

FAST TRACK TANK INSTALLATION AND PARTS MANUAL MT765 CHALLENGER Fast Distributing, Inc. 54859 County Road 44 Mountain Lake, MN 56159

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Parts information in this manual represents components installed when product was manufactured based upon the best available information. Modifications made subsequent to initial delivery are not included. Always verify the parts and color required with Fast Distributing, Inc at 1-800-772-9279.

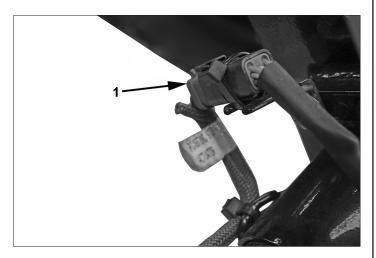
If you have any questions, please contact your dealer or our Parts and Service Department.

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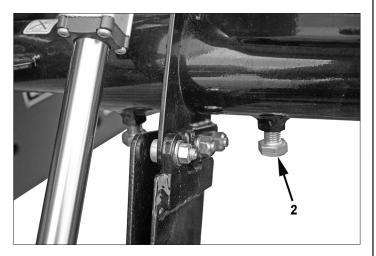
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## **Remove Step Assembly**

1. Cut three zip ties holding 6-pin connector (1) and cable to lower step bracket.



2. Loosen four bolts (2) holding step assembly to support tube.

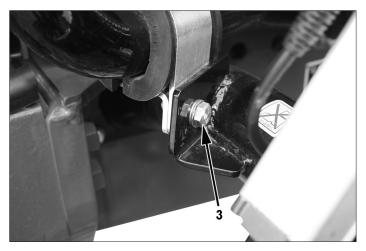


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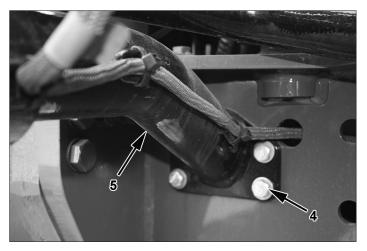
Step assembly weighs approximately 300 lbs. Use an appropriate lifting device to prevent injury.

- 3. Attach lifting device to step assembly.
- 4. Remove step assembly.

5. Remove bolt (3), lock washer, nut and bracket on DEF tank fill tube. Save bolt, nut and lock washer for reuse on page 5, step 2.



6. Remove four bolts (4) and lower step tube (5). Discard tube and hardware.



7. Remove four bolts (6) and upper step tube (7). Discard tube and hardware.

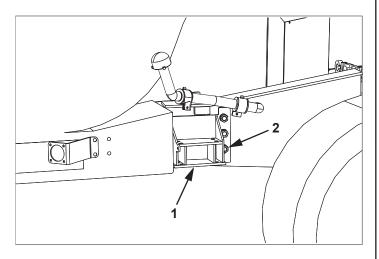


### **Install Receiver Mounting Brackets**

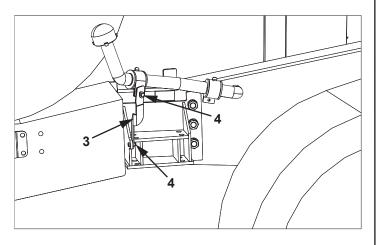
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Receiver mounting bracket weighs approximately 48 lbs. Use an appropriate lifting device to prevent injury.

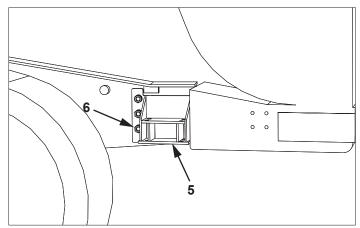
 Install left-side mounting bracket (1) to tractor with 1 x 1½ inch GR5 hex head bolts, 1 inch lock washer and 1 inch nuts (2). Refer to torque charts in this instruction for bolt torque values.



2. Install DEF tube support bracket (3) and % x 1 inch GR5 hex head bolt (4), % inch centerlock nut and hardware removed in step 4 on page 4.



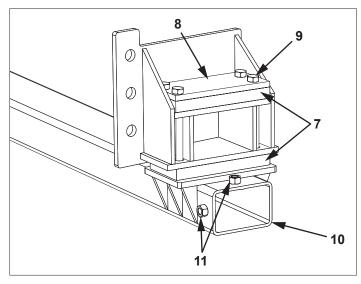
 Install right-side mounting bracket (5) to tractor with 1 x 1 ½ inch GR5 hex head bolts, 1 inch lock washer and 1 inch nuts (6). Refer to torque charts in this instruction for bolt torque values.



