



Grain Carts
Dual-Auger Model 2070
ASSEMBLY MANUAL
Beginning With Serial Number B37100100

Part No. 2007938

Notes

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General Safety Information

DANGER

- **ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE GRAIN CART IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.**

- **ENTANGLEMENT WITH THE DRIVELINE WILL CAUSE SERIOUS INJURY OR DEATH. KEEP ALL GUARDS AND SHIELDS IN GOOD CONDITION AND PROPERLY INSTALLED AT ALL TIMES. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOE STRINGS, DRAWSTRINGS, PANTS CUFFS, LONG HAIR, ETC. THAT CAN BECOME ENTANGLED IN A ROTATING DRIVELINE.**

WARNING

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW “SAFETY” SECTION IN THIS MANUAL IF NECESSARY.**

- **TO PREVENT PERSONAL INJURY OR DEATH, ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE CART TO ASSIST THE PERSON WORKING INSIDE, AND THAT ALL SAFE WORKPLACE PRACTICES ARE FOLLOWED. THERE IS RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE IMPLEMENT.**

- **NEVER ENTER CART WITH AUGER OR TRACTOR RUNNING. SERIOUS OR FATAL INJURY CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE AND REMOVE KEY BEFORE ENTERING CART.**

- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM.**

- **RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR’S MANUAL FOR PROPER PROCEDURES.**

General Safety Information (continued)

 WARNING

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

- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 20,000 LBS. (9,100 KG.) SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.

- TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.

- THIS PRODUCT MAY CONTAIN A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, OR BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.

 CAUTION

- IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGES 1-68 THROUGH 1-70 FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY IS VOID ON ANY DAMAGE CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

Unpacking Grain Cart

IMPORTANT

- Use care not to damage scale spindle and wiring harness. Damage to scale spindle or wiring harness will give incorrect scale information.

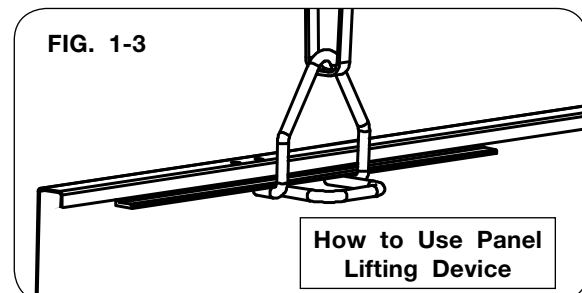
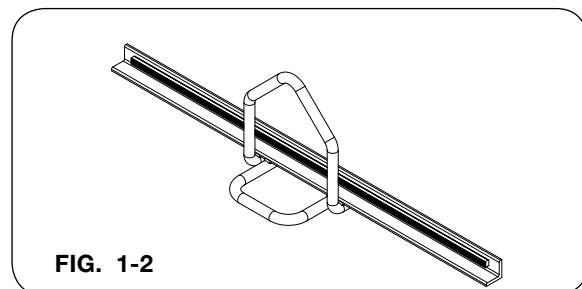
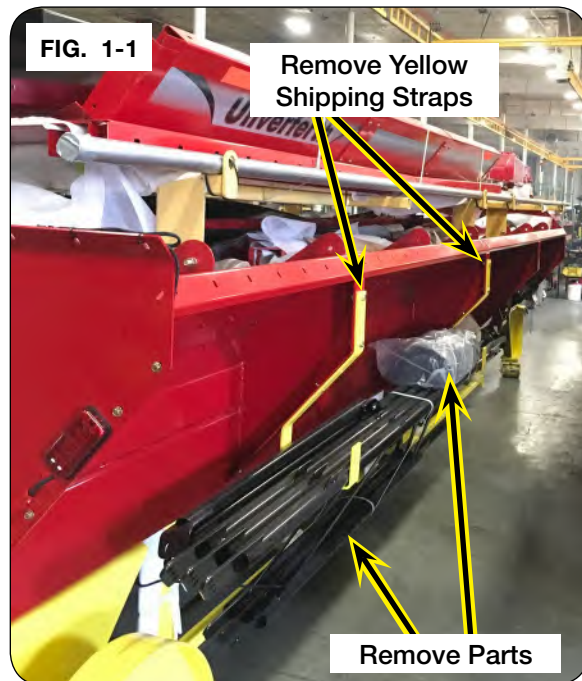
1. Once the cart has been removed from the container, position cart on a level surface area, block the wheel and disconnect the towing vehicle.
2. Use a safe lifting device rated at a minimum of 300 lbs. (136 kg.), remove all three center support brackets (273149B) from the right-hand side of the cart and place it a safe working distance away from the cart. (FIG. 1-1)

NOTE: Yellow brackets are for shipping use only and will be removed at various points throughout the assembly process.

3. Remove and discard the two yellow shipping brackets and hardware. (FIG. 1-1)

4. Locate the panel lifting device provided inside the hopper. (FIG. 1-2)

NOTE: Use the panel lifting device (FIG. 1-2) included with the grain carts to help maneuver your side panels and sideboards. FIG. 1-3 shows how to use the panel lifting device.



