

Water Delivery System Dual-Auger Grain Cart

Single-Auger Grain Cart

Part No. 295276

Foreword



This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, "Right-Hand" (RH) and "Left-Hand" (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.

IMPORTANT

• The information, specifications, and illustrations in the manual are based on information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.

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Section I Safety

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General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, "the best kind of a safety device is a careful operator." We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.



REMEMBER:

THINK SAFETY A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

SIGNAL WORDS



INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.

A WARNING

INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.



INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

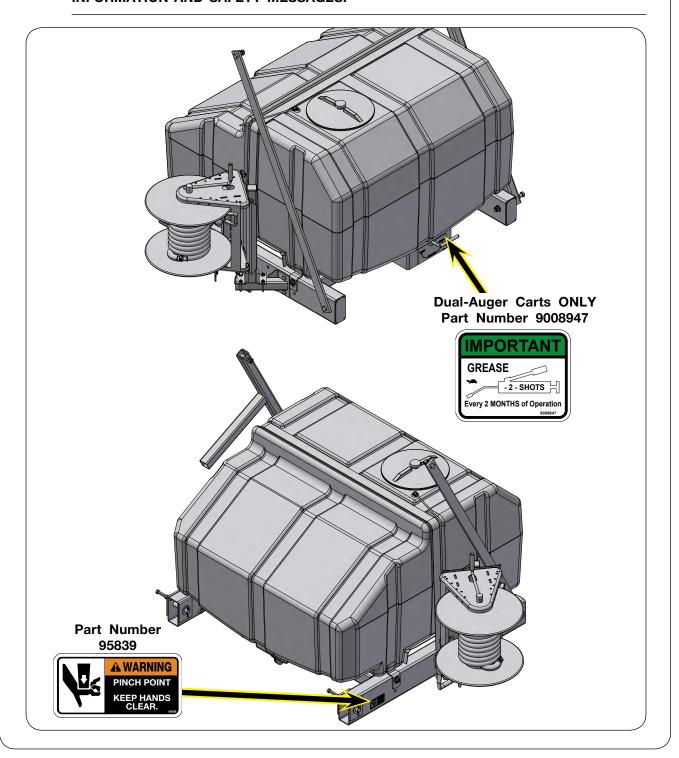
IMPORTANT

Is used for instruction on operating, adjusting, or servicing a machine.

Safety Decals

A WARNING

• REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.



Following Safety Instructions

· Read and understand this operator's manual before operating.



- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- · Always shut tractor engine off and remove key before servicing.



- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.



Before Servicing or Operating

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.
- Verify that all safety shields are in place and properly secured.
- Ensure that all applicable safety decals are installed and legible.

During Operation

- · Regulate speed to working conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Use extreme care when operating close to ditches, fences, or on hillsides.

Before Transporting

 Before transporting, secure the tank with strap(s). Replace damaged or worn strap, and avoid putting strap over rough, sharp surfaces. Use appropriate number and capacity rating of strap(s).

During Transport

- Comply with all laws governing highway safety when moving machinery.
- Regulate speed to road conditions and maintain complete control.
- Maximum transport speed of this implement should never exceed 20 mph as indicated on the machine. Maximum transport speed of any combination of implements must not exceed the lowest specified speed of the implements in combination. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- It is probable that this implement is taller, wider and longer than the towing vehicle.
 Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death.
 Leaks of high-pressure fluids may not be visible. Use cardboard or wood to
 detect leaks in the hydraulic system. Seek medical treatment immediately if
 injured by high-pressure fluids.



- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
 - End fittings damaged, displaced, or leaking.
 - Outer covering chafed/cut or wire reinforcing exposed.
 - Outer covering ballooning locally.
 - Evidence of kinking or crushing of the flexible part of a hose.

Preparing for Emergencies

• Keep a first aid kit and properly rated fire extinguisher nearby.





• Keep emergency numbers for fire, rescue, and poison control personnel near the phone.



Wearing Protective Equipment

 Wear clothing and personal protective equipment appropriate for the job.





Wear steel-toed shoes when operating.



Wear hearing protection when exposed to loud noises.



• Do not wear additional hearing impairing devices such as radio headphones, etc.



Section II Set Up

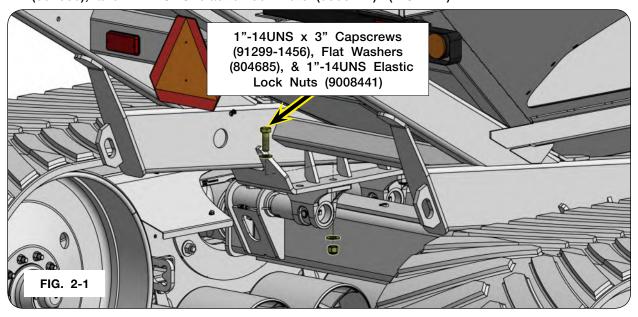
Water	Delivery	System	-	Single-Auge	r Grair	1 Carts 2	2-2
Water	Delivery	System	-	Dual-Auger	Grain	Carts 2	2-8

Water Delivery System Single-Auger Grain Carts

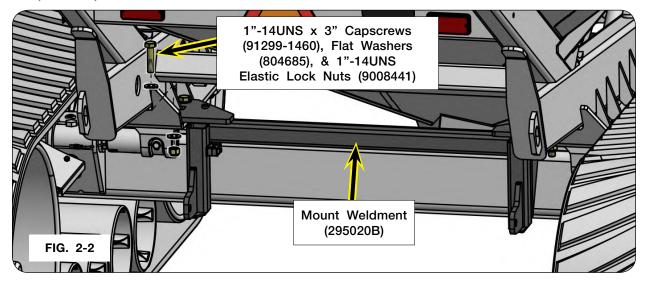
1. Park the empty grain cart on a firm, level surface. Set the tractor's parking brake. Shut-off the engine and remove the ignition key. Block the tires/tracks on the machine to prevent movement.



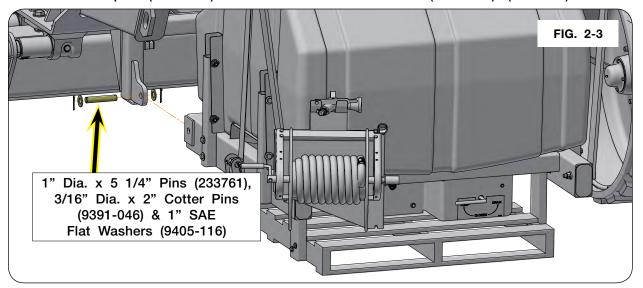
2. Remove the rear, inner 1"-14UNS x 3" Grade 8 capscrews (91299-1456), flat washers (804685), and 1"-14UNS elastic lock nuts (9008441). (FIG. 2-1)



3. Using a safe lifting device rated at a minimum of 150 lbs., lift and support the mount weldment (295020B). Attach the mount weldment (295020B) to the rear of the grain cart with the 1"-14UNS x 4" Grade 8 capscrews (91299-1460), 1" flat washers (804685), and 1"-14UNS elastic lock nuts (9008441). Torque 1"-14UNS hardware to 680-700 ft.-lbs. (FIG. 2-2)

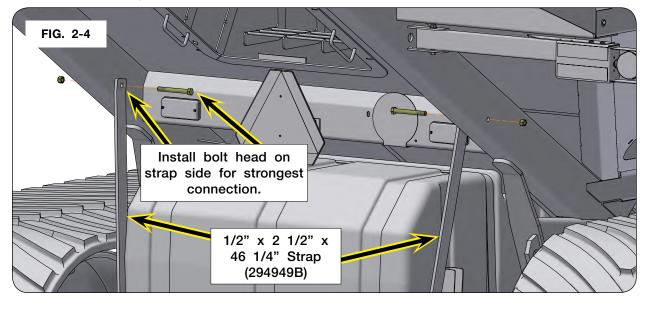


4. Using a safe lifting device rated at a minimum of 750 lbs., lift and support the water tank assembly, on the shipping pallet. Attach the inside of the water tank assembly to the mount weldment (295020B) with two 1" Dia. x 5 1/4" pins (233761), four 3/16" dia. x 2" cotter pins (9391-046) and four 1" SAE flat washers (9405-116). (FIG. 2-3)

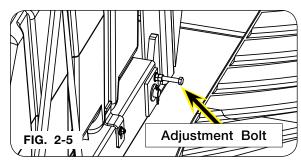


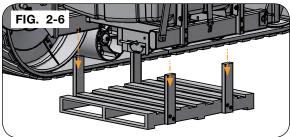
5. Attach the two 1/2" x 2 1/2" x 46 1/4" bars (294949B) to the cart with two 5/8"-11UNC x 5 1/2" Grade 5 capscrews (9390-135) and two 5/8"-11UNC lock nuts (95905) (FIG. 2-4). Torque 5/8"-11UNC hardware to 120-135 ft.-lbs.

<u>NOTE:</u> Best if the bolt shank is in the shear plane and not the bolt thread. Simple install difference makes for a stronger bolt connection. Please install the bolts and nuts so the bolt head is on the strap side.

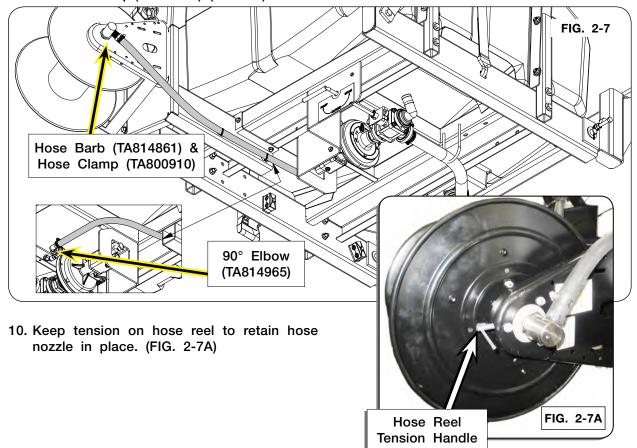


- 6. There are 2 adjustment bolts to tighten. On each adjustment bolt, loosen the hex nut. Tighten 1 adjustment bolt, then the 2nd adjustment bolt. Tighten the 1st hex nut down against the hex nut welded to the frame while holding the 1st adjustment bolt. Tighten the 2nd adjustment bolt and hold. Tighten the 1st hex nut down against the hex nut welded to the frame while holding the 1st adjustment bolt.
- 7. Cut the banding securing the shipping pallet to the tank assembly, lower from the tank assembly and dispose of.





