Westmoreland Mechanical Testing & Research, Inc.
P.O. Box 388
Westmoreland Drive
Youngstown, Pa. 15696-0388 U.S.A.
Telephone: 724-537-3131 Fax: 724-537-3151
Website: www.wmtr.com
WMT&R is a technical leader in the material testing industry.

ACCREDITED
621-01 & 621-02

Accredited Nadcap Materials Testing Laboratory

May 8, 2006

CERTIFICATION

Section 1 of 2

WMT&R Report No. 6-27398
P.O. No. 19386
Requisition No. 7594

MetalTek International
The Carondelet Division
8600 Commercial Blvd.
I-55 Industrial Park
Pevely, MO 63070-1528

Attention: Jim Galaske

Subject: All processes, performed upon the material as received, were conducted at WMT&R, Inc. in accordance with the WMT&R Quality Assurance Manual, Rev. 9, dated 4/1/2000.
The following tests were performed on this order: TENSILE

TENSILE RESULTS: ASTM E21-05
Requirements: UTS ksi (Min 95\Max ---) 0.2% YS ksi (Min 72\Max ---) 4D Elong. % (Min 32\Max ---) Modulus Msi (Min 21\Max ---)
SOAK TIME: 5 Minutes
SPEED OF TESTING: 0.003 in./in./min., 0.05 in./min./in.
MATERIAL: Metaltek CF8MNMnMOD **DISPOSITION: Acceptable**

Coil No.	Specimen	TestLog Number	Temp. °F	UTS ksi	0.2% YS ksi	Elong %	RA %	Modulus Msi	Ult. Load lbf	0.2% YLD. lbf	Orig. Dia. (in.)	Final Dia. (in.)	4D Orig GL (in.)	4D Final GL (in.)	Orig. Area (sq. in.)	Machine Number	A\U\R
B3	Z1 (R1)	D48509	-320	178.5	108.6	49	39	29.1	17160	10440	0.3499	0.2734	1.40	2.09	0.09615630	M9	A
B3	Z2 (R1)	D48510	-320	188.8	115.0	50	34	31.4	18230	11100	0.3506	0.2858	1.40	2.10	0.09654142	M9	A
B3	Z3 (R1)	D48511	-320	181.9	112.8	45	42	31.7	17530	10870	0.3503	0.2665	1.40	2.03	0.09637628	M9	A

A\U\R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

TENSILE RESULTS: ASTM E21-05
Requirements: UTS ksi (Min 95\Max ---) 0.2% YS ksi (Min 72\Max ---) 4D Elong. % (Min 32\Max ---) Modulus Msi (Min 21\Max ---)
SOAK TIME: 5 Minutes
SPEED OF TESTING: 0.003 in./in./min., 0.05 in./min./in.
MATERIAL: Metaltek CF8MNMnMOD **DISPOSITION: UnAcceptable**

Coil No.	Specimen	TestLog Number	Temp. °F	UTS ksi	0.2% YS ksi	Elong %	RA %	Modulus Msi	Ult. Load lbf	0.2% YLD. lbf	Orig. Dia. (in.)	Final Dia. (in.)	4D Orig GL (in.)	4D Final GL (in.)	Orig. Area (sq. in.)	Machine Number	A\U\R
B3	Z1	D43548	-320	154.2	108.1	20	30	31.5	15440	10820	0.3570	0.2991	1.40	1.68	0.10009821	M9	U
B3	Z2	D43549	-320	167.0	110.8	21	25	30.7	16700	11080	0.3568	0.3090	1.40	1.70	0.09998609	M9	U

A\U\R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Roy E. Starr\Matt Wojton
____ Technical Services Manager____ Tensile Supervisor May 8, 2006

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Accredited Nadcap Materials Testing Laboratory

May 8, 2006

MetalTek International

CERTIFICATION

Section 2 of 2

WMT&R Report No. 6-27398
P.O. No. 19386

DISPOSITION: Unacceptable

Coil No.	Specimen	TestLog Number	Temp. °F	UTS ksi	0.2% YS ksi	Elong %	RA %	Modulus Msi	Ult. Load lbf	0.2% YLD. lbf	Orig. Dia. (in.)	Final Dia. (in.)	4D Orig GL (in.)	4D Final GL (in.)	Orig. Area (sq. in.)	Machine Number	A\U\R
B3	Z3	D43550	-320	169.1	112.2	24	26	32.0	16910	11220	0.3568	0.3067	1.40	1.73	0.09998609	M9	U

A\U\R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Requirements provided by MetalTek International

Roy E. Starr\Matt Wojton
Technical Services Manager\ Tensile Supervisor

5-8-06
May 8, 2006

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2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

Chemical, Metallurgical, Mechanical, Nondestructive, Environmental Testing, Analyses and Field Service.

