

40' Applicator Hydraulic Troubleshooting

Problem:

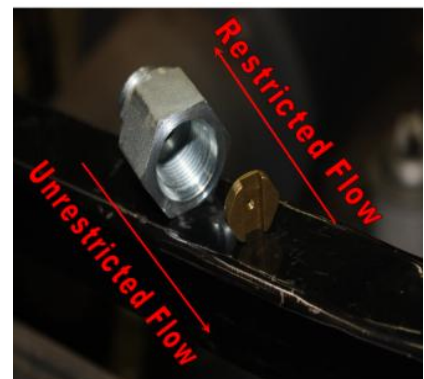
The Center Section of the toolbar does not lift evenly. One side of the parallel links raises ahead of the other side. However, once fully raised the toolbar is level side to side and lowers evenly.

Personnel Qualifications:

The following procedure describes the process to locate the hydraulic component that is causing the issue. It is assumed that the work will be performed by experienced assembly personnel who are well versed in the safe removal, installation, and handling of hydraulic components. Proper measures must be taken to alleviate the mechanical and hydraulic loading on the system so that the hydraulic components are not removed under high pressure.

Troubleshooting Procedure:

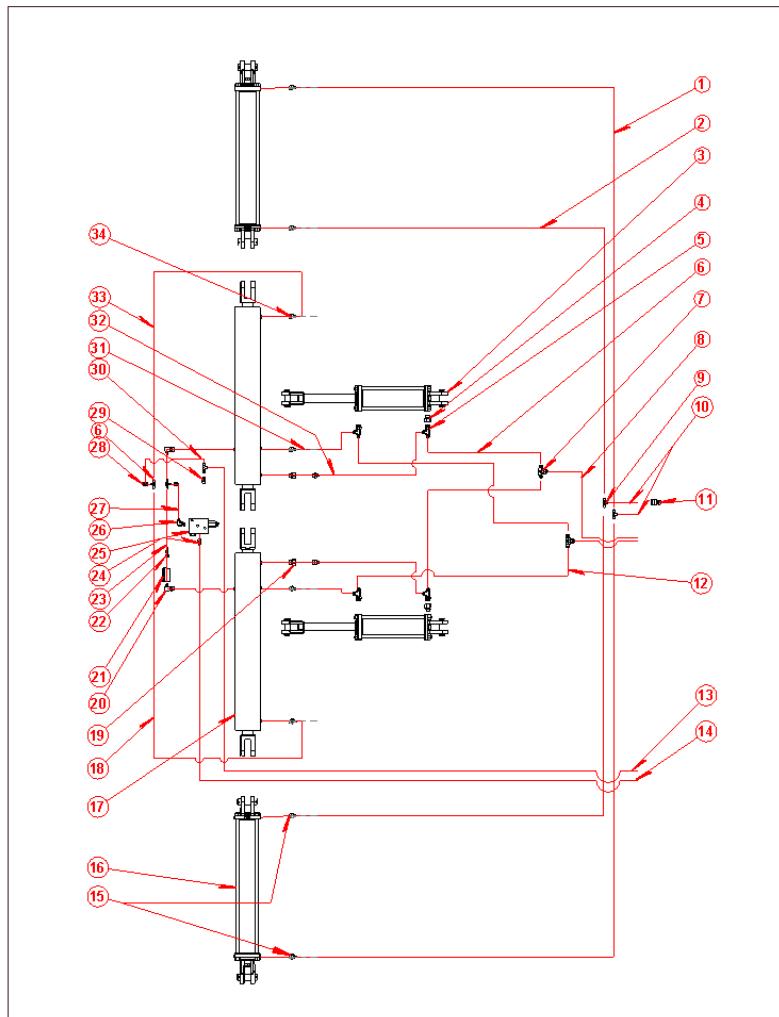
- 1) Check to ensure that the hydraulic hose routing is correct per the attached part's list document.
- 2) Support the toolbar and disconnect the ram ends of both the left side and right side main lift cylinders from the respective parallel links.
- 3) Cycle the main lift cylinders and observe if both cylinders fully extend and fully retract simultaneously without any applied mechanical load. If the main lift cylinders now travel at equal rates you may skip to step 9. If the main cylinders continue to travel at unequal rates, leave the cylinder ram ends disconnected and continue on with the following procedure.
- 4) Remove the run tee's from the ram and base ends of both the left and right main lift cylinders and check to ensure that there are no restrictions in them.
- 5) Remove the .093 one way orifice fittings from the base end of each main lift cylinder.
- 6) Check to ensure that the slot on the internal discs of both the left hand and right hand fittings are facing away from the cylinder (shown) causing the oil to be restricted as it enters the base end of the main lift cylinder.