- 8. Route 3/4" Dia. EPDM hose (TA806250) from 90° elbow (TA814965) on the pump (TA825350) over the top of the hose reel (9009310). (FIG. 2-7)
- 9. Secure 3/4" Dia. EPDM hose (TA806250) to hose reel with 3/4"-14MPT x 3/4" hose barb (TA814861) and hose clamp (TA800910). (FIG. 2-7)



A WARNING

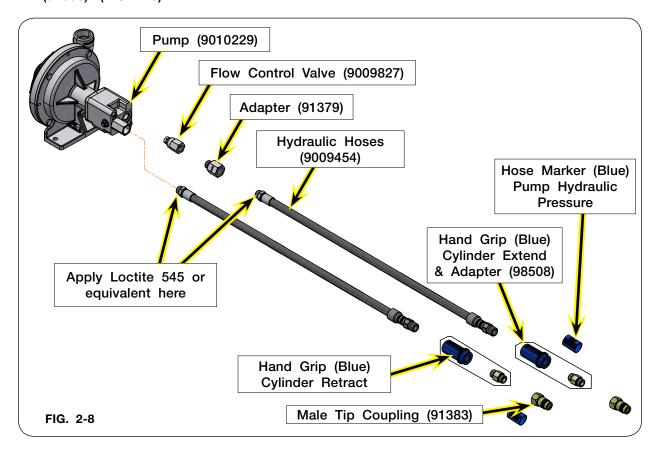
HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.

RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE "RELIEVING HYDRAULIC PRESSURE" IN "MAINTENANCE" SECTION OF THIS MANUAL.

HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.

IMPORTANT

- If tractor has a load sensing closed center hydraulic system, Flow Control Valve 9009827 is required. Do not use on tractors with open center hydraulic system.
- 11. If applicable, attach the flow to the inlet port of pump (9010229) and attach hoses.
- 12. Attach the hand grips with adapters (98508) or hose markers and male tip couplings (91383). (FIG. 2-8)



13. Route and retain hydraulic hoses to the inside of the frame with double hose clamps (9007995). Continue routing the hydraulic hoses along the frame to the tractor.

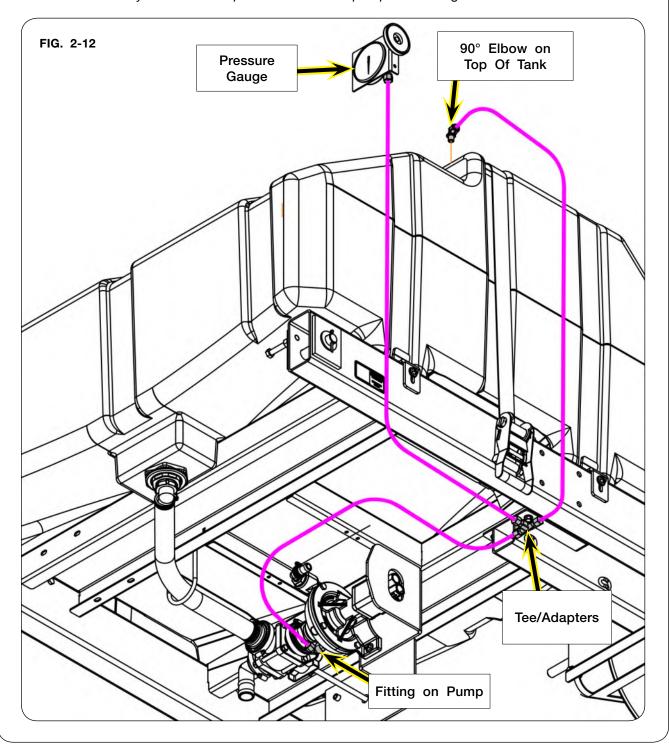






- 14. Attach gauge tubing (TA720620) from pump (9010229) to the tee/adapters (FIG. 2-12).
- 15. Attach the gauge tubing (TA720620) from the 90° elbow (TA720802) on top of the tank to the tee/adapters (FIG. 2-12).
- 16. Attach the gauge tubing (TA720620) from the adapter on the back of the pressure gauge to the tee/adapters (FIG. 2-12).

NOTE: The pressure gauge can be located wherever the hose allows except in the cab. Placing pressurized hydraulic lines inside the cab is not advised. The pressure gauges needs to be viewable by the tractor operator when the pump is running.

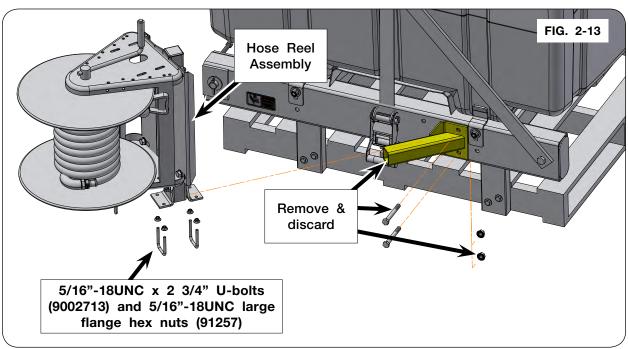


Water Delivery System Dual-Auger Grain Carts

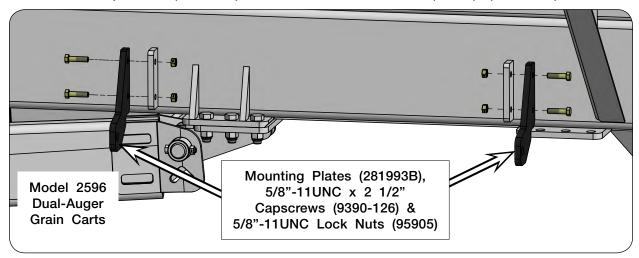
1. Park the empty grain cart on a firm, level surface. Set the tractor's parking brake. Shut-off the engine and remove key. Block the tires/tracks on the machine to prevent movement.



2. Using a safe lifting device rated at a minimum of 100 lbs., support the hose reel assembly. Remove and save the 5/16"-18UNC x 2 3/4" U-bolts (9002713) and 5/16"-18UNC large flange hex nuts (91257). Set hose reel assembly and hardware aside. (FIG. 2-13)



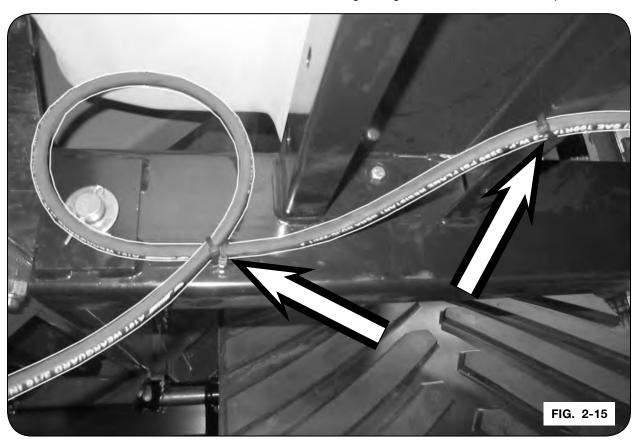
- '3. Remove and discard the yellow tube mount weldment and hardware. (FIG. 2-13)
- Dual-Auger 2500 Bushel Grain Carts ONLY
 Attach mounting plates (281993B) to the left-hand side of the cart with four 5/8"-11UNC x 2 1/2" capscrews (9390-126) and 5/8"-11UNC lock nuts (95905). (FIG. 2-14)



5. Dual-Auger 2500/3200 Bushel Grain Carts ONLY. Remove cable ties (9000106) from frame and tank assembly. (FIG. 2-15)

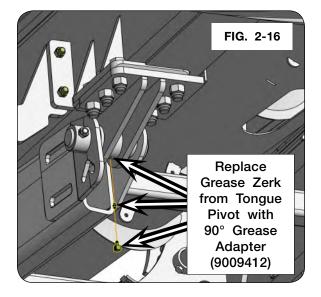
IMPORTANT

• 2500+ bushel grain cart tongues are in transport position from the factory. Ensure cable ties are removed from the frame and tank assembly before repositioning tongue to operation position. Failure to remove cable ties will cause damage to grease hose and 90° adapter.

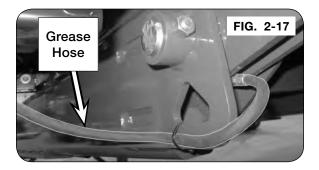


6. Replace the grease zerk on the left tongue pivot with the 90° grease adapter (9009412). (FIG. 2-16)

NOTE: Add straight adapter (9005198) for units produced after Serial number B44650100



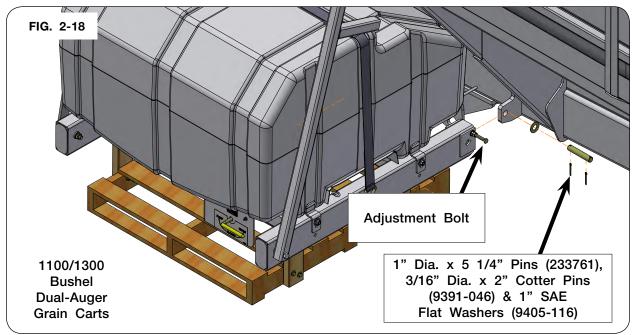
7. Attach the grease hose (9008964 - 1100/ 1300/1600/2000 bushel carts; 9009455 - 2500/3200 bushel carts) to the 90° grease adapter (9009412).

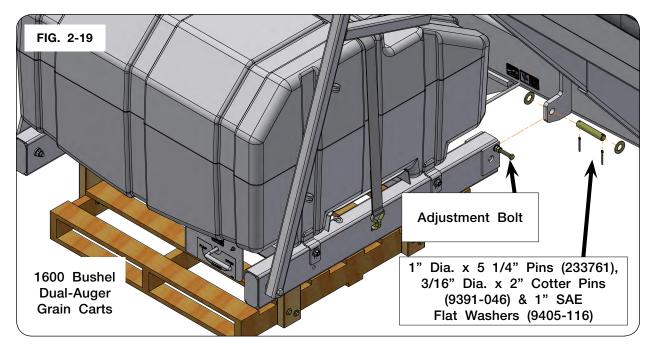


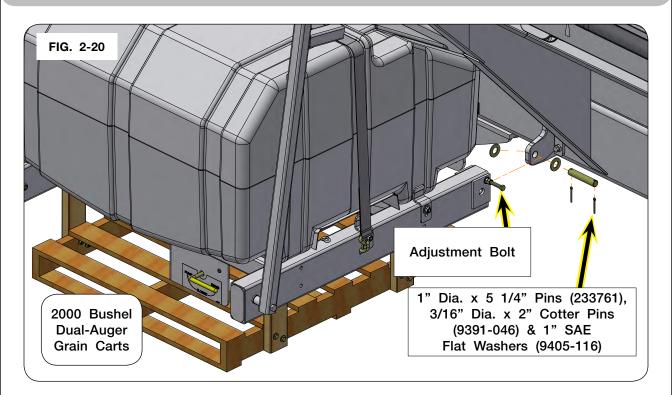
<u>NOTE</u>: Grease hose will be connected to adapter on the frame and tank assembly after the tank has been attached to the cart.

