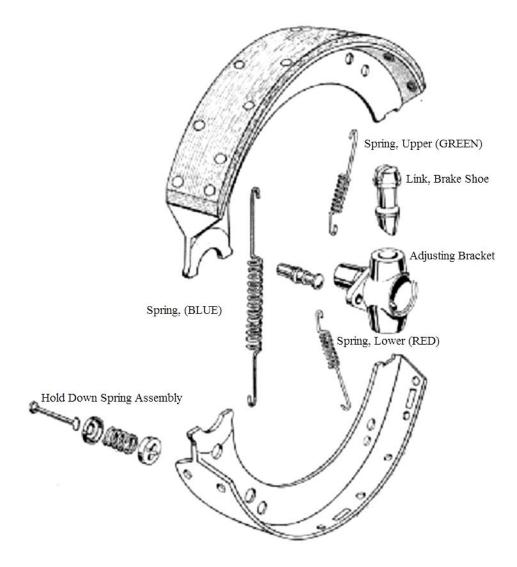
## How to Replace Brakes and Add Sure Seals on a 9N – by Joe Trotter

I decided to replace my 9N brake shoes and add sure seals after pulling the drums and finding the shoes soaked in oil. It is a fairly easy process but takes a little patience to complete.



These are the parts I will be referring to. The placement of the springs is important. Since there are a right, and left brake assembly pay particular attention that the "GREEN" spring is on top when assembled.



I like to start by cleaning everything first. I had so much oil on my brake shoes, and backing plates, it was easier to degrease them assembled, and then remove everything.



Using the brake actuator rod as a clamping surface I stripped the backing plate down as far as I could. I cleaned off the remaining crud and lubricated the adjusting bracket and made sure it would rotate. My adjustment brackets were both froze up when I disassembled the backing plate. It may not be a needed step on your assembly, just make sure not to over-do it with the oil and clean off any excess.

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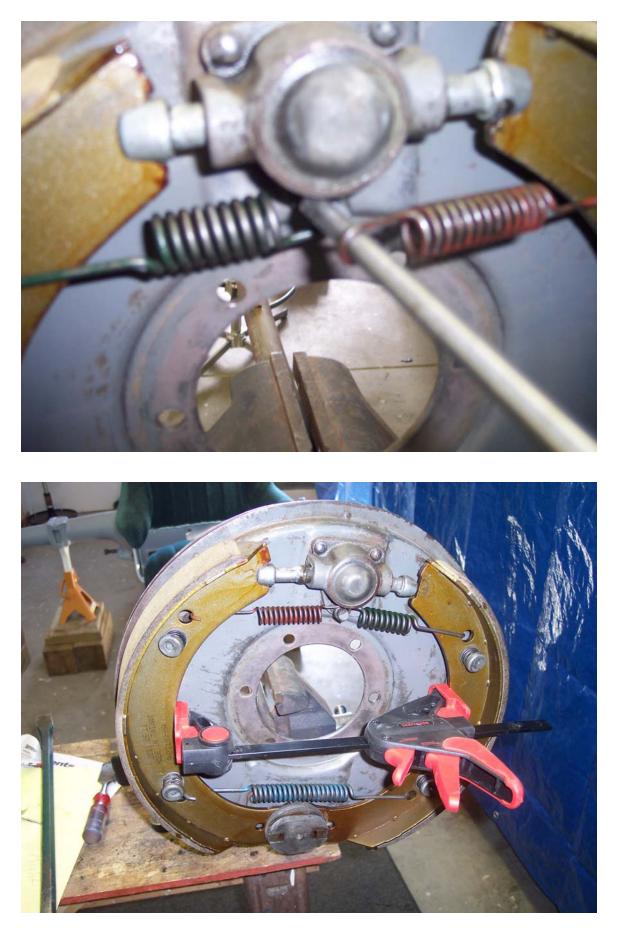


The brake shoes I bought were bonded as opposed to riveted. The springs are the hardest part of the install in my opinion. I started by putting the upper "green" spring around the retract spring stud and through the hole in the shoe. I then used leverage to install it since you can't really stretch the springs by hand. After many attempts the best method I found was to attach the spring to the shoe and stud, and then insert the end of the shoe in the brake shoe link. I then pulled the bottom of the shoe towards me until I could set it in the actuator rod pivot point.

Before moving on to the other brake shoe it helps to put one of the hold down assembly springs on to keep the shoe against the backing plate. I assembled the opposite shoe putting the bottom "blue" spring in the hole of the installed shoe, pivoted the shoe until I could get it in the actuator rod pivot point and pulled the top over by hand into the brake adjuster.



"This picture is for the purpose of showing the actuator rod pivot point, and blue spring location. The sequence picture was to blurry to show."



If you have any trouble getting the adjusters to seat you can use a reversible clamp like I did to spread the shoes apart.



It is important the brake shoes seat into the brake shoe links. Make sure the brake adjuster is turned all the way in before putting the assembly inside of the brake drum. This is done from the other side of the backing plate.



One side completed, and ready to install into the brake drum.



The sure seals are pretty straightforward; you first need to pack grease into the bearing assembly. I used a wood mixing stick to push grease down into the bearing. I would occasionally lift the bearing carrier and turn it several times to distribute the grease. It takes a while to complete this process but it is very important.

Once you feel comfortable the bearing is properly packed you can install the sure seal. I used a piece of three inch diameter PVC tube to start the sure seal into the bearing carrier.



It is a little tricky doing the seal install this way because the seal wants to rock around. I stood above it and held a 2"X 4" on the top of the PVC and struck it with a hammer. I would stop and take a look as I was doing it because I didn't want the seal to go in at an angle. Once I had it started I removed the PVC and used a piece of 1' X 2" to tap the seal in evenly.

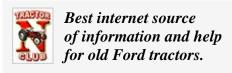


Wipe off the excess grease and put a gasket on the flange to seal the backing plate from the inside.



I installed new felt dust seals around the perimeter of the backing plate prior to dropping it into the drum. It is now ready to install into the trumpet.

I would like to thank the good folks at the N Tractor club for their help and guidance with this project. I asked a lot of questions prior to doing the brakes so I would know what I was up against.



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