

William Johnston

Experience

William Johnston has worked in the quarrying industry for over 15 years. Starting with Cooke Bros Engineering (Newtownards); then working for Sandvik, specialising in Sandvik machines; now working independently to quarries and to Sandvik on static plant.

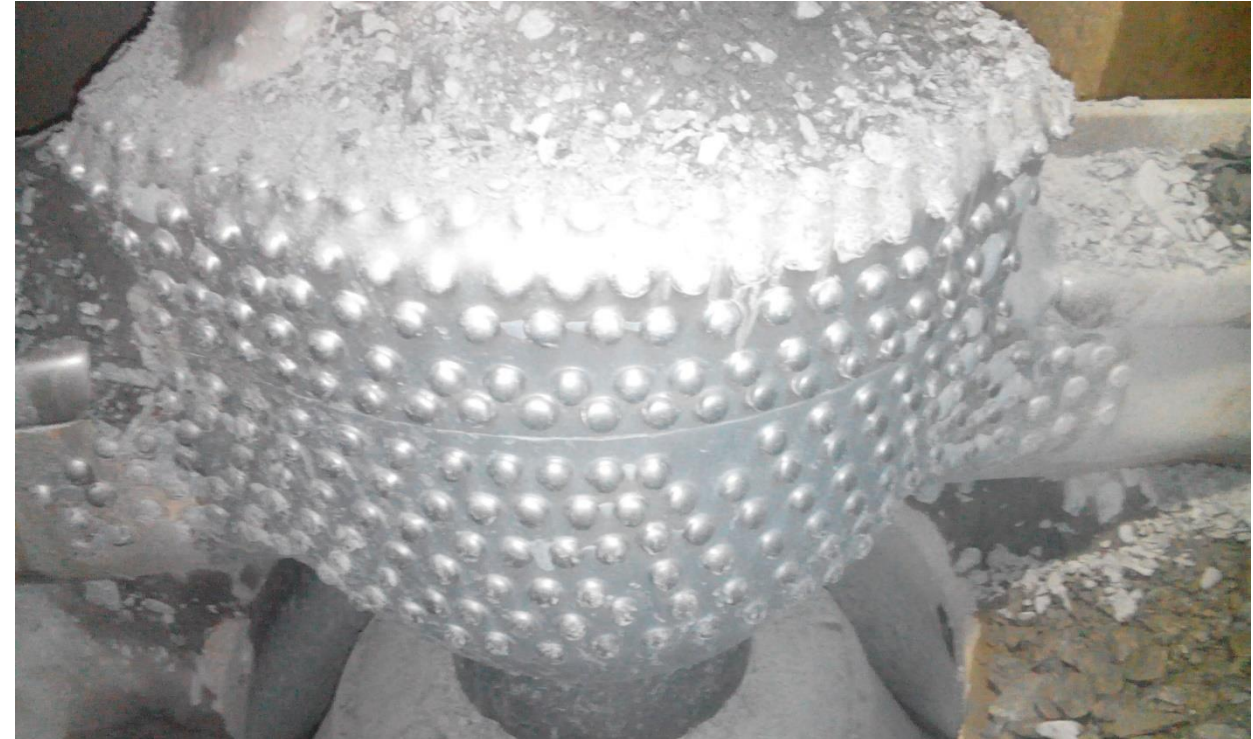
Problems noticed

- Wear on top of spider assembly and top shell of sandvik crushers which due to being conical were not easy to plate.
- Ongoing issue – repeat site maintenance visits
- On different types of aggregate wear was more prevalent.
- On hard stone with high PSV, at around 10 years old these machines had started to wear badly



Stud products

- I saw a stud product applied 10 years ago which addressed this issue and have been researching similar products since then.
- The best available product in this style is made with tungsten carbide and is made by Betek.
- The extra wear protection from tungsten carbide and the product development and support from Betek gave me encouragement to support the product and apply the shared benefits to our industry.



