

NC STATE UNIVERSITY

April 24, 2007

James Faull
Faull & Son
P.O. Box 627
Niles, OH 44446

Campus Box 7906
Raleigh, North Carolina 27695-7906

919.515.3335 (tel)
919.515.1543 (fax)
<http://www.fmmcenter.ncsu.edu>

Dear Mr. Faull:

We have completed additional testing of the swivel mechanism received at our facility on December 12, 2006.

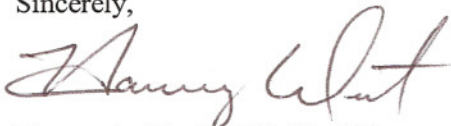
Previously (our report dated January 16, 2007), this swivel was subjected to **60,000 rotations** with a weight of 225 lb centered on the axis of rotation. No degradation was noted after the initial testing.

For this additional testing, the weight was increased to 350 lb and was placed so that the centroid was offset 2.5" from the swivel's axis of rotation. With this configuration, the swivel completed another **240,000 rotations**. Every 20,000 rotations, visual inspection of the nylon revealed no signs of failure or degradation. The torque necessary to initiate and maintain rotation of the swivel was measured, and the results are presented on Page 2.

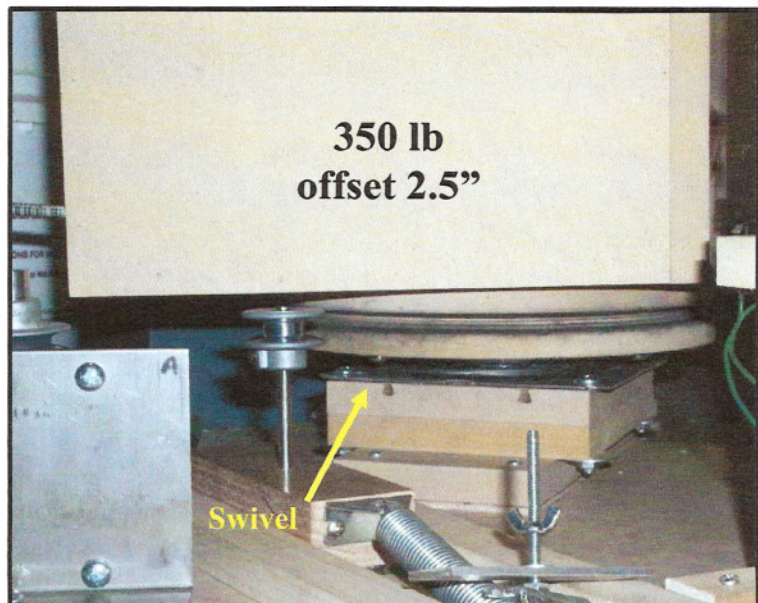
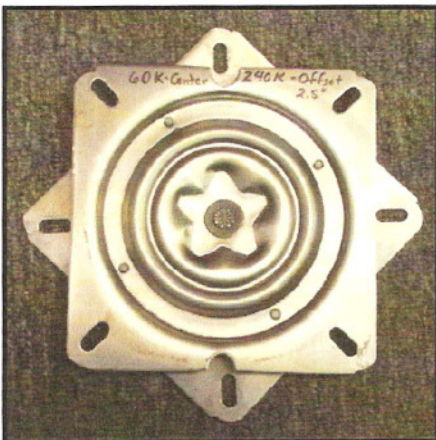
Upon completion of the testing, the swivel and center rivet were found to have no play. The swivel was then disassembled and the nylon washers were inspected and found to range in thickness from 0.033" to 0.040".

A DVD of the above testing is included with this report. Please call our office at 919-515-8527 if you have any questions or if we may be of assistance in any manner.

Sincerely,



Harvey A. West, II, Ph.D., P.E.
Furniture Extension Specialist



Torque (in-lb)			
Cycles	Breakaway	Running Max	Running Min
0	85	65	50
20000	75	60	45
40000	75	55	45
60000	65	55	45
80000	60	55	40
100000	55	50	40
120000	55	50	40
140000	55	50	40
160000	50	45	30
180000	50	45	30
200000	50	40	30
220000	45	40	30
240000	40	35	25