Unpacking Grain Cart (continued)

5. Using the panel lifting device and a safe lifting device rated at a minimum of 300 lbs. (136 kg.), remove the tank panels and sideboards from the top of the hopper shipping bundle. (FIG. 1-4)



6. Using safe lifting device rated at a minimum of 5,000 lbs. (2,273 kg.), remove the bottom-rear shipping bundle (FIG. 1-5). Place bundle away from the grain cart.



Unpacking Grain Cart (continued)

7. Using safe lifting device rated at a minimum of 2,000 lbs. (909 kg.), remove the tongue assembly (FIG. 1-6). Place the tongue assembly away from the grain cart.



8. Using a safe lifting device rated at a minimum of 1,000 lbs. (455 kg.), support the front grain cart shipping bundle. Place the front grain cart yellow shipping bundle on the ground a safe working distance away from the cart. Discard the yellow shipping bundle hardware (FIG. 1-7).



Unpacking Grain Cart (continued)

9. Using a safe lifting device rated at a minimum of 250 lbs. (114 kg.) and attached to the lifting lugs on the front hopper yellow shipping bracket, to support the bundle (FIG. 1-8). Place the front hopper yellow shipping bracket bundle away from the grain cart. Discard the yellow shipping bracket attaching hardware.

10. Using a safe lifting device rated at a minimum of 250 lbs. (114 kg.) and the lifting lugs on the rear hopper yellow shipping bracket, to support the bundle (FIG. 1-9). Place the rear hopper yellow shipping bracket bundle away from the grain cart. Discard the yellow shipping bracket attaching hardware.

11. Using a safe lifting device rated at a minimum of 250 lbs. (114 kg.), remove the additional braces and supports from inside the hopper (FIG. 1-10). Place the parts on the ground a safe working distance away from the cart.

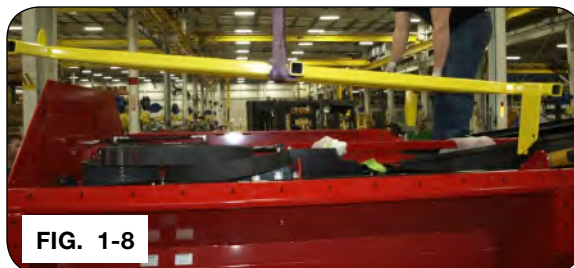


FIG. 1-8



FIG. 1-9



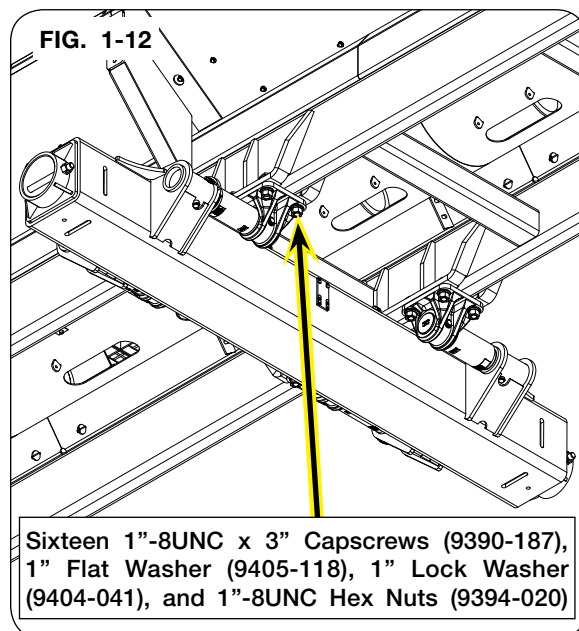
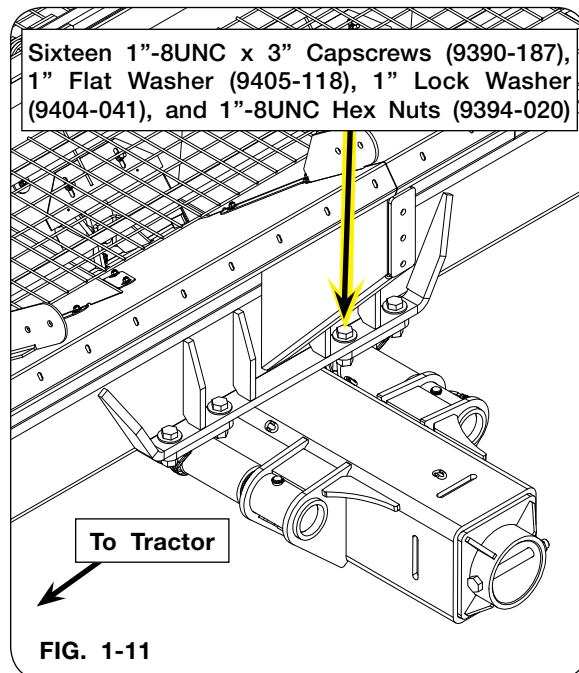
FIG. 1-10

