

# ENERTRAG SERVICE REPORT

ISSUE 01/2019

Dear Readers,

*I was talking recently to a journalist about the improvements in quality he had noticed at ENERTRAG Service, and I was astonished to discover that he was familiar with the contents of our SERVICE REPORT. Just a few days before we had received some queries about a SERVICE REPORT from a manufacturer of wind turbines, and the contents have also come up in conversation with customers ("You were writing about switching cabinets, do you still have such-and-such a switch?").*

*Of course I have always assumed that people did indeed read our newsletter, but that it should lead to so many discussions and that we should have such a strong response has come as a positive surprise. As is so often the case, this does of course place a certain obligation on our shoulders. So after a brief creative interlude, we now present an extended issue with reports on our new seal of quality, new installations and other things. I do hope that this issue arouses your interest, and that we continue to receive so much feedback! I wish us all a successful New Year, and may our customers in particular benefit from a true and constant, and therefore profitable wind.*

Veit-Gunnar Schüttrumpf

## ENERTRAG Service introduces a new seal of quality for used parts

As keen readers of our ENERTRAG SERVICE REPORT will already be aware, ENERTRAG Service is making ever greater use of used, tested and refurbished spare parts. This enables us to bypass supply bottlenecks, provide low-cost alternatives, but also offer special contracts for installations in the "post-Renewable Energies Act" era.

To allow us at ENERTRAG Service as well as our customers at any time to see at a glance the history of a part, we have introduced our new four-stage ENERTRAG

Service seal of quality. Stage one merely identifies a part as used, but from stage two "USED AND TESTED" onwards, a simple scale marked in months and years clearly shows who carried out a function test on the used part, and when. This is made possible by our new workshop (see test bench report on Page 3), where the parts are thoroughly inspected.

The next stages are then "REFURBISHED AND TESTED" – signifying that minor or even major repairs have been carried out

– and "MODIFIED AND TESTED".

This last stage identifies parts or components, the function, design or durability of which has been improved relative to their original condition.





## New turbines in service: Full maintenance for Fuhrländer FL 77 and VESTAS V 80

Following the expansion of our contract services to include full maintenance, we are now regularly receiving orders for such work. For example, since 1 January 2019 ENERTRAG Service now has three Fuhrländer FL 77 wind turbines in Kyritz (Brandenburg) under contract for full maintenance.

The Premium Plus contract which runs until the end of the German government's Renewable Energies Act payments in December 2025 not only covers all parts and repairs but also offers guaranteed availability. The contract also covers the Zollern transmissions – known to be problematical – that were incorporated into the MD



Wind farm Kyritz (Brandenburg)

70/77 platform (built by Jacobs, Südwind, RePower, Nordex and Fuhrländer) and are featured only in Fuhrländer models.

An extension beyond the era of Renewable Energies Act payments is under discussion with the customer and will shortly be agreed.



VESTAS V 80 in Schönberg (Mecklenburg-Western Pomerania)

From the beginning of March 2019, ENERTRAG Service will also be providing full maintenance for a VESTAS V 80 in Schönberg (Mecklenburg-Vorpommern). Here too the customer has opted for a Premium Plus contract, this time in our special V 80 version. Our local colleagues based at our Lübeck office will be keeping a special eye on this installation – it is located just a few hundred metres away from their nearby filling station.

Other installations for which we have begun providing full maintenance since 1 January 2019 were often already the subject of less extensive contracts with ENERTRAG Service. Examples include a DeWind D 6 64 (1250 kW), three DeWind D 6 62s (1000 kW) and a Nordex S 77

belonging to a group of operators in North Rhine-Westphalia. Even before these changes took effect, as of 31 December 2018 in addition to 48 plants that are covered exclusively by remote data monitoring, we already had 397 wind turbines on fixed maintenance and service contracts (not including one-off orders e.g. for major components), making a total of 445 installations.