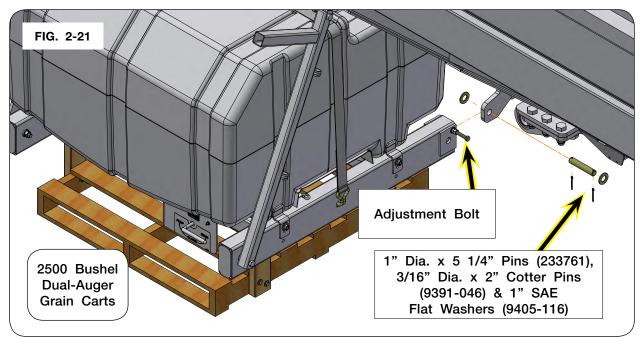
8. Using a safe lifting device rated at a minimum of 750 lbs., lift and support the water tank assembly on the shipping pallet. Attach the water tank assembly to the left-hand side of the cart with two 1" Dia. x 5 1/4" pins (233761), four 3/16" dia. x 2" cotter pins (9391-046) and four 1" SAE flat washers (9405-116). (FIG. 2-18, 2-19 on this page and 2-20, 2-21 on the next page).

<u>NOTE:</u> Best if the bolt shank is in the shear plane and not the bolt thread. Simple install difference makes for a stronger bolt connection. Please install the bolts and nuts so the bolt head is on the strap side.







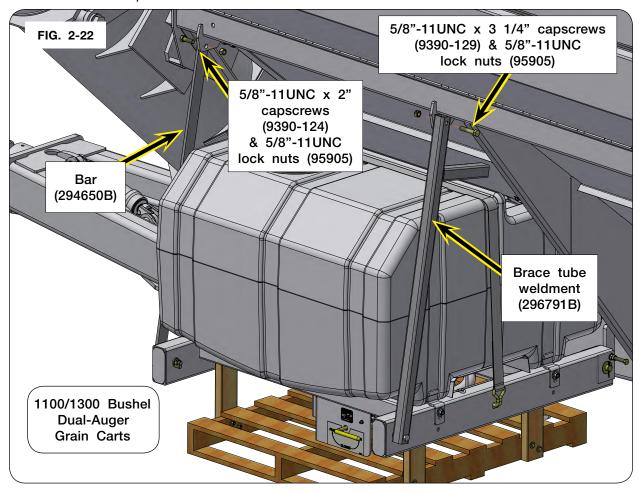


9. There are 2 adjustment bolts to tighten. On each adjustment bolt, loosen the hex nut. Tighten 1 adjustment bolt, then the 2nd adjustment bolt. Again, tighten the 1st adjustment bolt and hold. Tighten the 1st hex nut down against the hex nut welded to the frame while holding the 1st adjustment bolt. Tighten the 2nd adjustment bolt and hold. Tighten the 1st hex nut down against the hex nut welded to the frame while holding the 1st adjustment bolt. (FIG. 2-18, 2-19, 2-20, 2-21)

10. Dual-Auger 1100/1300 Bushel Grain Carts ONLY

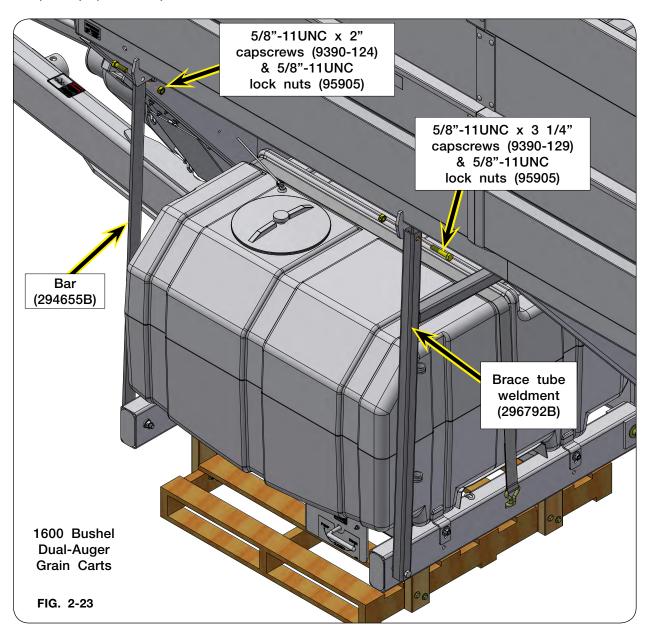
Attach the front, outside of the water tank assembly to the grain cart with bar (294650B), 5/8"-11UNC x 2" Grade 5 capscrew (9390-124), and 5/8"-11UNC lock nuts (95905). Attach the rear, outside of the water tank assembly to the grain cart with brace tube weldment (296791B), 5/8"-11UNC x 3 1/4" Grade 5 capscrew (9390-129), and 5/8"-11UNC lock nuts (95905). (FIG. 2-22)

<u>NOTE:</u> Best if the bolt shank is in the shear plane and not the bolt thread. Simple install difference makes for a stronger bolt connection. Please install the bolts and nuts so the bolt head is on the strap side.



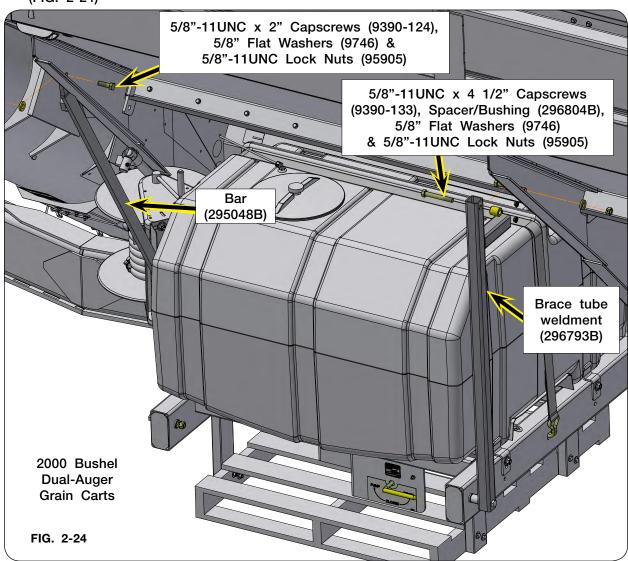
10. Dual-Auger 1600 Bushel Grain Carts ONLY

Attach the front, outside of the water tank assembly to the grain cart with bar (294655B), 5/8"-11UNC x 2" Grade 5 capscrew (9390-124), and 5/8"-11UNC lock nut (95905). Attach the rear, outside of the water tank assembly to the grain cart with brace tube weldment (296792B), 5/8"-11UNC x 3 1/4" Grade 5 capscrew (9390-129), and 5/8"-11UNC lock nuts (95905). (FIG. 2-23)



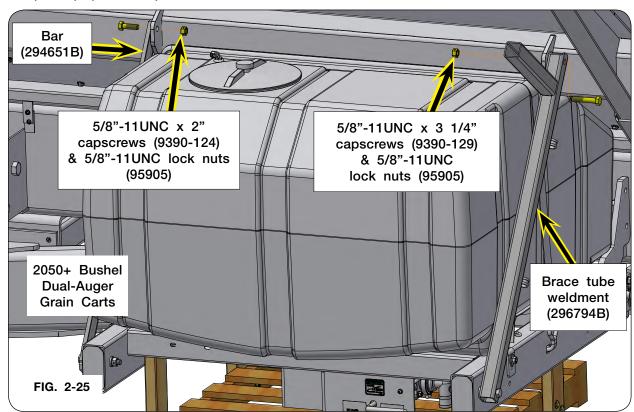
10. Dual-Auger 2000 Bushel Grain Carts ONLY

Attach the front, outside of the water tank assembly to the grain cart with bar (295048B), 5/8"-11UNC x 2" Grade 5 capscrew (9390-124), 5/8" flat washer (9746), and 5/8"-11UNC lock nut (95905). Attach the rear, outside of the water tank assembly to the grain cart with brace tube weldment (296793B), 5/8"-11UNC x 4 1/2" Grade 5 capscrew (9390-133), spacer/bushing (296804B), 5/8" flat washer (9746), and 5/8"-11UNC lock nut (95905). (FIG. 2-24)

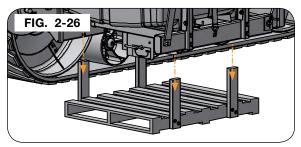


10. Dual-Auger 2500 and 3200 Bushel Grain Carts ONLY

Attach the front, outside of the water tank assembly to the grain cart with bar (294651B), 5/8"-11UNC x 2" Grade 5 capscrew (9390-124), and 5/8"-11UNC lock nut (95905). Attach the rear, outside of the water tank assembly to the grain cart with brace tube weldment (296794B), 5/8"-11UNC x 3 1/4" Grade 5 capscrew (9390-129), and 5/8"-11UNC lock nuts (95905). (FIG. 2-25)



- 11. Cut the banding securing the shipping pallet to the tank assembly, lower from the tank assembly and dispose of. (FIG. 2-26)
- 12. Using a safe lifting device rated at a minimum of 100 lbs., attach hose reel assembly to the brace tube weldment with two 5/16"-18UNC x 2 3/4" U-bolts (9002713) and four 5/16"-18UNC large flange hex nuts (91257). (FIG. 2-27)



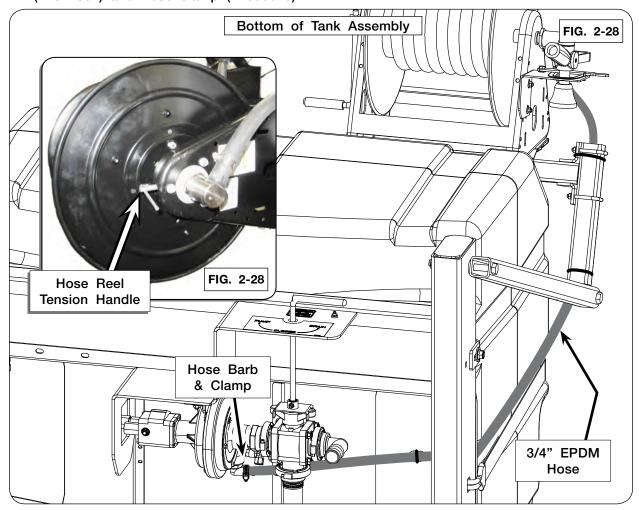
NOTE: Use the chart below for the correct hose reel placement and orientation.

А	UM 1120, 1320 Parker 1154, 1354 Brent 1196, 1396, 1198, 1398	С	UM 2020 Parker 2054 Brent 2096, 2098
В	UM 1620 Parker 1654 Brent 1596, 1598	D	UM 2520 Brent 2596, 2598, 3298

E | Brent V1300, V1500

Water Delivery System Dual-Auger Grain Carts (continued) (A) **B (c)** \bigcirc Hose reel assembly 5/16" U-bolts (9002713) & E flange nuts (991257) FIG. 2-27

- 13. Route 3/4" Dia. EPDM hose (TA806250) from the pump (9010229) along the bottom of the hose reel (9009310). (FIG. 2-28)
- 14. Secure 3/4" Dia. EPDM hose (TA806250) to hose reel with 3/4"-14MPT x 3/4" hose barb (TA814861) and hose clamp (TA800910).



