



News service MAN Group

Press release of
March 21, 2003

MAN B&W Diesel: The world's largest wind wheel hub

The world's largest wind wheel hub, with a weight of 56 tons and a diameter of four metres, has now been manufactured in Augsburg. The order came from Pfeleiderer Wind Energy GmbH, Neumarkt, and was executed in the foundry of the large-bore engine manufacturer MAN B&W Diesel AG. The oversized product will carry the three blades of a wind power plant in Bremerhaven at a height of more than 100 metres. Being a prototype for future offshore applications, the plant has a capacity of 5 megawatts - enough to supply an average small town with electricity. The gear unit used to transmit the driving power from the rotor blades to the generator will be supplied by RENK AG, which also belongs to the MAN Group.

Pfeleiderer Wind Energy offshore wind power plants are based on multibrid technology[®]: The integrated construction comprises rotor bearing, gearbox and generator in one casing. Compared to a design with a separate installation of the above-mentioned components on a platform, multibrid technology is extremely compact and is therefore comparatively light. An example: The tower head mass of conventional machinery exceeds 500 tons, whereas plants based on the multibrid concept are about half this weight.

"We are very proud that we were entrusted with the casting of this gigantic hub. This proves the high quality and precision of our casting products" says Rolf Vinck, General Department Manager of MAN B&W Diesel AG's foundry. The company produces approximately 200 wind wheel hubs per year, usually weighing 13 tons and having a diameter of three metres. At the moment, one wind wheel hub leaves the Augsburg foundry per day.

The planetary gear unit developed and manufactured by RENK weighs about 60 tons and is the most efficient and largest gear unit ever produced for a wind power plant. Its function is to raise the relatively slow number of revolutions per minute achieved by the rotor blades to a medium generator speed.