As a result, despite some installations being dismantled for repowering, ENERTRAG Service recorded an increase in installations on contract in the past financial year.

### Did you know , that...

...every month approx. 110 packages leave our central warehouse in Lübeck (pallet goods not included) to keep all our regional warehouses and locations supplied with materials and spares?

...we have almost halved our accident statistics in the past four years? Last year there were six, this year we are aiming for fewer than five.

...each month our service technicians clock up over 100,000 km in their quest to provide the optimum service for every wind turbine?

...over 10,200 items and spare parts are listed in our inventory management system?

...last year we signed new contracts to service installations with a combined output of 30.2 MW?

### Extended office hours

Since 1 November 2018, our Production Planning / Accounts department has been opening **until 17.00 Monday to Friday** to deal with enquiries.



# Interview with Martin Klöcking, Operations Manager, and Veit-Gunnar Schüttrumpf, Managing Director

**Martin, as Operations Manager at ENERTRAG Service you are responsible for the company's core operational business – what is your opinion on full maintenance contracts?**

*Martin Klöcking: When the new company management began to set its sights on full maintenance contracts a year or so ago, I admit there was some scepticism. But there was a proper strategy in place. In the meantime, I think that our full maintenance contracts are ideal for our customers and for ENERTRAG Services.*



Martin Klöcking  
Operations Manager

*Veit-Gunnar Schüttrumpf: And that is precisely the secret – with a full maintenance contract we are bringing the interests of the customer into line with those of the service provider. Or as an economist might say, we are internalizing external effects on both sides. And provided that the whole thing is well organized, both sides profit!*

**What does that mean in practice, can you give us an example?**

*Veit-Gunnar Schüttrumpf: Veit-Gunnar Schüttrumpf: The classic example is preventive maintenance. For instance, let's take brakes: We are on a service call, and we notice that a brake is leaking. Under certain circumstances, we would then submit an offer to the customer to replace all the brakes in order to save further downtime and repeat visits. But sometimes that's not what the customer wants, for whatever reason. If we then have to make more visits and there is more downtime, the customer has less income and higher costs, and our extra visits earn us nothing, they just add to*

*the cost. With a full maintenance contract, it would be quite simple. The customer has nothing extra to pay, and knows that we will only act when it makes economic sense.*



Veit-Gunnar Schüttrumpf  
Managing Director

**Martin, does it really work like that in practice?**

*Martin Klöcking: To be honest, before I joined ENERTRAG Service I worked for a large German manufacturer, and it worked there in just the same way. But for an independent service company with its varied portfolio of plant, it is more difficult. It all comes down to technical expertise, and it needs to be tightly organized internally. But we have already reinforced our organization and we shall continue to do so, and I must say, it works. One of the most notable features is that it cuts back on bureaucracy, and that pleases our customers and our company colleagues.*

**Veit, until the new Sales Manager joins in April 2019, you are acting head of sales. Is there still a demand for full maintenance contracts**

*Veit-Gunnar Schüttrumpf: It is often said in the market that full maintenance contracts are in decline. But I find that too one-sided. They still exist for modern installations, just as they have always existed, and we at ENERTRAG Service – we're a little ahead of the market here – are consciously interested in old equipment. By close agreement with the customer, we actively fit used parts and components we ourselves have refurbished. This reduces costs and allows us to quote price levels that make full maintenance*

*attractive even for the post-Renewable Energies Act era.*

**Your conclusion? What's the outlook?**

*Martin Klöcking: In the coming years, full maintenance contracts will form an integral part of our portfolio. But it is also important to note that in future we will be flexible when it comes to contracts and we will structure our agreements in line with what individual customers want*

*Veit-Gunnar Schüttrumpf: There is nothing I can add to that!*

**Many thanks for talking to us, we wish you every success!**



## More training, first maintenance works on Enercon wind turbines



ENERTRAG Service-vehicle in front of a Enercon E 66

In 2018 we organized numerous training courses which were successfully completed by our service technicians. Just recently, for example, some of our colleagues attended the Enercon training centre where they were given hands-on instruction on how to maintain Enercon plant. They also carried out their first service works on Enercon installations.

