



DECEMBER 2011 Nummer 11

Enlighten

your maintenance



a group company of
mitsubishi
HEAVY INDUSTRIES, LTD.

Content

EXPERTISE • FLEXIBILITY • CUSTOMER-ORIENTATION • INNOVATION • EAGERNESS • DYNAMISM

In this edition:

Editorial	1
Dhr. Fukui, an interview	1
Our new rotorshop	2
An old dream...	2
Total offer	3
At the top of the world	3
MP& Clyde Union Pumps	3
IECEX-03 certificat	4
Troubleshooting at Total	4
MP in Finland	4
STAF	4
Save energy with ...	4

Dear customer,
employee, supplier,

Our latest newsletter is largely devoted to something we have dreamt of for years: our new rotor shop in Zwijndrecht. It has arrived and it is fully operational. Elsewhere in this newsletter you can read more about lathes, balancing machines and all the other state-of-the-art technology now available to our customers is. Akio Fukui, CEO of Mitsubishi Power Systems Europe and Johan De Coster, CEO of Maintenance Partners tell us more about the strategic vision behind this investment.

With the opening of our new rotor shop, we come full circle. Maintenance Partners has always done maintenance on rotors of turbines and generators. The knowledge and experience were there already. Thanks to the investment in Zwijndrecht, including a high speed balancing machine, we now have the equipment to inspect and repair also the biggest the main rotors (up to 100 tons).

An important link in this process are the people and machines of Blokland NV, recently integrated in Maintenance Partners. Blokland specializes in precision metalworking and is responsible for the production of high quality spare parts, such as labyrinths, bearings and blades.

In this newsletter we also pay attention to our latest success stories. MP Rotterdam was awarded the coveted MP-03 IECEX certificate, and we signed a cooperation agreement with Clyde Union Pumps, one of the largest manufacturers of pumps in the world. You can read everything about our troubleshooting at the Total refinery, about how we help out ABB Finland and how we did the complete overhaul of a large steam turbine in Sweden. One thing is certain, Maintenance Partners has shifted to a higher gear!

Wim Schelfaut, COO



An interview with mr. Fukui, CEO of Mitsubishi Power Systems Europe Ltd.

The realization of a major project like our new rotor shop would not have been possible without the vision and overall support of Mitsubishi Heavy Industries.

We had a conversation with Akio Fukui, CEO of Mitsubishi Power Systems Europe, Ltd.

MP: Mr. Fukui, What's the importance of the new rotor shop for your company, how does it fit in your service strategy?

Mr Fukui: "This is the first time that Mitsubishi owns a rotor inspection and repair shop in Europe, despite the fact that, over the years, we have installed more than 100 big gas and steam turbines on the continent. With this new rotor shop we can finally meet the service needs of our customers in and thus increase their satisfaction."

MP: Which markets will be served by the new rotor shop??

Mr Fukui: "We can now service the gas and steam turbines of our customers in the entire EU, North Africa, Turkey and the GOS countries."

MP: Is MP now aiming at the 'big' machines, or will smaller units/customers continue to be serviced?

Mr Fukui: "MP now being able to service the big rotors is of course a giant step forwards. But on the other hand, the customers with smaller machines will also benefit from the new infrastructure, such as the high speed balancing machine."

Mr Fukui: "The new rotor shop will bring much added value for MP and I'm sure all our employees are proud of it and will continue to commit themselves to providing our customers with the highest level of service. As a result of the global financial crisis, many

"This is the first time that Mitsubishi owns a rotor inspection & repair shop in Europa"

Mr. Fukui, CEO Mitsubishi Power Systems Europe, Ltd.

MP: What about non-Mitsubishi equipment?

Mr Fukui: "This new facility is also fully equipped for the inspection and repair of rotors of non-Mitsubishi gas and steam turbines."

of our customers, such as paper mills, refineries, steel mills etc. were facing difficulties. But I think the situation will soon recover, so they will call upon us for the much-needed service to their machines. "

MP: What's your message to MP and the workers in the new rotor shop?

Vision and total support!



Maintenance Partners nv
Van Aerdstraat 11, 2060 Antwerpen, België
Tel. +32 (0)3 544 32 16
Fax +32 (0)3 544 32 48
info@maintenancepartners.com
www.maintenancepartners.com

Enlighten

your maintenance

Anatomy of our new rotorshop

Thirteen professionals are working in our new rotorshop, specializing in technology and machinery.

The shop has a floor area of approximately 2500m² and accommodates a rotor stand up, a lathe, a low speed balancing machine, a high speed balancing machine, all for rotors up to 100 tons!

Moreover, the equipment of Blokland Machining was integrated in the new shop: CNC milling, CNC and conventional lathes, CNC wire cutting, semi-CNC surface grinder, etc.

