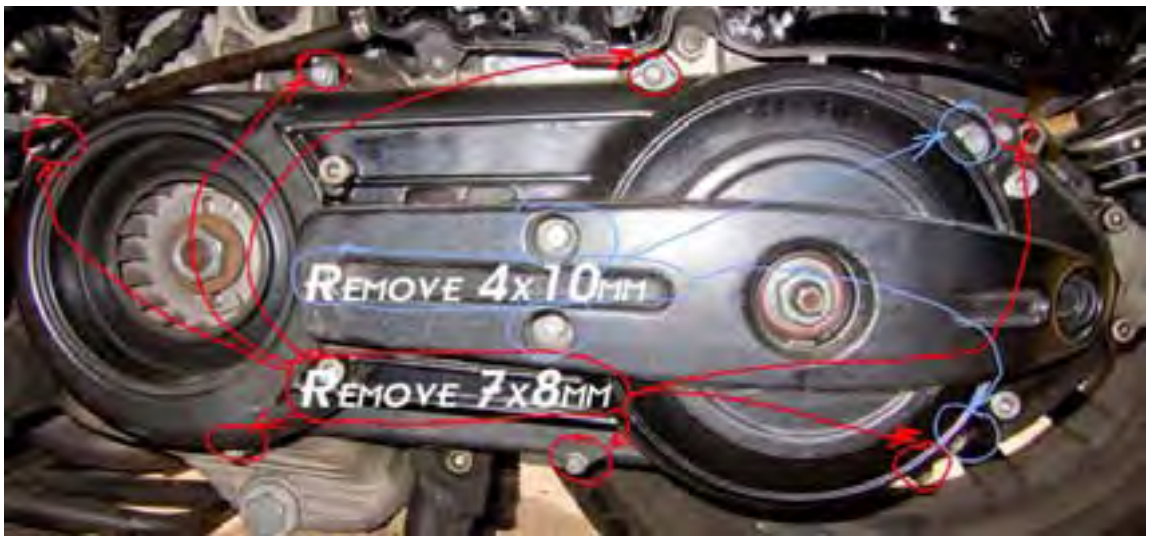
I needed to do my service so I decided to an all rolled into one pictorial walkthrough since I promised the folks with fuzzy washers I'd do a tutorial.

Step one is remove the airbox. This is strictly necessary as one friggin screw on the CVT cover is shrouded. It's a good idea anyway since you should check your air filter and clean it. I'm not going to do detailed pictures of this - 8 or 9 screws and it pops off. I WILL say the best tip I can give here is take a file or grinder and take the sharp point off the screws. This will make it MUCH easier to get back on. Seriously - otherwise getting that darned airbox back on will be the hardest thing about the procedure. Thank PonyDrvr for that tip.

First remove the 4 philips screws holding the plastic CVT cover on. One you must access through a hole in the black plastic part of the cover. Go ahead and remove the dust cover from the driven pulley.

