Using the Weems \& Plath Basic Navigation Set
This set was assembled to provide the essential tools required for basic navigation, such as finding your position, and your range and bearing to a destination. Weems \& Plath plotting tools are some of the finest nautical instruments available. It is our hope that they make your navigation work more enjoyable. Listed below are the tools enclosed and an explanation of their basic function.
\#145 Parallel Rulers, 15" (made in China) For finding the bearing or direction of a course:

1. Line up one ruler with the desired course line drawn between two objects on the chart.
2. Alter nately hold one ruler in place and swing the second ruler to walk the pair across the chart to the nearest compass rose.
3. Place the outer edge of one rule at the center point of the compass rose and read the bearing on the rose.

## To plot a direction or heading:

Re verse the above process. Start at the compass rose and walk the rules to the desired point of origin and draw a course line on the chart.
\#255 Weems Protractor (made in china)

## For laying out a course between two points:

1. Place the str aight edge of the protractor arm along the projected course line.
2. Rotate the circular protr actor scale until the cross hairs are aligned with any meridian or parallel, making sure North on the scale is consistent with North on the chart.
3. The tr ue compass course is read directly at the index mark.
4. Con vert to magnetic compass course, if desired, using the variation scale on the protractor arm.

## To plot a bearing:

1. Take your bearing on an object with a compass and change it to true.
2. Rotate the circular protr actor scale until the index point matches the bearing.
3. Place the protr actor on the chart keeping the arm on the object from which the bearing was taken, without changing the index, move the entire instrument until the cross hairs align with any meridian or parallel.
\#262 Matte Nickel Dividers, 6" (MAde in germany)

## For measuring the range or distance between two points:

1. Open dividers to the distance betw een two points on your chart.
2. Transfer them without change to the chart's scale.
3. Place the dividers on the scale line with the left hand point on the zero mark.
4. Read the distance at the right hand tip.

Y ou can use the scale unit to the left of the zero mark for measuring smaller distances or fractions of a mile.
To measure range or distance on a chart, which is greater than width of dividers:

1. Set the dividers at a con venient opening for a whole number of units on the chart's scale.
2. Step this off the appropr iate number of times on your course line.
3. Measure the fractional miles remaining.

Note: The functions described above are only an overview. Weems \& Plath recommends that a navigation class be taken to ensure safe navigation and safe boating.

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