The Blokland company, which was recently acquired by MP, specializes in high quality precision machining. The unit will focus on the manufacturing of spare parts.

Capacity to 100 tons

In one of the halls there is an overhead crane with a lifting capacity of 100 tons. There, our people will work on big gas turbine rotors, by means of the rotor standup, the new heavy duty lathe and ditto

balancing machines. In the other hall rotors from steam turbines and compressors, up to 16 tons are being repaired. This includes all kinds of inspections (non-destructive testing, a.o), manufacturing new components, low and high speed balancing.

Specialists in many disciplines

In the rotorshop, thirteen professionals are specialized in CNC lathing, CNC milling, CAD-CAM drawing, high and low speed balancing and inspections and repairs of all kinds of rotors. Some of them used to work in the former workshop. Others are new, from within and outside MP. In addition, the Blokland people came to reinforce the ranks.

For sure: with such fine craftsmen and top equipment, the rotors of our customers are in good hands.



An old dream became real

"The rotor shop is an old dream of us," says Johan De Coster, CEO Maintenance Partners, "A plan that was too ambitious for a company like MP. With the advent of Mitsubishi the dream became real. Mitsubishi has the financial strength and vision to realize a project which enables them to service their own machines. The new rotor shop in Zwijndrecht is the result of that vision."

Commitment from Mitsubishi

The investment in the new rotor shop, and especially in e.g. the high speed balancing machine proves Mitsubishi's commitment to its customers. "Previously we had to rely on external suppliers for the repair of rotors of 100 tons. This of course entailed a certain lack of flexibility. Thanks to the investment by Mitsubishi, we can now inspect, maintain and repair ourselves turbines from Mitsubishi and other OEMs", says Johan De Coster.

Largest workshop in the EU

With the new rotor shop, Zwijndrecht is now the biggest shop for large rotors in Europe. In the new shop rotors of large turbines and compressors up to 100 tons can be fully serviced. "This is a decisive competitive advantage over the competition. MP is now able to offer a complete service package to customers with heavy equipment.

We can now perform the services we used to offer, but in much better conditions,

which certainly will bring further growth. The new rotor shop is a milestone in the continuous improvement of our infrastructure. Together with our employees' dedication and expertise, this guarantees the future of Maintenance Partners, our employees and our customers", Johan de Coster concludes.



Total offer for MP customers

What does the new rotor shop mean for customers of Maintenance Partners? Yves De Craecker, Commercial Director at MP is enthusiastic: "Thanks to this mega investment we can now perform every possible repair to heavy rotors in-house, including e.g. high speed balancing.

We used to outsource this to third parties. Our installed base, especially in the petrochemical industry in the port area, can now rely on a fully equipped service company 'just around the corner'. This is unique in the Antwerp region.

We can now offer a total package that will certainly benefit our existing and new customers." Yves Craecker: "In terms of capacity we make a giant leap. With our lathe with a capacity up to 100 tons, we can now handle the largest rotors. The integration of the Blokland company, specializing in precision mechanics and CNC, adds another dimension: the manufacture of precision parts.

We are sure that our existing customers will find our offer even more attractive and that many former customers will find the way back to Maintenance Partners. "



At the top of the world!

In northern Sweden, not far from the Arctic Circle, Maintenance Partners just finalized a rather complex steam turbine generator project. This was the first job in cooperation with the new agent Gema Industri in Sweden, who participated in the project with a team.



For seven weeks in August and September Maintenance Partners, led by Project Manager Patrick Cantillon, engaged in a large revision and adaptation of a 27 MW Stal Laval steam turbine. The customer? The largest Kraft liner plant in Europe: Smurfit Kappa kraftliner in Piteå.

Two stators, complete with core plates and windings have been completely renewed, the turbine was opened up, inspected and repaired, the old hydraulic-mechanical control system was replaced by a new state-of-the-art electronic system with electro-hydraulic converters, and a new speed limiter, rotors, stators etc. were installed.

In order for the project to be finished in just seven weeks, much preparation and engineering were needed. Frank Claus and

his team designed and manufactured the new stators beforehand, basing themselves on on-site physical and electrical measurements. Thus the generators had to be removed from the site only three weeks in order to change stator. The design of the control system was a challenge and required intensive communication with the customer and within the project team.

The project was a success in every aspect: safety, quality of work and high class components.



Maintenance Partners and Clyde Union Pumps join forces

Maintenance Partners and Clyde Union Pumps have recently signed a cooperation agreement.

Clyde Union Pumps is one of the leading manufacturers of pumps in the world. It was created by the acquisition of Union Clyde Pumps Pumps in 2008. Both companies go back to the 19th century and have an impressive track record in their industry.

Clyde Union Pumps offers solutions for the upstream and downstream oil sectors, the

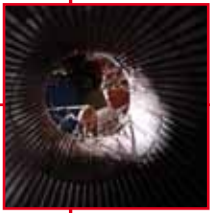
nuclear sector, conventional power generation, waterworks, general industry and mining.

