



NATIONAL TESTING STANDARDS INC.
RESEARCH AND TESTING LABORATORIES

Report No. 30204-1

November 30, 2009

Client: Jensen Swing Products, Inc.
 9327 Wheatlands Rd.
 Santee, CA 92071

Reference: Charvet Vecchio

Subject: Wear Comparison of Swing Bushings.

Sample Description:

Four sintered metal bushings were submitted by the Client and identified as listed in the "Results" section of this report.

Request:

Determine the comparative wear rates of the submitted bushings.

Method:

The four submitted bushings were compared for wear resistance using a modified version of the Tabor abrasion apparatus used in ASTM D-4060. The load on each bushing was 250 grams for 1000 cycles. The abrasive surface was 150 grit silicon carbide belt paper.

Results:

<u>SH No.</u>	<u>PO No.</u>	<u>Weight Loss (mg)</u>
114	6299	179
167	6299	173
105	6330	208
125	6330	190

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A handwritten signature in black ink that reads "Lewis F. West".

by Lewis F. West



NATIONAL TESTING STANDARDS INC.
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Report No. 30204-2

December 7, 2009

Client: Jensen Swing Products, Inc.
9327 Wheatlands Rd.
Santee, CA 92071

Reference: Charvet Vecchio

Subject: Breaking Load of Swing Hanger.

Sample Description:

One completely assembled swing hanger was submitted by the Client and identified as part no. SH114 P.O. No. 6299, made in China.

Request:

Determine the ultimate tensile load capacity of the submitted assembly.

Method:

The ultimate tensile load capacity was determined using a continuous rate of extension (CRT) apparatus in accordance with ASTM D-76 and loading the swing assembly to failure.

Results:

The failure of the submitted assembly occurred at 9250 lbs. of load when the small yoke broke around the sintered bronze bearing.

Comment:

The broken yoke has been returned to the Client.

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A handwritten signature in black ink that reads "Lewis F. West".

by Lewis F. West