo		C. 83 minutes. 70°-160° F								
F. Buick Motor Division	D. Face 341-352	9.86Ni .70Mo		D. Grinding time 9 1/2 mins.								
	E. Back 341-352	B. AW3-C										
	F. 1650 F 1 hr. water	C. Lime										
	880 F 1 1/2 hr. air	D. DC-REV										

13.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BAY		BALLISTIC RESULTS				REMARKS ON CRACKING											
A. FIRING RECORD NO	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE WPG.	F. ANODE FABRICATOR	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. SW	E. PROCESS	F. HEAT TREATMENT	G. TEMP	H. TIME QUENCH	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL NO. TYPE AMP V	A. PRE	B. POST	N	VEL	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.
A. A 10913	B. 11/8/42	C. K 65	D. Republic Steel Corp.	E. Harnischfeger Corp.	F. Buick Motor Division	A. 1/2"	B. F.V.	1.06% .5801	.016% .014P	.250% .50N1	.12M% 330	1. Face 350 Back 350	E. B.O.H. F. 1650°F 2 hrs. water 850°F 3 hrs. air	A. A 1 B. 10C C. 7000 D. 461 E. 014P F. 18.450P G. 8.53N1 H. 80W I. AW2-C J. DC-REV	A. 90° IV B. 5/16" C. Flame cutting	A. Not given B. 1. 11 3/16" 1a 210 24 2. 2. 5/32" 1a 190 24 3. 3/16" 1a 225 24 C. 89.5 minutes. 75°-175°F D. Grinding time 7 minutes.	A. None B. None	1 2 3 4	2518 2517 2517 2528	1 1/2" U 6 1/2" D 1 1/2" L 2" R 7 1/2" U 1 1/2" U	- IMP I IMP V - IMP I	- 11 1/2" 3 1/2" - 15 1/2" 30 1/2"	P						
A. A 10913	B. 11/8/43	C. K 74	D. Republic Steel Corp.	E. Harnischfeger Corp.	F. Buick Motor Division	A. 1/2"	B. F.V.	1.06% .5751	.016% .014P	.250% .40N1	.12M% 330	1. Face 350 Back 350	E. B.O.H. F. 1650°F 2 hrs. water 850°F 3 hrs. air	A. A 1 B. 10C C. 7000 D. 461 E. 014P F. 18.450P G. 8.53N1 H. 80W I. AW2-C J. DC-REV	A. 90° IV B. 5/16" C. Flame cutting	A. Not given B. 1. 11 3/16" 1a 210 24 2. 2. 5/32" 1a 190 24 3. 3/16" 1a 225 24 C. 89.5 minutes. 75°-175°F D. Grinding time 6.5 minutes	A. None B. None	1 2	2523 2525 X	3" U 4" D	IMP I IMP I	24 17 1/2" 19 1/2"	F						
A. A 11205	B. 12/14/43	C. C 29	D. Jones & Laughlin	E. Harnischfeger Corp.	F. Buick Motor Division	A. 1/2"	B. F.V.	1.06% .1851	.017% .018P	.290% 290	290	1. Face 341-352 Back 341-352	E. B.O.H. F. 1650°F 1 hr. water 850°F 1 1/2 hrs. air	A. A 1 B. 10C C. 7000 D. 461 E. 014P F. 18.450P G. 8.53N1 H. 80W I. AW2-C J. DC-REV	A. 90° IV B. 5/16" C. Flame cutting	A. Not given B. 1. 11 3/16" 1a 190 22 2. 2. 5/32" 1a 150 21 3. 3/16" 2a 180 22 C. 88.1 minutes. 70°-145°F D. Grinding time 8 minutes.	A. None B. None	13 14 15 16 17	2529 2521 2527 2527 2521	9" U 9 1/2" D 11" U 9" U X	IMP I 0 I 0 I IMP I IMP I	11 1/2" 2 2 24 11 1/2" 28	F 1/2" crater crack.						

14.

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARMOR MANUFACTURER	E. ELECTRODE MFG.	F. ARMOR FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	B. POST	A. LOCATION OF B	B. CRACKING	C. TYPE	D. ANT		
A. 11306	B. 12/14/43	C. K66	D. Republic Steel Corp.	E. Harnischfeger Corp.	F. Buick Motor Division	A. 1/2" B. R.V. 1.03Mn .57Si .016S .014P .25Cr .49Ni .12H3 C. 33C D. Face 352 Back 352 E. B.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A.I. .12C 3.50Mn .38Si .016S .031P 20.23Cr 9.00Ni .85Mo B. AW 3-C C. Line D. DC-REV	A. 60° DV B. 5/16" C. Flame cutting	A. Not given B. 1. I 3/16" 1a 180 22 2. & 3. I 5/32" 1a 150 21 3. I 3/16" 2a 175 22 C. 86.9 minutes. 70°-190°F D. Grinding time 7 minutes.	A. None B. None	10 2507	74" U	IMP	I 9"	P				
A. 12304	B. 1/4/44	C. K67	D. Republic Steel Corp.	E. Harnischfeger Corp.	F. Buick Motor Division	A. 1/2" B. R.V. 1.03Mn .24Si .022S .014P .46Cr .42Ni .13Mo C. 23C D. Face 352 Back 352 E. B.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A.I. .07C 4.18Mn .50Si .012S .037P 21.02Cr 9.58Ni .08Mo B. AW3-C C. Line D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. I 5/32" 1a 130 24 2. & 3. I 5/32" 2a 125 24 C. 80.35 mins. 70°-140°F D. Grinding time 8 minutes	A. None B. None	7 2528	42" U	IMP	I 18"	Evidence of under-cutting. 1/4" crack at crossbar.				
A. 12859	B. 3/13/44	C. K69	D. Republic Steel Corp.	E. Crucible Steel Co.	F. Buick Motor Division	A. 1/2" B. R.V. 1.03Mn .25Si .023S .012P .45Cr .44Ni .14Mo C. 34C D. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs water 860 F 3 hrs. water	A. A.I. .11-.12C 3.76-4.32Mn .33-.36Si .008-.022S .008-.03OP 18.7-21.0Cr 9.4-9.5Ni .98-1.06Mo B. Armolize C. Titanium D. DC-REV	A. 60° DV B. 3/16" C. Grinding	A. Not given B. 1. I 5/32" 1a 106 18 2. I 5/32" 1a 150 22 3. I 1/4" 2a 180 28 C. 7 1/2 hours. 70°-140°F D. Grinding time 1 hour.	A. None B. None	4 2514	85" U	IMP	I 12"	P				

IDENTIFICATION				ARBOR DATA				ELECTRODE DATA				JOINT DESIGN			WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING				
A. FIRM RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARBOR MANUFACTURER	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. BHN	E. PROCESS	F. HEAT TREATMENT	G. TEMP. TIME QUENCH	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AND PASSES	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	A. PRE	B. POST	F/S	LOC.	CRACKING	RADIOGRAPHIC RESULTS, ETC.						
A. 1250P	B. 2/15/44	C. 4	D. Great Lakes Steel Corp.	A. 1/2"	B. 1/2"	C. 0.18%	D. 110	E. 250	F. 1400 F 1 hr.	G. 200 F 1 hr.	A. 1/4"	B. 1/4"	C. Flame cutting	A. 1/4"	B. 1/4"	C. 1/4"	D. 1/4"	A. Copper	B. 1. 3/16" 1a 180 22 2. 1/2" 3/16" 1a 180 22 3. 1/2" 3/16" 1a 180 22	C. 3 hours. 140°-240° F D. Grinding time 5 hours.	A. 200°	B. None	1 12499	2 1250P	3 2527	9" U 10" L 10" D 10" V 10" V 10" V	-	-	-	P
A. 12841	B. 3/17/44	C. 1	D. Youngstown Sheet & Tube Co.	A. 1/2"	B. 1/2"	C. 0.18%	D. 110	E. 250	F. 1400 F 1 hr.	G. 200 F 1 hr.	A. 1/4"	B. 1/4"	C. Machining	A. 1/4"	B. 1/4"	C. 1/4"	D. 1/4"	A. Copper	B. 1. 3/16" 1a 190 22 2. 1/2" 3/16" 1a 190 22 3. 1/2" 3/16" 1a 190 22	C. 3-1/2 hours 130°-290° F D. Grinding time 6 hours.	A. 150°	B. None	1 12545	2 12545	3 2527	11" U 11" R 11" D 11" V 11" V 11" V	-	-	-	F

16.

IDENTIFICATION	ABSON DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	WEAT	BALLISTIC RESULTS				REMARKS ON CRACKING			
						A. PRE	F	VEL.	LOCATION OF W		CRACKING		
A. FILING RECORD NO.	A. PLATE VEHICLE	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PRE	F/S	L.L.	R.L.	C.B.	LOC.	TYPE	ANT	RADIOGRAPHIC RESULTS, ETC
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ROOT GAP	B. DISPOSITION SIZE EL. NO. TYPE APP. V.	B. POST								
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. PLATE PREPARATION	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE									
D. ABSON MANUFACTURER	D. SIZE	D. CURRENT & POLARITY											
E. ELECTRODE MFG.	E. PROCESS												
F. ABSON FABRICATOR	F. BEAT TREATMENT												
G. TEMP. TIME QUENCH	G. TEMP. TIME QUENCH												
A. AL 439 B. 5/25/43 C. 150 D. Great Lakes E. Steel Corp. F. McKay Company G. Cadillac Motor H. Car Division	A. 1/2" B. F IV C. .0025 D. .017P E. .58Cr Nil N1 F. .002P G. .28C H. Surface 341 I. Core 363 J. 1650°F ± hr. K. water L. 840°F ± hr. M. air	A. A II B. .13-.15C C. 4.50-4.68H D. .34-.50S1 E. .012-.015S F. .002SP G. 20.20-20.75 H. 10.10-10.30 I. Ti-Mo J. Titanium K. DC-REV	A. 90° DV B. 5/32" C. Flame cutting Grinding	A. None B. 1.42 I 5/32" 2a 130 25 3. 3/16" 2a 145 25 C. 1.5 hours. 70°-190°F D. Grinding time .75 hours.	A. None B. None	1 2523	2 2519	2 1/2" L 5 1/2" D 8 1/2" U I 16" V I 8 1/2" V 25 1/2"	- - - - - -	- - - - - -	- - - - - -	F For development only-rejected by x-ray	
A. AL 439 B. 5/25/43 C. 150 D. Great Lakes E. Steel Corp. F. McKay Company G. Cadillac Motor H. Car Division	A. 1/2" B. F IV C. .0025 D. .017P E. .58Cr Nil N1 F. .002P G. .28C H. Surface 343 I. Core 363 J. 1650°F ± hr. K. water L. 840°F ± hr. M. air	A. A II B. .15C C. 4.60H D. .34-.50S1 E. .012S F. .002SP G. 20.75Cr H. 10.10-10.30 I. Ti-Mo J. Titanium K. DC-REV	A. 90° DV B. 5/32" C. Flame cutting Grinding	A. None B. 1. & 2. I 5/32" 2a 110 25 3. 3/16" 2a 110 25 C. 1.54 hours - - - 70°-160°F D. Grinding time .75 hours.	A. None B. None	1 2537	2 2530	X 8" D 7" U I 8" V I 24" V I 10 1/2" V I 12" V 54 1/2"	- - - - - -	- - - - - -	- - - - - -	F Rejected by x-ray.	
A. AL 439 B. 5/25/43 C. 150 D. Great Lakes E. Steel Corp. F. McKay Company G. Cadillac Motor H. Car Div.	A. 1/2" B. F IV C. .0025 D. .017P E. .58Cr Nil N1 F. .002P G. .28C H. Surface 341 I. Core 363 J. 1650°F ± hr. K. water L. 840°F ± hr. M. air	A. A II B. .13-.15C C. 4.50-4.68H D. .34-.50S1 E. .012-.015S F. .002SP G. 20.20-20.75 H. 10.10-10.30 I. Ti-Mo J. Titanium K. DC-REV	A. 90° DV B. 3/16" C. Flame cutting Grinding	A. None B. 1. & 2. I 5/32" 2a 120 25 3. 3/16" 2a 160 25 C. 1.53 hours - - - 70°-210°F D. Grinding time .63 hours	A. None B. None	1 2524	2 2524	7 1/2" U 4 1/2" R 7 1/2" R I 7 1/2" V I 24" V - - - - - -	- - - - - -	- - - - - -	- - - - - -	P Plate sent in as a borderline plate due to possible crack in right leg.	

17.

IDENTIFICATION	ABRUS DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SLAT	BALLISTIC RESULTS			REMARKS ON CRACKING
							VEL.	LOCATION OF #	CRACKING	
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP V.	A. PRE	F/S	L.L. R.L. C.S. LOC. TYPE	CRACKING	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TRAIL NAME	B. ANGLE, ROOT FACE	B. NOT GIVEN	1. ROOT TYPE	B. POST				
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP		2. ROOT TYPE					
D. ABRUS MANUFACTURER	D. REM	D. CURRENT A	C. PLATE PREPARATION		3. GROW TYPE					
E. ELECTRODE MFG.	E. PROCESS	D. POLARITY			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE					
F. ABRUS FABRICATION	F. SLAT TREATMENT				D. REMARKS					
	TEMP. TIME QUENCH									
A. AD 711	A. 1/2"	A. A II	A. 60° DV	A. Not given	A. None	A. None	1	2580	IMP I	11 1/2"
B. 6/26/43	B. R IV	.13-.16C	B. 3/16"	B. 1. & 2. I 1/8" 2a 90 25	B. None				IMP V	24"
C. 159	.77Mn .68C1	3.73-4.56Mn	C. Flame cutting	3. 2.38 hours 70°-196°F			2	2800	IMP I	14"
D. Great Lakes	.032S .017P	.34-.36S1	C. Grinding	D. Grinding time 1.51 hours.					D	40 1/2"
E. Steel Corp.	.68Cr N11 M1	.014-.016S								
F. McKay Company	.23Mn .08Cr	.026P								
G. Cadillac Motor	C. .28C	19.60-20.20								
H. Car Div.	D. Surface 341	Cr								
	E. Core 363	10.10-10.30								
	F. 1650°F ± hr.	Tr. Mo-.36								
	water	B.								
	800°F ± hr.	C. Lime								
	air	D. DC-REV								
A. AD 711	A. 1/2"	Harnischfeger	A. 60° DV	A. Not given	A. None	A. None	1	2524	IMP I	12 1/2"
B. 6/26/43	B. R IV	A. A II	B. 3/16"	B. 1. & 2. I 5/32" 2a 135 25	B. None				IMP V	7"
C. 163	.77Mn .68C1	.12C	C. Flame cutting	3. 1.60 hours 70°-196°F			2	2613	IMP V	18 1/2"
D. Great Lakes	.032S .017P	2.13Mn	C. Grinding	D. Grinding time .40 hours.						
E. Steel Corp.	.68Cr N11 M1	.63S1								
F. Harnischfeger	.23Mn .08Cr	.013S								
G. McKay Company	C. .28C	.026P								
H. Cadillac	D. Surface 341	21.32C-								
I. Motor Car Div.	E. Core 363	10.30M1								
	F. 1650°F ± hr.	.10Mo								
	water	B. Calcium								
	800°F ± hr.	C. DC-REV								
	air	D. DC-REV								
		A. A II								
		.12C								
		4.60Mn								
		.60S1								
		.020S								
		.025P								
		20.25Cr								
		9.94M1								
		.08Mo								
		B. Calcium								
		D. DC-REV								

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.		A. PLATE THICKNESS		A. TYPE		A. GROOVE, INCLUDED		A. BACKING		B. DEPOSITION SIZE EL. NO. TYPE AMP V		A. PRE		VEL.		LOCATION OF H		RADIOGRAPHIC RESULTS, ETC.	
B. DATE OF TEST		B. TYPE		B. TRADE NAME		B. ANGLE, ROOT FACE		B. ROOT GAP		1. ROOT TYPE		B. POST		F/S		L.L. R.L. C.B. LOC.			
C. PLATE NO.		C. CARBON CONTENT		C. COATING		C. PLATE PREPARATION		C. GRINDING		2. BODY TYPE									
D. ARMOR MANUFACTURER		D. BSW		D. CURRENT & POLARITY						3. GROW TYPE									
E. ELECTRODE #/GR		E. PROCESS								C. TOTAL WELDING TIME & INTER PASS TEMPERATURE									
F. ARMOR FABRICATOR		F. REAT TREATMENT								D. REMARKS									
		TEMP. TIME QUENCH																	
A. AL 711	A. 1/2"	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.	A. 1450°F & hr.
B. 6/28/43	B. P. IV	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.	B. 800°F & hr.
C. 165	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028	C. .0028
D. Great Lakes	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1	D. .0028 N11 N1
E. Steel Corp.	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028	E. .0028
F. Harnischfeger	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028	F. .0028
G. Harnischfeger	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028	G. .0028
H. Harnischfeger	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028	H. .0028
I. Harnischfeger	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028	I. .0028
J. Harnischfeger	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028	J. .0028
K. Harnischfeger	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028	K. .0028
L. Harnischfeger	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028	L. .0028
M. Harnischfeger	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028	M. .0028
N. Harnischfeger	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028	N. .0028
O. Harnischfeger	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028	O. .0028
P. Harnischfeger	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028	P. .0028
Q. Harnischfeger	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028	Q. .0028
R. Harnischfeger	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028	R. .0028
S. Harnischfeger	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028	S. .0028
T. Harnischfeger	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028	T. .0028
U. Harnischfeger	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028	U. .0028
V. Harnischfeger	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028	V. .0028
W. Harnischfeger	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028	W. .0028
X. Harnischfeger	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028	X. .0028
Y. Harnischfeger	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028	Y. .0028
Z. Harnischfeger	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028	Z. .0028
AA. Harnischfeger	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028	AA. .0028
AB. Harnischfeger	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028	AB. .0028
AC. Harnischfeger	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028	AC. .0028
AD. Harnischfeger	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028	AD. .0028
AE. Harnischfeger	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028	AE. .0028
AF. Harnischfeger	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028	AF. .0028
AG. Harnischfeger	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028	AG. .0028
AH. Harnischfeger	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028	AH. .0028
AI. Harnischfeger	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028	AI. .0028
AJ. Harnischfeger	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028	AJ. .0028
AK. Harnischfeger	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028	AK. .0028
AL. Harnischfeger	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028	AL. .0028
AM. Harnischfeger	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028	AM. .0028
AN. Harnischfeger	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028	AN. .0028
AO. Harnischfeger	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028	AO. .0028
AP. Harnischfeger	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028	AP. .0028
AQ. Harnischfeger	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028	AQ. .0028
AR. Harnischfeger	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028	AR. .0028
AS. Harnischfeger	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028	AS. .0028
AT. Harnischfeger	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028	AT. .0028
AU. Harnischfeger	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028	AU. .0028
AV. Harnischfeger	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028	AV. .0028

IDENTIFICATION				ANODE DATA		ELECTRODE DATA		J INT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING																																				
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. DEN	E. PROCESS	F. HEAT TREATMENT	G. TEMP. TIME QUENCH	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE INCLUDED	B. ANGLE, ROOT FACE	C. ROOT GAP	D. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL.	C. NO. TYPE APP. V.	PASSES	A. PRE	B. POST	H	VEL.	LOCATION OF F	CRACKING	RADIOGRAPHIC RESULTS, ETC.																											
A. AD 782	B. 8/19/43	C. 170	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .7851	.000". .019F	.000". .20M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding.	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	5/32" 4b 135 25	C. 2.28 hours 700°-210°F	D. Grinding time 1.41 hours.	A. None	B. None	1	2533	2 1/2" R	4 1/2" IMP U	8 1/2"	F	Unacceptable due to cracking and imperfect fusion.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .0001	.000". .0001	A. Harnischfeger	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. AW 3	C. Calcium	D. DC-REV	McKay	A. A II	.12C	4.60H	.50G	.000S	.000P	20.25Cr	9.94Ni	.00Mo	B. Calcium	C. Calcium	D. DC-REV	McKay	A. 60° DV	B. 1/4"	C. Flame cutting	Grinding	A. Not given	B. 1.82. II 5/32" 2a 135 25	3. II 3/16" 2b 185 25	3/16" 2b 185 25	C. 2.21 hours. 80°F-200°F.	D. Grinding time 1.21 hours.	A. None	B. None	1	2533	2 1/2" L	4 1/2" IMP U	-	P	Some slag.
A. AD 782	B. B/19/43	C. 174	D. Great Lakes Steel Corp.	A. 1/2"	B. R IV	.000". .85S1	.000". .021P	.000". .24M	.000". .																																															

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	B. TRADE NAME	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V	A. PRE	B. POST	A. None	B. None	VEL. F/S	LOCATION OF H. L.L. R.L. C. B.	CRACKING LOC. TYPE AMT	RADIOGRAPHIC RESULTS, ETC.		
C. PLATE NO.	D. ANODE MANUFACTURER	E. PROCESS	F. HEAT TREATMENT	A. A I	B. A II	C. COATING	D. CURRENT A	1. ROOT TYPE	2. BODY TYPE	3. CROWN TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	1. ROOT TYPE	2. BODY TYPE	3. CROWN TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS		
A. AD 78C B. 9/19/43 C. 17A D. Great Lakes Steel Corp. E. Harnischfeger F. Cadillac Motor Car Division	A. 1/2" B. R IV C. .84Mn .85C D. .020" .021F E. .62Cr .24Mo F. Face 363 Back 363	A. Harnischfeger B. A II C. .12C D. 21.13Cr E. .025P F. 21.30Cr G. 10.80Mn H. 10Mo I. AW 3 J. Calcium K. DC-REV L. 60-REV	A. 60° DV B. 1/4" C. Flame cutting D. Grinding	A. Not given B. 1. 8 2. 1 5/32" 2a 135 25 3. 5/32" 4b 135 25 5/16" 2b 185 25 C. 2.43 hours 70°-140° D. Grinding time 1.48 hours.	A. None B. None	1 2515 2 2517 3 2515	1 11" - 1 11" 22"	P											
A. AD 78C B. 9/19/43 C. 17A D. Great Lakes Steel Corp. E. Harnischfeger F. Cadillac Motor Car Division	A. 1/2" B. R IV C. .84Mn .85C D. .020" .021F E. .62Cr .24Mo F. Face 363 Back 363	A. Harnischfeger B. A II C. .12C D. 21.13Cr E. .025P F. 21.30Cr G. 10.80Mn H. 10Mo I. AW 3 J. Calcium K. DC-REV L. 60-REV	A. 60° DV B. 1/4" C. Flame cutting D. Grinding	A. Not given B. 1. 8 2. 1 5/32" 2a 135 25 3. 5/32" 4b 135 25 5/16" 2b 185 25 C. 2.973 hours. 70°-140° D. Grinding time 1.48 hours.	A. None B. None	1 2514 2 2513	1 11" 1 12" 26"	P											

22.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	B. TRADE NAME	A. GROOVE, INCLUDED	A. BACKING	A. SACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	N	VEL. F/S	LOCATION OF R. L.L. R.L. C.B. LOC. TYPE AMT	CRACKING	RADIOGRAPHIC RESULTS, ETC.				
C. PLATE NO.	D. ANODE MANUFACTURER	C. CARBON CONTENT	D. BHN	C. COATING	D. CURRENT & POLARITY	B. ROOT CAP	1. ROOT TYPE	2. BODY TYPE	3. GROWN TYPE	B. POST									
E. PROCESS	F. HEAT TREATMENT	F. TEMP. TIME QUENCH				C. FLANGE PREPARATION													
7. AL 783	8. 8/19/43	A. 1/2"	B. R.V.	A. A II	B. .120	A. RQ DV	A. Not given	A. Not given	A. None	A. None	1 2521		5" R	IMP I 14"	P				
9. C. 177	10. Great Lakes	E. .84Mn .85Si	F. .030C .011P	C. 2.13Mn	D. .030C .011P	B. Flame cutting	1. & 2. I 5/32" 2a 135 25	1. & 2. I 5/32" 2a 135 25	B. None		2 2520		8" U	-					
11. Steel Corp.	12. Harnischfeger	F. .020C .24Mn	G. .072C	D. .012S	E. .025P	C. Grinding	3. III 5/32" 2b 135 25	3. III 5/32" 2b 135 25			3 2536		7 1/2" D	IMP I 14"					
13. Cadillac Motor	14. Car Division	D. Face 363	E. Back 363	F. 21.520F	G. 10.50N1		C. 2.83 hours. 70°F-170°F	C. 2.83 hours. 70°F-170°F			4 2589		7" L	IMP I 14"					
		F. 1625°F 30 min.	G. water	H. 900°F 90 min.	I. air		D. Grinding time 1.58 hours.	D. Grinding time 1.58 hours.					5 1/2" U	-					
														17"					
15. AL 783	16. 6/19/43	A. 1/2"	B. R.V.	A. A II	B. .120	A. RQ DV	A. Not given	A. Not given	A. None	A. None	1 2527		2" L	-	P				
17. C. 178	18. Great Lakes	E. .84Mn .85Si	F. .030C .011P	C. 2.13Mn	D. .030C .011P	B. Flame cutting	1. & 2. I 5/32" 2a 135 25	1. & 2. I 5/32" 2a 135 25	B. None		2 2513		9" L	-	5/16" imperfect fusion at x-bar.				
19. Steel Corp.	20. Harnischfeger	F. .020C .24Mn	G. .072C	D. .012S	E. .025P	C. Grinding	3. III 5/32" 2b 135 25	3. III 5/32" 2b 135 25			3 2519		7 1/2" D	-					
21. Cadillac Motor	22. Car Division	D. Face 363	E. Back 363	F. 21.520F	G. 10.50N1		C. 2.39 hours 70°F-165°F	C. 2.39 hours 70°F-165°F			4 2525		4 1/2" R	-					
		F. 1625°F 30 min.	G. water	H. 900°F 90 min.	I. air		D. Grinding time .75 hours.	D. Grinding time .75 hours.					8" U	-					

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		SEAT		BALLISTIC RESULTS				REMARKS ON CRACKING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARMOR MANUFACTURER	E. ELECTRODE MFG.	F. ARMOR FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	1. ROOT TYPE	2. BODY TYPE	3. CHOWN TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	A. PNE	B. POST	H	VEL. F/S	LOC. L.L. N.L. C.B. LOC.	CRACKING TYPE	AMT	RADIOGRAPHIC RESULTS, ETC.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
A. AD 855	B. 8/27/43	C. 173	D. Great Lakes Steel Corp.	E. Reli-Avery.	F. McKay Company	Reli-Avery	A. A I	.14C	3.47mm	.24S1	.07Zr	.025P	18.72Cr	10.20Ni	.78Mo	A. 1/2"	B. R IV	.0035	.7781	.07Zr	.26C	Face 401	Back 415	F. 1450°F 30 min.	840°F 70 min.	C. Line	D. DC-REV	McKay-	A. A II	.12C	4.60mm	.50S1	.020S	.025P	20.25Cr	9.94Ni	.06Mo	B. Line	C. Line	D. DC-REV	1	1990	14"	IMP	I	1 1/8"	P	Small amount of slag and porosity scattered throughout the weld.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING			
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. BHN	E. PROCESS	F. BEAT TREATMENT	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ARP. V.	A. PRE	B. POST	H	VEL. F/S	LOCATION OF R. L.L. R.L. C.B. LOC.	CRACKING TYPE ART	RADIOGRAPHIC RESULTS, ETC.		
A. AD 461	B. 6/8/43	A. 1/2"	B. R III J & L	.09C	2.01Mn	.30Si	18.43Cr	A. 45° SV	B. 1/4"	C. Flame cutting	A. Copper	1. I 5/32" 1a 150 30	A. None	B. None	1	2800	X	IMP	I	3"	P
C. #2	D. Jones & Laughlin	.1881	.0178	.019P	.25Mo	.27C	Back 351	Grinding			B. 1. I 5/32" 1a 150 30	2. I 3/16" 2a 200 30	2	2528	54"	R	54"	-	-	1/4" incomplete fusion. Small amount of porosity.	
E. Youngstown	F. Sheet & Tube Company	.0178	.019P	.25Mo	10.16N1	1.84Mo	10.16N1	3. III 3/16" 2b 200 30			3. III 3/16" 2b 200 30	Seal bead 5/32" dia 150 30	3	2531	78"	R	44"	IMP	I	4"	
E. Crucible Steel	F. Chicago Vitreous Enamel Products Company	Back 340	Back 351	Back 351	Back 351	Back 351	Back 351	B. Armorize					4	2598	12"	R	4"	IMP	I	134"	
		E. B.O.B.	F. 1 hr.	water	775 F 3 hrs.	air		C. Titanium													
		F. 1650 F 1 hr.	water	775 F 3 hrs.	air			E. DC-REV													
		A. R III Y-	B. 1.51Mn	.1881	.030S .027P	.32Mo	.24C														
		D. Face 340	Back 340	Back 340	Back 340	Back 340	Back 340														
		E. B.O.B.	F. 1 hr.	water	775 F 3 hrs.	air															
		F. 1650 F 1 hr.	water	775 F 3 hrs.	air																

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING								
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	C. CARBOR CONTENT	D. REM	E. PROCESSES	F. REAR TREATMENT	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT CAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AND V.	PASSES	N	VEL.	LOCATION OF H. L.L. N.L.C.B.	CRACKING LOC. TYPE ANT			
A. AD 92A	B. 10/12/43	A. 1/2"	B. R IV GL	.88in .74SI .0245 .019P .56Cr .21Mo .2%	C. Face 3x4 Back 3x4	D. B.O.H.	E. 1650 F 1 hr. water	A. A I .08C 3.72Mn .24Si 19.38Cr 10.08Ni	B. Armorize	C. Titania	D. DC-REV	A. 45° SV	B. 3/16"	C. Flame cutting Grinding	A. Copper	1. I 3/16" 1a 150 25 2. I 1/4" 1a 220 30 3. I 1/4" 1a 200 30		1 2511	2 2518	L	8 1/2" U 9 1/2" D	I IMP IMP V I IMP IMP V	10 1/2 P 6 1/2" 11 1/2" 5"	
A. 106#2	B. 11/28/43	A. 1/2"	B. R IV GL	.88in .74SI .0245 .019P .56Cr .21Mo .08Zr .2%	C. Face 340 Back 353	D. B.O.H.	E. 1650 F 1 hr. water	A. A I .14C 4.08Mn .24Si 18.22Cr 10.10Ni .69Mo	B. Armorize	C. Titania	D. DC-REV	A. 45° SV	B. 3/16"	C. Flame cutting Grinding	A. Copper	1. I 3/16" 1a 155 27 2. I 3/16" 1a 155 27 1/4" 1a 210 32 3. I 1/4" 1a 210 32		1 2525	2 2516	L	3 1/2" U 7" D 7" D 1" X	- IMP I IMP V IMP V	- 7 1/2" 3 1/2" 8 18 1/2"	P

26.

IDENTIFICATION			ARMOR DATA			ELECTRODE DATA			JOINT DESIGN			WELDING			PROCEDURE			BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. BRN	E. PROCESS	F. BEAT TREATMENT	G. TEMP TIME QUENCH	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. FLARE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	1. ROOT TYPE	2. BODY TYPE	3. GROW TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	A. PRE	B. POST	H	VEL. F/S	L.L.	R.L.	R.C.E.	LOC.	TYP	AMT	RADIOGRAPHIC RESULTS, ETC.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A. AD 903	B. 10/16/43	C. 46	A. 1/2"	B. F I	1.10Mn .11Si	.055-.018P	.78Cr .16Mo	1.04Ni	C. .26C	A. A I	.08-12C	1.80-3.80 Mn	.27-.58Si	18.8-19.7Cr	9.39-10.7Ni	.7A-1.8Mo	B. Smooth Arc	A. Copper	B. 1. II 5/32" 2a 1P5	2a3. I 1/4" 2a 240	2e-26	C. 2 hours 35 minutes @ 125'-212°F	D. Grinding time 27 minutes	A. None	B. None	1 B511	2 2537	3 2532	1 L	2 R	3 R	8" U	8 1/2" D	8 1/2" D	-	-	-	P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
E. Republic Steel Corp.	F. Harnischfeger Corp.	F. Federal Machine & Welder Co. Tank Division	D. Face 255 Back 255	E. Elec Basic	F. 1600 F 1 1/2 hr. water bath	900 F 1 1/2 hr. air																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
							VEL.	LOCATION OF H	CRACKING		
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	PASSES	A. PRE	F/S	L.L. R.L. C.B.	LOC.	TYPE	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOF FACE	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.		B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	1. ROOT TYPE							
D. ARMOR MANUFACTURER	D. PHOS	D. CURRENT & POLARITY	C. PLATE PREPARATION	2. BODY TYPE							
E. ELECTRODE MFG.	E. PROCESS			3. GROWN TYPE							
F. ARMOR FABRICATOR	F. HEAT TREATMENT			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE							
	TEMP. TIME QUENCH			D. REMARKS							
A. AD 791 B. 8/17/43 C. 109 D. Jones & Laughlin E. McKay Company F. Fisher Tank Division	A. 1 1/2" B. P. III C. 109 D. .28Cr .15Mo E. .28Cr .15Mo F. Face 311 Back 321 G. 1600°F 1 hr. water 875°F 1 1/2 hr. air	A. A II B. .08C C. 4.03Mn D. .02Si E. .0033 F. .043P G. 18.5Cr H. 9.71Ni I. .10Mo J. A S K. Lime L. DC-REV	A. 45° SV B. 3/8" C. Flame cutting Grinding	A. Copper B. 1. II 3/16" 2b 175 21 2. II 3/16" 4b 175 21 3. II 5/32" 3b 160 21 3 Seal beads 3/16" 3b 175 21 C. 1 hour 26 minutes. 120°F - 290°F D. Grinding time 1 hr.	1 2512 2 2518	A. None B. None	1 2512 2 2518	1 1/2" P 2 8 5/8" D	- I	- 6"	F Plate is not acceptable due to cracking and excessive imperfect fusion.
A. AD 791 B. 8/17/43 C. 110 D. Great Lakes Steel E. McKay Company F. Fisher Tank Division	A. 1 1/2" B. R IV C. 110 D. .013 .02PF E. .23Cr .15Mo F. Face 321 Back 321 G. 1650°F 30 min water 850°F 1 hr. air	A. A II B. .08C C. 4.03Mn D. .02Si E. .0033 F. .043P G. 18.5Cr H. 9.71Ni I. .10Mo J. A S K. Lime L. DC-	A. 45° SV B. 3/8" C. Flame cutting Grinding	A. Copper B. 1. I 3/16" 1a 175 21 2. I 1/4" 2a 250 21 3. I 1/4" 1a 250 21 One seal bead 1/4" 0 250 21 C. 1 hour 120 F-170 F D. Grinding time 40 minutes.	1 2518 2 2518 3 2518	A. None B. None	1 2518 2 2518 3 2518	3" L 5" D 6 1/2" D	- I I	- 15" 16 1/2"	F Plate is not acceptable due to excessive imperfect fusion and slag.

28.

