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STAHL CraneSystems as matchmaker

Eisenbau Weissenburg builds a portal crane for a barrage in Cameroon

STAHL CraneSystems was the matchmaker: the crane technology expert was able to team up two of its customers for a crane project in Cameroon, and itself supplied the hoists and wheel blocks needed.

"The customer didn't know which way to turn," Fred Weber, sales representative of STAHL CraneSystems, recalls. DSD Noell needed an off-standard crane for a project in Cameroon, however was not able to find a suitable manufacturer. Desperate, the Würzburg systems manufacturer enquired of STAHL CraneSystems. The crane technology expert was not able to help out with a crane, but knew a competent crane builder: Eisenbau Weissenburg. Fred Weber brought his two customers up to the table and Eisenbau Würzburg quoted the complete crane. "As a leading manufacturer of hoists and crane components we have close contacts with many crane builders and systems manufacturers. This means that we can pass enquiries on to a suitable specialist and act as broker between our customers," Fred Weber says.

Cameroon is situated in West Africa, in the middle of the tropics. It is 65 km from the coastal metropolis Douala to Edéa, a town of 120,000 inhabitants. Here there is a large aluminium foundry, a hydro-electric power station in the River Sanaga provides the electricity required. Outside this hydro-electric power station, for some years now DSD Noell has been building a barrage which is planned to regulate the water level. To permit erection and subsequent maintenance, the water is retained by so-called "stoplogs" - heavy bulkhead gates which must be installed by crane.

The requirements made of such a crane are high: technically - and above all with regard to climate conditions. In Edéa humidity is between 80 – 100% all year round. When the sun shines, the thermometer rises to 45°C, however usually it is raining. To be honest, it is nearly always raining in this region, which with an annual precipitation level of 11,000 mm is

one of the wettest regions on earth. Germany has just 789 mm over the same period. The dry season in Edéa lasts from December to February. However even then it is not really dry.

"The crane would have rusted in a flash without special paint," explains Thomas Näpflein, Eisenbau Weissenburg's project manager. To protect the crane from corrosion it was painted a total of seven times: one primer coat, four undercoats and two topcoats. The technology too has to be protected from the extreme weather conditions. Climate control systems cool the switchgear cabinets and diffuse the condensation. A canopy on the crab protects the hoists from rain.

The main hoists are two STAHL CraneSystems SHF 60 wire rope hoists with a total S.W.L. of 39 tonnes. They are equipped with frequency inverters and are particularly suitable for the gentle and precise positioning of the heavy stoplogs. An SH 30 wire rope hoist, supplied ex factory with a conversion kit, serves as auxiliary hoist for smaller loads. The customer can refit the hoist from 4/1 to 2/1 reeving when required, permitting double the hoisting speed with half the load. The auxiliary hoist too has a canopy to protect it from the rain.

DSD Noell had documented the technical requirements in detail in its performance specifications. As an internationally active systems manufacturer the company has had plenty of experience with orders abroad. "They were really particular," says Thomas Näpflein, who accepted DSD Noell's strict specifications: "The problem was not so much the humidity in Cameroon, DSD Noell simply needed someone who was able to build such a specialised crane and was prepared to accept the strict safety regulations." At regular intervals inspectors checked whether Eisenbau Weissenburg was complying with the standards and regulations. An external inspector subjected all load-bearing welds to magnetic particle and ultrasound tests. The inspector was himself supervised by another inspector. "Such strict checks are not really common, but DSD Noell just wanted to guarantee one hundred percent quality," Näpflein explains. "If you do business with government authorities and agencies complete documentation of all procedures and tests is essential."

After a year's planning and construction period the crane stood ready for operation in the assembly shop in Weissenburg, the double girder crane bridge reached nearly to the roof. "It's fairly rare to erect and test a crane like that completely," says Thomas Näpflein, "but it has advantages for the customer: Everything is ready, the limit switches are set, the frequency inverter programmed. So we can eliminate errors before painting the crane and there are no delays erecting it on site."

After a successful acceptance test and an overload test with a test weight of 50 tonnes the Eisenbau Weissenburg fitters started dismantling the crane again. The individual components were sandblasted, given several coats of paint and then packed for the long journey to Cameroon. A month later master fitter Klaudius Moj flew to Edéa to supervise the erection of the crane and instruct personnel on site.

In the next two years DSD Noell's crane will provide support while the barrage is constructed, later it will be used for maintenance and repair work. "We haven't heard anything else from the construction site," Näpflein is pleased to report, "that's always a good sign."

Fred Weber from STAHL CraneSystems is satisfied too. Eisenbau Weissenburg has been ordering hoists from the crane technology expert for years, "because price and performance are simply right," as Thomas Näpflein says. "If we can choose we always buy STAHL CraneSystems hoists." Fred Weber can look forward to other exciting projects.

Keystrokes

Photo material:



At its destination: the portal crane from Weissenburg starts work in Edéa, Cameroon.



On site in person: master fitter Klaudius Moj from Eisenbau Weissenburg sees the erection and commissioning of the crane through.