## C39 V0 – The Displacement issue

With the measurements of the Fore and Aft drafts (when the boat at mooring on flat sea) with reference to the waterline of the original linesplan, it is possible to recover the displacement D, the longitudinal position of the center of gravity (Xg) and of course the trim. This approach is proposed in a spreasheet application. **Example :**

Input data		Output data		
Aft draft	**Fore draft**	**>> Trim**	**>> Height**	**>> Xg** (Center of gravity)
STA 10 (cm)	STA 0 (cm)	(°)	(cm)	(m)
6,0	**-34,0**	**-2,36**	**-12,6**	**4,901**
			(sinking at X 4,52 m)	

>>> Automatical drawings :

Xg (m)
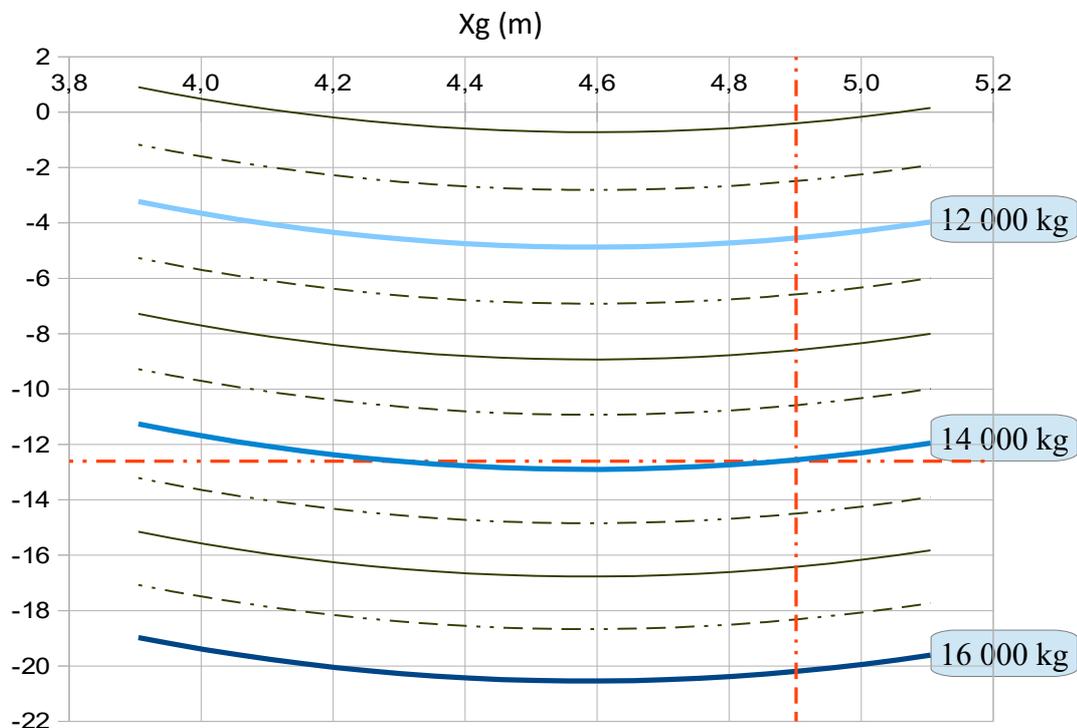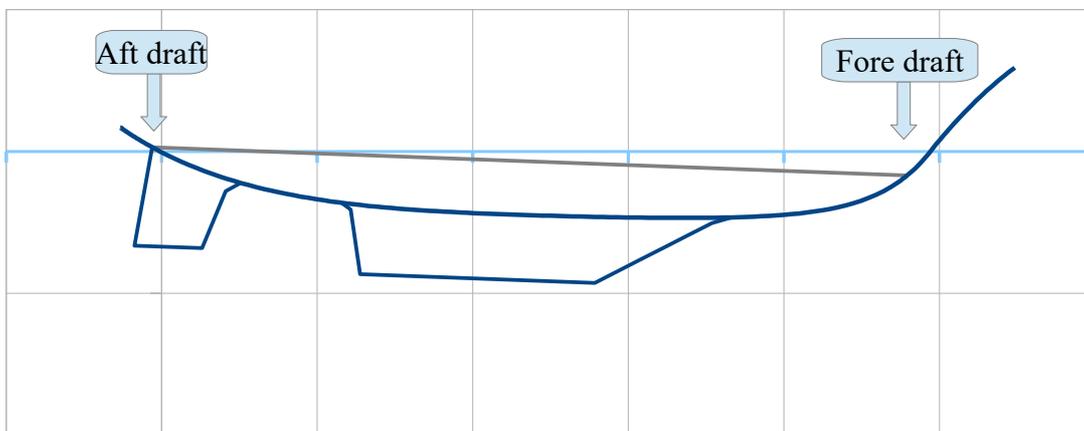
>>> **Result : Displacement 14 000 kg (the crossing of the red lines) at Xg 4,901 m, generating a trim of – 2,36°**