

Surge Pulsator Manual & Replacement Parts Order Form

©Farmhaus

Visit us at www.farmhaus.farm



*The pulsator is a mechanical device that regulates the
“suck and squeeze” cycle of the teat cups.*

Copyrighted material

Pulsator Speed Adjustment

Your Surge Pulsator is fully adjustable, allowing for the variances in breeds and individual stock.

There is no one absolute correct speed, average we have encountered with goats is about 75 - 80 ppm, (pulsations per minute) while with dairy cows is only 45 - 65 ppms, and sheep at 95 to 125 ppms. These are good starting points, but a little experimenting will quickly show you the best rate for your stock.

Rule of thumb is: the larger the milk gland the slower the speed. This allows for complete milk-out of teat and time for milk gland to re-fill.

The adjustment screw on your pulsator (needle valve) slows ppms down by turning in, and speeds up ppms by backing it out.



PPM Adjustment Cont...

Pulsation adjustment

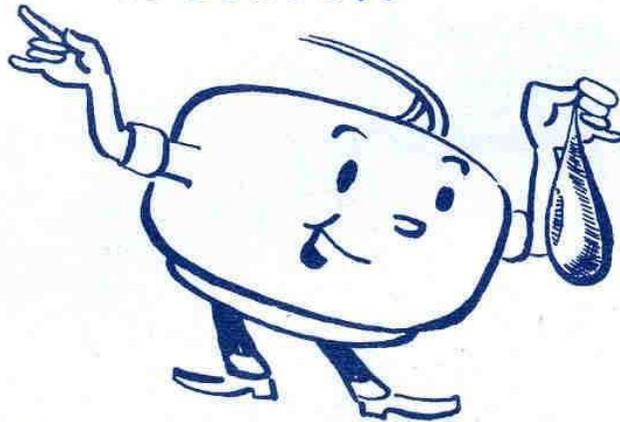
.In = slower

Out = faster



Count number of squeezes on finger.
For example: 20 squeezes in 15 seconds would
equal 80 ppm. (If using goat head be sure
inflation plug is in place in the other inflation).

When You Oil The
Pulsator...



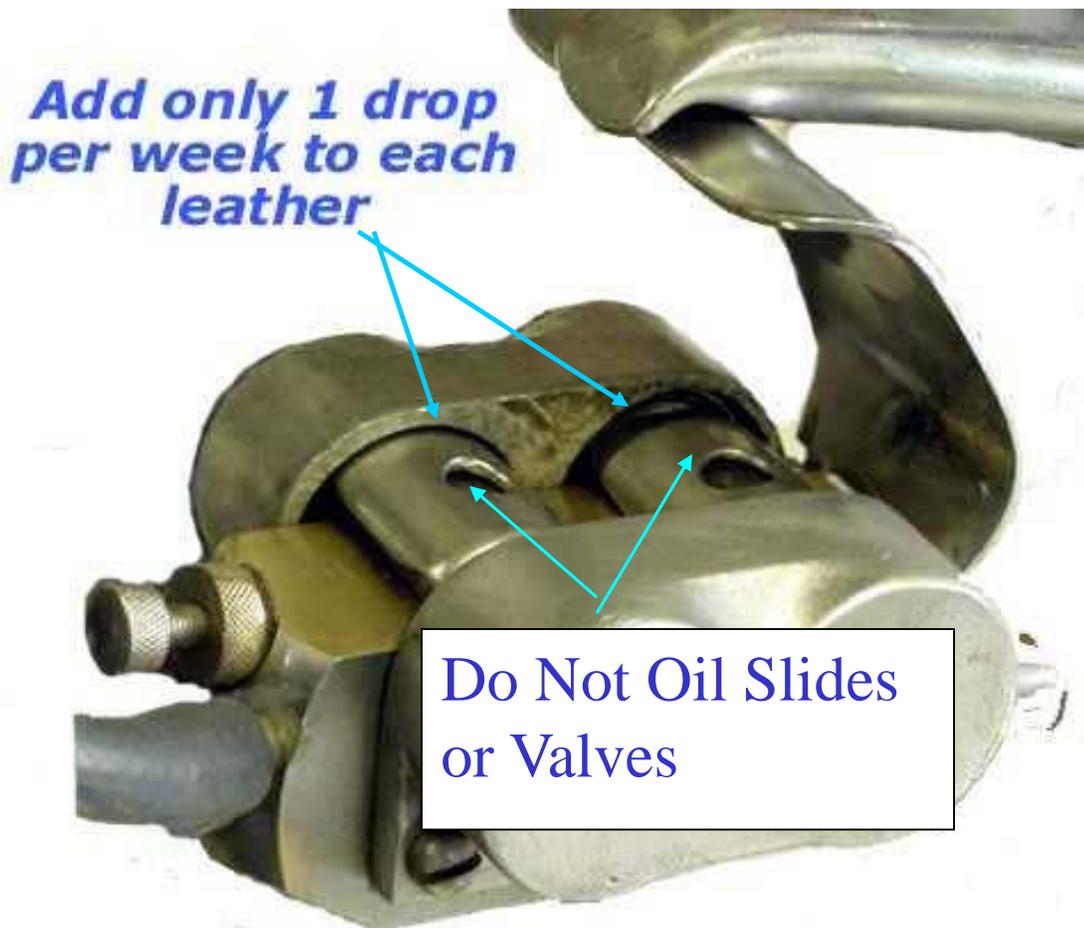
USE One DROP!