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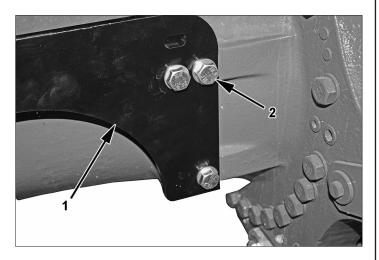
Receiver mounting tube weighs approximately 105 lbs. Use an appropriate lifting device to prevent injury.

- 4. Install rubber isolators (7) on top and bottom of bracket.
- Place plate (8) on top of isolator and insert four <sup>3</sup>/<sub>4</sub> x 9 inch bolts (9) through plate and both isolators.
- 6. Repeat steps 4-5 for left-hand side receiver mounting bracket.
- Raise receiver mounting tube (10) into position. Weldnuts (11) must be on the top and facing rear of tractor. Install install eight <sup>3</sup>/<sub>4</sub> inch centerlock nuts. Tighten bolts to compress rubber isolators <sup>1</sup>/<sub>8</sub> - <sup>1</sup>/<sub>4</sub> inch.

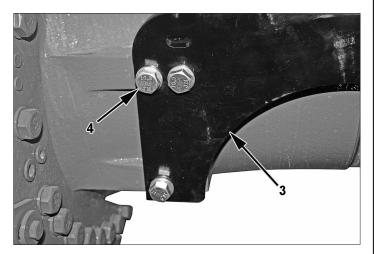


#### **Install Rear Tank Supports**

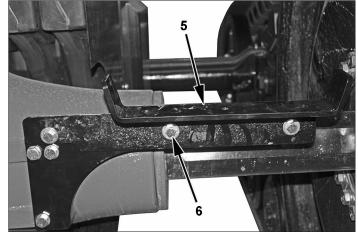
1. Install left rear tank support (1) to axle housing with three M16 x 40mm bolts (2) and M16 lock washers. Refer to torque charts in this instruction for bolt torque values.



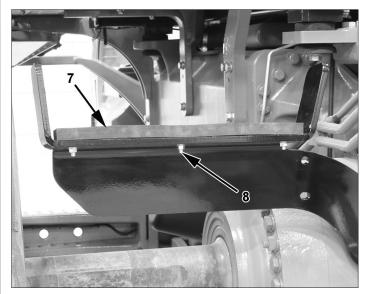
2. Install right rear tank support (3) to axle housing with three M16 x 40mm bolts (2) and M16 lock washers. Refer to torque charts in this instruction for bolt torque values.



- 3. Install adjustable tank cradle (5) to tank supports with three  $\frac{1}{2} \times \frac{1}{2}$  inch bolts (6),  $\frac{1}{2}$  inch flat washers and  $\frac{1}{2}$  inch centerlock nuts. Do not tighten bolts at this time.
- 4. Right -hand side illustrated, repeat for left-hand side.

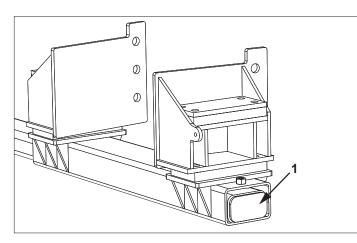


5. Attach tank support rubber isolators (7) to tank supports with 7/16 x 1¼ inch bolts (8), 7/16 inch flat washers and 7/16 inch centerlock nuts. Tighten hardware to slightly compress rubber isolator.



## **Install Tanks**

1. Insert front carry tube (1) into receiver tube from right side of tractor. Tube (1) must be flush with left side of receiver tube as illustrated.

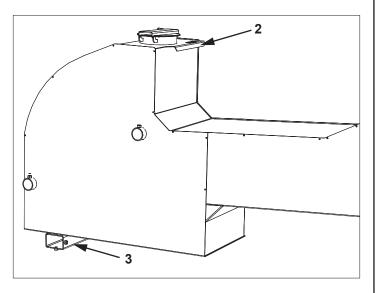


2. Open tractor hood to avoid damage while installing tanks.

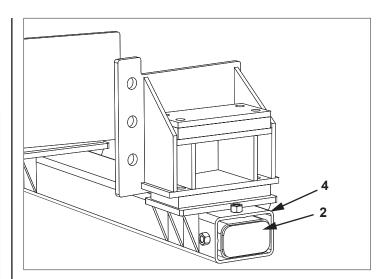
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Left-hand tank weighs approximately 950 lbs. Use an appropriate lifting device to prevent injury.

