



SEAWIND

**Overview of Seawind Technology technical
features & enhanced visuals
Rev.1**

FOR INFORMATION ONLY – WITHOUT PREJUDICE



We're redefining the offshore wind industry

Message from our CEO

In 2014, Seawind was created by its founders as a response to a gap in the offshore wind technology and because of the urgency to address climate change.

From a modest but highly experienced engineering base, Seawind has developed into a deeply skilled technology company that operates and takes ideas all the way through the lifecycle to revenue-generating operations.

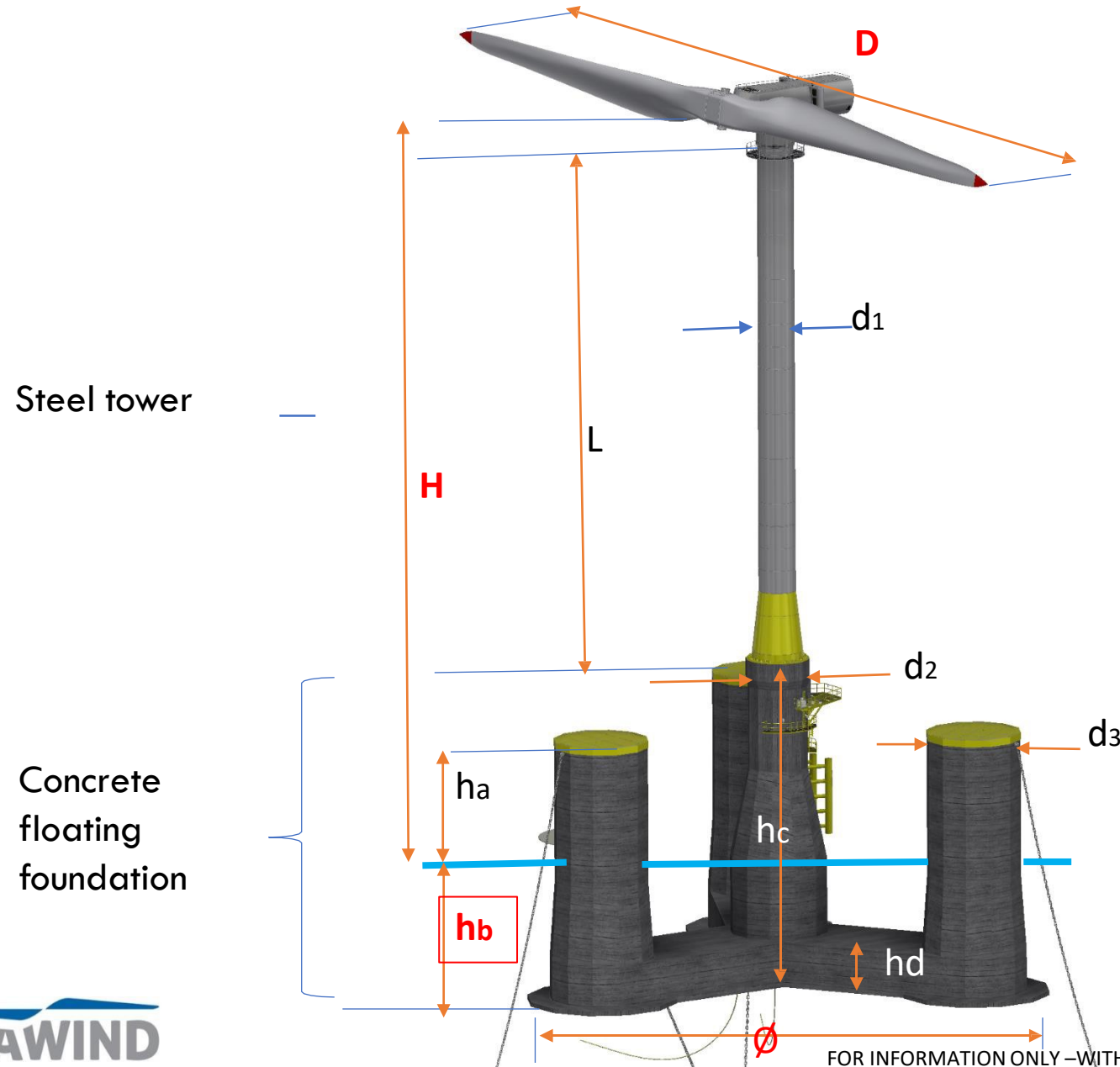
Today, we are a company full of people wanting to make a difference to the environment, the world through choice, and endeavour.

Our highly experienced teams strive to create a sustainable, highly effective and efficient supply chain and structure, which the wind offshore industry has never seen before.

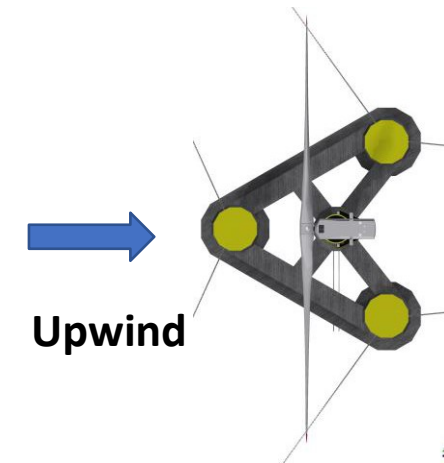
We hope that you will join us in this unique journey.

Vincent Dewulf
Seawind CEO

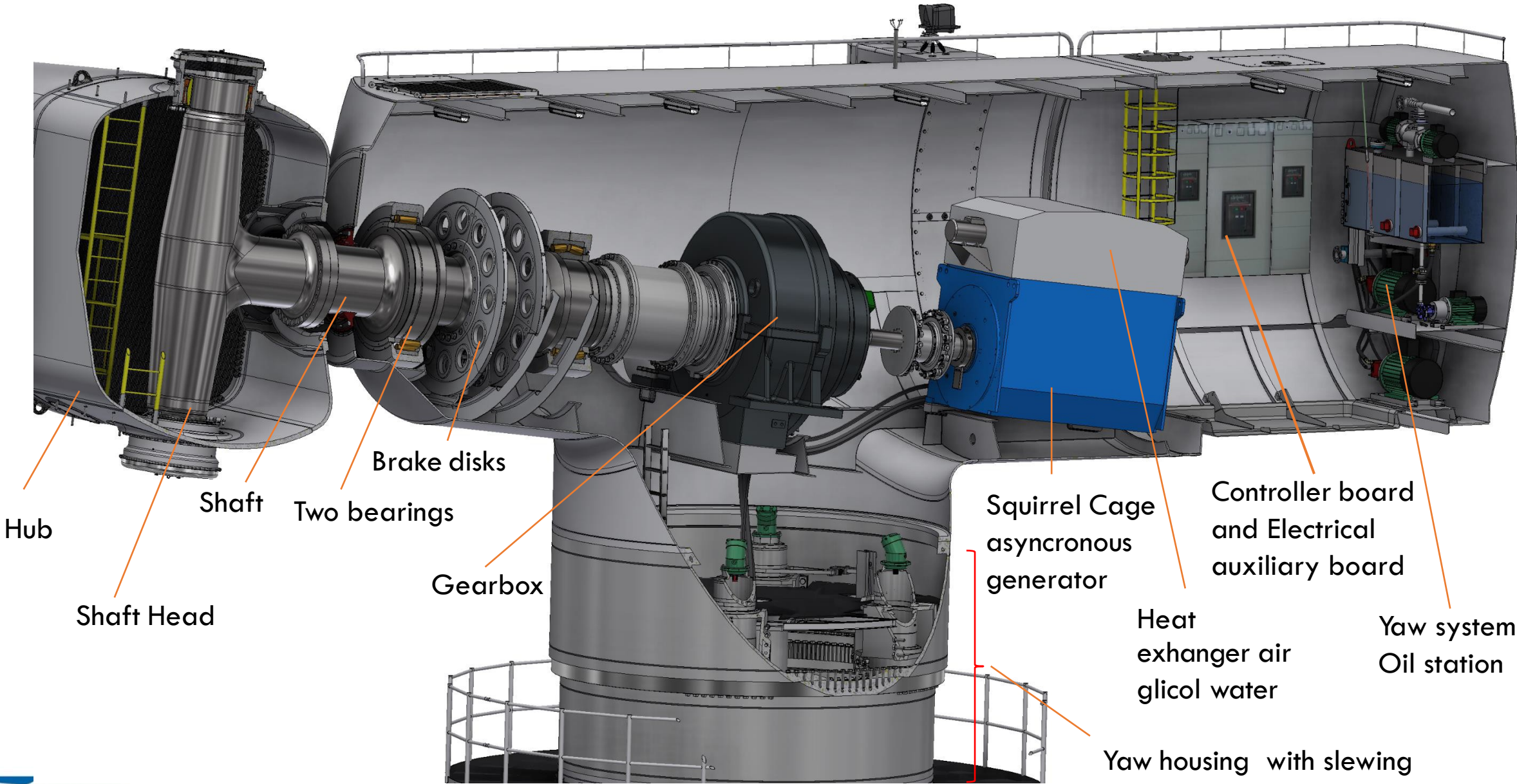
Seawind 6 and 12- General Dimensions



	Seawind 6	Seawind 12
D	126	225
H	95	135
L	69	90
d1	5	Tapered from 6 to 9
d2	7	9
d3	12	15
\emptyset	71	85
h_a	15	16
h_b	21	22
h_c	42.5	59
h_d	6	6



