

## **REPAIR THE FUSERS !**

### **Xerox Workcentre Pro645 style & Pro665 style...**

*Pro635, 645, 657 & Pro665, 685, 765, 785*

So, the heat lamp blew... or the gear broke, or the thing overheated... It used to be that a technician would replace the fuser part which actually failed and get paid for the labor as well as little bit for the part. Nowadays though, its all about "just replace the fuser module"... The tech makes a 15 minute service call, replaces the fuser, makes a few bucks on the fuser and throws the broken fuser out... or sends it to the manufacturer for a small credit perhaps. Not much labor there, so you'd better replace a lot of fusers! Lots of independent technicians are hurting partly because of this trend... especially now that more and more of the fusers are considered to be customer replaceable.

Stay in the game... Repair the fusers and save your customer money while working in the comfort of your own workbench. The whole idea of replacing entire fusers was hatched by the OEM manufacturers. Xerox and other makers like it this way... they get to have things done in a warehouse assembly line. A very efficient way to handle equipment repairs, indeed. To push things in this direction, they've chosen not to spare many of the important parts in the fusers. Fortunately, many of these "not spared" parts are beginning to surface in the aftermarket... and if you are in the business of repairing the fusers, you will gather used cores which have many of the parts in perfectly useable condition. All you really need to repair a majority of cases, is to find a source for the fuser lamps and heat rolls.

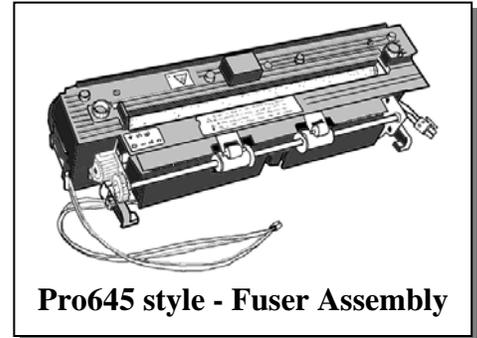
In a recent article, we got the ball rolling on the issue of repairing fuser modules. We covered the C35 style (C35, C45, C55, Pro35, Pro45, Pro55, M35, M45, M55, DC535, DC545, DC555). That one is going to be good and popular it appears... in the next year or so they should start hitting your work bench. Another group of machines which could use all of our attention are the Xerox WorkCentre **Pro645 style** (Pro635, Pro645, Pro657) and the **Pro665 style** (Pro665, Pro685, Pro765, & Pro785). These machines had a predecessor in the **7042 style** (4010, 4011, 7041, 7042). The 7042 had a very similar fuser (126K3210) although there were some substantial differences as well. The parts which are common to all three "styles" include the Fuser Heat Roller, Fuser Pressure Roller, Bearings (both heat and press), the Fuser Drive Gear, and the 3 fuser idler gears. The items which do not cross to the 7042 fuser include the Fuser Lamp, Thermistor, Thermostat, Exit Switch, Exit Roller and Picker Fingers.

The only apparent difference between the Pro645 style fuser (126K9420 for the 110volt version) and the Pro665 style (126E1920 for 110 volt) is the Thermistor... the wiring for the two versions have a different Connector on them.

### **FUSER REMOVAL PROCEDURE:**

Removal procedures for getting the fusers out of the machines vary only in the way you access the connectors to unplug them. For the Pro645 style:

- Open the clamshell
- Remove the Drum Cartridge / DV Unit Assemblies
- Disconnect a connector at the rear of the fuser and a second one at the front end...
- Remove two screws (one near the front end and one near the rear end), both are down near the base on the feed-in side of the fuser.



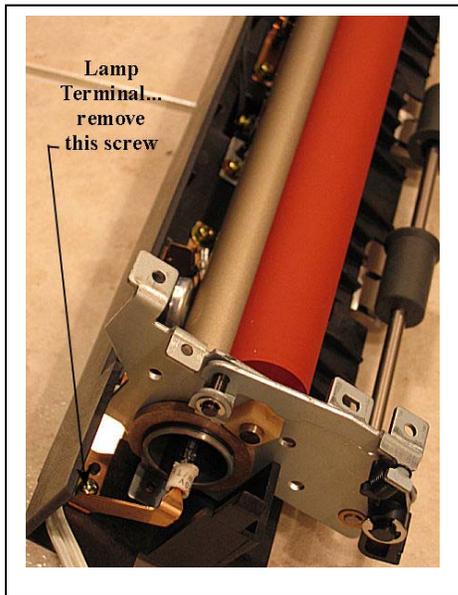
- Lift the fuser up and out.

