



REMco NEWS

JANUARY 2009

The Rock Never Wins!

Tips, Techniques, Products and Information to help you
Get the Most from Your REMco Crusher

Construction Equipment Guide



Crushing, Screening & Recycling Section

Hylka Construction Still Digs Success After 60 Years

By Jennifer Hetrick
CEG EDITOR

One day 60 years ago, Francis Hylka came home and told his wife, Gloria, that he had purchased a dump truck. At the time, he was a mill worker and was tired of working indoors. With hopes of starting a construction business, he decided that buying the dump truck would be a good first step to achieving that goal. And within a few months Francis and Gloria bought a gravel pit and Hylka Construction Co. Inc., Dudley, Mass., was born.

Francis died in 1997, leaving the company in the capable hands of Gloria, who still serves as the company's bookkeeper, and their son, Fran, who is company president. Fran started working in his parents' company part-time during his teen years and became a full-time employee after he finished school. Fran's son, Jon, followed his father's example and he too worked part-time at Hylka during high school and college. Upon graduating from Worcester Polytechnic in 1998, Jon became the full-time plant manager in the family business.

During Francis's tenure he took the company from a one-man operation involving a dump truck and a shovel through a period where crane work was a high priority through several years of excavation work and

back to the original sand and gravel business by the early 1980s, when dramatic growth in companies that specialized in excavation created a great deal of competition and there were fewer jobs to be had.

The company that Fran, Jon and Gloria run today produces sand, gravel and crushed stone as its primary products. The quarry covers 200 acres (80.9 ha). Eight employees handle everything from arranging aggregate deliveries through independent truckers to operating the four rubber-tired loaders, three rock trucks and two excavators as well as some recently purchased crushing equipment.

In 1984, when the first stationary crushing plant was installed, Hylka's capacity was 500 tons (453 t) a day. "Throughout the years," Jon said, "there have been many changes and upgrades, with an eye towards increased production. A major upgrade of our washing and classification equipment was completed in 2006 with an eye toward quality control as well as production."

Today, with all of the changes and upgrades that have taken place at Hylka, production stands at 2,500 to 3,000 tons (2,267 to 2,721 t) a day, depending on what product is being produced. To keep up with the increased production

demand, particularly the need to produce more sand, Jon turned to Chris Salafia, of EESCO, Hanson, Mass., a supplier of aggregate equipment and parts in New England for more than a decade, to work out the best tertiary crusher for the company.

Using his years of experience in the quarry industry, Salafia pointed Jon in the direction of a manufacturer called REMco, Livermore, Calif., which is represented in

see HYLKA page 81



(L-R) are Jarred Mabota, Michael Mabota, Jon Hylka, Michael Patrowicz, Bill Woodcock, Henry Kemp, Sarah Smith and Fran Hylka Jr., who, along with Gloria Hylka, make up the company's team.



Hylka's impressive stockpile of sand covers a lot of the company's 200 acres.



The REMco SandMax 250 VSI crusher was purchased in January, installed by Hylka personnel and put into service in mid-June.

REMco VSI Proves Perfect Match for Mass. Gravel Pit

HYLKA from page 70

New England by BESSCO REMco manufactures vertical shaft impactors (VSIs), which give aggregate producers the ability to turn rock into sand. REMco offers the world's broadest range of rock-on-rock and rock-on-anvil VSI crushers. REMco offers six different models of VSI crushers to match the needs of any aggregate manufacturer.

The selection of the right VSI crusher through BESSCO was more than a matter of matching customer needs with the right machine on paper. Salafia took the team from Hylka to other aggregate producers so they could see the crushers at work firsthand and verify their production capabilities. In addition, samples of stone taken from the Hylka quarry were shipped to the REMco headquarters to be analyzed by REMco engineers to determine the right crusher for Hylka's needs. The feed size sent to the factory was sent through a crushing circuit and then through a sieve analysis to show what product could be obtained. At that point it was decided a SandMax 250 Crusher would best fit their needs.

In addition to having positive experiences while visiting plants using the REMco crushers and getting good results back from the REMco engineers, Jon said he "was very impressed with the quality of the product

being made by the REMco VSI crushers. REMco was producing a very cubicle product versus an elongated product. A cubicle product is important for a number of our customers. For example, in the production of concrete, a cubicle aggregate makes for a much smoother surface.

What really made the decision to go with REMco instead of the other brands Hylka considered was the fact that, according to Jon, "REMco was willing to put in writing what the cost per ton in wear parts for the production of sand would be based on the

results of the testing they did on product taken from our quarry. To me, this demonstrates that REMco really understands the sand-making process and has the utmost confidence in their product's performance."

