



Working Since 1881

Welcome to Our Newsletter, The Frog Rocks...

the quarterly newsletter of the Frog, Switch and Manufacturing Company. We feature articles on our dealers, share our success stories, and keep you informed of our new products, new patterns, and what's new in our industry.

If you have any article suggestions, or would like to submit a question to our Q&A section, please contact Lynn Hofer:
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On The Road With Jim Winton

The J.A. Winton Company – Cleveland Ohio

It's hard to picture a high-energy guy like Jim Winton chugging along in a one-cylinder vehicle, but it's "in his blood".

Described by colleagues as "going 100 miles an hour" the Cleveland, Ohio dealer for Frog Switch remains active in the rich heritage of the classic Winton touring car, invented in 1897 by his great grandfather Alexander Winton, the first auto pioneer in the United States to manufacture cars for resale. The last Winton rolled off the assembly line in 1924, and approximately 115 remain today.



Jim at the Smithsonian Institute in Washington D.C. with the actual Winton driven by Dr. Horatio Jackson in his famous 1903 cross country journey.

In 1997 the head of J.A. Winton Company graced the cover of *The Ohio Motorist* as he joined other Winton enthusiasts in a week long recreation of Alexander Winton's classic Cleveland-to-New York 19th century treks.

That seven-day "putt putt" trip was a stark contrast to Jim's "full steam ahead" approach to selling aggregate parts for Frog Switch – a relationship spanning four decades.

His father, Jim Sr., worked the Iron Range for Frog Switch in the early fifties and Jim joined his dad in the business

in 1968. The two got involved in the auto scrap shredder business in 1970 and by the late seventies expanded into the sand and gravel industries. The rest, as they say, is "history".

As the Winton business evolved, Jim and his dad focused more and more on aggregate and the company now primarily serves sand and gravel customers in Ohio, Indiana, northern Illinois and lower Michigan. Jim Sr. passed away in 1990.

The beloved fireball of the Frog Switch dealer network



The cover of *Ohio Motorist* 1997, Jim at the wheel.

one of our most valued dealers. He's like the Eveready bunny – always moving, always going!"

Kim Hurley and Beth Diehl echo that sentiment, having worked closely with Jim over the years. "He's just like his faxes - very busy!", says Beth. Kim adds, "He's a good hearted, do-anything-for-you kind of guy – he'll stop at nothing to get the job done".

At 66, Jim plans to retire in a couple of years but, for now, remains impassioned by the crusher parts business and his long-standing relationship with Frog. "I am so happy and proud to represent Frog Switch and everyone I work with. If you operate crushers you have to have crusher parts. I identify with a very basic industry and truly love it.", he says.

When not zooming from quarry to quarry measuring castings or cruising along in a Winton, Jim's other interests include tennis, a speedboat and season tickets to the Cleveland Browns. He and his wife Jan enjoy traveling, but lean towards faster modes of transportation!

humbly describes his work ethic as "praying a lot and working my buns off". "They are like family to me", says Jim. "We have a wonderful relationship. What they can do on the computer with overlays is outstanding, refining casting designs to meet specific customer spec, offering new chemistries, etc."

While Winton's signature scribbled FAXES strain eyes, they also spark humor among Frog Switch staff. "I kid him about buying a typewriter" says Bill Walters VP of Sales and Marketing. "But his knowledge of products and his relationships with customers make Jim

Tech Q&A with Tony

by Tony Baldwin, Director of Product Engineering

Q. What variables affect jaw crusher performance?

A. Many factors affect the performance of jaw crushers. These include the reduction ratio of the crusher, the proper feed size relative to the reduction ratio, choke feeding of the crusher, and the profile and tooth design of the crushing liners.

Crushers are designed to have a specific reduction ratio. Typically a jaw crusher is designed to have a reduction ratio of approximately 8:1. The reduction ratio is the feed opening divided by the crusher discharge setting. This can vary by the discharge setting being used and also by the style of crushing liners installed in the machine. The thickness and shape of the crushing liners can affect both the nip angle and reduction ratio of the crusher affecting crusher performance.

It is best to remove as many fines as possible from the feed material before it enters the crusher. Too many fines will cause packing in the lower portion of the crushing chamber and reduce material



flow through the crusher, thereby reducing production. A high percentage of fines in the feed material also contributes to accelerated wear of the crushing liners.

Choke feeding the jaw crusher is ideal, but not always possible. Choke feeding reduces the sliding abrasion of material, which causes premature liner wear, and also eliminates material impact as it is dumped from the feeder into the crusher. When reviewing the wear pattern of crusher liners showing localized wear in the center portion, I suspect that the crusher is not being choke fed or the liner configuration has created too small a nip angle.

We will take a closer look at how the different jaw profiles and tooth designs affect crusher performance in the next newsletter.



Crusher at Work.

Employees Earn “Steak For Safety”

Going 276 days without a loss-time accident paid off when Frog Switch employees were treated to a free steak luncheon back in March. All three shifts enjoyed a full course porterhouse steak dinner prepared by management and administrative

staff throughout the day. The next luncheon, held in June, featured a variety of burgers, dogs and sausages and creative side dishes, and a trip to Knoebels Park followed on August 4th.

SAFETY PAYS AT FROG SWITCH!



Bill Walters, VP of Sales & Marketing grills the steaks while the Foundry Workers sure seem to enjoy them!

Heard about Frog’s new SMC72 material?

If not, call **1-800-233-7194** for info today!

Foundry News: Double the Primaries!



Due to a second molding pit recently added to our No-Bake area, we are pleased to announce expanded production of primary mantles. The new pit has doubled capacity AND cut delivery times more than in half. This plant enhancement is one of many planned to better meet customer requirements.