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
							W	VEL.	LOCATION OF B	CRACKING	
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE APP. V	A. PRE		F/S	L.L. R.L. C.B.	LOC	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE		1. ROOT TYPE	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT CAP		2. BODY TYPE						
D. ELECTRODE MFG	D. SIZE	D. CURRENT & POLARITY	C. PLATE PREPARATION		3. GROW TYPE						
E. ELECTRODE MFG	E. PROCESS				C. TOTAL WELDING TIME & INTER PASS TEMPERATURE						
F. ARMOR FABRICATOR	F. HEAT TREATMENT				D. REMARKS						
	TEMP. TIME QUENCH										
A. A 10829	A. 1/2"	A. A 1	A. 90° SV	A. Copper		A. None	1	12501	1" R	IMP I	P
B. 11/16/43	B. R 111	B. P. & H.	B. 1/4"	B. 1. I 5/32" 1a 145 80		B. 1800	2	2535	7" D	IMP I	
C. L 2	C. .0155 .017P	C. Smootharc	C. Flame cutting	3. II 5/32" 3b 145 80		200F					
D. Jones & Laughlin	D. .34Mo	D. AC		Seal bead -							
E. Harnischfeger	E. .27C			5/32" 1a 145 80							
F. Fisher Body	F. Face 352			C. 7 hours. 180°-200°F							
Lansing	F. Back 352			D. Grinding time 7 hours.							
Division	E. 1450°F 1/2 hr.			Buttered.							
	F. water										
	825°F 1 1/2 hr.										
	air										
A. A 10943	A. 1/2"	A. A 1	A. 90° SV	A. Copper		A. None	1	2509	1" R	IMP I	P
B. 11/19/43	B. R 111	B. Lime	B. 1/4"	B. 1. I 5/32" 1a 145 80		B. None	2	2509	7" D	IMP I	
C. L 3	C. .0155 .017P	C. AC	C. Flame cutting	2. III 5/32" 1b 145 80							
D. Jones & Laughlin	D. .34Mo			3. III 5/32" 3a 145 80							
E. Harnischfeger	E. .27C			Seal bead -							
F. Fisher Body	F. Face 352			5/32" 1a 145 80							
Lansing	F. Back 352			C. 6 1/2 hours. 140°-180°F							
Division	E. 1450°F 1/2 hr.			D. Grinding time 6 hours.							
	F. water										
	825°F 1 1/2 hr.										
	air										
A. A 10943	A. 1/2"	A. ---	A. 45° SV	A. Copper		A. None	1	12512	1" R	IMP I	F
B. 11/22/43	B. ---	B. ---	B. 1/4"	B. 1. I 5/32" 1a 140 80		B. 1800	2	2516	3 1/2" R	IMP I	Incomplete fusion.
C. L 1	C. ---	C. AC	C. Flame cutting	2. I 5/32" 1a 140 80		200F	3	2512	4" L	IMP I	3/4" crack at crossbar. Incomplete penetration. Scattered slag.
D. ---	D. ---			3. III 5/32" 3a 140 80			4	2511	3 1/2" L	IMP I	
E. ---	E. ---			Seal bead -							
F. Fisher Body	F. Face 352			5/32" 1a 140 80							
Lansing	F. Back 352			C. 6 hours. 180°-200°F							
Division	E. 1450°F 1/2 hr.			D. ---							

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
							N	V/L	LOCATION OF #	CRACKING	
A. VIBRATING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP V.	A. PHE					
B. DATE OF TEST	B. TYPE	B. TRADE MARK	B. ANGLE, ROOT FACE	B. DEPOSITION SIZE EL. NO. TYPE AMP V.	B. DEPOSITION SIZE EL. NO. TYPE AMP V.	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT CAP	C. FLAT PREPARATION	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE						
D. ANODE MANUFACTURER	D. EBN	D. CURRENT & POLARITY									
E. ELECTRODE MFGS.	E. PROCESS										
F. ANODE FABRICATOR	F. HEAT TREATMENT										
	TEMP. TIME QUENCH										
A. A 11557	A. 1/2"	A. A 1	A. 45° EV	A. Copper		A. None	12511		14 5/8" L	I 1"	P
B. 12/18/43	B. F 111	B. P. 4P	B. 1/4"	B. 1 5/32" 1a 180 100		B. None	22512		8 1/2" U	-	
C. L 4	C. 1.72mm .2481	C. Smooth	C. Machining	C. 1 3/16" 1a 180 100			22513		8 1/2" U	-	
D. Jones & Laughlin	D. .0138 .017P	D. Flux		D. 1 5/32" 2b 180 100			22514		8 1/2" U	-	
E. Harbisonfischer Corp.	E. .240	E. AC		E. 1 5/32" 1b 180 100			42535		8 1/2" U	-	
F. Fisher Body Lasing Division	F. Face 341 Back 341			F. Seal bead - 5/32" 1a 180 100					8 1/2" U	I 17 1/2"	
	F. 1450°F 1 hr. water 825°F 1 1/2 hr. air			F. 6.5 hours. 700-200°F grinding time 3.5 hours.					8 1/2" U	-	
A. A 10950	A. 1/2"	A. A 1	A. 45° EV	A. Copper		A. None	12550		3" R	-	P
B. 1/4/44	B. F 111	B. P. 4P	B. 1/4"	B. 1 5/32" 1a 180 100		B. None	22543		10 1/2" L	I 4"	Satisfactory re-pairs made in crossbar area.
C. L 8	C. 1.72mm .2481	C. Smooth	C. Machining	C. 1 3/16" 1a 180 100			22544		4 1/2" U	-	
D. Jones & Laughlin	D. .0138 .017P	D. Flux		D. 1 5/32" 2b 180 100			22545		1" L	I 3 1/2"	
E. Harbisonfischer Corp.	E. .240	E. AC		E. Seal bead - 3/16" 1a 180 100					8 1/2" U	-	
F. Fisher Body Lasing Division	F. Face 341 Back 341			F. 6 hours 700-200°F grinding time 3.3 hours.			42523		3" R	-	F
	F. 1450°F 1 hr. water 825°F 1 1/2 hr. air								8 1/2" U	-	Small amount of slag. 1/2" in-complete fusion.
A. A 11557	A. 1/2"	A. A 1	A. 45° EV	A. Copper		A. None	12497		3" R	-	
B. 1/6/44	B. F 111	B. P. 4P	B. 1/4"	B. 1 5/32" 1a 180 25		B. None	22508		8 1/2" U	-	
C. L 4	C. 1.50mm .2281	C. Smooth	C. Machining	C. 1 3/16" 1a 180 30			22509		8 1/2" U	-	
D. Jones & Laughlin	D. .0150 .017P	D. Flux	D. Flame cutting	D. 1 5/32" 2b 180 25			22508		8 1/2" U	-	
E. Harbisonfischer Corp.	E. .240	E. AC		E. Seal bead - 3/16" 1a 180 30			42518		8 1/2" U	I 8 1/2"	
F. Fisher Body Lasing Division	F. Face 352 Back 352			F. 6.7 hours. 700-200°F water 825°F 1 1/2 hr. air							

IDENTIFICATION				ELECTRODE DATA				JOINT DESIGN		WELDING		PROCEDURE		WELD		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRM RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARMOR MANUFACTURER	A. PLATE THICKNESS	A. TYPE	B. TRADE NAME	C. COATING	D. BEH.	E. PROCESS	F. HEAT TREATMENT	G. TENSILE	H. YIELD	I. ELONG.	J. REDUCED SECTION	K. CHARPY	L. TENSILE	M. YIELD	N. ELONG.	O. REDUCED SECTION	P. CHARPY	Q. TENSILE
A. A11587	B. 1/15/44	C. 1/15/44	D. Jones & Laughlin	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
E. Harnischfeger Corp.	F. Fisher Body Lansing Division	G. 1/15/44	H. 1/15/44	I. 1/15/44	J. 1/15/44	K. 1/15/44	L. 1/15/44	M. 1/15/44	N. 1/15/44	O. 1/15/44	P. 1/15/44	Q. 1/15/44	R. 1/15/44	S. 1/15/44	T. 1/15/44	U. 1/15/44	V. 1/15/44	W. 1/15/44	X. 1/15/44	Y. 1/15/44	Z. 1/15/44
A. A11845	B. 1/15/44	C. 1/15/44	D. Jones & Laughlin	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
E. Harnischfeger Corp.	F. Fisher Body Lansing Division	G. 1/15/44	H. 1/15/44	I. 1/15/44	J. 1/15/44	K. 1/15/44	L. 1/15/44	M. 1/15/44	N. 1/15/44	O. 1/15/44	P. 1/15/44	Q. 1/15/44	R. 1/15/44	S. 1/15/44	T. 1/15/44	U. 1/15/44	V. 1/15/44	W. 1/15/44	X. 1/15/44	Y. 1/15/44	Z. 1/15/44
A. A12204	B. 1/15/44	C. 1/15/44	D. Jones & Laughlin	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
E. Harnischfeger Corp.	F. Fisher Body Lansing Division	G. 1/15/44	H. 1/15/44	I. 1/15/44	J. 1/15/44	K. 1/15/44	L. 1/15/44	M. 1/15/44	N. 1/15/44	O. 1/15/44	P. 1/15/44	Q. 1/15/44	R. 1/15/44	S. 1/15/44	T. 1/15/44	U. 1/15/44	V. 1/15/44	W. 1/15/44	X. 1/15/44	Y. 1/15/44	Z. 1/15/44

IDENTIFICATION	ABSORB DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
						A. PRE B. POST	#	VEL. F/S	LOCATION OF R. L.L. R.L. C.D.	CRACKING LOC. TYPE AMT	
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. FABRICATOR E. ELECTRODE MFG. F. ABSORB FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. RPP E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. SCHEDULE B. DEPOSITION SIZE EL. NO. TYPE AMP. V. C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS							
A. A 12880 B. 3/17/44 C. FGB 17 D. Jones & Laughlin E. Harnischfeger F. Fitzgibbons Boiler Co.	A. 1/2" B. R IV C. .018P .018S D. .21M0 E. .24C F. Face 363 Back 343 G. B.O.H. H. 1850 F 30 min water I. 775 F 80 min draw	A. A II B. .10C C. 4.0-4.34 Mn D. .30-.66Si E. .18C F. 18.4Cr G. 9.2-9.5Ni H. .70-.80Mo I. P & H J. C. Lime K. DC-REV	A. 45° SV B. 3/16" C. Flame cutting	A. Copper B. 1. I 3/16" 1a 175 23 2. I 3/16" 1a 175 23 3. I 1/4" 1a 250 22 C. Seal bead - 3/16" 1a 175 22 D. Reinforcement ground smooth on back and front for x-ray purposes. Not completely removed. Bottom of #1 pass ground clean.	A. None B. None		1	2544	14" R 5 1/2" U	I 8 1/2" V 3 1/8"	P Small amount of slag.
A. A 13112 B. 3/28/44 C. FGB 19 D. Carnegie Ill. E. Harnischfeger F. Fitzgibbons Boiler Co.	A. 1/2" B. R IV C. .018P .018S D. .21M0 E. .24C F. Face 364 Back 344 G. B.O.H. H. 1854 F 1 hr. water I. 800 F 1 hr. water	A. A II B. .10C C. 4.0-4.34 Mn D. .30-.66Si E. .18C F. 18.4Cr G. 9.2-9.5Ni H. .70-.80Mo I. P & H J. C. Lime K. DC-REV	A. 45° SV B. 3/16" C. Flame cutting	A. Copper B. 1. I 3/16" 1a 200 20 2. I 1/4" 1a 200 21 3. I 1/4" 1a 200 20 C. Seal bead - 1/4" 1a 200 21 D. Reinforcement ground smooth on back and front for x-ray purposes. Not completely removed. Bottom Pass #1 ground clean.	A. None B. None		1 2 3	2542	14" R 6 1/2" U	I 20" V 7 1/2" 27 1/2"	P 14" of weld repair visible in radiographs. Welds are acceptable.
A. A 13112 B. 3/28/44 C. FGB 20 D. Great Lakes E. Lincoln F. Fitzgibbons Boiler Co.	A. 1/2" B. R IV C. .018P .018S D. .21M0 E. .24C F. Face 352 Back 343 G. B.O.H. H. 1850 F 30 min water I. 830 F 80 min draw	A. A II B. .10C C. 3.50-4.25 Mn D. .45-.80Si E. .18C F. 18.4Cr G. 9.2-9.5Ni H. .70-.80Mo I. P & H J. C. Lime K. DC-REV	A. 45° SV B. 3/16" C. Flame cutting	A. Copper B. 1. I 3/16" 1a 200 21 2. I 1/4" 1a 300 25 3. I 1/4" 1a 300 25 C. Seal bead - 1/4" 1a 300 25 D. Reinforcement ground smooth on back and front for x-ray purposes. Not completely removed. Bottom of pass #1 ground clean.	A. None B. None		4	2524	14" L 7 1/2" U	I 15 1/2" V 4 1/2" 17"	P 9" of weld repair visible in radiograph. Welds are acceptable.

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS					REMARKS ON CRACKING							
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARMOR MANUFACTURER	E. ELECTRODE MPa.	F. ARMOR FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	M. DEPOSITION SIZE EL.	N. TYPE AMP.	PASSES	A. PRE B. POST	N	VEL.	LOCATION OF H. L.L. R.L.	C.B.	LOC.	CRA. TYPE	P. RADIOGRAPHIC RESULTS, ETC.		
A. A1 7742	B. 7/8/43	C. 12	D. Great Lakes Steel Corp.	E. 1000 F	F. 1000 F	A. 1/2"	B. R IV 3L	C. .018"	D. .018"	A. 45° SV	B. 1/2"	C. Flame cutting	A. Copper	1. II 5/32"	2b 140 22	22	A. None	1	2529	2"	8 1/2"	IMP D	IMP I	10 1/2"	P	
A. 12	B. 7/8/43	C. 12	D. Great Lakes Steel Corp.	E. 1000 F	F. 1000 F	A. 1/2"	B. R IV 3L	C. .018"	D. .018"	A. 45° SV	B. 1/2"	C. Flame cutting	A. Copper	1. II 5/32"	2b 140 22	22	A. None	2	2556	1 3/8"	8 1/2"	IMP V	IMP V	7 1/2"	Small amount of slag.	
A. 12	B. 7/8/43	C. 12	D. Great Lakes Steel Corp.	E. 1000 F	F. 1000 F	A. 1/2"	B. R IV 3L	C. .018"	D. .018"	A. 45° SV	B. 1/2"	C. Flame cutting	A. Copper	1. II 5/32"	2b 140 22	22	A. None	2	2529	X	8 1/2"	IMP U	IMP I	11 1/2"		
																									47 1/2"	

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	REAT	BALLISTIC RESULTS					REMARKS ON CRACKING
							#	VEL.	LOCATION OF W	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE						
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE	B. ROOT CAP	B. ROOT TYPE	B. POST						
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. PLATE PREPARATION	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. GROOVE TYPE							
D. ARMOR MANUFACTURER	D. PROCESSES	D. CURRENT & POLARITY										
E. ELECTRODE MFG.	E. HEAT TREATMENT											
F. ARMOR FABRICATOR	F. TEMP. TIME QUENCH											
A. A 1064	A. 1/2"	A. A 1	A. 1/2"	A. Not given	A. 140°F	A. 150°F	1	2500	X	64"	-	P
B. 11/8/43	B. 1/2"	B. 11-1100	B. 1/2"	B. 1. 1 5/32"	B. 140 27	B. None	2	2518	1/2"	5"	-	1/4" incomplete fusion.
L. 1064-1405	L. 1/2"	L. 1064-1405	L. 1/2"	L. 1 3/16"	L. 140 27		3	2510	1/2"	5"	-	
M. 1064-1405	M. 1/2"	M. 1064-1405	M. 1/2"	M. 1 3/16"	M. 140 27		4	2510	1/2"	5"	-	
N. 1064-1405	N. 1/2"	N. 1064-1405	N. 1/2"	N. 1 3/16"	N. 140 27							
O. 1064-1405	O. 1/2"	O. 1064-1405	O. 1/2"	O. 1 3/16"	O. 140 27							
P. 1064-1405	P. 1/2"	P. 1064-1405	P. 1/2"	P. 1 3/16"	P. 140 27							
Q. 1064-1405	Q. 1/2"	Q. 1064-1405	Q. 1/2"	Q. 1 3/16"	Q. 140 27							
R. 1064-1405	R. 1/2"	R. 1064-1405	R. 1/2"	R. 1 3/16"	R. 140 27							
S. 1064-1405	S. 1/2"	S. 1064-1405	S. 1/2"	S. 1 3/16"	S. 140 27							
T. 1064-1405	T. 1/2"	T. 1064-1405	T. 1/2"	T. 1 3/16"	T. 140 27							
U. 1064-1405	U. 1/2"	U. 1064-1405	U. 1/2"	U. 1 3/16"	U. 140 27							
V. 1064-1405	V. 1/2"	V. 1064-1405	V. 1/2"	V. 1 3/16"	V. 140 27							
W. 1064-1405	W. 1/2"	W. 1064-1405	W. 1/2"	W. 1 3/16"	W. 140 27							
X. 1064-1405	X. 1/2"	X. 1064-1405	X. 1/2"	X. 1 3/16"	X. 140 27							
Y. 1064-1405	Y. 1/2"	Y. 1064-1405	Y. 1/2"	Y. 1 3/16"	Y. 140 27							
Z. 1064-1405	Z. 1/2"	Z. 1064-1405	Z. 1/2"	Z. 1 3/16"	Z. 140 27							

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		REMARKS		BALLISTIC RESULTS		REMARKS ON CRACKING																									
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE SPEC.	F. ANODE FABRICATOR	A. TYPE	B. TRACE NAME	C. COATING	D. CURRENT	E. POLARITY	A. GROOVE INCLUDED	B. ANGLE	C. ROOT FACE	D. ROOT CAP	E. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE	C. EL. NO.	D. TYPE	E. V.	A. PRE	B. POST	A. LOCATION OF B	B. LOCATION OF B	C. LOCATION OF B	D. LOCATION OF B	E. LOCATION OF B	A. PRE	B. POST	A. LOCATION OF B	B. LOCATION OF B	C. LOCATION OF B	D. LOCATION OF B	E. LOCATION OF B	A. PRE	B. POST	A. LOCATION OF B	B. LOCATION OF B	C. LOCATION OF B	D. LOCATION OF B	E. LOCATION OF B
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101
A. 101	B. 5/18/42	C. 101	D. 101	E. 101	F. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101	A. 101	B. 101	A. 101	B. 101	C. 101	D. 101	E. 101</							

IDENTIFICATION		ABROR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING												
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ABROR MANUFACTURER	E. ELECTRODE MFG.	F. ABROR FABRICATOR	A. PLATE THICKNESS	B. TYPE	C. TRADE NAME	D. COATING	E. CURRENT A.	F. POLARITY	A. GROOVE, INCLUDED	B. ANGLE, ROOT FACE	C. ROOT GAP	D. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP V	C. ROOT TYPE	D. ROOT TYPE	E. GROUND TYPE	F. TOTAL WELDING TIME & INTER PASS TEMPERATURE	A. PRE	B. POST	H	VEL.	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.			
A. 478	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	1	2600	2nd 12"	IMP	1	2"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	2	2578	2nd 11"	IMP	1	2"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	3	2593	2nd 11"	IMP	1	18"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	4	2594	2nd 11"	IMP	1	2"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	1	2592	2nd 11"	IMP	1	9"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	1	2592	2nd 11"	IMP	1	15"	P	Welds are sound.
A. 481	5/15/43	101	101	101	101	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	A. 45° V	B. 45°	C. 45°	D. 45°	A. 45°	B. 45°	C. 45°	D. 45°	E. 45°	F. 45°	A. None	B. None	1	2592	2nd 11"	IMP	1	24"	P	Welds are sound.

37.

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS			REMARKS OR CRACKING	
A. FIBING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	A. TYPE	A. TYPE	A. GROOVE INCLUDED	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP V	A. PRE	A. VEL.	A. LOCATION OF #	A. CRACK NO.	A. TYPE	A. PRE	A. VEL.	A. LOCATION OF #	A. CRACK NO.	A. TYPE	
C. PLATE NO.	D. ARMOR MANUFACTURER	C. CARBON CONTENT	C. COATING	C. COATING	B. ROOT GAP	B. ROOT TYPE	1. ROOT TYPE	B. POST	F/S	L.I. R.L. C.B.	LOC.	TYPE	B. POST	F/S	L.I. R.L. C.B.	LOC.	TYPE	
E. ELECTRODE SPEC.	F. ARMOR FABRICATOR	E. PROCESS	E. POLARITY	E. POLARITY	C. PLATE PREPARATION	3. ROOT TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE											
A. AT 402	P. 8/14/47	A. 1/2"	A. A. 1	A. A. 1	A. 402 SV	A. Groove	A. 1/2"	A. 402 SV	1 1251P	2"	54"	-	A. 402 SV	1 1251P	2"	54"	-	P
B. 8/14/47	P. 8/14/47	B. 1/2"	B. 1/2"	B. 1/2"	B. 402 SV	B. 1/2"	B. 1/2"	B. 402 SV	2 1251P	2"	54"	-	B. 402 SV	2 1251P	2"	54"	-	Weld is sound.
C. 8/14/47	P. 8/14/47	C. 1/2"	C. 1/2"	C. 1/2"	C. 402 SV	C. 1/2"	C. 1/2"	C. 402 SV	3 1251P	2"	54"	-	C. 402 SV	3 1251P	2"	54"	-	
D. 8/14/47	P. 8/14/47	D. 1/2"	D. 1/2"	D. 1/2"	D. 402 SV	D. 1/2"	D. 1/2"	D. 402 SV	4 1251P	2"	54"	-	D. 402 SV	4 1251P	2"	54"	-	
E. 8/14/47	P. 8/14/47	E. 1/2"	E. 1/2"	E. 1/2"	E. 402 SV	E. 1/2"	E. 1/2"	E. 402 SV	5 1251P	2"	54"	-	E. 402 SV	5 1251P	2"	54"	-	
F. 8/14/47	P. 8/14/47	F. 1/2"	F. 1/2"	F. 1/2"	F. 402 SV	F. 1/2"	F. 1/2"	F. 402 SV	6 1251P	2"	54"	-	F. 402 SV	6 1251P	2"	54"	-	
G. 8/14/47	P. 8/14/47	G. 1/2"	G. 1/2"	G. 1/2"	G. 402 SV	G. 1/2"	G. 1/2"	G. 402 SV	7 1251P	2"	54"	-	G. 402 SV	7 1251P	2"	54"	-	
H. 8/14/47	P. 8/14/47	H. 1/2"	H. 1/2"	H. 1/2"	H. 402 SV	H. 1/2"	H. 1/2"	H. 402 SV	8 1251P	2"	54"	-	H. 402 SV	8 1251P	2"	54"	-	
I. 8/14/47	P. 8/14/47	I. 1/2"	I. 1/2"	I. 1/2"	I. 402 SV	I. 1/2"	I. 1/2"	I. 402 SV	9 1251P	2"	54"	-	I. 402 SV	9 1251P	2"	54"	-	
J. 8/14/47	P. 8/14/47	J. 1/2"	J. 1/2"	J. 1/2"	J. 402 SV	J. 1/2"	J. 1/2"	J. 402 SV	10 1251P	2"	54"	-	J. 402 SV	10 1251P	2"	54"	-	
K. 8/14/47	P. 8/14/47	K. 1/2"	K. 1/2"	K. 1/2"	K. 402 SV	K. 1/2"	K. 1/2"	K. 402 SV	11 1251P	2"	54"	-	K. 402 SV	11 1251P	2"	54"	-	
L. 8/14/47	P. 8/14/47	L. 1/2"	L. 1/2"	L. 1/2"	L. 402 SV	L. 1/2"	L. 1/2"	L. 402 SV	12 1251P	2"	54"	-	L. 402 SV	12 1251P	2"	54"	-	
M. 8/14/47	P. 8/14/47	M. 1/2"	M. 1/2"	M. 1/2"	M. 402 SV	M. 1/2"	M. 1/2"	M. 402 SV	13 1251P	2"	54"	-	M. 402 SV	13 1251P	2"	54"	-	
N. 8/14/47	P. 8/14/47	N. 1/2"	N. 1/2"	N. 1/2"	N. 402 SV	N. 1/2"	N. 1/2"	N. 402 SV	14 1251P	2"	54"	-	N. 402 SV	14 1251P	2"	54"	-	
O. 8/14/47	P. 8/14/47	O. 1/2"	O. 1/2"	O. 1/2"	O. 402 SV	O. 1/2"	O. 1/2"	O. 402 SV	15 1251P	2"	54"	-	O. 402 SV	15 1251P	2"	54"	-	
P. 8/14/47	P. 8/14/47	P. 1/2"	P. 1/2"	P. 1/2"	P. 402 SV	P. 1/2"	P. 1/2"	P. 402 SV	16 1251P	2"	54"	-	P. 402 SV	16 1251P	2"	54"	-	
Q. 8/14/47	P. 8/14/47	Q. 1/2"	Q. 1/2"	Q. 1/2"	Q. 402 SV	Q. 1/2"	Q. 1/2"	Q. 402 SV	17 1251P	2"	54"	-	Q. 402 SV	17 1251P	2"	54"	-	
R. 8/14/47	P. 8/14/47	R. 1/2"	R. 1/2"	R. 1/2"	R. 402 SV	R. 1/2"	R. 1/2"	R. 402 SV	18 1251P	2"	54"	-	R. 402 SV	18 1251P	2"	54"	-	
S. 8/14/47	P. 8/14/47	S. 1/2"	S. 1/2"	S. 1/2"	S. 402 SV	S. 1/2"	S. 1/2"	S. 402 SV	19 1251P	2"	54"	-	S. 402 SV	19 1251P	2"	54"	-	
T. 8/14/47	P. 8/14/47	T. 1/2"	T. 1/2"	T. 1/2"	T. 402 SV	T. 1/2"	T. 1/2"	T. 402 SV	20 1251P	2"	54"	-	T. 402 SV	20 1251P	2"	54"	-	
U. 8/14/47	P. 8/14/47	U. 1/2"	U. 1/2"	U. 1/2"	U. 402 SV	U. 1/2"	U. 1/2"	U. 402 SV	21 1251P	2"	54"	-	U. 402 SV	21 1251P	2"	54"	-	
V. 8/14/47	P. 8/14/47	V. 1/2"	V. 1/2"	V. 1/2"	V. 402 SV	V. 1/2"	V. 1/2"	V. 402 SV	22 1251P	2"	54"	-	V. 402 SV	22 1251P	2"	54"	-	
W. 8/14/47	P. 8/14/47	W. 1/2"	W. 1/2"	W. 1/2"	W. 402 SV	W. 1/2"	W. 1/2"	W. 402 SV	23 1251P	2"	54"	-	W. 402 SV	23 1251P	2"	54"	-	
X. 8/14/47	P. 8/14/47	X. 1/2"	X. 1/2"	X. 1/2"	X. 402 SV	X. 1/2"	X. 1/2"	X. 402 SV	24 1251P	2"	54"	-	X. 402 SV	24 1251P	2"	54"	-	
Y. 8/14/47	P. 8/14/47	Y. 1/2"	Y. 1/2"	Y. 1/2"	Y. 402 SV	Y. 1/2"	Y. 1/2"	Y. 402 SV	25 1251P	2"	54"	-	Y. 402 SV	25 1251P	2"	54"	-	
Z. 8/14/47	P. 8/14/47	Z. 1/2"	Z. 1/2"	Z. 1/2"	Z. 402 SV	Z. 1/2"	Z. 1/2"	Z. 402 SV	26 1251P	2"	54"	-	Z. 402 SV	26 1251P	2"	54"	-	
AA. 8/14/47	P. 8/14/47	AA. 1/2"	AA. 1/2"	AA. 1/2"	AA. 402 SV	AA. 1/2"	AA. 1/2"	AA. 402 SV	27 1251P	2"	54"	-	AA. 402 SV	27 1251P	2"	54"	-	
AB. 8/14/47	P. 8/14/47	AB. 1/2"	AB. 1/2"	AB. 1/2"	AB. 402 SV	AB. 1/2"	AB. 1/2"	AB. 402 SV	28 1251P	2"	54"	-	AB. 402 SV	28 1251P	2"	54"	-	
AC. 8/14/47	P. 8/14/47	AC. 1/2"	AC. 1/2"	AC. 1/2"	AC. 402 SV	AC. 1/2"	AC. 1/2"	AC. 402 SV	29 1251P	2"	54"	-	AC. 402 SV	29 1251P	2"	54"	-	
AD. 8/14/47	P. 8/14/47	AD. 1/2"	AD. 1/2"	AD. 1/2"	AD. 402 SV	AD. 1/2"	AD. 1/2"	AD. 402 SV	30 1251P	2"	54"	-	AD. 402 SV	30 1251P	2"	54"	-	
AE. 8/14/47	P. 8/14/47	AE. 1/2"	AE. 1/2"	AE. 1/2"	AE. 402 SV	AE. 1/2"	AE. 1/2"	AE. 402 SV	31 1251P	2"	54"	-	AE. 402 SV	31 1251P	2"	54"	-	
AF. 8/14/47	P. 8/14/47	AF. 1/2"	AF. 1/2"	AF. 1/2"	AF. 402 SV	AF. 1/2"	AF. 1/2"	AF. 402 SV	32 1251P	2"	54"	-	AF. 402 SV	32 1251P	2"	54"	-	
AG. 8/14/47	P. 8/14/47	AG. 1/2"	AG. 1/2"	AG. 1/2"	AG. 402 SV	AG. 1/2"	AG. 1/2"	AG. 402 SV	33 1251P	2"	54"	-	AG. 402 SV	33 1251P	2"	54"	-	
AH. 8/14/47	P. 8/14/47	AH. 1/2"	AH. 1/2"	AH. 1/2"	AH. 402 SV	AH. 1/2"	AH. 1/2"	AH. 402 SV	34 1251P	2"	54"	-	AH. 402 SV	34 1251P	2"	54"	-	
AI. 8/14/47	P. 8/14/47	AI. 1/2"	AI. 1/2"	AI. 1/2"	AI. 402 SV	AI. 1/2"	AI. 1/2"	AI. 402 SV	35 1251P	2"	54"	-	AI. 402 SV	35 1251P	2"	54"	-	
AJ. 8/14/47	P. 8/14/47	AJ. 1/2"	AJ. 1/2"	AJ. 1/2"	AJ. 402 SV	AJ. 1/2"	AJ. 1/2"	AJ. 402 SV	36 1251P	2"	54"	-	AJ. 402 SV	36 1251P	2"	54"	-	
AK. 8/14/47	P. 8/14/47	AK. 1/2"	AK. 1/2"	AK. 1/2"	AK. 402 SV	AK. 1/2"	AK. 1/2"	AK. 402 SV	37 1251P	2"	54"	-	AK. 402 SV	37 1251P	2"	54"	-	
AL. 8/14/47	P. 8/14/47	AL. 1/2"	AL. 1/2"	AL. 1/2"	AL. 402 SV	AL. 1/2"	AL. 1/2"	AL. 402 SV	38 1251P	2"	54"	-	AL. 402 SV	38 1251P	2"	54"	-	
AM. 8/14/47	P. 8/14/47	AM. 1/2"	AM. 1/2"	AM. 1/2"	AM. 402 SV	AM. 1/2"	AM. 1/2"	AM. 402 SV	39 1251P	2"	54"	-	AM. 402 SV	39 1251P	2"	54"	-	
AN. 8/14/47	P. 8/14/47	AN. 1/2"	AN. 1/2"	AN. 1/2"	AN. 402 SV	AN. 1/2"	AN. 1/2"	AN. 402 SV	40 1251P	2"	54"	-	AN. 402 SV	40 1251P	2"	54"	-	
AO. 8/14/47	P. 8/14/47	AO. 1/2"	AO. 1/2"	AO. 1/2"	AO. 402 SV	AO. 1/2"	AO. 1/2"	AO. 402 SV	41 1251P	2"	54"	-	AO. 402 SV	41 1251P	2"	54"	-	
AP. 8/14/47	P. 8/14/47	AP. 1/2"	AP. 1/2"	AP. 1/2"	AP. 402 SV	AP. 1/2"	AP. 1/2"	AP. 402 SV	42 1251P	2"	54"	-	AP. 402 SV	42 1251P	2"	54"	-	
AQ. 8/14/47	P. 8/14/47	AQ. 1/2"	AQ. 1/2"	AQ. 1/2"	AQ. 402 SV	AQ. 1/2"	AQ. 1/2"	AQ. 402 SV	43 1251P	2"	54"	-	AQ. 402 SV	43 1251P	2"	54"	-	
AR. 8/14/47	P. 8/14/47	AR. 1/2"	AR. 1/2"	AR. 1/2"	AR. 402 SV	AR. 1/2"	AR. 1/2"	AR. 402 SV	44 1251P	2"	54"	-	AR. 402 SV	44 1251P	2"	54"	-	
AS. 8/14/47	P. 8/14/47	AS. 1/2"	AS. 1/2"	AS. 1/2"	AS. 402 SV	AS. 1/2"	AS. 1/2"	AS. 402 SV	45 1251P	2"	54"	-	AS. 402 SV	45 1251P	2"	54"	-	
AT. 8/14/47	P. 8/14/47	AT. 1/2"	AT. 1/2"	AT. 1/2"	AT. 402 SV	AT. 1/2"	AT. 1/2"	AT. 402 SV	46 1251P	2"	54"	-	AT. 402 SV	46 1251P	2"	54"	-	
AU. 8/14/47	P. 8/14/47	AU. 1/2"	AU. 1/2"	AU. 1/2"	AU. 402 SV	AU. 1/2"	AU. 1/2"	AU. 402 SV	47 1251P	2"	54"	-	AU. 402 SV	47 1251P	2"	54"	-	
AV. 8/14/47	P. 8/14/47	AV. 1/2"	AV. 1/2"	AV. 1/2"	AV. 402 SV	AV. 1/2"	AV. 1/2"	AV. 402 SV	48 1251P	2"	54"	-	AV. 402 SV	48 1251P	2"	54"	-	
AW. 8/14/47	P. 8/14/47	AW. 1/2"	AW. 1/2"	AW. 1/2"	AW. 402 SV	AW. 1/2"	AW. 1/2"	AW. 402 SV	49 1251P	2"	54"	-	AW. 402 SV	49 1251P	2"	54"	-	
AX. 8/14/47	P. 8/14/47	AX. 1/2"	AX. 1/2"	AX. 1/2"	AX. 402 SV	AX. 1/2"	AX. 1/2"	AX. 402 SV	50 1251P	2"	54"	-	AX. 402 SV	50 1251P	2"	54"	-	
AY. 8/14/47	P. 8/14/47	AY. 1/2"	AY. 1/2"	AY. 1/2"	AY. 402 SV	AY. 1/2"	AY. 1/2"	AY. 402 SV	51 1251P	2"	54"	-	AY. 402 SV	51 1251P	2"	54"	-	
AZ. 8/14/47	P. 8/14/47	AZ. 1/2"	AZ. 1/2"	AZ. 1/2"	AZ. 402 SV	AZ. 1/2"	AZ. 1/2"	AZ. 402 SV	52 1251P	2"	54"	-	AZ. 402 SV	52 1251P	2"	54"	-	
BA. 8/14/47	P. 8/14/47	BA. 1/2"	BA. 1/2"	BA. 1/2"	BA. 402 SV	BA. 1/2"	BA. 1/2"	BA. 402 SV	53 1251P	2"	54"	-	BA. 402 SV	53 1251P	2"	54"	-	
BB. 8/14/47	P. 8/14/47	BB. 1/2"	BB. 1/2"	BB. 1/2"	BB. 402 SV	BB. 1/2"	BB. 1/2"	BB. 402 SV	54 1251P	2"	54"	-	BB. 402 SV	54 1251P	2"	54"	-	
BC. 8/14/47	P. 8/14/47	BC. 1/2"	BC. 1/2"	BC. 1/2"	BC. 402 SV	BC. 1/2"	BC. 1/2"	BC. 402 SV	55 1251P	2"	54"	-	BC. 402 SV	55 1251P	2"	54"	-	
BD. 8/14/47	P. 8/14/47	BD. 1/2"	BD. 1/2"	BD. 1/2"	BD. 402 SV	BD. 1/2"	BD. 1/2"	BD. 402 SV	56 1251P	2"	54"	-	BD. 402 SV	56 1251P	2"	54"	-	
BE. 8/14/47	P. 8/14/47	BE. 1/2"	BE. 1/2"	BE. 1/2"	BE. 402 SV	BE. 1/2"	BE. 1/2"	BE. 402 SV	57 1251P	2"	54"	-	BE. 402 SV	57 1251P	2"	54"	-	
BF. 8/14/47	P. 8/14/47	BF. 1/2"	BF. 1/2"	BF. 1/2"	BF. 402 SV	BF. 1/2"	BF. 1/2"	BF. 402 SV	58 1251P	2"	54"	-	BF. 402 SV	58 1251P	2"	54"	-	
BG. 8/14/47	P. 8/14/47	BG. 1/2"	BG. 1/2"	BG. 1/2"	BG. 402 SV	BG. 1/2"	BG. 1/2"	BG. 402 SV	59 1251P	2"	54"	-	BG. 402 SV	59 1251P	2"	54"	-	
BH. 8/14/47	P. 8/14/47	BH. 1/2"	BH. 1/2"	BH. 1/2"	BH. 402 SV	BH. 1/2"	BH. 1/2"	BH. 402 SV	60 1251P	2"	54"	-	BH. 402 SV	60 1251P	2"	54"	-	
BI. 8/14/47	P. 8/14/47	BI. 1/2"	BI. 1/2"	BI. 1/2"	BI. 402 SV	BI. 1/2"	BI. 1/2"	BI. 402 SV	61 1251P	2"	54"	-	BI. 402 SV	61 1251P	2"	54"	-	
BJ. 8/14/47	P. 8/14/47	BJ. 1/2"	BJ. 1/2"	BJ. 1/2"	BJ. 402 SV	BJ. 1/2"	BJ. 1/2"	BJ. 402 SV	62 1251P	2"	54"	-	BJ. 402 SV	62 1251P	2"	54"	-	
BK. 8/14/47	P. 8/14/47	BK. 1/2"	BK. 1/2"	BK. 1/2"	BK. 402 SV	BK. 1/2"	BK. 1/2"	BK. 402 SV	63 1251P	2"	54"	-	BK. 402 SV	63 1251P	2"	54"	-	
BL. 8/14/47	P. 8/14/47	BL. 1/2"	BL. 1/2"	BL. 1/2"	BL. 402 SV	BL. 1/												

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAL	BALLISTIC RESULTS					REMARKS ON CRACKING
						A. PRE B. POST	N	VEL. F/S	LOCATION OF B. L.L. R.L. C.B. LOC.	CRACKING TYPE AMT	
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE WT. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. RES E. PROCESS F. SEAL TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND, V. 1. ROOT TYPE 2. BODY TYPE 3. GROSS TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. None B. None						
A. AD 729 B. 7/6, 9/43 C. W 222 D. Ford Motor Co. E. Crucible Steel Company F. Ford Motor Co	A. 1/2" B. R II C. 1.31% Mn D. .27% S E. .018% C F. .008% P G. .33% O H. .28% C I. Face 341 J. Back 341 K. B.O.B. L. 1450 F 24 hrs M. spray N. 945 F 3 hrs. O. water	A. A II B. .12C C. 1.79% Mn D. .24% S E. .015% C F. .038% P G. 20.08% Cr H. 9.9% Ni I. 1.54% Mo J. Rezinital K. C. Titania L. DC-REV	A. 90° SV B. 3/16" C. Shear	A. Not given B. 1. I 3/16" 1a 175 25 2. I 1/4" 1a 245 30 3. II 1/4" 2b 245 30 Seal bead- 3/16" 1a 175 25 C. 7 hours. 100°F-125°F D. Grinding time 2 hours.	A. None B. None	1 2 3 4	2517 2530 1113 lost	4" L 4" U 9 1/2" D 7 1/2" U 3 1/2" D 5 1/2" R	I 11 1/2" IMP V 5 1/2" IMP I 2" IMP I 11" O V 4" IMP I 5 1/2" IMP IV 13 1/2" 5 1/2"	F Weld is not acceptable due to excessive amount of incomplete fusion.	
A. AD 745 B. 7/15/43 C. W 172 D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.	A. 1/2" B. R II C. 1.43% Mn D. .025% S E. .008% C F. .008% P G. .35% O H. .28% C I. Face 331 J. Back 331 K. B.O.B. L. 1450 F 2 hrs. M. spray N. 945 F 24 hrs. O. air	A. A I B. .091C C. 3.85% Mn D. .43% S E. 19.06% Cr F. 9.74% Ni G. .62% Mo H. Chroming I. Titania J. DC-REV	A. 45° SV B. 3/16" C. Flame cutting D. Grinding	A. None B. 1. I 5/32" 1a 130 23 2. I 3/16" 1a 215 23 3. I 1/4" 1a 280 24 Seal bead- 3/16" 1a 215 24 C. 24 hours 140°F-280°F D. Grinding time 2 hours.	A. None B. None	1 2 3 4	12548 2543 2530 2522	2 1/2" L 9 7/8" D 8 1/2" D 1 1/2" R 5 1/2" D	- - - - IMP I 32"	P	
A. AD 745 B. 7/15/43 C. W 173 D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.	A. 1/2" B. R II C. 1.43% Mn D. .025% S E. .008% C F. .008% P G. .35% O H. .28% C I. Face 331 J. Back 331 K. B.O.B. L. 1450 F 2 hrs. M. spray N. 945 F 24 hrs. O. air	A. A I B. .091C C. 3.85% Mn D. .43% S E. 19.06% Cr F. 9.74% Ni G. .62% Mo H. Chroming I. Titania J. DC-REV	A. 45° SV B. 3/16" C. Flame cutting D. Grinding	A. None B. 1. I 5/32" 1a 130 22 2. I 3/16" 1a 210 24 3. I 1/4" 1a 280 24 Seal bead- 3/16" 1a 210 24 C. 24 hours. 120°F-200°F D. Grinding time 1-2/3 hours.	A. None B. None	1	12521	1" L	IMP I 16 1/2" IMP V 19 1/2" 36"	P	