Seawind 6 Turbine Nacelle Package with Yaw Housing and Hub



Hub

Shaft

Two bearings

Brake disks

Gearbox

Shaft Head

Squirrel Cage asynchronous generator

Controller board and Electrical auxiliary board

Heat exchanger air glycol water

Yaw system Oil station

Yaw housing with slewing bearing and yaw drives



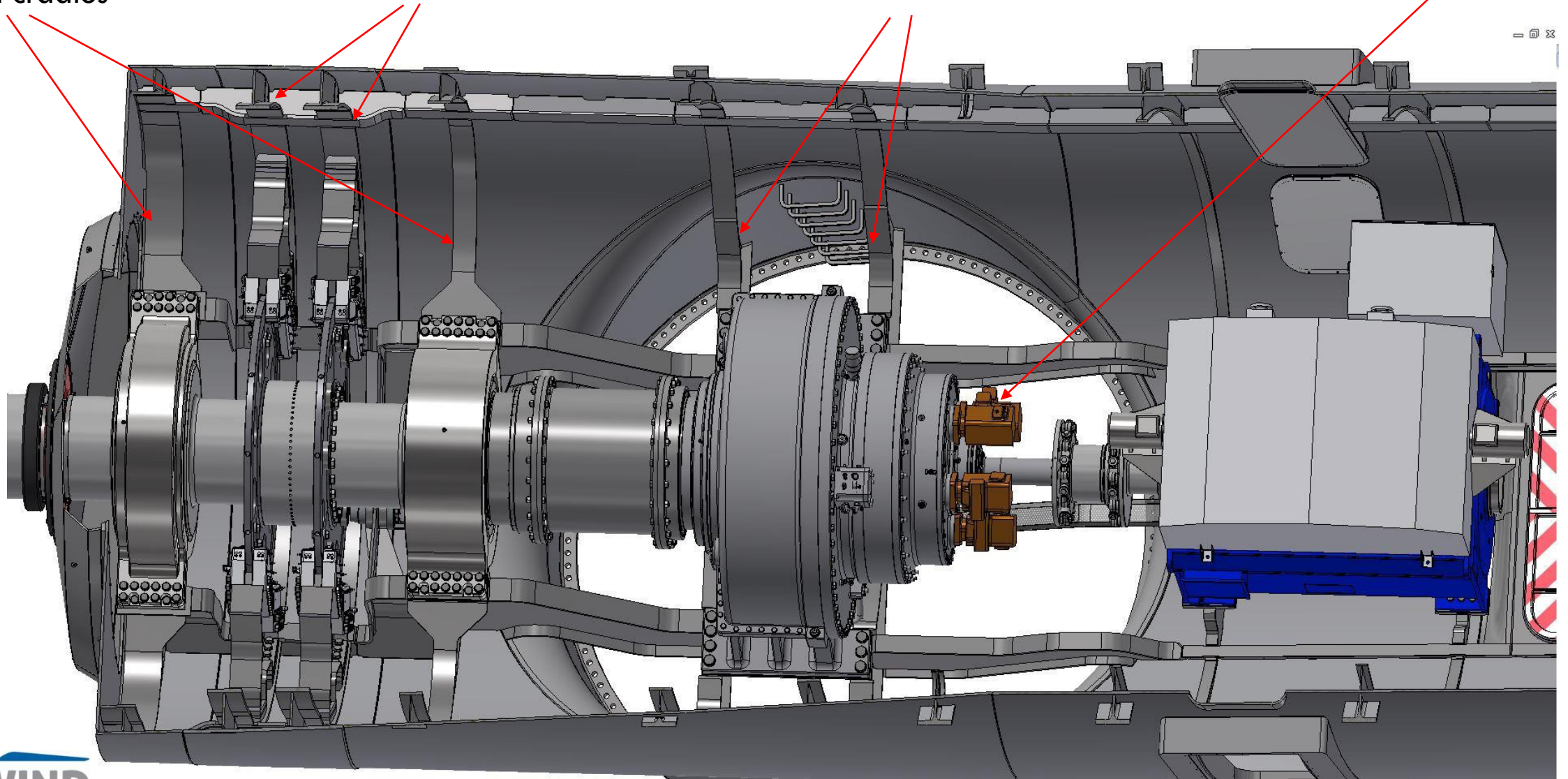
Seawind 6 Turbine supports for drivetrain & disk brake calipers

Bearing housings supported by the nacelle shell through rings and cradles

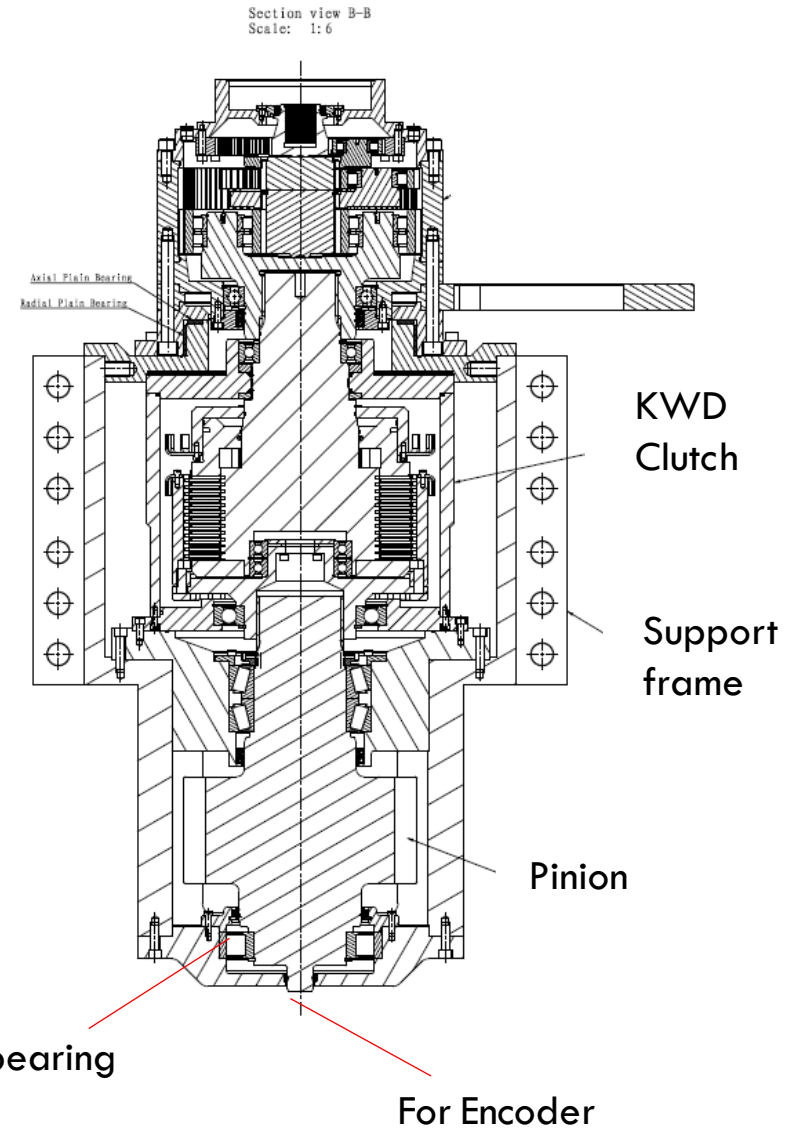
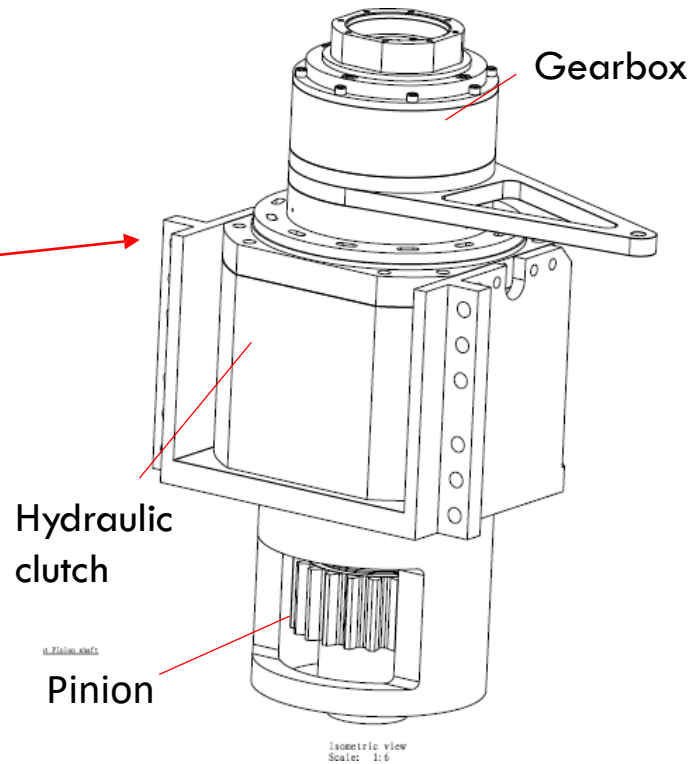
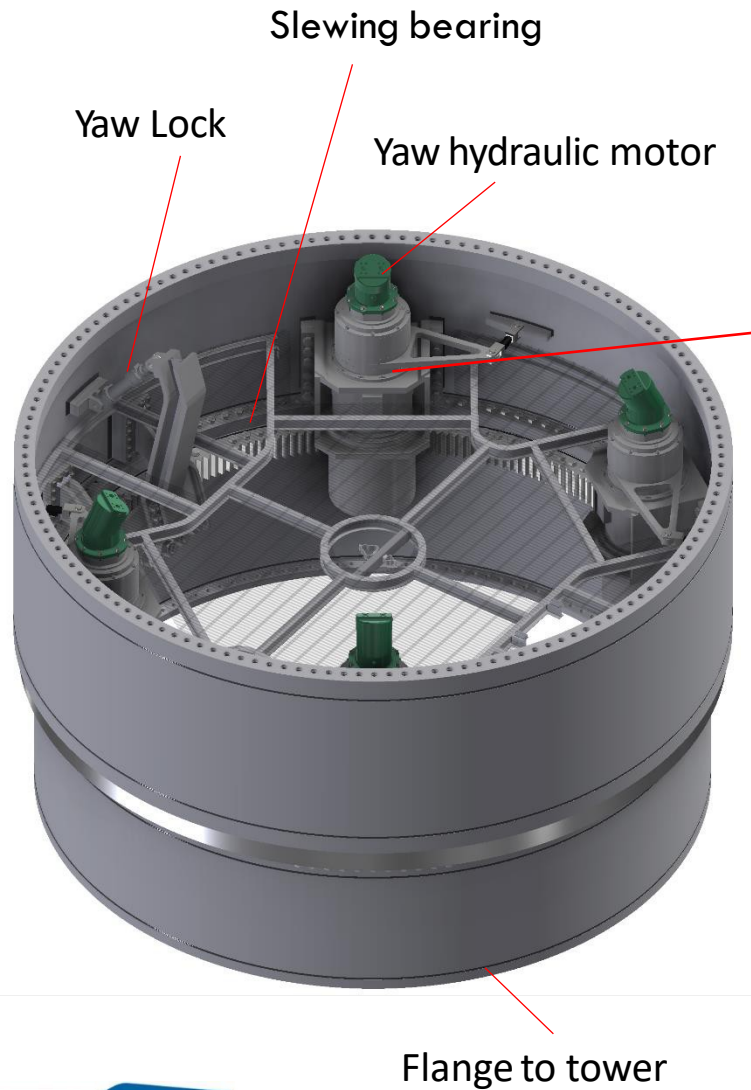
Supports of brake callipers mounted onto internal rings