15. Keep tension on hose reel to retain hose nozzle in place. (FIG. 2-28)

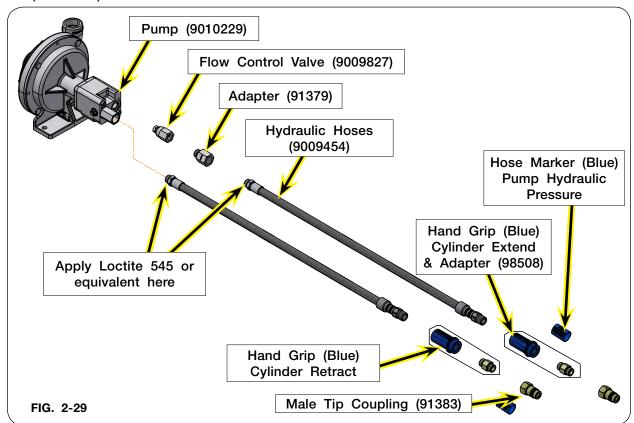
A WARNING

HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.

RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE "RELIEVING HYDRAULIC PRESSURE" IN "MAINTENANCE" SECTION OF THIS MANUAL.

IMPORTANT

- If tractor has a load sensing closed center hydraulic system, flow limiter/velocity fuse (TA827039) is required. Do not use on tractors with open center hydraulic system.
- 16. If applicable, attach the Flow Control Valve (9009827) to the inlet port of pump (9010229). (FIG. 2-29)



17. Attach the hydraulic hoses to the pump (TA825350). (FIG. 2-29)

Model	Part Number	Description	
Brent Models: 1196, 1198, 1396, 1398, 1596, 1598			
Unverferth Models: 1120, 1320, 1620	9009413	9413 Hydraulic Hose, 3/8" x 268" 3000 PSI	
Killbros Models: 1113, 1313, 1613	9009413		
Parker Models: 1154, 1354, 1654, 2054			
Brent Model: 2096, 2098	0000452 Hydraulia Haga 2/0" v 270" 2000 D	Hydraulia Hago 2/0" v 270" 2000 DCI	
Unverferth Model: 2020, 2520	9009452	Hydraulic Hose, 3/8" x 278" 3000 PSI	
Brent Model: 2596, 2598, 3298	9009457	Hydraulic Hose, 3/8" x 310" 3000 PSI	

18. Attach hand grips with adapters (98508) or hose markers and male tip couplings (91383). (FIG. 2-29)

19. Route and retain hydraulic hoses to the inside of the frame with double hose clamps (9007995). Continue routing the hydraulic hoses to the tractor. (FIG. 2-30)





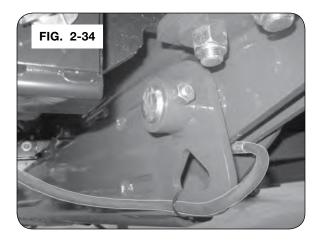


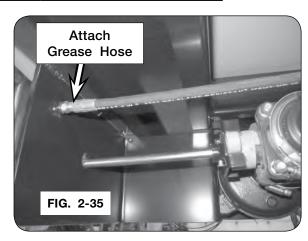


IMPORTANT

- 2500 bushel grain cart tongue is in transport position from the factory. Ensure cable ties are removed from the frame and tank assembly before repositioning tongue to operation position. Failure to remove cable ties will cause damage to grease hose and 90° adapter.
- 20. Route grease hose to the grease zerk adapter.

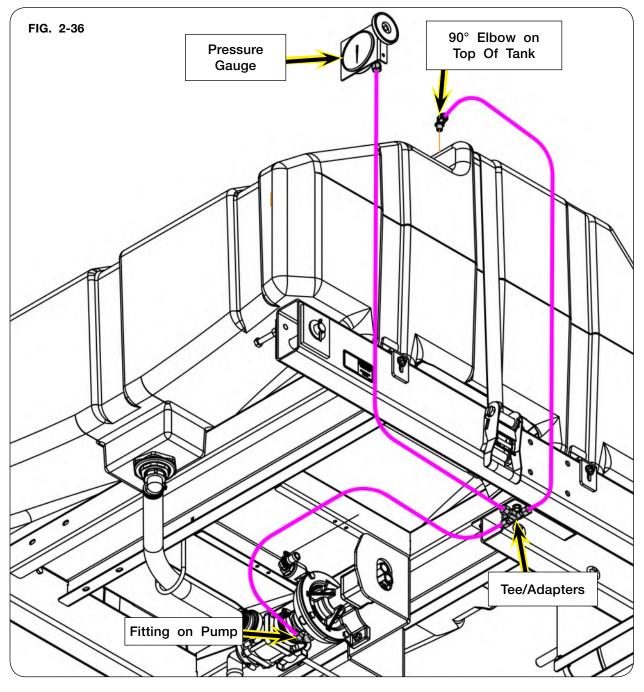
Bushel Grain Cart	Part Number	Description
1100/1300/1500/1600/2000	9008964	Grease Hose 3/16" x 70"
2500/3200	9009455	Grease Hose 3/16" x 88"





- 21. Attach gauge tubing (TA720620) from the pump (9010229), to the tee/adapters (TA809190), to the 90° elbow (TA720802) on top of the tank to the tee/adapters (FIG. 2-36).
- 22. Attach the gauge tubing (TA720620) from the adapter on the back of the pressure gauge to the tee/adapters (TA809190) (FIG. 2-36).

NOTE: The pressure gauge can be located wherever the hose allows except in the cab. Placing pressurized hydraulic lines inside the cab is not advised. The pressure gauges needs to be viewable by the tractor operator when the pump is running.



Section III Operation

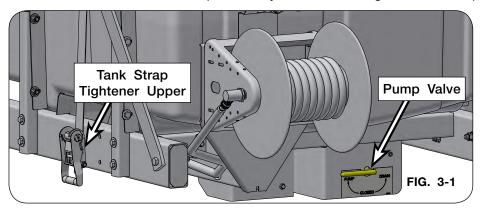
Water	Delivery	Operating	Procedure	3-9)
water	Delivery	operating	Procedure	ა-∠	<u>-</u>

Water Delivery Operating Procedure

IMPORTANT

- Do not allow pump to run dry. Pump damage will result.
- R.V. antifreeze needs to be completely flushed from the system, properly disposed of and the system should only contain water before placing the system in service.
- This system is for non-potable water only.
- 1. Park the grain cart on a firm, level surface. Set the tractor's parking brake. Block the tires/tracks on the machine to prevent movement.
- 2. Fill the water tank with the desired amount of water.

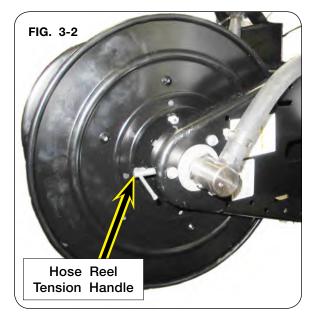
NOTE: After tank is filled with water, and periodically thereafter, retighten tank strap.



- 3. Set the PUMP/DRAIN valve to pump. (FIG. 3-1)
- 4. Ensure hydraulic hoses for the pump are connected into SCV correctly. Start the tractor, set the engine to low idle, and engage the remote in the lower retract position in order to disengage in float.
- 5. With tractor at low idle and hydraulic flow setting on tractor to 25%-30% or 2-3 on John Deere tractors, turn on hydraulic pump and slowly increase hydraulic flow to get 40-60 PSI on pressure gauge (9007569).
- <u>NOTE:</u> The hydraulic pump only needs to deliver 4 to 5 GPM of hydraulic oil from the tractor. If delivery is more than 5 GPM, the motor will shut off. Follow steps 4 and 5 to reset the velocity fuse. Otherwise, continue to step 6.
- 6. If the hydraulic pump motor has shut off, place the tractor SCV in float and turn down the flow on the SCV.
- 7. Turn on the SCV and engage the hydraulics.

Water Delivery Operating Procedure (continued)

- 8. Loosen hose reel tension handle. (FIG. 3-2)
- 9. Remove water hose nozzle from holder and pull out desired amount of hose. (FIG. 3-3)
- 10. Pull lever on nozzle to spray water.
- <u>NOTE:</u> Twist the front of the nozzle to adjust the spray pattern.
- 11. Push lever to stop the water.
- 12. When finished using the nozzle, turn off hydraulic pump and wind the hose to the reel.
- <u>NOTE:</u> To stop the pump, it is recommended to place the tractor SCV in float and turn down the flow on the SCV to eliminate hydraulic pressure spikes to the pump.
- 13. Place nozzle into nozzle holder. (FIG. 3-2)
- NOTE: When nozzle is not in use, secure the nozzle to the nozzle holder. Tighten the hose reel tension handle to keep the spray nozzle in the holder. (FIG. 3-3)
- <u>NOTE</u>: Empty water tank before unhitching cart from tractor.





Water Delivery System — Operation

Notes

Section IV Maintenance

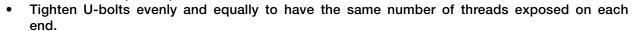
Complete Torque Chart	
Grade 5	4-2
Grade 8	4-3
Hydraulic Fittings - Torque and Installation	4-4
Winterizing Water Delivery Plumbing	4-6

Complete Torque Chart

Capscrews - Grade 5

NOTE:

- Grade 5 capscrews can be identified by three radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.



SIZE	FOOT POUNDS	NEWTON METERS
1/4-20	8-10	11-13
1/4-28	9-11	12-15
5/16-18	15-17	20-23
5/16-24	17-19	23-26
3/8-16	25-28	34-38
3/8-24	28-31	38-42
7/16-14	40-45	54-61
7/16-20	45-50	61-68
1/2-13	62-68	84-92
1/2-20	68-75	92-102
9/16-12	90-98	122-133
9/16-18	100-110	134-148
5/8-11	120-135	162-183
5/8-18	124-137	168-186
3/4-10	200-220	270-300
3/4-16	210-230	285-310
7/8-9	330-350	425-475
7/8-14	360-380	460-515
1-8	500-525	675-710
1-14	540-560	730-760
1 1/8-7	600-635	815-860
1 1/8-12	665-700	920-950
1 1/4-7	850-895	1150-1215
1 1/4-12	940-990	1275-1340
1 3/8-6	1125-1175	1525-1590
1 3/8-12	1280-1335	1735-1810
1 1/2-6	1500-1560	2035-2115
1 1/2-12	1685-1755	2285-2380

IMPORTANT

• Follow these torque recommendations except when specified in text.



Complete Torque Chart

Capscrews - Grade 8

NOTE:

- Grade 8 capscrews can be identified by six radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS
5/16-18	20-22	27-30
5/16-24	21-23	28-31
3/8-16	35-39	47-53
3/8-24	36-41	49-55
7/16-14	54-58	73-78
7/16-20	55-60	75-80
1/2-13	82-88	110-120
1/2-20	94-99	125-135
9/16-12	127-134	170-180
9/16-18	147-155	199-210
5/8-11	160-170	215-230
5/8-18	165-175	225-235
3/4-10	280-295	380-400
3/4-16	330-365	445-495
7/8-9	410-430	555-580
7/8-14	420-440	570-595
1-8	630-650	850-880
1-14	680-700	920-950
1 1/8-7	900-930	1220-1260
1 1/8-12	930-950	1260-1290
1 1/4-7	1250-1300	1695-1760
1 1/4-12	1280-1320	1735-1790

IMPORTANT

• Follow these torque recommendations except when specified in text.