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IDENTIFICATION		ABRUS DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS					REMARKS ON CRACKING						
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ABRUS MANUFACTURER	E. ELECTRODE MFG.	F. BEAT FABRICATOR	A. TYPE	B. VALVE BARE	C. CARBOR CONTENT	D. BEAT PROCESS	E. BEAT TREATMENT	F. BEAT TREATMENT	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ASP. V.	C. ROOT TYPE	D. 90° TYPE	E. TOTAL WELDING TIME A. INTER PASS TEMPERATURE	D. REMARKS	A. PRE	B. POST	VEL.	LOCATION OF R.	CRACKING	RADIOGRAPHIC RESULTS, ETC.		
A. A 11585	B. 1/4/44	C. 12AC	D. Ford Motor Co.	E. Metal Thermal	F. Ford Motor Co.	A. A 1	.00C	.00C	.00C	.00C	.00C	A. Copper	1. I 3/16" 1a 125 24	2. I 3/16" 1a 150 24	3. II 3/16" 3b 140-150 24	Seal bead- 3/16" 1a 170 24	C. 1 hour 324 minutes, 80°F-180°F	D. Grinding time 1 hour 212 mins. Root faces buttered with 5/32" electrodes before set-up and tack welded. Step back method of weld sequence used. Pack of root bead ground out.	A. None	B. None	1 251E	9" R	IMP I	108	P
A. A 11589	B. 1/15/44	C. W 300	D. Ford Motor Co.	E. Wire Steel	F. Ford Motor Co.	A. A 1	.00C	.00C	.00C	.00C	.00C	A. Copper	1. I 5/32" 1a 150 25	2. I 3/16" 1a 200 25	3. I 1/4" 1a 290 25	Seal bead - 1/4" 1a 190 25	C. 2 hours 15 minutes, 100°F-200°F	D. Grinding time 2 hrs. 7 mins.	A. None	B. None	1 2525	X 44"	IMP I	184	P

IDENTIFICATION		ARMOR DATA		ELECTRON DATA		JOINT DESIGN		WELDING PROCEDURE		SEAL		BALLISTIC RESULTS							REMARKS ON CRACKING RADIOGRAPHIC RESULTS, ETC.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ARBON MANUFACTURER	E. ELECTRONIC MFG.	F. ARBON FABRICATOR	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. BHN	E. PROCESS	F. SEAT TREATMENT	G. SEAT TIME OPEN	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT	E. POLARITY	A. SHOVEL INCLUDED	B. ANGLE ROOT FACE	C. ROOT GAP	D. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL.	C. NO. TYPE ASP. V.	D. TOTAL WELDING TIME & INTER PASS TEMPERATURE	A. PRE	B. POST	#	VOL.	LOCATION OF #	CRACKING	TYPE	AMT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
A. A 12606	B. 2/25/44	C. W 314	D. Ford Motor Co.	E. Reld Avery Co.	F. Ford Motor Co.	A. 1/2"	B. R II	.018% .02P	.51Cr .00N	.30Mo	.0013B	.27C	D. Face 321-341	Back 321-341	E. B.O.H.	F. 1650 F 2 hrs. spray	960 F 2 hrs air	A. A I	.11C	1.62Mn	1.50Si	.036S	.05P	19.50Cr	4.25Ni	2.06Mo	E. Race	C. Titanium	L. DC-REV	A. 45° SV	B. 3/16"	C. Flame cutting	Grinding	A. Copper	B. 1. I 3/16" 1a 175 23	2. I 3/16" 1a 185 23	3. I 1/4" 1a 260 23	Seal bead- 1/4" 1a 245 23	C. 36 minutes. 100°F-125°F	D. Grinding time 2 hours 50 mins.	A. None	B. None	3	2514	14" L	74° U	-	-	-	-	P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A. A 12851	B. 3/9/44	C. 730	D. Ford Motor Co.	E. Arcos Corp.	F. Ford Motor Co.	A. 1/2"	B. R II	.022% .02P	.50Cr .03Ni	.25Mo	.0013B	.25C	D. Face 321	Back 321	E. B.O.H.	F. 1650 F 2 hrs. Plate		A. A I	.06S	3.87Mn	.54Si	19.04Cr	9.66Ni	.97Mo	B. Chromang	C. Line	L. DC-REV	A. 45° SV	B. 3/16"	C. Flame cutting	Grinding	A. Not given	B. 1. I 3/16" 1a 120 23	2. I 3/16" 1a 170 25	3. I 1/4" 1a 240 25	Seal bead- 3/16" 1a 180 24	C. 6 hours. 70°F-200°F	D. Grinding time 1 1/2 hours. Step back method of weld sequence used. Back of root bead ground out.	A. None	B. None	1	2503	24" L	14° U	-	-	-	-	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
A. A 12890	B. 3/13/44	C. 342	D. Ford Motor Co.	E. Crucible Steel Company	F. Ford Motor Co.	A. 1/2"	B. R II	.25-.28Mn	.21-.24Si	.04-.019S	.015-.022P	.51-.52Cr	.09-.11Ni	.30-.33Mo	.0013B	C. 267-270	D. Face 341	Back 341	E. B.O.H.	F. 1650 F 2 hrs. spray	960 F 2 hrs air	A. A I	.11C	1.10Mn	.28Si	.18-.19S	9.40Ni	2.08Mo	B. Rezialtal	C. Titania	D. C-REV	A. 45° SV	B. 3/16"	C. Flame cutting	Grinding	A. Copper	B. 1. I 3/16" 1a 180 25	2. I 1/4" 1a 260 24	3. I 1/4" 1a 240-280 24	Seal bead- 1/4" 1a 240 24	C. 52 minutes. 100°F-120°F	D. Grinding time 2 hrs. 40 mins.	A. None	B. None	3	2510	5/8" R	111° U	IMP	I	134	P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
						A. BACKING	B. DEPOSITION SIZE EL. SO. TYPE ASP. V.	1. ROOT TYPE	2. BODY TYPE	3. GROSS TYPE	
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. Not given	A. None						
B. DATE OF TEST	B. R I	B. TYPE	B. ANGLE, ROOT FACE	B. 1/2"	B. 140°F						
C. PLATE NO.	C. CARBON CONTENT	C. CHARGING	C. ROOT GAP	C. 0.045 .011P	C. 140°F						
D. ANODE MANUFACTURER	D. E M	D. CURRENT A	D. PLATE PREPARATION	D. 80Cr .83N1	D. 140°F						
E. ELECTRODE MFG.	E. PROCES	E. POLARITY		E. 1940	E. 140°F						
F. ANODE FABRICATOR	F. REAT TREATMENT	F. REAT TIME		F. 364	F. 140°F						
	F. REAT TEMPERATURE	F. REAT TIME		F. 364	F. 140°F						
	F. REAT TIME	F. REAT TEMPERATURE		F. 364	F. 140°F						
A. 12346	A. 1/2"	A. A I	A. 60° SV	A. Not given	A. None						
B. 2/12/44	B. R I	B. 11-12C	B. 3/16"	B. 1.12Mn .21S1	B. 140°F						
C. 9 H	C. .014S .011P	C. 4.06-4.38 Mn	C. Machining	C. 80Cr .83N1	C. 140°F						
D. Carnegie-Ill.	D. .014S .011P	D. .55-.64S1		D. 1940	D. 140°F						
E. Steel Corp.	E. 80Cr .83N1	E. 1940		E. 20.80Cr	E. 140°F						
F. Gen'l American Transportation Corporation	F. .26C	F. 10.35N1		F. Face 364	F. 140°F						
	F. Back 364	F. 10.35N1		F. Back 364	F. 140°F						
	F. B.O.H.	F. 10.35N1		F. B.O.H.	F. 140°F						
	F. 1544 F 1 hr.	F. 10.35N1		F. 1544 F 1 hr.	F. 140°F						
	F. water	F. 10.35N1		F. water	F. 140°F						
	F. 880°F 1 1/2 hr.	F. 10.35N1		F. 880°F 1 1/2 hr.	F. 140°F						
	F. air	F. 10.35N1		F. air	F. 140°F						
A. 12346	A. 1/2"	A. A I	A. 60° SV	A. Not given	A. None						
B. 2/12/44	B. R I	B. 11-12C	B. 1/8"	B. 1.12Mn .21S1	B. 140°F						
C. 9 H	C. .014S .011P	C. 4.06-4.38 Mn	C. Machining	C. 80Cr .83N1	C. 140°F						
D. Carnegie-Ill.	D. .014S .011P	D. .55-.64S1		D. 1940	D. 140°F						
E. Steel Corp.	E. 80Cr .83N1	E. 1940		E. 20.80Cr	E. 140°F						
F. Gen'l American Transportation Corporation	F. .26C	F. 10.35N1		F. Face 364	F. 140°F						
	F. Back 364	F. 10.35N1		F. Back 364	F. 140°F						
	F. B.O.H.	F. 10.35N1		F. B.O.H.	F. 140°F						
	F. 1544 F 1 1/2 hr.	F. 10.35N1		F. 1544 F 1 1/2 hr.	F. 140°F						
	F. water	F. 10.35N1		F. water	F. 140°F						
	F. 880°F 1 1/2 hr.	F. 10.35N1		F. 880°F 1 1/2 hr.	F. 140°F						
	F. air	F. 10.35N1		F. air	F. 140°F						
A. 12861	A. 1/2"	A. A I	A. 60° SV	A. Not given	A. None						
B. 3/13/44	B. R I	B. 12C 4.06Mn	B. 3/16"	B. 1.12Mn .21S1	B. 140°F						
C. 10 H	C. .014S .011P	C. 4.06-4.38 Mn	C. Machining	C. 80Cr .83N1	C. 140°F						
D. Carnegie-Ill.	D. .014S .011P	D. .55-.64S1		D. 1940	D. 140°F						
E. Steel Corp.	E. 80Cr .83N1	E. 1940		E. 20.80Cr	E. 140°F						
F. Gen'l American Transportation Corporation	F. .26C	F. 10.35N1		F. Face 364	F. 140°F						
	F. Back 364	F. 10.35N1		F. Back 364	F. 140°F						
	F. B.O.H.	F. 10.35N1		F. B.O.H.	F. 140°F						
	F. 1544 F 1 1/2 hr.	F. 10.35N1		F. 1544 F 1 1/2 hr.	F. 140°F						
	F. water	F. 10.35N1		F. water	F. 140°F						
	F. 880°F 1 1/2 hr.	F. 10.35N1		F. 880°F 1 1/2 hr.	F. 140°F						
	F. air	F. 10.35N1		F. air	F. 140°F						
A. 12861	A. 1/2"	A. A I	A. 60° SV	A. Not given	A. None						
B. 3/13/44	B. R I	B. 12C 4.06Mn	B. 3/16"	B. 1.12Mn .21S1	B. 140°F						
C. 10 H	C. .014S .011P	C. 4.06-4.38 Mn	C. Machining	C. 80Cr .83N1	C. 140°F						
D. Carnegie-Ill.	D. .014S .011P	D. .55-.64S1		D. 1940	D. 140°F						
E. Steel Corp.	E. 80Cr .83N1	E. 1940		E. 20.80Cr	E. 140°F						
F. Gen'l American Transportation Corporation	F. .26C	F. 10.35N1		F. Face 364	F. 140°F						
	F. Back 364	F. 10.35N1		F. Back 364	F. 140°F						
	F. B.O.H.	F. 10.35N1		F. B.O.H.	F. 140°F						
	F. 1544 F 1 1/2 hr.	F. 10.35N1		F. 1544 F 1 1/2 hr.	F. 140°F						
	F. water	F. 10.35N1		F. water	F. 140°F						
	F. 880°F 1 1/2 hr.	F. 10.35N1		F. 880°F 1 1/2 hr.	F. 140°F						
	F. air	F. 10.35N1		F. air	F. 140°F						

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						A. BACKING	A. PRE B. POST	VEL. F/R	LOCATION OF B L.L. R.L. C.B.	CRACKING LOC. TYPE ART
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE INFO. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONT'TY D. SIZE E. PROCESS F. HEAT TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. BODY GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION RATE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. CROSS TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	A. BACKING B. DEPOSITION RATE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. CROSS TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VEL. F/R	LOCATION OF B L.L. R.L. C.B.	CRACKING LOC. TYPE ART
A. 12879 B. 3/17/44 C. 11 H D. Carnegie-III. Steel Corp. E. McNay Company F. Gen'l American Transportation CORP.	A. 1/2" B. R I 1. 12M .22S1 .018P .020S .78CR 1.03NI 1.0H0 C. .26C D. --- E. Elec Basic F. 1544 F 1/2 hr. water 860 F 1/2 hr. water	A. A I .12-.13C 3.75-4.11 Mn .46-.55S1 18.90Cr 20.80Cr 9.48- 10.35Ni .60-.89Mo B. S A C. Lime D. DC-REV	A. 45° SV B. 1/8" C. Machining	A. Copper B. 1. I 5/32" 1a 120 60 2. I 3/16" 1a 210 60 3. I 1/4" 1a 280 60 Seal bead- 1/4" 1a 280 60 C. --- 120°F-280°F D. Weld reinforcement has not been removed.	A. Non B. 200°F	5 6	2517 2538	10" 10" 10"	I 2" IMP I 13 1/2" IMP I 15 1/2"	P Small amount of slag.
A. 12880 B. 3/17/44 C. 13 H D. Carnegie-III. Steel Corp. E. Crucible Steel Co. F. Gen'l American Transportation CORP.	A. 1/2" (-.51") B. R I 1. 12M .22S1 .018P .020S .78CR 1.03NI 1.0H0 C. .26C D. Face 340 Back 340 E. Elec Basic F. 1544 F water 860 F water	A. A I .12-.145C 3.75-4.11 Mn .41-.50S1 19.90Cr 20.10Cr 9.48-9.88 Ni .62-.89Mo B. Reztal C. Titania D. DC-REV	A. 45° SV B. 1/8" C. Machining	A. Copper B. 1. I 5/32" 1a 120 66 2. I 3/16" 1a 220 66 3. I 1/4" 1a 280 66 Seal bead- 1/4" 1a 280 66 C. --- D. Crown bead crack ground and repaired. Weld reinforcement has not been removed.	A. Non B. 180°F	4	2512	8" 7 1/2" R	IMP I 10 1/2" P O I 3 1/2" IMP V 4 1/2" 18"	
A. 12879 B. 3/17/44 C. 14 H D. Carnegie-III. Steel Corp. E. Crucible Steel Co. F. Gen'l American Transportation CORP.	A. 1/2" B. R I 1. 12M .22S1 .018P .020S .78CR 1.03NI 1.0H0 C. .26C D. Face 340 Back 340 E. Elec Basic F. 1544 F water 860 F water	A. A I .145C 3.93Mn .41S1 20.10Cr 9.68Ni .74Mo B. Reztal C. Titania D. DC-REV	A. 45° SV B. 1/8" C. Machining	A. Copper B. 1. I 5/32" 1a 140 62 2. II 5/32" 4b 170-180 62 3. II 5/32" 2b 160-170 62 2 Seal beads- 5/32" 2b 170. 62 C. --- 80°F-200°F D. Root crack ground and repair- ed. Weld reinforcement has not been removed.	A. Non B. 200°F	1 2 3	2526 2532 2525	10 1/2" 10 1/2" 9 1/2" 9 1/2" 9 1/2" 17 1/2"	IMP I 9" IMP V 7 1/2" IMP I 4" IMP I 4" IMP I 4" IMP I 4"	P

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS					REMARKS ON CRACKING	
A. STRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR		A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BRN E. PROCESS F. BEAT TREATMENT G. TEMP. TIME QUENCH		A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY		A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION		A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS		VEL. F/S		LOCATION OF # L.L. R.L. C.B. LOC. TYPE AND			CRACKING		RADIOGRAPHIC RESULTS ETC.			
A. AF 799 B. 8/25/43 C. S D. Great Lakes E. Great Lakes F. Gracible G. Gracible H. Gracible I. Gracible J. Gracible K. Gracible L. Gracible M. Gracible N. Gracible O. Gracible P. Gracible Q. Gracible R. Gracible S. Gracible T. Gracible U. Gracible V. Gracible W. Gracible X. Gracible Y. Gracible Z. Gracible		A. 1/2" B. 1/4" C. .025 D. .025 E. .025 F. .025 G. .025 H. .025 I. .025 J. .025 K. .025 L. .025 M. .025 N. .025 O. .025 P. .025 Q. .025 R. .025 S. .025 T. .025 U. .025 V. .025 W. .025 X. .025 Y. .025 Z. .025		A. F 11 B. 14C C. 14C D. 14C E. 14C F. 14C G. 14C H. 14C I. 14C J. 14C K. 14C L. 14C M. 14C N. 14C O. 14C P. 14C Q. 14C R. 14C S. 14C T. 14C U. 14C V. 14C W. 14C X. 14C Y. 14C Z. 14C		A. 45° SV B. 1/16" C. Flame cutting Grinding		A. Not given B. 1. 11 3/16" 2b 165 - 2. 11 3/16" 2b 175 - 3. 1 1/4" 1a 245 - Seal bead- 3/16" 1a 165 - C. 6 hours 115° F - 150° F D. Grinding time 5 1/2 hours.		A. 115° B. None		1 2525 2 2525			1 2525 2 2525			1 10"		

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS OR CRACKING
						A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	C. ROOT TYPE	D. GROWN TYPE	
A. WELDING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PRE	F/S	VEL.	LOC.	CRACKING	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	B. POST	F/S	VEL.	LOC.	CRACKING	RADIOGRAPHIC RESULTS, ETC.
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	C. TOTAL WELDING TIME A INTER PASS TEMPERATURE						
D. ANODE MANUFACTURER	D. DEN	D. CURRENT A	D. PLATE PREPARATION							
E. ELECTRODE MFG.	E. PROCESSES	E. POLARITY								
F. ANODE FABRICATOR	F. HEAT TREATMENT TEMP. TIME QUENCH									
A. AD 780	A. 1/2"	A. A I	A. 45° SV	A. Copper	A. 150R	1	2520	5"	I	P
B. 8/4/43	B. R III JPL	.100 1.97	B. 1/4"	1. I 5/32" 1a 140 22	B. None			U	IV	
C. P 2	1.08% .28S1	.29S1	C. Machining	2. II 3/16" 2b 180 28					IV	74"
D. Jones & Laughlin	.018% .013P	19.72Cr	C. Grinding	3. I 3/16" 1a 180 28						
Great Lakes	.40%O	10.20Ni		Seal Bead						
Steel Corp.	.25C	2.06Mo		3/16" 1a 180 28		2	2523	5 1/2"	I	134"
E. Crucible Steel	D. Face 343	B. Reztal		C. 7 hours 15 minutes.						
Co. of America	D. Back 343	C. Titania		180° F-240° F						
F. Durity-Adrian	E. 1450° F 1 hrs.	D. DC-REV		D. Grinding time 3/4 hour						
Mfg. Corp.	F. water									
	880° F 1 1/2 hrs.									
	air									
	A. 1/2"									
	B. R IV JPL									
	.84% .85S1									
	.030S .021P									
	.02Cr .24%O									
	.07Zr									
	C. .27C									
	D. Face 341									
	D. Back 352									
	E. 1450° F 1 hrs.									
	F. water									
	880° F 1 1/2 hrs.									
	air									

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						#	VEL.	LOCATION OF #	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PROCESS F. BEAT TREATMENT G. TEM. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. CROWN TYPE C. TOTAL WELDING TIME A. INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		F/S	L.L. R.L. C.B. LOC. TYPE AMT	CRACKING	RADIOGRAPHIC RESULTS, ETC.
A. AD 396 B. 5/7/43 C. P 3 D. Jones E. Laughlin F. Crucible Steel G. Company H. Jordan Mfg. Co.	A. 1/2" B. R 111 C. .0153-.0200 D. .29% E. .28C F. Back 3/3 G. P. 0.16 H. 1400 F 1 hr. I. water J. 950 F 1 1/2 hr. K. air	A. A 1 B. .07-.09C C. 1.84-1.89 Mn D. .19-.24Si E. 20.13- F. 20.24Cr G. 10.32- H. 10.39% I. 1.89- J. 2.01% K. Armonize L. Titania M. DC-45"	A. 45° SV B. 1/16" C. Flame cutting D. Flame softening E. grinding.	A. Copper B. 1. I 5/32" 1a 135 22 2. II 5/32" 2b 140 2F 3. I 5/32" 1a 140 2P Seal bead 5/32" 1a 140 2F C. 4 hours 1800F-2000F D. grinding time 7 hours.	A. 1500 B. None	1 2 3 4 5	1200 2000 2000 2000 2000	3 1/2" R 3" R 3" R 1" L 5/8" L	- - - IMP I IMP I	P Scattered slag inclusions. Intermittent in- complete fusion.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	VEL.	LOC.	LOC.	LOC.	TYPE	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. R III YS4T	B. TYPE	B. ANGLES, ROOT FACE	B. 1/4"	B. 1. ROOT TYPE	B. POST	F/S	L.L.	R.L.	C.B.		
C. PLATE NO.	C. .0238 .025P	C. COATING	C. GRINDING	C. PLATE PREPARATION	C. 2. BODY TYPE							
D. ANODE MANUFACTURER	D. .23C	D. 18.94Cr	D. 10.51Ni	D. Seal bead-	D. 3. CROOK TYPE							
E. ELECTRODE DATA	E. B.O.B.	E. .83Mo	E. B. Reizistal	E. 3/16"	E. C. TOTAL WELDING TIME A INTER PASS TEMPERATURE							
F. ANODE FABRICATOR	F. 1450 F 1 1/2 hrs.	F. DC-REV	F. D. Titania	F. 3/16"	F. REMARKS							
A. AD 928	A. 1/2"	A. A 1	A. 45° SV	A. Copper	A. 150°	A. 150°	1	2501	4"	3 1/2"	-	P
B. 10/12/43	B. R III YS4T	B. .12C	B. 1/4"	B. 1. I 3/16" 1a 180 35	B. NONE		2	2511	1"	2 1/2"	-	
C. HY 5	C. .0238 .025P	C. .2081	C. Flame cutting	C. 2. II 3/16" 2b 180 35			3	2525	1 1/2"	5"	-	
D. Youngstown Sheet & Tube	D. .50% SOW	D. 18.94Cr	D. Grinding	D. 3. I 3/16" 1a 180 35			4	2528	1"	3 1/2"	-	
E. Great Lakes Steel Corp.	E. Face 362	E. .83Mo	E. B. Reizistal	E. Seal bead-								
F. Crucible Steel Co.	F. B.O.B.	F. DC-REV	F. D. Titania	F. 3/16"								
G. Holland Furnace Company	G. 1450 F 1 1/2 hrs.	G. water	G. water	G. 3 1/2 hours, 150 F-230 F								
				D. Grinding time 5 1/2 hours.								
	A. 1/2"	A. P IV OL	A. .98% .7431	A. 1/2"								
	B. .0248 .019P	B. .56Cr .21Mo	B. .27C .06Zr	B. Face 343								
	C. .27C .06Zr	C. Face 343	C. Back 343	C. B.O.B.								
	D. Face 343	D. Back 343	D. B.O.B.	D. 1450 F 1 1/2 hrs.								
	E. B.O.B.	E. water	E. 925 F 2 hrs.	E. air								
	F. 1450 F 1 1/2 hrs.	F. water	F. 925 F 2 hrs.	F. air								

IDENTIFICATION	ANNE DATA	ELECTRODE DATA	JOINT BEHIND	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING			
A. FOUNDRY NUMBER B. DATE OF TEST C. PLATE NO. D. ANNE MANUFACTURER E. ELECTRODE SPEC. F. ANNE PRODUCTION	A. PLATE THICKNESS B. TYPE C. CROSS SECTION D. END E. PROCESS F. HEAT TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. CRACKING D. CORROSION E. POLARITY	A. COMPLETE, INCLUDING B. SMALL, SHORT FACE C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. L. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CORNER TYPE C. TOTAL WELDING TIME & INTER PAUSE D. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF D L.I. R.L. C.B. LOC.	CRACKING TYPE				
A. AD 718 B. 6/29/43 C. 24 D. Republic Steel Company Carnegie Steel Company E. Hartrich-Corr F. Ilco Ordnance Corp.	A. 1/2" B. R I R .1000 .2281 .1088 .021P .47CT .80M1 .37MO C. .264C D. Face 280 Back 280 E. R.O.B. F. 1660 F 1 hr. water 970 F 1 1/2 hr. water A. 1/2" B. R I C 1.10M .2281 .0176 .02P .75CT .02M1 .18M0 .27C C. .27C D. Face 361 Back 361 E. R.O.B. F. 1660 F 1 hr. water 1005 F 1 1/2 hr. water	A. A I .12C 1.80-2.00 No .42-.5351 18.6-20.00 Cr 9.0-10.181 1.72-1.87 No B. AM-6A C. Lins D. DC-REV	A. 54° SV B. 5/16-3/8" C. Flame cutting Grinding	A. Not given B. 1. I 1/4" 1a 260 30 2. III 5/16" 1a 380 30 1/4" 1b 290 30 1/4" 1b 300 30 3. III 3/16" 2b 190 28 Seal bead- 5/16" 1a 385 30 C. 4 hours 80° F-210° F D. Grinding time 3 hours.	A. None B. None	1 2 3	2544 2555 2544	1/2° 3° 3° 6° 5° 2° 2°	- - - - - - -	- - - - - - -	- - - - - - -	P Weld is sound. Small amount of scattered slag.	
A. AD 718 B. 6/29/43 C. 4560 D. Great Lakes Steel Corp. E. Alloy Rods Co. F. Ilco Ordnance Corp.	A. 1/2" B. R I V .90M .7151 .0225 .024P .04Zr .08CT .25MO .29C D. Face 363 Back 375 E. B.O.B. F. 1660 F 40 min water spray 820 F 1 hr. water spray	A. A I .07-.17C 3.80-4.76 No .0681 max .035 max 18.0-20.80 Cr 9.0-10.7M1 1.10 Mo max B. Armature water spray C. Ti + Lins 820 F 1 hr. D. DC-REV	A. 45° SV B. 9/32" C. Grinding	A. Copper chill B. 1. I 3/16" 1a 265 30 2. I 1/4" 1a 265 30 3. I 1/4" 1a 265 30 Seal bead- 1/4" 1a 265 30 C. 5 hours. 70° F-190° F D. Grinding time 45 minutes.	A. None B. None	1 2 3	2511 2524 2524	2 1/2° 1 1/2° 1 1/2° 7° 3° 4° 1° 38°	- - - - - - - -	- - - - - - - -	- - - - - - - -	P Small amount of porosity. Weld is sound.	
													54.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
						#	VEL. F/S	LOCATION OF IMP.	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. TYPING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MPAS F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PROCESS F. BEAT TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. C. ROOT TYPE D. BODY TYPE E. CROWN TYPE F. TOTAL WELDING TIME & INTER PASS TEMPERATURE G. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF IMP.	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. AD 735 B. 8/30/43 C. 4364 D. Ingersoll E. Alloy Rods Co. F. Ilco Ordnance Corp.	A. 1/2" B. R I C. .0015 D. .0125 E. .0015 F. .0015 G. .0015 H. .0015 I. .0015 J. .0015 K. .0015 L. .0015 M. .0015 N. .0015 O. .0015 P. .0015 Q. .0015 R. .0015 S. .0015 T. .0015 U. .0015 V. .0015 W. .0015 X. .0015 Y. .0015 Z. .0015	A. A 1 B. .07-17C C. 3.30- D. 4.75Mn E. .08% max F. .03% max G. 18.0- H. 20.5Cr I. 9.0- J. 1.10% max K. Armature L. 1050 F 1 hr. M. 1050 F 1 hr. N. 1050 F 1 hr. O. 1050 F 1 hr. P. 1050 F 1 hr. Q. 1050 F 1 hr. R. 1050 F 1 hr. S. 1050 F 1 hr. T. 1050 F 1 hr. U. 1050 F 1 hr. V. 1050 F 1 hr. W. 1050 F 1 hr. X. 1050 F 1 hr. Y. 1050 F 1 hr. Z. 1050 F 1 hr.	A. 45° F B. 1/4" C. Grinding	A. Copper chill B. 1. 3/16" 1a 165 30 2. 1 1/4" 1a 265 30 3. 1 1/4" 1a 275 30 C. Seal bead- 3/16" 1a 180 30 D. 4 hours. 70°-210° F E. Grinding time 45 minutes.	A. None B. None	1	2511	1 1/2" R	IMP	I 84"	P Small amount of slag. Weld is sound.
A. AD 735 B. 8/30/43 C. 4364 D. Ingersoll E. Alloy Rods Co. F. Ilco Ordnance Corp.	A. 1/2" B. R I C. .0015 D. .0125 E. .0015 F. .0015 G. .0015 H. .0015 I. .0015 J. .0015 K. .0015 L. .0015 M. .0015 N. .0015 O. .0015 P. .0015 Q. .0015 R. .0015 S. .0015 T. .0015 U. .0015 V. .0015 W. .0015 X. .0015 Y. .0015 Z. .0015	A. A 1 B. .07-17C C. 3.30- D. 4.75Mn E. .08% max F. .03% max G. 18.0- H. 20.5Cr I. 9.0- J. 1.10% max K. Armature L. 1050 F 1 hr. M. 1050 F 1 hr. N. 1050 F 1 hr. O. 1050 F 1 hr. P. 1050 F 1 hr. Q. 1050 F 1 hr. R. 1050 F 1 hr. S. 1050 F 1 hr. T. 1050 F 1 hr. U. 1050 F 1 hr. V. 1050 F 1 hr. W. 1050 F 1 hr. X. 1050 F 1 hr. Y. 1050 F 1 hr. Z. 1050 F 1 hr.	A. 90° F B. 1/4" C. Flame cutting Grinding	A. Copper chill B. 1. 3/16" 1a 175 30 2. 1/4" 2a 275 30 C. 4 1/2 hours. 70°-410° F D. Grinding time 1 1/2 hours.	A. None B. None	1	2518	1 1/2" R	IMP	I 84"	P Small slag pocket.
A. AD 735 B. 8/30/43 C. 4364 D. Ingersoll E. Alloy Rods Co. F. Ilco Ordnance Corp.	A. 1/2" B. R I C. .0015 D. .0125 E. .0015 F. .0015 G. .0015 H. .0015 I. .0015 J. .0015 K. .0015 L. .0015 M. .0015 N. .0015 O. .0015 P. .0015 Q. .0015 R. .0015 S. .0015 T. .0015 U. .0015 V. .0015 W. .0015 X. .0015 Y. .0015 Z. .0015	A. A 1 B. .07-17C C. 3.30- D. 4.75Mn E. .08% max F. .03% max G. 18.0- H. 20.5Cr I. 9.0- J. 1.10% max K. Armature L. 1050 F 1 hr. M. 1050 F 1 hr. N. 1050 F 1 hr. O. 1050 F 1 hr. P. 1050 F 1 hr. Q. 1050 F 1 hr. R. 1050 F 1 hr. S. 1050 F 1 hr. T. 1050 F 1 hr. U. 1050 F 1 hr. V. 1050 F 1 hr. W. 1050 F 1 hr. X. 1050 F 1 hr. Y. 1050 F 1 hr. Z. 1050 F 1 hr.	A. 45° F B. 1/4" C. Flame cutting Grinding	A. Copper chill B. 1. 3/16" 1a 175 28 2. 1/4" 1a 275 30 3. 1/4" 1a 275 30 One seal bead- 3/16" 1a 175 29 C. 4 hours. 74°-200° F D. Grinding time 3 hours.	A. None B. None	1	2555	1 1/2" R	IMP	I 84"	F Small amount of porosity, in- complete penetra- tion with slag.

55.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BRN E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ASP. V. 1. ROOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRL B. POST	VLL.	LOCATION OF R	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. AD 735 B. 6/30/43 C. 4307 D. Great Lakes Steel Corp. E. Alloy Rods Co. F. Ilco Ordnance Corp.	A. 1/2" B. R IV .90% .71S1 .0285 .024P .042F C. 200 D. Face 307 Back 305 E. B.O.H. F. 1450 F 40 Min. water spray 600 F 1 hr. water	A. A 1 .07-.17C 3.30- 4.75V .04S MAX .03S MAX 18.0- 20.50V 9.0- 10.7V 1.10V MAX. D. AMORARC C. Time + T1 E. 10#EV	A. 90° SV B. 1/4" C. Flare 5/16" incl. grinding	A. Copper chill B. 1. 1 3/16" 1A 145 2P 2. A 3. 1/4" 2A 265 3C C. 34 hours. 250°-260° F D. Grinding time 1 hour.	A. None B. None	1 2529 2 2515	14" R 6 1/2" U 5 1/2" IMP D IMP V	I 12 1/2 I 8 V 5 1/2 25 1/2	P Welds are sound. Small amount of slag.	
A. AD 734 B. 7/1/43 C. 4305 D. Great Lakes Steel Corp. E. Alloy Rods Co. F. Ilco Ordn. Corp.	A. 1/2" B. R IV .90% .71S1 .0285 .024P .042F C. 200 D. Face 307 Back 305 E. B.O.H. F. 1450 F 40 Min. spray water 820 F	A. A 1 .07-.17C 3.30- 4.75V .04S MAX .03S MAX 18.0- 20.50V 9.0- 10.7V 1.10V MAX. D. AMORARC C. Time + T1 E. 10#EV	A. 45° SV B. 1/4" C. Flare 5/16" incl. grinding	A. Copper chill B. 1. 1 3/16" 1A 150 2P 2. 1/4" 1A 265 3C 3. 1/4" 1A 265 3C 4. 1/4" 1A 265 3C 5. 1/4" 1A 265 3C 6. 1/4" 1A 265 3C 7. 1/4" 1A 265 3C 8. 1/4" 1A 265 3C 9. 1/4" 1A 265 3C 10. 1/4" 1A 265 3C 11. 1/4" 1A 265 3C 12. 1/4" 1A 265 3C 13. 1/4" 1A 265 3C 14. 1/4" 1A 265 3C 15. 1/4" 1A 265 3C 16. 1/4" 1A 265 3C 17. 1/4" 1A 265 3C 18. 1/4" 1A 265 3C 19. 1/4" 1A 265 3C 20. 1/4" 1A 265 3C 21. 1/4" 1A 265 3C 22. 1/4" 1A 265 3C 23. 1/4" 1A 265 3C 24. 1/4" 1A 265 3C 25. 1/4" 1A 265 3C 26. 1/4" 1A 265 3C 27. 1/4" 1A 265 3C 28. 1/4" 1A 265 3C 29. 1/4" 1A 265 3C 30. 1/4" 1A 265 3C 31. 1/4" 1A 265 3C 32. 1/4" 1A 265 3C 33. 1/4" 1A 265 3C 34. 1/4" 1A 265 3C 35. 1/4" 1A 265 3C 36. 1/4" 1A 265 3C 37. 1/4" 1A 265 3C 38. 1/4" 1A 265 3C 39. 1/4" 1A 265 3C 40. 1/4" 1A 265 3C 41. 1/4" 1A 265 3C 42. 1/4" 1A 265 3C 43. 1/4" 1A 265 3C 44. 1/4" 1A 265 3C 45. 1/4" 1A 265 3C 46. 1/4" 1A 265 3C 47. 1/4" 1A 265 3C 48. 1/4" 1A 265 3C 49. 1/4" 1A 265 3C 50. 1/4" 1A 265 3C 51. 1/4" 1A 265 3C 52. 1/4" 1A 265 3C 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IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SEAT	RADIOGRAPHIC RESULTS	REMARKS ON CRACKING
A. TUBING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. STEEL F. ELECTRODE SPEC. G. WELD TYPE	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. Mn E. P F. SEAT TENSILE G. TENSILE	A. TYPE B. TAILING NAME C. COATING D. POLARITY	A. GROOVE, INCLUDED B. ANGLES, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. GAGE TYPE C. TOTAL WELDING TIME A. INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VOL. T/S	LOCATION OF # L.L. R.L. C.R. LOC. TYPE ART	
A. AD 716 B. 6/29/43 C. 4361 D. Great Lakes E. Steel F. Alloy Rods Co. G. 1100 Ordnance Corp.	A. 1/2" B. Hard Homo C. 0.28% D. 0.02% E. 0.02% F. 0.02% G. 0.02%	A. A I B. 0.07-1.10 C. 3.30-4.75 D. 0.08% E. 0.03% F. 0.03% G. 0.03%	A. 90° DV B. 1/4" C. Grinding	A. Copper chill. B. 1. I 3/16" 1a 165 30 2. & 3. 1/4" 2a 275 30 C. 3 hours 70°F-200°F D. Grinding time 40 minutes	A. None B. None	1 2525	1 8" U	-
A. AD 867 B. 8/27/43 C. 4406 D. Great Lakes E. Steel F. 1100 Ordnance Corp.	A. 1/2" B. R IV C. 0.28% D. 0.02% E. 0.02% F. 0.02% G. 0.02%	A. A I B. 0.08-1.20 C. 3.20-3.70 D. 0.08% E. 0.03% F. 0.03% G. 0.03%	A. 45° SV B. 1/4" C. Grinding	A. Copper chill B. 1. I 3/16" 1a 175 28 2. I 1/4" 1a 275 28 3. I 1/4" 1a 275 28 Seal bead - 3/16" 1a 175 28 C. 4 1/2 hours 70°F-200°F D. Grinding time 1 1/2 hour.	A. None B. None	1 2522	1 8" U	-
A. AD 864 B. 9/14/43 C. 4406 D. Great Lakes E. Steel F. 1100 Ordnance Corp.	A. 1/2" B. Hard Homo. C. 0.28% D. 0.02% E. 0.02% F. 0.02% G. 0.02%	A. A I B. 0.08-1.20 C. 3.20-3.70 D. 0.08% E. 0.03% F. 0.03% G. 0.03%	A. 90° DV B. 1/4" C. Grinding	A. Copper chill B. 1. I 3/16" 1a 170 28 2. & 3. 1/4" 2a 240 30 C. 4 1/2 hours. 75°F-200°F D. Grinding time 1 hour.	A. None B. None	1 2521	1 8" U	-

IDENTIFICATION		ABSON DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		REMARKS		BALLISTIC RESULTS		REMARKS ON CRACKING								
A. FIBING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ABSON MANUFACTURER	E. ELECTRODE SPEC.	F. ABSON FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT CAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ANP. V.	1. ROOT TYPE	2. CRACK TYPE	C. TOTAL WELDING TIME & INTER-PASS TEMPERATURE	A. PRE	B. POST	V/S	LOCATION OF CRACK	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	1 2508	X 13 1/2 IMP	I 12	P
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	2 2533 1 1/2	14 1/2 IMP	-	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	3 2640 1 1/2	17 IMP	I 12	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	4 2514	X 15 IMP	I 12	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	5 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	6 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	7 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	8 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	9 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	10 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	11 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	12 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	13 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	14 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	15 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	16 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	17 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	18 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	19 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	20 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	21 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	22 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	23 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	24 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	25 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	26 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	27 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	28 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	29 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	30 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	31 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	32 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	E. 1/4" 70-0170	F. 1/4" 70-0170	A. None	B. None	33 2514	IMP	V 18	-
A. AL 7063	7/29/42	C. 4308	D. Ingersoll Steel	E. Alloy Rods Co.	F. Alco Ordnance Co.	A. 1/8" 70-0170	B. 70-0170	C. 1/4" 70-0170	D. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	A. 1/4" 70-0170	B. 1/4" 70-0170	C. 1/4" 70-0170	D. 1/4"								

