

## INSTALLING DOWN PRESSURE VALVE KIT - 762450114

Down Pressure Valve Kit is compatible with the following side dress applicator models:

2400, 2400-1600, 2450, 2450, F3400, F3400-1600, F3450, F3450-1600, F3400T, and F3450T

**NOTE: Valve kit is compatible with closed circuit hydraulic systems only. Hydraulic flow must be turned down to approximately 10 GPM.**

Use catch pan to drain hydraulic fluid while removing hoses. Discard oil properly.

Use teflon tape on pipe thread joints only.



**CAUTION:** Escaping hydraulic fluid under pressure can penetrate skin causing serious personal injury.

*\* DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks.*

*\* Stop engine and relieve pressure before connecting or disconnecting hydraulic lines.*

*\* Tighten all connections before starting engine or pressurizing lines.*

*\* If any fluid is injected into skin, obtain medical attention immediately.*

## INSTALLATION INSTRUCTIONS

1. Ensure wing lock pins are in locked position. Completely lower implement and shut off tractor. Ensure all pressure has been removed from system before beginning to install kit.

2. Disconnect 1/4" wing cylinder hoses at tee fittings behind the cylinder tower. Remove tee fittings and leave hoses in place.

3. If not already present on machine, weld downpressure valve mount plate (2) to mainframe behind lift cylinder tower as shown in figure 3. Weld two 1" welds along each outside edge.

4. Install downpressure valve (1) to mount plate (2) using 3/8"-16 x 3" bolts (8), 3/8" washers (9), and 3/8" nuts (10).

5. Install 9/16" o-ring to JIC 45° elbows (4) to front ports of downpressure valve (1).

6. Connect 1/4" wing cylinder hoses leading to front couplers to 45° elbows (4) in front ports of downpressure valve (1).

7. Install 9/16" o-ring to JIC adapters (6) in rear ports of downpressure valve (1).

8. Attach tee fitting (9) to orifice fitting on "REG" port and connect hoses leading to base end of inner wing cylinder.

9. Attach tee fitting (9) to adapter (13) on "T" port and connect hoses leading to rod end of inner wing cylinder.

10. Install 9/16" o-ring to female NPT adapter (5) to top port of downpressure valve (1).

11. Screw pressure gauge (7) into adapter (5).

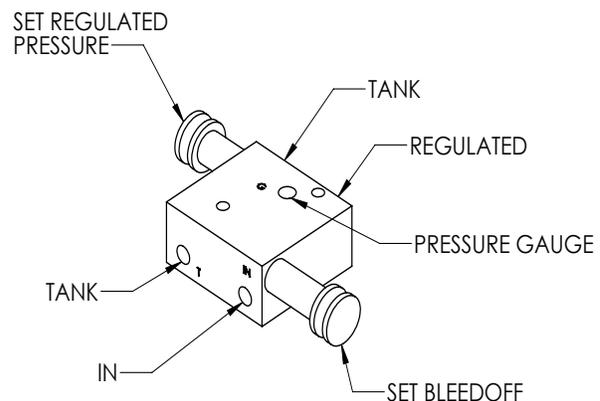


Figure 1: Downpressure Valve

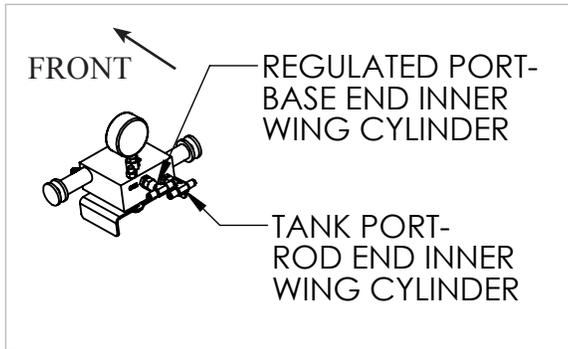


Figure 2: Downpressure Valve Ports to Wing Cylinders

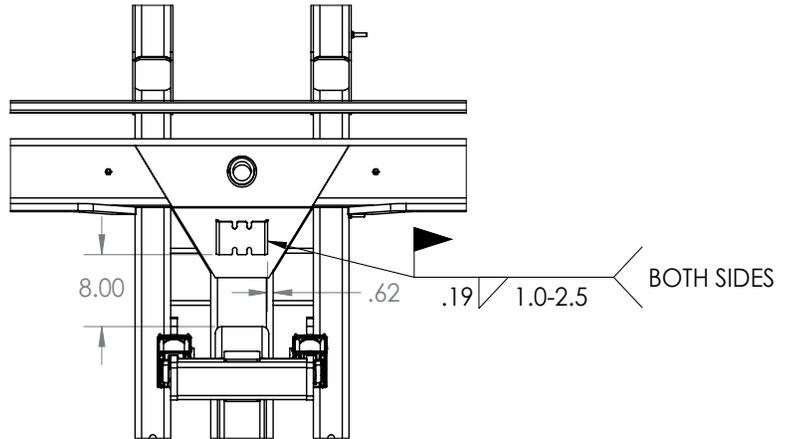


Figure 3: Downpressure Valve Mount Plate Location

## SETTING DOWNPRESSURE VALVE

**NOTE: Down Pressure Valve compatible with "Closed Center" hydraulic systems only. If tractor does not have a closed center hydraulic system, down pressure valve must be removed and replaced with tee fittings. Hydraulic outflow to downpressure valve must be reduced to maximum 10 GPM. Failure to do so will result in damage to system and extreme heat generation.**