3. Connect an appropriate lifting device to left-hand tank flange (2). Tank will balance when lifted by flange.



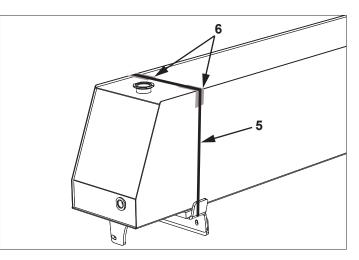
- 4. Raise tank and guide into position on rear support bracket.
- 5. Align tank receiver (3) with front receiver and push tube (1) through tank receiver. Verify that tube (1) does not extend past front receiver (4) on right-hand side of tractor.



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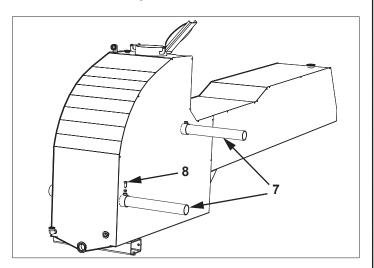
Right-hand tank weighs approximately 800 lbs. Use an appropriate lifting device to prevent injury.

- 6. Install right-hand side tank using steps 3 and 4.
- 7. With right-hand tank aligned with front receiver, push tube (2) through right-hand tank receiver.
- 8. Push both tanks inward against front receiver. Center tube (2). Install and tighten eight setscrews on front receiver and outside of both tanks. Refer to torque charts in this instruction for bolt torque values.
- 9. Disconnect lifting devices.
- 10. Install tie down straps (5) on back of each tank. Hook ends of strap together. Insert anti-chaffing patch (6) on top corners between tank and strap. Tighten strap.

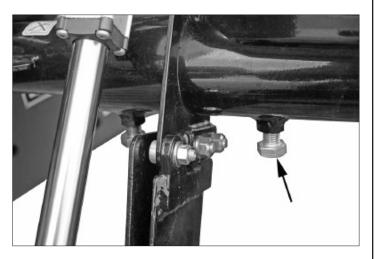


11. Tighten bolts on adjustable tank support cradles (item 6 on page 6).

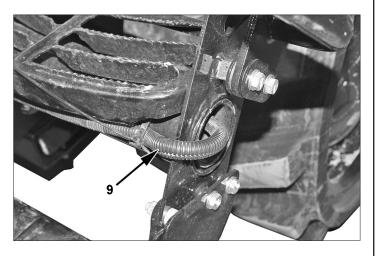
 Insert 3 inch tubes (7) into left-hand tank. Insert 5/8 x 1½ inch set bolts (8) and jam nuts in to tank nuts. Snug inner bolts, leave jam nuts loose.



