



# OIL & GAS NEWSFLASH



Shell Pearl GTL, EDG test set up.

## FOREWORD



Welcome to the third issue of the Pon Power Oil & Gas Newsflash, packed with all the latest news on our products and partners.

As we go to press, the outlook for investment in the worldwide oil and gas industry remains favourable. And here at Pon Power Oil & Gas, the picture is equally – if not more – positive. This is in large part thanks to our sustained investment, carried out over a number of years, in our Dutch, Scandinavian and Korean markets. Here, the added value of Pon Power Oil & Gas's efficient system integration, project management and installation services for our excellent CAT products, and our customer-focused approach, are all well established.

But we're not stopping there: we're working hard to ensure that we continue to develop innovations that meet the ever-changing demands currently being made on power systems from all sections of our industry. For example, our company now offers Capstone MicroTurbines to meet the growing need for small, unmanned platforms in the North Sea. These can be operated remotely, ensuring lower operations costs. In addition, Capstone MicroTurbines emit less NO<sub>x</sub>, which means that they're better for the environment.

We've also been working on a number of large and prestigious projects, including supplying 30MWs of emergency power to the Shell Pearl GTL (GasTo Liquid) project in Qatar. You can read more about this project, and a selection of others, in this Newsflash.

**Jan van Nieuwenhuijzen**  
General Manager

## PON POWER OIL & GAS IS MOVING FORWARD ENHANCING SERVICE AND ENCOURAGING EFFICIENCY

**Pon Power Oil & Gas has recently become part of a new Pon cluster. This new cluster, which incorporates our partners Topec, Fischcon and Rollo, will enable us to enhance the offerings we make to our customers and continue our rapid transition to an added-value projects and services group. The new cluster's Chairman, Arjan Pelders, explains more.**

### Offering total solutions

"This new cluster will allow us to work together more effectively, offer total solutions to our customers, and leverage more resources in professionalizing our processes," says Arjan. "Importantly, our sales department will be able to offer customers complete solutions managed by a single project manager."

The new cluster also offers customers various off-balance financing and leasing services, trade-in options and support with decommissioning used equipment.

### One group in energy solutions

The new cluster has two main focuses: oil and gas, and sustainable energy. "Projects we're working on include a new microturbine application that can be powered by flare gas," says Arjan. "Topec, another member of the cluster, are already experts in packaging biogas and palm-oil installations – areas of the sustainable energy sector we expect will generate a lot of growth in the coming years."



Jan van Nieuwenhuijzen and Arjan Pelders



Jeroen Schroeder and Fred Hordijk

## PARTNERS FOR MAERSK: PON POWER OIL & GAS AND TOPEC SUPPLY EMERGENCY POWER SOLUTION FOR NEW ACCOMODATION PLATFORM

Last year, Pon Power Oil & Gas was asked by Maersk Oil to develop and install an emergency power solution in its accommodation platform Halfdan BC. Newsflash talked to Fred Hordijk, Project Manager, and Jeroen Schroeder, Commissioning Engineer, to find out more...

### The client – Maersk Oil

Established in 1962, Maersk Oil is a key player in the worldwide oil and gas industry. The company recently commissioned a new rig for its operations in the Halfdan Field, which lies in the Danish sector of the North Sea. It's for this rig that Pon Power Oil & Gas was tasked with supplying the emergency power.

### CAT engines

"Pon Power Oil & Gas has a lot of experience in providing emergency power solutions," says Fred. "So when Maersk told us about its new rig, we were able to advise them on which power solution would be the most suitable." For the project, Pon Power Oil & Gas and Maersk selected two CAT 3512B diesel-engine-driven generator sets. Each offers 1100 kVA, 880Ekw, 400V and 50Hz.

### Complete package

Pon Power Oil & Gas also supplied the Generator Control Panels, which include synchronising and load-sharing facilities to run the generators in parallel with each other and with the main power supply. "One of Maersk's particular requirements was that the engines should be equipped with titanium radiator coolers," says Jeroen. "This was particularly important because the company had experienced problems with other materials in the past. And because few companies supply these types of coolers, supplying them was one of the main challenges of the project."

### Collaboration with Topec

The project also involved collaboration with Pon Power Oil & Gas partner Topec. "Topec was responsible for the packaging and control panels required for the engines," says Fred. "By using Topec's materials and components knowledge, we were able to provide Maersk with superior expertise and service."