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METALTEK INTERNATIONAL
8600 Commercial Blvd.
Pevely, MO 63070

April 3, 2006
Lab No. 06P-1080
P.O. No. 21324

Attention: CHUCK RUUD

REPORT OF MECHANICAL TESTS

SAMPLE ID: SAMPLES FROM B3 COIL- Z1, Z2, Z3

Sample ID	Original Area Sq. Inches	Reduced Area Sq. Inches	Reduction in Area %	Modulus of Elasticity	Yield Strength PSI	Tensile Strength PSI	Elongation (2.0" Gage Length) in.	Elongation (2.0" Gage Length) %
Z1	0.1924	0.1269	34.0	23.5	43300	86000	0.84	42.0
Z2	0.1924	0.1195	37.9	22.2	41800	85200	0.83	41.5
Z3	0.1964	0.1244	36.6	23.1	42100	85600	0.84	42.0

Round, reduced section tensiles

Yield taken at .2% offset Room temperature Ctm

Tested in accordance with ASTM A 370-03a

Identification of tested specimens provided by the client.

Karl Schmitz, Director
Materials Testing

KS/tlv

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METALTEK INTERNATIONAL
8600 Commercial Blvd.
Pevely, MO 63070

April 3, 2006
Lab No. 06P-1080
P.O. No. 21324

Attention: CHUCK RUUD

REPORT OF CHARPY IMPACT TEST

MATERIAL (SAMPLE ID): B3 COIL- Z1, Z2, Z3

SPECIFICATION: ASTM A 370-03a

SPECIMEN TYPE: "A" Vee Notch

SPECIMEN SIZE: 10 mm x 10 mm

TEMPERATURE OF TEST: 77°K

REQUIREMENTS: 35 ft / lbs

RESULTS:

SAMPLE ID	FOOT LBS.	LATERAL EXPANSION	% SHEAR
Z1-4	73	0.038	20
Z1-5	74	0.038	20
Z1-6	70	0.040	20
Average	72	0.039	20

SAMPLE ID	FOOT LBS.	LATERAL EXPANSION	% SHEAR
Z2-4	60	0.035	20
Z2-5	65	0.045	20
Z2-6	64	0.037	20
Average	63	0.039	20

SAMPLE ID	FOOT LBS.	LATERAL EXPANSION	% SHEAR
Z3-4	51	0.030	10
Z3-5	56	0.037	10
Z3-6	55	0.035	20
Average	54	0.034	13

Identification of tested specimens provided by client.

Karl Schmitz, Director
Materials Testing

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METALTEK INTERNATIONAL
8600 Commercial Blvd.
Pevely, MO 63070

April 3, 2006
Lab No. 06P-1080
P.O. No. 21324

Attention: CHUCK RUUD

REPORT OF CHARPY IMPACT TEST

MATERIAL (SAMPLE ID): B3 COIL- Z1, Z2, Z3

SPECIFICATION: ASTM A 370-03a

SPECIMEN TYPE: "A" Vee Notch

SPECIMEN SIZE: 10 mm x 10 mm

TEMPERATURE OF TEST: 293°K

REQUIREMENTS: 50 ft / lbs

RESULTS:

SAMPLE ID	FOOT LBS.	LATERAL EXPANSION	% SHEAR
Z1-7	114	0.069	30
Z1-8	106	0.053	20
Z1-9	118	0.075	30
Average	113	0.066	27
SAMPLE ID	**FOOT LBS.**	**LATERAL EXPANSION**	**% SHEAR**
Z2-7	115	0.087	20
Z2-8	105	0.067	20
Z2-9	110	0.096	30
Average	110	0.083	23
SAMPLE ID	**FOOT LBS.**	**LATERAL EXPANSION**	**% SHEAR**
Z3-7	108	0.082	30
Z3-8	115	0.094	30
Z3-9	102	0.079	20
Average	108	0.085	27

Identification of tested specimens provided by client.

Karl Schmitz, Director
Materials Testing

KS/tlv

ACCREDITED
Certificate No. 0397-01
Certificate No. 0397-02

MEMBER ACIL

PRODUCT CONFORMANCE REPORT

LINCOLN ELECTRIC

Product Class.	LNM 4455 EN 12072-99: G 20 16 3 Mn L	Size(s) mm Lot/Batch Item No.	1,2 3018SL3/78308 692129
Customer	EUROWELD MOORESVILLE N.C. 28117 UNITED STATES	Quantity Customer ref. LSW Order No.	105,0 KG P.O. 05 - 46 SD427896

Chemical analysis (%) EN10204 2.2

C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N
0,01	0,5	7,3	0,015	0,001	20,3	15,4	2,9	0,1	0,19

Mechanical tests, all weld metal EN10204 2.2

Tensile testing

Cond.	Temp. °C	Rp0.2 N/mm2	Rm N/mm2	A5 %
AW	RT	407	623	41

Impact testing

Cond.	Temp.1 °C	Av1 J
AW	-196	67

Additional information EN10204 2.2

Other tests

Remarks

impact testing (individual values): 70J - 65J - 67J

The product identified above has been manufactured, tested and supplied in compliance with a Quality Assurance Programme that fulfils the requirements of EN 29000/ ISO 9000/BS 5750 or similar standard.
We herewith certify that the product complies with the above-mentioned standards.
Certified ISO 9001:2000.

