

Re: Olympus PMG

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- *From:* "Kevin Cunningham" <smskiv@xxxxxxxxxxxxxxxx>
 - *Date:* Tue, 26 Jun 2007 11:56:09 GMT
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<dljones@xxxxxxxxxxx> wrote in message
news:1182777530.940334.317650@xx

On Jun 25, 8:21 am, "Kevin Cunningham" <sms...@xxxxxxxxxxxxxxxx> wrote:

<dljo...@xxxxxxxxxxx> wrote in message

news:1182728653.780167.289780@xx

On Jun 24, 1:41 am, Richard J Kinch <k...@xxxxxxxxxxx>
wrote:

I am interested in adapting a
digital
camera to this microscope.
Would you be willing to
look at this with
me?

Sure, I have another pending inquiry from
someone who wants to adapt
an
Olympus PME metallurgical scope, where
there is a Polaroid port.

How interesting is that! I was inquiring about how to convert
a
Olympus PME Polaroid port through Qiogtiq, what used to be
optiem....

Re: Olympus PMG

I would like to do the same, so if you get the PME figured out, you have a second customer...

As to the PMG:

I've spent the better part of last night and today taking it apart, cleaning, and reassembling. This is going to take a ton of time. Of course, I'm really fussy, really curious, not trying to do it fast, but trying to understand everything I touch.

So far, I've completely cleaned and put back together the entire mechanical stage, focus, and begun cleaning optics. I've run into a bit of a road block on the optics as I need one of those tools that has small round ends that can be spaced precisely into the little round holes that hold things together. I don't know what these are called.

Spanner wrench. You can get one at a really good hardware store, Handy Hardware in Atlanta, or on the web at places like McMaster-Carr (www.mcmaster.com) or Techni-Tool (www.techni-tool.com). The cheapest and probably the best way is to buy a needle nosed pliers of the regular, large size and cut it down using a grinding wheel or a file until it fits. Oh, buy the simplest spanner wrench you can find. The ones built for camera repair are just too complex, they do everything but work.

Thanks,

Kevin Cunningham
SMS

Re: Olympus PMG

I'm not certain I'm going to go inside the whole microscope and clean all the internal optics. I'm looking for a way to get the mechanical prism movement assembly cleaned and regreased without taking everything apart. I'm just a bit worried about getting all the internal optics all lined up if I take them apart. I will clean the surfaces I can reach without removing things.

Optics: The PMG is unusual in the fact it does not use projection lenses in the photographic optics. It uses standard eyepieces. I'll have to see how I can take photos and post them somehow so folks can see what this microscope looks like. It's quite unusual. So no matter where I put the digital camera, the image will be shot through an eyepiece.

It's looking good at this point. I have put it together a couple times today to play with, and it is getting so much clearer. I think most of the sludge was on the external surfaces of the optics.... Inside looks better than I had initially thought....

dj

Kevin,

I was looking at the web references for these tools, then checked McMaster-Carr (one of my favorite catalogs) and have decided for what I do, I'm going to hit garage sales and modify some good quality needle nose pliers that I can pick up for \$0.50 to a \$1.00... Then I'll do the old grinder modification of the points. I may make two or three this way. The old blacksmith in me looks at \$70 to \$80 for a tool of this type and says: I can do that for a whole lot less and just as good. Heck, I am a metallurgist, I can even heat treat these babies to make them just what they need to be...

Re: Olympus PMG

At this point, I'm looking for the screw that holds the fine focus arm. This is a flat head screw with a 4 mm plain shank going to a 3 mm threaded end. Once I have that, I'm almost done. I have not finished the cleaning of the OC2 eyepieces, those are the 23 mm eyepieces used on the photography end. But after cleaning the top end, this is one crisp clear microscope. It must have taken me an hour to get the polarizing filter on the rotating filter turret to work. It was gummed up and dead stuck. I thought I was going to end up breaking it... But as luck would have it, it now is working smooth as silk... This is slow going... But more fun than I've had in ages... And, I am learning a whole lot...

dj

A real cheap, good tool to have is a plastic pipettor, a plastic bulb on a thin pipe. I get those at hospitals, I ask and take one, there are tons of them around. These allow you to pick up a small amount of liquid from the Menda bottle and carry it to where you need it.

One part of this craft is tool making. When asked I can point out all the tools I made, no one has ever asked twice though. My old boss asked the day after I was hired to make out a tool list. I spent the rest of the day writing up and investigating tool sources. My boss read all the papers I handed him and told me that the heck with this list, he had a lathe that the Carl Zeiss folks had given him when he left, I could come over in the evenings and we would make tools.

Yeah, right, I thought. My boss liked Scotch and I figured that in 2 or 3 years I'd have a tool kit and a bad liver. I convinced him to buy all the stuff then I went to work for a day or two and modified what needed to be modified. I still have to make a lot of stuff, I have a screw driver I modified as a pry bar, when I finally cut it to small I get another screwdriver and start over.

Sounds like your doing well! Oh, the cross point screws that look like Phillips but have a dot on the top are Pratt-Reed. Get a set of these from McMaster. The job will look a good bit better with the Pratt-Read.

Thanks, let me know how it goes.

Kevin Cunningham
SMS

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