Introduction of BETEK



Company SIMON



- BETEK belongs to SIMON
- SIMON contains 8 different companies
- Approx. 700 employees



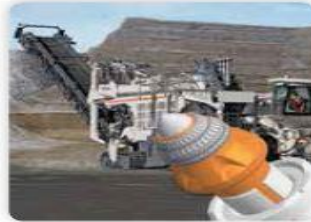
Introduction of BETEK



BETEK GmbH



1 - Road milling



2 - Surface mining



3 - Stabilising



4 - Recycling



5 - Foundation drilling



6 - Crushing and mixing



7 - Horizontal directional drilling HDD



8 - Mining



9 - Trenching



10 - Tunnelling



11 - Hydraulic milling cutters



12 - Forest mulching



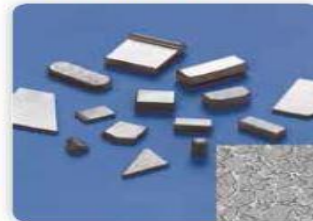
13 - Agriculture



14 - Rail track construction



15 - TungStuds



16 - Wear protection



- Manufacturer of tungsten carbide wear protection tools
- 16 different product ranges
- 250 employees
- Turnover approx. 170 Mio.



Work completed to date...



Benefits for your business

- Mitigate risk associated with unexpected repair costs
- Reduced down time for maintenance on machinery
- **Extend lifetime of plant**

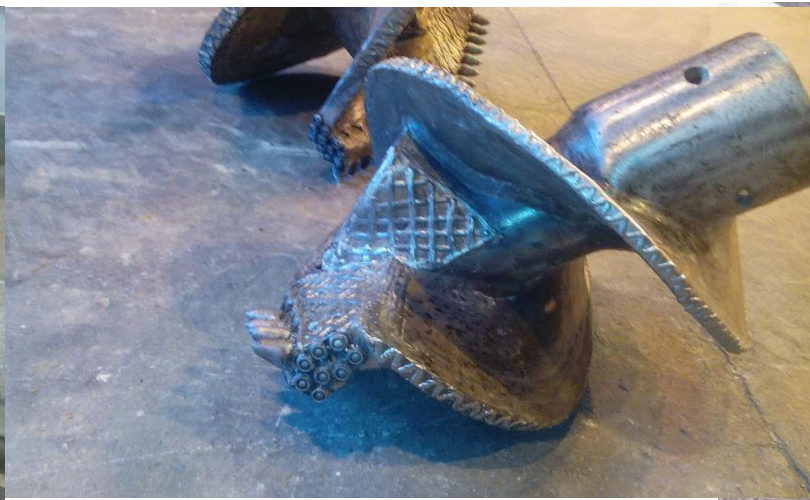
tungstudsuk@gmail.com



William Johnston trading as TungStudsUK
I hold the dealership for supply and fitting of
Tung Studs and equipment for the UK and Ireland.

These have been trialed on a few other areas –
tests ongoing and results are favourable.

- Bucket
- Cheek plates
- Auger cutting head





Bts 20 applied to 10mm
hardox plate
You can see the cut line
where we formed the hardox
still visible .





Bts 08 fitted to excavator in Craigtantlet in January

Second photo taken in November shows how the TungStuds have protected the weld and the leading edge of the plate on the base





Bts 08 applied to
40mm mild steel on
bottom plates
And on original thin
top plates
The most exposed
came off as were
35mm proud
The jaws will be
turned soon and at
that time I will apply
Bts 20 in position



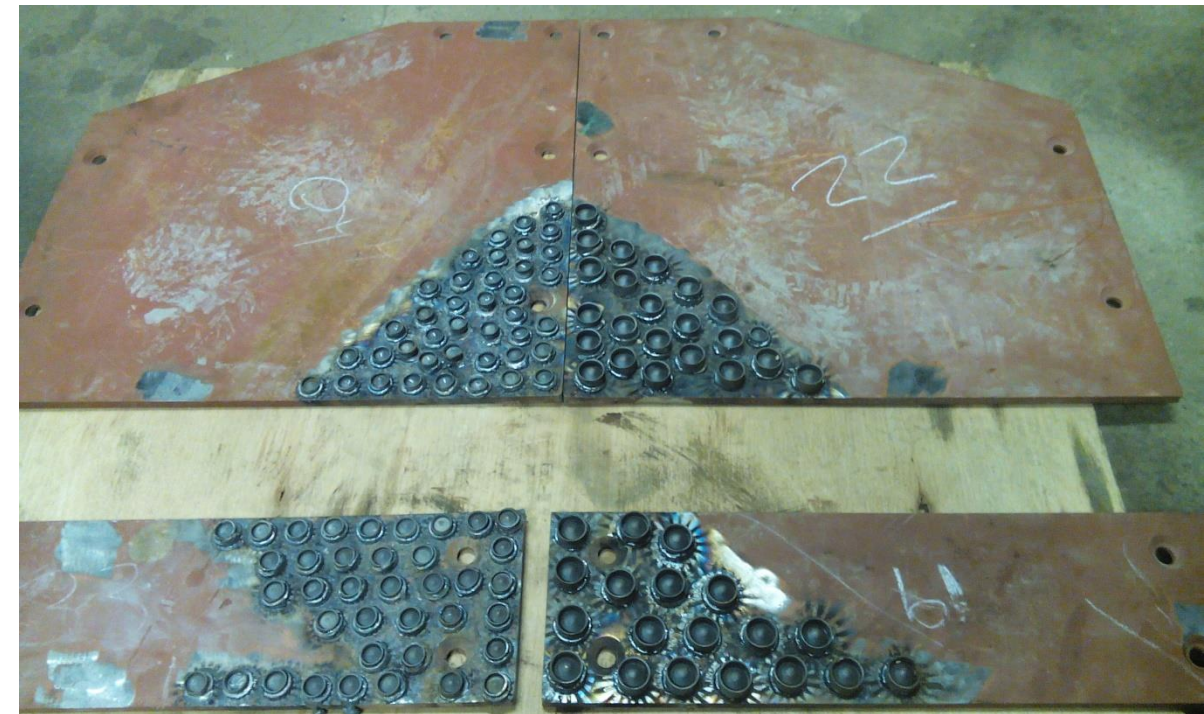
Bts 20 applied to Doosan 550 shovel in July
Bottom photos were after 1500 hours use
The potential was evident so decision was taken to
apply to master edge