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		BALLISTIC RESULTS		REMARKS ON CRACKING	
A. PLATE THICKNESS	B. DATE OF TEST	A. TYPE	B. TRADE NAME	A. GROOVE INCLUDED	A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	A. PRE	A. PRE	A. PRE	A. PRE	A. PRE	
C. CARBON CONTENT	D. PHENOLIC	C. COATING	D. CURRENT A	B. ANGLE ROOT FACE	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	1. ROOT TYPE	B. POST	B. POST	B. POST	B. POST	B. POST	B. POST	
E. A.O. SMITH	F. ILCO ORDNANCE	E. ELECTRONIC WFG.	F. FABRICATION	C. PLATE PREPARATION	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	2. CHORD TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	
A. AD 779	A. 1/2"	A. A I	.08-.12C	A. 90° DV	A. Copper chill	1. I 3/16" 1a 170 28	A. None	A. None	A. None	A. None	A. None	A. None	
B. e/6, e/43	B. Hard Homo. IV	B. 3.20-	3.70Mn	B. 1/4"	B. 1. I 3/16" 1a 170 28	2. & 3. I 1/4" 2a 240 30	B. None	B. None	B. None	B. None	B. None	B. None	
C. 4402	.028% C .024 P	C. 18.00-	18.50Cr	C. Grinding	C. 5 hours. 80°F - 180°F	D. Grinding time 1 hour.							
D. Great Lakes Steel	.04% S	D. 9.0-10.5 Ni	1.0-1.2Mo										
E. A.O. Smith	D. Face 343	E. B.O.N.	B. SW-164										
F. Ilco Ordnance Corp.	Back 376	F. 1450°F 40 min water	C. Lime										
	820°F 1 hr. water	D. DC-REV											
A. AD 779	A. 1/2"	A. A I	.08-.12C	A. 90° DV	A. Copper chill	1. I 3/16" 1a 170 28	A. None	A. None	A. None	A. None	A. None	A. None	
B. 8/6, e/43	B. Hard Homo. I	B. 3.20-	3.70Mn	B. 1/4"	B. 1. I 3/16" 1a 170 28	2. & 3. I 1/4" 2a 240 30	B. None	B. None	B. None	B. None	B. None	B. None	
C. 4404	1.01Si	C. 18.0-18.5 Cr	9.0-10.5 Ni	C. Grinding	C. 5 hours. 70°F-200°F	D. Grinding time 3/4 hour.							
D. Ingersoll Steel Co.	.012% C .32Mo	D. 1.0-1.2Mo	B. SW-164										
E. A.O. Smith	.67% Cr .75Ni	E. Elec	C. Lime										
F. Ilco Ordnance Corp.	C. .26C	F. 1600°F 40 min water	D. DC-REV										
	D. Face 352												
	Back 387												
	E. Elec												
	F. 1050°F 1 hr. water												

59.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						A. PRE B. POST	VEL.	LOCATION OF R	CRACKING	
A. FIBING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SWS E. PROCESS F. BEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. BOOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS			F/S	L.L. R.L. C.B.	LOC. TYPE & MT	
A. A 10325 B. 11/16/43 C. EW 4411 D. Great Lakes E. Steel F. A. O. Smith Corporation	A. 1/2" B. R IV .88Mn .74Si .019S .018P .40Cr .14Mo .08Cr C. .28C D. Face 341 Back 352 E. B.O.H. F. 1650 F 40 min spray 940 F 1 hr- 9 mins. water	A. A I .08-.12C 3.20-3.70 Mn .50-.75Si 18- 19.50Cr 9.-10.5Ni .75-.80Mo B. SW 164 C. Lime D. DC-REV	A. 90° EV B. 1/4" C. Flame cutting	A. Copper Chill B. 1. I 3/16" 1a 190 30 2. 8 3. I 1/4" 2a 290 35 C. 3 1/2 hours. 70°F-200°F D. Grinding time 1 1/2 hours.	1 2	A. None B. None	2519 2514	3 1/2" U 10" D	V 2 1/2" I 14" I 14" 30 1/2"	P Small amount of slag
A. A 11304 B. 2/4/44 C. EW 4414 D. Great Lakes E. Steel F. A. O. Smith Corporation	A. 1/2" B. R IV .88Mn .65Si .023S .019P .65Cr .10Cr .18Mo .0012B C. .28C D. Face 363 Back 363 E. B.O.H. F. 1650 F 40 min water 850 F 70 min water	A. A I .08-.12C 3.20-3.70 Mn .50-.75Si 18- 19.50Cr 9.-10.5Ni 1.0-1.20Mo B. SW 164 C. Lime D. DC-REV	A. 90° EV B. 1/4" C. Grinding	A. Copper Chill B. 1. I 3/16" 1a 190 30 2. 1 1/4" 1a 190 35 3. 1 1/4" 1a 190 30 C. 3 1/2 hours. 70°F-200°F D. Grinding time 1 1/2 hours.	1 2 3 4 5	A. None B. None	2525 2524 1/2 2524 3 2533 2532 1/2	1 1/2" L 10 1/2" D 8 1/2" U 10 1/2" D 2" U	I 10 1/2" - - - - 11"	P

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. GROOVE, INCLUDED	A. BACKING	A. PRE	A. PRE	A. PRE	#	VEL.	LOCATION OF #	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
C. PLATE NO.	D. ANODE MANUFACTURER	C. CARBON CONTENT	D. SW	B. TRADE NAME	B. ANGLE, ROOT FACE	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	B. ROOT GAP	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	B. POST	B. POST	B. POST		F/S	L.L. S.L. C.B.	LOC. TYPE		
E. ELECTRODE MPa	F. ANODE FABRICATOR	E. PROCESS	F. SALT TREATMENT	C. COATING	C. PLATE PREPARATION	1. ROOT TYPE	2. ROOT TYPE	1. ROOT TYPE									
				D. CURRENT & POLARITY		3. CROWN TYPE		3. CROWN TYPE									
		TEMP. TIME QUENCH				C. TOTAL WELDING TIME & INTER PASS TEMPERATURE		C. TOTAL WELDING TIME & INTER PASS TEMPERATURE									
A. AD 447	Great Lakes	A. 1/2"	A. A II	A. A II	A. 45° SV	A. Copper	A. 45° SV	A. Copper	A. 150° F	A. 150° F	A. 150° F	1	2513	3"	7" IMP	I	P
B. 5/26/43	A. 1/2"	B. R IV	.095C	.095C	B. 1/4"	1. I 5/32" 1a 135 22	B. 1/4"	1. I 5/32" 1a 135 22	B. None	B. None	B. None	2	2800	3"	8 1/2" D	-	Weld is sound. Slight amount of porosity.
C. 41	Laughlin	.036S .025P	19.70CT	.31S1	C. Grinding	2. II 3/16" 2b 170 22	C. Grinding	2. II 3/16" 2b 170 22				3	2531	X	6" IMP	I	
D. Jones & Laughlin	Great Lakes	.04Cr .22Mo	10.64N1	2.22Mo		Seal bead-		Seal bead-									
E. Crucible Steel	Steel	.092F	B. Reztal	B. Reztal		3/16" 1a 170 22		3/16" 1a 170 22									
F. Corp.	Corp.	C. .30C	C. Titanium	C. Titanium		C. 3 hours 100° F - 180° F		C. 3 hours 100° F - 180° F									
G. Ingram	Ingram	E. 1650° F + hr.	D. DC-REV	D. DC-REV		Grinding time -		Grinding time -									
H. Richardson	Richardson	water				6 hours -		6 hours -									
I. Mfg. Company	Mfg. Company	800° F 1 hr. air															
		Jones & Laughlin															
		A. 1/2"															
		B. R III															
		1.654n															
		.26S1 .018S															
		.018P .26Mo															
		C. .25C															
		D. B.O.H.															
		E. 1650° F + hr.															
		water															
		850° F 1 hr. air															

61.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				DEFECTS ON CRACKING
						Z	VEL.	LOCATION OF B		
A. FIBING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE INFO. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SIZE E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. FOOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	F/S	L.L. R.L. C.B.	LOC. TYPE AWT	RADIOGRAPHIC RESULTS, ETC	
A. A 12897 B. 3/21/44 C. H 3 D. Great Lakes Steel Corp. Jones & Laughlin E. Crucible Steel Co. F. W.B. Jarvis Co.	A. 1/2" B. R IV GL .64Mn .0151 .036S .023P .0507 .19MC .072r C. .26C D. Face 363 Back 363 E. B.O.H. F. 1650 F 1 hr. water 850 F 1 1/2 hr. air	A. A I .10C 1.74Mn .26Si 19.74CT 10.35Ni 1.82Mo B. Rezistal C. Tivania D. DC-REV	A. 45° SV B. 1/4" C. Machining	A. Copper B. 1. I 3/16" 1a 180 22 2. II 3/16" 2b 180 22 3. I 3/16" 1a 180 22 Seal bead - 3/16" 1a 180 22 C. 2 1/2 hours. 180° F-250° F D. Grinding time 4 1/2 hours.	A. 2009 B. None	3 2510 4 2522 5 2523	3 1/2 L 3 1/2 L 3 1/2 R	10° U 9° D 9 1/2° U	- - - I 18°	P
	A. 1/2" B. R III J&L 1.64Mn .20Si .0808 .018P .31Mo C. .25C D. Face 363 Back 375 E. B.O.H. F. 1650 F 1 hr. water 775 F 1 1/2 hr. air									

62.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	HEAT	N	BALLISTIC RESULTS				REMARKS ON CRACKING
							V/L	LOCATION OF B	CRACKING	RADIOGRAPHIC RESULTS ETC	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE BRAND F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SPP E. PROCESS F. BEAT TREATMENT G. TEMP. TIME SEQUENCE	A. TYPE B. TRADE NAME C. COATING D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ASP. V. 1. ROOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PHE B. POST			L.L. R.L. C.B.	LOC. TYPE AMT		
A. AD 775 B. 8/3/43 C. 704 D. Youngstown Sheet & Tube Great Lakes E. Crucible Steel Company F. Kalamazoo Stove & Furnace Co.	A. 1/2" B. R III Y 1.44-1.68% .18-.1681 .025-.0206 .014-.0109 .02-.0307 .03-.0401 .27-.30% C. .24-.25C D. Face 352 Back 363 E. B.O.H. F. 1600 F 1/2 hr. water 870 F 1 1/2 hr. water A. 1/2" B. R IV GL .91% .7061 .022S .030P .72Cr .22Mo .072P C. .29C D. Face 352 Back 363 E. B.O.H. F. 1600 F 1/2 hr. water 870 F 1 1/2 hr. water	A. A I .14C 1.91% .40S1 .010F .02SP 14.80- 16.61Cr 8.60Ni 1.20Mo B. Remetal C. (Armored) D. DC-REV	A. 45° SV B. 1/4" C. Flame cutting Ing. Grinding.	A. Copper B. 1. I 5/32" 1a 120 60 2. III 5/32" 1a 120 80 3. III 5/32" 2b 120 80 Seal bead- 5/32" 1a 120 85 C. 8 hours 85 F-280 F D. Grinding time 6 hours.	A. 610F B. None	1	2533	X	5" IMF U	I 1 1/2"	P
						2	2539	X	3 1/2" IMF D	I 5" 1 1/2"	Small amount of fusion and slag in legs.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS OR CRACKING
							#	VEL. F/S	LOCATION OF B. L.L. M.L. C.B. LOC.	CRACKING TYPE AMT	
A. TIMING RECORD NO. B. DATE OF TEST C. PLATE NO. D. YOUNGSTOWN E. STEEL- F. GREAT LAKES G. STEEL- H. CRUCIBLE I. STEEL COMPANY J. KALAMAZOO K. STOVE & L. FURNACE CO.	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SPP E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	A. PRE B. POST	#	VEL. F/S	LOCATION OF B. L.L. M.L. C.B. LOC.	CRACKING TYPE AMT	RADIOGRAPHIC RESULTS, ETC.
A. AC 912 B. 10/2/43 C. 847-4-4 D. YOUNGSTOWN E. STEEL- F. GREAT LAKES G. STEEL- H. CRUCIBLE I. STEEL COMPANY J. KALAMAZOO K. STOVE & L. FURNACE CO.	A. 1/2" B. R III Y C. .0201 D. .0201 E. .0201 F. .0201 G. .0201 H. .0201 I. .0201 J. .0201 K. .0201 L. .0201 M. .0201 N. .0201 O. .0201 P. .0201 Q. .0201 R. .0201 S. .0201 T. .0201 U. .0201 V. .0201 W. .0201 X. .0201 Y. .0201 Z. .0201	A. A I B. .13C C. 4.21Mn D. .23Si E. 19.32Cr F. 8.51Ni G. .78Mo H. B. Reizistal I. C. Titanium J. D. DC+EV	A. 45° SV B. 1/4" C. Flame cutting in 2. Grinding	A. Copper B. 1. 3/16" 1a 175 22 2. 1/3 16" 2b 175 22 3. 1/3 16" 1a 175 28 Seal bead- 3/16" 1a 175 28 C. 3 hours. 70°F-120°F D. Grinding time 5 hours.	A. 1500 B. None	A. 1500 B. None	1 2525 2 2615	1/4" R 1/8" R	IMP I IMP V IMP I O V 162	P	

IDENTIFICATION	ABSON DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SEAL	BALLISTIC RESULTS				REMARKS ON CRACKING	
							VEL.	LOC.	CRACKING	RADIOGRAPHIC RESULTS, ETC.		
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. SACKING	B. POSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	T/R	L.L. W.L. C.B. LOC.	TYPE	ART		
B. DATE OF TEST	B. R I	B. TRADE NAME	B. ANGLE, ROOT FACE	B. ROOT CAP	1. ROOT TYPE	B. POST						
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. PLATE PREPARATION	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	2. BODY TYPE							
D. ABSON MANUFACTURER	D. PROCESSES	D. POLARITY			3. CROWN TYPE							
E. ELECTRODE MFG.	E. SEAL TREATMENT											
F. ABSON FABRICATOR	F. TEMP. TIME QUENCH											
A. AD 453	A. 1/2"	A. A II	A. 45° SV	A. Brass	A. None	1	2828	1"	I 18"	P		
B. 6/16/43	B. R I	.006-.10C	B. 3/16"	B. 1. I 3/16" 1a 145 -	B. None	2	2510	X	I 23"	Small amount of scattered slag.		
C. 4349	.82Mn .90S1	4.16-	C. Grinding	2. I 3/16" 2a 145 -					O I 1 1/2"			
D. Ingersoll Steel	.010S .016P	4.18Mn		3. I 3/16" 1a 170 -					IMP V 1 1/2"			
E. McKay Company	.62Cr .67Ni	.48-		Seal bead-					44 1/2"			
F. Harrison-Herrington Co.	.30Mn	.658S1		C. 10:30 hours. 90°-200°F								
	.30C	.011S		D. Grinding time 3:36 hours.								
	D. Face 375	.030P										
	Back 363	19.46-										
	E. Elec Basic	20.04Cr										
	F. 1600°F 40 min	9.16-										
	water spray	9.87Ni										
	1080°F 60 min	B. Armorloy										
	Furnace	A S										
		C. Calcium										
		D. DC-REV										
A. AD 453	A. 1/2"	A. A II	A. 45° SV	A. Brass	A. None	1	2547	1"	I 25"	P		
B. 6/16/43	B. R I	.006-.10C	B. 3/16"	B. 1. I 3/16" 1a 145 -	B. None	2	2475	1"	I 20 1/2"	Weld is sound. Small amount of slag. 1/2" of incomplete fusion.		
C. 4350	.82Mn .90S1	4.16-	C. Grinding	2. I 3/16" 2a 145 -					IMP			
D. Ingersoll Steel	.010S .016P	4.18Mn		3. I 1/4" 1a 165 -								
E. McKay Company	.62Cr .67Ni	.48-		Seal bead-								
F. Harrison-Herrington Co.	.30Mn	.658S1		C. 9 1/2 hours. 180°-240°F								
	.30C	19.46-		D. Grinding time 3:32 hours.								
	D. Face 375	20.04Cr										
	Back 363	9.16-										
	E. Elec Basic	9.87Ni										
	F. 1600°F 40 min	B. Armorloy										
	water spray	A-B										
	1080°F 60 min	C. Calcium										
	Furnace	D. DC-REV										
A. AD 453	A. 1/2"	A. A II	A. 45° SV	A. Brass	A. None	1	2600	1"	I 13 1/2"	P		
B. 6/16/43	B. R I	.006-.10C	B. 3/16"	B. 1. I 3/16" 1a 145 -	B. None	2	2626	1"	I 4"	Small amount of slag. Weld is sound.		
C. 4351	.82Mn .90S1	4.16-	C. Grinding	2. I 3/16" 2a 145-160					IMP V			
D. Ingersoll Steel	.010S .016P	4.18Mn		3. I 1/4" 1a 165 -					IMP I 14 1/2"			
E. McKay Company	.62Cr .67Ni	.48-		Seal bead-					IMP I 12 1/2"			
F. Harrison-Herrington Co.	.30Mn	.658S1		C. 11 hours. 90°-200°F					IMP V 45 1/2"			
	.30C	.011S		D. Grinding time 4:30 hours.								
	D. Face 375	19.46-										
	Back 363	20.04Cr										
	E. Elec Basic	9.16-										
	F. 1600°F 40 min	9.87Ni										
	water spray	B. Armorloy										
	1080°F 60 min	A-B										
	Furnace	C. Calcium										
		D. DC-REV										

IDENTIFICATION		ABNOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ABNOR MANUFACTURER E. ELECTRODE MFG. F. ABNOR FABRICATOR		A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DIM E. PROCESS F. SEAT TREATMENT G. TEMP. TIME QUENCH		A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY		A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION		A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. SEAT TYPE 3. GROOVE TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. SEAMER		A. PRE B. POST		B. VEL. LOCATION OF B. L.L. S.L. C.B. F/A					CRACKING LOC. TYPE ART		RADIOGRAPHIC RESULTS, ETC.	
A. AD 719 B. 6/30/43 C. 4356 D. Great Lakes E. Steel F. McKay Company Herrington Co.		A. 1/2" B. Hard Homo. IV .82Mn .81S1 .022S .015P .63CF .26Mo .077r .27C D. Pace 363 Back 363 E. B.O.H. F. 1650 F 40 min water 940 F 1 hr. furnace		A. A II .106-.114C 4.06-4.53 Mn .47-.55S1 .025P 18.55- 19.48Cr 9.12- 9.75Ni B. Armolloy C. Line D. DC-REV		A. 45° SV B. 1/4" C. Grinding		A. Brass B. 1. I 3/16" 1a 145 - 2. I 3/16" 2a 175-185 3. I 1/4" 1a 225 - Seal bead- 3/16" 1a 145 C. 3 hours 20 mins. 250 F-305 F D. Grinding time 4 minutes.		A. None B. None		1 2530 2 2417					8 1/2" U 12 1/2" L 5" D IMP I 18" IMP I 16" 34"		P Small amount of porosity and slag.	
A. AD 719 B. 6/30/43 C. 4357 D. Great Lakes E. Steel F. McKay Company Herrington Co.		A. 1/2" B. Hard Homo. IV .82Mn .81S1 .022S .015P .63CF .26Mo .077r .27C D. Pace 363 Back 363 E. B.O.H. F. 1650 F 40 min water 940 F 1 hr. furnace		A. A II .106- .14C 7.99- 4.05Mn .47- .56S1 .015- .021S .025P 18.55- 20.40Cr 9.58- 9.75Ni B. Armolloy C. Line D. DC-REV		A. 45° SV B. 1/4" C. Grinding		A. Copper B. 1. I 3/16" 1a 150 - 2. I 3/16" 1a 150 - 5/32" 1a 150 - 3. I 1/4" 1a 200 - Seal bead- 3/16" 1a 150 C. 8 1/2 hours 150°-215° F D. Grinding time 10 minutes.		A. None B. None		1 2528 2 2516 3 2522 4 2522					5/8" R 3" R 4 1/2" R 1 1/2" R IMP I 13 1/2" O I 14" IMP V 3 1/2" 36 1/2"		P Small amount of slag, 5/8" intermittent incomplete penetration.	
A. AD 719 B. 6/30/43 C. 4358 D. Great Lakes E. Steel F. McKay Company Herrington Co.		A. 1/2" B. Hard Homo. IV .82Mn .81S1 .022S .015P .63CF .26Mo .077r .27C D. Pace 363 Back 363 E. B.O.H. F. 1450 F 40 min water 940 F 1 hr. furnace		A. A II .106C 4.06Mn .47S1 .021S .025P 18.55Cr 9.75Ni B. Armolloy C. Line D. DC-REV		A. Not given SV B. " " C. Grinding		A. Copper B. 1. I 1/4" 1a 215 - 2. & 3. I 1/4" 1a 215 - Seal bead- 1/4" 1a 215 C. 5 1/2 hours 250° F-300° F D. Grinding time 5 minutes.		A. None B. None		1 2516 2 2382 3 2404					1 1/2" L 4 1/2" L 6 1/2" U IMP I 13" IMP I 28" - - 15 3/4"		P Small amount of slag and intermittent penetration.	

IDENTIFICATION	AEROS DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS	REMARKS ON CRACKING		
A. FABRIC RECORD NO. B. DATE OF TEST C. PLATE NO. D. AEROS MANUFACTURER E. ELECTRODE MFG. F. AEROS FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DRP E. PROCESS F. TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VEL. F/S LOC. TYPE ART				
A. AD 719 B. #30/43 C. 4372 D. Great Lakes E. Steel F. McRay Company G. Harmon-Herrington Co.	A. 1/2" B. Hard HMO. C. .04% C D. .022% P E. .01% S F. .07% P G. .24C H. Back 340 I. Back 343 J. E. C. H. K. 1650°F 40 min L. water M. 940°F 1 hr. N. 10 min. O. Furnace	A. A 11 B. 106-110 C. 110 D. 4.06-4.34mm E. 47-47.2 F. 804S1 G. .007- H. .007- I. .007- J. .007- K. 18.65-19.250r L. 9.54-9.75N1 M. 9.75N1 N. 9.75N1 O. 9.75N1 P. 9.75N1 Q. 9.75N1 R. 9.75N1 S. 9.75N1 T. 9.75N1 U. 9.75N1 V. 9.75N1 W. 9.75N1 X. 9.75N1 Y. 9.75N1 Z. 9.75N1 AA. 9.75N1 AB. 9.75N1 AC. 9.75N1 AD. 9.75N1 AE. 9.75N1 AF. 9.75N1 AG. 9.75N1 AH. 9.75N1 AI. 9.75N1 AJ. 9.75N1 AK. 9.75N1 AL. 9.75N1 AM. 9.75N1 AN. 9.75N1 AO. 9.75N1 AP. 9.75N1 AQ. 9.75N1 AR. 9.75N1 AS. 9.75N1 AT. 9.75N1 AU. 9.75N1 AV. 9.75N1 AW. 9.75N1 AX. 9.75N1 AY. 9.75N1 AZ. 9.75N1 BA. 9.75N1 BB. 9.75N1 BC. 9.75N1 BD. 9.75N1 BE. 9.75N1 BF. 9.75N1 BG. 9.75N1 BH. 9.75N1 BI. 9.75N1 BJ. 9.75N1 BK. 9.75N1 BL. 9.75N1 BM. 9.75N1 BN. 9.75N1 BO. 9.75N1 BP. 9.75N1 BQ. 9.75N1 BR. 9.75N1 BS. 9.75N1 BT. 9.75N1 BU. 9.75N1 BV. 9.75N1 BW. 9.75N1 BX. 9.75N1 BY. 9.75N1 BZ. 9.75N1 CA. 9.75N1 CB. 9.75N1 CC. 9.75N1 CD. 9.75N1 CE. 9.75N1 CF. 9.75N1 CG. 9.75N1 CH. 9.75N1 CI. 9.75N1 CJ. 9.75N1 CK. 9.75N1 CL. 9.75N1 CM. 9.75N1 CN. 9.75N1 CO. 9.75N1 CP. 9.75N1 CQ. 9.75N1 CR. 9.75N1 CS. 9.75N1 CT. 9.75N1 CU. 9.75N1 CV. 9.75N1 CW. 9.75N1 CX. 9.75N1 CY. 9.75N1 CZ. 9.75N1 DA. 9.75N1 DB. 9.75N1 DC. 9.75N1 DD. 9.75N1 DE. 9.75N1 DF. 9.75N1 DG. 9.75N1 DH. 9.75N1 DI. 9.75N1 DJ. 9.75N1 DK. 9.75N1 DL. 9.75N1 DM. 9.75N1 DN. 9.75N1 DO. 9.75N1 DP. 9.75N1 DQ. 9.75N1 DR. 9.75N1 DS. 9.75N1 DT. 9.75N1 DU. 9.75N1 DV. 9.75N1 DW. 9.75N1 DX. 9.75N1 DY. 9.75N1 DZ. 9.75N1 EA. 9.75N1 EB. 9.75N1 EC. 9.75N1 ED. 9.75N1 EE. 9.75N1 EF. 9.75N1 EG. 9.75N1 EH. 9.75N1 EI. 9.75N1 EJ. 9.75N1 EK. 9.75N1 EL. 9.75N1 EM. 9.75N1 EN. 9.75N1 EO. 9.75N1 EP. 9.75N1 EQ. 9.75N1 ER. 9.75N1 ES. 9.75N1 ET. 9.75N1 EU. 9.75N1 EV. 9.75N1 EW. 9.75N1 EX. 9.75N1 EY. 9.75N1 EZ. 9.75N1 FA. 9.75N1 FB. 9.75N1 FC. 9.75N1 FD. 9.75N1 FE. 9.75N1 FF. 9.75N1 FG. 9.75N1 FH. 9.75N1 FI. 9.75N1 FJ. 9.75N1 FK. 9.75N1 FL. 9.75N1 FM. 9.75N1 FN. 9.75N1 FO. 9.75N1 FP. 9.75N1 FQ. 9.75N1 FR. 9.75N1 FS. 9.75N1 FT. 9.75N1 FU. 9.75N1 FV. 9.75N1 FW. 9.75N1 FX. 9.75N1 FY. 9.75N1 FZ. 9.75N1 GA. 9.75N1 GB. 9.75N1 GC. 9.75N1 GD. 9.75N1 GE. 9.75N1 GF. 9.75N1 GG. 9.75N1 GH. 9.75N1 GI. 9.75N1 GJ. 9.75N1 GK. 9.75N1 GL. 9.75N1 GM. 9.75N1 GN. 9.75N1 GO. 9.75N1 GP. 9.75N1 GQ. 9.75N1 GR. 9.75N1 GS. 9.75N1 GT. 9.75N1 GU. 9.75N1 GV. 9.75N1 GW. 9.75N1 GX. 9.75N1 GY. 9.75N1 GZ. 9.75N1 HA. 9.75N1 HB. 9.75N1 HC. 9.75N1 HD. 9.75N1 HE. 9.75N1 HF. 9.75N1 HG. 9.75N1 HH. 9.75N1 HI. 9.75N1 HJ. 9.75N1 HK. 9.75N1 HL. 9.75N1 HM. 9.75N1 HN. 9.75N1 HO. 9.75N1 HP. 9.75N1 HQ. 9.75N1 HR. 9.75N1 HS. 9.75N1 HT. 9.75N1 HU. 9.75N1 HV. 9.75N1 HW. 9.75N1 HX. 9.75N1 HY. 9.75N1 HZ. 9.75N1 IA. 9.75N1 IB. 9.75N1 IC. 9.75N1 ID. 9.75N1 IE. 9.75N1 IF. 9.75N1 IG. 9.75N1 IH. 9.75N1 II. 9.75N1 IJ. 9.75N1 IK. 9.75N1 IL. 9.75N1 IM. 9.75N1 IN. 9.75N1 IO. 9.75N1 IP. 9.75N1 IQ. 9.75N1 IR. 9.75N1 IS. 9.75N1 IT. 9.75N1 IU. 9.75N1 IV. 9.75N1 IW. 9.75N1 IX. 9.75N1 IY. 9.75N1 IZ. 9.75N1 JA. 9.75N1 JB. 9.75N1 JC. 9.75N1 JD. 9.75N1 JE. 9.75N1 JF. 9.75N1 JG. 9.75N1 JH. 9.75N1 JI. 9.75N1 JJ. 9.75N1 JK. 9.75N1 JL. 9.75N1 JM. 9.75N1 JN. 9.75N1 JO. 9.75N1 JP. 9.75N1 JQ. 9.75N1 JR. 9.75N1 JS. 9.75N1 JT. 9.75N1 JU. 9.75N1 JV. 9.75N1 JW. 9.75N1 JX. 9.75N1 JY. 9.75N1 JZ. 9.75N1 KA. 9.75N1 KB. 9.75N1 KC. 9.75N1 KD. 9.75N1 KE. 9.75N1 KF. 9.75N1 KG. 9.75N1 KH. 9.75N1 KI. 9.75N1 KJ. 9.75N1 KK. 9.75N1 KL. 9.75N1 KM. 9.75N1 KN. 9.75N1 KO. 9.75N1 KP. 9.75N1 KQ. 9.75N1 KR. 9.75N1 KS. 9.75N1 KT. 9.75N1 KU. 9.75N1 KV. 9.75N1 KW. 9.75N1 KX. 9.75N1 KY. 9.75N1 KZ. 9.75N1 LA. 9.75N1 LB. 9.75N1 LC. 9.75N1 LD. 9.75N1 LE. 9.75N1 LF. 9.75N1 LG. 9.75N1 LH. 9.75N1 LI. 9.75N1 LJ. 9.75N1 LK. 9.75N1 LL. 9.75N1 LM. 9.75N1 LN. 9.75N1 LO. 9.75N1 LP. 9.75N1 LQ. 9.75N1 LR. 9.75N1 LS. 9.75N1 LT. 9.75N1 LU. 9.75N1 LV. 9.75N1 LW. 9.75N1 LX. 9.75N1 LY. 9.75N1 LZ. 9.75N1 MA. 9.75N1 MB. 9.75N1 MC. 9.75N1 MD. 9.75N1 ME. 9.75N1 MF. 9.75N1 MG. 9.75N1 MH. 9.75N1 MI. 9.75N1 MJ. 9.75N1 MK. 9.75N1 ML. 9.75N1 MN. 9.75N1 MO. 9.75N1 MP. 9.75N1 MQ. 9.75N1 MR. 9.75N1 MS. 9.75N1 MT. 9.75N1 MU. 9.75N1 MV. 9.75N1 MW. 9.75N1 MX. 9.75N1 MY. 9.75N1 MZ. 9.75N1 NA. 9.75N1 NB. 9.75N1 NC. 9.75N1 ND. 9.75N1 NE. 9.75N1 NF. 9.75N1 NG. 9.75N1 NH. 9.75N1 NI. 9.75N1 NJ. 9.75N1 NK. 9.75N1 NL. 9.75N1 NM. 9.75N1 NO. 9.75N1 NP. 9.75N1 NQ. 9.75N1 NR. 9.75N1 NS. 9.75N1 NT. 9.75N1 NU. 9.75N1 NV. 9.75N1 NW. 9.75N1 NX. 9.75N1 NY. 9.75N1 NZ. 9.75N1 OA. 9.75N1 OB. 9.75N1 OC. 9.75N1 OD. 9.75N1 OE. 9.75N1 OF. 9.75N1 OG. 9.75N1 OH. 9.75N1 OI. 9.75N1 OJ. 9.75N1 OK. 9.75N1 OL. 9.75N1 OM. 9.75N1 ON. 9.75N1 OO. 9.75N1 OP. 9.75N1 OQ. 9.75N1 OR. 9.75N1 OS. 9.75N1 OT. 9.75N1 OU. 9.75N1 OV. 9.75N1 OW. 9.75N1 OX. 9.75N1 OY. 9.75N1 OZ. 9.75N1 PA. 9.75N1 PB. 9.75N1 PC. 9.75N1 PD. 9.75N1 PE. 9.75N1 PF. 9.75N1 PG. 9.75N1 PH. 9.75N1 PI. 9.75N1 PJ. 9.75N1 PK. 9.75N1 PL. 9.75N1 PM. 9.75N1 PN. 9.75N1 PO. 9.75N1 PP. 9.75N1 PQ. 9.75N1 PR. 9.75N1 PS. 9.75N1 PT. 9.75N1 PU. 9.75N1 PV. 9.75N1 PW. 9.75N1 PX. 9.75N1 PY. 9.75N1 PZ. 9.75N1 QA. 9.75N1 QB. 9.75N1 QC. 9.75N1 QD. 9.75N1 QE. 9.75N1 QF. 9.75N1 QG. 9.75N1 QH. 9.75N1 QI. 9.75N1 QJ. 9.75N1 QK. 9.75N1 QL. 9.75N1 QM. 9.75N1 QN. 9.75N1 QO. 9.75N1 QP. 9.75N1 QQ. 9.75N1 QR. 9.75N1 QS. 9.75N1 QT. 9.75N1 QU. 9.75N1 QV. 9.75N1 QW. 9.75N1 QX. 9.75N1 QY. 9.75N1 QZ. 9.75N1 RA. 9.75N1 RB. 9.75N1 RC. 9.75N1 RD. 9.75N1 RE. 9.75N1 RF. 9.75N1 RG. 9.75N1 RH. 9.75N1 RI. 9.75N1 RJ. 9.75N1 RK. 9.75N1 RL. 9.75N1 RM. 9.75N1 RN. 9.75N1 RO. 9.75N1 RP. 9.75N1 RQ. 9.75N1 RR. 9.75N1 RS. 9.75N1 RT. 9.75N1 RU. 9.75N1 RV. 9.75N1 RW. 9.75N1 RX. 9.75N1 RY. 9.75N1 RZ. 9.75N1 SA. 9.75N1 SB. 9.75N1 SC. 9.75N1 SD. 9.75N1 SE. 9.75N1 SF. 9.75N1 SG. 9.75N1 SH. 9.75N1 SI. 9.75N1 SJ. 9.75N1 SK. 9.75N1 SL. 9.75N1 SM. 9.75N1 SN. 9.75N1 SO. 9.75N1 SP. 9.75N1 SQ. 9.75N1 SR. 9.75N1 SS. 9.75N1 ST. 9.75N1 SU. 9.75N1 SV. 9.75N1 SW. 9.75N1 SX. 9.75N1 SY. 9.75N1 SZ. 9.75N1 TA. 9.75N1 TB. 9.75N1 TC. 9.75N1 TD. 9.75N1 TE. 9.75N1 TF. 9.75N1 TG. 9.75N1 TH. 9.75N1 TI. 9.75N1 TJ. 9.75N1 TK. 9.75N1 TL. 9.75N1 TM. 9.75N1 TN. 9.75N1 TO. 9.75N1 TP. 9.75N1 TQ. 9.75N1 TR. 9.75N1 TS. 9.75N1 TT. 9.75N1 TU. 9.75N1 TV. 9.75N1 TW. 9.75N1 TX. 9.75N1 TY. 9.75N1 TZ. 9.75N1 UA. 9.75N1 UB. 9.75N1 UC. 9.75N1 UD. 9.75N1 UE. 9.75N1 UF. 9.75N1 UG. 9.75N1 UH. 9.75N1 UI. 9.75N1 UJ. 9.75N1 UK. 9.75N1 UL. 9.75N1 UM. 9.75N1 UN. 9.75N1 UO. 9.75N1 UP. 9.75N1 UQ. 9.75N1 UR. 9.75N1 US. 9.75N1 UT. 9.75N1 UU. 9.75N1 UV. 9.75N1 UW. 9.75N1 UX. 9.75N1 UY. 9.75N1 UZ. 9.75N1 VA. 9.75N1 VB. 9.75N1 VC. 9.75N1 VD. 9.75N1 VE. 9.75N1 VF. 9.75N1 VG. 9.75N1 VH. 9.75N1 VI. 9.75N1 VJ. 9.75N1 VK. 9.75N1 VL. 9.75N1 VM. 9.75N1 VN. 9.75N1 VO. 9.75N1 VP. 9.75N1 VQ. 9.75N1 VR. 9.75N1 VS. 9.75N1 VT. 9.75N1 VU. 9.75N1 VV. 9.75N1 VW. 9.75N1 VX. 9.75N1 VY. 9.75N1 VZ. 9.75N1 WA. 9.75N1 WB. 9.75N1 WC. 9.75N1 WD. 9.75N1 WE. 9.75N1 WF. 9.75N1 WG. 9.75N1 WH. 9.75N1 WI. 9.75N1 WJ. 9.75N1 WK. 9.75N1 WL. 9.75N1 WM. 9.75N1 WN. 9.75N1 WO. 9.75N1 WP. 9.75N1 WQ. 9.75N1 WR. 9.75N1 WS. 9.75N1 WT. 9.75N1 WU. 9.75N1 WV. 9.75N1 WW. 9.75N1 WX. 9.75N1 WY. 9.75N1 WZ. 9.75N1 XA. 9.75N1 XB. 9.75N1 XC. 9.75N1 XD. 9.75N1 XE. 9.75N1 XF. 9.75N1 XG. 9.75N1 XH. 9.75N1 XI. 9.75N1 XJ. 9.75N1 XK. 9.75N1 XL. 9.75N1 XM. 9.75N1 XN. 9.75N1 XO. 9.75N1 XP. 9.75N1 XQ. 9.75N1 XR. 9.75N1 XS. 9.75N1 XT. 9.75N1 XU. 9.75N1 XV. 9.75N1 XW. 9.75N1 XX. 9.75N1 XY. 9.75N1 XZ. 9.75N1 YA. 9.75N1 YB. 9.75N1 YC. 9.75N1 YD. 9.75N1 YE. 9.75N1 YF. 9.75N1 YG. 9.75N1 YH. 9.75N1 YI. 9.75N1 YJ. 9.75N1 YK. 9.75N1 YL. 9.75N1 YM. 9.75N1 YN. 9.75N1 YO. 9.75N1 YP. 9.75N1 YQ. 9.75N1 YR. 9.75N1 YS. 9.75N1 YT. 9.75N1 YU. 9.75N1 YV. 9.75N1 YW. 9.75N1 YX. 9.75N1 YY. 9.75N1 YZ. 9.75N1 ZA. 9.75N1 ZB. 9.75N1 ZC. 9.75N1 ZD. 9.75N1 ZE. 9.75N1 ZF. 9.75N1 ZG. 9.75N1 ZH. 9.75N1 ZI. 9.75N1 ZJ. 9.75N1 ZK. 9.75N1 ZL. 9.75N1 ZM. 9.75N1 ZN. 9.75N1 ZO. 9.75N1 ZP. 9.75N1 ZQ. 9.75N1 ZR. 9.75N1 ZS. 9.75N1 ZT. 9.75N1 ZU. 9.75N1 ZV. 9.75N1 ZW. 9.75N1 ZX. 9.75N1 ZY. 9.75N1 ZZ. 9.75N1								
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IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						A. PRE B. POST	VEL. F/N	LOCATION OF N L.L. R.L. C.B. LOC. TYPE ART	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SPP E. PROCESS F. HEAT TREATMENT G. TEMP. TIME SEQUENCE	A. TYPE B. TAILER BASE C. COATING D. CURRENT A E. POLARITY	A. TROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. SACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. C. ROOT TYPE D. CHAIN TYPE E. TOTAL WELDING TIME & INTER PASS TEMPERATURE F. REMARKS	A. None B. None					
A. AD 764 B. 7/29/43 C. 4352 D. Ingersoll E. Steel F. May Company G. Herrington Co.	A. 1/2" B. Hard Homo. C. .006 D. .0061 E. .0108 F. .016P G. .020P H. .030P I. .030P J. .030P K. .030P L. .030P M. .030P N. .030P O. .030P P. .030P Q. .030P R. .030P S. .030P T. .030P U. .030P V. .030P W. .030P X. .030P Y. .030P Z. .030P	A. A II B. .006-.14C C. 3.99- D. 4.18th E. .659-.64S F. .016S G. .034P H. 19.48- I. 20.40P J. 9.16- K. 9.58N1 L. Armoloy M. A-6 N. Lime O. DC-REV	A. 30° DV B. 3/16" C. Grinding	A. Brass B. 1. I 3/16" 1a 150 - 2. I 3/16" 2a 200 - 3. I 3/16" 1/4" C. 8 hours 150°-180° F D. Grinding time 2:27 hours	A. None B. None	1	2532	1 1/2" L D IMP	I 1 1/2"	F Plate is unacceptable because of excessive amount of incomplete fusion.
A. AD 764 B. 7/29/43 C. 4359 D. Great Lakes E. Steel F. May Company G. Herrington Co.	A. 1/2" B. Hard Homo. C. .006 D. .0061 E. .0108 F. .016P G. .020P H. .030P I. .030P J. .030P K. .030P L. .030P M. .030P N. .030P O. .030P P. .030P Q. .030P R. .030P S. .030P T. .030P U. .030P V. .030P W. .030P X. .030P Y. .030P Z. .030P	A. A I B. .006 C. 4.06th D. .475 E. .021S F. .025P G. .025P H. .025P I. .025P J. .025P K. .025P L. .025P M. .025P N. .025P O. .025P P. .025P Q. .025P R. .025P S. .025P T. .025P U. .025P V. .025P W. .025P X. .025P Y. .025P Z. .025P	A. 45° SV B. 1/4" C. Grinding	A. Copper B. 1. I 1/4" 1a 215 - 2. I 1/4" 1a 215 - C. 3 hours 55 minutes, 280-300° F. D. Grinding time 30 minutes.	A. None B. None	1	2548	1 1/2" L D IMP	I 1 1/2"	F Plate is not acceptable due to excessive cracking in x-bar.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	REAT	BALLISTIC RESULTS	REMARKS OR CRACKING
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DEN E. PROCTOR F. ALAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ASP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VOL. F/S	LOCATION OF CRACKING L.L. R.L. C.B. LOC. TYPE ART	RADIOGRAPHIC RESULTS, ETC.
A. AD 720 B. 7/1/43 C. 4370 D. Great Lakes E. Steel Corp. F. McKay Company Herrington Co.	A. 1/2" B. Hard Homo. .0225 .81S1 .0225 .015P .0225 .25M0 .072r C. .27C D. Face 363 Back 363 E. B.C.H. F. 1650 F 40 min water 940 F 1 hr. furnace	A. A II 105-120 4.06- 4.15M .428-.4781 .012-.021S .025P 18.55- 19.80Cr 9.75- 9.84M1 B. Armorloy C. Lime D. DC-REV	A. 45° SV B. 1/4" C. Grinding	A. Copper B. 1. 1/4" 1a 150 - 2. 1/4" 1a 150 - 3. 1/4" 1a 220 - Seal bead- 3/16" 1a 150 - C. 5 hours 55 minutes. 0 290-300 F D. Grinding time 15 minutes.	A. 2500 B. None	1 2517 2 2510 3 2521 4 2391	4 1/2" U 7 1/2" D 3 1/2" U 7 1/2" U IMP I IMP I IMP I IMP I 40 1/2"	F Plate is unacceptable due to excessive cracking in cross-bar. Small amount of slag. Weld is sound.
A. AD 893 B. 9/20/43 C. 4374 D. Great Lakes E. Steel Corp. F. McKay Company Herrington Co.	A. 1/2" B. Hard Homo. .0225 .78S1 .0225 .019P .08Cr .20M0 .082r C. .28C D. Face 363 Back 376 E. B.C.H. F. 1650 F 40 min water 940 F 1 hr. 10 mins water	A. Not given B. Armorloy A-5 C. Lime D. DC-REV	A. 45° SV B. 1/4" C. Grinding	A. Copper B. 1. 1/4" 1a 270 - 2. 1/4" 1a 270 - 3. 1/4" 1a 185 - Seal bead- 3/16" 1a 185 - C. 8 hours 30 mins. 320-350 F D. Grinding time 1 hour 30 mins.	A. 2500 B. None	1 2498 2 2514	3 1/2" R 2 1/2" L IMP I IMP I IMP I IMP I 9 1/2"	P Small amount of slag.

