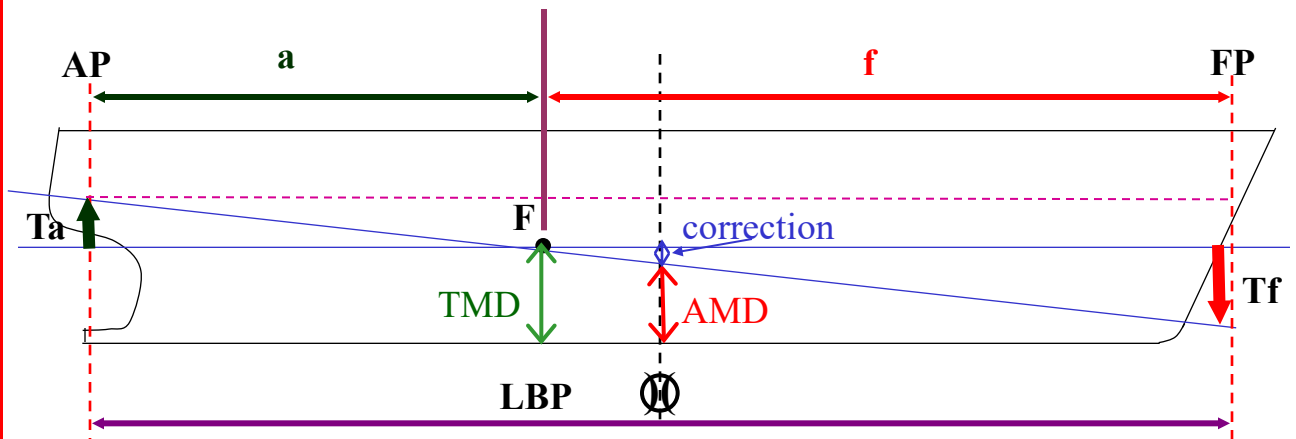


Arithmetic Mean Draught

- ▶ A ship's Arithmetic Mean Draught (AMD) is the mean of the draughts forward and aft.
- ▶ $AMD = \frac{dA + dF}{2}$
- ▶

True Mean Draught

- A ship's True Mean Draught (TMD) is the draught measured at the centre of floatation (F) and may not be equal to the Arithmetic Mean Draught (AMD).



If the similar triangles are considered then:

$$\frac{\text{Correction to AMD}}{\text{Dist. of LCF fm amidships}} = \frac{\text{Trim}}{\text{LBP}}$$

It follows that:

$$\text{Corr. To AMD} = \frac{\text{Trim} \times \text{Dist LCF fm amidship}}{\text{LBP}}$$

True Mean Draught

- $$TMD = dA - \left[\frac{(dA - dF) \times LCF \text{ foap}}{LBP} \right]$$

- It is important that the expression $(dA - dF)$ is left as it is and not reversed. If the trim is by the head then $(dA - m dF)$ will give a negative value.

- A ship LBP 120m floats at draughts F 4.62m A 5.40m. Calculate the true mean draught if the LCF is 66m foap.

- $$TMD = 5.40 - \left[\frac{(5.40 - 4.62) \times 66}{120} \right]$$

- $$TMD = 5.40 - \left[\frac{0.78 \times 66}{120} \right]$$

- $TMD = 4.971m$