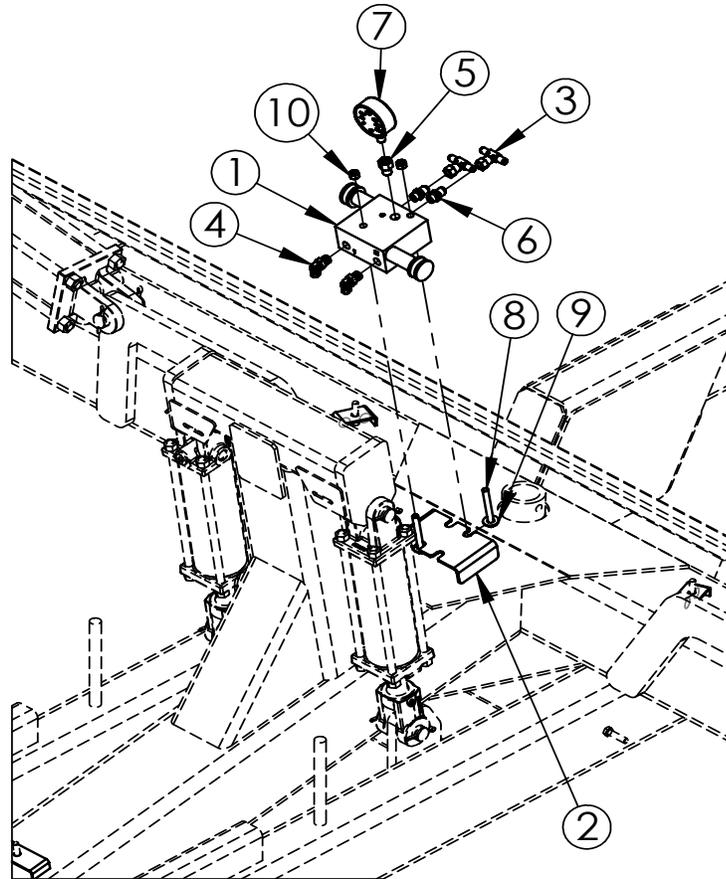
1. Connect hose from downpressure valve "IN" port to corresponding rear remote for unfolding wings.
2. Reduce wing fold circuit rear remote outlet flow on tractor below maximum 10 gpm.
3. Remove wing lock pins.
4. Screw in bleedoff adjustment knob completely.
5. Lower wings, leave hydraulic output engaged (in detent position).

6. Adjust pressure to 2300 psi by screwing in/out regulated pressure knob.

7. Adjust pressure to 2200 psi using bleedoff adjustment knob.

8. Once pressure has been adjusted with bleedoff knob, adjust pressure with regulated pressure knob to 1200 psi. Adjust regulated pressure knob as necessary for optimum performance based on field and soil conditions.

9. Secure knob positions by tightening lock collars.


**PARTS LIST- F3400/F3450 DOWNPRESSURE VALVE KIT**

Item	Part No.	Qty.	Description
1	762030001	1	Valve, Downpressure
2	762450116	1	Plate, DP Valve Mount
3	76201050	2	Tee, 9/16" FJIC x 9/16" MJIC x 9/16" MJIC
4	7600470529	2	Elbow, 9/16" M O-ring x 9/16" MJIC 45°
5	762010020	1	Adapter, 9/16" M O-ring x 1/4" F NPT
6	76201007	2	Adapter, 9/16" M O-ring x 9/16" MJIC
7	7600470528	1	Gauge, 3000 PSI
8	600356019	2	Bolt, 3/8"-16 x 3" Gr. 5
9	600381006	2	Washer, Flat 3/8"
10	600366028	2	Nut, Toplock 3/8"-16

**Torque Specifications for  
37° JIC Fittings**

ASSEMBLY TORQUE					
Size	Thread Size	IN-LBS	FT-LBS	Tube Connection F.F.F.T.	Swivel Nut or Hose Connection F.F.F.T.
-4	7/16 - 20	140 ± 10	12 ± 1	2	2
-5	½ - 20	180 ± 15	15 ± 1	2	2
-6	9/16 - 18	250 ± 15	21 ± 1	1-1/2	1-1/4
-8	3/4 - 16	550 ± 25	45 ± 5	1-1/2	1
-12	1-1/16 - 12	1000 ± 50	85 ± 5	1-1/4	1
-16	1-5/16 - 12	1450 ± 50	120 ± 5	1	1
-20	1-5/8 - 12	2000 ± 100	170 ± 10	1	1
-24	1-7/8 - 12	2400 ± 150	200 ± 15	1	1
-32	2-1/2 - 12	3200 ± 200	270 ± 20	1	1

**Torque Specifications for  
SAE O-ring Fittings**

ASSEMBLY TORQUE				
Size	Thread Size	IN-LBS	FT-LBS	F.F.F.T.
2	5/16 - 24	90 ± 5	7.5 ± 0.5	1 ± 0.25
3	3/8 - 24	170 ± 10	14 ± 1	1 ± 0.25
4	7/16 - 20	220 ± 15	18 ± 1	1 ± 0.25
5	½ - 20	260 ± 15	22 ± 1	1 ± 0.25
6	9/16 - 18	320 ± 20	27 ± 2	1.5 ± 0.25
8	3/4 - 16	570 ± 25	48 ± 2	1.5 ± 0.25
10	7/8 - 14	1060 ± 50	90 ± 5	1.5 ± 0.25
12	1-1/16 - 12	1300 ± 50	110 ± 5	1.5 ± 0.25
14	1-3/16 - 12	1750 ± 75	145 ± 6	1.5 ± 0.25
16	1-5/16 - 12	1920 ± 25	160 ± 6	1.5 ± 0.25
20	1-5/8 - 12	2700 ± 150	225 ± 12	1.5 ± 0.25
24	1-7/8 - 12	3000 ± 150	250 ± 12	1.5 ± 0.25
32	2-1/2 - 12	3900 ± 200	325 ± 15	1.5 ± 0.25