IDENTIFICATION		ABON DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING		
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ABON MANUFACTURER E. ELECTRODE MFG. F. ABON FABRICATOR		A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BEW E. PROCESS F. BEAT TREATMENT G. TEMP. TIME QUENCH		A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY		A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION		A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS		A. PRE B. POST		M		VEL. LOCATION OF H		CRACKING		RADIOGRAPHIC RESULTS, ETC.			
A. A 11508 B. 1/8/44 C. EW 4376 D. Great Lakes E. McKay Company F. Harmon- Herrington Co.		A. 1/2" B. R TV C. .102% D. .88% E. .023% F. .019% G. .017% H. .015% I. .012% J. .008% K. .005% L. .003% M. .002% N. .001% O. .000%		A. A 11 B. .0950 C. 4.18% D. .56% E. .017% F. .015% G. .012% H. .008% I. .005% J. .003% K. .002% L. .001% M. .000%		A. 45° SV B. 1/4" C. Grinding		A. Copper B. 1 1/4" 1a 275 - 2. 1 1/4" 1a 275 - 3. 3/16" 1a 180 - Seal bead- 3/16" 1a 180 - C. 8 hours 30 minutes. 270° F-350° F D. Grinding time 1 hr. 40 mins.		A. 250° F B. None		1		12524 21"		9 1/2" U - - 6 1/2" D IMP I 17 1/2" 7 1/2" D IMP I 18 1/2"		- - - - - -		P	

IDENTIFICATION	ABROR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	N	VOL.	LOCATION OF N	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ABROR MANUFACTURER E. ELECTRODE SPEC. F. ABROR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBOR CONTENT D. BEH E. PROTECT F. REAY TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DISPOSITION SIZE EL. NO. TYPE AMP V 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		F/S	L.L. R.L. C.B. LOC. TYPE AMT			
A. 1108 B. 12/16/43 C. 67 D. Jones & Laughlin E. Crucible Steel Co. F. Highland Steel Products	A. 1/2" B. F.Y. C. .80% .025" .015% .017" .34% C. .27C D. Face 352 Back 352 E. B.O.H. F. 1650 F & Hr. water F 19 hrs 100 F 19 hrs water	A. A.I. B. 11C C. .20mm .45% 18.98CT B. 60N: .80% B. Armox 100 C. AC D. AC	A. 40° SV B. 1/4" C. Cutting	A. TIG B. 1. 2/16" Ia 190 - 2. 1/4" Ia 190 - 3. 1/4" Ia 190 - Real bead- 3/16" Ia 190 - C. 3 hours, 100° F-190° 1.	A. None B. None	1	182	7"	U IMP I 10%	P	
						2	2538	82"	-	-	
						3	2510	72"	-	-	
						4	2552	X IMP X 16%	IMP Y 28%		

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	RELAY	BALLISTIC RESULTS				REMARKS ON CRACKING
A. PLATING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ANODE DATA F. RELAY TREATMENT G. TEMP. TIME QUENCH	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. HARDNESS E. PROCESS F. RELAY TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. COV. & POLARITY	A. GROOVE, INCLUDED B. 1/4" C. FLARE CUTTING D. GRINDING	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. ROOT TYPE 3. CROSS TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL.	LOCATION OF H	CRACKING	RADIOGRAPHIC RESULT, ETC.
A. A 12850 B. 2/9/44 C. W 1 D. Jones & Laughlin Great Lakes E. Crucible Steel F. McInerney Spring & Wire Company	A. 1/2" B. R 111 JAL C. 1.00M .019P D. .015S .019P E. .015S .019P F. .015S .019P G. .015S .019P	A. A 11 B. .00C C. 4.30Mn D. .27Si E. 19.10Cr F. 10.30Ni G. .22C H. .00C I. .00C J. .00C K. .00C L. .00C M. .00C N. .00C O. .00C P. .00C Q. .00C R. .00C S. .00C T. .00C U. .00C V. .00C W. .00C X. .00C Y. .00C Z. .00C AA. .00C AB. .00C AC. .00C AD. .00C AE. .00C AF. .00C AG. .00C AH. .00C AI. .00C AJ. .00C AK. .00C AL. .00C AM. .00C AN. .00C AO. .00C AP. .00C AQ. .00C AR. .00C AS. .00C AT. .00C AU. .00C AV. .00C AW. .00C AX. .00C AY. .00C AZ. .00C BA. .00C BB. .00C BC. .00C BD. .00C BE. .00C BF. .00C BG. .00C BH. .00C BI. .00C BJ. .00C BK. .00C BL. .00C BM. .00C BN. .00C BO. .00C BP. .00C BQ. .00C BR. .00C BS. .00C BT. .00C BU. .00C BV. .00C BW. .00C BX. .00C BY. .00C BZ. .00C CA. .00C CB. .00C CC. .00C CD. .00C CE. .00C CF. .00C CG. .00C CH. .00C CI. .00C CJ. .00C CK. .00C CL. .00C CM. .00C CN. .00C CO. .00C CP. .00C CQ. .00C CR. .00C CS. .00C CT. .00C CU. .00C CV. .00C CW. .00C CX. .00C CY. .00C CZ. .00C DA. .00C DB. .00C DC. .00C DD. .00C DE. .00C DF. .00C DG. .00C DH. .00C DI. .00C DJ. .00C DK. .00C DL. .00C DM. .00C DN. .00C DO. .00C DP. .00C DQ. .00C DR. .00C DS. .00C DT. .00C DU. .00C DV. .00C DW. .00C DX. .00C DY. .00C DZ. .00C EA. .00C EB. .00C EC. .00C ED. .00C EE. .00C EF. .00C EG. .00C EH. .00C EI. .00C EJ. .00C EK. .00C EL. .00C EM. .00C EN. .00C EO. .00C EP. .00C EQ. .00C ER. .00C ES. .00C ET. .00C EU. .00C EV. .00C EW. .00C EX. .00C EY. .00C EZ. .00C FA. .00C FB. .00C FC. .00C FD. .00C FE. .00C FF. .00C FG. .00C FH. .00C FI. .00C FJ. .00C FK. .00C FL. .00C FM. .00C FN. .00C FO. .00C FP. .00C FQ. .00C FR. .00C FS. .00C FT. .00C FU. .00C FV. .00C FW. .00C FX. .00C FY. .00C FZ. .00C GA. .00C GB. .00C GC. .00C GD. .00C GE. .00C GF. .00C GG. .00C GH. .00C GI. .00C GJ. .00C GK. .00C GL. .00C GM. .00C GN. .00C GO. .00C GP. .00C GQ. .00C GR. .00C GS. .00C GT. .00C GU. .00C GV. .00C GW. .00C GX. .00C GY. .00C GZ. .00C HA. .00C HB. .00C HC. .00C HD. .00C HE. .00C HF. .00C HG. .00C HH. .00C HI. .00C HJ. .00C HK. .00C HL. .00C HM. .00C HN. .00C HO. .00C HP. .00C HQ. .00C HR. .00C HS. .00C HT. .00C HU. .00C HV. .00C HW. .00C HX. .00C HY. .00C HZ. .00C IA. .00C IB. .00C IC. .00C ID. .00C IE. .00C IF. .00C IG. .00C IH. .00C II. .00C IJ. .00C IK. .00C IL. .00C IM. .00C IN. .00C IO. .00C IP. .00C IQ. .00C IR. .00C IS. .00C IT. .00C IU. .00C IV. .00C IW. .00C IX. .00C IY. .00C IZ. .00C JA. .00C JB. .00C JC. .00C JD. .00C JE. .00C JF. .00C JG. .00C JH. .00C JI. .00C JJ. .00C JK. .00C JL. .00C JM. .00C JN. .00C JO. .00C JP. .00C JQ. .00C JR. .00C JS. .00C JT. .00C JU. .00C JV. .00C JW. .00C JX. .00C JY. .00C JZ. .00C KA. .00C KB. .00C KC. .00C KD. .00C KE. .00C KF. .00C KG. .00C KH. .00C KI. .00C KJ. .00C KL. .00C KM. .00C KN. .00C KO. .00C KP. .00C KQ. .00C KR. .00C KS. .00C KT. .00C KU. .00C KV. .00C KW. .00C KX. .00C KY. .00C KZ. .00C LA. .00C LB. .00C LC. .00C LD. .00C LE. .00C LF. .00C LG. .00C LH. .00C LI. .00C LJ. .00C LK. .00C LL. .00C LM. .00C LN. .00C LO. .00C LP. .00C LQ. .00C LR. .00C LS. .00C LT. .00C LU. .00C LV. .00C LW. .00C LX. .00C LY. .00C LZ. .00C MA. .00C MB. .00C MC. .00C MD. .00C ME. .00C MF. .00C MG. .00C MH. .00C MI. .00C MJ. .00C MK. .00C ML. .00C MN. .00C MO. .00C MP. .00C MQ. .00C MR. .00C MS. .00C MT. .00C MU. .00C MV. .00C MW. .00C MX. .00C MY. .00C MZ. .00C NA. .00C NB. .00C NC. .00C ND. .00C NE. .00C NF. .00C NG. .00C NH. .00C NI. .00C NJ. .00C NK. .00C NL. .00C NM. .00C NO. .00C NP. .00C NQ. .00C NR. .00C NS. .00C NT. .00C NU. .00C NV. .00C NW. .00C NX. .00C NY. .00C NZ. .00C OA. .00C OB. .00C OC. .00C OD. .00C OE. .00C OF. .00C OG. .00C OH. .00C OI. .00C OJ. .00C OK. .00C OL. .00C OM. .00C ON. .00C OO. .00C OP. .00C OQ. .00C OR. .00C OS. .00C OT. .00C OU. .00C OV. .00C OW. .00C OX. .00C OY. .00C OZ. .00C PA. .00C PB. .00C PC. .00C PD. .00C PE. .00C PF. .00C PG. .00C PH. .00C PI. .00C PJ. .00C PK. .00C PL. .00C PM. .00C PN. .00C PO. .00C PP. .00C PQ. .00C PR. .00C PS. .00C PT. .00C PU. .00C PV. .00C PW. .00C PX. .00C PY. .00C PZ. .00C QA. .00C QB. .00C QC. .00C QD. .00C QE. .00C QF. .00C QG. .00C QH. .00C QI. .00C QJ. .00C QK. .00C QL. .00C QM. .00C QN. .00C QO. .00C QP. .00C QQ. .00C QR. .00C QS. .00C QT. .00C QU. .00C QV. .00C QW. .00C QX. .00C QY. .00C QZ. .00C RA. .00C RB. .00C RC. .00C RD. .00C RE. .00C RF. .00C RG. .00C RH. .00C RI. .00C RJ. .00C RK. .00C RL. .00C RM. .00C RN. .00C RO. .00C RP. .00C RQ. .00C RR. .00C RS. .00C RT. .00C RU. .00C RV. .00C RW. .00C RX. .00C RY. .00C RZ. .00C SA. .00C SB. .00C SC. .00C SD. .00C SE. .00C SF. .00C SG. .00C SH. .00C SI. .00C SJ. .00C SK. .00C SL. .00C SM. .00C SN. .00C SO. .00C SP. .00C SQ. .00C SR. .00C SS. .00C ST. .00C SU. .00C SV. .00C SW. .00C SX. .00C SY. .00C SZ. .00C TA. .00C TB. .00C TC. .00C TD. .00C TE. .00C TF. .00C TG. .00C TH. .00C TI. .00C TJ. .00C TK. .00C TL. .00C TM. .00C TN. .00C TO. .00C TP. .00C TQ. .00C TR. .00C TS. .00C TU. .00C TV. .00C TW. .00C TX. .00C TY. .00C TZ. .00C UA. .00C UB. .00C UC. .00C UD. .00C UE. .00C UF. .00C UG. .00C UH. .00C UI. .00C UJ. .00C UK. .00C UL. .00C UM. .00C UN. .00C UO. .00C UP. .00C UQ. .00C UR. .00C US. .00C UT. .00C UU. .00C UV. .00C UW. .00C UX. .00C UY. .00C UZ. .00C VA. .00C VB. .00C VC. .00C VD. .00C VE. .00C VF. .00C VG. .00C VH. .00C VI. .00C VJ. .00C VK. .00C VL. .00C VM. .00C VN. .00C VO. .00C VP. .00C VQ. .00C VR. .00C VS. .00C VT. .00C VU. .00C VV. .00C VW. .00C VX. .00C VY. .00C VZ. .00C WA. .00C WB. .00C WC. .00C WD. .00C WE. .00C WF. .00C WG. .00C WH. .00C WI. .00C WJ. .00C WK. .00C WL. .00C WM. .00C WN. .00C WO. .00C WP. .00C WQ. .00C WR. .00C WS. .00C WT. .00C WU. .00C WV. .00C WW. .00C WX. .00C WY. .00C WZ. .00C XA. .00C XB. .00C XC. .00C XD. .00C XE. .00C XF. .00C XG. .00C XH. .00C XI. .00C XJ. .00C XK. .00C XL. .00C XM. .00C XN. .00C XO. .00C XP. .00C XQ. .00C XR. .00C XS. .00C XT. .00C XU. .00C XV. .00C XW. .00C XX. .00C XY. .00C XZ. .00C YA. .00C YB. .00C YC. .00C YD. .00C YE. .00C YF. .00C YG. .00C YH. .00C YI. .00C YJ. .00C YK. .00C YL. .00C YM. .00C YN. .00C YO. .00C YP. .00C YQ. .00C YR. .00C YS. .00C YT. .00C YU. .00C YV. .00C YW. .00C YX. .00C YY. .00C YZ. .00C ZA. .00C ZB. .00C ZC. .00C ZD. .00C ZE. .00C ZF. .00C ZG. .00C ZH. .00C ZI. .00C ZJ. .00C ZK. .00C ZL. .00C ZM. .00C ZN. .00C ZO. .00C ZP. .00C ZQ. .00C ZR. .00C ZS. .00C ZT. .00C ZU. .00C ZV. .00C ZW. .00C ZX. .00C ZY. .00C ZZ. .00C	A. 1500 B. None	1 2628 2 2516	1 11 1/2 2 13 1/2	1 16 1/2 2 10 1/2 3 27	F Plate is unacceptable, 1/4" & 1/8" crack at crossbar.			

IDENTIFICATION	ABOVE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						#	V/L	LOCATION OF R	CRACKING	
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PSE		F/S	L.L. S.L. C.B.	LOC. TYPE ART	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. BEVEL, ROOT FACE	B. DEPOSITION SIZE EL. 30. TYPE APP. V.	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	1. ROOT TYPE						
D. ARRON MANUFACTURER	D. DIM.	D. CORRECTION A	C. PLATE PREPARATION	2. BODY TYPE						
E. ELECTRODE SPEC.	E. PROCESS	E. POLARITY		3. CROWN TYPE						
F. ARRON FABRICATOR	F. BEAT TREATMENT			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE						
	TEMP. TIME QUENCH			B. REMARKS						
A. AD 7500	A. 1/2"	A. A II	A. 60° DV	A. Copper	A. None	1	2590	1" L	IMP I 3/4"	P
B. 7/8/43	B. R III	.07-.15C	B. 1/4"	B. 1. II 5/32" 1a 120 20	B. None	2	2518	2 1/2" L	IMP V 9 1/2"	Slag pockets scattered throughout legs.
C. TH 201	1.04Mn .16Si	.035S max	C. Grinding	2. & 3. 3/16" 2a 165 24		3	2537	1" R	IMP I 14 1/2"	
D. Jones & Laughlin	.017S .018P	.035P	C. Flame cutting	C. 9 1/2 hours 70°-170°F		4	2410	1 1/2" L	IMP I 9"	
E. Alloy Rods	.28C	3.5-4.5Mn		D. Grinding time 3 hours.					IMP I 1"	
F. Ternstedt Mfg. Division	D. Face 343	18.0-20.0Cr							IMP V 2 1/2"	
	E. B.O.H.	.75Si max							IMP V 40"	
	F. 1650°F 1 hr. water 850°F 1 1/2 hr. air	8.5-10.5Ni								
		1.25Mn max.								
		B. ATMOSPHERE								
		C. Lime								
		D. DC-REV								
A. AD 751	A. 1/2"	A. A II	A. 60° DV	A. Copper	A. None	1	2531	X	IMP I 11 1/2"	P
B. 7/8/43	B. R III	.14-.15C	B. 1/4"	B. 1. II 5/32" 1a 100 20	B. None	2	2406	1" R	IMP I 4 1/2"	Small fine crater cracks.
C. TH 200	1.04Mn .16Si	.01-.019S	C. Flame cutting	2. & 3. 3/16" 2a 180 25		3	1059	1" R	IMP V 4 1/2"	
D. Jones & Laughlin	.017S .018P	.01-.02P	C. Grinding	C. 7 hours 70°-100°F		4	1101	7/8" R	IMP V 5 1/2"	
E. McKay Company	.28C	4.0-4.20 Mn		D. Grinding time, none.					IMP V 26 1/2"	
F. Ternstedt Mfg. Division	D. Face 359	19.2-19.9Cr								
	E. B.O.H.	.32-.33Si								
	F. 1650°F 1 hr. water 850°F 1 1/2 hr. air	9.59-10.2Ni								
		.02-.09Mn								
		B. Atmosphere								
		C. Lime + Mn								
		D. DC-REV								

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS					REMARKS ON CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PROCESS F. BEAT TREATMENT G. BEAT TREATMENT H. TIME QUENCH	A. TYPE B. TRADE NAME C. CURRENT D. POLARITY	A. GROOVE INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. FLAME CUTTING E. GRINDING	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND P. C. ROOT TYPE D. BODY TYPE E. GROWN TYPE F. TOTAL WELDING TIME & INTER PASS TEMPERATURE G. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF B L.L. B.L. C.B.	CRACKING LOC. TYPE AMT	RADIOGRAPHIC RESULTS, ETC.		
A. AD 731 B. 7/8, 9/43 C. 200 D. Jones & Laughlin E. McKay Company F. Ternstedt G. Mfg. Div.	A. 1/2" B. F III C. 1.64Mn .16Si D. .017S .018P E. .29Mo F. Face 354 G. Back 356 H. B.O.H. I. 1650 F 1 hr. J. water K. 850 F 1 hr. L. air	A. A I B. 14-150 C. .01-.018 D. .01-.02P E. 4-0- F. 4-20Mn G. 19-2- H. 19-0-1 I. .03Si J. 8-59- K. 10-2-1 L. .02-.49Mo M. Air N. B. Air O. 1-1-1 P. 1-1-1 Q. 1-1-1 R. 1-1-1	A. 60° IV B. 1/4" C. Flame cutting D. Grinding	A. Copper B. 1. 1/2 5/32" 2a 120-140 C. 2 1/2 3/16" 2a 170-185 D. 7 hours 70°-80° F E. Grinding time none.	A. None B. None	1 2 3 4	2529 2532 1064 1053	14" R 7 1/2" D 5 1/2" U 9" R	IMP I 4 1/8" IMP I 2" 7/8" O I 7/8" IMP I 5 1/4" IMP V 3 5/8" IMP I 4 1/2" IMP V 5"	P 1/4" crack in crossbar.		
A. AD 731 B. 7/8, 9/43 C. 200 D. Jones & Laughlin E. Alloy Rods F. Ternstedt G. Mfg. Div.	A. 1/2" B. F III C. 1.64Mn .16Si D. .017S .018P E. .29Mo F. Face 352 G. Back 345 H. B.O.H. I. 1650 F 1 hr. J. water K. 850 F 1 hr. L. air	A. A II B. 14-150 C. .01-.018 D. .01-.02P E. 4-0- F. 4-20Mn G. 19-2- H. 19-0-1 I. .03Si J. 8-59- K. 10-2-1 L. .02-.49Mo M. Air N. B. Air O. 1-1-1 P. 1-1-1 Q. 1-1-1 R. 1-1-1	A. 60° IV B. 1/4" C. Flame cutting D. Grinding	A. Copper B. 1. 1/2 5/32" 2a 120-140 C. 2 1/2 3/16" 2a 170-185 D. 7 hours 70°-80° F E. Grinding time none.	A. None B. None	1 2	2521 2538	14" R 7 1/2" D 5 1/2" U 9" R	IMP I 15" IMP I 12 1/2" IMP V 3" IMP V 30 1/2"	P Small amount of slag and porosity.		

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SLAT	BALLISTIC RESULTS				REMARKS ON CRACKING	
						#	VEL. F/S	LOCATION OF #	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PRE						
B. DATE OF TEST	B. R III	B. TYPE	B. 1/4"	B. DEPOSITION SIZE EL. NO. TYPE AIR. V.	B. POST						
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. FLAME CUTTING	1. ROOT TYPE							
D. ANODE MANUFACTURER	D. DIM	D. CURRENT & POLARITY	C. PLATE PREPARATION	2. ROOT TYPE							
E. ELECTRODE MFG.	E. PROCESS			3. CROSS TYPE							
F. ANODE FABRICATOR	F. SLAT VENTILATION			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE							
	TEMP. TIME OSCILL			D. REMARKS							
A. AD 731	A. 1/2"	A. A II	A. 60° DV	A. Copper	A. None	1	12525	2 1/2" R	-	-	P
B. 7/6, 9/43	B. R III	.14C	B. 1/4"	B. 1. II 5/32" 2a 120-135	B. None	2	2538	7/8" L	IMP I	8"	Scattered slag and lack of fusion in legs.
C. 204	.0178 .018P	.025S	C. Flame cutting	20							
D. Jones & Laughlin	.28C	.035P	Grinding	2 & 3. I 3/16" 2a 165-170		3	2405	2" R	IMP V	3"	
E. Alloy Rods	D. Face 352	18.0-		C. 7 hours. 70°-120°F		4	1090		IMP I	2 1/2"	
F. Ternstedt Division	Back 347	19.5Cr		D. Grinding time none.					IMP I	4 1/2"	
	E. B. O. H.	.75S1				5	1061	1 1/2" R	IMP I	5 1/2"	
	F. 1650 F 1/2 hr. water	8.25-				6	1087		IMP V	1 1/2"	
	860 F 1 1/2 hr. air	10.25N1							IMP I	9 1/2"	
		Tr. Mo							IMP V	5 1/2"	
		B. Armature								5 1/2"	
		C. Lime									
		D. DC-REV									
A. AD 731	A. 1/2"	A. A I	A. 60° DV	A. Copper	A. None	1	2531	2 1/2" R	IMP I	2 1/2"	P
B. 7/6, 9/43	B. R III	.14C	B. 1/4"	B. 1. II 5/32" 2a 100-110	B. None	2	2400	X	IMP I	18"	Scattered slag, in crossbar.
C. 206	.0173 .018P	.025S	C. Flame cutting	15-17							
D. Jones & Laughlin	.28C	.04P	Grinding	2 & 3. I 3/16" 2a 165 20							
E. Hollup Corp.	C. .28C	4.24Mn		C. 8 hours. 70°-140°F							
F. Ternstedt Mfg. Division	D. Face 352	19.78Cr		D. Grinding time none.							
	Back 345	.51S1									
	E. B. O. H.	9.72N1									
	F. 1650 F 1/2 hr. water	.74Mo									
	860 F 1 1/2 hr. air	B. Armature									
		C. Lime									
		D. DC-REV									

IDENTIFICATION		ABSON DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FILING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	B. TRADE NAME	A. GROOVES INCLUDED	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PBE	H	VEL.	LOCATION OF H.	CRACKING	RADIOGRAPHIC RESULTS, ETC.			
C. PLATE NO.	D. ABSON MANUFACTURER	E. ELECTRODE MFG.	F. ABSON FABRICATOR	C. CARBON CONTENT	D. DIM.	C. COATING	C. PLATE PREPARATION	1. ROOT TYPE	2. 50% TYPE	3. 50% TYPE	F/S	L.L. R.L. C.B.	LOC.	TYPE	AMT		
C. TOTAL WELDING TIME & INTER PASS TEMPERATURE																	
D. REMARKS																	
A. AD 751	B. 7/8, 9/43	C. 206	D. Jones & Laughlin	E. McKay Company	F. Ternstedt Mfg. Division	A. A I	A. 60° DV	A. Copper	A. None	1	2531	X	IMP	I 1 1/4"	P		
						.14-.15C	B. 1/4"	1. II 5/32" 2a 100-120	B. None	2	2406	1" R	5" U	-	Small fine crater cracks		
						.01-.018S	C. Flame cutting	2. & 3. I 3/16" 2a 180		3	1059	1" R	8 1/2" D	IMP	4 1/2"		
						.017S .018P	C. Grinding	C. 7 hours. 70°-100°F		4	1101	7/8" R	4 1/2" U	IMP	2 1/2"		
						.28Mo		D. Grinding time none.					IMP	V 5 1/2"			
						19.2-											
						26C											
						Back 341											
						E. B.O.H.											
						F. 1650 F 1 1/2 hr.											
						water											
						850 F 1 1/2											
						hours air											

[illegible]

IDENTIFICATION	ABRAS DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
						A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	1. BODY TYPE	2. CROWN TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ABNOM MANUFACTURER E. ELECTRODE SPEC. F. ABNOM FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. HARDENING E. PROCESS F. RELAY TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. C. ROOT TYPE D. CROWN TYPE E. TOTAL WELDING TIME & INTER PASS TEMPERATURE F. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF H. L.L. R.L. C.B.	CRACKING LOC. TYPE AMT	RADIOGRAPHIC RESULTS, ETC.	
A. AD 925 B. 10/9/43 C. L 61 D. Republic Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 7/8" B. I C. 1.01Mn .57Si .016S .014P .25Cr .48Ni .11Mo C. .33C D. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs water 860 F 3 hrs. air	A. A I .10C 3.80Mn .24Si .012S .031P 19.41Cr 9.11Ni .61Mo B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. B. 1. & 2. & 3. I 1/4" 2a 235 28 C. 26.75 minutes 75°-100°F D. Grinding time 7 minutes.	A. None B. None	1 2	2033 2036	1" L 5" U	- -	P	
A. AD 925 B. 10/9/43 C. L 62 D. Republic Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 3/8" B. R I C. 1.02Mn .48Si .016S .012P .26Cr .50Ni .12Mo C. .33C D. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs water 860 F 3 hrs. air	A. A I .10C 3.80Mn .24Si .012S .031P 19.41Cr 9.11Ni .61Mo B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. B. 1. & 2. & 3. I 1/4" 2a 230 28 C. 29.67 minutes 80°-115°F D. Grinding time 6 1/2 min.	A. None B. None	1 2	2024 2040	X 4 1/2" 5 1/2" U	- IMP I 11"	P	
A. A 12869 B. 3/13/44 C. F 50 D. Republic Steel Corp. E. Crucible Steel Co. F. Buick Motor Division	A. 3/8" B. R I C. 1.02Mn .24Si .022S .014P .46Cr .42Ni .13Mo C. .33C D. Face 388 Back 388 E. B.O.H. F. 1650 F 2 hrs water 860 F 3 hrs. water	A. A I .10C 4.08Mn .46Si .026S .036P 20.1Cr 10.4Ni 1.25Mo B. Armox C. Titanium D. ---	A. 60° DV B. 3/16" C. Flame cutting	A. B. 1. I 5/32" 1a 105 20 2. & 3. I 1/4" 2a 195 26 C. 5 1/2 hours 70°-140°F D. Grinding time 1 hour	A. None B. None	6 7	2019 2018	1 1/2" L 7 1/2" R	IMP I 14 1/2" IMP V 5 1/8" IMP I 22 1/2" IMP V 1 1/8"	P 38-2/3"	

78.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS				REMARKS ON CRACKING		
A. TIGING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR		A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. MNR E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH		A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY		A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION		A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS		A. PRE B. POST		F/S		VEL. LOCATION OF E		CRACKING		RADIOGRAPHIC RESULTS, ETC.		
A. AD 865 B. 8/27/47 C. 149 D. Great Lakes E. Weld-A-Very F. McKay Company G. Cadillac Motor Car Division		A. 3/8" B. P IV C. .0035 D. .0035 E. .0035 F. .0035 G. .0035 H. .0035 I. .0035 J. .0035 K. .0035 L. .0035 M. .0035 N. .0035 O. .0035 P. .0035 Q. .0035 R. .0035 S. .0035 T. .0035 U. .0035 V. .0035 W. .0035 X. .0035 Y. .0035 Z. .0035		Weld-A-Very A. A I B. 14C C. 3.6mm D. 2481 E. .010F F. .005P G. 18.720T H. 10.20N1 I. .76MO J. .120 K. .120 L. .120 M. .120 N. .120 O. .120 P. .120 Q. .120 R. .120 S. .120 T. .120 U. .120 V. .120 W. .120 X. .120 Y. .120 Z. .120		A. 80° LV B. 3/16" C. Flame cutting D. Grinding		A. B. 1. 8 2 C. 1 5/32" 2A 135 PS 3. 11 5/32" 4b 135 PS 3. 11 5/32" 2b 135 PS D. 147.10 minutes, 70°-195° E. Grinding time 89.38 minutes. F. Weld re-inforcements ground off.		A. None B. None		1		1990		14" L		IMP I 1 1/8"		F Small amount of porosity and slag scattered throughout the weld.
										2		2025		X		IMP I 1 1/8"				
										3		2009		2 1/2" L		-				
																17 1/2"				

79.