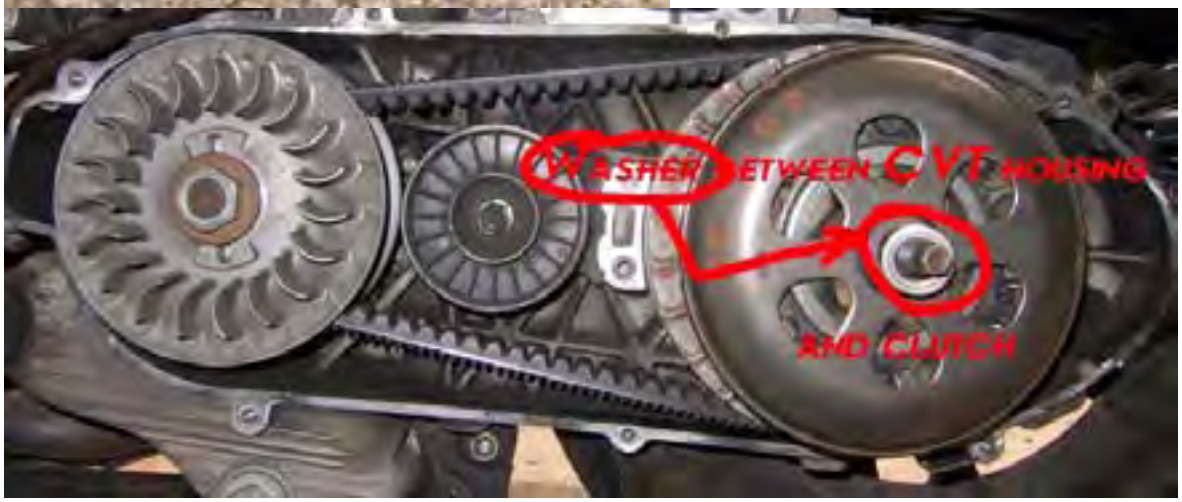

Now you're down to the actual CVT/transmission cover. Remove 7x8mm outer bolts and the 4x10mm "center" bolts. Note the two dead center 10mm bolts are longer than the other two bolts. Hold on - you're not there yet so don't try to remove the cover.




You need to remove the driven pulley 21mm nut at this point. Do NOT use anything other than a 6 sided socket on any of the big nuts.

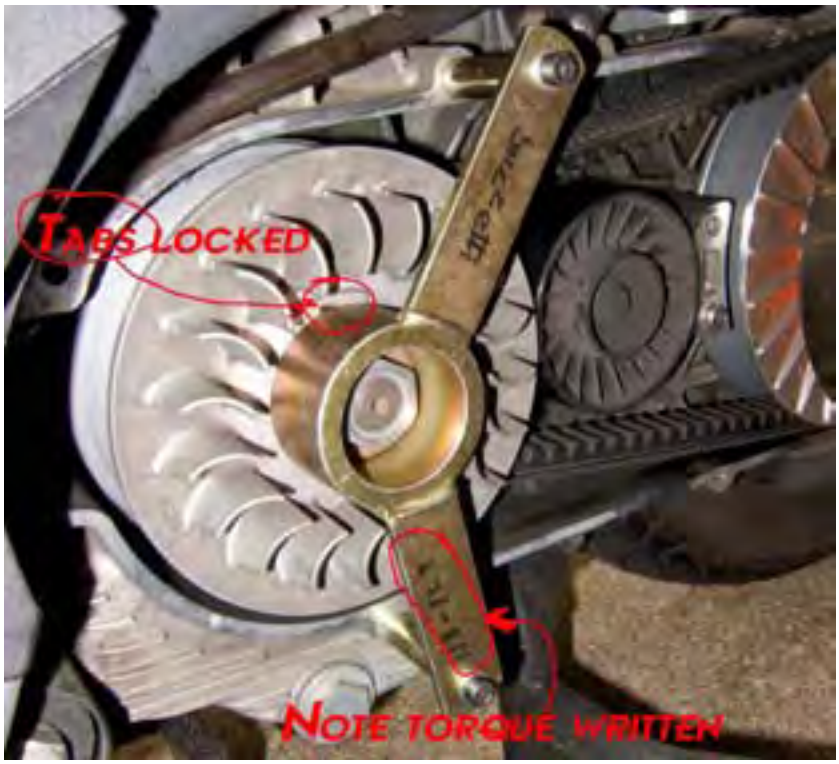
This is how I do it that doesn't involve wedging anything into the rear wheel.  Simply get a 1/2" breaker bar with the 21mm impact socket, put the parking brake on and reach up with your left hand and squeeze the rear brake hard.  Use your right arm to break the nut loose.  It's not hard at all.  BTW - a pair of scrub pants are THE way to go working on your bike in the heat.  Cool, roomy, wash clean well and they keep the skeeters off.