The REMco VSI crusher "was purchased in January '08, installed by Hylka personnel and put into service in mid-June '08. As of August 15, we have just over 400 hours on the crusher," according to



(L-R): Chris Salafia of BESSCO and Jon and Fran Hylka, both of Hylka Construction, agreed that the REMco VSI crusher would be a perfect fit for the company's needs.



Both the employees and the customers of Hylka Construction are very impressed with the quality of the product being made by the REMco VSI crusher.

Jon. "The addition of the Remco was intended to complement the rest of the plant, and allow an increased production capacity for high quality sand. And, indeed, the REMco is making an excellent quality sand with low production costs and is meeting all of our production expectations. Our customers have been very satisfied not only with the availability of the sand, but also with the quality of the sand that is being produced," said Jon. CEG

TECHNICAL CENTER

TUNGSTEN TIPS

Over the years one situation that comes up time and time again surrounds the tungsten tip - when to change it, how to tell a broken tip from a worn tip and how do I select the right tungsten tip color? You are not alone. These are all frequently asked questions, and are not unique to new REMco customers, operators or maintenance personnel, even experienced REMco users have questions in this area on occasion.

WHEN TO CHANGE A TUNGSTEN TIP

As can be seen in picture A1, this tip was changed way before its time.

The tungsten wear can be measured when the tungsten tip face is placed against a straight edge. The uneven space between the straight edge and the tungsten tip face is the amount that the tip has worn away.

RULE #1 : WHEN IN DOUBT... MEASURE IT OUT.

The usable life of the tungsten is about 3/4". Our close up (picture A2) shows there is only 1/4" worn away on this tip. It is only about 1/3 worn. Changing it at this point wastes time and money. In the case of this customer he was able to re-use 20 tips that were thrown in the bone yard.

With the drop-in-tip design of most REMco rotors, removing the tip and measuring the wear is quick, easy and will save you money.



WORN VS. BROKEN TUNGSTEN TIPS HOW TO TELL THE DIFFERENCE



A3



A4

Tungsten tips wear fairly even from one port to another in the rotor. Normal tungsten tip wear typically results in a smoother tip, which is more worn in the center than the ends, but smooth overall. Even if your wear pattern is not in the center of the tip but is more toward the higher or lower ends of the tip, it should still wear down smoothly (see picture A3).

For example, when inspecting a 4-port rotor and three of the four tips look normal but one is blown out, chances are something broke the tungsten. In picture A4, notice the jagged edges on the tungsten tip. There is no smooth pattern as is typical in normally worn tips. Also, either end of the tip does not lead gradually into the low point. It just drops abruptly into the depression. These are all tell-tale signs that the tungsten has been broken out and not worn away.

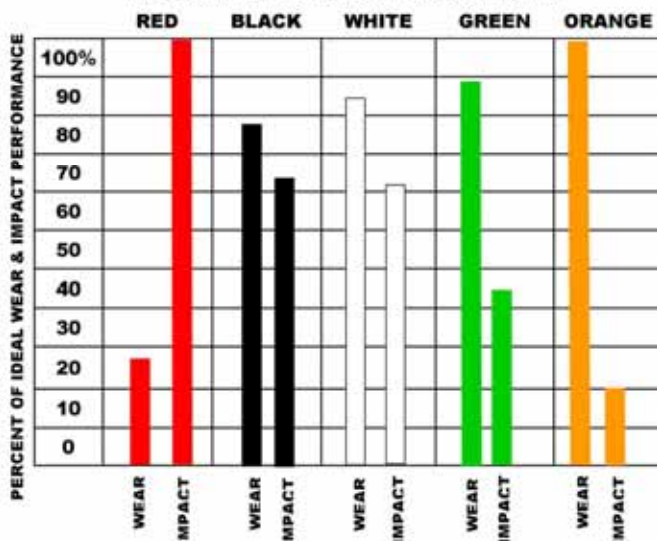
What causes the tungsten to break?

The most common cause of broken tungsten is tramp metal, and the second most common cause is oversize feed. Passage of tramp metal can cause a host of problems depending on its size. Our real concern with tramp is that it goes through the machine again and again making one piece act like a thousand pieces. To address this, our recommendation is to use a magnet. While they are costly, the capital investment in a magnet will quickly be paid back if you are breaking tungsten tips at \$200.00 to \$280.00 each several times per week.