IDENTIFICATION	ANOD DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS	REMARKS ON CRACKING
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANION MANUFACTURER E. ELECTRODE SIZES F. ANION FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SPS E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL. F/S LOC. C.B. L.L. R.L. CRACKING TYPE	RADIOGRAPHIC RESULTS, ETC.
A. AD 768 B. 7/29/43 C. XV 206 F D. E. C. Atkins E. Lincoln Elec. F. Chevrolet Motor Co.	A. 3/8" B. R IV C. .0086 D. .014P E. .65Cr .58Ni F. .27Mo G. Face 321 H. Back 321 I. Elec Basic J. 1645 F 15 min water K. 1100 F 2 hrs. air	A. A II B. .00C C. 4.80Mn D. .78S1 E. .011S F. .010P G. 20.2Cr H. 9.7Ni I. ARW-1 J. B. Titanla K. DC-REV	A. 60° DV B. 3/16" C. Grinding	A. B. 1. I 5/32" 1a 110-140 23-24 2. & 3. 1/4" 2a 190-250 26-28 C. 8 hours. 80°-120°F D. Peen #1 pass.	A. None B. None	1 2009 2 2001 3 2013 4 2034	15 1/2" L 7/8" L 13" D 14 1/2" L 14 1/2" U 14 1/2" U	F 1-5/8" weld cracking in cross-bar; several crater cracks.
A. A 12594 B. 2/25/44 C. 228 D. Chevrolet E. Cracible Steel Co. F. Chevrolet Motor Co.	A. 3/8" B. R IV C. .0086 D. .014P E. .65Cr .58Ni F. .27Mo G. Face 321 H. Back 321 I. Elec Basic J. 1645 F 15 min water K. 1100 F 2 hrs. air	A. A I B. .10C C. 4.08Mn D. .48S1 E. .026S F. .036P G. 20.1Cr H. 10.4Ni I. 1.25Mo J. B. Armotize Mn K. Titanla L. DC-REV	A. 60° DV B. 3/16" C. Flame cutting Grinding	A. B. 1. I 5/32" 1a 110 18 2. & 3. 1/4" 2a 170-190 26 C. 6 hours. 70°-110°F D. ---	A. None B. None	12 2010 13 2032 14 1898	5 9/16" L 8 1/2" D 10 1/2" U 10 1/2" U 14 1/2" U 14 1/2" U	P
A. A 12594 B. 2/25/44 C. 228 D. Chevrolet E. Cracible Steel Co. F. Chevrolet Motor Co.	A. 3/8" B. R IV C. .0086 D. .014P E. .65Cr .58Ni F. .27Mo G. Face 321 H. Back 321 I. Elec Basic J. 1645 F 15 min water K. 1100 F 2 hrs. air	A. A I B. .10C C. 4.08Mn D. .48S1 E. .026S F. .036P G. 20.1Cr H. 10.4Ni I. 1.25Mo J. B. Armotize Mn K. Titanla L. DC-REV	A. 60° DV B. 3/16" C. Flame cutting Grinding	A. B. 1. I 5/32" 1a 110 20 2. & 3. 1/4" 2a 200 26 C. 6 hours. 70°-120°F D. ---	A. None B. None	15 1904 16 2023 17 2009	13 9/16" L 10 1/2" D 10 1/2" L 10 1/2" L 9 1/2" D 9 1/2" D 17 1/2" I 35 1/2" I	P

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS	REMARKS ON CRACKING
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SWE E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	A. PRE B. POST	A. PRE B. POST	A. PRE B. POST
A. AD 375 B. 4/23/43 C. IN 192 F D. E. C. Atkins E. Lincoln Elec. F. Chevrolet Motor Co.	A. 3/8" B. R IV C. .80% .98S1 D. .0066 .014P E. .65Cr .55Ni F. .27% G. .27C H. Face 321-340 I. Back 321-340 J. B.O.H. K. 1445 F 15 min water L. 1100 F 2 hrs air	A. A II B. .06C C. 4.85% D. .78S1 E. .011S F. .010P G. .20.2Cr H. 9.7Ni I. ARW-1 J. Titania K. DC-REV	A. 60° DV B. Grinding	A. None B. None C. 1. I 5/32" 1a 110-140 24-25 2. & 3. I 1/4" 2a 190-250 26-28 C. 5 hours. 70°-100° F D. Peen #1 pass.	A. None B. None	A. None B. None	A. None B. None	F Intermittent incomplete fusion throughout. Plate is not acceptable for soundness due to excessive cracking and incomplete fusion.
A. AD 472 B. 6/17/43 C. IN 207 F D. E. C. Atkins E. Lincoln Elec. F. Chevrolet Motor Co.	A. 2/8" B. R IV C. .80% .98S1 D. .0066 .014P E. .65Cr .55Ni F. .27% G. .27C H. Face 321-331 I. Back 321-331 J. Electrolytic K. 1445 F 15 min water L. 1100 F 2 hrs air	A. A II B. .06C C. 4.85% D. .78S1 E. .011S F. .010P G. .20.2Cr H. 9.7Ni I. ARW-1 J. Titania K. DC-REV	A. 60° DV B. 3/16" C. Grinding	A. None B. 1. I 5/32" 1a 110-140 24-25 2. & 3. I 1/4" 2a 190-250 26-28 C. 6 hours. 80°-130° F D. Peen #1 pass.	A. None B. None	A. None B. None	A. None B. None	F Crater crack, 3/4" incomplete fusion in crossbar.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SLAT	BALLISTIC RESULTS					REMARKS ON CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE INFO. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. S.W. E. PROCESS F. SLAT TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. T. C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	V/L	LOC. OF H	CRACKING	RADIOGRAPHIC RESULTS, ETC.			
A. AD 400 B. 4/21/43 C. 3 D. Youngstown Sheet & Tube Company E. Lincoln Elec. F. Deere & Co.	A. 3/8" B. R 111 1.54% .20S1 .028 .015P .030Cr .30% C. .23C D. Face 331-352 E. Back 331-352 F. 1425 F 1 1/2 hr. water 960 F 1 1/2 hr. air	A. A 1 .12C 4.00Mn .60Si 20.5Cr 9.5Ni .08Mo B. Armoweld C. Lime D. DC-REV	A. 45° SV B. 3/16" C. Machined	A. Copper B. 1. I 5/32" 1a 145 24 2. & 3. I 1/4" 1a 210 28 Seal bead- 3/16" 1a 180 26 C. 3 hours. 80°-170°F D. Grinding time 1 1/2 hours only to clean slag and spatter.	A. None B. None	1 2 3 4 5	2100 2100 2100 2100 2100	X 1 1/2" R 1 1/2" R 2 1/2" L 1 1/2" R	6" U 4" D 2 1/2" U 9 1/2" D 1 1/2" U	- - IMP IMP IMP	- - I 2 1/2" I 8 1/2" I 2 1/2" I 3 1/2" 17 1/2"	P
A. AD 400 B. 4/21/43 C. 4 D. Youngstown Sheet & Tube Company E. Crucible Steel Co. F. Deere & Co.	A. 3/8" B. R 111 1.54% .20S1 .028 .015P .030Cr .30% C. .23C D. Face 331-352 E. Back 331-352 F. 1425 F 1 1/2 hr. water 960 F 1 1/2 hr. air	A. A 1 .11C 1.98Mn .18Si 18.8Cr 10.2Ni .67Mo B. Armoweld C. Pezistal D. Titania E. DC-REV	A. 45° SV B. 3/16" C. Machined	A. Copper B. 1. I 5/32" 1a 145 24 2. & 3. I 1/4" 1a 210 28 Seal bead- 3/16" 1a 180 26 C. 4 hours. 80°-170°F D. Grinding time 1 1/2 hours. only to clean slag and spatter.	A. None B. None	1 2 3	2100 2100 2100	1 1/2" R 3 3/8" L 1" R	5 1/2" U 3 3/8" D 6 1/2" U	IMP - - - 2"	I 2" - - - 2"	P
A. AD 712 B. 6/26/43 C. 7 D. Jones & Laughlin Steel Company E. Arcos Corp. F. Deere & Co.	A. 3/8" B. R 111 1.72% .26S1 .018 .015P .040Mo C. .28C D. Face 341 E. Back 343 F. 1460 F 1 1/2 hr. water 965 F 2 hrs. air	A. A 1 .10C 3.54Mn .34Si 18.7Cr 9.33Ni .54Mo B. Arcos C. Chromalox D. DC-REV	A. 45° SV B. 3/16" C. Machined	A. Copper B. 1. I 5/32" 1a 120 25 2. & 3. I 1/4" 1a 210 29 Seal bead- 3/16" 1a 180 27 C. 3 hours. 80°-170°F D. Grinding time 3 hours.	A. None B. None	1 2 3	2012 2002 2110	1 1/2" L 4" R 1 1/2" R	6 1/2" U 8" D 7" U	IMP IMP IMP	I 12 1/2" I 2 1/2" I 15" 30"	P

83.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS			REMARKS ON CRACKING
						A. BACKING	A. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE B. POST	
A. PLATE THICKNESS	A. TYPE	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PRE	1. ROOT TYPE	1. ROOT TYPE	A. PRE	RADIOGRAPHIC RESULTS, ETC.
B. DATE OF TEST	B. TYPE	B. TYPE	B. GROOVE, INCLUDED	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	B. POST	2. & 3.	2. & 3.	B. POST	
C. PLATE NO.	C. CARBON CONTENT	C. CARBON CONTENT	C. MACHINED	C. MACHINED		3. CROW'S TYPE	3. CROW'S TYPE		
D. JONES & Laughlin	D. .025 .02P	D. .025 .02P	D. MACHINED	D. MACHINED		C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE		
E. A.O. Smith Corp.	E. .31C	E. .31C	E. MACHINED	E. MACHINED		B. REMARKS	B. REMARKS		
F. Deere & Company	F. 1600 F 1 1/2 hr. water	F. 1600 F 1 1/2 hr. water	F. MACHINED	F. MACHINED					
A. AD 712	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None				P
B. 6/26/43	B. R III	B. .08C	B. 3/16"	B. 1. I 5/32" 1a 130 26	B. None				Small amount of slag and porosity.
C. 9	C. .025 .02P	C. .36S1	C. Machined	C. 2. & 3. I 1/4" 1a 230 29					
D. Jones & Laughlin	D. .40Mo	D. 19.0Cr		Seal bead- 2/16" 1a 190 27					
E. A.O. Smith Corp.	E. .31C	E. 10.0M1		C. 3 hours. 90°-170° F					
F. Deere & Company	F. 1600 F 1 1/2 hr. water	F. 1600 F 1 1/2 hr. water		D. Grinding time 2 hours.					
A. AD 712	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None				P
B. 6/26/43	B. R III	B. .08C	B. 3/16"	B. 1. I 5/32" 1a 130 26	B. None				Small amount of slag in legs.
C. 10	C. .025 .02P	C. .36S1	C. Machined	C. 2. & 3. I 1/4" 1a 230 29					Large amount of porosity in x-bar.
D. Youngstown Sheet & Tube Co.	D. .50Mo	D. 19.0Cr		Seal bead- 3/16" 1a 190 27					
E. A.O. Smith Corp.	E. .31C	E. 10.0M1		C. 3 hours. 90°-170° F					
F. Deere & Company	F. 1600 F 1 1/2 hr. water	F. 1600 F 1 1/2 hr. water		D. Grinding time 2 hours.					
A. AD 728	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None				F
B. 7/6.8.9/43	B. R III	B. .14C	B. 3/16"	B. 1. I 5/32" 1a 145 28	B. None				Plate is unacceptable due to excessive amount of incomplete fusion in crossbar.
C. 5	C. .016S .015P	C. .31S1	C. Machined	C. 2. & 3. I 1/4" 1a 230 30					
D. Jones & Laughlin	D. .40Mo	D. 20.0Cr		Seal bead- 3/16" 1a 180 28					
E. Crucible Steel Co.	E. .28C	E. 9.8M1		C. 3 hours. 90°-170° F					
F. Deere & Company	F. 1650 F 1 1/2 hr. water	F. 1650 F 1 1/2 hr. water		D. Grinding time 3 hours.					

IDENTIFICATION	ABOVE DATA	ELECTRONIC DATA	JOINT DESIGN	WELDING	PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS OR CRACKING
							#	VEL.	LOCATION OF #	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANNEAL MANUFACTURER E. ELECTRONIC INFO. F. ABOVE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. BHN E. PRACICE F. TAY TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ASP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. SEAMER	A. PRE B. POST						
A. AD 776 B. 8/3/43 C. 11 D. Jones & Laughlin Youngstown Sheet & Tube Co. E. Crucible Steel Co. F. Deere & Co.	A. 3/8" B. R 111 J&L 1.72% .2651 C. .0163 .018P D. .28C E. Face 352 Back 341 F. B.O.H. 1450 F 1 hr. water 880 F 2 hrs. air	A. A 1 .14C 4.35% 3181 20.0CT 9.8N1 .63% B. Rezinata C. Armotize D. DC-REV	A. 45° SV B. 3/16" C. Machined	A. Copper B. 1. I 5/32" 1a 145 26 2. & 3. I 1/4" 1a 230 30 Seal bead- 3/16" 1a 180 28 C. 2 hours 90°-170°F D. Grinding time 4 hours.	A. None B. None	1	2127	1/2" L	64" U	IMP I 26 1/2" IMP V 1 1/4" - - - 28 1/2"	P
A. A 1082H B. 11/16/43 C. 13 D. Jones & Laughlin Youngstown Sheet & Tube Co. E. Crucible Steel Co. F. Deere & Co.	A. 3/8" B. R 111 J&L 1.43% .2051 C. .0198 .012P D. .25C E. Face 341 Back 341 F. B.O.H. 1600 F 1 hr. water 880 F air	A. A 1 .11C 4.18% 3181 19.16CT 9.32N1 .73% B. Rezinata Armotize (new type) C. Titania D. DC-REV	A. 45° SV B. 3/16" C. Machined	A. Copper B. 1. I 5/32" 1a 135 26 2. & 3. I 1/4" 1a 230 30 Seal bead- 3/16" 1a 170 28 C. 2 1/2 hours 80°-170°F D. Grinding time 3 1/2 hours.	A. None B. None	1	1883 1/2"	1/2" L	7 1/2" U	IMP I 5 1/2" IMP V 13 1/2" IMP I 4 1/2" IMP V 1" 23 1/2"	P

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SLAT	BALLISTIC RESULTS				REMARKS ON CRACKING
A. FILING BEHIND NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. END E. PROCESS F. SLAT TREATMENT TEMP. TIME ORCH	A. TYPE B. TRADING NAME C. CHITING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE REP. V. 1. ROOT TYPE 2. ROOT TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL.	LOCATION OF B L.L. S.L. C.B.	LOC.	TYPE ART	RADIOGRAPHIC RESULTS, ETC.
A. A 10028 B. 11/16/43 C. 14 D. Jones & Laughlin Youngstown Sheet & Tube Co. E. Arcos Corp. F. Deere & Company	A. 3/8" B. R 111 J&L 1.43Mn .2081 .024S .014P .28% C. .25C D. Face 341 Back 341 E. B.O.H. F. 1600 F 2 hr. water 775 F 2 1/2 hr. water	A. A 1 .10C 3.66Mn .34S1 18.71Cr 9.36Ni .54Mo B. Arcos C. Chroming D. DC-REV	A. 45° SV B. 3/16° C. Machined	A. Copper B. 1. I 5/32" 1a 135 26 2. & 3. 1/4" 1a 230 30 Seal bead- 3/16" 1a 170 28 C. 2 1/2 hours. 80°-170° F D. Grinding time 3 1/2 hours.	A. None B. None	1	2077	X	5° U IMP	I 36°	P
	A. 3/8" B. R 111 YS&T 1.72Mn .2081 .024S .014P .28% C. .25C D. Face 341 Back 341 E. B.O.H. F. 1600 F 2 hr. water 900 F 1 hr. water										

86.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAL	BALLISTIC RESULTS				REMARKS OR CRACKING
						A. PRE B. POST	VEL. F/S	LOCATION OF H L.L. M.L. C.B.	CRACKING LOC. TYPE ART	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DIM E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ARP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS						
A. AD 460 B. 6/8/43 C. W-157 D. Ford Motor Co. E. ARCO CORP. F. Ford Motor Co.	A. 3/8" B. R II 1.27% Mn .24% Si .02% S .021% P .52% Cr .06% Ni .40% Mo .27% C D. Face 321 E. Back 321 F. 1650 F 3 hrs. water 1020 F 3 hrs. air	A. A II .09C 3.26 Mn .26 Si .009 S .042 P 18.5 Cr 8.9 Ni B. Chromang C. Titania D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 165 22 2. & 3. I 1/4" 1a 290 22 Seal bead- 3/16" 1a 215 22 C. 1 1/2 hours 187°-223° F D. Grinding time 1 hour.	A. None B. None	1 2	2153 2045	6" D 6 1/2" U 15" I		P Welds are sound.
A. AD 460 B. 6/8/43 C. W-160 D. Ford Motor Co. E. ARCO CORP. F. Ford Motor Co.	A. 3/8" B. R II 1.36% Mn .24% Si .02% S .018% P .009 S .45% Mo .29% C D. Face 363 E. Back 363 F. 1650 F 2 1/2 hrs. water 975 F 4 1/2 hrs. air	A. A I .09C 3.26 Mn .26 Si .009 S .042 P 16.6 Cr 9.7 Ni .59% Mo B. Chromang C. Titania D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 165 22 2. & 3. I 3/16" 1a 210 22 Seal bead- 3/16" 1a 210 22 C. 1.5 hours. 137°-200° F D. Grinding time 2 hours 5 min.	A. None B. None	1 2 3	2077 2131 2028	6" D 8 1/2" U 1" R 1" R 5" I 23" I		P Welds are sound.
A. AD 459 B. 6/8/43 C. W-210 D. Ford Motor Co. E. Lincoln Elec. F. Ford Motor Co.	A. 3/8" B. R II 1.36% Mn .30% Si .02% S .019% P .51% Cr .42% Mo .27% C D. Face 331 E. Back 331 F. 1650 F 4 1/2 hrs. water 965 F 3 hrs. air	A. A II .09C 4.38 Mn .63% Si 17. Cr 10.4 Ni .06% Mo B. AR W 3 C. Line D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting	A. Copper B. 1. I 3/16" 1a 175 29 2. & 3. I 3/16" 1a 175 29 Seal bead- 3/16" 1a 175 29 C. 5 hours. 200° F D. Grinding time 1 hour.	A. None B. None	1 2 3 4	2008 2029 1051 2123	1" R 5 1/2" U 6 1/2" D 8" U X 10 1/2" I 20" I 1 1/2" I 42" I		P Welds are sound.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		WALL THICKNESS RESULTS					REMARKS ON CRACKING																	
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE INFO.	F. ANODE FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT A	E. POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AND V.	1. ROOT TYPE	2. BODY TYPE	3. GROW TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	A. PRE	B. POST	#	VEL.	LOCATION OF E	CRACKING	RADIOGRAPHIC RESULTS, ETC.									
A. AD 469	B. 6/8/43	C. W-211	D. Ford Motor Co.	E. Lincoln Elec-	F. Ford Motor Co.	A. A II	.08C	4.38% .019P	.61Cr .42Mo	.27C	Face 331	Back 331	B.O.H.	F. 1650 F 4 1/2 hrs. water	A. 45° SV	B. 3/16"	C. Flame cutting	A. Copper	1. I 3/16" 1a 175 29	2. & 3. I 3/16" 1a 175 29	Seal bead- 5/32" 1a 135 25	C. 5 hours. 200° F	D. Chipping time 1 hour.	A. None	B. None	1	2017	1" R	3 1/2" D	IMP I 8 1/2"	IMP V 5 1/2"	-	-	-	-	P Welds are sound.
A. AD 470	B. 6/17/43	C. W-212	D. Ford Motor Co.	E. Alloy Rods Co.	F. Ford Motor Co.	A. A II	.14C	3.7% .0681	.025S .035P	.19Cr	9.25Ni	Alloy	Manganese	D. DC-REV	A. 45° SV	B. 1/4"	C. Flame cutting	A. Copper	1. I 3/16" 1a 170 28	2. & 3. I 1/4" 1a 245 30	Seal bead- 3/16" 1a 170 28	C. 5 hours. 160°-190° F	D. Chipping and grinding time 2 hours.	A. None	B. None	1	2100 est.	1" L	5 1/2" D	IMP I 8"	IMP I 18"	7 1/2" U	1" L	P Weld is sound. Small amount of slag.		

88.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						#	VEL.	LOCATION OF B.	CRACKING	
A. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. PSE		F/S	L.L. S.L. C.B.	TYPE ANT	
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE	1. DEPOSITION SIZE EL. NO. TYPE AND V.	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. CHATING	C. PLATE PREPARATION	2. ROOT TYPE						
D. ANODE MANUFACTURER	D. RES	D. CURRENT		3. CROWN TYPE						
E. ELECTRODE FLOW	E. FLOW	E. POLARITY		C. TOTAL WELDING TIME A INTER PASS TEMPERATURE						
F. ANODE FABRICATOR	F. TEMP. TIME QUENCH			B. SCALES						
A. AD 470	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None	1	2022	4" R	I 13"	P
B. 6/17/43	B. R II	.11C	B. 1/4"	B. 1. I 3/16" 1a 180 25	B. None	2	20181"	6" U	I 15"	
C. W-213	.020S .012P	1.65Mn	C. Flame cutting	2. I 1/4" 1a 300 28						
D. Ford Motor Co.	.54Cr .08Ni	18.4Cr		Seal bead-						
E. Harmschreger Corp.	.41Mo	9.71Ni		5/32" 1a 155 18						
F. Ford Motor Co.	C. .27C	B. P & H		C. 5 hours. 190°-200° F						
	D. Face 341	C. Line		D. Grinding and chipping time						
	E. B.O.H.	D. DC-REV		2 hours.						
	F. 1650° F 2 1/2 hrs. water									
	965° F 3 hrs. air									
A. AD 471	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None	1	2013	2 1/2" R	-	P
B. 6/17/43	B. R II	.12C	B. 3/16"-1/4"	B. 1. II 5/32" 2b 130 25	B. None	2	20142"	5" D	-	Weld is sound. Small amount of slag.
C. SCN4-24	1.38Mn .27Si	1.76Mn	C. Sheared	2. II 3/16" 2b 180 25						
D. Ford Motor Co.	.020S .021P	.19S	C. Grinding	3. III 3/16" 5b 180 25						
E. Crucible Steel Co.	.53Cr .08Ni	18.68Cr		Four Seal beads-						
F. Ford Motor Co.	.41Mo	10.48Ni		3/16" 4b 180 25						
	C. .26C	B. Resistal		C. 9 1/2 hours. 98°-162° F						
	D. Face 341	Armortized		D. Vertical position of plate						
	E. Back 341	#14		Horizontal welding in butt						
	F. 1575° F 45 min water	C. Titania								
	980° F 1 hr. air	D. DC-REV								
A. AD 702	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. None	1	2098	4" L	-	P
B. 6/22/43	B. R II	.12C	B. 1/8"-1/4"	B. 1. I 5/32" 1a 130 25	B. None	2	2143 1 1/2"	7 1/2" D	-	Weld is sound. Small amount of porosity.
C. SCN4-25	1.38Mn .27Si	1.76Mn	C. Sheared	2. I 3/16" 1a 175 25						
D. Ford Motor Co.	.020S .021P	.19S	C. Grinding	3. I 1/4" 1a 220 25						
E. Crucible Steel Co.	.53Cr .41Mo	18.68Cr		Seal bead-						
F. Ford Motor Co.	C. .26C	10.48Ni		1/4" 1a 220 25						
	D. Face 341	2.28Ni		C. 5 hours. 82°-122° F						
	E. Back 341	Armortized		D.						
	F. 1575° F 45 min water	#14								
	960° F 1 hr. air	C. Titania								
		D. DC-REV								

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	#	VEL.	LOCATION OF N	CRACKING	REMARKS ON CRACKING
A. FISHING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SUB E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		F/A	L.L. R.L. C.B. LOC.	TYPE AM	RADIOGRAPHIC RESULTS, ETC.
A. AD 740 B. 7/13/43 C. W 164 D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.	A. 3/8" B. R II C. 1.38% .28S1 D. .021S .024P E. .55Cr .07N1 F. .36Mo .62Mo G. Face 341 H. Back 341 I. B.O.H. 2 hrs. J. 1650 F 2 hrs. K. water L. 945 F 2 1/2 hrs. M. air	A. A I B. 3.85Hn C. .091C D. .43S1 E. 19.06Cr F. 9.34Ni G. .62Mo H. Chromang I. C. Titania D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting D. Grinding	A. None B. 1. II 5/32" 2b 130 22 2. & 3. I 3/16" 1a 215 23 Seal bead- 3/16" 1a 220 23 C. 2 hours. 163°-234° F D. Grinding time 44 minutes.	A. None B. None	1 2 3	12002 2011 2014	2" L 1 1/2" L 4" R	5 1/2" U 8 1/2" D 8 1/2" D IMP I 17 1/2 IMP I 24 IMP V 15 56 1/2	P
A. AD 740 B. 7/13/43 C. W 169 D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.	A. 3/8" B. R II C. 1.18% .28S1 D. .020P .020S E. .62Cr .08N1 F. .41Mo .62Mo G. Face 352 H. Back 352 I. B.O.H. 2 hrs. J. 1650 F 2 hrs. K. water L. 945 F 2 1/2 hrs. M. air	A. A I B. .091C C. 3.85Hn D. .43S1 E. 19.1Cr F. 9.34Ni G. .62Mo H. Chromang I. C. Titania D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting D. Grinding	A. None B. 1. I 5/32" 1a 140 22 2. & 3. I 3/16" 1a 200 24 Seal bead- 3/16" 1a 190 24 C. 2-1/2 hours. 192°-243° F D. Grinding time 2-1/3 hours.	A. None B. None	1 2 3 4	12117 1995 1 1/2 R 2009 3" L 2002	2 1/2" L 7 1/2" D 5" U 1 1/2" L	5 1/2" U 7 1/2" D 5" U 8" D IMP I 2 1/2 IMP I 4 1/2 IMP I 25 31 1/2	P
A. AD 747 B. 7/29/43 C. 36 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II C. 1.27% .28S1 D. .018S .024P E. .57Cr .11N1 F. .28C G. Face 331 H. Back 331 I. B.O.H. J. 1650 F 1 1/2 hrs. K. water L. 945 F 2 1/2 hrs. M. air	A. A I B. .10C C. 1.76Hn D. .24S1 E. .026S F. .021P G. 16.31Cr H. 8.78Ni I. .82Mo J. B. O.H. K. Armox L. Rezialtal M. C. Titania D. DC-REV	A. 90° SV B. 5/32" C. Flame cutting D. Grinding	A. None B. 1. I 3/16" 1a 130 23 2. II 3/16" 3b 160 23 3. II 3/16" 5b 160 23 3 Seal beads 3/16" 3b 160 23 C. 12 hours. 85°-160° F D. Grinding time 33 minutes- 24 seconds. Back of root bead ground out. Preheat 120° F at crossbar.	A. 120° F B. None	1 2 3	12089 2086 X 2030 1 1/2 L	2 1/2" L X 1 1/2" L	4 1/2" U 5 1/2" D 8 1/2" U IMP I 11 1/2 IMP I 17 1/2 28 1/2	P Welds are sound.

90.

[illegible]

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCESSES	SEAL	#	VEL.	LOCATION OF #	CRACKING	REMARKS ON CRACKING		
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SIZE E. PROCESS F. SEAL TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE CL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CORNER TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		F/S	L.L. S.L. C.B. LOC. TYPE AMT		RADIOGRAPHIC RESULTS, ETC.		
A. AD 916 B. 10/5/43 C. 76C D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II 1.23% .24Si .0188 .019P .56Cr .06Ni .34Mo .0013B C. .26C D. Face 341 Back 341 E. B.O.B. F. 1650 F 2 hrs. spray 950 F 2 1/2 hrs. air	A. A I 4.28% .10C .36Si 19.87Cr 9.53Ni .82Mo B. Resistant C. Titanium D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting Grinding	A. Copper B. 1. I 5/16" 1a 190 24 2. & 3. 1/4" 1a 250 25 Seal bead- 3/16" 1a 180 24 C. 4 1/2 hours. 70°-140° F D. Grinding time 1 hour. Step back method of weld sequence used. Back of root bead ground out.	A. None B. None	1 2 3 4	2086 2028 2145 2278	1 1/8" R 5 1/4" D 4 1/2" D 1 1/4" U	- - - IMP	- - - I 10"	P	
A. AD 927 B. 10/12/43 C. 80M4-44 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II 1.38% .27Si .0208 .021P .53Cr .41Mo .26C D. Face 362 Back 362 E. B.O.B. F. 1675 F 1 hr. spray 950 F 1 hr. air	A. A I 4.28% .36Si 18.74Cr 10.31Ni .98Mo .14C B. Armortized 19.9% C. Titanium D. DC-REV	A. 45° SV B. 1/8-1/4" C. Sheared Grinding	A. Copper B. 1. I 5/32" 1a 140 27 2. I 3/16" 1a 160 27 3. I 1/4" 1a 220 27 Seal bead- 1/4" 1a 220 27 C. 4 1/2 hours 93°-184° F D.	A. None B. None	1 2 3 4	1990 2007 2009 2030	1 1/8" R 5" D 2 1/4" L X	- IMP 0 0 0	- I 12" I 14" V 14" V 15"	P	
A. AD 927 B. 10/12/43 C. 80M4-60 D. Ford Motor Co. E. McKay Company F. Ford Motor Co.	A. 3/8" B. R II 1.38% .27Si .0208 .021P .53Cr .41Mo .26C D. Face 341 Back 341 E. B.O.B. F. 1675 F 45 min. spray 950 F 1 hr. air	A. A II .12C 4.60% .56Si .0188 .020P 19.20Cr 9.44Ni B. Armortized C. Lime D. DC-REV	A. 45° SV B. 1/8-1/4" C. Sheared Grinding	A. Copper B. 1. I 5/32" 1a 125 25 2. I 3/16" 1a 180 25 3. I 1/4" 1a 220 25 Seal bead- 1/4" 1a 220 25 C. 7 hours 71° F-99° F D.	A. None B. None	1 2	2074 2008	1 1/4" R 3 1/8" L	IMP IMP	I 11" V 32" I 7 1/2" I 2 1/2" V 8 1/2" IMP 33"	Moderate amount of slag.	
												92.

IDENTIFICATION	ABOVE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS OR CRACKING	
						#	VEL.	LOC. OF F.	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. FORD MOTOR CO. E. ELECTRODE MFG. F. ABOVE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. S&S E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		V/A	L.L. A.L. C.B. LOC.	TYPE 1ST		
A. AD 894 B. 9/20/43 C. SCN4-46 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II 1.38% .27S1 .0208 .021P .53Cr .08N1 .41Mo C. .26C D. Face 352 Back 352 E. B.O.H. F. 1675 F 45 min spray 950 F 1 hr. air	A. A I .11C 4.06% .28S1 19.84Cr 9.71Ni .98Mo B. Crucible Armored 19.8% C. Titania D. DC-REV	A. 45° SV B. 1/8-1/4" C. Sheared Grinding	A. Copper B. 1. I 5/32" 1a 120 25 2. I 3/16" 1a 185 25 3. I 1/4" 1a 200 25 Seal bead- 1/4" 1a 220 25 C. 8 hours. 70°-121°F D.	A. None B. None	1 2	2032 2018	1" L 1" L	64" U 24" D	I 12 1/2 - - 12 1/2	P Small amount of slag.
A. AD 908 B. 9/30/43 C. SCN4-47 D. Ford Motor Co. E. Reid-Avery Co. F. Ford Motor Co.	A. 3/8" B. R II 1.38% .27S1 .0208 .021P .53Cr .08N1 .41Mo C. .26C D. Face 352 Back 352 E. B.O.H. F. 1675 F 45 min spray 975 F 1 hr. air	A. A I 5.74% .42 19.38Cr 10.28Ni .58Mo B. Racolloy Arc 18-8 Mn mod C. Lime D. DC-REV	A. 45° SV B. 1/8-1/4" C. Sheared Grinding	A. Copper B. 1. I 5/32" 1a 120 25 2. I 3/16" 1a 180 25 3. I 1/4" 1a 200 25 Seal bead- 1/4" 1a 200 25 C. 8 hours. 80°-160°F D.	A. None B. None	1 2	2027 2019	1" X 1 1/2" L	7" U 3" D	- I 11"	P
A. AD 911 B. 9/30/43 C. 74C D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.	A. 3/8" B. R II 1.23% .24S1 .0185 .019P .56Cr .08N1 .34Mo .0013B C. .26C D. Face 341 Back 341 E. B.O.H. F. 1650 F 2 hr. spray 950 F 2 1/2 hr. air	A. A I .065C 3.78% .54S1 19.08Cr 9.95Ni .97Mo B. Chroming C. Lime D. DC-REV	A. 45° SV B. 3/16" C. Flame cutting Grinding	A. None B. 1. I 3/16" 1a 120 23 2. & 3. I 1/4" 1a 250 25 Seal bead- 3/16" 1a 170 24 C. 6 1/2 hours. 80°-180°F D. Grinding time 1 1/2 hours. Step back method of weld sequence used. Back of beads on root bead ground out.	A. None B. None	1 2 3 4	1982 1980 2017 2016	1" L 1" X 1 1/4" R 7/16" R	7 1/8" U 3 1/2" D 4 1/2" D 5 1/2" U	- I 1" - - - 1"	P

IDENTIFICATION	ANODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
					A. BACKING	PRE	LOC. OF B	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFR. F. ANODE FABRICATOR	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY E. BEAT TREATMENT F. BEAT TREATMENT G. TIME OVERHEAT	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. C. ROOT TYPE D. BEAT TYPE E. CROSS TYPE F. TOTAL WELDING TIME & INTER PASS TEMPERATURE G. REMARKS	A. PRE B. POST	1. 2008 2. 2017	1. 2008 2. 2017	1. 2008 2. 2017	1. 2008 2. 2017	1. 2008 2. 2017
A. 10901 B. 10/15/43 C. 98C D. Ford Motor Co. E. Ford Steel & Wire Co. F. Ford Motor Co.	A. 3/8" B. R II C. 1.23Mn .24Si .0198 .019P .50Cr .08Ni .34Mo .0013B .26C D. Face 34 Back 34 E. B.O.H. F. 1650 F 12 hrs. spray 950 F 24 hrs. air	A. 60° SV B. 3/16" cutting C. Grinding	A. Copper B. 1. 3/16" 1a 190 24 2. 3/16" 1a 210 24 3. 1/4" 1a 260-270 25 Seal bead- 3/16" 1a 190 24 C. 3 1/2 hours. 90°-160°F D. Grinding time 1 hour. Back step method of weld sequence used. Ground out back of beads-	A. None B. None	1 2008 2 2017	1 2008 2 2017	1 2008 2 2017	1 2008 2 2017	P
A. AD 951 B. 10/23/43 C. 98C D. Ford Motor Co. E. Reid-Avery Co. F. Ford Motor Co.	A. 3/8" B. R II C. 1.23Mn .24Si .0198 .019P .50Cr .08Ni .34Mo .0013B .26C D. Face 34 Back 34 E. B.O.H. F. 1650 F 12 hrs. spray 950 F 24 hrs. air	A. 45° SV B. 3/16" cutting C. Grinding	A. Copper B. 1. 3/16" 1a 140 24 2. 3/16" 1a 240 25 Seal bead- 3/16" 1a 180 25 C. 6 hours. 80-180°F D. Grinding time 1 1/2 hours. Step back method of weld sequence used. Back of beads ground out.	A. None B. None	1 2008 2 2017	1 2008 2 2017	1 2008 2 2017	1 2008 2 2017	P
A. AD 951 B. 10/23/43 C. 98C D. Ford Motor Co. E. Reid-Avery Co. F. Ford Motor Co.	A. 3/8" B. R II C. 1.47Mn .24Si .021S .019P .60Cr .08Ni .35Mo .0013B .27C D. Face 35 Back 35 E. B.O.H. F. 1650 F 12 hrs. spray 950 F 24 hrs. air	A. 45° SV B. 3/16" cutting C. Grinding	A. Copper B. 1. 3/16" 1a 180 24 2. 3/16" 1a 250 25 Seal bead- 3/16" 1a 180 24 C. 4 1/2 hours. 90°-180°F D. Grinding time 1 1/2 hours. Step back method of weld sequence used. Arc blow on all passes, back of beads ground out.	A. Yes B. None	1 2008 2 2006 3 1991 4 1996 5 2008	1 2008 2 2006 3 1991 4 1996 5 2008	1 2008 2 2006 3 1991 4 1996 5 2008	1 2008 2 2006 3 1991 4 1996 5 2008	P

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS	REMARKS ON CRACKING
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CATHODE CONTENT D. DIM. E. PROCESS F. BEST TREATMENT G. TEMP. TIME REQUIRED	A. TYPE B. TRODE NAME C. COATING D. CURRENT E. POLARITY	A. GROOVE, INCLUDED B. SINGLE, ROOT FACE C. PLATE PREPARATION	A. BECEILING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VEL. F/A	LOCATION OF CRACKING L.L. B.L. C.B. LOC. TYPE ORT	
A. AD 965 B. 11/2/43 C. W 244 D. Ford Motor Co. E. Alloy Rods Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 324m .2851 .0235 .010P .52CT .00N1 .31M0 .0013B C. .26C D. Face 331 Back 331 E. B.O.H. F. 1650 F 12 hr. spray 965 F 24 hrs. air	A. A I .11C 4.56m .6051 19.88CT 10.2N1 .98M0 B. Armotarc C. Line D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 150 23 2. I 5/32" 1a 150 23 3. II 5/32" 2b 150 23 Seal bead- 5/32" 1a 150 23 C. 2 hrs. 56 minutes 80°-150° F D. Grinding time 1 hr. 15 min.	A. None B. None	1 2037 2 2021 3 2027	4 1/2" R 6" U 5 1/2" D	P
A. AD 965 B. 11/2/43 C. W 265 D. Ford Motor Co. E. Lincoln Elec- tric Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 344m .2451 .0245 .018P .54CT .00N1 .31M0 .00131 C. .26C D. Face 331 Back 331 E. B.O.H. F. 1650 F 12 hr. spray 965 F 24 hrs. air	A. A II .11C 4.00m .5231 20.00CT 10.00N1 B. Armotarc C. Line D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting Grinding	A. Copper B. 1. I 5/32- 1a 150 23 2. I 5/32- 1a 150 23 3. II 5/32- 2b 150 23 Seal bead- 5/32- 1a 150 23 C. 3 hours. 80°-200° F D. Grinding time 1 hr. 40 min.	A. None B. None	1 2040 2 2030	X 5" D IMP I 16" 1 1/2" L 6" U IMP I 4 1/2" IMP V 10 1/2" 31"	P
A. AD 966 B. 11/2/43 C. W 276 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 344m .2451 .0245 .018P .56CT .00N1 .31M0 .0013B C. .26C D. Face 331 Back 331 E. B.O.H. F. 1650 F 12 hrs. spray 965 F 24 hrs. air	A. A I .15C 4.44m .2151 20.04CT 9.54N1 .82M0 B. Rezilal C. Titania D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting Grinding	A. Copper B. 1. I 3/16" 1a 175 23 2. I 1/4" 1a 250 23 3. I 1/4" 1a 240 23 Seal bead- 1/4" 1a 240 23 C. 2 hours 4 minutes 80°-140° F D. Grinding time 1 hour 7 mins.	A. None B. None	1 2020 2 2004 3 1987	1 1/2" R 6 1/2" U 1 1/2" R 5 1/2" D 1 1/2" L 5" U IMP I 25 1/2"	P

