

FAST TRACK TANK INSTALLATION AND PARTS MANUAL MT765 SERIES 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.

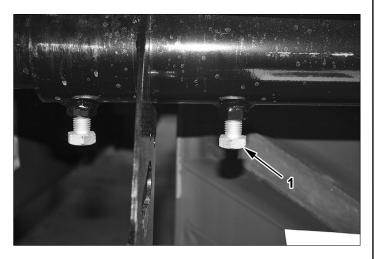
If you have any questions, please contact your dealer or our Parts and Service Department.

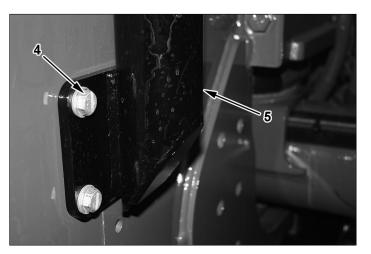
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#### **Remove Step Assembly**

1. Loosen four bolts (1) holding step assembly to support tube.

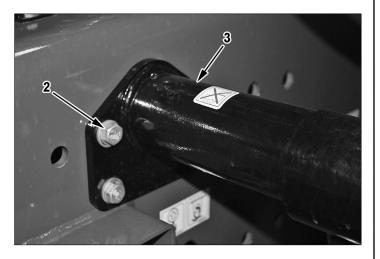




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Step assembly weighs approximately 300 lbs. Use an appropriate lifting device to prevent injury.

- 2. Attach lifting device to step assembly.
- 3. Remove step assembly.
- 4. Remove four bolts (2) and lower step tube (3). Discard tube and hardware.



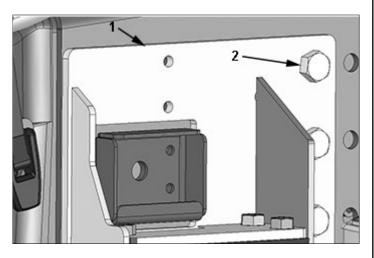
5. Remove four bolts (4) and upper step tube (5) . Discard tube and hardware.

#### **Install Receiver Mounting Brackets**

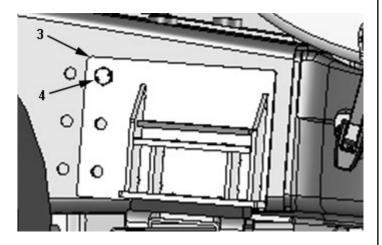
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Receiver mounting bracket weighs approximately 48 lbs. Use an appropriate lifting device to prevent injury.

 Install left-side bracket (1) to tractor with three 24 x 60 mm bolts, lock washers and nuts (2). Torque to 920 ftlbs.



 Install right-side bracket (3) to tractor with three 24 x 60 mm bolts, lock washers and nuts (4). Torque to 920 ft-lbs.

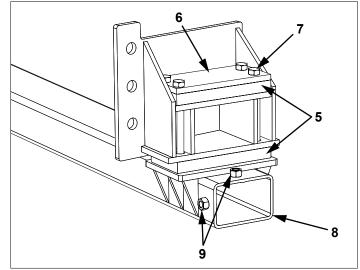


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# Receiver mounting tube weighs approximately 105 lbs. Use an appropriate lifting device to prevent injury.

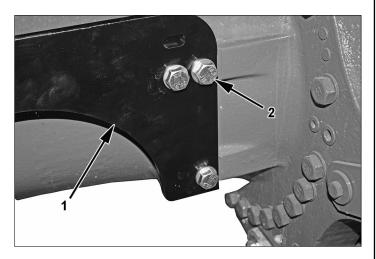
- 3. On right side, install two, 4 hole rubber isolators (5) on top and bottom of bracket.
- Place plate (6) on top of isolator and insert four <sup>3</sup>/<sub>4</sub> x 9 inch bolts (7) through plate and both isolators.

- 5. On left side, install two 3 hole rubber isolators on top and bottom of bracket.
- 6. Place 3 hole plate on top of isolator and insert three  $\frac{3}{4}$  x 4- $\frac{1}{2}$  bolts thru plate and isolators.
- Raise receiver mounting tube (8) into position. Weldnuts (9) must be facing rear of tractor. Install seven <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.

