

TESTING MACHINE CALIBRATION DATA AND REPORT

(618) 277-0329

VN# 5863-001

Date of Service	08/12/10
Customer Order No.	Verbal
Order Date	08/05/10
Temp.	95° F
Date Last Done	03/30/10

Notes: *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 Testing (NIST) and ASTM E74-06. All equipment is traceable under guidelines set forth in ISO/IEC 17025. All instrument readings have been corrected for temperature where necessary.

Verification Equipment

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

Form# 101-01-Rev. 3

TESTING MACHINE CERTIFICATE OF CALIBRATION

Owner : University of Arkansas
Location : Civil Engineering
Fayetteville, AR 72701

Report # : VN# 5863-001
Page : 2 of 2

Date of Service: 08/12/10

Machine : Forney 400,00lbf Model QC-400F-GB2
Serial No. : 95037
w/ Admet GB2 Digital R/O #GB2-100721-2
w/ Dynisco P/T

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 4-09.

Accuracy of all calibration devices is traceable to the National Institute of Standards and Testing (NIST)

and all calculations have been corrected for temperature where applicable.

Capacity Range	Loading Range	Max. Error
Run 1		
400,000lbf Range	5,000 - 400,000	0.20 %
Run 2		
400,000lbf Range	5,000 - 400,000	0.30 %

Verification Equipment Used:**(600,000 Load Cell Set)**

Admet Gage Buster Digital Readout, Serial # GB-9908261

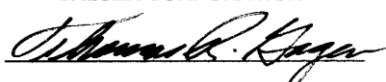
and Load Cell(s) Listed Below:

<u>Serial #</u>	<u>Range</u>	<u>Calib. Date</u>	<u>Uncertainty</u>
71145-C	228.72 - 10,000 lbf	11/18/2009	0.572 lbf
030429S	9,132.57 - 100,000 lbf	11/18/2009	22.831 lbf
990921	59,870.58 - 600,000 lbf	11/18/2009	149.676 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 reproduced except in full, without the written approval of Calser Corporation.

CALSER CORPORATION

Quality Control Director


Thomas R. Gagen

CALSER CORPORATION

302 N. Belt East, Swansea, IL 62226

(618) 277-0329

TESTING MACHINE CALIBRATION DATA AND REPORT

Customer	University of Arkansas
Location	Civil Engineering
	Fayetteville, AR 72701
Machine	TMI 500,000lbf Model CM-5000 GB2
Serial No.	100317
Auxiliary Equipment:	w/ Admet GB2 Digital #GB2-1004302
	w/ Dynisco P/T #04-08-10323273

Report #:

VN# 5863-002

Page 1 of 2

Date of Service	08/12/10
Customer Order No.	Verbal
Order Date	08/05/10
Temp.	95° F
Date Last Done	New

Applied Force	*	Indicated Force	Error	%	Applied Force	*	Indicated Force	Error	%
Run #1		"As Found" Condition			Run #2		"As Left" Condition		
500,000lbf Range	*	10lbf / DIV			500,000lbf Range	*	10lbf / DIV		
0	10C	0	0	0.00	0	10C	0	0	0.00
5,000	10C	5,000	0	0.00	5,000	10C	5,010	10	0.20
10,000	10C	10,010	10	0.10	10,000	10C	10,030	30	0.30
20,000	11	20,020	20	0.10	20,000	11	20,030	30	0.15
40,000	11	40,000	0	0.00	40,000	11	40,020	20	0.05
60,000	12	59,980	-20	0.03	60,000	12	59,990	-10	0.02
80,000	12	79,990	-10	0.01	80,000	12	79,970	-30	0.04
100,000	12	99,910	-90	0.09	100,000	12	99,880	-120	0.12
125,000	12	124,940	-60	0.05	125,000	12	124,910	-90	0.07
150,000	12	149,910	-90	0.06	150,000	12	149,880	-120	0.08
175,000	12	174,930	-70	0.04	175,000	12	174,870	-130	0.07
200,000	12	199,860	-140	0.07	200,000	12	199,840	-160	0.08
250,000	12	249,710	-290	0.12	250,000	12	249,660	-340	0.14
300,000	12	299,520	-480	0.16	300,000	12	299,460	-540	0.18
350,000	12	349,580	-420	0.12	350,000	12	349,530	-470	0.13
400,000	12	399,510	-490	0.12	400,000	12	399,560	-440	0.11
450,000	12	449,620	-380	0.08	450,000	12	449,680	-320	0.07
500,000	12	499,600	-400	0.08	500,000	12	499,640	-360	0.07
0	12	0	0	0.00	0	12	0	0	0.00