Hydraulic Fittings

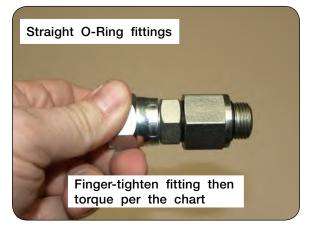
Tightening O-Ring Fittings

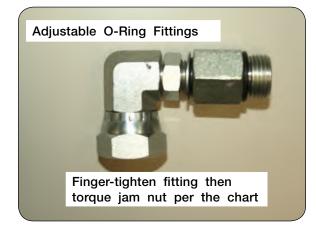
- 1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
- 2. For adjustable fittings, insure the jam nut and washer are fully backed up.
- 3. Lubricate the O-ring and threads on the fitting.
- 4. Turn the fitting into the port until it is finger tight.
- 5. For adjustable fittings, set in the desired position.
- 6. Using a wrench, torque the fitting to the value in the below table. For adjustable fittings the jam nut will be tightened.

Note: Never use a power tool to install a fitting.

Dash Size	Thread Size	Straight Stud Torque (Ft- Lbs)	Adjustable Stud Torque (Ft-Lbs)
-5	1/2-20	14-19	10-14
-6	9/16-18	18-24	12-16
-8	3/4-16	27-43	20-30
-10	7/8-14	36-48	30-36
-12	1-1/16-12	65-75	44-54
-14	1-3/16-12	75-99	53-70
-16	1-5/16-12	85-123	59-80
-20	1-5/8"-12	115-161	75-100
-24	1-7/8"-12	125-170	105-125







Hydraulic Fittings

Tightening O-Ring Fittings

- Inspect all components for damage or contamination. Do not connect any other type of fitting to a JIC fitting.
- 2. Lubricate the threads.
- 3. Turn the fitting into the port until it bottoms out.
- Use one wrench on the fixed hex on the hose to prevent twisting and a second on the swivel. Tighten the fitting another 60 degrees (or one flat).

Note: Never use a power tool to install a fitting.





Winterizing Water Delivery Plumbing

IMPORTANT

- Do not allow pump to run dry. Pump damage will result.
- R.V. antifreeze needs to be completely flushed from the system, properly disposed of and the system only contain water before placing the system in service.
- This system is for non-potable water only.

Before storing the water delivery system in freezing climates, perform the following winterizing procedure:

- 1. Park the grain cart on a firm, level surface. Set the tractor's parking brake. Block the tires/tracks on the machine to prevent movement.
- 2. Perform a complete system rinse by washing the water tank thoroughly inside and out, using a high-pressure washer if necessary.
- 3. Remove as much water from water tank and hoses as possible. Open the water hose nozzle, open the drain valve and let system drain out. Close the water hose nozzle and drain valve when finished.
- 4. Pour approximately 10 gallons of R.V. antifreeze into the water tank and flush through the system before placing into storage.
- 5. Ensure hydraulic pump hoses are connected into SCV correctly. Start the tractor and set the engine to low idle. Engage the remote in the lower retract position in order to disengage in float.
- 6. With tractor at low idle and hydraulic flow setting on tractor to 25%-30% or 2-3 on John Deere tractors, turn on hydraulic pump and slowly increase hydraulic flow to get 75-80 PSI on pressure gauge (9007569).

<u>NOTE:</u> The hydraulic pump only needs to deliver 4 to 5 GPM of hydraulic oil from the tractor. If delivery is more than 5 GPM, the motor will shut off. Follow steps 4 and 5 to reset the velocity fuse. Otherwise, continue to step 6 on next page.

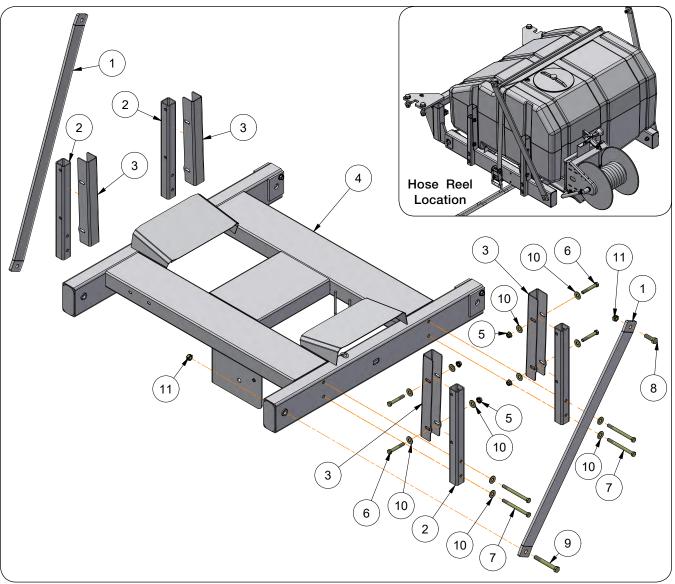
- 7. If the hydraulic pump motor has shut off, place the tractor SCV in float and turn down the flow on the SCV.
- 8. Turn on the SCV and engage the hydraulics.

<u>NOTE:</u> Completely flush and properly dispose of the R.V. antifreeze and the system only contain water before placing the system in service.

Section V Parts

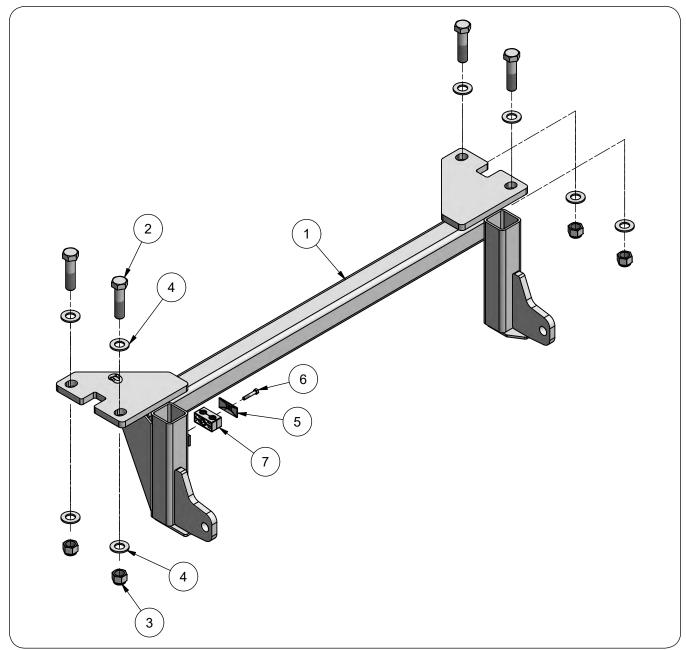
Frame, Mounting Brackets and Tank Stops - Single-Auger Grain Carts	5-2
Additional Frame Mounting Components - Single-Auger Grain Carts	5-3
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Frame and Tank Assembly Components	
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Frame and Tank Assembly Components	
Serial Number B44650100 & Up	5-14
Hose Reel Components - Low Mount	
Hose Reel Components - High Mount	

Frame, Mounting Brackets and Tank Stops Single-Auger Grain Carts



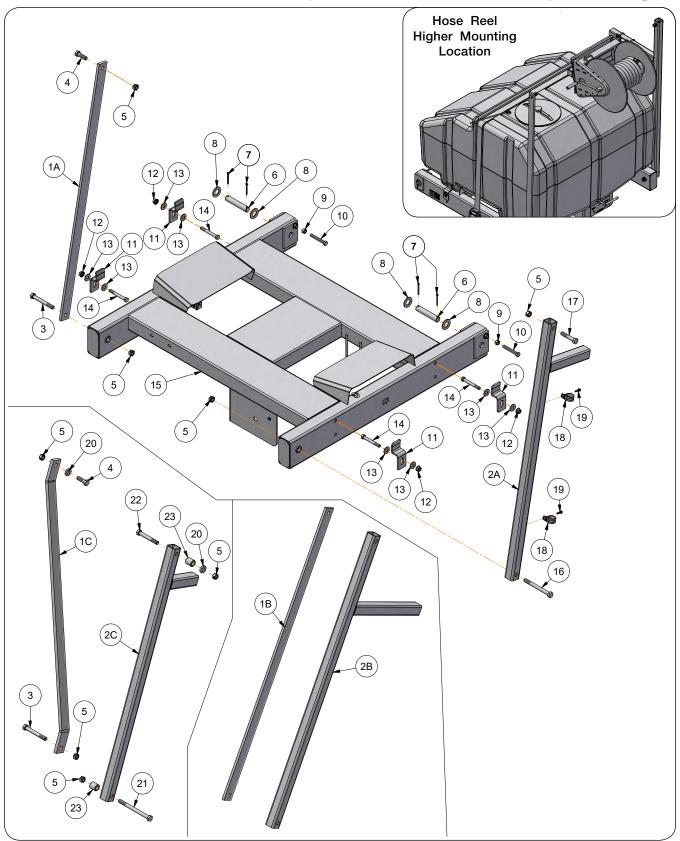
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	294949B	Brace/Bar =Black=	2	
2	295987B	Stop/Tube =Black=	4	
3	296022B	Stop Bracket =Black=	4	
4	296166B	Water Delivery Frame Weldment =Black=	1	
5	91267	Flange Nut, 1/2"-13UNC	20	
6	9390-108	Capscrew, 1/2"-13UNC x 3 1/4" G5	8	
7	9390-115	Capscrew, 1/2"-13UNC x 6" G5	8	
8	9390-135	Capscrew, 5/8"-11UNC x 5 1/2" G5	2	
9	9390-134	Capscrew, 5/8"-11UNC x 5" G5	2	
10	9405-088	Flat Washer, 1/2" USS	24	
11	95905	Lock Nut/Center, 5/8"-11UNC	4	

Additional Frame Mounting Components Single-Auger Grain Carts



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	295020B	Single-Auger Mount Weldment =Black=	1	
2	91299-1460	Capscrew, 1"-14UNS x 4" G8	4	
3	9008441	Elastic Lock Nut, 1"-14UNS	4	
4	804685	Flat Washer	8	
5	9004857	Top Plate Hose Clamp	1	
6	9390-033	Capscrew, 5/16"-18UNC x 1 3/4" G5	1	
7	9007995	Clamp Double Hose, 0.75" Dia.	1	

