

The right equipment, with expertise on call: A winning solution

With an immovable timeline looming after winning a bid, Renico Plant Hire had a vital decision to make regarding choice of equipment, so they turned to one of South Africa's leading mobile equipment solutions companies – Pilot Crushtec.

Nico Louw, Managing Director of Renico Group of Companies explains that the group comprises Renico Construction, Renico Plant Hire and Renico Quarrying and Crushing [Renico Q&C].

Renico Plant Hire is 14 years old, with the Quarrying and Crushing division established a mere four years ago and run by Gert Brits, Managing Director of Renico Q&C.

Nicolan Govender, Pilot Crushtec's National Sales Manager says, "Pilot Crushtec has a very close working relationship with Renico and it is rewarding to see how quickly the Quarrying and Crushing division has grown."

He continues, "To have developed to the point where they are able to produce the tonnage that they have on this project – in such a short time of establishing the Quarrying and Crushing division – is remarkable, something that we only see in a company that has been in this industry for at least 10 years."

He adds, "This type of growth is noticeable, as it is so unusual – and so from our viewpoint it's rewarding to be involved with such a forward-thinking company."

Brand loyalty

Nico explains that the group's three divisions have specific brands to which they are loyal: "We have tried various brands – running them on the same job applications to see which is the most suitable – and have settled on the ones that work best for us. For example, our trucks are all MAN while our earthmoving equipment is CSE, with Pilot Crushtec the preferred brand for all our mobile crushing, screening and material handling solutions."

He emphasises that becoming a "preferred brand" is founded on a number of features, including reliability, quality, price, availability

of spares/parts, back-up service, availability of equipment, longevity of the machines, as well as availability and access to assistance when needed. Nico stresses, "Most important is the availability of parts and back-up service" and continues, "It is vital that the equipment doesn't fall apart once it's reached a 5000 hour threshold and you suddenly find that you don't have spares available!"

He states, "Pilot was the first port of call when we decided to diversify into the crushing and screening business" and adds, "we bought our first screens through them – Terex Finlay Supertrak 683 double-deck screens – and we have had excellent service ever since." Over time various pieces of equipment were purchased through Pilot Crushtec, resulting in the calibre of relationship that the Renico Group and Pilot Crushtec have today.

The project

It therefore made sense that recently, when Renico Plant Hire won a bid for the crushing and screening of six borrow pits along one of the national roads, that Pilot Crushtec was consulted and became part of the solution.

To ensure the timeous delivery on the project Pilot Crushtec assessed Renico's requirements and supplied a Terex Finlay J-1175 jaw crusher and a Terex Finlay 683 Supertrak double-deck screen to the Renico Plant Hire division – with the understanding that the mobile equipment solutions were to be capable of producing between 210 and 250 tons per hour of a minus 40mm product – at times, within a very tight time frame.

"We are solving problems by offering flexible solutions."

The project was for a major civils company that owns the borrow pits and they required very specific material to be extracted. Says Nico, "We were to meet the exact material specifications, for example: a +50mm pioneer course, or a 90mm stone, or a 32mm stone."

Gert comments, with obvious satisfaction, "What makes this project so significant is the tonnages that we achieved and the machines that were on site."

The equipment

Nicolan explains, "Our mobile solutions offer ready to run, versatile crushers and screens with instant set-up times. These machines are track mounted, easy to transport, remote controlled and diesel driven and therefore work independently of the electricity grid and require no external power."

The Terex Finlay J-1175 jaw crusher is close on five months old, going on for 900 hours of service and according to Nico, working longer than a 9-hour shift per day. "The equipment is a combination of advanced technology

behind the purchase

Nico Louw, Managing Director of Renico Group of Companies believes that the success of his recent winning bid can largely be attributed to the strong relationship his company enjoys with leading mobile equipment solutions company, Pilot Crushtec.





Inlet Opening: 1070 x 762mm (42" x 30")
Net Engine Power: 261 kW
Portability: Tracked Mounted Tracked & Wheeled Bogie

Operating Weight: 49500kgs*
 *Note: Without By-pass and magnet options

SPECIFICATIONS: TEREX FINLAY J1175 JAW CRUSHER

JAW CHAMBER

Jaques 3042 Chamber
 1070 x 762mm (42" x 30") Inlet opening
 Hydrostatic drive
 Full hydraulic CSS adjust
 Reversible operation for clearing blockages
 The Standard liner profile is the S-Tooth
 CSS opening range – 40mm to 135mm

HOPPER AND FEEDER

9m³ hopper capacity
 Hydraulically folding rear & sides
 12mm wear resistant side walls
 Tapered Grizzly apertures - factory set to 75mm spacing (50mm, 100mm optional)
 Integral screen 1500 x 1200mm (5' x 4')
 Heavy-duty counter rotating shafts, oiled bearings
 Hydraulically driven, variable speed

MAIN CONVEYOR

1000mm Grade Belt
 Wear resistant liners at crusher feed point
 Impact bars directly under conveyor feed point
 High spec scraper at head drum
 Folding top section
 Low level greasing as standard
 Single motor hydraulically driven
 Discharge height of 3660mm
 Full length skirts
 Tail section raises hydraulically to increase clearance when tracking
 Dust suppression-main conveyor fitted with hose and spray bars as standard (no pump supplied)