These and similar qualifications and the associated expansion of our skills base are of central importance as part of our two-year "Fit for 2020" programme, which also entails some not insignificant costs. In addition to the sustained development of our in-house second and third level skills and workshop capabilities, ENERTRAG Service is focusing in particular on cooperation with selected manufacturers. It is most important that we focus at all times on specific links to our work on wind turbines, and that initial

training is followed up by close technical backup from trainers and technical support when carrying out works on site.

In parallel with the training and qualification of our service technicians, we are also putting an emphasis on training in remote data monitoring (which at ENERTRAG Service is now increasingly and more accurately referred to as "remote repair and maintenance"), as well as on technical support and not least on the materials management and purchasing departments who are tasked with ensuring that all relevant parts are available on time and in adequate quantities for the new types of plant we are servicing.

## New test bench in operation

As already mentioned in the article on our seal of quality, with the opening of the new workshop, a new test bench is under development.

This test bench is principally used to test electronic components such as MITA controls and inverters. This allows us to confirm their functionality as well as compliance with specified technical data

and parameters.

To enable every function of a used part to be tested, the test bench simulates real-life operating conditions. In addition independently switchable inputs allow us to precisely identify potential defects.



Workshop manager Ali Alissa at the oscilloscope



Switchable inputs for fault finding



Displays on the test bench



## Major order for France: Main bearing and transmission “twin pack” for FL 2.5 WEA

At the beginning of December last year, ENERTRAG Service was awarded a major order. Two Fuhrländer 2.5 MW machines at the Noyales wind farm in France required the replacement of major components, with one having a defective main bearing and one a defective transmission.

The timetable which called for a heavy-duty crane was tightly set, with the customer keen to see work commence before the Christmas holidays, in order to make use of every conceivable weather window for crane operation at this time of year. The “twin pack” concept brought a considerable saving in crane

costs. As usual at this time of year, the weather did not always cooperate, with the team at times having fog and snow to contend with. Work began with the turbine with the damaged main bearing, since the one with the defective transmission could still be operated. Since ENERTRAG Service always has main bearings and transmissions for FL 2.5 wind turbines in stock, there were no delays in getting started.

The works on site were for the first time carried out jointly with our new French colleagues. This “twin pack” was a challenge which was successfully overcome through a joint effort, and represents an

important step towards implementing future Europe-wide projects.

With this order, ENERTRAG Service has further consolidated its market position in Europe in the field of major component replacements for FL 2.5 MW machines.

In 2018 alone, we exchanged six main bearings and one transmission for these models.



Difficult weather conditions in France



German and French colleagues in a FL 2.5 FL hub

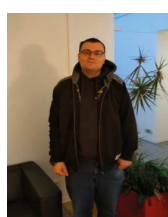
### NEW AT ENERTRAG SERVICE

Martin Lewinske joined the ENERTRAG Service team on 1 December 2018 as Technical Support Manager. Martin was previously responsible for technology and technical support for the past seven years at StiegeWind GmbH. So he has plenty of experience in the wind energy sector. Welcome to ENERTRAG Service, Martin!



### NEW AT ENERTRAG SERVICE

Raik Schwabs joined us on 1 November 2018 as a service technician in the major components replacement team. He trained as an electrical equipment technician and has worked for several years as a service technician in the wind energy sector. We are delighted to welcome Raik on board and wish him every success at ENERTRAG Service!



### IMPRINT:

ENERTRAG Service GmbH  
Gut Dauerthal  
17291 Dauerthal

Office address:  
ENERTRAG Service GmbH  
Roggenhorster Str. 35  
23556 Lübeck  
Tel. +49-451-48688-117  
[service@enertrag.com](mailto:service@enertrag.com)