

## Market Segment: Mining

# POWER PROFILE

### Thiess' Mount Owen Open-Cut Coal Mine

#### POWER NEEDED

With more than 70 years experience in all areas of mining, including coal, open-cut and underground, the Thiess group is regarded as a world class mining service provider mining in excess of 60 million tonnes of coal per year.

Currently operating over 15 mines Thiess is one of the largest coal miners in the Australasian region with a plant fleet valued in excess of \$1.2 billion, which moves more than 2 million tonnes of material daily.

So when it comes to operating efficiencies Thiess is an innovative market leader, continually fine tuning their operations to maximise productivity.

Recently Thiess' Mount Owen open-cut coalmine commissioned Starline Motor Bodies to build a new concept service vehicle to enable their engineers to perform on-site service work on their fleet of mining equipment.

But when an error in the generator set specifications was detected during the vehicle's assembly Thiess needed the assistance of a supplier who'd think outside the box to get the project back on track – so they turned to Energy Power Systems Australia's (EPSA) Electric Power division, which is also responsible for sales and marketing of the Olympian Generator product range.

EPSA's Electric Power division has established a reputation for solving the toughest of challenges and according to Olympian NSW Sales Representative, Ken Fackler, Thiess' predicament called for some re-engineering miracles.

"Put simply, the original specs for the onboard generator set were underestimated for the load of the welding gear, lighting equipment and a compressor.

"Inline with the specifications the chassis was built to accommodate a 22 kVA generator set between the cab and the body, but the compressor ordered was a new model that featured variable speed drive which plays hell with the gen-sets harmonics, rendering the 22 kVA unit too small for the task.

"As the variable speed drive oversight was made by the original generator set supplier Thiess turned to us to get them out of the hole, as they'd had plenty of experience with CAT product and our extensive support network", Ken said.

#### SOLUTION

After running the Caterpillar Generator SpecSize software programme, Ken recommended a 44.5 kVA Olympian GEP 44.5 generator set.

According to Ken, at first those involved in building the vehicle didn't believe that they required this level of power, but with SpecSize we could prove our recommendations beyond doubt.

"The Olympian range of stand-by and prime power generator sets are innovative and robust designs that have led to the Olympian product range being recognised for reliability and dependability worldwide, as well as meeting the stringent European standards for exhaust and noise emissions – making them a very eco-friendly package.

"Once the Olympian GEP 44.5 was agreed upon we set about re-engineering the standard configured unit in order to fit it into the available space.

"The modifications undertaken were extensive, including moving all the integrated electronic controls to the end of the body and incorporating a roller shutter into the sound attenuated enclosure for access.



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#### CUSTOMER

Thiess Group - Mount Owen Open-Cut Coalmine.

#### LOCATION

Mount Owen, Hunter Valley, New South Wales.

#### CUSTOMER ISSUE

A compact 44.5 kVA generator was required for a new concept service vehicle designed to perform on-site servicing of their mining equipment.

#### SOLUTION

Re-engineer a standard configured gen-set in order for it to fit into the available space.

#### PRODUCT

44.5 kVA Olympian GEP 44.5 generator set.

#### FURTHER INFORMATION

Call: 1800 800 441

[www.olympiangenerators.com.au](http://www.olympiangenerators.com.au)

"And due the stringent mining regulations the modified unit had to be re-wired, with all the wiring harnesses enclosed in sealed conduit, and then the isolation switches and circuit breakers had to be beefed up considerably to cope with the extra power.

"In the end it was a massive job, but we got it done and the client is extremely satisfied, which at the end of the day is what it's all about", Ken added.

## RESULT

According to Bruce Robinson, a Thiess Electrical Engineer involved the later stages of the project, the technical support received from Ken and his team at Energy Power Systems Australia to sort out the problems was excellent.

"Once we figured out what the load was going to be the CAT option was a pretty convenient one for us, as they are already involved on-the-ground here supporting their other equipment.

"The service vehicle has been operational for nearly 12 months now without any problems", Bruce said.

Olympian generator sets are manufactured at Caterpillar's ISO 9001 certified facility in the UK and represent a lower entry level product range that boasts CAT performance with exceptional fuel efficiency and proven performance for standby and prime power applications up to 550 kVA.

Available for use with diesel fuel, propane, or natural gas, Olympian generator sets deliver dependable, clean economical power even in the most demanding conditions and can be configured to meet the needs of any application and are backed by Caterpillar's extensive nationwide support network.

For more information on the extensive range of Olympian generator sets contact the National Business Manager, Kim Howlett, on 02 8796 9200 or visit [www.olympiangenerators.com.au](http://www.olympiangenerators.com.au)

To download the accompanying 'Olympian-Thiess' photo go to: [www.qims.com.au/Olympian-Thiess](http://www.qims.com.au/Olympian-Thiess)

## ABOUT ENERGY POWER SYSTEMS AUSTRALIA

Energy Power Systems Australia is Australia's specialised Caterpillar engine dealer, supplying Australia and Papua New Guinea with the world's finest power systems.

We provide Caterpillar engines and systems for virtually any application, from road and marine to power generators and compressors, if it's Caterpillar, then Energy Power Systems Australia is right behind it.

Through our network of offices across Australia and Papua New Guinea, our people give comprehensive engineering support and technical advice to the Caterpillar Engine community.

When it comes to powering your business, only Energy Power Systems Australia can deliver this combination of technically superior Caterpillar engines and unmatched technical and after-sales support.

## ABOUT CATERPILLAR

For more than 80 years, Caterpillar Inc. has been making progress possible and driving positive and sustainable change on every continent. With 2007 sales and revenues of \$44.958 billion, Caterpillar is a technology leader and the world's leading manufacturer of construction and mining equipment, clean diesel and natural gas engines and industrial gas turbines.

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## Thiess' Mount Owen Open-Cut Coalmine



*The extensively re-engineered Olympian GEP 44.5 generator set that incorporates a roller shutter in the sound attenuated enclosure for access.*