POWERUNITS AND HYDRAULICS

Caterpillar C9 224kW @ 2000rpm
 Unique hydrostatic transmission for crusher drive and tracks
 Full catwalk access on both sides
 Access panels

TANK CAPACITIES

Hydraulic Tank Capacity: 730 litres
Fuel Tank Capacity: 430 litres

UNDERCARRIAGE

3780mm Sprocket centres
 500mm shoe width
 2 speed selectable track speed

Gradability 25°
 Hydraulic grease tensioning
 Bolt on tracks
High speed: 0.42m/s
Low speed: 0.21m/s

BYPASS CONVEYOR (OPTIONAL)

650mm plain belt, 3 Ply, 3mm top, 1.5mm bottom
 2100mm discharge height
 Direct hydraulic drive
 Universal mounting to left or right hand side
 Hydraulically folding for transport
 Low level greasing

TOOL BOX

Mounted lockable toolbox
 Tool Kit and flogging spanners
 Grease gun
 Manuals

CONTROL SYSTEM

Advanced CANBUS compliant system
 Large display screen (IP67 Rated)
 Five simple operating modes with menu driven graphic user interface
 Choice of preset parameters to suit crushing applications
 User friendly incremental selection of feeder and crusher speed enable the operator to achieve the optimal throughput
 Detachable doglead control for tracking
 Radio remote control (option)
 Integrated machine and engine control panel
 Lockable compartment
 Auto regulating feeder selectable for improved throughput control

REMOTE CONTROL UNIT (OPTIONAL)

Full function radio remote unit (option)
 Machine can be switched from crushing mode into track mode, moved, and switched back to operating mode from remote control unit
 Umbilical control unit (supplied standard) Offers track control only

MAGNETIC SEPARATOR (OPTIONAL)

Suspended self cleaning cross belt overband
 Permanent magnet
 600mm belt
 Centres 1680mm
 Hydraulically driven



and basic mechanics, which translates as 21st Century know-how that doesn't require a PhD to service," says Nicolan, by way of describing the ruggedness of the machines.

Gert adds, "It's very seldom that electronic problems arise," and he emphasises, "This comes back to having the relevant back-up service available when needed."

Nicolan takes over enthusiastically, "For the configuration there were two Terex Finlay J-1175 mobile jaw crushers feeding into a Terex Finlay 683 Supertrak double-deck screen taking out a product; with oversize reporting into a cone crusher. This methodology worked particularly well as they were able to extract product out of both the screen and the cone without any re-handling of rock, thus avoiding high costs."

He adds with admiration, "The tonnages achieved surprised us all."

Gert continues, "We put various materials through the jaw crusher, for example, blasted dolerite, ranging from 0mm to +400mm. The Terex Finlay J-1175 jaw crusher breaks it down to -80mm and it gets fed onto

the screen or into the cone crusher." Continuing he says, "Tonnage-wise about 180 to 190 tons per hour go into the screen or cone crusher, where it is broken down further into -40mm material.

"Double the average of 180 to 190 tons an hour – that is 360 tons an hour – and everything we get is product." Gert adds, "We removed the second jaw crusher, which had no effect on production as we continued to achieve the same tonnage with only the one Pilot Crushtec jaw crusher!"

Nico explains, "Because of the time constraints, we bought the new Terex Finlay J-1175 jaw crusher to expedite the production process and in fact, fast-track the system." He observes, "What sets Renico Q&C apart from other operations is that we own the loading equipment and trucks – not just a jaw crusher or a cone crusher. This is an added benefit as we can advise on how to speed up a process as well as facilitate the process without the added expense of hiring the additional equipment." This also obviates the reliance on a third-party.

"There were a couple of instances where timing was of the essence, with a specific tonnage required in a specified time; and the new equipment facilitated achieving the target."

He continues, "For example, we can have a number of machines working in a kit, which we can split into separate groups; get loaders in from Renico Plant Hire and thus we can work on more than one borrow pit and speed up the entire process." He adds proudly, "We are solving problems by offering flexible solutions."

Nico comments that there was specific tonnage required on the project and agreeing, Nicolan says, "There were a couple of instances where timing was of the essence, with a specific tonnage required in a specified time; and the new equipment facilitated achieving the target."

He continues, "The equipment was literally bought off the floor – as is," although Pilot Crushtec advised on the addition of an automated greasing system. According to Nicolan, this is something that they will only advise if the customer has a reputation for consistently excellent maintenance, as the greasing system add-on requires additional "finicky" attention, over and above the other machinery.

Gert adds that a weightometer was also added and by means of explanation says, "It's like a weighbridge – but only weighs the load that is on the belt."

All maintenance on the Renico Group's equipment is carried out by qualified Renico mechanics. Gert adds that should more specialised technical expertise be required on the Pilot Crushtec machinery, a Pilot Crushtec technician is a mere phone call away.

"The project began in June 2009 and we have approximately three more months to go before completion and the crushers are going strong", concludes Nico.

"The tonnages achieved surprised us all."

One of the borrow pits on the N17 with the Pilot Crushtec J-1175 jaw crusher in the foreground.