Their product range includes single and two stage pumps, multi-stage pumps, piston pumps mainly according to API specifications, and pumps for special purposes. For the full range surf to www.clydeunion.com "Maintenance Partners and Clyde Union Pumps are now going together to the market, each contributing their own expertise and experience. We are merging our customer support for pumps

and their maintenance", says Ing. Rob Gerard, Business Development Manager with Maintenance Partners. "Clyde Union Pumps brings the OEM side of the story, such as engineering, testing facilities and various specialties. We add on our experience and knowledge with regard to maintenance of rotating machines, and of course our customer focus and local presence.

Our customers can now rely on the MP trusted service, enhanced by the OEM scope of Clyde Union Pumps."





IECEX-03 certificat for MP Rotterdam

Maintenance Partners the Netherlands BV has acquired the IECEX-03 Certified Facilities Service certificate.

Our Rotterdam shop is the second workshop that has been certified by DEKRA Certification in the Netherlands.

This international IECEX-03 certificate is carried by the IEC, the International Electrotechnical Commission. The IECEX 03 directive says that certificate holders are able to perform repairs to equipment in the EX domain expert in an expert manner. As of July 1, 2003, the ATEX standard came into effect for hazardous environments in the Ex area. This means

that any equipment sold within the EU must comply with the ATEX standard, including the appropriate ATEX certificate. In other words: no certificate, no validity! Next to the EX zones for gas environments, there are now also EX zones for dust environments.

With this DEKRA certificate, our Rotterdam shop is now certified for both electrical and mechanical repairs to EX equipment, along with the appropriate means of protection.

The IECEX 03 directive ensures that equipment used in explosive environments (Ex), is maintained, checked and / or

repaired in compliance with strict rules and in a safe manner.

An EX environment is a hazardous location, defined as a place where concentrations of flammable gases, vapors or dust occur. Ex machines and equipment are typical in locations such as refineries, drilling rigs, chemical plants, paper mills and sugar refineries.

Due to the high purchase costs of Ex equipment it is often better to repair or overhaul them than to replace them.

This certificate ensures that repairs to Ex equipment by MP The Netherlands in

Rotterdam are performed according to the strict requirements of the Directive and IECEX 03 international standard ISO-IEC 60079-19:2007.



Troubleshooting at Total

In the Total refinery in Antwerp port they had a big problem. During a major shutdown the OEM was working on a large centrifugal compressor. The top casing of the machine fell 10 meters down and was irreparably damaged. Shortly afterwards, Maintenance Partners were called in and during a crisis meeting, several options were considered.

Steven Jacobs: "The final solution was found in a spare lid found on the premises of Total. It dated from the sixties and time had done its work. But after thorough investigation - the lid was measured accurately in 3D - we concluded that we could still use it. Of course, some adjustments had to be done,

for which the piece had to be machinated again. Some apertures in the lid - cast pieces - were damaged and had to be restored. The entire repair did not take longer than one month. This way the compressor at Total was restored within the planned shutdown, to their great satisfaction. "

Steven Jacobs: "We have cooperated very closely with the Total people. We perform maintenance to their electro motors on a regular basis. It stands to reason that this successful 'troubleshooting' has further strengthened our relationship."



Maintenance Partners makes components for ABB Finland

The Motors and Generators department at ABB Finland Oy, the ABB office in Helsinki, has too little capacity to meet the demand for generators with salient poles. In this type of high speed motor, the windings are arranged around 'teeth' protruding from the rotor. That's right up the alley of our people in Zwijndrecht.

Maintenance partners helped them out, manufacturing 48 new rotor fields, to be provided at a rate of 4 per week. this job was good for a total of 13 tons of copper (270 kg per field). In order to deliver this, a small production was started at the old rotor shop in Zwijndrecht. It provided 12 weeks of work for 4 employees. This planned operation was a try-out. if the job

goes well, we are heading towards a long-term contract.



Save energy with high efficiency IE3 motors and frequency controls

Together with ABB, MP is a strong team that provides solutions for increasing efficiency and reducing electricity consumption. High efficiency IE3 motors and frequency controls play a key role here.

Meanwhile, most of the ABB range of engines is already available in IE3 version, the standard that becomes mandatory across Europe from 1 January 2015 onwards.

Frequency controls also offer a convenient solution for reducing of energy. Read more about the cooperation with ABB in the next edition of the MP Newsletter!

STAF's season greetings

Staf wishes everybody a Merry Christmas and a safe New Year!

Furthermore, we are already preparing the 2012 Safety Day.

MP Belgium has successfully passed its recertification audit for quality management ISO 9001: 2008.

Thanks to all for your commitment.

Keep it safe! STAF