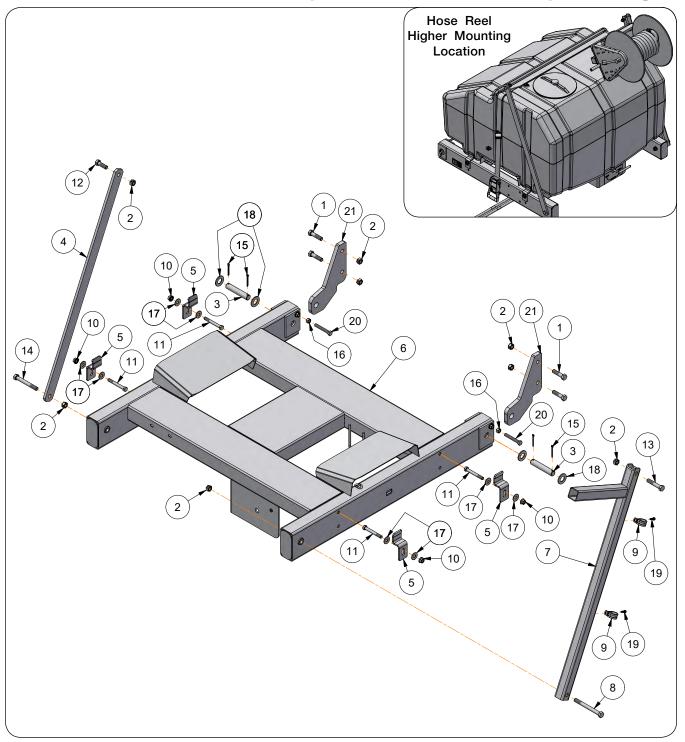
Frame, Mounting Brackets and Tank Stops **Dual-Auger Grain Carts** — Up To 2000 Bushels



Frame, Mounting Brackets and Tank Stops **Dual-Auger Grain Carts** — Up To 2000 Bushels

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
				Brent Models: 1196, 1198, 1396, 1398
1 1	00.46E0D	Drago/Dor Blook	1	Unverferth Models: 1120, 1320
1A	294650B	Brace/Bar =Black=	'	Killbros Models: 1113, 1313
				Parker Models: 1154, 1354
				Brent Model: 1596, 1598
1B	2046550	 Brace/Bar =Black=	,	Unverferth Model: 1620
'	294655B	DIACE/DAI =DIACK=	1	Killbros Model: 1613
				Parker Model: 1654
1C	295048B	Brace/Bar =Black=	1	Brent Model: 2096, 2098
10	2930400	Diace/Dai —Diack—	<u> </u>	Unverferth Model: 2020
				Brent Models: 1196, 1198, 1396, 1398
2A	296791B	Brace Tube Weldment =Black=	1	Unverferth Models: 1120, 1320
	2307315	Brace rube Weldment - Black-	'	Killbros Models: 1113, 1313
				Parker Models: 1154, 1354
				Brent Model: 1596, 1598
2B	296792B	Brace Tube Weldment =Black=	1	Unverferth Model: 1620
20	2307325	Brace rube Weldment -Black-	'	Killbros Model: 1613
				Parker Model: 1654, 2054
2C	296793B	Brace Tube Weldment =Black=		Brent Model: 2096, 2098
	2307330			Unverferth Model: 2020
3	9390-134	Capscrew, 5/8"-11UNC x 5" G5	1	
4	9390-124	Capscrew, 5/8"-11UNC x 2" G5	1	
5	95905	Lock Nut/Center, 5/8"-11UNC	4	
6	233761	Pin, 1" Dia. x 5 1/4"	2	
7	9391-046	Cotter Pin, 3/16" Dia. x 2"	4	
8	9405-116	Flat Washer, 1" SAE	4	
9	9394-010	Hex Nut, 1/2"-13UNC	2	
10	95590	Capscrew, 1/2"-13UNC x 3 1/2" Full Threaded	2	
11	295646B	Stop Plate =Black=	4	
12	91267	Flange Nut, 1/2"-13UNC	10	
13	9405-088	Flat Washer, 1/2" USS	12	
14	9390-111	Capscrew, 1/2"-13UNC x 4" G5	6	
15	296166B	Water Delivery Frame Weldment =Black=	1	
16	9007387	Capscrew, 5/8"-11UNC x 6 1/4" G5	1	
17	9390-129	Capscrew, 5/8"-11UNC x 3 1/4" G5	1	
18	9008246	Plated Steel Clamp w/EPDM Cushion	2	
19	9512	Screw/Self Drill, 1/4-14 x 1"	2	D + M + + 0000 0000
20	9746	Flat Washer, 5/8"	2	Brent Model: 2096, 2098
			-	Unverferth Model: 2020
21	9390-139	Capscrew, 5/8"-11UNC x 7 1/2" G5	1	Brent Model: 2096, 2098
			-	Unverferth Model: 2020
22	9390-133	Capscrew, 5/8"-11UNC x 4 1/2" G5	1	Brent Model: 2096, 2098
			-	Unverferth Model: 2020
23 2968	296804B	296804B Spacer/Bushing	2	Brent Model: 2096, 2098
				Unverferth Model: 2020

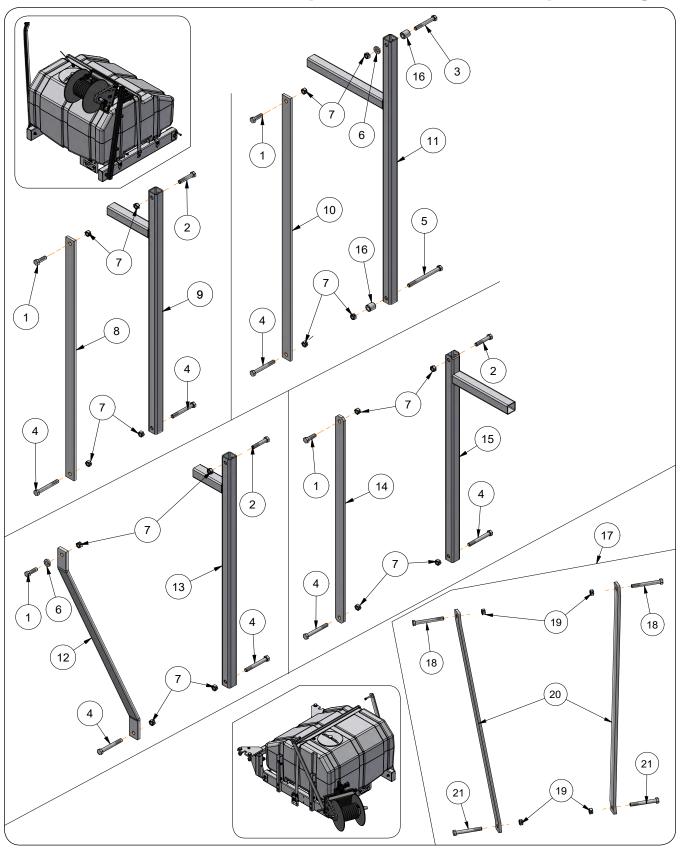
Frame, Mounting Brackets and Tank Stops **Dual-Auger Grain Carts** — 2500 & 3200 Bushels



Frame, Mounting Brackets and Tank Stops **Dual-Auger Grain Carts** — 2500 & 3200 Bushels

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9390-126	Capscrew, 5/8"-11UNC x 2 1/2" G5	4	
2	95905	Lock Nut/Center, 5/8"-11UNC	4	
3	233761	Pin, 1" Dia. x 5 1/4"	2	
4	294651B	Brace/Bar =Black=	1	
5	295646B	Stop Plate =Black=	4	
6	296166B	Water Delivery Frame Weldment =Black=	1	
7	296794B	Brace Tube Weldment =Black=	1	
8	9007387	Capscrew, 5/8"-11UNC x 6 1/4" G5	1	
9	9008246	Plated Steel Clamp w/EPDM Cushion	3	
10	91267	Flange Nut, 1/2"-13UNC	10	
11	9390-111	Capscrew, 1/2"-13UNC x 4" G5	6	
12	9390-124	Capscrew, 5/8"-11UNC x 2" G5	1	
13	9390-129	Capscrew, 5/8"-11UNC x 3 1/4" G5	1	
14	9390-134	Capscrew, 5/8"-11UNC x 5" G5	1	
15	9391-046	Cotter Pin, 3/16" Dia. x 2"	4	
16	9394-010	Hex Nut, 1/2"-13UNC	2	
17	9405-088	Flat Washer, 1/2" USS	12	
18	9405-116	Flat Washer, 1" SAE	4	
19	9512	Screw/Self Drill, 1/4-14 x 1"	2	
20	95590	Capscrew, 1/2"-13UNC x 3 1/2" Full Threaded G5	2	
21	281993B	Mounting Plate =Black=	2	