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SEAT	BALLISTIC RESULTS	REMARKS ON CRACKING			
A. FIBING CROSS NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SPS E. PROCESS F. SEAT TREATMENT G. TEMP. TIME OVERSE	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL. F/B	LOCATION OF R L.L. R.L. C.B. LOC. TYPE RPT	CRACKING		
A. AD 303 B. 5/6/43 C. 21 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R 11 1.38% .20S1 .021S .024P .55Cr .07Ni .30Mo C. .27C D. Face 341 Back 341 E. B.O.B. F. 1650 F 1 1/2 hr. water 5 965 F 2 1/2 hrs air	A. A 1 1.70% .10C C. Flame cutting Grinding B. Reziatal Armor C. Titania D. DC-REV	A. 60° SV B. 1/8" C. Flame cutting Grinding	A. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. AA. AB. AC. AD. AE. AF. AG. AH. AI. AJ. AK. AL. AM. AN. AO. AP. AQ. AR. AS. AT. AU. AV. AW. AX. AY. AZ. BA. BB. BC. BD. BE. BF. BG. BH. BI. BJ. BK. BL. BM. BN. BO. BP. BQ. BR. BS. BT. BU. BV. BW. BX. BY. BZ. CA. CB. CC. CD. CE. CF. CG. CH. CI. CJ. CK. CL. CM. CN. CO. CP. CQ. CR. CS. CT. CU. CV. CW. CX. CY. CZ. DA. DB. DC. DD. DE. DF. DG. DH. DI. DJ. DK. DL. DM. DN. DO. DP. DQ. DR. DS. DT. DU. DV. DW. DX. DY. DZ. EA. EB. EC. ED. EE. EF. EG. EH. EI. EJ. EK. EL. EM. EN. EO. EP. EQ. ER. ES. ET. EU. EV. EW. EX. EY. EZ. FA. FB. FC. FD. FE. FF. FG. FH. FI. FJ. FK. FL. FM. FN. FO. FP. FQ. FR. FS. FT. FU. FV. FW. FX. FY. FZ. GA. GB. GC. GD. GE. GF. GG. GH. GI. GJ. GK. GL. GM. GN. GO. GP. GQ. GR. GS. GT. GU. GV. GW. GX. GY. GZ. HA. HB. HC. HD. HE. HF. HG. HH. HI. HJ. HK. HL. HM. HN. HO. HP. HQ. HR. HS. HT. HU. HV. HW. HX. HY. HZ. IA. IB. IC. ID. IE. IF. IG. IH. II. IJ. IK. IL. IM. IN. IO. IP. IQ. IR. IS. IT. IU. IV. IW. IX. IY. IZ. JA. JB. JC. JD. JE. JF. JG. JH. JI. JJ. JK. JL. JM. JN. JO. JP. JQ. JR. JS. JT. JU. JV. JW. JX. JY. JZ. KA. KB. KC. KD. KE. KF. KG. KH. KI. KJ. KK. KL. KM. KN. KO. KP. KQ. KR. KS. KT. KU. KV. KW. KX. KY. KZ. LA. LB. LC. LD. LE. LF. LG. LH. LI. LJ. LK. LL. LM. LN. LO. LP. LQ. LR. LS. LT. LU. LV. LW. LX. LY. LZ. MA. MB. MC. MD. ME. MF. MG. MH. MI. MJ. MK. ML. MN. MO. MP. MQ. MR. MS. MT. MU. MV. MW. MX. MY. MZ. NA. NB. NC. ND. NE. NF. NG. NH. NI. NJ. NK. NL. NM. NO. NP. NQ. NR. NS. NT. NU. NV. NW. NX. NY. NZ. OA. OB. OC. OD. OE. OF. OG. OH. OI. OJ. OK. OL. OM. ON. OO. OP. OQ. OR. OS. OT. OU. OV. OW. OX. OY. OZ. PA. PB. PC. PD. PE. PF. PG. PH. PI. PJ. PK. PL. PM. PN. PO. PP. PQ. PR. PS. PT. PU. PV. PW. PX. PY. PZ. QA. QB. QC. QD. QE. QF. QG. QH. QI. QJ. QK. QL. QM. QN. QO. QP. QQ. QR. QS. QT. QU. QV. QW. QX. QY. QZ. RA. RB. RC. RD. RE. RF. RG. RH. RI. RJ. RK. RL. RM. RN. RO. RP. RQ. RR. RS. RT. RU. RV. RW. RX. RY. RZ. SA. SB. SC. SD. SE. SF. SG. SH. SI. SJ. SK. SL. SM. SN. SO. SP. SQ. SR. SS. ST. SU. SV. SW. SX. SY. SZ. TA. TB. TC. TD. TE. TF. TG. TH. TI. TJ. TK. TL. TM. TN. TO. TP. TQ. TR. TS. TU. TV. TW. TX. TY. TZ. UA. UB. UC. UD. UE. UF. UG. UH. UI. UJ. UK. UL. UM. UN. UO. UP. UQ. UR. US. UT. UU. UV. UW. UX. UY. UZ. VA. VB. VC. VD. VE. VF. VG. VH. VI. VJ. VK. VL. VM. VN. VO. VP. VQ. VR. VS. VT. VU. VV. VW. VX. VY. VZ. WA. WB. WC. WD. WE. WF. WG. WH. WI. WJ. WK. WL. WM. WN. WO. WP. WQ. WR. WS. WT. WU. WV. WW. WX. WY. WZ. XA. XB. XC. XD. XE. XF. XG. XH. XI. XJ. XK. XL. XM. XN. XO. XP. XQ. XR. XS. XT. XU. XV. XW. XX. XY. XZ. YA. YB. YC. YD. YE. YF. YG. YH. YI. YJ. YK. YL. YM. YN. YO. YP. YQ. YR. YS. YT. YU. YV. YW. YX. YY. YZ. ZA. ZB. ZC. ZD. ZE. ZF. ZG. ZH. ZI. ZJ. ZK. ZL. ZM. ZN. ZO. ZP. ZQ. ZR. ZS. ZT. ZU. ZV. ZW. ZX. ZY. ZZ.	A. None B. None	1 2 3	2100 2100 2100	10" U 4 1/2" D 1" L	IMP I O I O I	13" 2" 16 1/2"	P Small crack in crossbar.
A. AD 303 B. 5/6/43 C. 24 D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R 11 1.38% .20S1 .021S .024P .55Cr .07Ni .30Mo C. .27C D. Face 341 Back 341 E. B.O.B. F. 1650 F 1 1/2 hr. water 5 965 F 2 1/2 hrs air	A. A 1 1.70% .10C C. Flame cutting Grinding B. Reziatal Armor C. Titania D. DC-REV	A. 60° SV B. 1/4" C. Flame cutting Grinding	A. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. AA. AB. AC. AD. AE. AF. AG. AH. AI. AJ. AK. AL. AM. AN. AO. AP. AQ. AR. AS. AT. AU. AV. AW. AX. AY. AZ. BA. BB. BC. BD. BE. BF. BG. BH. BI. BJ. BK. BL. BM. BN. BO. BP. BQ. BR. BS. BT. BU. BV. BW. BX. BY. BZ. CA. CB. CC. CD. CE. CF. CG. CH. CI. CJ. CK. CL. CM. CN. CO. CP. CQ. CR. CS. CT. CU. CV. CW. CX. CY. CZ. DA. DB. DC. DD. DE. DF. DG. DH. DI. DJ. DK. DL. DM. DN. DO. DP. DQ. DR. DS. DT. DU. DV. DW. DX. DY. DZ. EA. EB. EC. ED. EE. EF. EG. EH. EI. EJ. EK. EL. EM. EN. EO. EP. EQ. ER. ES. ET. EU. EV. EW. EX. EY. EZ. FA. FB. FC. FD. FE. FF. FG. FH. FI. FJ. FK. FL. FM. FN. FO. FP. FQ. FR. FS. FT. FU. FV. FW. FX. FY. FZ. GA. GB. GC. GD. GE. GF. GG. GH. GI. GJ. GK. GL. GM. GN. GO. GP. GQ. GR. GS. GT. GU. GV. GW. GX. GY. GZ. HA. HB. HC. HD. HE. HF. HG. HH. HI. HJ. HK. HL. HM. HN. HO. HP. HQ. HR. HS. HT. HU. HV. HW. HX. HY. HZ. IA. IB. IC. ID. IE. IF. IG. IH. II. IJ. IK. IL. IM. IN. IO. IP. IQ. IR. IS. IT. IU. IV. IW. IX. IY. IZ. JA. JB. JC. JD. JE. JF. JG. JH. JI. JJ. JK. JL. JM. JN. JO. JP. JQ. JR. JS. JT. JU. JV. JW. JX. JY. JZ. KA. KB. KC. KD. KE. KF. KG. KH. KI. KJ. KK. KL. KM. KN. KO. KP. KQ. KR. KS. KT. KU. KV. KW. KX. KY. KZ. LA. LB. LC. LD. LE. LF. LG. LH. LI. LJ. LK. LL. LM. LN. LO. LP. LQ. LR. LS. LT. LU. LV. LW. LX. LY. LZ. MA. MB. MC. MD. ME. MF. MG. MH. MI. MJ. MK. ML. MN. MO. MP. MQ. MR. MS. MT. MU. MV. MW. MX. MY. MZ. NA. NB. NC. ND. NE. NF. NG. NH. NI. NJ. NK. NL. NM. NO. NP. NQ. NR. NS. NT. NU. NV. NW. NX. NY. NZ. OA. OB. OC. OD. OE. OF. OG. OH. OI. OJ. OK. OL. OM. ON. OO. OP. OQ. OR. OS. OT. OU. OV. OW. OX. OY. OZ. PA. PB. PC. PD. PE. PF. PG. PH. PI. PJ. PK. PL. PM. PN. PO. PP. PQ. PR. PS. PT. PU. PV. PW. PX. PY. PZ. QA. QB. QC. QD. QE. QF. QG. QH. QI. QJ. QK. QL. QM. QN. QO. QP. QQ. QR. QS. QT. QU. QV. QW. QX. QY. QZ. RA. RB. RC. RD. RE. RF. RG. RH. RI. RJ. RK. RL. RM. RN. RO. RP. RQ. RR. RS. RT. RU. RV. RW. RX. RY. RZ. SA. SB. SC. SD. SE. SF. SG. SH. SI. SJ. SK. SL. SM. SN. SO. SP. SQ. SR. SS. ST. SU. SV. SW. SX. SY. SZ. TA. TB. TC. TD. TE. TF. TG. TH. TI. TJ. TK. TL. TM. TN. TO. TP. TQ. TR. TS. TU. TV. TW. TX. TY. TZ. UA. UB. UC. UD. UE. UF. UG. UH. UI. UJ. UK. UL. UM. UN. UO. UP. UQ. UR. US. UT. UU. UV. UW. UX. UY. UZ. VA. VB. VC. VD. VE. VF. VG. VH. VI. VJ. VK. VL. VM. VN. VO. VP. VQ. VR. VS. VT. VU. VV. VW. VX. VY. VZ. WA. WB. WC. WD. WE. WF. WG. WH. WI. WJ. WK. WL. WM. WN. WO. WP. WQ. WR. WS. WT. WU. WV. WW. WX. WY. WZ. XA. XB. XC. XD. XE. XF. XG. XH. XI. XJ. XK. XL. XM. XN. XO. XP. XQ. XR. XS. XT. XU. XV. XW. XX. XY. XZ. YA. YB. YC. YD. YE. YF. YG. YH. YI. YJ. YK. YL. YM. YN. YO. YP. YQ. YR. YS. YT. YU. YV. YW. YX. YY. YZ. ZA. ZB. ZC. ZD. ZE. ZF. ZG. ZH. ZI. ZJ. ZK. ZL. ZM. ZN. ZO. ZP. ZQ. ZR. ZS. ZT. ZU. ZV. ZW. ZX. ZY. ZZ.	A. None B. None	1 2 3	2100 2100 2100	10" U 4 1/2" D 1" L	IMP I - 		

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		SEAL		BALLISTIC RESULTS					REMARKS ON CRACKING										
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE MPOR.	F. ANODE FABRICATOR	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP	C. PLATE PREPARATION	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	1. ROOT TYPE	2. BODY TYPE	3. CROWN TYPE	C. TOTAL WELDING TIME & LATER PASS TEMPERATURE	A. NONE	B. POST	F	VEL. F/S	LOC. TYPE	LOC. TYPE	LOC. TYPE	RADIOGRAPHIC RESULTS, ETC.	
A. AD 430	B. 5/15/43	C. SON-4-4	D. Ford Motor Co.	E. Crucible Steel Co.	F. Ford Motor Co.	A. A I	B. Resistal	C. Sheared	D. DC-REV	A. 45° SV	B. 1/8-1/4"	C. Grinding	A. Copper	B. 1. 5/32" 1a 120 25 2. 1/32" 1a 200 25 3. 1/4" 1a 220 25	1. 5/32" 1a 120 25	2. 1/32" 1a 200 25	3. 1/4" 1a 220 25	Seal bead- 1/4" 1a 220 25	A. None	B. None	1	2100	-	-	-	P	Slag spot in x-bar.
A. AD 417	B. 5/11/43	C. 28	D. Ford Motor Co.	E. Crucible Steel Co.	F. Ford Motor Co.	A. A I	B. Resistal	C. Titanium	D. DC-REV	A. 60° SV	B. 3/16"	C. Flame cutting	A. A. None	B. 1. 5/32" 1a 105 22 2. 1/32" 1a 165 23 3. 1/16" 2b 150 22	1. 5/32" 1a 105 22	2. 1/32" 1a 165 23	3. 1/16" 2b 150 22	Seal bead- 3/16" 1a 150 22	A. None	B. None	1	2100	-	-	-	P	Welds are sound.
A. AD 417	B. 5/11/43	C. 29	D. Ford Motor Co.	E. Crucible Steel Co.	F. Ford Motor Co.	A. A I	B. Resistal	C. Titanium	D. DC-REV	A. 60° SV	B. 3/16"	C. Flame cutting	A. A. None	B. 1. 5/32" 1a 110 22 2. 1/32" 1a 185 23 3. 1/16" 2b 185 23	1. 5/32" 1a 110 22	2. 1/32" 1a 185 23	3. 1/16" 2b 185 23	Seal bead- 3/16" 1a 200 24	A. None	B. None	1	2100	-	-	-	P	Welds are sound.

97.

IDENTIFICATION	ABSON DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT	BALLISTIC RESULTS					REMARKS ON CRACKING		
						A. PRE B. POST	#	VEL. F/8	LOCATION OF B. L.L. R.L. C.B.	CRACKING TYPE AMT			
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARSON MANUFACTURER E. ELECTRODE MPGA. F. ARSON FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DEN E. PROCESS F. BEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. EG. TYPE AND T. PASSES C. ROOT TYPE D. CROWN TYPE E. TOTAL WELDING TIME & INTER PASS TEMPERATURE F. REMARKS									
A. AD 441 B. 5/25/43 C. 180 D. Ford Motor Co. E. Metal Thermit F. Ford Motor Co.	A. 3/8" B. R 11 C. 1.36% .2731 D. .0125 .022P E. .58Cr .06Ni F. .40Mo G. .27 D. Face 341 Back 341 E. 1450°F 2 hrs. water 980°F 4 hrs. air	A. A 1 B. .07C 1.40% C. .5061 .0125 D. .032P E. .58Cr .06Ni F. .40Mo G. .27 H. Murex I. Titanium J. DC-REV	A. 45° SV B. 3/16" C. Flame cutting	A. Copper B. 1. I 3/16" 1a 87 27 2. I 3/16" 1a 87 27 C. Seal bead- 3/16" 1a 87 27 D. 8 hours. 300°F E. Grinding time 2 hours.	A. None B. None	1 2 3 4	2000 1985 2088 2194	7/8 X R R	5" U 7 1/2" D 1 1/2" R 5" U	- - - - -	P Welds are sound.		
A. AD 441 B. 5/25/43 C. 180 D. Ford Motor Co. E. Metal Thermit F. Ford Motor Co.	A. 3/8" B. R 11 C. 1.23% .2481 D. .0265 .019P E. .57Cr .06Ni F. .43Mo G. .28C D. Face 341 Back 341 E. 1450°F 2 hrs. water 980°F 3 hrs. air	A. A 1 B. .08C C. 1.0% D. .18Cr E. .10Ni F. .20Mo G. Murex H. Titanium I. DC-REV	A. 45° SV B. 3/16" C. Sheared	A. Copper B. 1. I 3/16" 1a 135 30 2. I 3/16" 1a 135 30 3. I 3/16" 1a 135 30 C. Seal bead- 3/16" 1a 135 30 D. 8 hours 300°F E. --	A. None B. None	1 2	2029 1990	X R	5 1/2" U 5 1/2" D 0 I 3 1/2" 32 1/2"	IMP IMP I I I I	19 1/2" 9 1/2" 3 1/2" 32 1/2"	P Welds are sound.	
A. AD 442 B. 5/25/43 C. W 154 D. Ford Motor Co. E. McKay Company F. Ford Motor Co.	A. 3/8" B. R 11 C. 1.27% .2451 D. .0255 .021P E. .52Cr .06Ni F. .40Mo G. .27C D. Face 341 Back 341 E. 1450°F 2 hrs. water 980°F 4 hrs. air	A. A 1 B. .08C C. .04Ni D. .19.22Cr E. .9.86Ni F. .06Mo G. Armcoloy H. Titanium I. DC-REV	A. 45° SV B. 3/16" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 135 23 2. I 3/16" 1a 205 23 C. Seal bead- 3/16" 1a 200 23 D. 2 hours 70°-225°F E. Grinding time 2 hours.	A. None B. None	1 2	2014 2002	X L	3 1/2" U 5 1/2" D 8 1/2"	IMP - - 8 1/2"	8 1/2" - - 8 1/2"	P Welds are sound.	
													98.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS					REMARKS ON CRACKING
						A. PRE B. POST	#	VEL.	LOCATION OF B.	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. MIN. E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST						
A. AD 368 B. 4/13/43 C. 8667E-10-0-A D. Ford Motor Co. E. Crucible F. Steel Corp. Ford Motor Co.	A. 3/8" B. R II C. 1.20-1.40Mn .20-.30Si .04S max. .04P max. .80-.60Cr .30-.40Mo .25-.30C D. Face 341 Back 321 E. Elec. Basic F. --	A. A B. Rezi steel Atmospherized # 14 C. DC-REV	A. 60° SV B. 1/8-1/4" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 140 25 2. I 3/16" 1a 200 25 3. I 1/4" 1a 270 25 Seal bead- 1/4" 1a 270 25 C. 4 hours. 70°-100°F D. --	A. None B. None	1 2 3 4 5	2100 2100 2100 2100 2100	1/2" R 4" L 2 1/2" R 3 1/2" L 1" L	4 1/2" U 6" D 7 1/2" D 2" U 12 1/2" D	I 2" - - - I 10 1/2"	P
A. AD 368 B. 4/13/43 C. 8667E-1-6 D. Ford Motor Co. E. Reig Avery Co. F. Ford Motor Co.	A. 3/8" B. R II C. 1.20-1.40Mn .20-.30Si .04S max. .04P max. .80-.60Cr .30-.40Mo .25-.30C D. Face 311 Back 302 E. Elec. Basic F. --	A. A B. Raco Shield Arc #18- 8A C. DC-REV	A. 60° SV B. 1/8-1/4" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 120 27 2. I 3/16" 1a 170 25 3. I 1/4" 1a 220 25 Seal bead- 1/4" 1a 220 25 C. 4 hours. 85°-106°F D. --	A. None B. None	1 2 3	2100 2100 2100	1/2" R 3" L 4 1/2" R	7" U 12" D 7 1/2" U	I 16 1/2" I 3 1/2" I 4"	P Slight undercut. 24"

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SLAT	BALLISTIC RESULTS				REMARKS ON CRACKING		
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE SPEC. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. HARDNESS E. PROCESS F. SLAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TYPING NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. ROOT TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASSES D. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF #		CRACKING	RADIOGRAPHIC RESULTS, ETC.	
								L.L.	R.L.	C.B.	LOC.	TYPE ANT
A. A-10920 B. 11/11/43 C. W 281 D. Ford Motor Co. E. Page Steel & Wire Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 324th .2851 2. 0225 .010P 3. 0201 .0081 4. 0211 .0081 5. 0211 .0081 6. 0013B 7. 0013B D. Face 331 Back 331 E. B.O.H. F. 1850 F 14 hr spray 965 F 24 hrs air	A. A I 1.00C 4.08th 4.081 21.02Cr 10.21Ni 7.8Mo B. Page Allegany C. Titania D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting Grinding	A. Copper B. 1. 3/16" 1a 165 25 2. & 3. 1 1/4" 1a 270 25 Seal bead- 3/16" 1a 175 25 C. 1-2/3 hours 76°-100°F D. Grinding time 1-5/6 hours.	A. None B. None	1 2 3	2050 2038 2017	1 1/2" 6" R U 3" D X 3 1/4" D	- - -	- - -	P	
A. A 10917 B. 11/11/43 C. 106C D. Ford Motor Co. E. Page Steel & Wire Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 234th .2451 2. 0106 .010P 3. 0201 .0081 4. 0211 .0081 5. 0211 .0081 6. 0013B 7. 0013B D. Face 341 Back 341 E. B.O.H. F. 1850 F 14 hr spray 960 F 24 hrs air	A. A I 1.00C 4.08th 4.081 21.02Cr 10.21Ni 7.8Mo B. Page C. Titania D. DC-REV	A. 60° SV B. 3/16" C. Flame cutting Grinding	A. B. 1. 3/16" 1a 130 23 2. 1 3/16" 1a 190 24 3. 1 1/4" 1a 260 25 Seal bead- 3/16" 1a 190 24 C. 64 hours 100°-180°F D. Grinding time 1 1/2 hours. Step back method of weld sequence used. Back of root bead ground out.	A. yes B. None	1 2 3 4	2089 2022 2093 2210	1" 6 1/2" R U 2" D 7 1/2" U 2 3/8" 5 1/2" R D	- - - -	- - - -	P	
A. A 10917 B. 11/11/43 C. 106C D. Ford Motor Co. E. Crucible Steel Co. F. Ford Motor Co.	A. 3/8" B. R II 1. 47th .2451 2. 0215 .010P 3. 0201 .0081 4. 0211 .0081 5. 0211 .0081 6. 0013B 7. 0013B D. Face 351 Back 351 E. B.O.H. F. 1850 F 14 hr spray 960 F 24 hrs air	A. A I 1.3C 3.78th 3.451 19.29Cr 9.84Ni 7.8Mo B. Rezialal C. Titania D. DC-REV	A. 90° SV B. 5/32" C. Flame cutting Grinding	A. B. 1. 3/16" 1a 130 23 2. 1 3/16" 3b 180 24 3. 1 3/16" 5b 180-190 24 Three seal beads- 3/16" 3b 160-170 23-25 C. 12 hours. 95°F-180°F D. Grinding time 2 hrs. 6 mins.	A. yes B. None	1 2	2090 2031	3/8" 7 1/2" R U 4 1/2" D 1 1/2" R	IMP I 18 1/2" IMP V 5 1/2" IMP I 12" 36"			
												100.

IDENTIFICATION	ABSOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS	RADIOGRAPHIC RESULTS, ETC.
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. WELD NO. E. ARBOR MANUFACTURER F. ELECTRODE MFG. CO. G. SEAT TREATMENT H. TEMP. TIME QUENCH	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. NEW E. PROCESS F. SEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BEAD TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE POST B. NONE	VOL. LOCATION OF H L.L. R.L. C.B. LOC. TYPE ANT	
A. A 10947 B. 11/23/43 C. SCN 4-13 D. Ford Motor Co. E. Arcos Corp. Co. F. Ford Motor Co.	A. 3/8" B. R II 1.38Mn .27Si .02CS .021P .53Cr .41Mo .26C D. Face 341 Back 341 E. B.O.H. F. 1675 F 45 min spray 925 F 2 hrs. air	A. A I .07-.17C 3.30- 4.75Mn .86Si .03S .04P 18.0- 21.0Cr 9.0- 10.7Ni 1.10Mo B. Chromang C. Lime D. DC-REV	A. 45° SV B. 3/16"-1/4" C. Sheared. Grinding	A. Copper B. 1. I 5/32" 1a 140 25 2. I 3/16" 1a 200 25 3. I 1/4" 1a 260 25 Seal bead- 1/4" 1a 260 25 C. 7 1/2 hours. 81°-128°F D. Grinding time 1 hour.	A. None B. Name	1 2055 2 1982 1/2 3 1980	- P - IMP I 6 1/2 IMP V 5 1/2 IMP I 12 IMP V 4 1/2 28 1/2
A. A 11267 B. 12/9/43 C. W 290 D. Ford Motor Co. E. Reid-Avery Co. F. Ford Motor Co.	A. 3/8" B. R II 1.40Mn .27Si .026S .023P .60Cr .06Ni .35Mo .0013B C. .29C D. Face 341-352 Back 341-352 E. B.O.H. F. 1650 F 1 1/2 hr spray 950 F 2 1/2 hrs air	A. A I 5.74Mn .42Si 18.58Cr 10.26Ni .56Mo B. Racollay C. Lime D. DC-REV	A. 45° SV B. 5/32" C. Flame cutting Grinding	A. Copper B. 1. I 5/32" 1a 145 25 2. 1/32" I 3/16" 2b 165 25 Seal bead- 5/32" 1a 145 25 C. 2 hrs. 28 minutes. 85-145°F D. Grinding time 1 hour 40 min.	A. Name B. Name	1 2073 2 2024 1 1/2 R	I 19 1/2 IMP V 4 1/2 O I 8 32
A. A 11556 B. 12/29/43 C. 123C D. Ford Motor Co. E. Metal Thermit Co. F. Ford Motor Co.	A. 3/8" B. R II 1.22-1.44Mn .23-.27Si .018-.020S .022P .55-.56Cr .06-.11Ni .31-.32Mo .0013B C. .26-.28C D. Face 311-341 Back 311-341 E. B.O.H. F. 1650 F 2 1/2 hrs spray 950 F 2 1/2 hrs air	A. A I .09C 3.40Mn .36Si .018S .021P 20.0Cr 9.56Ni .61Mo B. Purex C. Lime D. DC-REV	A. 45° SV B. 3/32" C. Flame cutting Grinding	A. B. 1. I 3/16" 1a 110 23 2. I 3/16" 1a 170 24 3. I 1/4" 1a 230 25 Seal bead- 3/16" 1a 170 25 C. 5 1/2 hours 70°-140°F D. Grinding time 1 hour. Root face of plate buttered with 5/32" electrode. Step back method of weld sequence used. Back of root bead ground out.	A. None B. Name	1 2030 2 1997 3/8 R	IMP I 12 1/2 IMP V 2 1/2 IMP I 17 32 1/2

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
							#	VEL.	LOCATION OF B	CRACKING	
A. FIRING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	A. BACKING	A. PRE		F/S	L.L. N.L. C.B.	LOC. TYPE AMT	
B. DATE OF TEST	B. TYPE	B. TRADE NAME	B. ANGLE, ROOT FACE	B. DEPOSITION SIZE EL. SO. TYPE APP V	B. DEPOSITION SIZE EL. SO. TYPE APP V	B. POST					
C. PLATE NO.	C. CARBON CONTENT	C. COATING	C. ROOT GAP	1. ROOT TYPE	1. ROOT TYPE						
D. ANODE MANUFACTURER	D. SPPR	D. CURRENT & POLARITY	C. PLATE PREPARATION	2. BODY TYPE	2. BODY TYPE						
E. ELECTRODE MFG.	E. F. PLASMA			3. GROW TYPE	3. GROW TYPE						
F. ANODE FABRICATOR	F. HEAT TREATMENT			C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE						
	TEMP. TIME QUENCH			D. REMARKS	D. REMARKS						
A. A 11587	A. 3/8"	A. A II	A. 45° SV	A. Copper	A. Copper	A. None	1	2088	3 1/2" R	-	P
B. 1/4/44	B. R II	.11C	B. 5/32"	B. 1. I 5/32" 1a 145 22	B. 1. I 5/32" 1a 145 22	B. None	2	2008	2 1/2" R	-	
C. W 298	.28-1.32Mn	4.00Mn	C. Flame cutting	2. II 5/32" 1a 150 25	2. II 5/32" 1a 150 25		3	2002	1 1/2" L	IMP I 16 1/2"	
D. Ford Motor Co.	.28-1.32Mn	.52Si	C. Grinding	3. II 5/32" 2b 155 25	3. II 5/32" 2b 155 25					IMP V 11 1/2"	
E. Lincoln Elec. Company	.021-.027S	20.0Cr		Seal bead-	Seal bead-					28 1/2"	
F. Ford Motor Co.	.018-.022P	10.0Ni		5/32" 1a 155 25	5/32" 1a 155 25						
	.55-.56Cr	C. Lime		C. 52 minutes 100°-200° F	C. 52 minutes 100°-200° F						
	.05-.08Ni	D. DC-REV		D. Grinding time 2 hrs. 40 min.	D. Grinding time 2 hrs. 40 min.						
	.31-.32Mo										
	.0013B										
	C. 27-28C										
	D. Face 331-641										
	D. Back 331-331										
	E. B.O.H.										
	F. 1650 F 1 1/2 hr.										
	spray										
	950 F 2 1/2 hr.										
	air										
A. A 12685	A. 3/8"	A. A I	A. 45° SV	A. Copper	A. Copper	A. None	1	2010	7/8" L	IMP I 20 1/2"	P
B. 2/26/44	B. R II	.086C	B. 3/16"	B. 1. I 1/4" 1a 280 23	B. 1. I 1/4" 1a 280 23	B. None	2	2005	1 1/2" L	-	
C. W 320	.28-1.32Mn	1.72Mn	C. Flame cutting	2. & 3.	2. & 3.					-	
D. Ford Motor Co.	.28-1.32Si	.22Si	C. Grinding	Seal bead-	Seal bead-					20 1/2"	
E. Page Steel & Wire Co.	.021-.027S	19.73Cr		1/4" 1a 290 23	1/4" 1a 290 23						
F. Ford Motor Co.	.018-.022P	10.60Ni		C. 40 minutes, 85°-105° F	C. 40 minutes, 85°-105° F						
	.55-.56Cr	1.7Cr		D. Grinding time 2 hrs. 40 mins	D. Grinding time 2 hrs. 40 mins						
	.05-.08Ni	B. Page-									
	.31-.32Mo	C. Allegheny									
	.0013B	D. DC-REV									
	C. 27-28C										
	D. Face 331-341										
	D. Back 331-341										
	E. B.O.H.										
	F. 1650 F 1 1/2 hr.										
	spray										
	950 F 2 1/2 hr.										
	air										

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING					
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE MFG.	F. ANODE FABRICATOR	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. NEW	E. PROTECTA	F. BEAT TREATMENT	G. TEMP.	H. TIME	I. QUENCH	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE ANP. V.	C. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE	D. TOTAL WELDING TIME & 10% PASS TEMPERATURE	A. PNE B. POST	#	VEL. F/S	LOCATION OF # L.L. B.L. C.B. LOC. TYPE ANT	CRACKING	RADIOGRAPHIC RESULTS, ETC.
A. A 12851 B. 3/9/44 C. 111C D. Ford Motor Co. E. Arcos Corp. F. Ford Motor Co.		A. 3/8" B. R II 1.47% .24S1 .021S .019P .60CP .05M1 .35M0 .0013B C. .27C D. Face 351 Back 351 E. B.O.H. F. 1650 V 12 hr spray 950 F 24 hr air	A. A I .11C 4.06% 75S1 19.44Cr 9.57Mn .65Mo B. Chroming C. Lime D. DC-REV	A. 90° SV; 1/8" RF B. 5/32" C. Flame cutting Grinding	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE ANP. V. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & 10% PASS TEMPERATURE D. REMARKS	A. Yes B. None	4 5 6	2028 2027 1/2 2028	1 1/2" L 17 1/2" U 1 1/2" L 12 1/2" D 1 1/2" L 17 1/2" I 5" 6"	- - IMP I IMP V IMP I IMP V 36"	F 5/8" incomplete fus. on.													

103.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	SLAY	BALLISTIC RESULTS				REMARKS ON CRACKING		
							#	VEL.	LOCATION OF R	CRACKING			
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DEN E. PROCESS F. HEAT TREATMENT TEMP. TIME OFFER	A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND. V. 1. ROOT TYPE 2. ROOT TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST			F/B	L.L. M.L. C.B.	LOC. TYPE AMT			
A. A 10045 B. 11/23/43 C. 10 D. E. C. Atkins Company E. Crucible Steel Corp. F. International Harvester Company	A. 3/8" B. H.H. .90th 1.02Si .011S .017P .66Cr .48Ni .23Mo C. .32C D. Face 368 Back 401 (hard) E. Elec. basic drawn 820 F 70 min water	A. A I .00C 2.10Mn 19.16Cr 9.21Ni 1.61Mo .20V B. Reziatal Armorize C. Titania D. DC-REV	A. 90° DV B. 3/32" to 1/8" C. Grinding	A. Copper B. 1. 4 2. 3. III 1/8" 2a 85 18 85 18 C. 4 hours. 225°F. D. Grinding time 4.3 hours.	A. None B. None	1	2009	1/2" L	4 1/2" D	IMP I	1"	P	
						2	2018	7/8" L	6" U	IMP I	3"		
						3	2046	1/2" L	4 1/2" D	IMP I	1"		
						4	2088	1/2" R	4 1/2" U	IMP I	1"		
												5 1/2"	

[illegible]

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	REAR	BALLISTIC RESULTS				REMARKS ON CRACKING
						#	VEL.	LOCATION OF #	CRACKING	
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. ELECTRODE SPEC. F. ARMOR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. ELEM E. PROCESS F. REAR TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED B. ANGLE, ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. ROOT TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST		F/S	L.I. R.L. C.B. LOC.	TYPE ART	RADIOGRAPHIC RESULTS, ETC.
A. AD 308 B. 5/6/43 C. 18 D. Ford Motor Co. E. Crucible Steel Company F. Ford Motor Co.	A. 3/8" B. R II C. 1.38% .2851 D. .0215 .024P E. .55Cr .07Ni F. .36Mo C. .27C D. Face 341 Back 341 E. B.O.R. F. 1650 F 14 hr water 965 F 24 hr air	A. A I .21C 3.18% .59S1 .036S .021P 8.79Cr 8.47Ni .30Mo B. Rezilal C. Armor D. AC-STR	A. 90° SV B. Flare cutting C. Grinding	A. Mild steel B. Unionmelt - 5/32" Ia 450 30 C. 12-6/7 minutes. 75°-140° D. Mild steel back-up strip used; extended from plate edges 2" - securely back-welded to armor plate. Speed of travel on track 7 inches per minute with #10 type Unionmelt welding head. #80 Unionmelt Flux.	A. None B. None	1	2100 X	104° U	IMP V 104°	F Crater crack. Incomplete fusion Unsound.
						2	2100	13° 13° R D	IMP V 36 564°	
								Plate crack thru 3" intermittent welds holding 2" backup strip.		

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	SEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						PRE	POST	VEL.	LOCATION OF H.	
A. FISHING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. ELECTRODE MFG. F. ARMOR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. RHN E. PROCESS F. HEAT TREATMENT G. TEMPER. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BODY TYPE 3. CRACK TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST			F/S	LOC. TYPE	CRACKING RADIOGRAPHIC RESULTS, ETC.
A. AD 346 B. 4/9/43 C. B 11 D. Great Lakes E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R IV C. .01% Mn .7881 D. .0288 .050P E. .58Cr .20Mo F. .10Zr G. .28C D. Face 331 Back 362 E. B.O.H. F. 1650 F ± hr. water 930 F 2 hrs. air	A. A I B. .12C C. 3.70mm D. .4131 E. .0086 F. .035P G. 20.88Cr H. 9.71Ni I. .70Mo J. .06V .10Cu K. AW3-C L. Lime M. DC-REV	A. 60° DV B. 3/16" Flame cutting C. Grinding	A. B. 1. & 2. & 3. C. 34.8 minutes. 80°-170°F D. Grinding time 1 1/2 mins.	A. None B. None	1	1900	4"	IMP I 8 1/2"	P Sound weld
A. AD 414 B. 5/7/43 C. B 13 D. Great Lakes E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R IV C. .01% Mn .7881 D. .0288 .030P E. .58Cr .20Mo F. .10V G. .28C D. Face 341-352 Back 341-352 E. B.O.H. F. 1650 F ± hr. water 930 F 2 hrs. air	A. A I B. .11C C. 1.62mm D. .4781 E. .0108 F. .030P G. 19.56Cr H. 10.41Ni I. .70Mo J. AW 3 K. Lime L. DC-REV	A. 60° DV B. 1/4" Flame cutting C. Grinding	A. B. 1. & 2. & 3. C. 40 minutes. 80°-135°F D. Grinding time 2 minutes.	A. None B. None	1	1900	3 1/2"	IMP I 5 1/2"	P Welds are sound.
A. AD 414 B. 5/7/43 C. B 17 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R III C. .01% Mn .2681 D. .0188 .018P E. .26Mo F. .25C D. Face 331-341 Back 331-341 E. B.O.H. F. 1650 F ± hr. water 930 F 1 1/2 hr. air	A. A I B. .11C 3.76mm C. .4581 D. .0103 E. .034P F. .19.82Cr G. 9.97Ni H. 1.41Mo I. .06V .13Cu J. AW 3-C K. Lime L. DC-REV	A. 60° DV B. 1/4" Flame cutting C. Grinding	A. B. 1. & 2. & 3. C. 42.5 minutes. 70°-170°F D. Grinding time 3 minutes.	A. None B. None	1	1900	4"	IMP I 10 1/2"	P Crater crack

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS					REMARKS ON CRACKING				
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR		A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SIZE E. PROCESS F. HEAT TREATMENT G. TIME		A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY		A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION		A. SACTING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. ROOT TYPE 3. CHORD TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS		A. PRE B. POST		#		VEL. F/S		LOCATION OF # L.L. R.L. C.B. LOC.		CRACKING TYPE ANT		RADIOGRAPHIC RESULTS, ETC.			
A. AD 414 B. 5/7/43 C. B 18 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division		A. 5/16" B. R III C. 1.65% Mn .25S1 D. .018% .018P E. .25C F. Face 341 Back 352 G. B.O.H. H. 1650 F 1 1/2 hrs. I. water J. 880 F 1 1/2 hrs. K. air		A. A I B. 1.62% Mn C. .47S1 D. .010S E. .030P F. 19.5% Cr G. 10.4% Ni H. 1.7% Mo I. AW 3 J. C. Line K. DC-REV		A. 60° DV B. 1/4" C. Flame cutting D. Grinding		A. B. 1. & 2. & 3. I 3/16" 1a 120 21 3/16" 1a 135 22 C. 48 minutes. 75°-140°F D. Grinding time 2 1/2 minutes.		A. None B. None		1		1900		2 1/2" R 1 3/8" R 2 1/2" R 1 1/2" L 1 3/8" L		12 1/2" U 4" D 2 1/4" D 15" U 4 1/2" U		- - - - -		P Crater crack.	
A. AD 414 B. 5/7/43 C. B 19 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division		A. 5/16" B. R III C. 1.65% Mn .25S1 D. .018% .018P E. .25C F. Face 341 Back 341 G. B.O.H. H. 1650 F 1 1/2 hrs. I. water J. 880 F 1 1/2 hrs. K. air		A. A I B. 1.62% Mn C. .47S1 D. .010S E. .030P F. 19.5% Cr G. 10.9% Ni H. 1.7% Mo I. AW 3 J. C. Line K. DC-REV		A. 60° DV B. 1/4" C. Flame cutting D. Grinding		A. B. 1. & 2. & 3. I 3/16" 1a 135 22 5/32" 1a 125 21 C. 43 minutes. 75°-180°F D. Grinding time 2 1/2 minutes.		A. None B. None		1		1900		1 1/2" L 1 3/8" L 2 1/2" R 1 1/2" L 1 3/8" L		11 1/2" U 3" D 6 1/2" U		- - -		P Crater crack.	
A. AD 399 B. 6/2/43 C. B 12 D. Great Lakes Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division		A. 5/16" B. R IV C. 1.01% Mn .70S1 D. .028% .030P E. .58Cr .20Mo F. .25C G. Face 331 Back 352 H. B.O.H. I. 1650 F 1 1/2 hrs. J. water K. 830 F 2 hrs. L. air		A. A II B. 1.62% Mn C. .11C D. .028% .030P E. .010S F. .030P G. 19.5% Cr H. 10.4% Ni I. .05Mo J. AW 3 K. C. Line L. DC-REV		A. 60° DV B. 1/4" C. Flame cutting D. Grinding		A. B. 1. & 2. & 3. I 3/16" 1a 135 22 5/32" 1a 125 23 C. 37 minutes. 80°-140°F D. Grinding time 3 minutes.		A. None B. None		1		1870		1 1/2" R 2 1/2" R		7" D 6 1/2" U IMP I 3 1/2"		- - -		P Welds are sound.	