Notes:

Calibration in accordance with ASTM E4-09,
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 Testing (NIST) and ASTM E74-06. All equipment is traceable under guidelines set forth in ISO/IEC 17025. All instrument readings have been corrected for temperature where necessary.

ACCURACY SUMMARY

Capacity Range	Loading Range	Max. Error
Run 1		
500,000lbf Range	5,000 - 500,000	0.16 %
Run 2		
500,000lbf Range	5,000 - 500,000	0.30 %

Verification Equipment

Manufacturer and Serial #	* L/C	Range and uncertainty	Verification Agency and Date
Interface	10C	228.72 - 10,000 lbf	Morehouse
71145		0.572 lbf	11/18/09
Strainsense	11	9,132.57 - 100,000 lbf	Morehouse
030429S		22.831 lbf	11/18/09
Strainsense	12	59,870.58 - 600,000 lbf	Morehouse
990921		149.676 lbf	11/18/09

Calibration Technician Luanne Holper

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without express written approval of Calser Corp.**

TESTING MACHINE CERTIFICATE OF CALIBRATION

Owner : University of Arkansas
Location : Civil Engineering
Fayetteville, AR 72701

Report # : VN# 5863-002
Page : 2 of 2

Date of Service: 08/12/10

Machine : TMI 500,000lbf Model CM-5000 GB2
Serial No. : 100317
w/ Admet GB2 Digital #GB2-1004302
w/ Dynisco P/T #04-08-10323273

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 4-09.

Accuracy of all calibration devices is traceable to the National Institute of Standards and Testing (NIST)

and all calculations have been corrected for temperature where applicable.

Capacity Range	Loading Range	Max. Error
Run 1		
500,000lbf Range	5,000 - 500,000	0.16 %
Run 2		
500,000lbf Range	5,000 - 500,000	0.30 %

Verification Equipment Used:**(600,000 Load Cell Set)**

Admet Gage Buster Digital Readout, Serial # GB-9908261

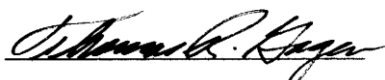
and Load Cell(s) Listed Below:

<u>Serial #</u>	<u>Range</u>	<u>Calib. Date</u>	<u>Uncertainty</u>
71145-C	228.72 - 10,000 lbf	11/18/2009	0.572 lbf
030429S	9,132.57 - 100,000 lbf	11/18/2009	22.831 lbf
990921	59,870.58 - 600,000 lbf	11/18/2009	149.676 lbf

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Quality Control Director


Thomas R. Gagen

TESTING MACHINE CALIBRATION DATA AND REPORT

(618) 277-0329

VN# 5863-003

New

Form# 101-01-Rev. 3

TESTING MACHINE CERTIFICATE OF CALIBRATION

Owner : University of Arkansas
Location : Civil Engineering
Fayetteville, AR 72701

Report # : VN# 5863-003
Page : 2 of 2

Date of Service: 08/12/10

Machine : Forney 400,000lbf T.M.
Serial No. : 01160
w/ Admet PIR Digital R/O #1004077
w/ Dynisco P/T #10-07-09246183

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Capacity Range	Loading Range	Max. Error
Run 1		
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Verification Equipment Used:**(600,000 Load Cell Set)**

Admet Gage Buster Digital Readout, Serial # GB-9908261

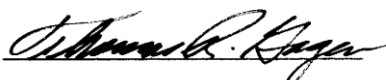
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