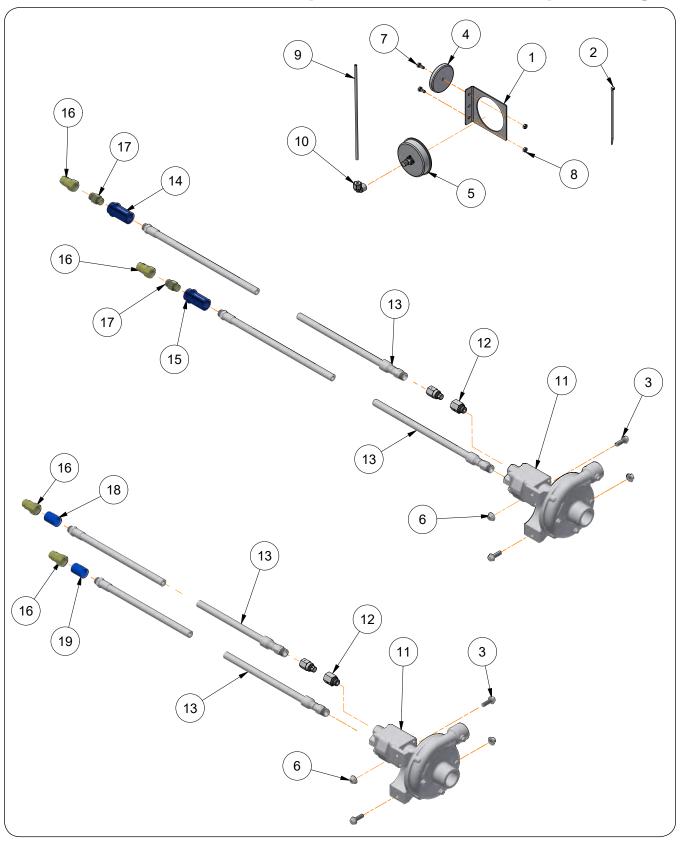
Mounting Brackets



Mounting Brackets

ITEM	PART NO.	DESCRIPTION	QTY	Y NOTES	
		Hose	Reel	High Mount	
1	9390-124	Capscrew 5/8"X2" UNC GR5	1	All Models	
2	9390-129	Capscrew 5/8"X3 1/4" UNC GR5	1	UM 2020 Parker 2054 Brent 2096, 2098	
3	9390-133	Capscrew 5/8"X4 1/2" UNC GR5	1	UM 1120, 1320, 2020, 2096, 2098 Parker 1154, 1354, 2054 Brent 1196, 1396, 1198, 1398, 2596, 2598, 3298	
4	9390-134	Capscrew 5/8"X5" UNC GR5	2	UM 1120, 1320, 2020, 2096, 2098 Parker 1154, 1354, 2054 Brent 1196, 1396, 1198, 1398, 2596, 2598, 3298	
4	9390-134	Capscrew 5/8"X5" UNC GR5	1	UM 1620 Parker 1654 Brent 1596, 1598	
5	9390-139	Capscrew 5/8"X7 1/2" UNC GR5	1	UM 2020 Parker 2054 Brent 2096, 2098	
6	9746	Flatwasher	1	UM 1620, 2020 Parker 1654, 2054 Brent 1596, 1598, 2096, 2098	
7	95905	Locknut/Cntr 5/8"-11UNC	4	All Models	
8	294650B	Bar - Strap, Tank		UM 1120, 1320	
9	296791B	Weldment-Brace Tube	1	Parker 1154, 1354 Brent 1196, 1396, 1198, 1398	
10	294655B	Bar - Strap, Tank	[UM 1620	
11	296792B	Weldment-Brace Tube	1	Parker 1654 Brent 1596, 1598	
12	295048B	Bar - Strap, Tank		UM 2020	
13	296793B	Weldment-Brace Tube	1	Parker 2054 Brent 2096, 2098	
14	294651B	Bar - Tank, Strap	1	UM 2520	
15	296794B	Weldment-Tank Mount	<u> </u>	Brent 2596, 2598, 3298	
16	296804	Bushing - Spacer	2	UM 2020 Parker 2054 Brent 2096, 2098	
17		Hose I	Reel I	Lower Mount	
18	9390-135	Capscrew 5/8"X5 1/2" UNC GR5	2		
19	96905	Locknut/Cntr 5/8"-11UNC	4	Brent V-Series V1300, V1500	
20	294949B	Bar - Brace	2	DIGHT V-361168 V1300, V1300	
21	9390-134	Capscrew 5/8"X5" UNC GR5	2		

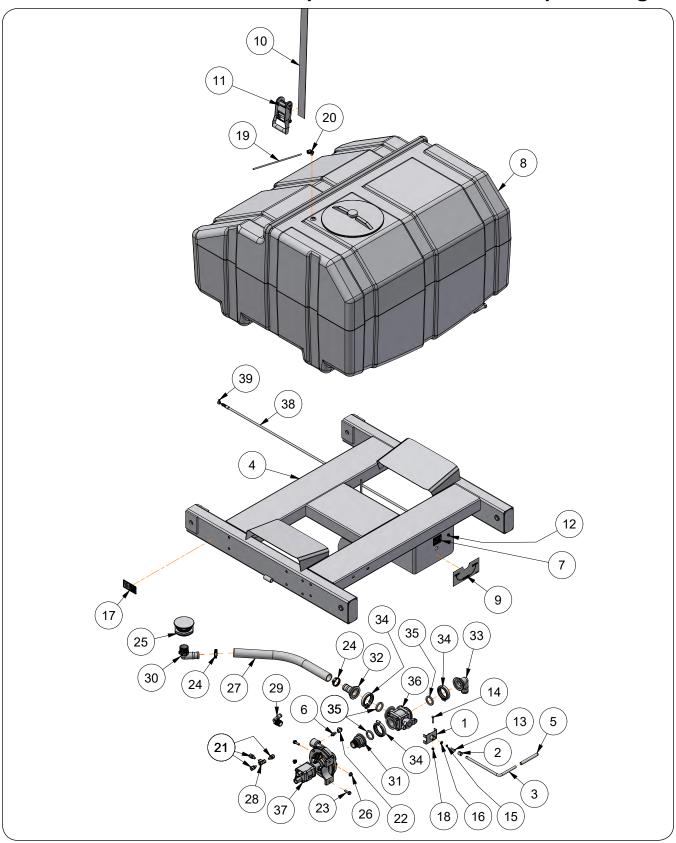
Gauge and Hydraulic Hose Components



Gauge and Hydraulic Hose Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES	
1	291937B	Bracket, 12 GA. x 4 1/2" x 6"	1		
2	9000106	Cable Tie, 7 1/2"	AR		
3	9003259	Flange Screw, 3/8"-16UNC x 1 1/4" G5	2		
4	9005933	Magnet, 3.2"D Ceramic	1		
5	9007569	Gauge, Pressure (0-160 Psi)	1		
6	91263	Large Flange Nut, 3/8"-16UNC	2		
7	9390-002	Capscrew, 1/4"-20UNC x 5/8" G5	2		
8	9936	Lock Nut, 1/4"-20UNC	2		
9	TA720620	Gauge Tubing, 1/4" Dia.	AR	Specify Length in Feet	
10	TA720812	Elbow, 1/4" FPT x 1/4" Tube	1		
11	9010229	Hydraulic Pump, FMCSC-125-HYD-204	1		
11A	298569	Hydraulic Pump Service Kit	-	Not Pictured	
12	9009827	Flow Control Valve	1		
12A	298649	Flow Control Valve Replacement Kit	-	Not Pictured	
	9009454	Hydraulic Hose, 3/8" x 380" 3000 PSI		Single-Auger Grain Carts	
				Brent Models: 1196, 1198, 1396, 1398, 1596, 1598	
	9009413	Hydraulic Hose, 3/8" x 268" 3000 PSI		Unverferth Models: 1120, 1320, 1620	
13			2	Killbros Models: 1113, 1313, 1613	
				Parker Models: 1154, 1354, 1654	
	9009452	Hydraulic Hose, 3/8" x 278" 3000 PSI		Brent Model: 2096, 2098, 2054	
	9009432	11yuraunc 1105e, 5/6 x 2/6 5000 151		Unverferth Model: 2020, 2520	
	9009457	Hydraulic Hose, 3/8" x 310" 3000 PSI		Brent Model: 2596, 2598, 3298	
14	9009749	Hose Grips "+" Unverferth (Blue)	1	V1300, V1500, 1196, 1198, 1396, 1398, 1596, 1598, 2096, 2098, 2596, 2598, 2054, 2520, 3298	
15	9009750	Hose Grips "-" Unverferth (Blue)	1	V1300, V1500, 1196, 1198, 1396, 1398, 1596, 1598, 2096, 2098, 2596, 2598, 2054, 2520, 3298	
16	91383	Male Tip Coupling, 3/4"-16	2		
17	98508	Union Adapter, 3/4-16 Male O-Ring x 3/4-16 Male O-Ring	2		
18	9009648	Hose Marker (Blue) "Pump Hydraulic Pres-	1	Unverferth Models: 1120, 1319, 1320, 1519, 1620, 2020	
		sure"		Killbros Models: 1113, 1313, 1613	
				Parker Models: 1154, 1354, 1654	
19	9009649 Hose Marker (Blue) "Pump Hydraulic Return"	D09649 Hose Marker (Blue) "Pump Hydraulic Return"	9009649 Hose Marker (Rlue) "Pump Hydraulic Return" 1	1	Unverferth Models: 1120, 1319, 1320, 1519, 1620, 2020
19				Killbros Models: 1113, 1313, 1613	
				Parker Models: 1154, 1354, 1654	

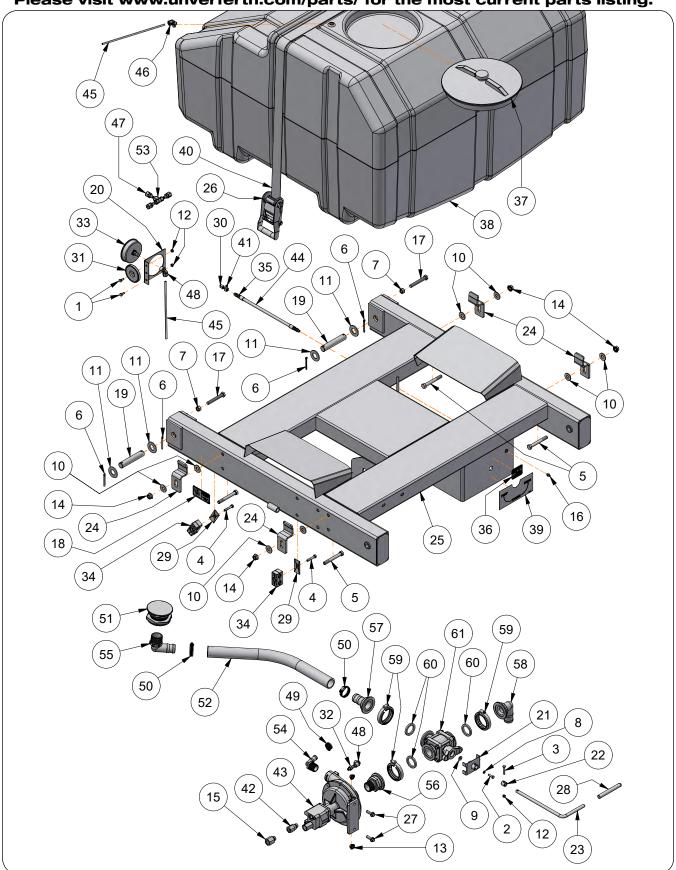
Frame and Tank Assembly Components Serial Number B44650099 & Lower



Frame and Tank Assembly Components Serial Number B44650099 & Lower

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	294656B	Valve Handle Weldment =Black=	1	
2	294659	Valve Bushing, 3/4" OD x 0.510" ID x 7/8"	1	
3	294661	Rod Handle, 1/2" Dia. x 15"	1	
4	296166B	Water Delivery Frame Weldment, 275 Gallon =Black=	1	
5	9004015	Grip (Yellow)	1	
6	9007182	Nipple-Hex Male, 1/4" NPT To 1/8" NPT	1	
7	9008947	Decal, Grease	1	
8	9009183	Water Delivery Tank =Gray=	1	
9	9009313	Decal, Pump/Closed/Drain	1	
10	9009314	Strap/Tie Down, 2" x 120" with 2" U-Hook	1	
11	903121	Ratchet Buckle/Less Strap	1	
12	93426	Grease Zerk	1	Dual-Auger Grain Carts ONLY
13	9390-005	Capscrew, 1/4"-20UNC x 1" G5	1	
14	9390-007	Capscrew, 1/4"-20UNC x 1 1/2" G5	1	
15	9404-017	Lock Washer, 1/4"	1	
16	9405-064	Flat Washer, 1/4" USS	1	
17	95839	Decal, WARNING "Pinch Point"	1	
18	9936	Lock Nut, 1/4"-20UNC	1	
19	TA720620	Gauge Tubing, 1/4" Dia.	AR	Specify Length in Feet
20	TA720802	90° Elbow, 1/4" NPT Male Thread x 1/4" Tube OD	1	
21	TA720808	Adapter, 1/4" MPT x 1/4" Gauge Tube	3	
22	TA720812	90° Elbow, 1/4"-18 Female NPT Thread x 1/4" Dia. Compression Fitting For Plastic Hose	1	
23	9003259	Flange Screw, 3/8"-16UNC x 1 1/4"	2	
24	TA800916	Hose Clamp SC-24	2	
25	TA805424	Tank Fitting, 1 1/2" Anti-Vortex	1	3" Hole Required
26	91263	Large Flange Nut, 3/8"-16UNC	2	
27	TA806331	Hose, 1 1/2" Dia. Fertilizer Solution	AR	Specify Length in Feet
28	TA809190	Tee, 1/4"-18 Female NPT x 1/4"-18 Female NPT x 1/4"-18 Female NPT	1	
29	TA814965	90° Elbow, 1"-11 1/2 NPT Male x 3/4" Hose Barb	1	
30	TA814975	90° Elbow, 2" Flange x 1 1/2" Hose Barb	1	
31	TA815009	Adapter, 2" Flange x 1 1/4"-11 1/2" NPTF	1	
32	TA815015	Straight Hose Barb, 2" Flange & 1 1/2" Hose Barb	1	
33	TA815020	Elbow, 2" Flange x 1 1/2" Barb	1	
34	TA815025	2" Flange Clamp	3	
35	TA815027	Gasket, 1 5/8" ID	3	
36	TA815048	Ball Valve, 3-Way (2" Flange x 2" Flange x 2" Flange)	1	
37	TA825350	ACE Hydraulic Pump, FMC-HYD-204	1	
31	298569	Pump Service Kit	-	
38	9008964	Grease Hose 3/16" x 70"	1	Dual-Auger Grain Carts ONLY
39	9009412	Adapter, 1/4-28 SAE/LT x 1/8 NPTF	1	Dual-Auger Grain Carts ONLY