Oversize is another matter and oversize falls into two categories: oversize for the rotor and oversize for the tungsten grade installed in the rotor. Oversize for the rotor tends to clog the rotor port, which in turn can break internal components such as the feed tube, feed eye ring and upper or lower wear plates. Broken pieces from these metal components are then free to flow through, they can break the tungsten. Oversize for the tungsten grade installed in the rotor is something that can be overcome. Tungsten is a great product that can be tailored to fit an application for both impact resistance and wear resistance. Tungsten can be very hard or soft to accommodate different feed materials, rotor speeds and feed sizes. The trick for VSI use is, the right balance of impact and wear resistance to allow an operator to achieve good wear for the rock feed size without breaking. If the tungsten is too hard it will have great wear resistance but poor impact resistance, the converse is also true. REMco has developed several tungsten grades over the years that have proven to be effective for the majority of materials processed in REMco crushers. (See chart below)

TUNGSTEN GRADE SELECTION GUIDE

CHART BELOW SHOWS RELATIVE WEAR & IMPACT RESISTANCE BY TIP COLOR
(TIP COLOR INDICATES GRADE OF TUNGSTEN INSERT)



FEED SIZE MAXIMUM (One Way Dimension)

FEED COMPOSITION for Tungsten Selection	RED	BLACK	WHITE	GREEN	ORANGE
ROUND NATURAL - 100 % Passing	4.0" (4" / 100mm)	3.0" (3" / 75mm)	2.5" (2 1/2" / 64mm)	1.5" (1 1/2" / 38mm)	.375" (3/8" / 10mm)
CRUSHED BROKEN - 100 % Passing	5.0" (5" / 127mm)	4.0" (4" / 100mm)	3.0" (3" / 75mm)	2.0" (2" / 50mm)	.50" (1/2" / 13mm)

Note: • Feed in excess of 3% moisture will reduce the life of tips.
• Occasional oversize in feed (in excess of those shown in chart) may result in premature fracturing of tungsten. Contact REMco for guidance.

RED - Only with large feeds at slow speeds (less than 1400 RPMs); provides excellent impact resistance.

BLACK - Good all around performance; impact and abrasion resistance; feed sizes up to 3" or so with no speed limit.

WHITE - Made for more abrasive materials; feed sizes less than 2 1/2" with no speed limit; impact resistance is reduced.

GREEN - Has high abrasion resistance with no speed limit; impact resistance is substantially reduced; feed size is limited to 1 1/2" or less.

ORANGE - Best wear resistance; no speed limit; impact resistance is very low; feed is limited to less than 3/8".

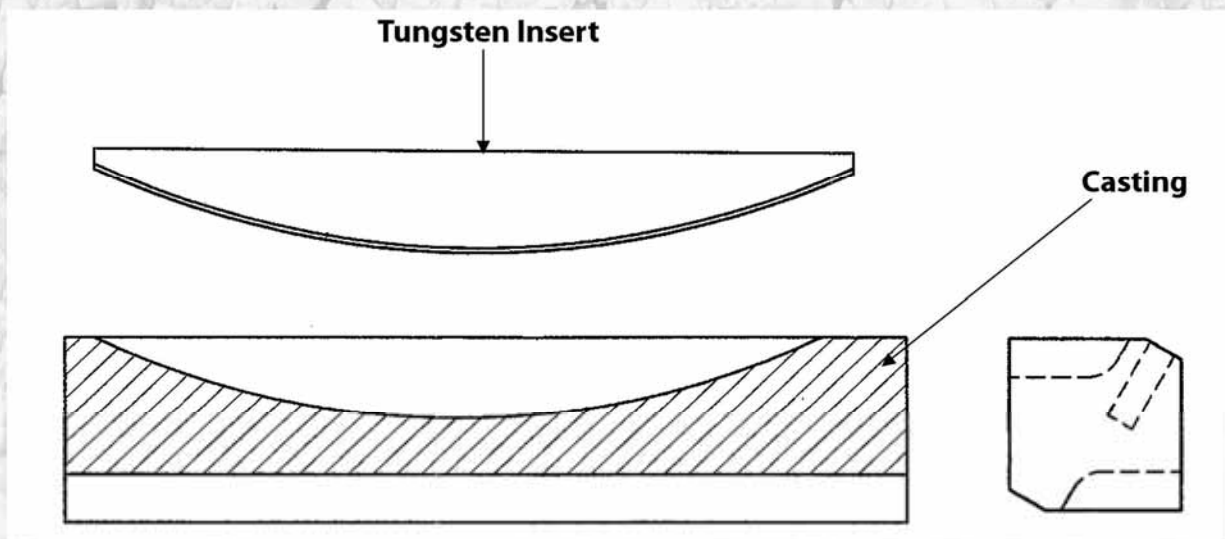
NEW PRODUCT INFO

There is a new tip available for REMco Rotors that provides increased service life over older REMco designs...

