

Re: hard drive repair

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- *From:* Chris Jones <luginut808@xxxxxxxxxxxxxxxxxxxx>
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Ben Galvin wrote:

> Hi,
>
> I'm trying to repair my crashed 200Gb Western Digital hard disk
> (WD2000JB). A few days ago it started making a strange buzzing noise, then
> about 10 minutes later died completely. Naturally, I had forgotten to
> backup the contents of the drive (lesson learned). I tried a few hard
> drive recovery services but they were all quoting about \$2500 for recovery
> of a hard disk with a mechanical fault – a bit steep for me.
>
> Ok, so I figured I may as well have a go myself – nothing to lose. I setup
> up a 'clean room' in my bathroom (cleaned it out, used an ion generator
> and the hot steam from the shower to temporarily settle the dust down). I
> know its nothing compared to a professional one, but it's the best I can
> do. I opened the hard drive for about 30 seconds, enough to determine that
> the platters couldn't be moved around by hand. I opened another similar
> hard drive (with no data on it) and was able to move the platters easily,
> so I'm assuming there must be something wrong with the bearings in the
> hard disk. I've managed to get hold of another (almost) identical
> motor/bearing assembly, and I'm going to have a go at swapping them over.
>
> My problem is that my hard drive has 2 platters inside it (basically like
> 2 CDs stacked on top of each other with a 1cm gap between them), but I
> don't know if I need to ensure that they stay perfectly aligned when I
> moved them to the new spindle or not (imagine rotating the top cd around a
> vertical axis by 10 degrees – the data would no longer be synchronised
> between the 2 platters). There are no marks or holes to tell the
> orientation of the platters, so it would be very hard to take them both
> off one spindle, and put them on to the new one and preserve this
> relationship exactly.
>
> Does anyone know if I need to do this, or have any other advise?
>
> Thanks,
>
> Ben

I think the heads might be stuck, I consider this more likely than the

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bearings failing in a way that would stop the motor.

I discovered that on some drives (~2GB), the platters have a slight texture near the middle where the heads land, whereas they are shiny and flat elsewhere. I found that the friction of the heads on the platters is much greater when the heads are not on the textured bit. Are your drive's heads at the inner region of the platter? If not, perhaps that is why it won't start. The question would then be whether you can get the heads to the middle withou