Here's how the nut and two washers come off.  Note the smallest washer is innermost against the CVT cover bearing.  It's extremely important you put these back in this order when reassembling.  Note also there is another thicker washer inside when the cover is removed - mine is gold colored.  Go ahead and put it with the rest.

This is the Buzzetti tool that you need to remove the variator. Folks have made their own but they must be cheaper than I am. ;) Note the two tangs on the center round section - they engage with the two slots on the outer variator half.


This is the Buzzetti tool mounted. Note the tangs are engaged with the tangs. You will need to rotate the variator until the proper outer cover bolt holes align. Just use the belt to pull it along easy. The two bolts just need to be snug. Note that I wrote the torque on the tool so I don't have to look it up.

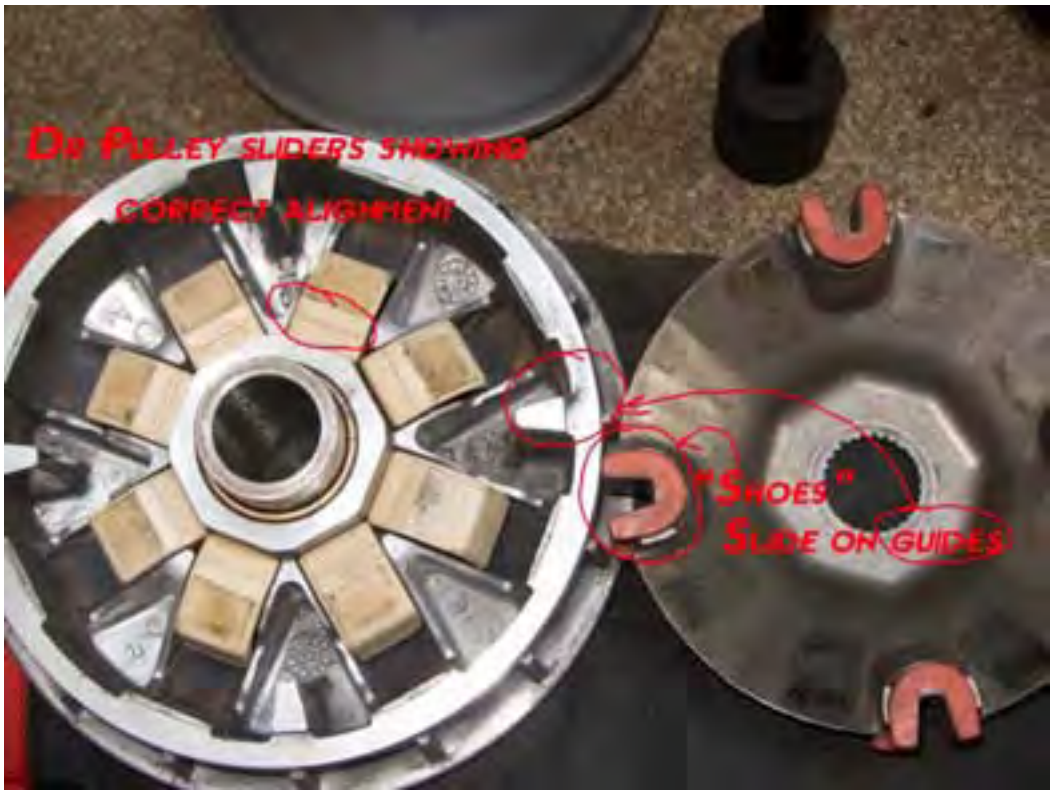


Use your breaker bar with a 27mm impact socket to take the nut off and remove the outer half of the variator.  This one requires a little grunting.  Note there are two washers under the nut and the outside one is thicker - the photo has them backward.

Here we have the outer cover removed and you can see where the fuzzy washer goes with the stock washer.  Order is not important.

Move the belt aside and carefully slide out the inner variator.  Reach around the back and hold the sliding plate in place so the rollers and such do not fall out.  There is a cylindrical bushing that will come out also, remove and put back on the shaft to protect it.

