Subject: Authority22 Spin-On Oil Filter Replacement Date: 2/13/09

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This bulletin will provide the user with the correct procedure for the removal and replacement of the spin-on oil filter.

The Authority 22 spin-on oil filter should be replaced once a year per the service manual.

The filter must also be replaced if the conditioning system becomes contaminated or if the type of conditioner being used in the machine is changed.

Tools / Parts Required For Replacement

- Shop Towels
- 3/4" Open End Wrench or 3/8" Drive 3/4" Socket and Ratchet
- Standard Strap Filter Wrench OEM Brand #25079 or equivalent. Available at local auto parts supplier.
- Replacement Spin-On Oil Filter, Part #11-655029-001

NOTE: This procedure must be performed in the operating position with the covers open. Push the machine out 24" (610 mm) past the foul line out onto the lane surface.



Warning!

Before the filter is replaced the conditioner system must be depressurized and the Temperature Cycle must be turned OFF. Failure to do so may result in personal injury to the user and could also cause damage to the lane machine.

Step 1 - Depressurizing the Conditioning System

Enter the "Conditioning" sub menu in "Diagnostics."

Navigate, using the Left / Right arrows, to the "Oil Tank Vent Valve" and press "OK."

Immediately navigate to the "Oil Pressure Valve" and press "OK."

Step 2 - Removing the Spin-On Oil Filter

Remove power to the Authority22 by turning off the red toggle switch on the side of the electrical enclosure and unplug the power cord from the lane machine.

Place several shop towels under the spin-on oil filter and with the filter housing mounted in the machine, remove by turning the filter counter clockwise as viewed from the top of the machine. If the filter can not be removed by hand, use a strap filter wrench to remove. Drain and discard the filter. Refer to *Figure 1*.

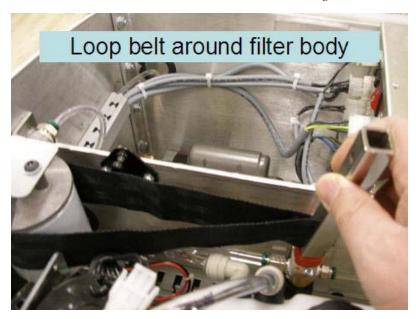


Figure 1

Step 3 - Installing the new Spin-On Oil Filter

Fill the replacement filter up halfway with lane conditioner and use your finger to lubricate the rubber seal at the top of the filter. With the filter housing mounted in the machine, install by turning the spin-on oil filter in a clockwise direction. Spin until filter stops against the filter housing.

Using a permanent marker, draw a line on the filter and the housing. This will note the position of the filter in relation to the housing, so you have a starting reference point. Refer to *Figure 2*.



Figure 2

Tighten the spin on oil filter one full turn past the original mark. Use the filter wrench if needed. Refer to Figure 3.



Figure 3

This should seal the filter to the housing at the correct point to prevent the filter from leaking during normal operation of the Authority 22.

Step 4 - Restore Power to the Authority22

Restore power to the Authority22.

Navigate to "Conditioner" / "Diagnostics" in the "Maintenance" screen of the Graphical User Interface.

Turn on the "Conditioner Vent Valve."

Turn on the "Oil Pressure Valve."

Turn on the "Conditioner Pump."

Run the conditioner pump in diagnostics until all the air is out of the system. This can be seen as bubbles moving through the conditioner hoses. If air is left in the conditioner system, conditioner pressure variances will occur, Before running the conditioner pump, make sure you have opened the Conditioner Vent Valve in the diagnostics screen before you run the Conditioner Pump.

Inspect the filter for leaking. If there are leaks present between the filter and the housing rotate the spin on filter one additional quarter turn clockwise using the Strap Filter Wrench.

A copy of this Bulletin can be found on the Brunswick Bowling web site <u>www.brunswickbowling.com</u>. If you have any questions regarding this or any Service Bulletins, please contact the Customer Response Center at 1-800-937-2695 or 1-231-725-4966.

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