Subject: Chain separation
From: "Hayler, TM \(Tim\)" <T.M.Hayler@rl.ac.uk>
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To: <janeen@ligo.caltech.edu>

Hi Janeen,
In last weeks design meeting we discussed option F as the recent chain separation choice. I have added some text in the conclusion of Justin's chain separation document to state that this choice is compatible with an ITM structure. Could we briefly mention this in the SUS meeting to get everyone's approval. I have included the new draft of the chain separation document if you wish to circulate it.
Cheers Tim

The provisional conclusion is that we should use option E or F on the basis of minimising the "footprint" and keeping design flexibility. Option F gives the advantage of a single mass diameter in the lower structure and so is likely to save design costs. A design study has been done to see whether the above options, specifically option F, are compatible with an ITM structure. An ITM structure will incorporate a light weight thermal compensator plate in the reaction chain and consequently need a penultimate mass of approximately 70kg. A preliminary design for the ITM penultimate mass shows that we can achieve 70kg in a volume of material 340mm x 130mm, therefore option F remains the best option.

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