### Challenging conditions

"We didn't just supply the engines to Maersk and leave them to figure out the installation," says Jeroen. "We also commissioned the engines onsite in Italy as the rig was being built. Throughout this period, project-management expertise was essential, as we needed to liaise with a large number of parties to ensure commissioning went as smoothly as possible."

### Testing, testing

To ensure that the engines would operate perfectly in the event of any power failure, Pon Power Oil & Gas actually tested the engines twice: first at their own facility in the Netherlands, and again onsite in Italy. "Testing the engines as rigorously as this ensures that the risk of anything going wrong is kept to an absolute minimum," explains Jeroen. "In fact, we tested the engines for 72 hours each during commissioning – and both worked perfectly throughout the entire testing period." Both engines were also certified to the strictest international safety standards.



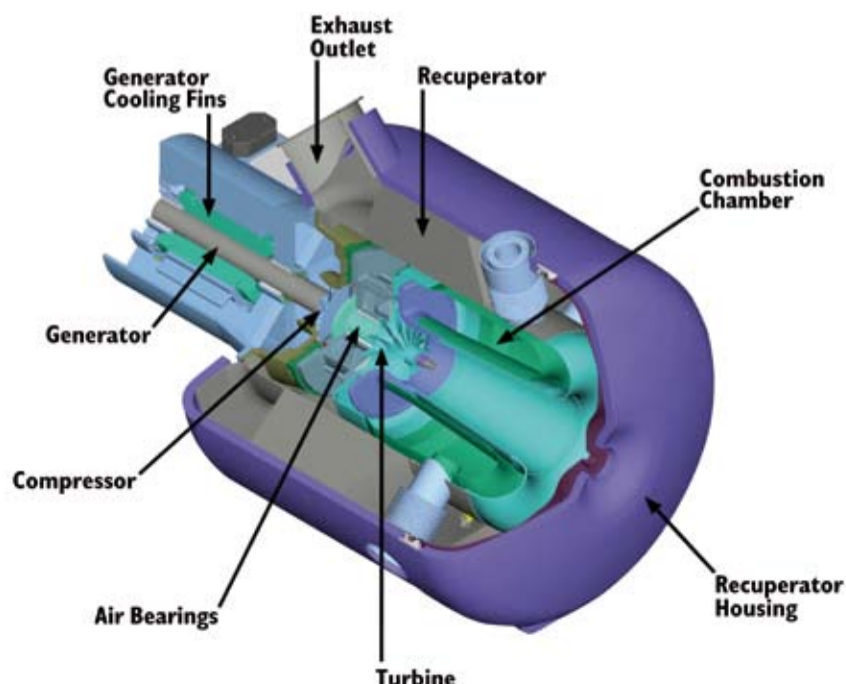
Halfdan BC platform under construction at Rosetti Yard, Italy

### Going forward

"The project was a real success," says Fred. "At the end of the project, Maersk even sent us an official note to say how pleased they were with our performance onsite." As a result, Maersk requested the same commissioning engineers to assist during platform installation in Denmark. "We feel this is a real vote of confidence in Pon Power Oil & Gas."

## CAPSTONE MicroTurbines: MAKING SATELLITE PLATFORMS CLEANER, SAFER AND MORE COST-EFFECTIVE

With environmental concerns rising higher up the international agenda, the oil and gas industry is demanding power systems that offer increasingly lower emissions. Pon Power Oil & Gas can provide just such a solution with its Capstone MicroTurbine™. Product specialist Sven Fransen tells us more.



### Capstone MicroTurbine

The Capstone MicroTurbine is a compact turbine generator that provides primary or back-up power for electricity-dependent enterprises, such as satellite platforms or cogeneration and biogas installations. "The Capstone MicroTurbine has a unique design that makes it very attractive to the oil and gas industry," says Sven. "The turbine doesn't require any liquid lubricants or coolants, so combustion is clean and maintenance is minimal. This makes them perfect for the increasingly popular small, unmanned platforms – and they lower costs as well."

### Small size, big power, low emissions

Although the Capstone MicroTurbine is small in size, it's big on power, says Sven. "In fact, it offers between 30-65kw, which is quite a lot, considering how compact it is. The turbine can also operate successfully on a wide variety of fuels, including flare gas. This not only saves on fuel, but also lowers emissions. Together, these factors combine to make the Capstone MicroTurbine extremely environmentally friendly."

