

# **Stork Herron Testing Laboratories**

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

P.O. No.: A184139

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**

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Mechanical Testing of

Magnemount

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

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Michel R Lugdas

Michael R. Gaydos General Manager, COO



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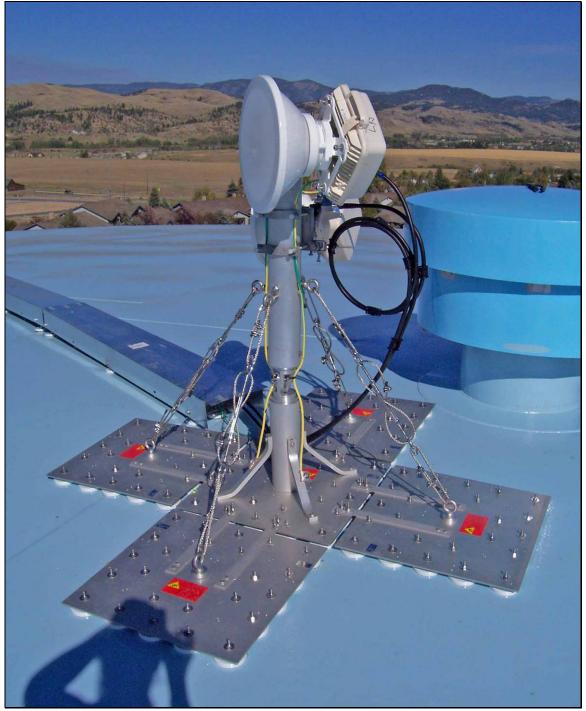
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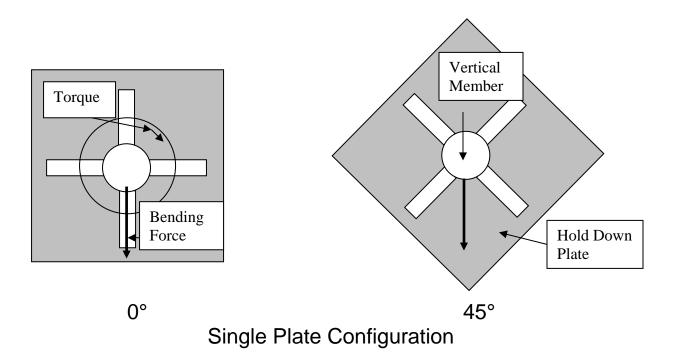
Michel R Lydas

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# FULLY SETUP PRODUCT PHOTOGRAPH



Single Hold Down 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	1	2	2	3	3		
Horizontal	No Cables	Horizontal	No Cables	Horizontal	No Cables		
Load	Attached	Load	Attached	Load	Attached		
(lbs)	(in)	(lbs)	(in)	(lbs)	(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	< 1/2°	< 1/2°	< 1⁄2°			
60	> 1/2°	> 1/2°	> 1⁄2°			
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 1/2" above Steel Plate						
Bending Offset Measurements were Made at a Height of 49" above Steel Plate						
Sample						
1	2	3				
No Cables Attached	No Cables Attached	No Cables Attached				
lbs / in	lbs / in	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				