The Pro665 style comes out the same way except that you first need to remove the front and rear covers so that you can access the front and rear plugs (for the rear plug; you will actually go to the rear of the machine to disconnect it).

The 7042 works the same way as the Pro665 style (remove the front and rear covers first) except that it has two rear connectors (CN11 & CN12). You will need to disconnect both of them where they plug into the Driver Board. The front connector is CN101 which plugs into the Low Voltage Power Supply (LVPS).

### **DISASSEMBLY:**

1) Flip the fuser over and remove the bottom cover, which is as simple as releasing a pair of clips (one at the front end and one at the rear end).



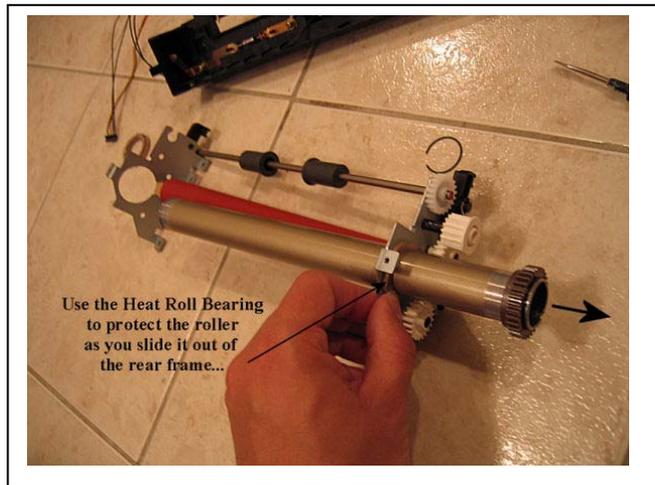
2.) Release the Fuser Lamp Rear Terminal's screw to disengage the rear terminal. You can slide the Fuser Heat Lamp out through the front end (the end opposite the gears).

3.) Now with the lamp out and in a safe place, turn the assembly right side up again and remove the top cover (2 screws and lift it off). Take notice of the layout of the gears as the 3 idler gears are not captive and will fall off easily.



4.) To remove the Heat Roller, remove the front snap ring (opposite the gear end). Then hold the heat roll bearings in place in the metal front and rear frames, slide the roller out of the rear (geared) end. Keeping the bearing / sleeve in place will protect the heat roll from scratching against the metal frame.

5.) The other pieces... such as the Pressure Roll and the Exit Roll can now be removed easily if you need to do so.



Reassembly is pretty much the same thing in reverse.

### **FUSER TEMPERATURE ADJUSTMENT:**

The fuser's temperature could need adjusting in some cases on this series. Each fuser has a sticker on the top of it which is a grid of numbers 0 - 6. The number which is marked rates the fuser's "Rank" or heating level. A higher number means a hotter setting is required to get proper fusing according to the OEM factory test process. The Service Manual recommends that you set the machine's Fuser Setting in memory (from the diagnostics) to the same number as the one marked on the fuser module. Basically though, if the fuser is running too hot, the paper will tend to curl up or the thermostat may cut off throwing an overheat message... if the fuser is too cool, then you'll get partial fusing.

Here is how to adjust the Fuser Temperature if you ever need to: Turn off the machine and then Enter Diagnostics by holding down the '1' & the '3' buttons while powering on the machine. Then press the following sequence of buttons: 'Up', '9', '2', '0', '8'. The current setting will show up on screen. Then use the 'Up' or 'Down' buttons to change the value shown to the value you'd like to try (0-6 is the range). Then press 'Enter' and the display will show "Accepted". The 'Up' button, by the way, looks more like a triangle pointing up... Just in case that's not obvious.

The 7042 style does not use this method of entering diagnostics. If you ever want to adjust the 7042, you'd need to find someone you can borrow or rent two special tools from: the "7042 Setup Tool" and the "Tech Drum Card". It is a strange method... the Setup Tool plugs into the machine and becomes the interface for diagnostic adjustments. That is the only way to make this adjustment on the 7041, 7042, 4010, or 4011 models.

That should just about do it... pretty easy one really... Oh and as far as parts availability goes... I have seen the fuser rollers and fuser drive gears out there already... other parts are likely to surface as time goes on as well. Don't let these things slip through the cracks. Happy Repairs to you all !

We'll have a closer look at a few other good candidates for fuser repairs next month. I'm thinking maybe the DC332/340/432/440 etc. Sound good?

*Britt Horvat works for The Parts Drop, a company who provides parts & supplies for this series as well as many other Xerox brand copiers, faxes and printers. For more info visit their website; [www.partsdrop.com](http://www.partsdrop.com)*