### Tried and tested

Pon Power Oil & Gas completed the first Capstone MicroTurbine installations in the North Sea in 2003. "With unmanned platforms, such as BP's P18-A (now operated by TAQA) and Wintershall's Q8-A and Q4-C, now having their own Capstone MicroTurbines, we've gained nearly 100,000 hours of operational experience," says Sven. Worldwide, there are approximately 50 Capstone MicroTurbines currently operational on various companies' off-shore applications. "With the results we've seen so far, we're certain that this number will continue to grow rapidly."



## GOING BIG TIME IN QATAR PON POWER OIL & GAS SUPPLIES SHELL WITH SIX OF THE BIGGEST CAT ENGINES

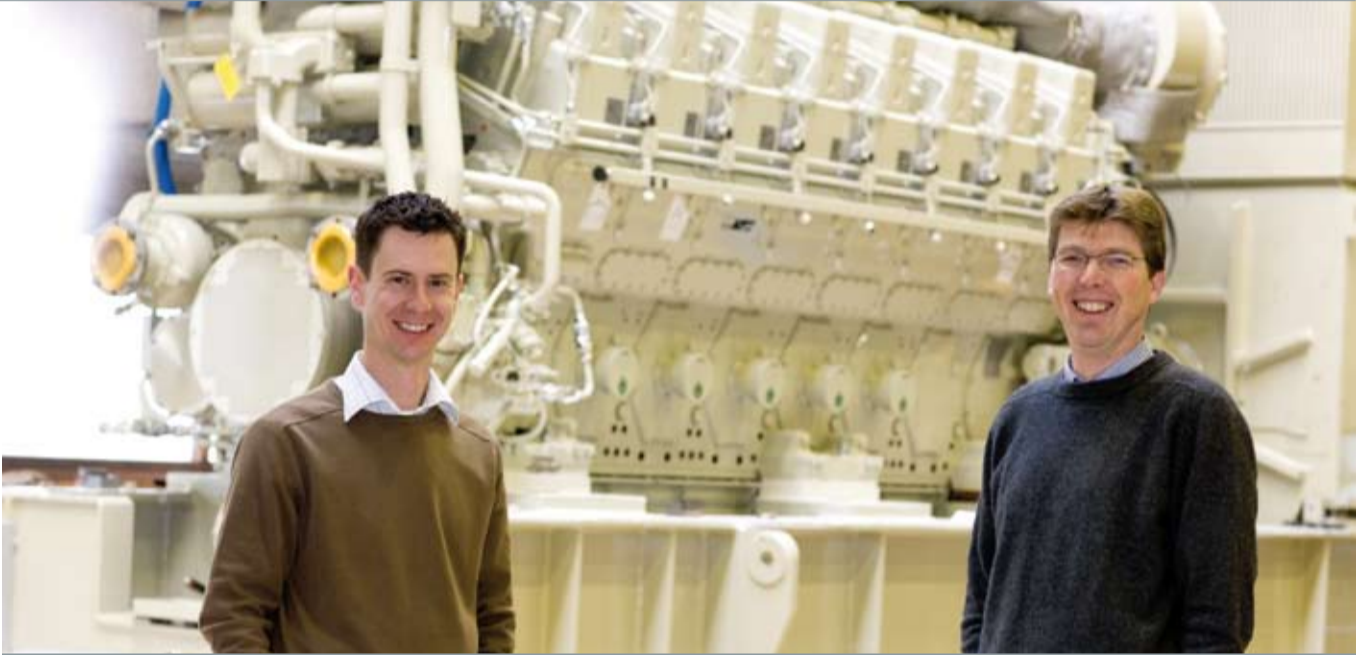
Pumping out a massive 5MWs of electricity, the CAT 3616 is the biggest Caterpillar engine available today. In mid 2006, Pon Power Oil & Gas won an order from Shell for six of these big CATs to supply emergency power to the company's Pearl GTL (Gas To Liquid) project in Qatar. We talked to the Account Manager who arranged the deal, Nico van den Biggelaar, and Project Leader Björn Vrancken.

