



Corrective Action 1379  
Carondelet Division - CA / PA / RGA Database  
Corrective Action Type NCR  
Date 8/31/2005  
CA Originator C. Ruud  
Applies to: Weld Material Lincoln 3018926-78309

A1 coil

**Description of Defect / Non-Conformance**

Material failed elongation and one of three charpy impact tests at -320 F. The average of the specimens exceeds the minimum. See S8 of ASTM A 703/A 703M.

**Root Cause**

The sample of the weld contained defects not detected.

**Corrective Action**

Retest material already at Lab.

If needed, make a new weld plate after reviewing process with welder and weld another sample.

**Verification of Corrective Action**

Retest results. If new plates are needed, the new plate will be x-rayed prior to testing.

**Estimated Completion Date**

9-2-05

**Actual Completion Date TBD**

Signed: C. Ruud

A handwritten signature in black ink, appearing to be "C. Ruud".

CC: R. Suria, Barry Craig, Joe Edwards, E.J. Kubick

**Nonconformance Report: CA1379**

**Project Disposition:**

Since the re-test meets requirements, this NCR can now be considered closed.

**Approvals:**

Phil  
Heitzenroeder

Digitally signed by Phil Heitzenroeder  
DN: CN = Phil Heitzenroeder, C = US,  
Q = PPPL, OU = Mech. Eng. Division  
Reason: I am approving this document  
Date: 2005.11.07 10:09:53 -05'00'

Procurement Technical Representative



11/7/05

Responsible Line Manager:

## Frank A. Malinowski

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**From:** Charles.Ruud@MetalTekInt.Com  
**Sent:** Thursday, September 15, 2005 12:51 PM  
**To:** djord@earthlink.net  
**Cc:** royjratc-aol-com-offsite; NKHFlowen@aol.com; Joe.Edwards@metaltekint.com; Rick.Suria@metaltekint.com  
**Subject:** Weld Material Test Report  
**Attachments:** Lincoln 3018926-78309 cryo results.pdf

Attached is the report from Westmoreland on the Lincoln material lot 3018926-78309.

It has passed all tests.

Please call if there are any questions.

Chuck Ruud

Quality Manager

MetalTek International

Carondelet Division

[cruud@metaltekint.com](mailto:cruud@metaltekint.com)

636-475-2199

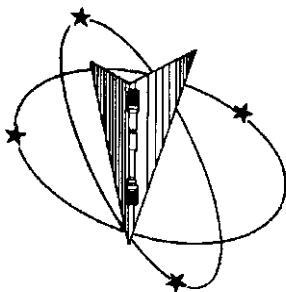
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No virus found in this outgoing message.

Checked by AVG Anti-Virus.

Version: 7.0.344 / Virus Database: 267.11.0/103 - Release Date: 9/15/2005

9/29/2005



September 13, 2005

MetaTek 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: IMPACT and TENSILE

# IMPACT RESULTS: ASTM E23-02

REQUIREMENTS: Energy (Min 35Max ---)

MATERIAL: Lincoln LNM4455

SAMPLE TYPE: Charpy V-Notch

Reference	Lot No.   Batch	Test Log	Sample	Temp.	Energy	Mils	% Shear	AVUR
	No.   Specimen ID	Number	Size	°F	ft-lbs	Lat Exp	Fracture	
Lincoln LNM4455	3018926   78309   Cvn-1	C43939	Standard	-320	56	18	40	Acceptable
Lincoln LNM4455	3018926   78309   Cvn-2	C43940	Standard	-320	52	18	40	Acceptable
Lincoln LNM4455	3018926   78309   Cvn-3	C43941	Standard	-320	53	12	40	Acceptable

DISPOSITION: Acceptable

Requirements supplied by MetaTek International.

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](http://www.wmtr.com)

WMT&R is a technical leader in the material testing industry.

## CERTIFICATION

621-01 & 621-02




Accredited  
Materials Testing Laboratory  
MTCap

WMT&R Report No. 5-34328  
P.O. No. 19386 Rel No.18  
Requisition No. 4934

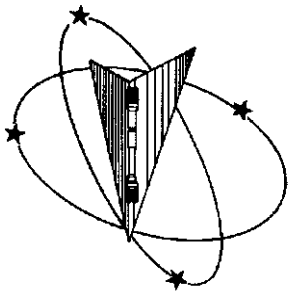
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EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF WMT&R, INC.

Testing Specialists for Aerospace, Automotive, and Material Testing Fields  
Locations in Youngstown, PA U.S.A. ~ Tel. (724) 537-3131 and  
Banbury U.K. ~ Tel. +44 (0) 1295 261211

  
Roy E. Starn  
Technical Services Manager

September 13, 2005

9-13-05



*Westmoreland Mechanical Testing & Research, Inc.*  
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Website: [www.wmtr.com](http://www.wmtr.com)

*WMTR is a technical leader in the material testing industry.*

September 13, 2005

MetaTek International  
The Carondelet Division  
8600 Commercial Blvd.  
1-55 Industrial Park  
Pevely, MO 63070-1528

Attention: Jim Galaske

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

**TENSILE RESULTS: ASTM E21-03a**

Requirements: UTS ksi (Min 95Max ---) 0.2% YS ksi (Min 72Max ---) 4D Elong. % (Min 32Max ---) Modulus Msi (Min 21Max ---)

SOAK TIME: 5 Minutes

SPEED OF TESTING: 0.0030 in./in./min., 0.0500 in./min./in.

MATERIAL: 316 S/S

DISPOSITION: Acceptable

Reference	Lot No.   Batch	Test Log No.   Specimen ID	Temp. °F	UTS ksi	0.2% YS ksi	Elong %	RA %	Modulus Msi	Ult. Load lbf	0.2% YLD. lbf
Lincoln LNM4455	3018926   78309   Tensile	C43938	-320	182.1	128.2	34	24	27.0	17560	12360

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

DISPOSITION: Acceptable

Reference	Lot No.   Batch	Test Log No.   Specimen ID	Orig. Dia. (in.)	Final Dia. (in.)	4D Orig GL (in.)	4D Final GL (in.)	Orig. Area (sq. in.)	Machine Number	AUUR
Lincoln LNM4455	3018926   78309   Tensile	C43938	0.3504	0.3048	1.40	1.87	0.09643131	M9	A

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

Requirements supplied by MetaTek International.



WMTR Report No. 5-34328  
P.O. No. 19386 Rel No. 18  
Requisition No. 4934

*Robert E. Starman*  
Robert E. Starman  
Technical Services Manager  
Tensile Supervisor

*9-13-05*  
September 13, 2005

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