# **CALSER CORPORATION**

P.O. Box 24121, Belleville, IL 62223

(618) 277-0329

### **TESTING MACHINE CALIBRATION DATA AND REPORT**

ocauon

University of Arkansas

Civil Engineering

Favetteville AR 72703

Fayetteville, AR 72701
Forney 400,000lbf Model FT-400F-LC1

Aachine Forney Serial No. 95037

uxiliary Equipment: w/ LC-1 Digital R/O #M9404103

Report #:

Date of Service Customer Order No.

Order Date Temp.

Date Last Done

VN# 3093

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Verbal

01/12/07 74 degf 02/14/06

Applied Force	*	Indicated Force	Error	%	Applied Force	*	Indicated Force	Error	%
Run #1		"As Found" Condition			Run #2		"As Left" Condition		
400,000lbf Range	*	10lbf / DIV			400,000lbf Range	*	10lbf / DIV		
0	8-2	0	0	0.00	0	8-2	0	0	0.00
5,000	8-2	4,990	-10	0.20	5,000	8-2	5,000	0	0.00
10,000	8-2	9,980	-20	0.20	10,000	8-2	9,980	-20	0.20
20,000	8-2	19,960	-40	0.20	20,000	8-2	19,970	-30	0.15
40,000	8-2	39,960	-40	0.10	40,000	8-2	39,960	-40	0.10
60,000	8-2	60,110	110	0.18	60,000	8-2	60,100	100	0.17
80,000	8-2	80,220	220	0.28	80,000	8-2	80,270	270	0.34
100,000	8	100,490	490	0.49	100,000	8	100,510	510	0.51
150,000	8	150,730	730	0.49	150,000	8	150,810	810	0.54
200,000	8	200,990	990	0.50	200,000	8	201,040	1040	0.52
250,000	8	251,220	1220	0.49	250,000	8	251,300	1300	0.52
300,000	8	301,570	1570	0.52	300,000	8	301,630	1630	0.54
350,000	8	351,660	1660	0.47	350,000	8	351,740	1740	0.50
400,000	8	401,780	1780	0.45	400,000	8	401,820	1820	0.46
0	8	0	0	0.00	0	8	0	0	0.00

#### otes:

Calibration in accordance with ASTM E4-03, and Calser Corporation Procedure # 1-01, Rev 1.

### \*CALIBRATION EQUIPMENT

All verification equipment-including dead weights, proving rings, load cells, etc, is calibrated and traceable to the latest procedures stipulated by the National Institute of Standards and Test'ing (NIST) and ASTM E74-02. All equipment is traceable under guidelines set forth in ISO/IEC 17025. All instrument readings have been corrected for temperature where necessary.

#### **ACCURACY SUMMARY**

Verification Equipment

Capacity Range	Loading Range	Max. Error	Manufacturer	* L/C	Range	Verification Agency
un 1			and Serial #		and uncertainty	and Date
0,000lbf Range	5,000 - 400,000	0.52 %	Strainsense	8-2	5,000-100,000 lbf	Morehouse
			990918		12.5 lbf	09/27/06
			Strainsense	8	96,440-1,000,000 lbf	Morehouse
un 2			870815A		241.1 lbf	09/27/06
)0 ี Pibf Range	5,000 - 400,000	0.54 %				

libration Technician

Dan Brackey

This report shall not be copied except in its entirety without express written approval of Calser Corp.

## CALSER CORPORATION P.O. BOX 24121 BELLEVILLE, IL 62223 (618)277-0329

### TESTING MACHINE CERTIFICATE OF CALIBRATION

: University of Arkansas Owner

Location: Civil Engineering

Fayetteville, AR 72701

Report #: VN# 3093

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Date of Service: 02/13/07

Machine: Forney 400,000lbf Model FT-400F-LC1

Serial No.: 95037

w/ LC-1 Digital R/O #M9404103

and all calculations have been corrected for temperature where applicable.

This is to certify that the testing machine listed above has been calibrated by Calser Corporation personnel. The method of verification and listed data are in accordance with ASTM E 4-03. Accuracy of all calibration devices is traceable to the National Institute of Standards and Testing (NIST)

Capacity Range	Loading Range	Max. Error
<b>Run 1</b> 400,000lbf Range	5,000 - 400,000	0.52 %
<b>Run 2</b> 400,000lbf Range	5,000 - 400,000	0.54 %

## **Verification Equipment Used:**

(1,000,000 Load Cell Set)

Admet Gage Buster Digital Readout, Serial # GB-9911092, and Load Cell(s) Listed Below:

Serial #	<u>Range</u>	Calib. Date	<u>Uncertainty</u>	
990918	5,000-100,000 lbf	9/27/2006	12.5 lbf	
870815A	96,440-1,000,000 lbf	9/27/2006	241.1 lbf	

This certificate is issued as a statement of the fact that on the above date the listed testing machine has an accuracy as indicated. It should not be construed or regarded as a Guarantee or Warranty of any kind (in favor of the client, the client's customers, or the public at large) that the testing machine will continue to retain the same percentage (%) of accuracy or efficiency as determined on the date when the calibration, and adjustments if required, was performed and reported by "Calser Corporation" since the calibrator has absolutely no control over the future operation, damage, maintenance, repairs, and overall condition of the testing machine and hereby expressly disclaims any and all liability for damage or loss sustained by all parties arising or resulting from the deterioration, obsolescence, malfunction or substandard performance of said testing machine; which shall remain the sole responsibility of the machine's regular custodian, owner, and/or user. This certificate shall not be reportduced except in full, without the written approval of Calser Corporation.

CALSER CORPORATION

Quality Control Director

Thomas R. Gagen

Form# 102-01-Rev.2