This innovative design puts the tungsten where it's needed, providing longer service life with lower scrap loss. Anyone that operates a REMco rotor knows that the tungsten tips tend to wear in a "smile" pattern, low in the middle and high on the ends (see picture A3). Old tungsten technology made the tungsten the same thickness all the way through the tip, but new advances in the art now allow us to produce tungsten arched and in one piece.

ROCKER TUNGSTEN TIP

REMco's ALL NEW, PATENTED Tungsten Tip (U.S. PAT. #7,427,042)



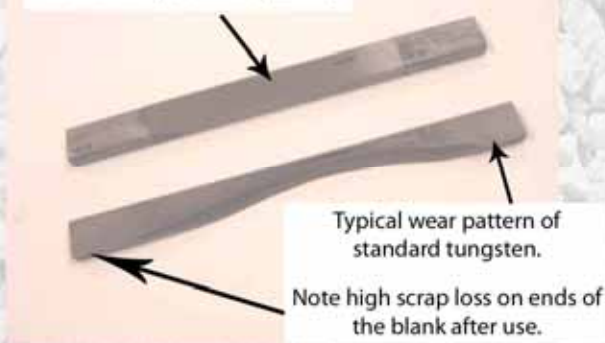
FEATURES & BENEFITS

- NEW one-piece tungsten design eliminating joints for reduced chipping potential.
- Lower scrap loss.
- Increased tungsten depth in the center of the tip, "where it counts," standard carbide is 7/8" deep with a 3/4" usable tungsten depth. REMco's new, patented rocker tip has a center tungsten depth of 1-1/4" for a usable tungsten depth of at least 1" perhaps up to 1-1/8."
- Currently available for existing REMco rotors that use tip part no. 85-37-0033 (12" tall rotor). New Rocker-Style Tip for existing rotors is part no. 85-37-0090W. Available in white carbide only. Other carbide grades available soon.
- Rocker-style tip, part no. 85-37-0089W, is available for the "new" 30" 4-port 12" rotor that was introduced at the 2008 Con Expo. The new tip shape is currently available for 12" tall new rotors in white carbide with other grades available soon.
- Rocker-style tip will be available for new and existing 14" tall rotors in all carbide grades soon.

ROCKER TUNGSTEN TIP

Continued

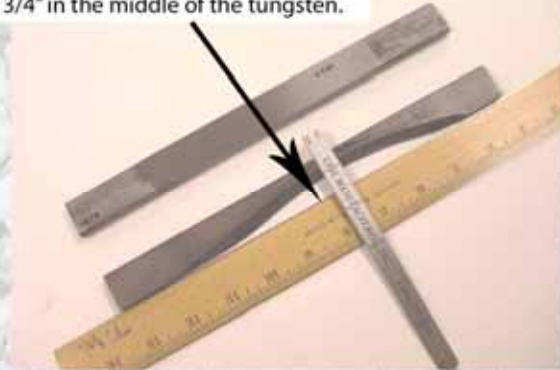
Standard size 3-piece tungsten insert blank, 7/8" wide (22mm)



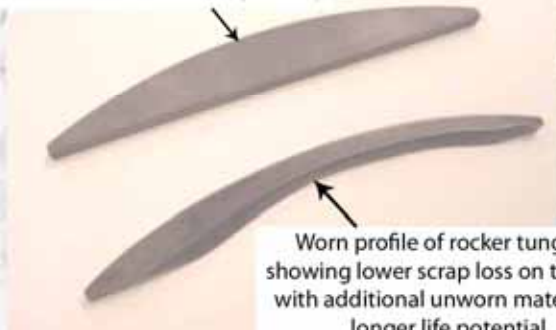
Typical wear pattern of standard tungsten.

Note high scrap loss on ends of the blank after use.

Wear consumption is typically only 1/2" to 3/4" in the middle of the tungsten.