Gearbox mounted onto internal rings and beams

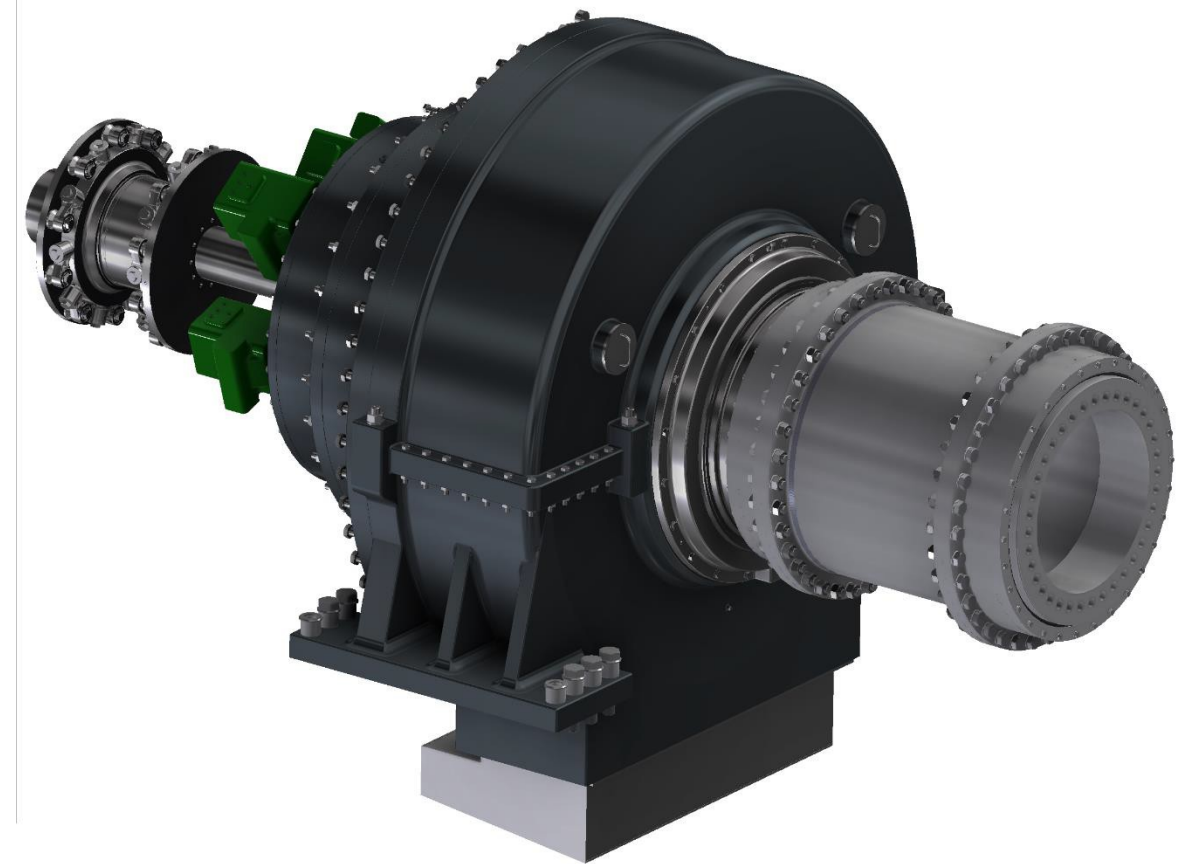
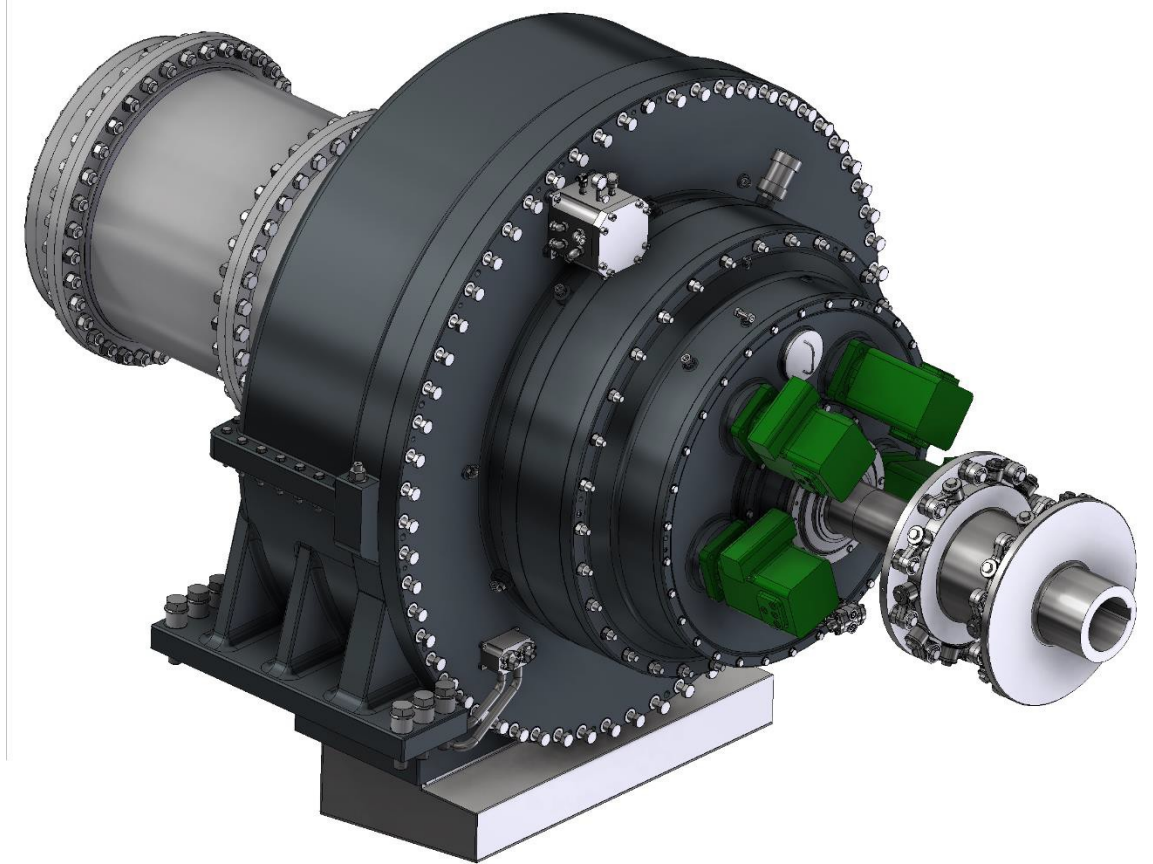
Yaw hydraulic main pumps driven by the gearbox