13. Reinstall step assembly and tighten all bolts on step tubes and tank.

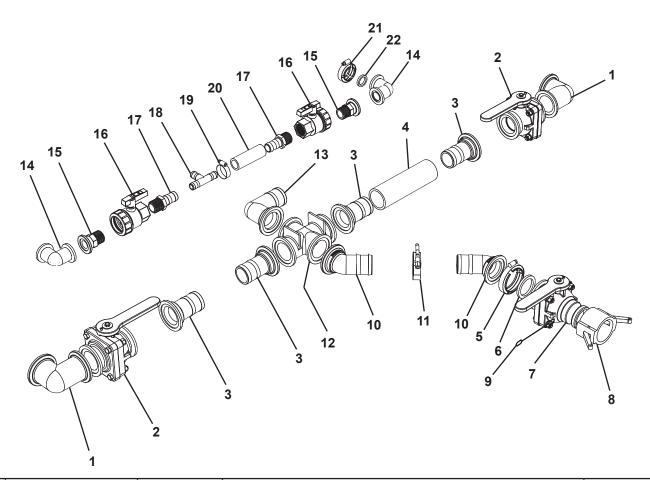


14. Insert ladder harness (9) in lower 3 inch tube and connect to existing tractor harness at side of motor and step.



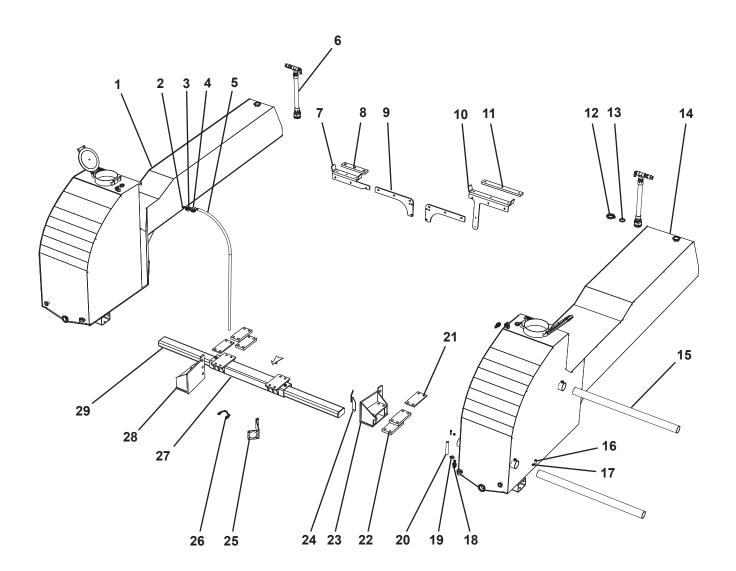
- 15. Fasten harness to ladder tube with two ties and one tie in engine area.
- 16. Tighten all mounting hardware.

# Plumbing



Item	Vendor Part #	Fast Part #	Description	Quantity
1	BJ-M220CPG90	530106	Manifold Elbow 90° 2" Full Port	2
2	BJ-MVS220CF	530327	Manifold Valve 2" Full Port	2
3	BJ-M220BRB	530103	Manifold Hose Barb 2" Full Port	4
4	AP-12012805	510003	Hose 2" Bumble Bee	AR
5	BJ-FC220	540002	Flange Clamp 2" Full Port	15
6	BJ-M200G	530019	Manifold Gasket 2" Full Port	15
7	BJ-MVSF220FP	530128	Manifold Stubby Valve 2" Full Port	1
8	BJ-200CAP	530017	Manifold Cap 2"	1
9	HN-19-12	530179	Lynard 12"	1
10	BJ-M220BRB45	530354	Manifold Hose Barb 45° 2" Full Port	2
11	BJ-TV231	540007	Camp T-Bolt 2"	15
12	BJ-M220CR	530107	Manifold Cross 2" Full Port	1
13	BJ-M200BRB90	530104	Manifold Hose Barb 90° 2" Full Port (To Suction Pump)	1
14	BJ-M100CPG90	530362	Manifold Elbow 90° 1"	2
15	BJ-M100MPT	530069	Manifold 1" X 1" MPT	2
16	BJ-UV100FP	500009	Valve 1" Full Port	2
17	BJ-HB100	530041	Hose Barb 1" MPT X 1" Hose	2
18	BJ-HBT100	530056	Hose Barb Tee 1"	1
19	BR-64016H	540014	Hose Clamp 1"	3
20	BS-1BH200	510016	Hose 1" EDPM	AR
21	BJ-FC100	540000	Manifold Flange Clamp 1"	4
22	BJ-100G	530013	Manifold Gasket 1"	4

## Tanks & Hardware



Item Vendor Part #		Fast Part #	Description	Quantity
1		14940	Tank RH	1
2	BJM100G	530013	Manifold gasket 1"	2
3	BJFC100	540000	Clamp 1" manifold	2
4	BJM100075BRB90	530060	Manifold Elbow 1" x 3/4" HB	2
5	AP15007008	510006	Hose, Vinyl Clear 3/4" x 48"	2
6		10220	Riser Assembly W/Check Valve	2
7		19153	Tank Support RH Upper	1
8		19155	Tank Pad RH D-Series	1
9		19151	Rear Tank Support	2
10		19152	Tank Support LH Upper	1
11		19154	Tank Pad LH D-Series	1
12	BJFC220	540002	Clamp 2" Manifold Full Port	2
13	BJM200G	530019	Manifold gasket 2" Full Port	2
14		19160	Tank LH	1
15		5376	Tube Step Support	2
16		852	Setscrew 5/8 x 1-1/2" ZP	16
17		224	Nut Jam 5/8" ZP	10
18	BJHB100	530041	Hose Barb 1" MPT X 1"HB	4
19	BR64012H	540013	Hose Clamp 3/4"	4
20	AP15007008	510006	Hose, Vinyl Clear 3/4" x 68"	2
21		5289	Plate 1/2 x 4-1/2" 4 Holes	2
22		5333	Rubber Isolator Pad	4
23		5283	Mount Frame LH Side	1
24		19158	Bracket DEF Tube Support	1
25		19174	Mount Q-Fill	1
26		19173	Actuator Cable	1
27		5274	Mount Front Tube	1
28		5312	Mount Frame RH Side	1
29		5374	Cross Tube 3 x 5 x 96	1