NOT One SQUIRT!

Lubrication

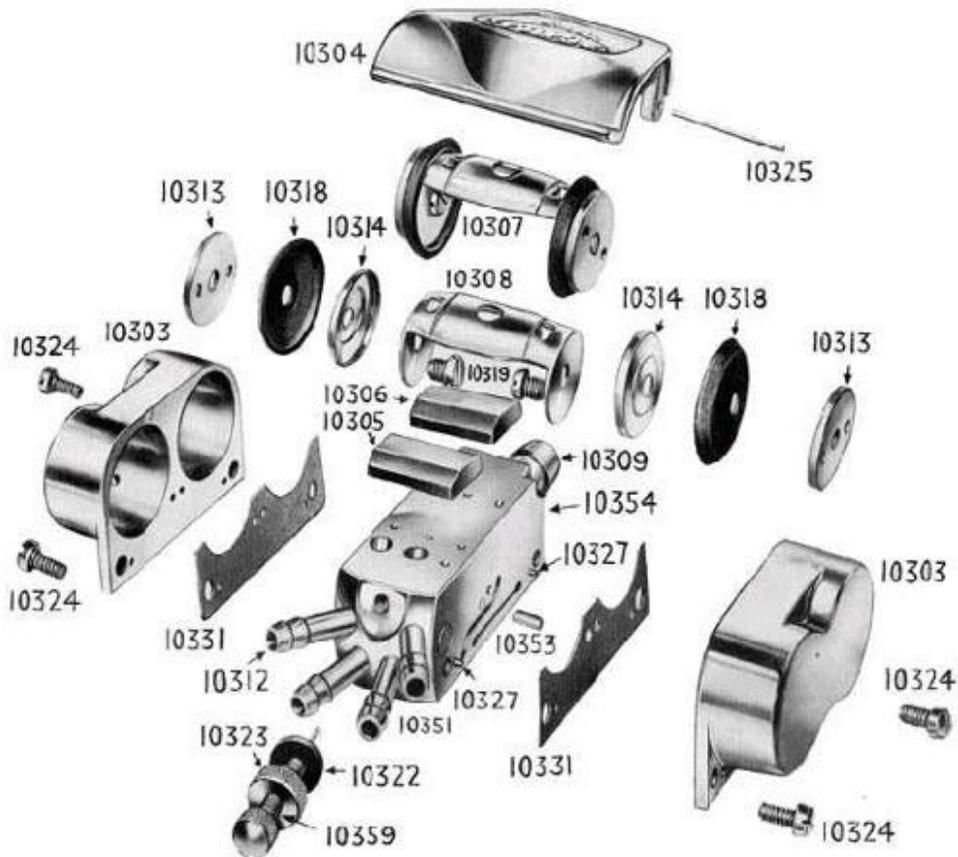
Tip the pulsator to one side, add one drop of oil at end of each cylinder where leather is located. Tip to other side to lubricate the other leathers. Oiling slides will only cause premature failure from scoring caused by dirt buildup sticking to oil.



