2/2/2009

David Klein
Metal & Cable Corp
PO Box 117
Twinsburg, OH 44087-0117

Date Received: 12/8/2008

Test Report No.: MET025-08-12-72725-1

Material Testing and Non-Destructive Testing

5405 E. Schaaf Road
Cleveland, OH 44131
USA

Telephone : (216) 524-1450
Fax : (216) 524-1459
Website : www.storkherron.com

TEST REPORT

P.O. No.: A184139

Stork Herron Testing Laboratories
Report No. MET025-08-12-72725-1

Mechanical Testing of

Magnemount

Revised: 02/05/2009 Pg 5 data amended to include 3 tests instead of 6

Michael R. Gaydos
General Manager, COO

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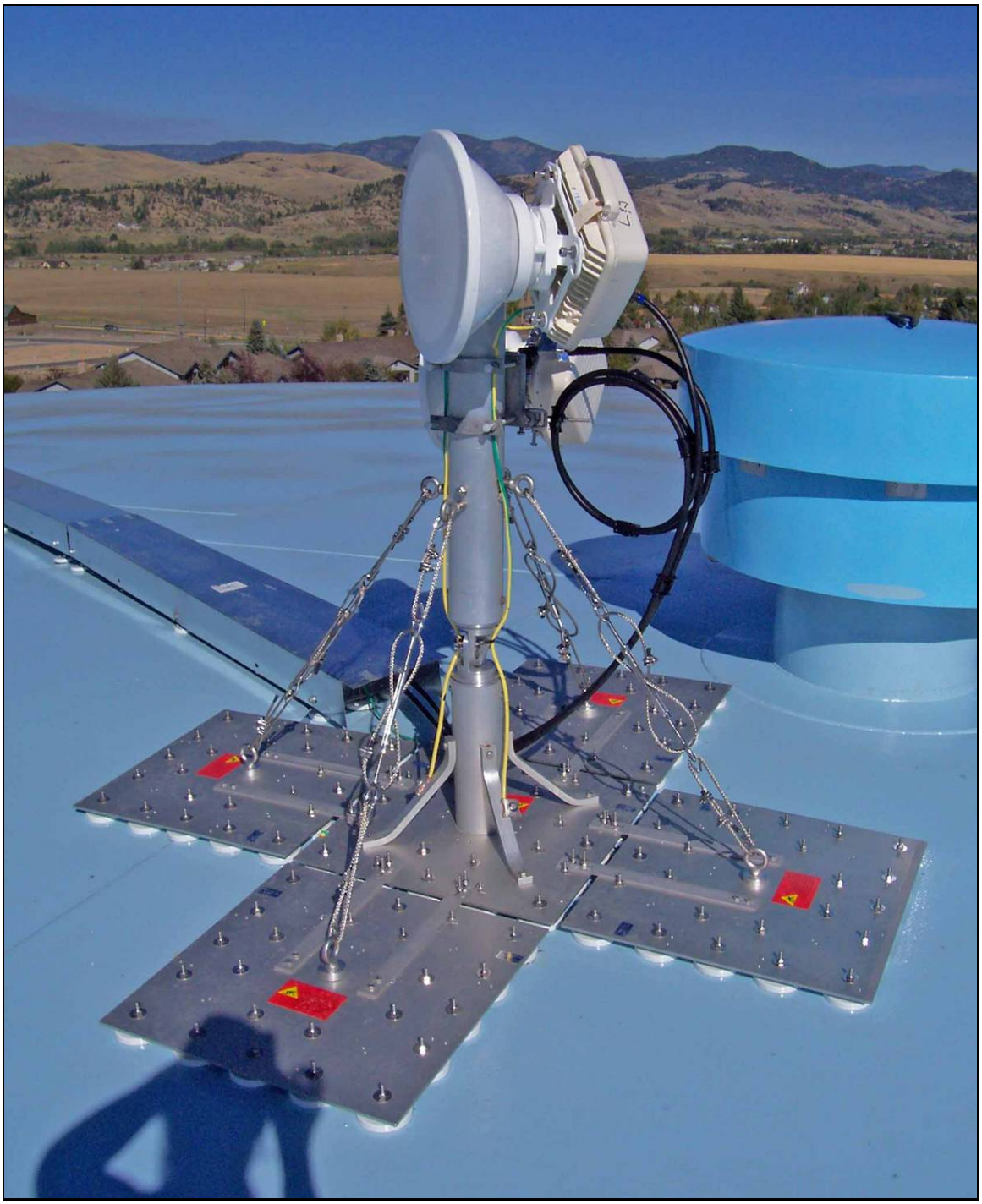
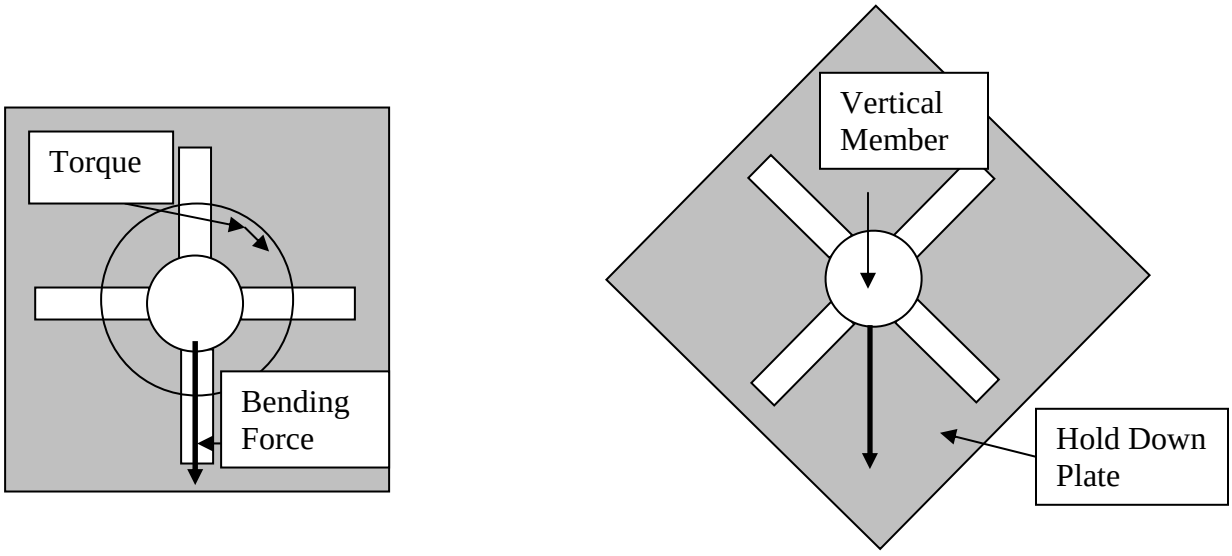
FULLY SETUP PRODUCT PHOTOGRAPH



