



Final Assembly Instructions - Tractor Hydraulic Wing Backblade

- Step 1 You should receive the following for complete assembly
1 - Crate with moldboard/3-point assembly.
1 or 2 - Wing boxes specific to the size of backblade to be assembled.
Make sure all containers are accounted for and are the correct sizes for your installation.
- Step 2 Disassemble top framing of crate, leaving moldboard on crate.
Remove any strapping holding moldboard to shipping skid.
- Step 3 Open all other boxes and familiarize yourself with the contents to be assembled.
- Step 4 Remove moldboard assm from shipping crate and set upright on level surface. You will need a floor jack or blocks to hold the 3-point mount up so the moldboard is square to the floor. Place block under bottom channel of moldboard to keep blade from accidentally falling over backwards.
- Step 5 This step will require an assistant since wings are heavy and bulky.
Remove one wing from box and remove hinge pin from wing. Position wing in hinge barrels of moldboard with wing parallel to moldboard and re-insert hinge pin. Make sure there is grease coating the pin and barrels. Fasten with 9/16" SAE flat washer and 5/32" x 3/4" cotter pin (bend over pin).
- Step 6 Hold dead end of hydraulic cylinder to clevis on back of moldboard and insert 3/4 x 3 1/2" clevis pin and secure with 5/32" x 1 1/4" cotter pin.
- Step 7 Now line up live end of cylinder with wing arm and insert shear bolt with 1 flat washer from top down, finish with 1 flat washer and nylock on bottom. Tighten until washers are against clevis surfaces but do not overtighten.
- Step 8 Remove plugs from cylinder ports and pull wing forward.
You will check / adjust for 90 degrees in an upcoming step.
- Step 9 Place hydraulic fittings in cylinder ports and tighten. Then connect hoses to fittings and tighten.
- Step 10 Repeat steps 6 - 10 for other wing.

- Step 11 Back tractor up to blade and connect the 3 point hitch arms.
- Step 12 Connect AG fittings to tractor valve blocks.
Right 2.0 flow restrictor goes from right wing cylinder live end to tractor valve marked for right cylinder collapse.
Right 1.5 flow restrictor goes from right wing cylinder dead end to tractor valve marked for right cylinder extend.
Left 2.0 flow restrictor goes from left wing cylinder live end to tractor valve marked for left cylinder collapse.
Left 1.5 flow restrictor goes from left wing cylinder dead end to tractor valve marked for left cylinder extend.
- Step 13 Pick blade up and run wings in and out to purge any air in hoses/cylinders.
- Step 14 With the wings closed and the blade in the down position, with no down pressure, the tips of the wings should be approx 1" off the ground. This is to account for any play in arm pins. If arms need to be adjusted refer to tractor owners manual.
- Step 15 With wings fully closed check wing alignment to moldboard. Wing should be 90 degrees to moldboard. If this needs to be adjusted, open the wing slightly and remove clevis pin. Turn the threaded end of cylinder counterclockwise to make the wing close more, clockwise to make the wing close less. Make adjustments in half turn attempts until 90 degrees is achieved, then make sure cylinder ports and hoses are straight up and **tighten jam nut to adjustment block of cylinder. (if you tighten jam nut toward cyl body, damage will occur to cylinder not covered by warranty.)** Make sure to bend over cotter pin when done.
- Step 16 Attach wing marker flags to both wings.

Backblade is now installed and adjusted for plowing. Be sure to check cutting edge wear as using and make any adjustments necessary to prolong the life of the edges.