Company	Issued by	Function	Date	Cert.No.
Lincoln Smitweld B.V.	P. Nagels	QA Administrator	22/03/2005	3018513/7830

Registered Office
Nieuwe Dukenburgseweg 20
6534 AD NIJMEGEN

Post address
P.O. Box 253
6500 AG Nijmegen

Telephone: 31 24 3522911
Fax: 31 24 3522200

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METALTEK INTERNATIONAL
8600 Commercial Blvd.
Pevely, MO 63070

August 16, 2005
Lab No. 05P-2532
P.O. No. 21324

Attention: Chuck Ruud

REPORT OF CHARPY IMPACT TEST

MATERIAL (SAMPLE ID): LNM 4455, LINCOLN LOT 3018513/78308

SPECIFICATION: ASTM A 370-03a

SPECIMEN TYPE: "A" Vee Notch

SPECIMEN SIZE: 10 mm x 10 mm

TEMPERATURE OF TEST: 293°K

BASE METAL	FOOT LBS.	LATERAL EXPANSION	% SHEAR
LNM4455-7	104	0.085	100
LNM4455-8	106	0.093	100
LNM4455-9	99	0.084	100
Average	103	0.087	100

Identification of tested specimen provided by client.

Karl Schmitz, Director
Materials Testing

KS/tlv

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8600 Commercial Blvd.
Pevely, MO 63070

August 16, 2005
Lab No. 05P-2532
P.O. No. 21324

Attention: CHUCK RUUD

REPORT OF MECHANICAL TESTS

SAMPLE ID: LNM 4455, LINCOLN LOT 3018513/78308

Sample ID	Original Area Sq. Inches	Reduced Area Sq. Inches	Reduction in Area %	Yield Strength PSI	Tensile Strength PSI	Elongation (2.0" Gage Length) in.	Elongation (2.0" Gage Length) %	Modules of Elasticity
LNM4455	0.1932	0.0866	55.2	65200	95200	0.76	38.0	23.4

Round, reduced section tensiles

Yield taken at .2% offset

Tested in accordance with ASTM A 370-03a

Identification of tested specimens provided by the client.

Karl Schmitz, Director
Materials Testing

KS/tlv

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Youngstown, Pa. 15696-0388 U.S.A.
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Accredited Nadcap Materials Testing Laboratory

October 18, 2005

CERTIFICATION

WMT&R Report No. 5-35979
Requisition No. 4972

MetalTek International
The Carondelet Division
8600 Commercial Blvd.
I-55 Industrial Park
Pevely, MO 63070-1528

Attention: Jim Galaske

Subject: All processes, performed upon the material as received, were conducted at WMT&R, Inc. in accordance with the WMT&R Quality Assurance Manual, Rev. 9, dated 4/1/2000.
The following tests were performed on this order: TENSILE

TENSILE RESULTS: ASTM E21-03a
SOAK TIME: 5 Minutes
SPEED OF TESTING: 0.0030 in./in./min., 0.0500 in./min./in.
DISPOSITION: Report
MATERIAL: METALTEK CF8MNMNMOD

Specimen ID	TestLog Number	Temp. °F	UTS ksi	0.2% YS ksi	Elong %	RA %	Modulus Msi	Ult. Load lbf	0.2% YLD. lbf	Orig. Dia. (in.)	Final Dia. (in.)	4D Orig GL (in.)	4D Final GL (in.)	Orig. Area (sq. in.)	Machine Number	A\U\R
3018513/78308	C54936	-320	184.9	123.7	33	33	32.8	18470	12350	0.3566	0.2926	1.40	1.86	0.09987403	M9	R

A\U\R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Roy E. Stanmatt Wojton
Technical Services Manager ___ Tensile Supervisor

10-18-05
October 18, 2005

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METALTEK INTERNATIONAL
8600 Commercial Blvd.
Pevely, MO 63070

October 5, 2005
Lab No. 05P-3096
P.O. No. 21324

Attention: Chuck Ruud

REPORT OF CHARPY IMPACT TEST

MATERIAL (SAMPLE ID): WELD PLATE- 3018513 / 78308

SPECIFICATION: ASTM A 370-03a

SPECIMEN TYPE: "A" Vee Notch

SPECIMEN SIZE: 10 mm x 10 mm

TEMPERATURE OF TEST: -320°F

REQUIREMENTS: minimum 35 ft / lbs.

BASE METAL	FOOT LBS.	LATERAL EXPANSION	% SHEAR
3018513/78308-1	48	0.033	50
3018513/78308-2	65	0.045	50
3018513/78308-3	48	0.033	50
Average	54	0.037	50

Identification of tested specimen provided by client.

Karl Schmitz, Director
Materials Testing

KS/tlv