The Yaw Housing with Slewing Bearing and Drives of Seawind 6 Turbine



Seawind 6 Turbine Gearbox with Yaw Pumps and Couplings



Seawind 6 Turbine Shaft and the Shaft Head

CARB Toroidal Roller Bearing C39/1500 MB
 $\varnothing_i = 1500$; $\varnothing_e = 1950$; $B = 335$

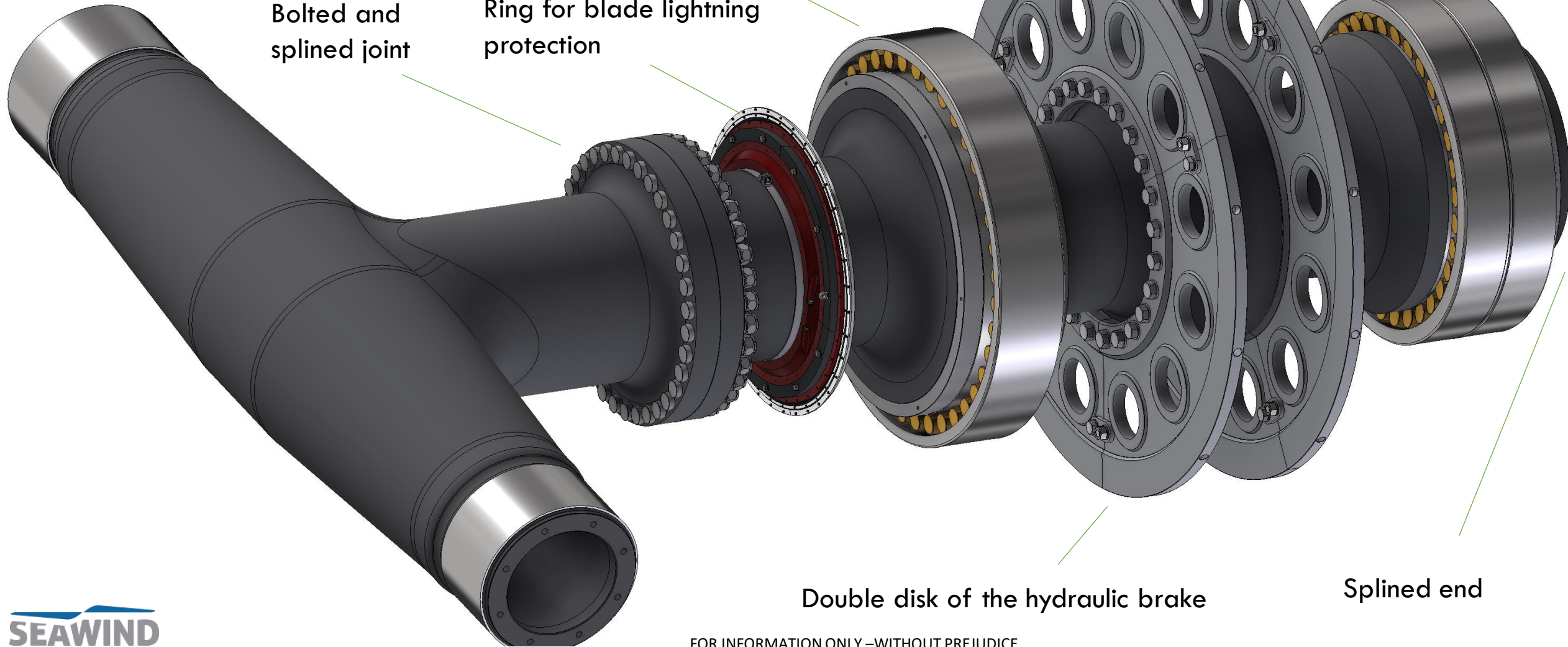
Spherical Roller Bearing (240/1180 CAF)
 $\varnothing_i = 1180$; $\varnothing_e = 1660$; $B = 475$

