

Posted on Sunday, October 2, 2005 - 5:17 pm:



ok folks, after much picture taking and edit, here is PHASE 2 of the hydrolift pump rebuild.

i am sorry about all the pictures for you dial-up guys, but they are needed to be accurate.



all the pump parts with new gaskets



dip both gears in hytran to prelubricate them.



slide idler gear onto the stub shaft in the pump boss and check for rotational ease



next insert the integral driven shaft/gear through pump boss/end casting using a twisting motion. if there is any hesitation or you feel something "catch", note where it was and remove the burr or dirt.



should look like this when properly in place-the gears should be even with the top of the pump boss.



next prelubricate the bearing end cap, make sure to get a good coating of oil in the bearing hole.



work it down onto the pump boss lining up the screw holes



now we will retrieve our screws from the temporary storage box.



insert the screws and tighten them down tight.



now prelubricate the relief ball and spring



drop ball into the bore making sure it goes all the way to the bottom.



next insert spring



wrap plug with two layers of plumbing tape and tighten it down



next we will prelube the spool and the new o-ring.



roll new o-ring up onto the spool until it is seated in the top slot. with your fingers, roll around the perimeter to make sure it is seated completely.



with a rocking action, slide the spool in through the bore



the spool seated showing the retaining roll pin holes exposed.



start the roll pins in by hand or with a bronze hammer, only start them!



with a roll pin punch, tap the pins home. for those that don't know, a roll pin punch is hollow ground like a bowl with a protruding mound in the center. this prevents the roll pin from distorting on the ends. if you have no access to a ROLL PIN PUNCH, use a bronze or brass hammer to tap it home . if a flat tip punch is used it will flare the end and cause binding at the pump boss where it slides against it.



the roll pin retainers in place



now we will insert the two spring stop roll pins using the same process



next take the center return spring with top washer, spacer, bottom washer, and bolt and screw the bolt in about three threads with the right spring extension behind the two right roll pins. then with pliers lift the end of the right extension over the roll pin as shown.



rotate actuating lever counterclockwise to seat the spring extension against the roll pin.



hold actuating lever with index finger and with thumb press spring extension down and hold it there. this will pop the opposite spring extension up.



with pliers, grab the left spring extension and lift it over BOTH pins.



next with the pliers, grab the right spring extension and lift over the outer right pin to look like this picture. then tighten the bolt. the spool now should be springloaded to center. work the actuating lever fully to check that it does return to center. the arrows show the location of the pins in relationship to the spring extensions.



now prelubricate the reservoir gasket



place gasket in the groove around the perimeter of the pump boss/casting and make sure it is seated fully.



make sure the mating surface of the reservoir is clean and polished with no burrs.



take two 3/8"-16 nuts and place them on the end of the rod that holds the reservoir on and twist(or jamb) them together. they must be tightened against each other.



use the top nut(arrow) to tighten the rod into the pump boss, and remove the nuts. slide reservoir onto rod and the edge of the reservoir into the new gasket with the rod coming out through the hole in the end. place steel/rubber washer over the rod and add a new nut. **ONLY TIGHTEN ENOUGH TO SEAL IT!** oil the rubber side before tightening. don't tighten down so hard the rubber squeezes out, only to the

point of a little bulge showing on around the washer!



replace fill plug, slide sheave onto shaft but do not tighten the set screw yet. you'll want to adjust the sheave to line up the belt when installing on the tractor.



wow! that was a lot of work! sorry it took so much space!
Have fun with your rebuild!
eric