

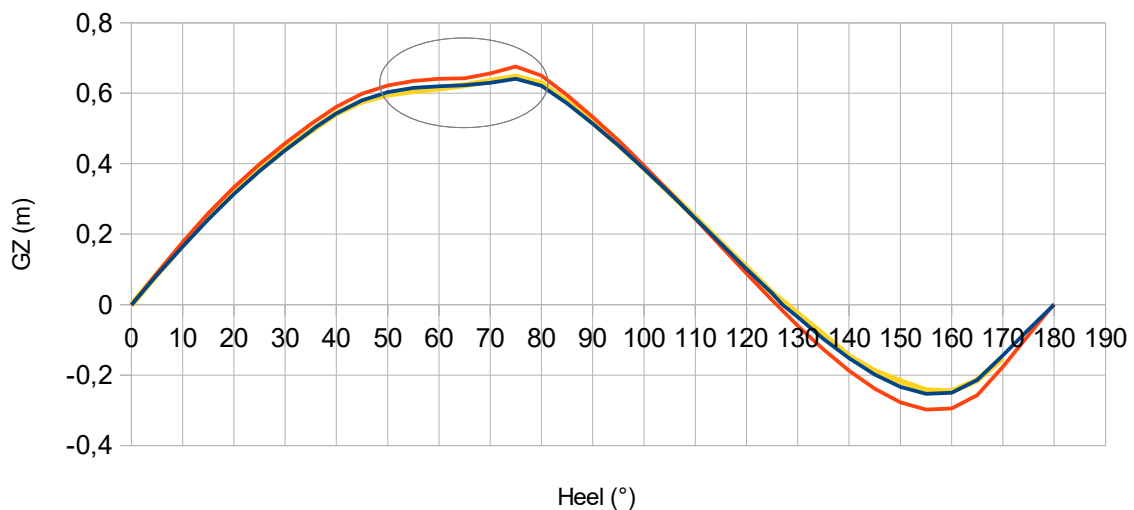
## Corbin 39 - GZ curve by Gene-Hull and comparison with Multisurf and Archimede MB

as for 31-07-2020

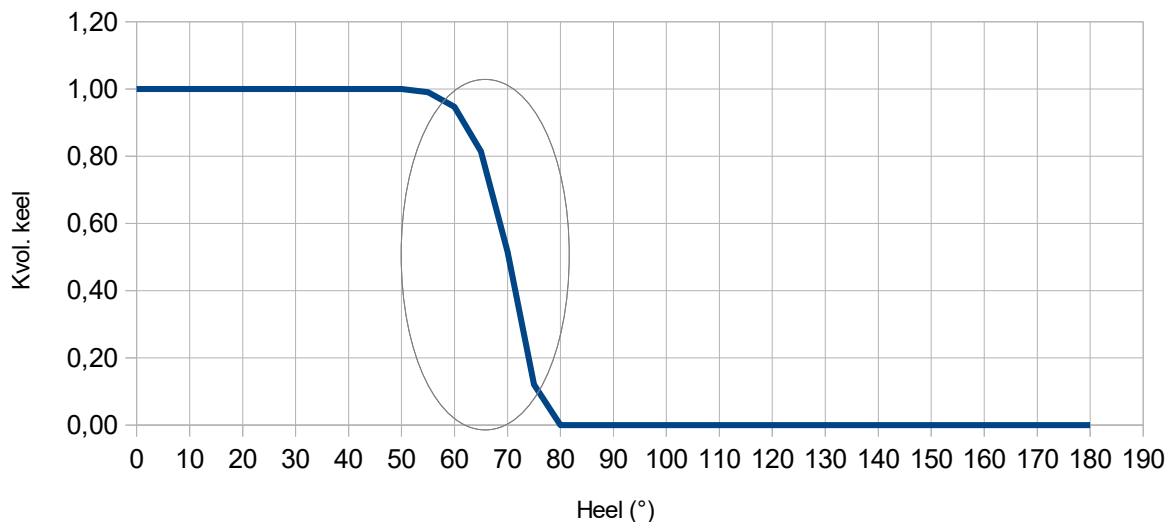
The new Gene-Hull, under construction following in particular the Corbin 39 studies, has been completed with the capacity to compute the complete GZ Curve up to 180° heel angle. Here, I did it with a step of 5° with the so-called Proxi 39 hull previously generated, the displacement 14 t and the  $Z_g = 0,038$  m. Comparison here below with the same approaches done with Multisurf and with Archimede MB, concordance is quite good, the AVS is slightly lower (126° / 127° for the 2 previous computations) . The negative peak is slightly overshooted too, perhaps because the hull is cut at half of the rear overhang (?). The irregularity of the GZ curves between between 50° and 80° have the same shapes and are exactly explained by the progressive emergence of the long keel volume : see the immersed fraction curve below the GZ one.

### GZ Curve

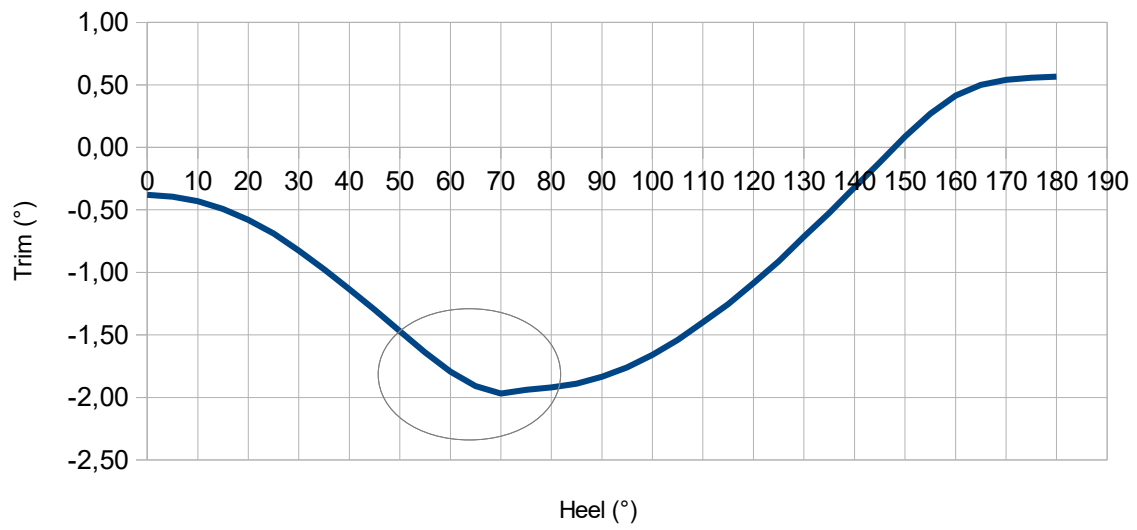
Red : Gene-Hull (with Proxi 39) ; Blue : Multisurf ; Yellow : Archimede MB (rev. 6-43 hull)



### immersed fraction of the Keel volume



Trim (°) (as computed in the fixed vertical plan xz to obtain the equilibrium)



At 70° heel angle (mid-immersion of the keel wing volume) :