Bolted and
splined joint

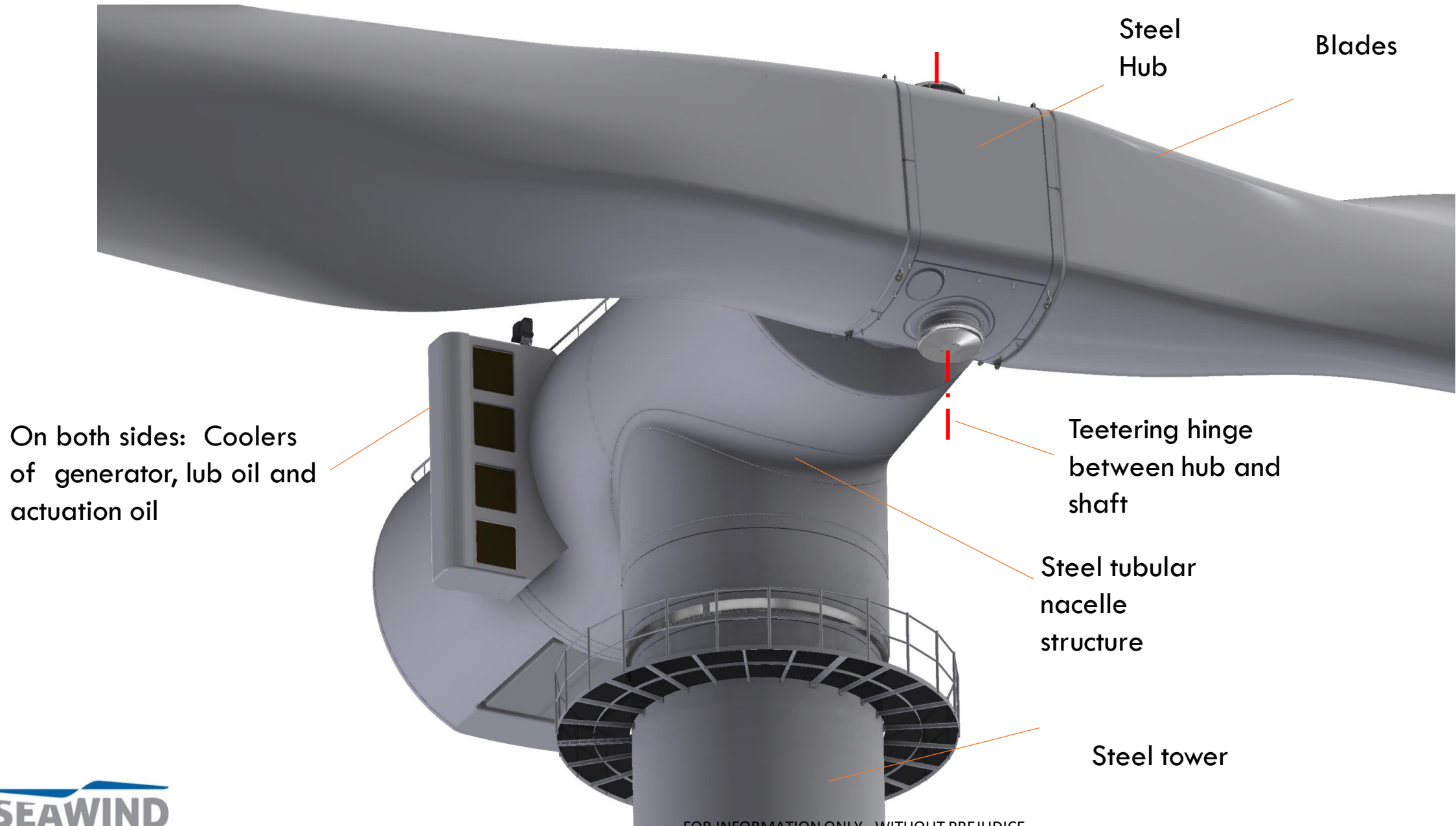
Ring for blade lightning
protection

Double disk of the hydraulic brake

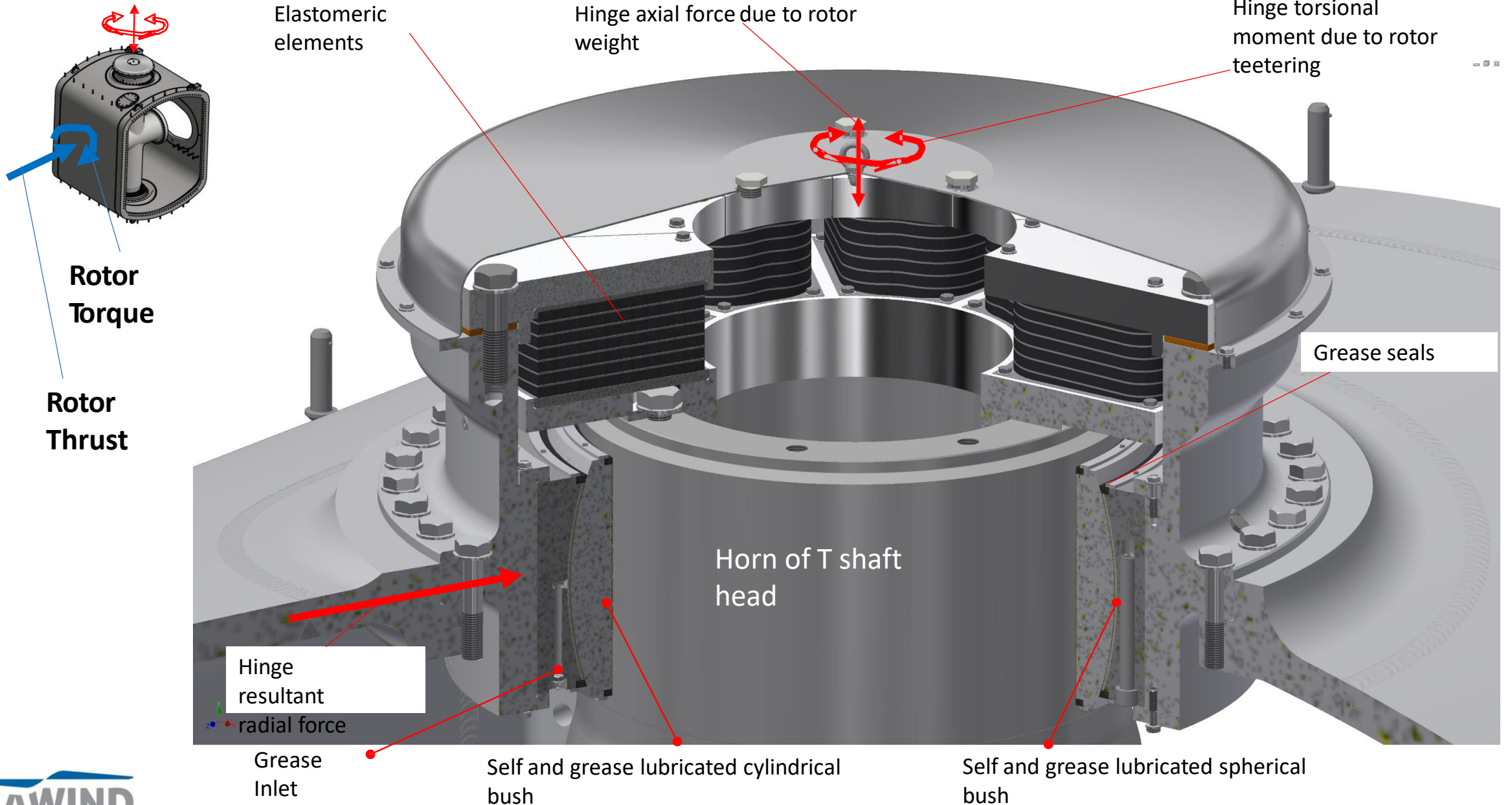
Splined end



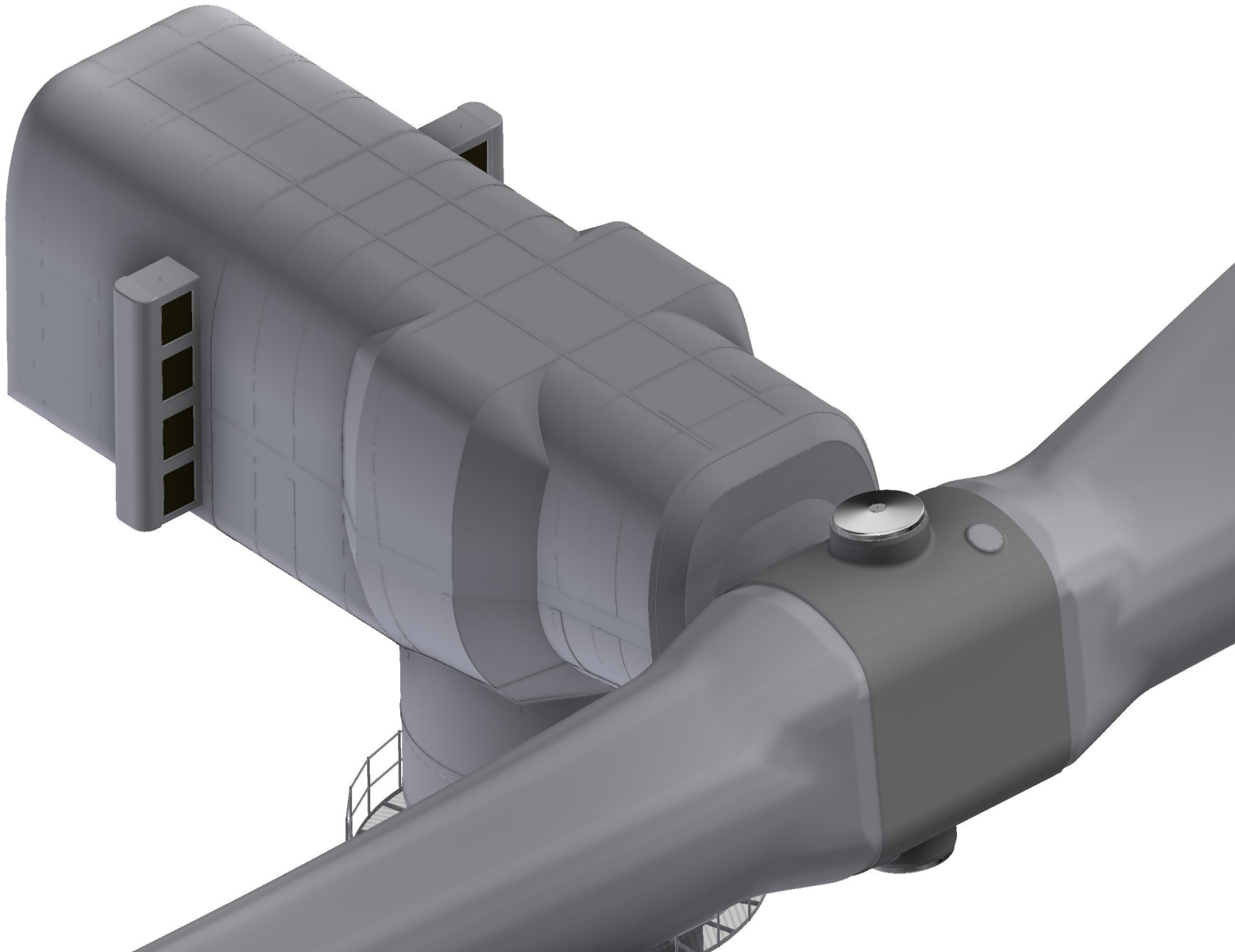
Seawind 6 Turbine Head



Seawind 6 Turbine Teetering Hinge



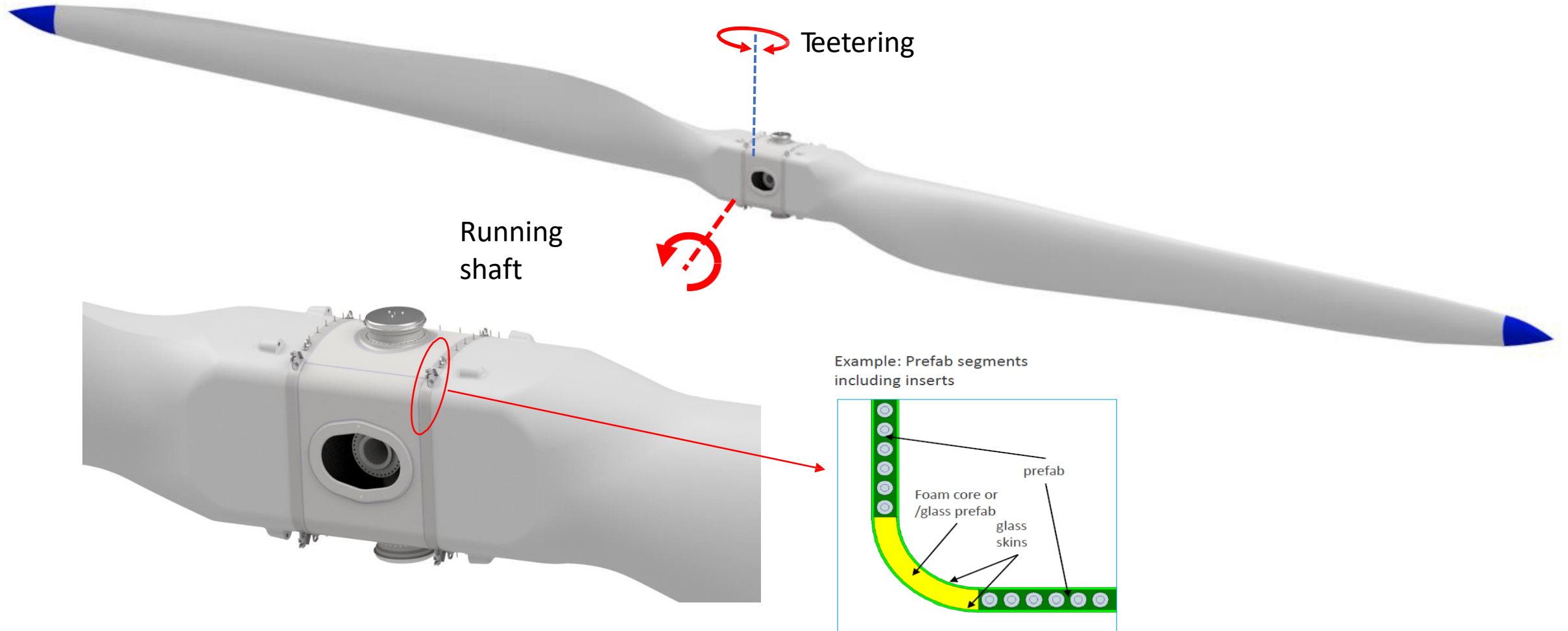
Seawind 6 Turbine Head



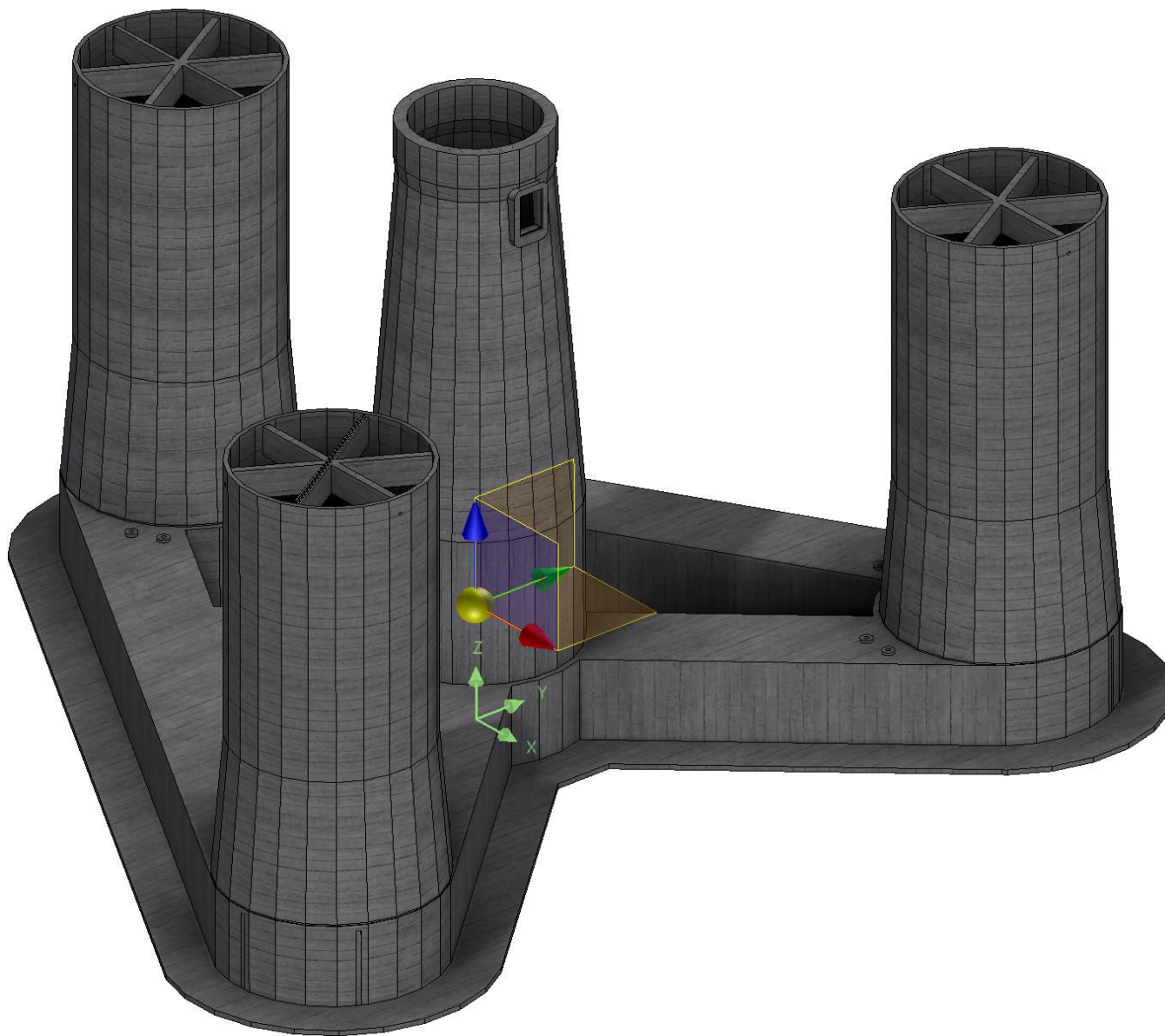
Summary of masses (tons)

		Seawind 6	Seawind 12
Rotor	Blades	40.9	160.9
	Hub	25.1	57.5
	Bushes	1.6	3.5
	Elastomeric elements	0.5	1.0
	Teetering hinge metal parts	0.5	1.5
	Shaft Head	21	42.1
Total		89.6	266.5
Nacelle	Nacelle structure	71	90.0
	Gearbox	50.0	92.0
	Shaft	23.8	37.2
	Brake	8.2	10
	Shaft bearings	6.1	9.4
	Shaft bearing housings	8.4	13.1
	Generator	27.0	46.6
	Couplings	5.5	8.6
	Yaw housing structure	19.2	23
	Slewing bearing	6	13.8
	Yaw drives	8.8	15
	Yaw drive system and cooling	9	10
	Total		243
Total turbine head		333	635