Frame and Tank Assembly Components Serial Number B44650100 & Up



Frame and Tank Assembly Components Serial Number B44650100 & Up

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9390-002	Capscrew 1/4X5/8 UNC GR5	2	
2	9390-005	Capscrew 1/4X1 UNC GR5	1	
3	9390-007	Capscrew 1/4X1 1/2 UNC GR5	1	
4	9390-033	Capscrew 5/16X1 3/4 UNC GR5	2	
5	9390-111	Capscrew 1/2X4 UNC GR5	4	
6	9391-046	COTTER PIN 3/16X2	4	
7	9394-010	HEX NUT 1/2-13UNC G5	2	
8	9404-017	LOCK WASHER 1/4	1	
9	9405-064	FLAT WASHER 1/4 USS	1	
10	9405-088	FLAT WASHER 1/2 USS	8	
11	9405-116	FLAT WASHER 1 SAE	4	
12	9936	LOCKNUT 1/4-20	3	
13	91263	NUT/LRG FLG 3/8-16	2	
14	91267	FLANGE NUT 1/2-13 UNC G5	4	
15	91379	ADAPTER-3/4-16 MORB X 1/2-14 NPT FEMALE	1	
16	93426	ZERK-GREASE	1	
17	95590	Capscrew 1/2 FULL X 3 1/2 UNC GR5	2	
18	95839	WARNING DECAL "PINCH POINT"	1	
19	233761	PIN - THIRD LINK	2	
20	291937@	BRACKET - GAUGE 4"	1	
21	294656@	WELDMENT - VALVE HANDLE	1	
22	294659	BUSHING, VALVE	1	
23	294661	ROD - HANDLE	1	
24	295646@	PLATE - STOP	4	
25	296166@	WELDMENT - FRAME, WATER DELIVERY	1	
26	903121	RATCHET 815	1	
27	9003259	FLANGE SCREW 3/8 X 1 1/4	2	
28	9004015	GRIP	1	
29	9004857	HOSE CLAMP-TOP PLATE	2	
30	9005198	ADAPTER- STRAIGHT, 1/4-28SAE-LT- 1/8 NPTF	1	
31	9005933	MAGNET-3.2"D, CERAMIC	1	
32	9007182	NIPPLE-HEX MALE, 1/4 NPT TO 1/8 NPT	1	
33	9007569	GAUGE-PRESSURE	1	
34	9007995	CLAMP DOUBLE HOSE 0.75D	2	
35	9008180	HOSE END-1/8-27 NPTF MALE SWIVEL [3/16 HOSE]	2	
36	9008947	DECAL-GREASE	1	
37	9009028	LID ASSEMBLY - VENTED, 12"	1	
38	9009183	TANK - WATER DELIVERY	1	
39	9009313	DECAL - PUMP	1	
40	9009314ASM	STRAP/TIE DOWN 2X120	1	
41	9009412	ADAPTER - 1/4-28 SAE/LT - 1/8 NPTF	1	
42	9009827	VALVE - FLOW CONTROL, FIXED, 4 GPM	1	
43	9010229	PUMP - FMCSC-125-HYD-204	1	
44	9010347	HYDRAULIC HOSE 3/16 SAE 100R1/100R18/100R7	6	

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Frame and Tank Assembly Components

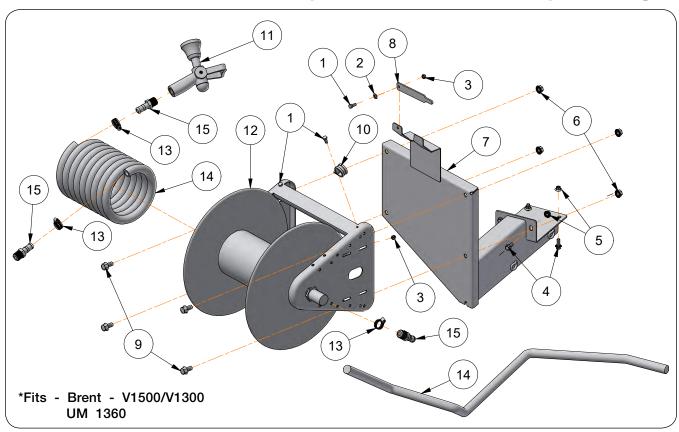
Serial Number B44650100 & Up

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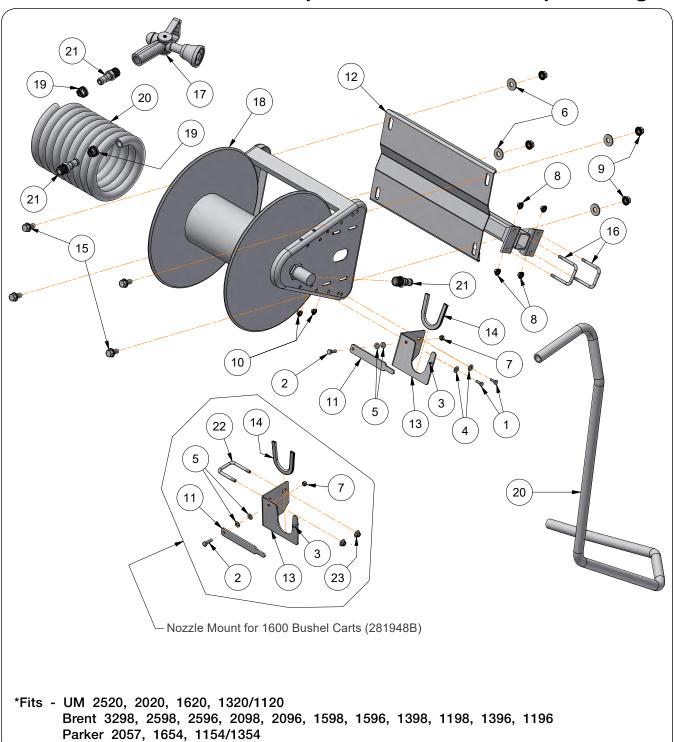
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
45	TA720620	1/4" GAUGE TUBING	2	
46	TA720802	1/4"NPT ELBOW	1	
47	TA720808	ADAPTER-1/4 MPT X 1/4 TUBE	3	
48	TA720812	ELBOW	2	
49	TA800910	HOSE CLAMP	1	
50	TA800916	HOSE CLAMP SC-24	2	
51	TA805424	TANK FITTING (1 1/2 AV)	1	
52	TA806331	1 1/2" FERTLIZER SOLUTION HOSE	1	
53	TA809190	TEE-1/4 FPT	1	
54	TA814965	ELBOW 1" NPT X 3/4" HB 90	1	
55	TA814975	HOSEBARB 90 DEG ELBOW POLY	1	
56	TA815009	ADAPTER (1 1/4 MALE PIPE X 2" FLANGE)	1	
57	TA815015	2" FLANGE & 1 1/2 HOSE BARB	1	
58	TA815020	ELBOW-2" FLGX1 1/2" BARB	1	
59	TA815025	2" FLANGE CLAMP	3	
60	TA815027	GASKET	3	
61	TA815048	VALVE-3 WAY	1	

Hose Reel Components — Low Mount



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9390-028	Capscrew 5/16"X3/4" UNC GR5	3	
2	9405-068	Flat Washer 5/16" SAE	1	
3	9807	Locknut Top 5/16"-18 Gb	3	
4	91262	FLANGE Screw 3/8"X1"	4	
5	91263	Flange Nut 3/8"-16	4	
6	91267	Flange Nut 1/2"-13 UNC G5	4	
7	256720@	Weldment - Reel Mount	1	
8	296169@	Plate - Lock	1	
9	9001529	Flange Screw 1/2"-13X1"	4	
10	9008246	Metal Cable Clamp 1 1/4" X 3/4" Wide	1	
11	9008517	Nozzle - Water Hose	1	
12	9009310	Reel - Hose	1	
13	TA800910	Hose Clamp	3	
14	TA806250	Hose 3/4"D - EPDM 200 PSI	A/R	
15	TA814861	Adapter	3	

Hose Reel Components - High Mount



Hose Reel Components — High Mount

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9390-003	Capscrew 1/4"X3/4" UNC Gr5	2	
2	9390-030	Capscrew 5/16"X1" UNC Gr5	2	
3	9392-093	Roll Pin 3/16"Dx3/4"	1	
4	9405-064	Flat Washer 1/4" USS	4	
5	9405-068	Flat Washer 5/16" SAE	2	
6	9405-088	Flat Washer 1/2" USS	4	
7	9807	Locknut Top 5/16"-18 Gb	2	
8	91257	Flange Nut 5/16"-18	4	
9	91267	Flange Nut 1/2"-13 UNC G5	4	
10	97189	Hex Nut/Lrg Flg 1/4"-20UNCs	2	
11	296169B	Plate - Lock	1	
12	296784B	Weldment-Reel Mount	1	
13	297094B	Plate - Nozzle Mount	1	
14	9000787	Trim - Edge	110	
15	9001529	Flange Screw 1/2"-13X1"	4	
16	9002713	U-Bolt 5/16"-18UNCx2 3/4"	2	
17	9008517	Nozzle - Water Hose	1	
18	9009310	Reel - Hose	1	
19	TA800910	Hose Clamp	2	
20	TA806250	Hose 3/4"D - Epdm 200 Psi	A/R	
21	TA814861	Adapter	3	
22	9002713	U-Bolt 5/16"-18UNCx2 3/4"	1	For 1600 Bushel Carts
23	91257	Flg Nut 5/16"-18	2	For 1600 Bushel Carts



