

**Subject:** RE: Installation Fixtures Design Update 012505  
**From:** "Oddvar Spjeld" <spjeld\_o@ligo-la.caltech.edu>  
**Date:** Tue, 25 Jan 2005 11:01:52 -0600  
**To:** <janeen@ligo.caltech.edu>

Dear Janeen,

Please keep in mind that I had intended to fill in details on this design verbally in the meeting, thus most of the new features have been left unexplained. Briefly what I have done is to replace the scissors table with a three bellows lift (either pneumatic or hydraulic), supported by tight-fit telescoping cylinders which will add stiffness to the structure as well as protect the bellows. The existing air bearing assembly has been dropped down and rests in a pocket of the top section of the lift table. The support table is attached to the air bearing and will be the contact surface for the suspension lower section cage. I believe that the rotational motion which we discussed in last week's meeting will be available through the spherical section of the air bearing. The lift table base plate will support the bellows and support cylinders as well as function as a manifold for distribution of air/fluid to each bellow. There is also an illustration of my intention with the removable support legs for the support beam, which will be used while attaching the two beam sections inside the chamber. Height adjustment will be available by using set screws on the spherical foot. Please let me know if you have any questions regarding the design or my document.

Yes, I would very much like a meeting to go through Dennis' access documentation. I believe that would be very useful.

Thank you,  
 Oddvar

-----Original Message-----

From: [janeen@ligo.caltech.edu](mailto:janeen@ligo.caltech.edu) [<mailto:janeen@ligo.caltech.edu>]  
 Sent: Tuesday, January 25, 2005 10:45 AM  
 To: Oddvar Spjeld  
 Cc: [romie\\_j@ligo.caltech.edu](mailto:romie_j@ligo.caltech.edu)  
 Subject: Re: Installation Fixtures Design Update 012505

Dear Oddvar,  
 Calum, Helena and I are in Glasgow to talk about ribbons and fibers. However, installation fixture design has come up a number of times already so I'll copy out your document and go over it with Russell, Mike P-L and Calum.

Would you be interested in a meeting with Dennis to go over his access documentation (which doors to use into which chambers)?

Thank you,  
 Janeen

-----Included Message-----

Date: Tue, 25 Jan 2005 10:03:17 -0600  
 From: "Oddvar Spjeld" <[spjeld\\_o@ligo-la.caltech.edu](mailto:spjeld_o@ligo-la.caltech.edu)>  
 To: "'Janeen Romie'" <[romie\\_j@ligo.caltech.edu](mailto:romie_j@ligo.caltech.edu)>  
 Cc: <[ctorrie@ligo.caltech.edu](mailto:ctorrie@ligo.caltech.edu)>, <[kmason@ligo.mit.edu](mailto:kmason@ligo.mit.edu)>, <[coyne@ligo.caltech.edu](mailto:coyne@ligo.caltech.edu)>, <[kmailand@ligo.caltech.edu](mailto:kmailand@ligo.caltech.edu)>  
 Subject: Installation Fixtures Design Update 012505

This is a multi-part message in MIME format.