- 7) Inspect the hole of the internal disc for any contaminants and confirm that the hole diameter of the left hand fitting is identical to the hole diameter of the right hand fitting.
- 8) Swap the complete one way orifice fitting from side to side and cycle the main lift to see if the cylinder extend rate follows the one way orifice fitting. If it does replace both orifice fittings. If not proceed to the next step.

- 9) Next, swap the main lift cylinders from side to side and reconnect the base ends to the trailer and the ram ends to the parallel link. Raise and lower the toolbar to determine if the extend rate is relative to the cylinder. If the issue reverses from left to right, replace the cylinder that lagged behind when lifting the toolbar. If the toolbar continues to lift unevenly in the same manner as originally observed proceed to the next step.
- 10) Remove the .047 one way orifice fittings (shown) from the ram end of the wing kick (short stroke) portion of both left and right wing fold cylinders.
- 11) Inspect the internal discs to ensure that the slot of both left and right side fittings are facing towards the wing fold cylinder, as shown, to restrict flow out of the ram end of the wing kick portion of the wing fold cylinder.
- 12) Inspect the hole of the internal disc for any contaminants and confirm that the hole diameter of the left hand fitting is identical to the hole diameter of the right hand fitting.
- 13) Swap the complete one way orifice fittings from side to side on the main wing cylinders and cycle the unit to see if the problem follows the one way orifice fitting. If it does replace the orifice fittings on both left and right main wing cylinders.
- 14) If the toolbar continues to lift unevenly in the same manner as originally observed, the issue may be mechanical binding in the pivot areas and you will need to call the Service Department at Fast Distributing, tel: 507-427-3861, for further assistance.





A	B	C	D	E
ITEM #	PART #	DESCRIPTION	QUANTITY 12 ROW	16 ROW OPTION ADDS
1	600043-6	FDM4R17-4FJX-4FJX90M-153		2
2	600043-5	FDM4R17-4FJX-4FJX90M-126		2
3	620007	CYLINDER 40TD08-150 DA 4 x 8" STROKE	2	
4	610095	FITTING ADAPTER 8ORB M/F .093 ORIFICE	2	
5	610066	FITTING ADAPTER JIC SWIVEL RUN TEE TO-6804-06-08-06	4	
6	600043-4	FDM6R17-6FJX90M-8FJX-90	2	
7	610004	FITTING ADAPTER TEE 8JIC	2	
8	600043-1	FDM8R17-8MBO-8FJX-156	2	
9	610003	FITTING ADAPTER JIC TEE TO-2603-04-04-04		2
10	600043-2	FDM4R17-8MBO-4FJX90M-306		2
11	520048	2-NV12-12SAE-M	4	2
12	600043-3	FDM6R17-6FJX90M-8FJX-102	2	
13	600043-18	FDM6R17-8MBO-6FJX-90M-293	1	
14	600043-13	FDM6R17-8MBO-6FJX-285	1	
15	610045	FITTING ADAPTER 8ORB TO 4JIC R0.045 (USED ON 620004)	4	
16	620004	CYLINDER 30TD24-200 3 x 24" STROKE	2	
17	620027	CYLINDER DUAL FUCTION 45WD22.5 X 1.81 WK	2	
18	600043-17	FDM4R17-4FJX-4FJX-32	2	
19	610094	FITTING ADAPTER 8ORB M/F .047 ORIFICE	2	
20	610029	FITTING ADAPTER 8ORB TO 4JIC 90°	2	
21	790052	GAUGE PRESSURE 0-3000 PSI	1	
22	610026	FITTING ADAPTER JIC SWIVEL RUN TEE TO-6602-04-04-04	1	
23	600043-14	FDM6R17-6FJX-6FJX90M-9	1	
24	610010	FITTING ADAPTER 6ORB TO 6JIC	1	
25	630003	BLOCK DOWN PRESSURE (1PDCP25-PT-12S)	1	
26	610078	FITTING ADAPTER 6ORB TO 6JIC 90°	1	
27	600043-14	FDM4R17-6FJX-4FJX90M-12	2	
28	TO24060406	FITTING ADAPTER 2406-04-06	2	
29	610010	FITTING ADAPTER 6ORB MALE	1	
30	600043-15	FDM6R17-6FJX-6FJX90M-6.5	1	
31	600043-8	FDM4R17-6FJX-4FJX90M-61	2	
32	600041-5	FDM4R17-4FJX-4FJX90M-56	2	
33	600043-19	FDM4R17-6FJX-4FJX90M-45	2	
34	610009	FITTING ADAPTER 8ORB TO 4JIC (USED ON 620027)	6	