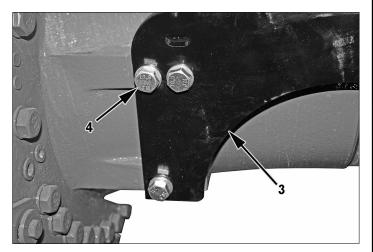


#### **Install Rear Tank Supports**

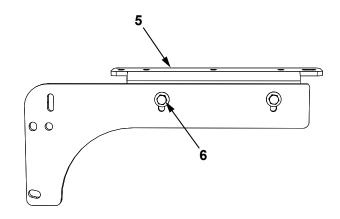
1. Install left rear tank support (1) to axle housing with three M16 x 40mm bolts (2) and M16 lock washers. Refer to torque charts in this instruction for bolt torque values.



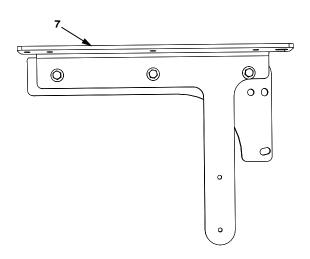
2. Install right rear tank support (3) to axle housing with three M16 x 40mm bolts (2) and M16 lock washers. Refer to torque charts in this instruction for bolt torque values.



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

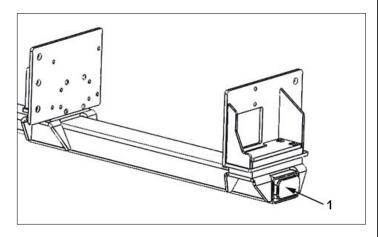


 Attach tank support rubber isolators to tank supports (7) with 7/16 x 1¼ inch bolts, 7/16 inch flat washers and 7/16 inch centerlock nuts. Tighten hardware to slightly compress rubber isolator.



#### **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.

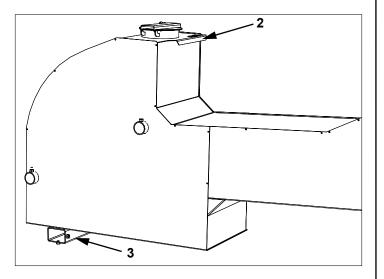


2. Open tractor hood to avoid damage while installing tanks.

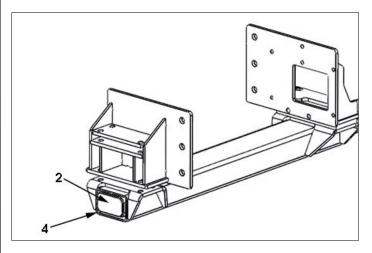
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Left-hand tank weighs approximately 950 lbs. Use an appropriate lifting device to prevent injury.

3. Connect an appropriate lifting device to left-hand tank flange (2) at 66" from front of tank.



4. Raise tank and guide into tractor as far as possible, lower tank onto axle in rear and stands in the front. Reposition lifting device and lift up and continue to move tank to the rear and line up so that the 3 x5 tube can slide thru. 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. Support front of tank so the 3 x 5 tube is loose and can be moved when other tank is in position.

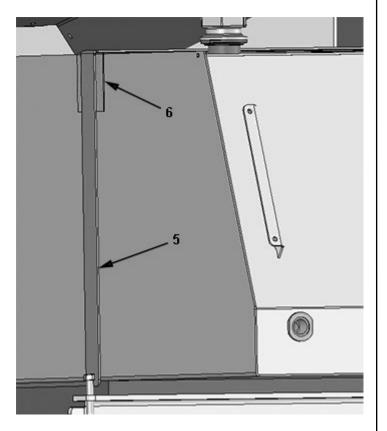


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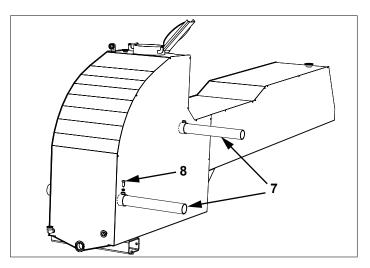
Right-hand tank weighs approximately 800 lbs. Use an appropriate lifting device to prevent injury.

- 6. Install right-hand side tank using steps 3 and 4, balance point is 58" from front of tank.
- 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. Install and tighten two setscrews on back of receiver tube.
- 10. Disconnect lifting devices.

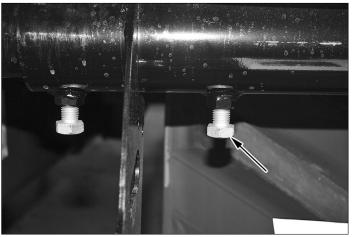
 Install Anti-chaffing patches (5) and tie-down straps (6), using ½" flat washer and center lock nuts. Remove all free movement between tanks and tie-down strap.



- 12. 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.

