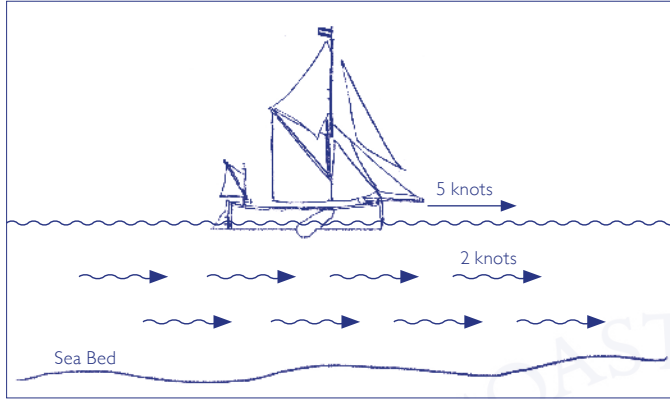


Seamanship Notes

Speeds



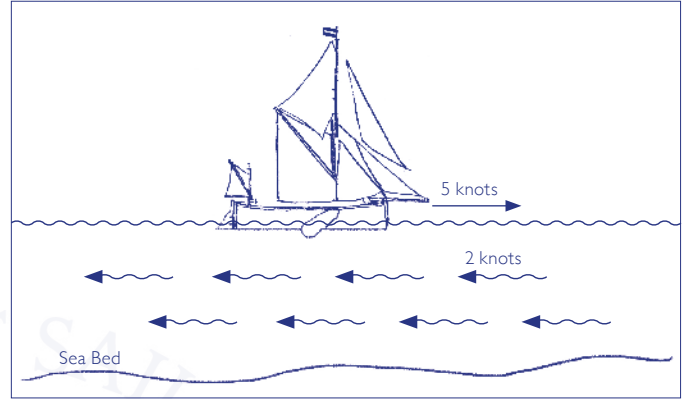
Going with the tide



$$5 \text{ knots} + 2 \text{ knots} = 7 \text{ Knots}$$

Speed through the water Tidal Stream Speed over the ground

Going against the tide



$$5 \text{ knots} - 2 \text{ knots} = 3 \text{ Knots}$$

Speed through the water Tidal Stream Speed over the ground

How does the tide effect our speed?

All boats in tidal waters are effected by tidal streams. This is the horizontal movement of the sea caused by the rise and fall of the tide. Tidal streams can help us to go faster, or they may slow us down. They can also push us off course, so we may have to steer in a way that compensates for that.

An instrument called a log is used to measure a boat's speed and distance run through the water. But to work out our actual speed over the ground we need to calculate the tidal stream using the information given on charts and in tidal atlases.

Why does this matter?

In many places around the coast tidal streams are strong enough to have a big effect on the progress of boats, especially when they are going to windward. It makes sense to plan our passages to take advantage of the tidal streams to give our speed a boost, and to avoid trying to go against them, which would slow us down!

What is a knot?

The speed of ships is measured in knots.

1 knot = 1 nautical mile per hour

1 nautical mile = 1 minute of latitude = 1.152 ordinary miles