TungStuds applied to main wear areas on Hardox plate in hopper

Bts 20

Bts 08



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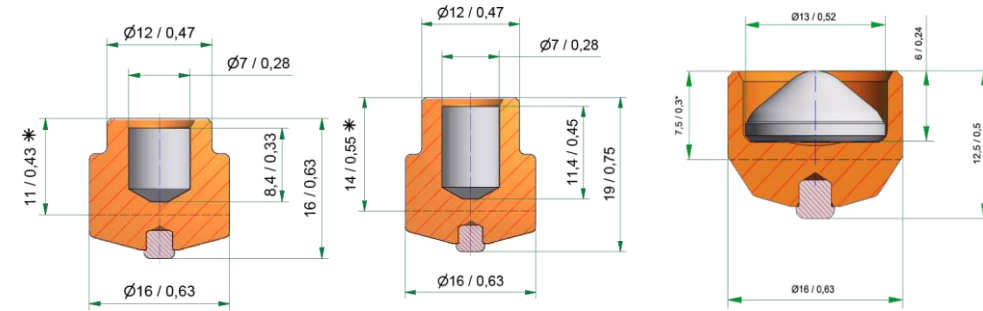
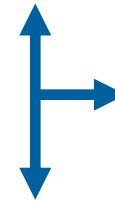
If you have any questions or different applications please email tungstudsuk@gmail.com and we will get back to you . Thankyou for your time and we look forward to hearing from you .

Welding info

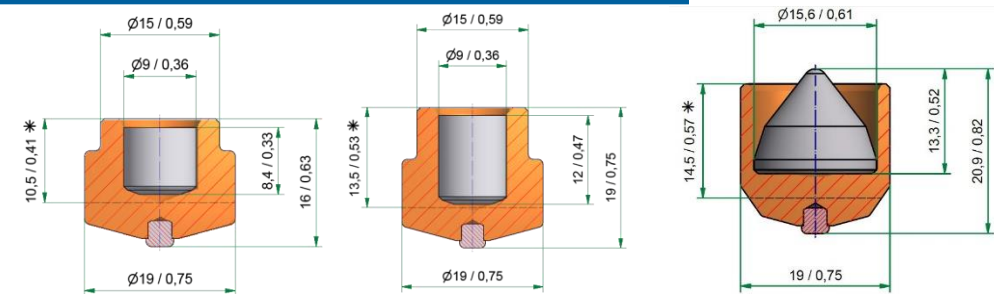
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TungStuds type	Current in A	Time in s
BTS01	1200	0,6
BTS02	1200	0,6
BTS10B	1200	0,6
BTS20	1100	0,5
BTS03	1350	0,7
BTS04	1350	0,7
BTS05	1500	0,8
BTS06	1500	0,8
BTS07	1500	0,8
BTS08	1500	0,8

16mm diameter
(bts 01, bts 02 ,
bts 20)



19mm diameter
(bts 03, bts 04 ,
bts 100)



22mm diameter
(bts 05 ,06, 07
and bts 08)