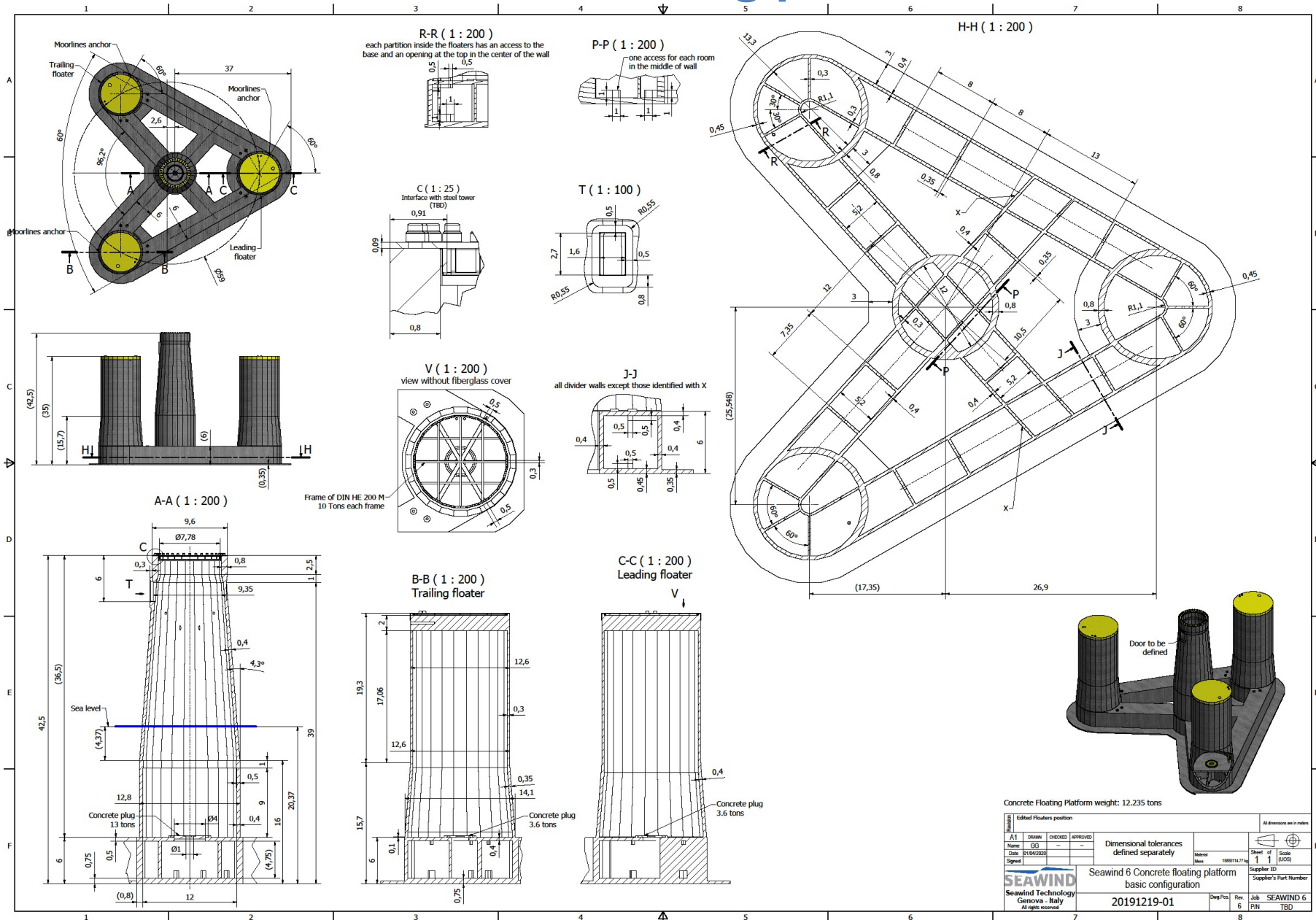
Seawind 6 Turbine Rotor



Seawind 6 concrete platform with polygonal shaped walls



Seawind 6 Turbine floating platform details



Orientation of the platform according to the prevailing wave direction

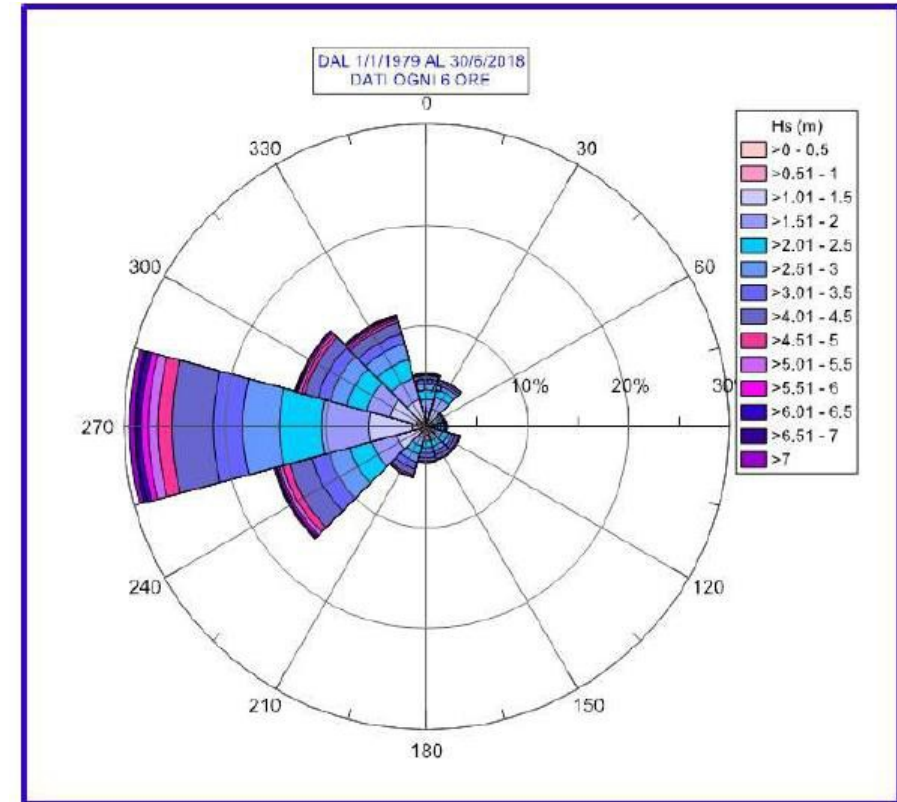
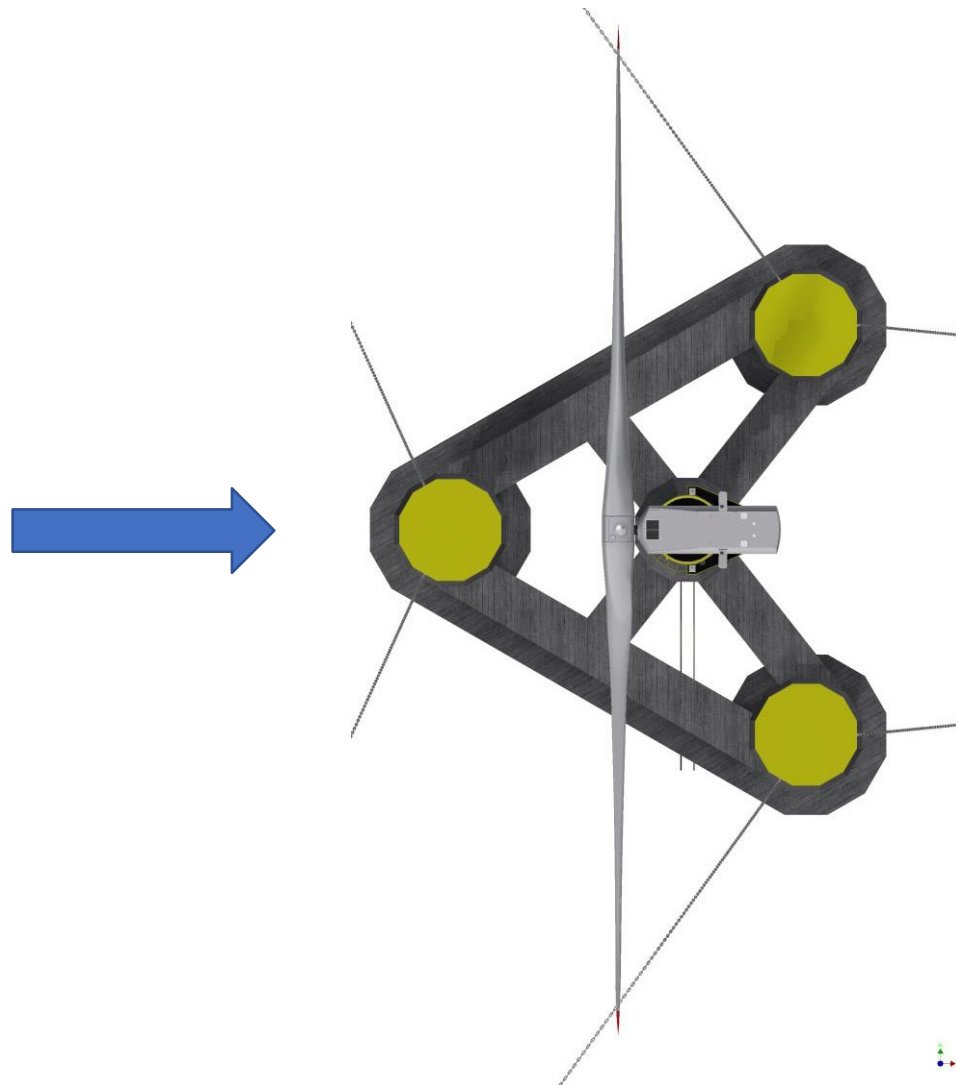
