



NATIONAL TESTING STANDARDS INC.
RESEARCH AND TESTING LABORATORIES

Report No. 30518-1

May 27, 2011

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

Reference: Charvet Vecchio
 Letter of 05/17/11

Subject: Chemical Analysis of Metal Pendulums.

Sample Description:

Two cast metal parts were submitted by the Client and identified as pendulums, one round and one square.

Request:

Quantitatively analyze each of the submitted samples for elemental content.

Method:

An aliquot from each sample was separately analyzed in accordance with the procedures set forth in ASTM E-357 which is referenced in ASTM A-439.

Results:

<u>Element</u>	<u>Round</u>	<u>Square</u>	<u>Required (%)</u>
Total Carbon	2.49	2.53	3.0 max.
Silicon	2.15	2.30	1.5-3.0
Manganese	0.75	0.69	1.0 max.
Phosphorous	0	0	0.08 max.
Nickel	21.7	20.9	18-22
Chromium	2.32	2.49	1.75-2.75

Comments:

Both of the submitted samples meet the general chemical requirements for a general ductile iron.

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by Lewis F. West