750 N. BAKER DRIVE, ITASCA, IL 60143 • 1.800.419.4583 • F: 888.371.8314

Preventative Maintenance for your Nordson ProBlue 10 Video Series - Transcript

#1 Safety

In this video, we're going to do a PM on a Nordson ProBlue 10. We have one hose and it has a 1BF Marathon head on it. Before we begin, we need to cover the safety precautions. It's important to make sure you understand the safety requirements for the chemicals you will be working with. For this machine I have a HMM 77 PEL. Make sure you have the safety data sheet and that you understand the safety requirements and first aid instructions. I will also need heat resistant gloves, eye protection, long sleeve shirts, and hard toe shoes.

#2 Parts and Tools

These are the materials I'm going to use for this job. Most of these parts will not be used. I have them here because it's a good idea to have them in stock when you have this machine. I have two RTDs, two thermostats, one bulkhead fitting. I find this fitting leaks often, so I like having it in stock. I also have a primary oil filter and the primary pump filter, this is what I'm going to be replacing. For the solenoid head, I have the filter and I have size 19 - 0 19 orange. I'm going to need heat-resistant gloves, nitrile gloves, scraping tool, 11/16 and 5/8 wrench, some pliers, a steel brush, O-ring pick, multi-purpose screwdriver, flashlight, O-ring grease, anti-seize, I'm going to need some rags and some type of adhesive solvent. I'm going to be using WD-40 and you also need a heat gun to clean your tools afterwards. We're also going to need a 3/4 wrench and metric set of Allen wrenches.

#3 Visual Inspection

I'm going to start by doing a walk around of the machine. I want to do a visual inspection before I begin doing any work on it. I want to make sure there's no leaks. So, common points of leakage would be between the pump and the manifold. Make sure your wires are in good condition. I don’t see any leaks in the pump shaft. That's a dynamic seal so it's one of the first wants to go. I'm going to move on to the back of the machine. I don't see any leaks. Looks good. There are no air leaks. The fittings are seated properly. I'll make sure they're tightened. The hose looks good. Move on to the gun. This one looks really clean. I don't see any air leaks. No air leaks. You see we're missing a muffler. We're going to make sure we put that on. I'm also going to check the electrical cabinet, so I'm going to turn power off. Just going to do a visual inspection. Okay, so looks good up here. The connections look good. As you can see the strain relief is not optimal, so we're going to make sure we fix that.

#4 Purging and Checking for Leaks

Once the unit's up to temperature, we can begin purging. Make sure there's no pressure in your system. You can check this by manually activating your solenoid. So as you can see right

now, we do have pressure. So I'm going to shut the machine off and turn the air off. So now I'm going to check for pressure again. So I don't have pressure now and I'm going to increase pressure slightly once I'm ready. But I want to make sure I have something to catch my glue in. And the way I'm going to purge this system is there's a set screw in the back. When I release this set screw, it's going to drain the glue that's inside of the filter reservoir. I'm going to start draining my system. I'm going to check the tank to make sure there's no large debris in there. It looks pretty good. I'm going to close it and increase the pressure slightly and make sure I have something to catch my glue in.

Okay, now that the system is mostly drained, I'm going to turn the air back off and shut the machine off. And we're going to replace this filter. This machine looks really clean. I don't see any leaks in the manifold. It is a gun manifold. If there were any leaks, you need to make sure to clean them. If you don't clean them, it would be really hard to identify any future leaks.

#5 – Filter and O-Ring Replacement

Before I remove this filter, I want to make sure there is no pressure in my system once again. So I'm going to activate the solenoid manually. It's not firing. Make sure you're wearing your gloves. I'm going to check my threads to make sure everything looks good. And then we'll see there's not a lot of char in there. Make sure the area where your O-ring sits is clean. I'm also going to replace the O-ring. I need to make to make sure the area where this O-ring sits is also clean. I'm going to add some grease on the O-ring. Now I'm going to clean the filter nut. So I remove the O-ring. I'm going to check the threads to make sure they look good. You want to pay particular attention to the groove where the O-ring sits. That looks good. I'm going to put some grease on the O-ring. And we're going to replace the filter. Very careful when you're putting the filter in, if you feel it's tight, then put it in, back it off, and then try again. You don't over tighten, it doesn't need to be too tight.

#6 – Cleaning the Tank Screen

I'm going to take the filter screen off, make sure it's not plugged, clean it. This one doesn't look plugged. So if there's a lot of charring in your tank before you remove the filter screen, make sure you clean as much as you can. Now I'm going to push the last little bit of glue that's left in there so I can clean the tank. So now my tank is drained. I'm going to clean the walls of the tank. Make sure you don't scrub too hard, you don't want to take the coating off. I'm going to use WD-40, you can use any other adhesive solvent you have. And removing the filter screen also gives you access to the float. The float picks up a lot of char, but you want to make sure you clean that. If you have to, you take it off, it has two bolts up here. When you're done cleaning the walls, make sure you clean everything off the bottom. You don't want to have anything fall into the pump inlet. This machine wasn't dirty at all. If you have a lot of char, make sure you plug the inlet hole before you start scraping. Okay, I removed what I scraped off the walls. I'm going to refill it and bring it up to pressure. Before I do that, I need to change the main filter.