SAE Torque-Tension Values							
Bolt Size	Grade 2		Gra	d e 5	<u>Grade 8</u>		
	DryLubricatedlb-ft (N•m)lb-ft (N•m)		Dry lb-ft (N•m)	Lubricated lb-ft (N•m)	Dry lb-ft (N•m)	Lubricated lb-ft (N•m)	
1/4-28	6 (9)	5 (6)	10 (13)	7 (10)	14 (19)	10 (14)	
1/4-20	6 (8)	4 (6)	8 (11)	6 (9)	12 (16)	9 (12)	
5/16-24	13 (17)	9 (13)	19 (23)	14 (20)	27 (37)	20 (28)	
5/16-18	11 (15)	8 (11)	17 (24)	12 (18)	25 (33)	18 (25)	
3/8-24	23 (31)	17 (23)	35 (48)	26 (36)	49 (59)	37 (44)	
3/8-16	20 (27)	15 (20)	31 (42)	23 (31)	44 (59)	32 (44)	
7/16-20	36 (48)	27 (36)	55 (75)	41 (56)	78 (106)	58 (79)	
7/16-14	32 (43)	24 (33)	49 (67)	37 (50)	70 (95)	52 (71)	
1/2-20	55 (75)	41 (56)	85 (115)	64 (86)	120 (163)	90 (122)	
1/2-13	49 (66)	37 (50)	75 (102)	57 (77)	106 (144)	80 (108)	
9/16-18	78 (106)	59 (80)	121 (164)	91 (123)	171 (232)	128 (174)	
9/16-12	70 (95)	53 (72)	109 (148)	82 (111)	154 (209)	115 (156)	
5/8-18	110 (149)	82 (111)	170 (231)	127 (172)	240 (326)	180 (244)	
5/8-11	97 (132)	73 (99)	150 (204)	113 (153)	212 (288)	159 (216)	
3/4-16	192 (261)	144 (195)	297 (403)	223 (303)	420 (570)	315 (427)	
3/4-10	172 (233)	129 (175)	269 (365)	201 (273)	376 (510)	282 (383)	
1-12			704 (955)	528 (716)	995 (1350)	746 (1012)	
1-8			644 (874)	483 (655)	909 (1233)	681 (924)	

	Metric Torque-Tension Values							
<u>Bolt</u> <u>Size</u>	Class 4.8		<u>Class 8.8</u>		<u>Class 10.9</u>		<u>Class 12.9</u>	
	Dry lb-ft_(N•m)	Lubricated lb-ft (N•m)	Dry lb-ft (N•m)	Lubricated lb-ft_(N•m)	Dry lb-ft_(N•m)	Lubricated lb-ft (N•m)	Dry lb-ft_(N•m)	Lubricated lb-ft_(N•m)
M6	4.7 (3.5)	6 (4.5)	8.9 (6.5)	11.3 (8.5)	13 (9.5)	16.5 (12)	15.5 (11.5)	19.5 (14.5)
M8	11.5 (8.5)	14.5 (10.5)	22 (16)	27.5 (20)	32 (23.5)	40 (29.5)	37 (27.5)	47 (35)
M10	23 (17)	29 (21)	43 (32)	55 (40)	63 (46)	80 (59)	75 (55)	95 (70)
M12	40 (29.5)	50 (37)	75 (55)	95 (70)	110 (80)	140 (105)	130 (95)	165 (120)
M14	63 (46)	80 (59)	120 (88)	150 (110)	175 (130)	220 (165)	205 (150)	260 (190)
M16	100 (74)	125 (92)	190 (140)	240 (175)	275 (200)	350 (255)	320 (235)	400 (300)
M18	135 (100)	170 (125)	265 (195)	330 (245)	375 (275)	475 (350)	440 (325)	560 (410)
M20	190 (140)	245 (180)	375 (275)	475 (350)	530 (390)	675 (500)	625 (460)	790 (580)
M22	265 (195)	330 (245)	510 (375)	650 (480)	725 (535)	920 (680)	850 (625)	1080 (800)
M24	330 (245)	425 (315)	650 (480)	820 (600)	920 (680)	1150 (850)	1080(800)	1350(1000)

Metric Torque-Tension Values



# Fast Sprayers 54859 County Road 44 Mountain Lake, MN 56159 1-800-772-9279 Toll Free 1-507-427-3861 Voice 1-507-427-3030 Fax

Fast Track Tank Challenger 765D