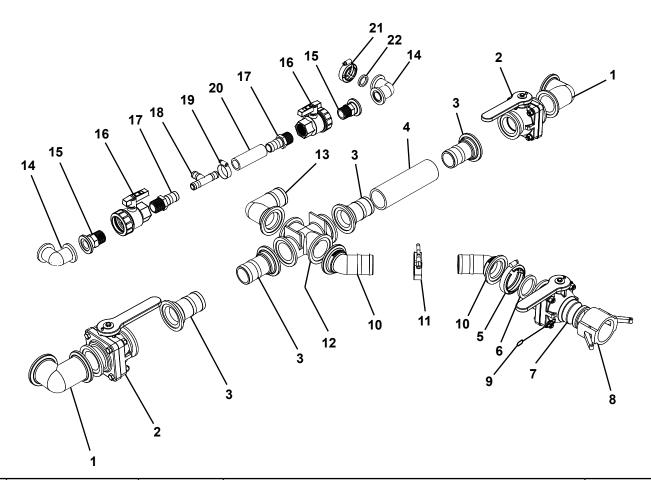


14. Reinstall step assembly and tighten all bolts on step tubes and tank.



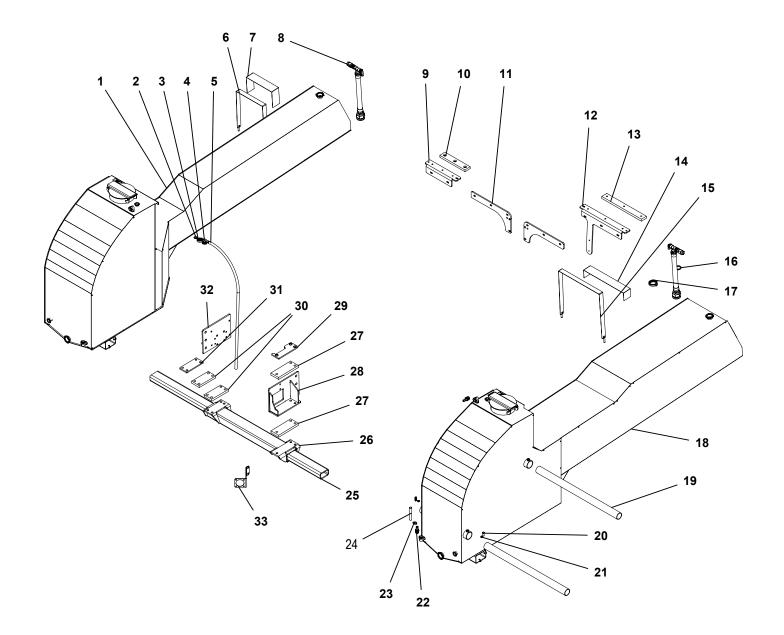
15. Tighten all mounting hardware.

## 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		19680	Tank RH E-Series	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		19618	Strap RH Tank E-Series	1
7		19622	Protector Strap RH Tank E-series	1
8		10220	Riser Assembly W/Check Valve	2
9		19642	Tank Support RH Upper	1
10		19155	Tank Pad RH D-Series	1
11		19641	Rear Tank Support E-series	2
12		19643	Tank Support LH Upper E-series	1
13		19154	Tank Pad LH D-Series	1
14	BJFC220	540002	Clamp 2" Manifold Full Port	2
15	BJM200G	530019	Manifold Gasket 2" Full Port	2
16		19619	Strap LH Tank E-Series	1
17		19623	Protector Strap RH Tank E-Series	1
18		19670	Tank LH E-Series	1
19		5376	Tube Step Support	2
20		852	Setscrew 5/8 x 1-1/2" ZP	16
21		224	Nut Jam 5/8" ZP	10
22	BJHB100075	530043	Hose Barb 1" MPT x 3/4" HB	4
23	BR64012H	540013	Hose Clamp 3/4"	4
24	AP15007008	510006	Hose, Vinyl Clear 3/4" x 68"	2
25		19645	Cross Tube 3 x 5 x 96	1
26		19635	Mount Front Tube	1
27		19698	Rubber Isolater Pad	2
28		19692	Mount Frame LH Side E-Series	1
29		19695	Plate Upper Rubber LH	1
30		5333	Rubber Isolater Pad	2
31		19624	Plate 1/2 x 4-1/2" 4 Holes E-Series	1
32		19630R	Mount Frame RH Side E-Series	1
33		19174	Mount Q-Fill	1

## **Torque Charts**

SAE Torque-Tension Values							
BoltSize	<u>Grade 2</u>		Gra	d e 5	<u>Grade 8</u>		
	Dry Lubricated lb-ft_(N•m) lb-ft_(N•m)		Dr <u>y</u> Ib-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		Class 8.8		<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

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