Basic Detail Report

00055907

Title
Messenger weight, 5 of 12

Date
1940-2000

Medium
metal

Dimensions
Estimated acquisition size: 170 × 400 mm, 5 kg

Name
Weight

History
Messenger weights are the mechanism used to begin the sample capturing process whilst on board vessels and conducting research. Water sampling bottles are deployed overboard, valves open on either end of the bottles, connected via a winch line. These are lowered to the desired depth in the ocean where measurements are to be recorded. This begins by the messenger weights released to slide down the winch line which disengages the top of the sampling bottle from the line upon impact. The bottle is then able to flip over which causes the valves to close, thus trapping the water inside. If there are multiple water sampling bottles attached to the same winch line at various lengths then differing depth samples are able to be recorded from one deployment. After the messenger weight reverses the first sampler along the line, it triggers the next messenger weight to release down the line beginning the process of capturing a second sample. This process can keep repeating down the line until all connected samplers have been flipped and trap their water sample. Any attached sensors can record their data at depth as well.