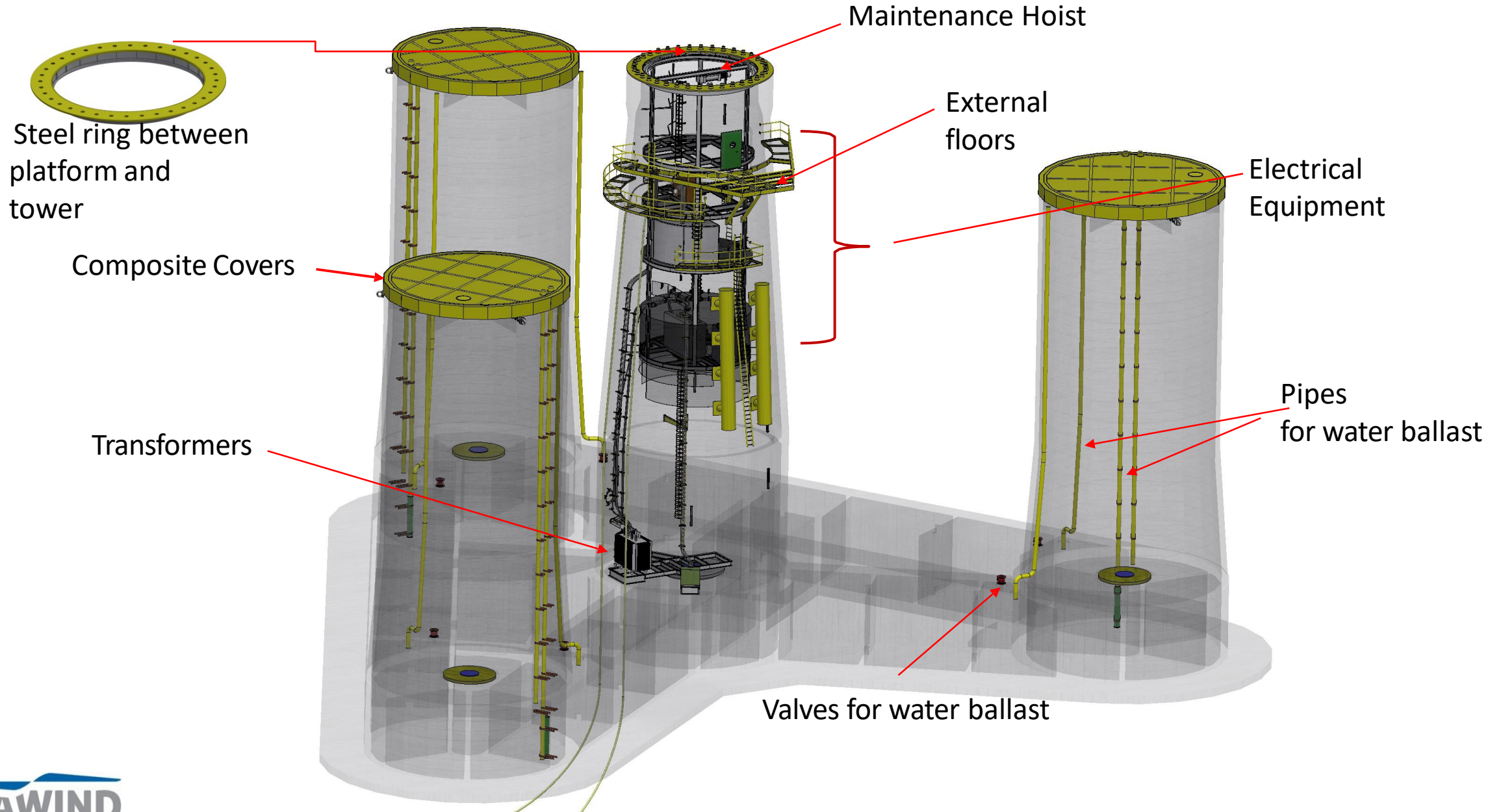
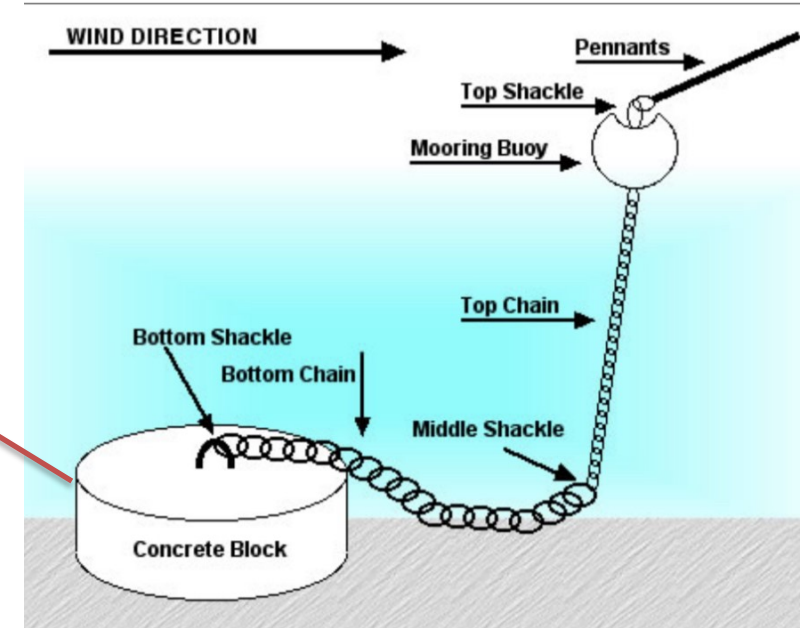
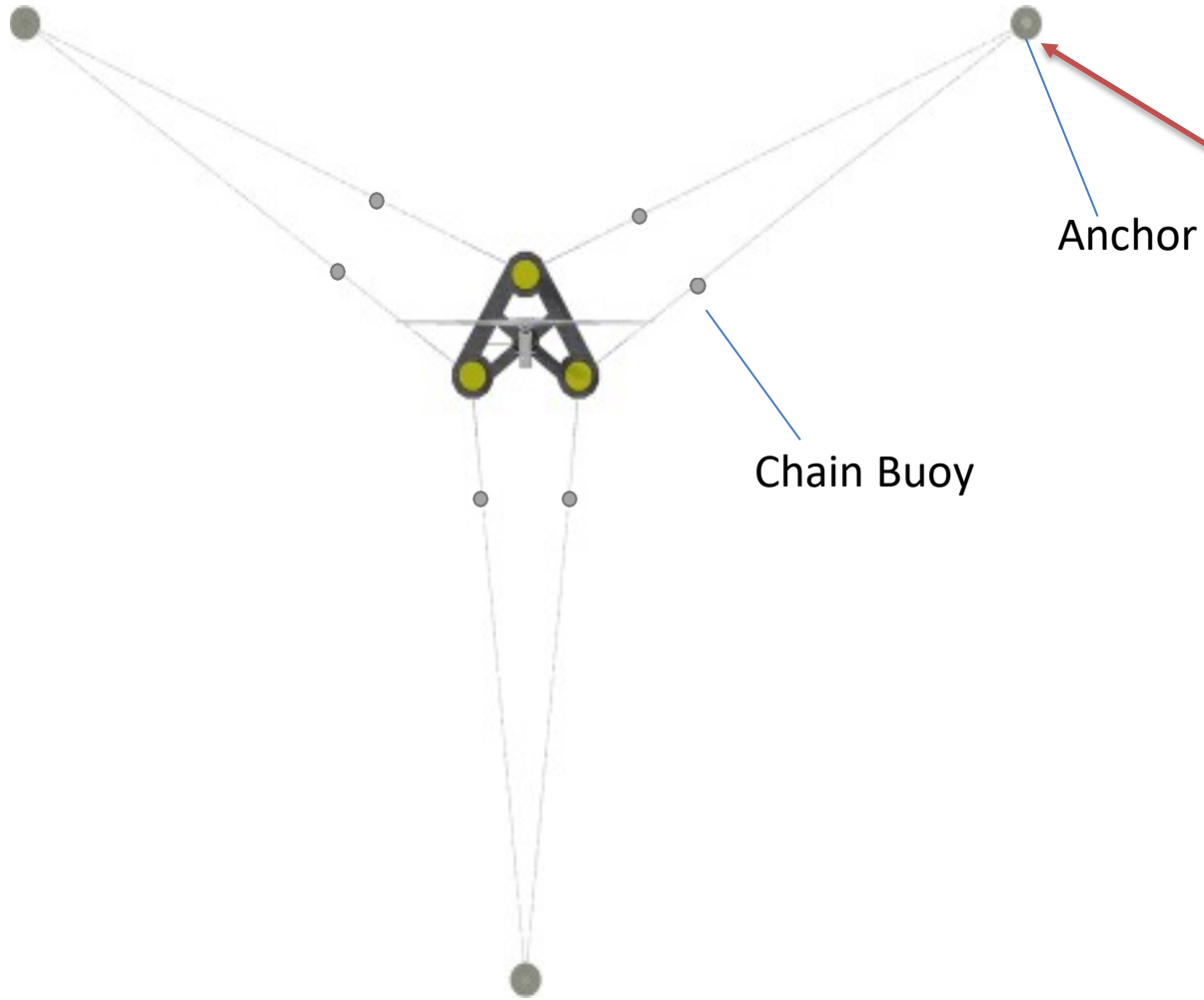


FIG.2 - WAVE ROSE

Seawind 6 Turbine floating platform internals



Seawind 6 Turbine double-chains mooring stations



END OF PRESENTATION

Seawind Ocean Technology

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