108.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		HEAT		BALLISTIC RESULTS						REMARKS ON CRACKING						
A. FIRING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE SPEC.	F. ANODE FABRICATOR	A. TYPE	B. TRADE NAME	C. CARBON CONTENT	D. BEP	E. PROCESS	F. TREATMENT	G. TEMP. TIME OVERCH	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	B. POST	#	VEL.	L.L.	R.L.	C.B.	LOC.	TYPE	ART		
A. AD 399 B. 6/2/43 C. B 20 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R III C. 1.65% .28S1 D. .018S .018P E. .28Mo F. .28C G. Face 331-341 Back 331-341 H. B.O.H. I. 7.7Mo J. 1650 F & hr. water K. 840 F 1 1/2 hrs air	A. A I B. .11C C. 3.76% D. .47S1 E. .018S F. .030P G. 19.56Cr H. 10.41Ni I. 1.75Mo J. AW 3 K. C. Line L. DC-REV	A. 60° DV B. 1/4" C. Flame cutting Grinding	A. None B. None	1 1838 2 1805 3 1821	2" 4 1/2" 6 1/2" 7" 8 1/2" 14 1/2"	D U U IMP IMP V	- - - I V	- - - I V	- - - I V	- - - I V	- - - I V	P Crater Crack.													
A. AD 399 B. 6/2/43 C. B 21 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R III C. 1.65% .28S1 D. .018S .018P E. .28Mo F. .28C G. Face 341 Back 341 H. B.O.H. I. 7.7Mo J. 1650 F & hr. water K. 840 F 1 1/2 hrs air	A. A I B. .12C C. 3.76% D. .41S1 E. .006S F. .036P G. 20.88Cr H. 9.71Ni I. .70Mo J. .06V K. .10Cu L. AW 3-C M. C. Line N. DC-REV	A. 60° DV B. 1/4" C. Flame cutting Grinding	A. None B. None	1 1857 2 1800 3 1857	1 1/2" 8 1/2" 6" 8" 8" 14 1/2"	R D U U R U	IMP - - - - -	I - - - -	- - - -	- - - -	- - - -	P Sound welds.													
A. AD 454 B. 6/2/43 C. B 16 D. Jones & Laughlin E. Harnischfeger F. Buick Motor Division	A. 5/16" B. R III C. 1.65% .28S1 D. .018S .018P E. .28Mo F. .28C G. Face 331-341 Back 331-341 H. B.O.H. I. 7.7Mo J. 1650 F & hr. water K. 840 F 1 1/2 hrs air	A. A I B. .11C C. 3.76% D. .45S1 E. .018S .018P F. .034P G. 19.82Cr H. 9.97Ni I. 1.41Mo J. .06V K. .13Cu L. AW 3-C M. C. Line N. DC-REV	A. 60° DV B. 1/4" C. Flame cutting Grinding	A. None B. None	1 1837 2 lost 3 1816 4 lost	2 1/2" 8" 2 1/2" 1 1/2" 7 1/2" 15"	R D L R D IMP IMP	- - - - - -	- - - - -	- - - -	- - - -	- - - -	P Sound welds.													
																										109.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	BEAT	BALLISTIC RESULTS					REMARKS OR CRACKING
							A. PRE	B. POST	#	VEL. F/B	LOCATION OF B L.L. S.L. C.B.	
B. FILING RECORD NO.	A. PLATE THICKNESS	A. TYPE	A. GROOVE, INCLUDED	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE APP. V.							
C. PLATE NO.	B. CARBON CONTENT	B. TENSILE RANGE	B. ANGLE, ROOT FACE	B. 1. & 2. & 3.	1. 115-20							
D. MANUFACTURER	C. HARDENING	C. YIELD	C. FLAME CUTTING	C. 45 minutes. 75°-190°F	1a 105 19							
E. ELECTRODE MPRA.	D. PROCESS	D. POLARITY	D. GRINDING	D. GRINDING TIME & LATER PASS TEMPERATURE	1a 105 19							
F. ANODE FABRICATOR	F. BEAT TREATMENT	F. BEAT TREATMENT	F. BEAT TREATMENT	F. BEAT TREATMENT	F. BEAT TREATMENT							
A. AD 414	A. 1/4"	A. A I	A. 60° DV	A. Not given	A. None	1	1700					P
B. 5/7/43	B. R III	.08C	B. 3/16"	B. 1. & 2. & 3.	B. None	2	1700					Sound welds.
C. A 21	.0238 .015P	.56S1	C. Flame cutting	C. 45 minutes. 75°-190°F		3	1700					
D. Jones & Laughlin	.0238 .015P	.008S	Grinding	D. Grinding time 1 1/2 minutes.		4	1700					
E. Harnischfeger	.0238 .015P	.008S										
F. Buick Motor Division	.0238 .015P	.008S										
A. AD 414	A. 1/4"	A. A I	A. 60° DV	A. Not given	A. None	1	1700					P
B. 5/7/43	B. R III	.08C	B. 3/16"	B. 1. & 2. & 3.	B. None	2	1700					Sound welds.
C. A 19	.0238 .015P	.56S1	C. Flame cutting	C. 40 minutes. 75°-206°F		3	1700					
D. Jones & Laughlin	.0238 .015P	.008S	Grinding	D. Grinding time 2 minutes.								
E. Harnischfeger	.0238 .015P	.008S										
F. Buick Motor Division	.0238 .015P	.008S										
A. AD 414	A. 1/4"	A. A I	A. 60° DV	A. Not given	A. None	1	1700					P
B. 5/7/43	B. R III	.08C	B. 3/16"	B. 1. & 2. & 3.	B. None	2	1700					Sound welds.
C. A 20	.0238 .015P	.56S1	C. Flame cutting	C. 44.4 minutes. 75°-145°F		3	1700					
D. Jones & Laughlin	.0238 .015P	.008S	Grinding	D. Grinding time 2 1/2 mins.								
E. Harnischfeger	.0238 .015P	.008S										
F. Buick Motor Division	.0238 .015P	.008S										

110.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. TISSING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	A. GROOVE, INCLUDED ANGLE, ROOT FACE	A. BACKING	A. PRE	#	VEL.	LOCATION OF #	CRACKING	RADIOGRAPHIC RESULTS, ETC.							
C. PLATE NO.	D. ANODES MANUFACTURED BY	C. CARBON CONTENT	C. COATING	B. TRADE NAME	B. ROOT CAP	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	B. POST			L.L.	R.L.	C.B.	LOC.	TYPE	AMT				
E. ELECTRODE WELDING	F. ELECTRODE WELDING	E. BEH.	D. CURR. & POL.	D. CURR. & POL.	C. PLATE PREPARATION	1. ROOT TYPE													
G. ELECTRODE WELDING	H. ELECTRODE WELDING	F. BEH.				2. BODY TYPE													
I. ELECTRODE WELDING	J. ELECTRODE WELDING	G. BEH.				3. CROWN TYPE													
K. ELECTRODE WELDING	L. ELECTRODE WELDING	H. BEH.				C. TOTAL WELDING TIME & LATER PASS TEMPERATURE													
M. ELECTRODE WELDING	N. ELECTRODE WELDING	I. BEH.				D. REBAR													
A. AD 414	B. 5/7/43	A. 1/4"	B. R IV	A. A I	A. 60° DV	A. Not given	A. None	1	1700	9 1/2" L	IMP I	8 1/2"	P						
C. A 18	D. Great Lakes	.71Mn .70Si .029S .015P .61Cr .22Mo .08Zr	.08C	.15C 1.4B Mn	B. 3/16"	1. & 2. & 3.	B. None	2	1700	5" D	IMP I	15"	Crater crack.						
E. Harnischfeger	F. Buick Motor Division	C. .27C	D. Face 363	.033P	C. Flame cutting	C. 34.4 minutes. 75°-186° F						23 1/2"							
		D. Back 363	E. B.O.H.	.011S	C. Grinding	D. Grinding time 2 1/2 minutes.													
		E. Back 363	F. 1600 F 50 min.	.06V .08Cu															
		F. 1600 F 63 min.		B. AW 3															
				C. Lime															
				D. DC-REV															
A. AD 368	B. 4/21/43	A. 1/4"	B. R IV	A. A II	A. 60° DV	A. Not given	A. None	1	1700	2 1/2" L	IMP I	24 1/2"	P						
C. A 16	D. Great Lakes	.71Mn .70Si .029S .015P .61Cr .22Mo .08Zr	.08C	1.04Mn	B. 3/16"	1. & 2. & 3.	B. None					11 1/2"							
E. Alloy Rods Co.	F. Buick Motor Division	C. .27C	D. Face 363	.024S	C. Grinding	C. 35 minutes. 70°-186° F						36"							
		D. Back 363	E. B.O.H.	.041P															
		E. Back 363	F. 1600 F 50 min.	18.97Cr															
		F. 1600 F 1 hr.		10.06Ni															
				2.01Mo															
				.06V .05Zr															
				B. Armature															
				C. Lime															
				D. DC-REV															
A. AD 368	B. 4/21/43	A. 1/4"	B. R IV	A. A I	A. 60° DV	A. Not given	A. None	1	1700	X	IMP I	10"	P						
C. A 17	D. Great Lakes	.71Mn .70Si .029S .015P .61Cr .22Mo .08Zr	.08C	1.48Mn	B. 3/16"	1. & 2. & 3.	B. None	2	1700	1" L	IMP I	18"							
E. Harnischfeger	F. Buick Motor Division	C. .27C	D. Face 363	.033P	C. Flame cutting	C. 34 minutes. 65°-165° F						26"							
		D. Back 363	E. B.O.H.	.011S	C. Grinding	D. Grinding time 3 minutes.													
		E. Back 363	F. 1600 F 50 min.	.08Cu															
		F. 1600 F 1 hr.		B. AW 3															
				C. Lime															
				D. DC-REV															

111.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	BEAT		BALLISTIC RESULTS				REMARKS ON CRACKING
					A. PRE B. POST	#	VEL. T/S	LOCATION OF R L.L. B.L. C.B. LOC.	CRACKING TYPE & AMT		
A. FILING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANODE MANUFACTURER E. ELECTRODE MFG. F. ANODE FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. DIM E. PROTECT F. BEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT A POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE APP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROSS TYPE C. TOTAL BEATING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	#	VEL. T/S	LOCATION OF R L.L. B.L. C.B. LOC.	CRACKING TYPE & AMT	REMARKS ON CRACKING	
A. AD 454 B. 6/2/43 C. A 28 D. Great Lakes E. Harnischfeger F. Buick Motor Division	A. 1/4" B. R IV .70Mn .50Si .017S .015P .64Cr .28Mo .08Zr C. .28C D. Face 341-352 Back 341-352 E. B.O.H. F. 1650 F ± hr. water 910 F 1 1/2 hr. air	A. A I .08C 3.77Mn .54Si .06S .032F 18.57Cr 9.84Ni .70Mo B. AW 3-C C. Line D. DC-REV	A. 60° DV B. 3/16" C. Flame cutting Grinding	A. Not given B. 1. & 2. & 3. I 5/32" 2a 120 21 C. 34 minutes. 75°-180° F D. Grinding time 3 minutes.	A. None B. None	1 2	1827 1646	X X	4 1/2" D IMP I 20 1/2" 10 1/2" U IMP I 18" O I 1/2" 39"	P Weld is sound. 3/8" of in- complete pene- tration at cross- bar.	
A. AD 454 B. 6/2/43 C. A 29 D. Great Lakes E. Harnischfeger F. Buick Motor Division	A. 1/4" B. R IV .70Mn .50Si .017S .015P .64Cr .28Mo .08Zr C. .28C D. Face 341-352 Back 341-352 E. B.O.H. F. 1650 F ± hr. water 910 F 1 1/2 hr. air	A. A I .15C 1.48Mn .47Si .011S .033P 20.03Cr 10.21Ni 1.84Mo .06V .08Zr B. AW 3 C. Line D. DC-REV	A. 60° DV B. 3/16" C. Flame cutting Grinding	A. Not given B. 1. & 2. & 3. I 5/32" 1a 120 21 1/8" 1a 106 19 C. 45 minutes. 75°-195° F D. Grinding time 2 minutes.	A. None B. None	1 2 3	1536 1647 1680	1" L 4 1/2" D IMP I 7 1/2" IMP I 6 1/2" IMP V 12 1/2" IMP I 13 1/2" 40 1/2"	P Weld is sound. Fine star shaped crater crack at crossbar.		

112.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING PROCEDURE		BEAT		BALLISTIC RESULTS						RADIOGRAPHIC RESULTS, ETC.	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	A. GROOVE, INCLUDED ANGLE, ROOT FACE	A. BACKING	B. DEPOSITION SIZE EL. BO. TYPE AMP. V.	A. PRE	B. POST	N	VOL. F/S	LOCATION OF B L.L. R.L. C.B.	CRACKING LOC. TYPE AMT	RADIOGRAPHIC RESULTS, ETC.					
A. AD 825	B. 10/9/43	A. 1/4"	B. F.V.	A. A I	A. 90° DV	A. Not given	A. Not given	A. None	B. None	1 1635		X	IMP I 16"	P					
C. M 50	D. Republic Steel Corp.	1.004% .58S; .016% .014P .25Cr .48N; .11Mo		.08C .58S; .008; .024P 18.59°F 8.8AN; .70Mo B. AW3-C C. Lime D. DC-REV	B. 3/16" C. Flame cutting	B. 1. & 2. & 3. 5/32" 2a 125 23	C. 61 minutes. 75°F-85°F D. Grinding time 3 minutes.			2 1581	1" L	9 1/2" U	IMP I 5 1/2"	33-15/16"					
E. Harnischfeger	F. Buick Motor Division	C. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs. water G. 860 F 3 hrs. air																	
A. AD 825	B. 10/9/43	A. 1/4"	B. R.V.	A. A I	A. 90° DV	A. Not given	A. Not given	A. None	B. None	1 1632		1" R	IMP I 15"	P					
C. M 51	D. Republic Steel Corp.	1.004% .48S; .018% .012P .24Cr .48N; .12Mo		.08C .58S; .008; .024P 18.59°F 9.8AN; .70Mo B. AW3-C C. Lime D. DC-REV	B. 3/16" C. Flame cutting	B. 1. & 2. & 3. 5/32" 2a 125 23	C. 55 minutes. 75°F-185°F D. Grinding time 1 1/2 minutes.			2 1625	1" R	5 1/2" U	IMP V 1 1/2"	16 1/2"					
E. Harnischfeger	F. Buick Motor Division	C. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs. water G. 860 F 3 hrs. air																	
A. A 10213	B. 11/9/43	A. 1/4"	B. R.V.	A. A I	A. 90° DV	A. Not given	A. Not given	A. None	B. None	1 1610		1 1/2" L	IMP I 13 1/8"	P					
C. 89	D. Republic Steel Corp.	1.004% .48S; .018% .012P .24Cr .48N; .12Mo		.10C .48S; .012S .034P 19.65Cr 9.52Ni .80Po B. AW3-C C. --- D. DC-REV	B. 1/4" C. Flame cutting	B. 1. & 2. & 3. 3/16" 1a 205 24 5/32" 1a 185 24	C. 38.3 minutes. 75°F-135°F D. Grinding time 3 minutes.			2 1586	1" R	4 1/2" D	IMP I 12"	29-3/8"					
E. Harnischfeger	F. Buick Motor Division	C. Face 352 Back 352 E. B.O.H. F. 1650 F 2 hrs. water G. 860 F 3 hrs. air																	

113.

IDENTIFICATION	ABRUS DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SHIM E. PROCESS F. HEAT TREATMENT G. TIME QUOTE	A. TYPE B. TRADE NAME C. CS. FING. D. CURRENT A E. POLARITY	A. GROOVE, INCLUDED B. ROOT FACE C. ROOT GAP D. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	N	VEL.	LOC. OF B.	CRACKING	RADIOGRAPHIC RESULTS, ETC.
A. A 12304 B. 1/4/44 C. M 66 D. Republic Steel E. Harnischfeger F. Buick Motor G. Division	A. 1/4" B. R V 1.00M .48S1 .0165 .012P .24Cr .48N1 C. .32C D. Face 352 Back 352 E. B.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A I .07-.12C 3.50-4.18M .39-.50S1 .012-.016S .031-.037P 2C-.23- 9.00- 21.02Cr 9.60N1 B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 5/16" 1a 160 24 5/32" 1a 120 24 C. 37.48 minutes. 70°-120° F D. Grinding time 2 minutes.	A. None B. None	1	164B	X 12 1/2" U	IMP I 19 1/2" IMP V 5 1/2"	P Evidence of under- cutting.
A. A 12304 B. 1/4/44 C. M 66 D. Republic Steel E. Harnischfeger F. Buick Motor G. Division	A. 1/4" B. R V 1.00M .48S1 .0165 .012P .24Cr .48N1 C. .32C D. Face 352 Back 352 E. B.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A I .10-.11C 3.82-4.04M .26-.61S1 .009-.011S .012-.036P 19.4-18.5Cr 9.4-9.5N1 .46-.75Mo B. AW 3-C C. Lime D. DC-REV	A. 60° SV 3/32" B. 1/4" C. Flame cutting	A. Copper B. 1. & 2. & 3. 1/4" 1a 170 28 Seal bead- 3/16" 1a 155 24 C. 3 hours. 70°-100° F D. - - -	A. None B. None	5 6	1813 1828 1/2" R	X B" U 9" D	IMP I 18 1/2" IMP I 10" 36 1/2"	P Plate only 35 1/2" long
A. A 12670 B. 2/18/44 C. M 60 D. Republic Steel E. Harnischfeger F. Buick Motor G. Division	A. 1/4" B. R V 1.01M .24S1 .0215 .014P .44Cr .42N1 C. .28C D. Face 352 Back 352 E. B.O.H. F. 1650 F water 860 F	A. A I .10-.11C 3.82-4.04M .26-.61S1 .009-.011S .012-.036P 19.4-19.5Cr 9.4-9.5N1 .46-.75Mo B. AW 3-C C. Lime D. DC-REV	A. 60° SV 3/32" B. 1/4" C. Flame cutting Grinding	A. Copper B. 1. & 2. & 3. 1/4" 1a 185 28 Seal bead- 3/16" 1a 150 24 C. 3 1/2 hours 70°-90° F D. - - -	A. None B. None	3 4	1545 1527 1/2" L	X 7 1/2" U 9" D	IMP I 18" IMP I 2" IMP V 1 1/2" 21 1/2"	P

IDENTIFICATION	ABSORB DATA	ELECTRODE DATA	JOINT DESIGN		WELDING	PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING		
			A. GROOVE, INCLUDED ANGLE, ROOT FACE	B. ROOT GAP				A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	A. PRE	B. POST		VEL. F/S	LOCATION OF B L.L. R.L. C.B.
A. 11306 B. 12/14/43 C. M 56 D. Republic Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 1/4" B. R V 1. 0.01in .48S1 C. .0185 .012P D. .24Cr .48Ni E. .12Mo F. .33C D. Face 352 Back 352 E. P.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A I .12C 3.50-.48S1 4.22Ni .39-.54S1 .012-.016S .031P 20.08- 20.23Cr 9.00- 9.67Ni .85-.86Mo B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 180 22 5/32" 1a 155 21 C. 40.7 minutes. 70°-135°F D. Grinding time 2 minutes.	A. None B. None	6	1634	1" R 7 1/2" U 10" D IMP I 24 IMP V 142 IMP I 24 IMP V 82 271	P Small amount of porosity.					
A. 11306 B. 12/14/43 C. M 56 D. Republic Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 1/4" B. R V 1. 0.01in .57S1 C. .016S .014P D. .25Cr .48Ni E. .11Mo F. .33C D. Face 352 Back 352 E. P.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A I .12C 3.50-.4.23 .29-.54S1 .012-.016S .031P 20.08- 20.23Cr 9.00-9.67 N1 .85-.86Mo B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 175 22 5/32" 1a 150 21 C. 41.9 minutes. 70°F-130°F D. Grinding time 1-3/4 min.	A. None B. None	8 9	1658 1652	3 7/8" L 9 7/8" U 8" D IMP I 17 IMP I 204 374	P					
A. 12304 B. 1/4/44 C. M 57 D. Republic Steel Corp. E. Harnischfeger Corp. F. Buick Motor Division	A. 1/4" B. R V 1. 0.01in .24S1 C. .021S .014P D. .44Cr .42Ni E. .13Mo F. .29C D. Face 352 Back 352 E. P.O.H. F. 1650 F 1 hr. water 860 F 2 hrs. water	A. A I .07-.12C 3.50-.4.18 .39-.50S1 .012-.014S .031-.037P 20.23-.2102 9.00-P.56 N1 .05-.85Mo B. AW 3-C C. Lime D. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 180 24 5/32" 1a 120 24 C. 37.08 minutes. 70°-140°F D. Grinding time 2 minutes.	A. None B. None	3 4	1594 1589	2 1/2" L 5 1/16" U 9" D IMP I 142 IMP I 10 IMP IV 172 42	P Evidence of undercutting.					
														115.

IDENTIFICATION	ARMOR DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	BALLISTIC RESULTS				REMARKS ON CRACKING
						A	B	C	D	
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ARMOR MANUFACTURER E. ELECTRODE MFG. F. ARMOR FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SHW E. PROCESS F. HEAT TREATMENT G. TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE INCLUDED B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AMP V. 1. ROOT TYPE 2. BODY TYPE 3. CROWN TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	VEL.	LOC.	CRACKING	RADIOGRAPHIC RESULTS, ETC.	
A. A 10913 F. 11/9/43 C. SO D. Republic Steel Corp. E. Harnischfeger F. Buick Motor Division	A. 1/4" B. R V C. 1.00% .48S1 D. .018% .012P E. .24Cr .48Ni F. .12Mo G. .32C H. Face 352 I. Back 352 J. B.O.H. K. 1650 F 2 hrs. L. water M. 840 F 3 hrs. N. air	A. A I B. 10C C. 3.77% Mn D. .48S1 E. .012S F. .034P G. 19.65Cr H. 9.53Ni I. .80Mo J. AW 3-C K. DC-REV	A. 60° SV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 215 24 5/32" 1a 186 24 C. 38.3 minutes. 75°F-140°F D. Grinding time 2.5 minutes	A. None B. None	1 1658 2 1577	IMP IMP IMP IMP	I 21 V 121 I 14 V 7 38	P	
A. A 11305 B. 12/14/43 C. A 36 D. Great Lakes Steel Corp. E. Harnischfeger F. Buick Motor Division	A. 1/4" B. R IV C. .70% .50S1 D. .017% .015P E. .44Cr .25Mo F. .08Cr G. .28C H. Face 341-352 I. Back 341-352 J. B.O.H. K. 1650 F 2 hr. L. water M. 910 F 1 1/2 hrs. N. air	A. A I B. 10-12C C. 3.77-4.23% Mn D. .48-54S1 E. .012S F. .031-.034 G. 9.53-9.67 H. 18.65 I. 20.08Cr J. .80-.86Mo K. AW 3-C L. Lime M. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 180 22 5/32" 1a 150 21 C. 37.2 minutes. 70°F-135°F D. Grinding time 2-3/4 minutes	A. None B. None	1 lost 2 1628 3 1614	IMP IMP IMP IMP IMP IMP	I 31 V 91 I 51 V 91 I 41 V 151 461	P	
A. A 11305 B. 12/14/43 C. A 36 D. Great Lakes Steel Corp. E. Harnischfeger F. Buick Motor Division	A. 1/4" B. R IV C. .70% .50S1 D. .017% .015P E. .44Cr .25Mo F. .08Cr G. .28C H. Face 341-352 I. Back 341-352 J. B.O.H. K. 1650 F 2 hr. L. water M. 910 F 1 1/2 hr. N. air	A. A I B. 10-12C C. 3.77-4.23% Mn D. .48-54S1 E. .012S F. .031-.034 G. 9.53-9.67 H. 18.65 I. 20.08Cr J. .80-.86Mo K. AW 3-C L. Lime M. DC-REV	A. 60° DV B. 1/4" C. Flame cutting	A. Not given B. 1. & 2. & 3. 3/16" 1a 180 22 5/32" 1a 150 21 C. 38 minutes. 70°F-120°F D. Grinding time 1 1/2 minutes.	A. None B. None	4 1611 5 1616	IMP IMP O O	I 11 V 91 I 71 V 51 231	P	
									116.	

IDENTIFICATION	ANNO DATA	ELECTRODE DATA	JOINT DESIGN	WELDING	PROCEDURE	HEAT	MECHANISTIC RESULTS				REMARKS ON CRACKING
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. ANNO MANUFACTURER E. ELECTRODE SPEC. F. ANNO FABRICATOR	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SIZE E. PROCESS F. HEAT TREATMENT G. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT CAP C. PLATE PREPARATION	A. RACING B. DEPOSITION SIZE EL. NO. TYPE AMP. V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASSES TEMPERATURE D. REMARKS	A. PRE B. POST	H	VEL.	LOCATION OF CRACKING	CRACKING		
A. AD 375 B. 4/23/43 C. IV 180 F D. Chevrolet Forge E. Harnischfeger Corp. F. Chevrolet Motor Company	A. 1/4" B. R IV .84Mn .70Si .019S .016P .65Cr .19Mn C. .29C D. Face 321 Back 321 E. B.O.H. F. 1600 F 32 min. water 1050 F 4 hrs. air 1000 F 4 hrs. air	A. A I .14C 3.82Mn .61Si .008S .026P 19.7Cr 10.1Ni .97Mo B. AW 3-C C. Lime D. DC-REV	A. None given B. 1/4" C. Grinding	A. Copper B. 1. & 2. & 3. I 1/4" 1a 190-250 28-28 3/16" 1a 140-175 25/28 C. 4 hours. 75°-120° F D. Grinding time, none.	A. None B. None	1 2 3	1700 1700 1800	7 1/2" U 1" R 3/8" L	IMP IMP		

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		BEAT		BALLISTIC RESULTS					REMARKS ON CRACKING																															
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE MFG.	F. ANODE FABRICATOR	A. PLATE THICKNESS	B. TYPE	C. CARBON CONTENT	D. SIZE	E. PROCESS	F. BEAT TREATMENT	G. TEMP.	H. TIME	I. QUENCH	A. TYPE	B. TRADE NAME	C. COATING	D. CURRENT A	E. POLARITY	A. none given DV	B. 1/4"	C. Grinding	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE EMP. T.	A. PRE	B. POST	F/S	L.L.	S.L.	C.B.	LOC.	TYPE	ART	RADIOGRAPHIC RESULTS, ETC.																
A. AD 375	B. 4/2.3/43	C. IV 183 F	D. Chevrolet Forgr	E. Crucible Steel Co.	F. Chevrolet Motor Co.	A. 1/4"	B. R IV	.84Mn .70Si	.018S .016P	.65Cr .19Mn	.29C	D. Face 331-341	E. Back 331-641	F. B.O.H.	G. 1.30Mo	H. 1400 F 32 min	I. water	J. 950 F 3 hrs.	K. air	A. A I	B. .12C	C. 4.10Mn	D. .46Si	E. .021S	F. .038P	G. 19.7Cr	H. 10.0Ni	I. 1.30Mo	J. B. Armorize	K. C. TiO ₂	L. D. DC-REV	A. none given DV	B. 1/4"	C. Grinding	A. Copper	B. 1. & 2. & 3. 1a 190-250	C. 3/16" 1a 140-175	D. 25-28	E. 44 hrs. 80°-110° F	F. Grinding time, none	A. None	B. None	1	1700	1 1/2"	6 1/2"	IMF I	12 1/2"	F	Excessive cracking
A. AD 375	B. 4/2.3/43	C. IV 183 F	D. Chevrolet Forgr	E. Crucible Steel Co.	F. Chevrolet Motor Co.	A. 1/4"	B. R IV	.84Mn .70Si	.018S .016P	.65Cr .19Mn	.29C	D. Face 331-341	E. Back 331-641	F. B.O.H.	G. 1.30Mo	H. 1400 F 32 min	I. water	J. 950 F 3 hrs.	K. air	A. A I	B. .12C	C. 4.10Mn	D. .46Si	E. .021S	F. .038P	G. 19.7Cr	H. 10.0Ni	I. 1.30Mo	J. B. Armorize	K. C. TiO ₂	L. D. DC-REV	A. none given DV	B. 1/4"	C. Grinding	A. Copper	B. 1. & 2. & 3. 1a 190-250	C. 3/16" 1a 140-175	D. 25-28	E. 5 hours. 80°-100° F	F. Grinding time, none	A. None	B. None	1	1700	1 1/2"	7 1/2"	IMF I	2"	P	Slight slag and porosity.

118.

IDENTIFICATION		ANODE DATA		ELECTRODE DATA		JOB DESIGN		WELDING PROCEDURE		HEAT		METALLURGIC RESULTS					REMARKS ON CRACKING RADIOGRAPHIC RESULTS, ETC.											
A. FILING RECORD NO.	B. DATE OF TEST	C. PLATE NO.	D. ANODE MANUFACTURER	E. ELECTRODE WELD	F. ANODE FABRICATOR	A. TYPE	B. TRADE NAME	C. CARBON CONTENT	D. SRR	E. PROCESS	F. HEAT TREATMENT	G. TEMP. TIME QUENCH	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE AMP. V.	1. ROOT TYPE	2. BODY TYPE	3. GROUND TYPE	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	O. REMARKS	A. PRE B. POST	#	VEL. F/S	LOCATION OF # L.L. B.L. C.S. LOC.	CRACKING TYPE AMT				
A. AD 375	B. 4/2-3/43	C. XA-184-F	D. Chevrolet Forger	E. Harnischfeger Corp.	F. Chevrolet Motor	A. 1/4"	B. R IV .04Mn .70Si .019S .01eP .65Cr .18Mo .028C	D. Pacr 331-341 Back 331-341	E. B.O.H. water 1600 F 32 min	F. 1600 F 32 min water 950 F 3 hrs. air	A. A I .14-.15C 3.89-.447Mn .61-.65Si .008S .028C .032P 19.5-19.7Cr 9.5-10.1Ni .97-Mn 1.07Mo	B. AW 3-C C. Lime D. DC-REV	A. 80° SV B. 3/16" C. Grinding	A. Copper B. 1. I 5/32" 1a 110-140 24-25 2. & 3. I 3/16" 1a 140-175 25-26 C. 6 hours. 80°-120°F D. Grinding time, none.	1	1700	1" L	IMP U	I IMP	11"	A. None B. None	1	1700	1" L	IMP I	11"	P	Small amount of porosity and slag. Weld is sound.
A. AD 375	B. 4/2-3/43	C. XA-184-F	D. Chevrolet Forger	E. Harnischfeger Corp.	F. Chevrolet Motor	A. 1/4"	B. F TV .04Mn .70Si .019S .01eP .65Cr .18Mo .028C	D. Pacr 331-341 Back 331-341	E. Elec Basic 1600 F 32 min water 950 F 2 hrs. air		A. A I .14-.15C 3.89-.447Mn .61-.65Si .008S .028C .032P 19.5-19.7Cr 9.5-10.1Ni .97-Mn 1.07Mo	B. AW 3-C C. Lime D. DC-REV	A. 80° SV B. 3/16" C. Grinding	A. Copper B. 1. I 5/32" 1a 110-140 24-25 2. & 3. I 3/16" 1a 140-175 25-26 C. 4 1/2 hours. 80°-120°F D. Grinding time, none.	1	1700	1" L	IMP D	I IMP V	10" 4 1/2"	A. None B. None	1	1700	1" L	IMP I	10" 4 1/2"	P	Small amount of slag inclusions. 1/2" of incomplete fusion.
A. AD 375	B. 4/2-3/43	C. XA-184-F	D. Chevrolet Forger	E. Crucible Steel Company	F. Chevrolet Motor	A. 1/4"	B. R IV .04Mn .70Si .019S .01eP .65Cr .18Mo .028C	D. Pacr 331-341 Back 331-341	E. B.O.H. water 1600 F 32 min	F. 1600 F 32 min water 950 F 3 hrs. air	A. A I .11-.12C 4.10-.39Mn .65Cr .18Mo .008C .021S .038-.040 P 19.7-20.0Cr 10.0-10.3Ni 1.00-1.30Mo	B. Armortize Mn C. TiO2 D. DC-REV	A. 80° SV B. 3/16" C. Grinding	A. Copper B. 1. I 5/32" 1a 110-140 24-25 2. & 3. I 3/16" 1a 140-175 25-26 C. 5 hours. 80°-120°F D. Grinding time, none.	1	1700	1" L	IMP U	I IMP	16" 5 1/2"	A. None B. None	1	1700	1" L	IMP I	16" 5 1/2"	P	Plate is borderline acceptable. Slag inclusions, one star shaped crater crack at crossbar.

119.

IDENTIFICATION	ANODE DATA	ELECTRODE DATA	JOINT DESIGN	WELDING PROCEDURE	HEAT	VEL.	BALLISTIC RESULTS				REMARKS ON CRACKING		
A. FIRING RECORD NO. B. DATE OF TEST C. PLATE NO. D. CHEVROLET E. HARMISCHFEGER F. CHEVROLET	A. PLATE THICKNESS B. TYPE C. CARBON CONTENT D. SW E. PROCESS F. HEAT TREATMENT TEMP. TIME QUENCH	A. TYPE B. TRADE NAME C. COATING D. CURRENT & POLARITY	A. GROOVE, INCLUDED ANGLE, ROOT FACE B. ROOT GAP C. PLATE PREPARATION	A. BACKING B. DEPOSITION SIZE EL. NO. TYPE AND V. 1. ROOT TYPE 2. BODY TYPE 3. GROW TYPE C. TOTAL WELDING TIME & INTER PASS TEMPERATURE D. REMARKS	A. PRE B. POST	F/S	L.L.	R.L.	C.B.	LOC.	TYPE	AMT	RADIOGRAPHIC RESULTS, ETC.
A. AD 375 B. 4/23/43 C. XW-189-F D. Chevrolet E. Crucible F. Chevrolet	A. 1/4" B. R IV C. .84Mn .70Si D. .018 .016P E. .65Cr .19Mo F. .29C D. Face 331-641 Back 331-641 E. 3.0H. F. 1600 F 32 min. water 960 F 3 hrs. air	A. A I B. 11-12C C. 4.10-4.26Mn D. .59-.48Si E. .008-.021 F. .038-.040 19.7-20.0Cr 10.0-10.3Ni 1.00-1.30Mo B. Armorize C. TiO ₂ D. DC-REV	A. 60° SV B. 3/16" C. Grinding	A. Copper B. 1. I 5/32" 1a 110-140 24-25 2. I 3/16" 1a 140-175 25-28 C. 5 hours 80°-140°F D. Grinding time, none.	A. None B. None	1 2			9 1/2"	U D	IMP I	12 1/2" 21 1/2" 4" 37 1/2"	F Plate is not acceptable due to excessive cracking in crossbar.
A. AD 375 B. 4/23/43 C. XW-189-F D. Chevrolet E. Harnischfeiger Corp. F. Chevrolet	A. 1/4" B. R IV C. .84Mn .70Si D. .018 .016P E. .65Cr .19Mo F. .29C D. Face 295 Back 295 E. B.O.H. F. 1400 F 32 min. water 1050 F 4 hrs. air 1000 F 4 hrs. air	A. A I B. 13-.15C C. 4.20-4.47Mn D. .47-.65Si E. .008-.011 F. .032-.038 19.0-19.5Cr 9.5-10.7Ni 1.07Mo B. AW-3-C C. Lime D. DC-REV	A. 60° SV B. 3/16" C. Grinding	A. Not given B. Seal bead- I 5/32" 1a 110-140 24-25 2. & 3. I 1/4" 1a 190-250 28-28 C. 5 1/2 hours. 80°-100°F D. Grinding time, none.	A. None B. None	1 2			3 1/2"	D U	IMP I IMP	1 1/2" 4 1/2" 13" 18 1/2"	P
A. AD 375 B. 4/23/43 C. XW-189-F D. Chevrolet E. Harnischfeiger Corp. F. Chevrolet	A. 1/4" B. R IV C. .84Mn .70Si D. .018 .016P E. .65Cr .19Mo F. .29C D. Face 331-641 Back 331-641 E. B.O.H. F. 1400 F 32 min. water 960 F 3 hrs. air	A. A I B. 13-.15C C. 4.20-4.47Mn D. .47-.65Si E. .008-.011 F. .032-.038 19.0-19.5Cr 9.5-10.7Ni 1.07Mo B. AW-3-C C. Lime D. DC-REV	A. 60° SV B. 3/16" C. Grinding	A. Not given B. Seal bead- I 5/32" 1a 110-140 24-25 2. & 3. I 1/4" 1a 190-250 28-28 C. 5 1/2 hours. 80°-110°F D. Grinding time, none.	A. None B. None	1 2			10 1/2"	U D	IMP I	11 1/2" 19 1/2" 30 1/2"	P Plate is borderline acceptable. Incomplete fusion and large slag inclusion.

120.

IDENTIFICATION		ARMOR DATA		ELECTRODE DATA		JOINT DESIGN		WELDING		PROCEDURE		REPAIR		BALLISTIC RESULTS				REMARKS ON CRACKING	
A. FIRING RECORD NO.	B. DATE OF TEST	A. PLATE THICKNESS	B. TYPE	A. TYPE	B. TRADE NAME	A. GROOVE, INCLUDED	B. ANGLE, ROOT FACE	A. BACKING	B. DEPOSITION SIZE EL. NO. TYPE APP. V.	C. TOTAL WELDING TIME & INTER PASS TEMPERATURE	D. REMARKS	A. PRE	B. POST	W	VEL. F/S	LOCATION OF H. L.L. R.L. C.B. LOC.	CRACKING TYPE ANT	RADIOGRAPHIC RESULTS, ETC.	
A. AD 375	B. 4/2, 3/4, 3	A. 1/4"	B. R IV	A. A I	.10-.11C	A. 40° SV	B. 3/16"	A. Copper	B. Seal bead-	C. 6 hours. 80° F-90° F	D. Grinding time, none.	A. None	B. None	1	1700	2 1/2" R	10 1/2" D	-	P
C. XM-197-F	D. Chevrolet	.031S .016P	.55Cr .22Mo	4.32-	4.36Mn	C. Grinding		I 5/32" 1a 170 24-25				2		2	1700	1/2" R	8" U	-	
E. Crucible	F. Steel Co.	D. Face 321-331	E. B.O.H.	.39-.71S1	.008-.018S			2. & 3.				3		3	1800	X	9 1/2" U	I 12 1/2"	
F. Chevrolet	G. Motor	D. Back 321-331	F. 1600 F 32 min	20.0-	20.8Cr			I 1/4" 1a 190 28-28											
		min. water	825 F	10.3-	10.7Ni														
		air		1.00Mo	B. Armorize														
				C. TiO ₂	Mn														
				D. DC-REV															
A. AD 375	B. 4/2, 3/4, 3	A. 1/4"	B. R IV	A. A I	.10-.11C	A. 40° SV	B. 3/16"	A. Copper	B. Seal bead-	C. 6 hours. 80°-100° F	D. Grinding time, none	A. None	B. None	1	1700	5 1/8" L	8" U	-	P
C. XM-197-F	D. Chevrolet	.031S .016P	.55Cr .22Mo	4.32-	4.36Mn	C. Grinding		I 5/32" 1a 150 24-25				2		2	1800	2 1/2" L	5 1/2" D	-	
E. Crucible	F. Steel Co.	D. Face 321	E. B.O.H.	.39-.71S1	.008-.018S			2. & 3.				3		3	1800	1/2" L	8 1/2" U	I 3 1/2"	
F. Chevrolet	G. Motor	D. Back 331	F. 1600 F 32	20.0-	20.8Cr			I 1/4" 1a 210 28-28											
		min. water	825 F 4 hrs.	10.3-	10.7Ni														
		air		1.00Mo	B. Armorize														
				C. TiO ₂	Mn														
				D. DC-REV															

121.