

Interactive comment on “Drilling cores on the sea floor with the remote-controlled sea-floor drilling rig MeBo” by T. Freudenthal and G. Wefer

Anonymous Referee #1

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The paper describes a device for remotely controlled sea floor drilling and puts it in context to other, similar developments. The described method and equipment is of general interest and the paper worth to be published.

As a general comment, I suggest to describe some of the operations, when MeBo was used. Only the campaign SO221 is mentioned (in context to logging). Certainly a table of the 13 (?) expeditions, locations drill results would be informative.

The authors have difficulties with the proper use of metric units. This cannot be accepted in an international chapter and reduces the value of the paper.

Please find some specific comments on the paper. Page 348, line 10: please ex-

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plain the acronym MeBo. I assume it stands for “Meeresboden”, but this is mentioned nowhere in the text.

Page 349, line 22: obviously, an application on Mars is far beyond the operations of MeBo in the terrestrial ocean. When mentioning Mars, why not also other deep space drills (e.g. for a comet).

Page 349, line 25: “gap between relatively inexpensive methods and drill ships”.. what are the inexpensive methods? What is the disadvantage of those as compared to MeBo?

Page 353, lines 23 and 25: what is meant with “20’ “? Do the authors refer to feet ?? Please stay away from any ancient or imperial units when publishing in an international journal! (see also page 357)

Page 353, lines 5/6: sentence grammatically corrupted

Page 353, line 11: a 3000V pump? That sounds strange? Why this high voltage? What is the power of the pump?

Page 353, line 24: sub-surface (instead of sub-bottom)

Page 353, lines 25: sentence grammatically misleading. . .

Page 353, last sentence: Why is no second clamp needed for MeBo? This is not obvious by the description.

Page 356, line 23: don't use API units, even if they are common in oil industry!

Fig 1: I do not see A, C or D in the picture.

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