Single Hold Down Plate Configuration



0° 45°

Single Plate Configuration

Test samples were magnetically held to a 3/8” thick steel plate anchored to a cement floor. No cables were attached. Bending offsets were determined by attaching a cable to the vertical member at a defined height above the steel plate. Loads were applied along the cable by use of a mechanical hand operated wench and measured by use of a calibrated force indicator. Bending offsets were measure by use of a calibrated dial indicator set at a defined height above the steel plate. All testing was performed with a 0.015” thick paper between the steel plate and the magnetic mounts to simulate a painted steel surface.

Torque was measured by an application of a load on a horizontal rod attached at a defined height above the steel plate to the vertical member of the assembly. Loads were applied to the rod end and recorded along with rotation angle.

Bending tests were conducted at both the 0° and 45° configuration as illustrated above.

Tests were conducted using just a single magnetic hold down plate as illustrated above

TEST DATA

MODEL MB, Single Plate Configuration, Non-Adjustable

0° Configuration Bending Offset Test Horizontal Load was Applied at a Height of 42 ½" above Steel Plate Bending Offset Measurements were Made at a Height of 49" above Steel Plate					
Sample					
1 Horizontal Load (lbs)	1 No Cables Attached (in)	2 Horizontal Load (lbs)	2 No Cables Attached (in)	3 Horizontal Load (lbs)	3 No Cables Attached (in)
15	0.034	18	0.060	17	0.060
35	0.155	37	0.171	37	0.168
54	0.249	62	0.281	60	0.278
72	0.343	96	0.452	93	0.442
108	0.528	132	0.631	128	0.625
143	0.726	150	0.800	163	0.809
150	0.850	163	0.813	-	-
160	0.923	-	-	-	-

MODEL MB, Single Plate Configuration, Non-Adjustable

0° Configuration Bending Offset Test Horizontal Load was Applied to a Rod with a Length of 18" Torque was Applied to the Top of the Vertical Member			
	Sample		
Horizontal Load (lbs)	1 (Rotation Angle) No Cables Attached	2 (Rotation Angle) No Cables Attached	3 (Rotation Angle) Support Cables Tight
20	0°	0°	0°
40	< ½°	< ½°	< ½°
60	> ½°	> ½°	> ½°
80	> 1°	1°	> 1°
100	1 ½°	1 ½°	> 1 ½°
120	< 2°	< 2°	< 2°
140	2 ½°	2 ½°	2 ½°
160	> 2 ½°	> 2 ½°	> 2 ½°
180	3 ½°	> 3°	> 3°
> 180	Magnetic Base Dislodged	Magnetic Base Dislodged	Magnetic Base Dislodged

MODEL MB, Single Plate Configuration, Non-Adjustable

45° Configuration Bending Offset Test Horizontal Load was Applied at a Height of 44 ½" above Steel Plate Bending Offset Measurements were Made at a Height of 49" above Steel Plate		
Sample		
1 No Cables Attached lbs / in	2 No Cables Attached lbs / in	3 No Cables Attached lbs / in
14 / 0.041	22 / 0.099	15 / 0.053
29 / 0.138	38 / 0.201	33 / 0.154
42 / 0.205	60 / 0.312	47 / 0.226
70 / 0.339	91 / 0.470	75 / 0.367
103 / 0.497	120 / 0.632	109 / 0.536
135 / 0.674	130 / 0.765	120 / 0.662
145 / 0.819	140 / 0.821	130 / 0.714
-	148 / 0.810	141 / 0.712
-	155 / 0.961	150 / 0.872