This shows the Dr Pulley sliders in their proper orientation - there is a groove that should be facing up.  Note the smudges are not wear so much as just belt crap that gets rubbed onto the face - they clean right up.  These sliders have about 18,000 miles on them.  Note how the "shoes" on the inner sliding plate ride on rails cast into the variator.  It is important that these not bind so get an old toothbrush and some hot soapy water and scrub all the crap out.  The shoes shown are stock and I replaced with Dr Pulley shoes that I had to file the sides a bit so they would seat all the way down on the sliding plate.



Now slide the clutch off, remove the old belt, remove the clutch housing bell and examine. Mine finally showed some glazing/blueing which means it was slipping a bit. If you have a machine shop you might consider having them remove the glazing - a lathe gives a much better new surface. I'm broke so I opted to use a few sheets of sandpaper and lots of elbow grease to remove the glaze. If you opt for sandpaper do NOT sand so as to leave the scratches going in the direction of rotation, make them a "crosshatch" pattern to offer resistance to the pads. Speaking of the pads - they were also glazed so I sanded them to remove it also. Note at the leading edge of the pads there is a worn step. This can cause abrupt transitions so smooth it to more of a gradual ramp. These pads are 24,000 miles so you can see they wear slowly - you aren't going to remove excessive material sanding them. the second picture shows them after deglazing and cleaning up.


Reassemble the inner variator making darn sure the Dr Pulley sliders are in place properly.  Insert the inner cover making sure the plate does not bind and can slide freely.

Put a light coat of wheel bearing grease on the splines and wear points of the shafts.  We're talking a VERY light coat - we don't want grease flying around inside.  On the left you can see the variator bushing - give it a light coat also then remove and place on a rag to keep it from getting dirt.  Make sure the rear-most tapered washer is still in place with the bevel facing outward.

At this point you're ready to reassemble everything.  Make sure the faces of the two pulleys do not have any oil or grease on them - friction is your friend.

To replace the belt properly and get the clearances to reassemble everything, the belt needs to be seated deep into the clutch. Some folks use a screwdriver to wedge the pulley halves apart. I simply squeeze them apart using the palms of my hand against the clutch bell. The first photo shows my grip, the second shows how the belt drops in when you open the halves. The belt needs to be as deep in the clutch pulley as you can manage but as long as it's below the edge you should be ok.

Slide the clutch all the way back - this is how things should look at this point.

Install the inner variator being VERY careful to hold the sliding plate to prevent movement.  I'm serious - if it slips, pull it back out and make sure the sliders have not shifted.  If even one shifts the variator will have a rough action - ask me how I know. ;)

When the variator is all the way back, insert the bushing, then the fuzzy washer and stock washer.

Place the outer variator half on, the two washers in the proper order and the nut. Note the picture has the washers backwards - the fat dark washer is outside. Slowly tighten the nut by hand adjusting the belt until it is a tight as you can get it and the belt is loose. You cannot proceed if the belt is pinched between the pulley halves - it MUST be free. Put the Buzzetti tool back on as previously described and torque to the proper amount which in English units is 118-129 ft/lbs. Remove the Buzzetti tool when finished.

At this point reassembly is a reverse of taking it apart.

Make sure the inner washer is against the clutch bell and replace the outer cover. I use the center 4x 10mm bolts to loosely hold the cover in place. Replace the washers - the small one against the cover bearing! Using the same brake holding method used to loosen, torque the driven pulley 21mm nut to 68-74 ft/lbs. Tighten the 10mm bolts using an "X" pattern to ensure even torque. You can look up the exact torque but I just make sure they are tight. Put all the 8mm nuts back and tighten in an "X" pattern starting from the middle. Tighten a little more than snug but not excessive - these don't need a lot of grunt. Replace outer plastic cover and 4 screws.

replace airbox with clean filter. A magnetic screwdriver is your friend with these screws.

Done!