

Interactive comment on “Tie-points for Gondwana reconstructions from a structural interpretation of the Mozambique Basin, East Africa, and the Riiser-Larsen Sea, Antarctica” by Jennifer Klimke et al.

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This is a well-conceived study which is demonstrating, based on recently acquired seismic data and other available information, that the Jurassic formation of the Mozambique and Riiser-Larsen Sea basins went through a phase of N-S opening that involved substantial deformation along the Davie fracture zone and conjugate features offshore Antarctica. The authors identify similar deformed structures on conjugate margins and use them as “tie-points” for the reconstruction of early opening between Africa and Antarctica. The manuscript is well written and presented, and I have only minor com-

ments.

Detailed suggestions: Lines 54-55: Please specify if any of these seismic lines are unpublished (if not, add “published” to “datasets” Line 66: We provide evidence “for the first time” (?) Line 86: please add the age of M38n.2n (as this is the first time you mentioned it), and the timescale used to assign this age Line 134 – see my comment about new and already published material

Figures: Fig. 1 I suggest to describe the background for all panels in the beginning of figure caption, including reference. In this case, you can remove this explanation from “b)” and “c)”. Because you have a dark blue, all other elements (flowlines, location of seismic profiles, etc) shown on top can be hardly distinguished. Please use lighter colours for those. The “magnetic anomalies” are in fact isochrons (lines of equal age obtained by linking the interpreted magnetic picks). Figs 2, 4 and 6. Please add inset maps showing the location of these profiles (easier to find them than looking at Fig. 1 where is very difficult to distinguish the red lines). Also, the font used for labels is too small. Fig. 7 Could you add a zoomed in map showing the faulted oceanic basement ? Fig. 9 Could you plot the same features shown on Fig. 8 in reconstructed position? Also, show the extinct ridge between the Beira Heigh and East African Margin in panel b).

Regards, Carmen Gaina

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