### A great result

"We aim to sell just one of these engines a year," says Nico, "so this is a huge order for us – and competition was tough! As well as competing with companies selling other brands of engine, we were also fighting it out with fellow Caterpillar dealers in Great Britain and Qatar." So what swung the deal? "The fact that we aren't just delivering the engines and leaving Shell to it," answers Nico. "Thanks to our partnership with drive and energy systems specialists Topec, we're also supplying engineering and project management services, which Shell really appreciated."

### Smooth implementation

Work on the two-year project officially started in July 2006. "We've already built and tested the first three engine sets," says Björn. "In fact, these engines have been disassembled and are on their way to Qatar by sea. We're now working on the next three engine sets. In short, things so far are looking great!"



Björn Vrancken and Nico van den Biggelaar in front of Diesel Generator Driver (CAT 3616).

### Generator sets - facts and figures:

Each generator set:

- Supplies 5MWs of electricity
  - Measures 16m long, 6m wide and 6m high
  - Has cooling units measuring 4 x 20m
  - Is desert-proofed by Topec, who will build enclosures around the generator sets that can withstand sandstorms, salt air and an average temperature of 49°C.
- The six generators are fed by two fuel tanks, each holding 100,000 litres.

### What will the generator sets be doing?

- The generators supply emergency power to the Pearl GTL project in Qatar. They are autonomous units that need only fuel to run.

### Project summary

- The project comprises the development of upstream gas production facilities as well as an onshore GTL plant. This plant will produce 140,000 barrels per day of GTL fuels and products, plus 120,000 barrels per day of condensate, liquefied petroleum gas and ethane.

## DISMANTLING AND TRANSPORTATION OF THE FIRST THREE SETS



# SUCCESSFULLY DELIVERED

## MOHO BILONDO FPU

**Customer:** Hyundai Heavy Industries  
(End user: Total)

**Location:** Congo

**Application:** Essential and emergency power for FPU

**Year:** 2007

**Delivery:** **Emergency Diesel Generator set:**  
1x CAT 3516 DITA, Generator brand:  
Leroy Somer NRA 53 - M9/4P CACA,  
1500rpm, 400V, 1600kVA.  
Includes engine-driven radiator cooler,  
sound attenuated A60 enclosure, inte-  
grated fuel tank on which the unit  
can run at full load for 18 hours.  
Complete F&G system and hydraulic  
back-up starting unit.  
**Supplied loose:**  
1 Unit Control Panel  
1 F&G Control Cabinet.

**Essential Diesel Generator sets:**  
2 x CAT 3512B DITA, Generator model:  
Leroy Somer LSA 52 - 2 XL80/4P  
CACW, 1500rpm, 6600V, 1500kVA.  
Includes a hydraulic back-up starting  
unit.  
**Supplied loose:**  
2 x Unit Control Panels, 1 off fin-fan  
cooler for both generator sets and 2  
pieces of external insulated exhaust  
silencer.

All equipment built and delivered according to BV  
rules for steel vessels and BV rules for off-shore units.



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By using FSC paper, we actively support improved forest  
management all over the world.

## VINCENT FIELD DEVELOPMENT



**Customer:** A.P. Møller – Maersk A/S

**Location:** Vincent Field (West Australia)

**Application:** Emergency power for FPSO

**Year:** 2007

**Delivery:** One Caterpillar 3516B diesel engine-  
driven generator set, 1500EkW / 1875kVA,  
60Hz, 3 phase. Includes radiator cooler,  
electric and hydraulic start unit. Built and  
certified in accordance with Lloyd's Rules  
and Regulations.

## PETROJACK IV



**Customer:** National Oilwell Varco AS

**Location:** Singapore/Worldwide

**Application:** Main power for drill rig

**Year:** 2007

**Delivery:** Main power unit consisting of 5 x  
Caterpillar 3516B-HD diesel engine with  
Baylor S637generator. Packaged on oil  
field rig base frame. 1x emergency power  
unit consisting of Caterpillar 3508DITA  
diesel engine with Caterpillar SR4 Genera-  
tor. Packaged in oil field rig base frame.

**Power:** 5 x 1534EkW/1918kVA, 690V, 60Hz, 1200rpm  
1 x 670EkW/838kVA, 440V, 60Hz, 1800rpm

**Remarks:** Built and certified in accordance with  
ABS rules for building and classifying  
steel vessels/mobile offshore drilling  
units.