INSTALLATION INSTRUCTIONS FOR:



**Repair
Kits**
*for
Surge
Vacuum
Pulsator*



Start by removing cover screws (ref# 10324) from both covers (ref#10303).

Carefully pry off covers, so as not to bend alignment pins (ref#10327).

Lift off slide carriers (ref# 10307 rear) & ref# 10308 front). Set aside for now.

Lift off slide valves (ref# 10306 rear) & ref# 10305 front).

Note: On "S" style pulsators (Serial number on bottom will have an "S" prefix) both valves are identical and can be interchanged, just be sure to re-install them with large slot on bottom facing front of pulsator (needle valve end). "C" style pulsators have a different rear valve, it has different shaped slots on bottom but is easily reinstalled by facing hole in valve towards front of pulsator.

Remove old side cover gaskets (ref# 10XSU), discard.

Remove needle valve (ref# 10359) set aside.

Use a small soft wire (or appropriate finger drill bits) to clean out all air passages) in pulsator block and side covers, follow-up squirting a cleaning solvent, like brake cleaner or WD 40 into air passages, use caution and wear safety goggles to prevent eye injury, follow up by blowing air through passages. If your pulsator is the "C" style, it will also have a slotted clean-out screw on the bottom, remove this screw to clean, then replace.

Disassemble slide carrier assemblies (ref#'s 10307 , 10308) by holding retaining screws (ref# 10319) with screw driver (right angle screwdriver works best, but a regular one will work) while turning round metal leather retainer (ref# 10313).

Remove leathers and metal expander washers, discard.

Clean all parts then insert retaining screw back in hole, place new metal expander washer over screw, place new leather over washer, then thread round metal retainer back on and tighten.

Repeat this until all four leathers and expander washer are replaced.

Note: Carrier assemblies can be interchanged so no need to remember front from back or left from right.

Install new side gaskets by aligning hole on one end over retaining pin (ref# 10327) on block, then stretching the other alignment hole over the other retaining pin, this is a tight fit, so gasket stays in place while assembling pulsator, be careful not to tear gasket. Note: gaskets will fit either side.

Replace slide valves (ref#10305 & 10306, remember to place large bottom slot towards front of pulsator and if using on a "C" style pulsator, the valve with the hole through it, is the rear valve and the hole should face front of pulsator.

Now place the slide assemblies over the slide valves, making sure the valves are centered between the tabs on the bottom side of the slides.

Place one drop of pulsator oil into each cylinder hole on the side covers, using finger spread all around the cylinder. Now push cylinders over the leathers on the slide assemblies and line up holes in side covers to fit over alignment pins in pulsator block. Replace side cover screws. Repeat on other side. Note. Side covers are also interchangeable so no need to remember right from left.

Replace needle valve.

Note: O-ring in kit is for "C" style units only, replace o-ring on your lid with new one in kit. Also replace check valve tip with new one in kit unless you have the old style all metal check valve.

Now with a little adjustment, your pulsator should be all set to go. If it doesn't start right up, you may need to help it a little by lifting the cover and pushing on the slide valves, once started let it run a few minutes to "set-in" leathers.

Remember when oiling, only use one drop per leather per week, do not oil slides or block as this will just attract dirt and gum-up pulsator.

If your pulsator will not run after kit is installed your pulsator may need full refurbishment as block may be grooved, or air ports may be worn which will cause vacuum leaks and erratic operation.

SUMMARY

We believe the Surge Pulsator to be the most dependable and easiest to maintain pneumatic pulsator ever made.

With little effort these pulsators can go on forever. No other vintage pulsator has as many replacement parts still available today than the Surge!

We do recommend the installation of a repair kit annually and a full rebuild each 3 years.

The most common failures of these pulsators are plugged air passages, scored blocks and worn valve slides. These problems are all corrected with a full rebuild.

As the resurfacing of the block and valve slides require special equipment, we offer this service as well as pulsator exchanges and a full line of replacement parts.

Always remove pulsator before cleaning bucket, never submerge or allow water or milk to enter pulsator, oil as instructed and your pulsator will give you years of trouble-free service.