

LW 18

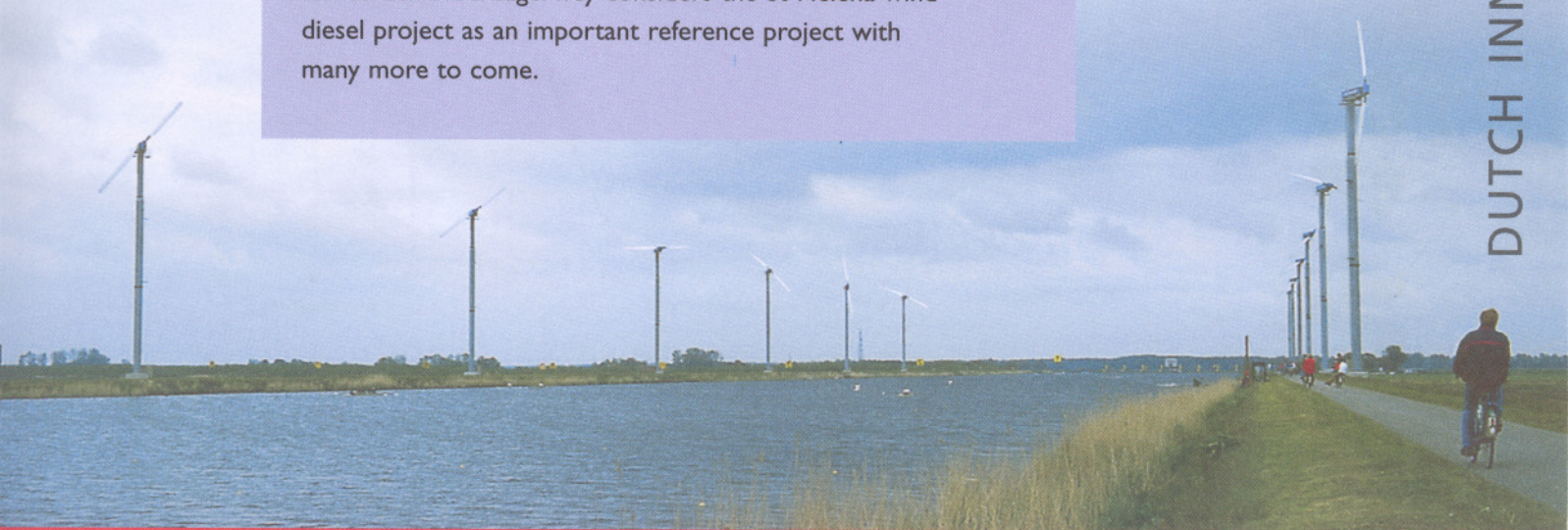
Lagerwey the Windmaster has a proud tradition of innovative, cost effective, high yielding wind turbines. With the introduction of the 75 kW LW 15/75 in 1985, Lagerwey set new standards in wind turbine design. The combination of variable speed, blade pitching by a mechanical passive pitching system, and a hinged blade mounting system is unique in the world. The optimised 80 kW Lagerwey LW 18 is often referred to

as the Dutch 'farmers' wind turbine. Through the years more than five hundred of the small two-bladed machines have been installed world-wide. The 80 kW Lagerwey is also available as a wind-diesel hybrid system.

St Helena

Lagerwey has installed three 80 kW LW 18 turbines on the islands of British St. Helena in the South Atlantic. The turbines operate since July 1999 and have been integrated into the existing 1.5 MW(peak) diesel powered grid. Due to strong stable winds throughout the year, the turbines are operating many hours at full load.

As a result a major reduction in diesel fuel consumption will be achieved. Lagerwey considers the St Helena wind-diesel project as an important reference project with many more to come.



DUTCH INNOVATION WORLD-WIDE

Specifications

General

Rotor diameter	18 m
Rotor speed	Variable, 50 120 rpm
Nominal power	80 kW
Rated wind speed	12.5 m/s
Survival wind speed	60 m/s
Rotor speed control	Full span pitch, by mechanical passive pitching
Control	Microprocessor, main functions

Transmission

Type	Integrated gear drive
Gearbox type	twostage/helical

Generator

Type	Asynchronous, IP 54 protection
Voltage	230/400 V
Supplier	ABB
Grid connection	ACDCAC inverter system

Tower

Constructions&hub heights	Cylindrical, tubular steel, 24 and 30 m
Conical, tubular steel, 40 m	

Safety

System	Yawing out of the wind followed by passive blade pitching
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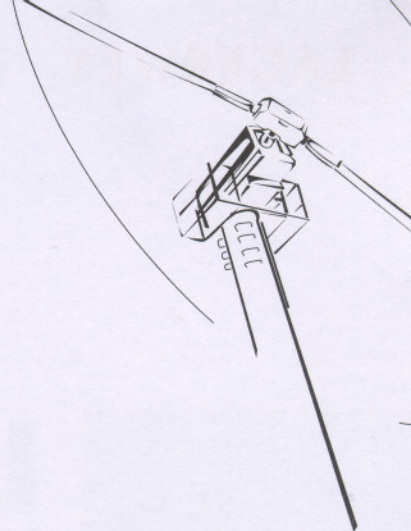
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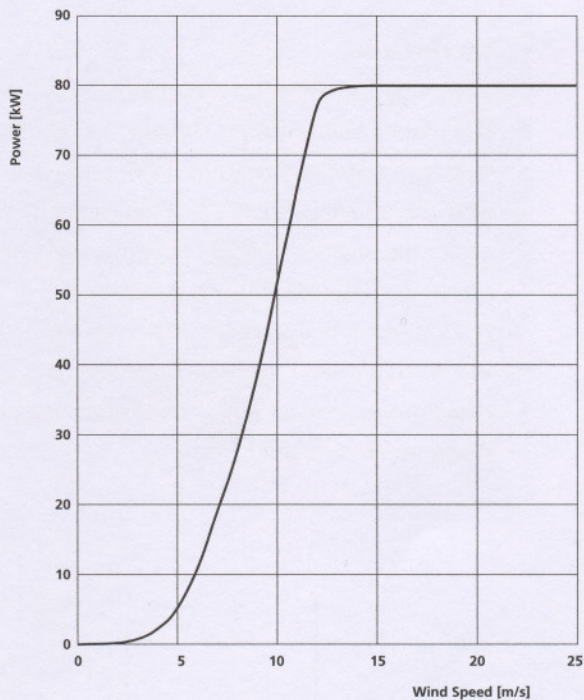
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Power curve LW 18

Measured power curve by
ECN, April 1994



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