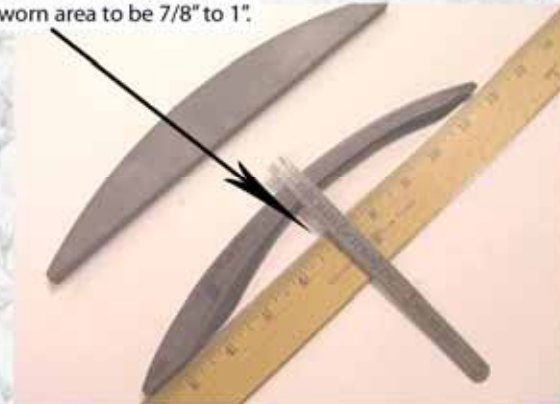


New style, single piece "rocker" shape tungsten insert blank. Wear in the center is 1-1/4" (30 mm).

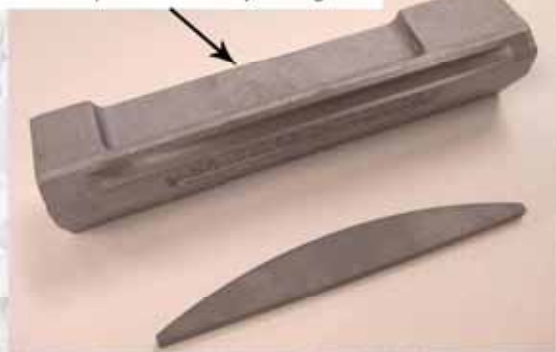


Worn profile of rocker tungsten showing lower scrap loss on the ends with additional unworn material for longer life potential.

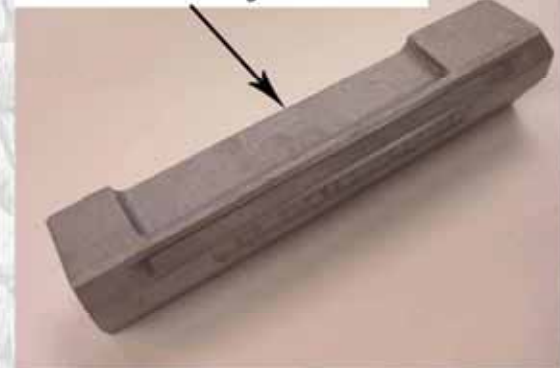
Worn profile of rocker tungsten showing worn area to be 7/8" to 1".



New style tip holder machined with an arc groove to accept the rocker style tungsten.



Holder and rocker tungsten assembled.



Our new Tip promises to have improved service life by providing more tungsten where it counts which will reduce operating cost and reduce downtime. For more information on this product contact Terrence Costa in REMco's parts department at 1-800-782-2411 or your local REMco representative.

UPCOMING EVENTS

WORLD OF CONCRETE TRADE SHOW

FEBRUARY 3 - 6, 2009 in LAS VEGAS, NV

BOOTH #N2743

Stop by the booth and pick up your
FREE "Just Crush It" REMco Hitch Cover *(while supplies last)*.

REMco will have on display our latest SandMax crushers for the production of specification Concrete Sand. Talk to the REMco guys about how we can help you make more money with the rock you have already mined.



ROCK ENGINEERED MACHINERY CO. INC.
SERVICE & MAINTENANCE SCHOOL
APRIL 7 & 8 2009

REMco Service and Maintenance School 2009

April 7th & 8th in Livermore, CA

REMco's Service and Maintenance School is a combination of interactive classroom learning with demonstrations on the factory floor.

THIS SCHOOL IS NOT A SALES PITCH!

It is intended for people that work on service and apply REMco crushers.

Price to attend the school is \$350.00 *per person*, but register before February 24th for the Early Bird discounted price of \$300.00 *per person*.

Registration opens February 17, 2009

For more information and registration, Contact:

Rachelle by email at renriquez@remcovsi.com,
by phone at (925) 447-0805 or Your Local REMco representative .

HOPE TO SEE YOU THERE !!!

TO OUR READERS

*Have any technical questions ?
Want to share your REMco crusher story?*

Well, we would love to hear from you!

Send in any questions, comments, success stories
and even pictures of your REMco crusher in service
to be featured in our newsletter!!!

Send your information via email to:

Kevin Cadwalader - kcadwalader@remcovsi.com
Rachelle Enriquez - renriquez@remcovsi.com

How Would You Like to Get It ?

In today's fast paced world, it's difficult to balance tradition and technology. Traditionally, newsletters are done in print and mailed to the recipient. However, technology makes it possible for you to receive your newsletter electronically and skip the trip to the mail box.

So the question is simple... How would you like to get it? If you would like to receive your monthly newsletter in a format other than the way you are reading this information right now... or if you would like to NOT receive a newsletter at all, contact:

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