#7 – Replacing the Pump Filter and O-Rings

I'm going to replace the pump filter and before I do that I need to make sure power to my machine is off. And I'm also going to disconnect it. I'm going to need a 5/8 wrench. I'm going to grease my new O-ring. I'm going to put anti-seize on the threads. Now I'm going to add new glue to the machine, bring it up to temperature, up to pressure and make sure I don't have any leaks. Now we're going to fill it up with glue. It's very important not to go above this line.

#8 – Installing the Muffler

Now I'm going to install the missing muffler. I'm going to activate it to show the difference. So this is a solenoid without the muffler. If you have a lot of solenoids doing that throughout the day it'll get really noisy.

#9 – Setting a 7-Day Schedule

I'm going to go over how to set a 7-day schedule for this ProBlue 10. The procedure will be the same for the 4, 7, and 10. Step 1, we just set parameter 50. This parameter sets the current day of the week. The values that we can set are 1 to 7, where one equals Monday, two Tuesday, three Wednesday, and so on. Today's Tuesday, so we're going to go to parameters. Okay, step one, we're going to set parameter 50. We're going to go to parameters, enter 50, enter again, to change the setting. It's at two, so today is Tuesday, so that's right. If it were Wednesday, we'd do three, Monday, one. We're going to leave it at two for Tuesday, enter. For step two, we're going to set parameter 51. This parameter tells us this is the current time of the day. Right now it's 9 a.m., so I'm going to hit enter to change it. Enter 900 for 9 a.m. Press enter again. Then next we're going to set parameter 55. This is step 3. This tells us what time the heaters will turn on. I want mine to turn on at 6 am. So it's already set for 6 a.m. I'm going to hit enter and hit enter again. So accept the time. Step 4 we're going to set the time the heaters will turn off. This is parameter 56. I want my heaters to turn off at 3 p.m. I'm going to press enter. And for 3 p.m, it's going to be 1500. Press enter again. And then step five, you're going to set parameters 71 through 77. So we're going to enter 71. These parameters are used to select which schedule you want to use for each day 71 is Monday 72 is Tuesday 73 is Wednesday and so on. I want to use schedule one, which is the schedule I created for Monday through Friday. So for 71, I'm going to hit enter and select one for 72, which is Tuesday. I'm also going to select one for schedule one. This is Wednesday, Thursday, and Friday. So, it kicked me out. I'm going to go back to parameters. 71 is Monday, it's correct. 72, Tuesday, correct. Wednesday, correct. Four, Thursday, correct. And five, Friday, we're also going to set to one. And then 76, Saturday, I want it off. 77, Sunday, I also want it off. So this procedure works for schedule one. If you want to set up schedules two and three, you need to use parameter 60, 61, 66, 67. 60 is schedule two heaters on, 61 is schedule two heaters off, 66 is schedule three heaters on, and 67 is schedule three heaters off. Parameters 50 and 51 do not need to be reset.

#10 – Configuring the Electrical Service

In this video, we're going to configure the electrical service for a ProBlue 10. This process will be the same for a 4, 7 and 10. Before working on this machine, we need to configure the electrical service. To do that, we need to reference the electrical service information that's provided by the ProBlue manual. The manual that I will be using is for part number 1024496-06. You can find the information on table 32, which is in section 113. Now this table gives us the maximum melter power requirements. You need to make sure that your breaker can withstand the maximum amperage draw for your application. And that the power cable that you use is rated for the maximum amperage draw required by the motor and that it meets all applicable electrical codes. Now I'm going to reference table 3-2. For my application, I have Pro Blue 10. I have one hose so it's less than 2. I'm going to use 3-phase without a neutral. So my maximum amperes draw is going to be 16 amps. So I need to make sure my service can withstand that and that my cord is also capable of withstanding that amperage draw.
I also need to make sure that I use the correct voltage plug for 240-3 phase. You can find that on table 33. So I'm going to be using 240 3-phase without a neutral. So the voltage plug that I need to use is part number 227568. This is very important if you use a single-phase voltage plug and you supply it with 3-phase voltage plug you will burn your board. So I'm going to check my voltage plug and before I put power to the machine and wire it, I'm going to make sure that it's the correct one. So it's 227568 and it's going to be red and green. So it's red and green 227568, 3 phase 240 so that's the correct plug and now I'm ready to wire the machine.

#11 – Final Checks

I'm going to do a final check to make sure I don't have any leaks. I'm going to increase the pressure slowly. I'm going to do about 35 to 40 psi. So first I'm going to go to the back, make sure my fittings are tight, make sure I don't see any leaks. I don't see any leaks and all the fittings look good. Everything looks good. This one was a little loose. Inside now, we're going to trigger the solenoid manually. Make sure it works. Everything's working fine, you can't see any leaks. Everything's working good. I'm also going to check the inlet filter. Oh, this one looks good. If you see water or dust in here, make sure you drain it. When the filter looks bad, you need to replace it. Having your filter here will increase the life of your air solenoids.