Track Axle Assembly

IMPORTANT

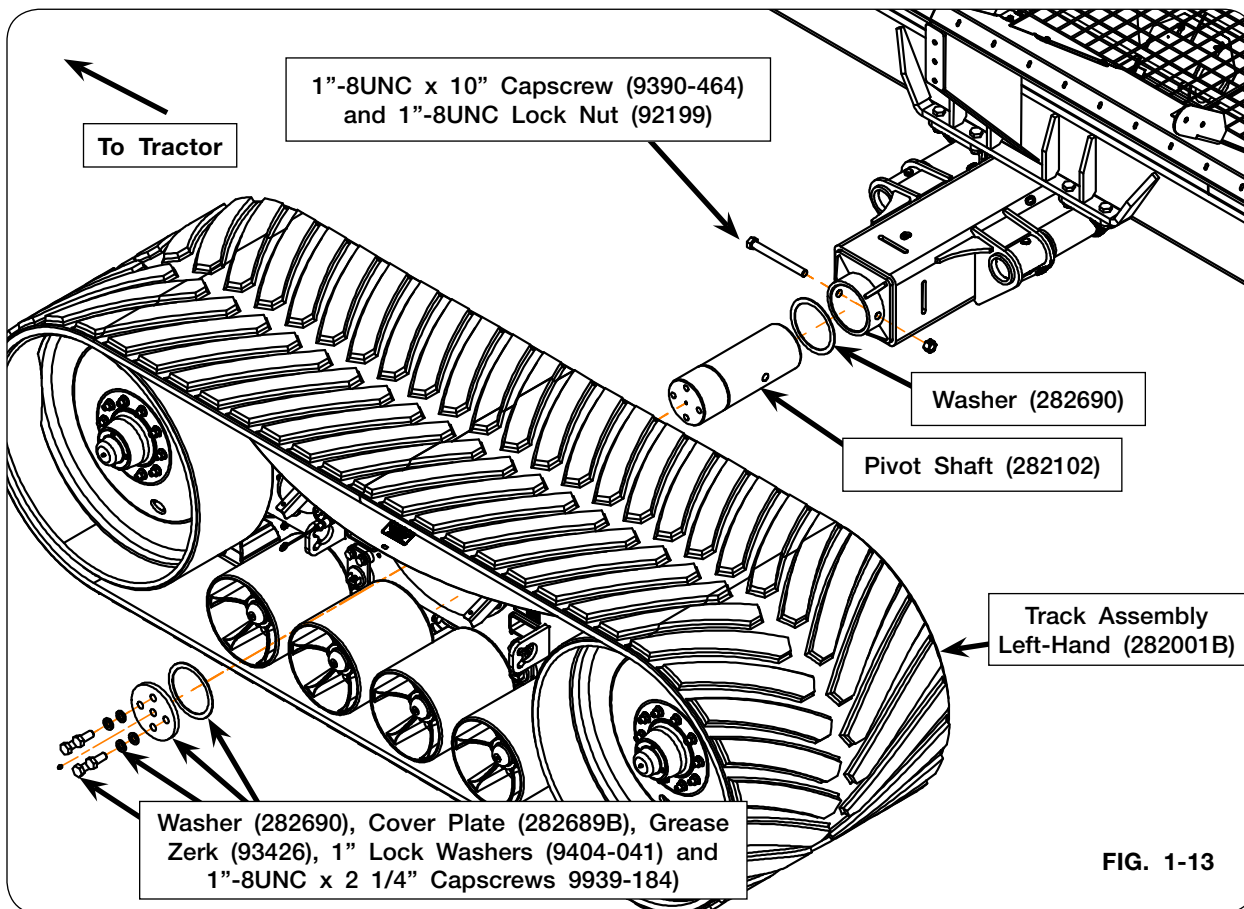
- *Damage to scale spindle wiring harness will cause scale to work improperly.*

1. Locate the axle on the bottom-rear shipping bundle.
2. Using a safe lifting device rated at a minimum of 2,000 lbs. (909 kg.), support the axle. Attach axle to the bottom of the grain cart using sixteen 1"-8UNC x 3" capscrews (9390-187), 1" USS flat washer (9405-118), 1" lock washer (9404-041), and 1"-8UNC hex nuts (9394-020) (FIG. 1-11 & FIG. 1-12). Torque hardware according to "Torque Chart" located in this manual.
3. Place additional supports rated at a minimum of 20,000 lbs. (9,100 kg.) near the end of the axle.



Track Axle Assembly (continued)

4. Insert the pivot shafts (282102) into the axle (282069G or 282069R) and secure with 1"-8UNC x 10" capscrews (9390-464) and 1"-8UNC lock nuts (92199) (FIG. 1-13). Torque hardware according to "Torque Chart" located in this manual.



5. Using a safe lifting device rated at a minimum of 8,000 lbs. (3,636 kg.), position the tracks on to the pivot shaft each side of the cart. Attach with washers (282690), cover plates (282689B), grease zerks (93426), 1" lock washers (9404-041), and 1"-8UNC x 2 1/4" capscrews (9390-184). FIG. 1-13

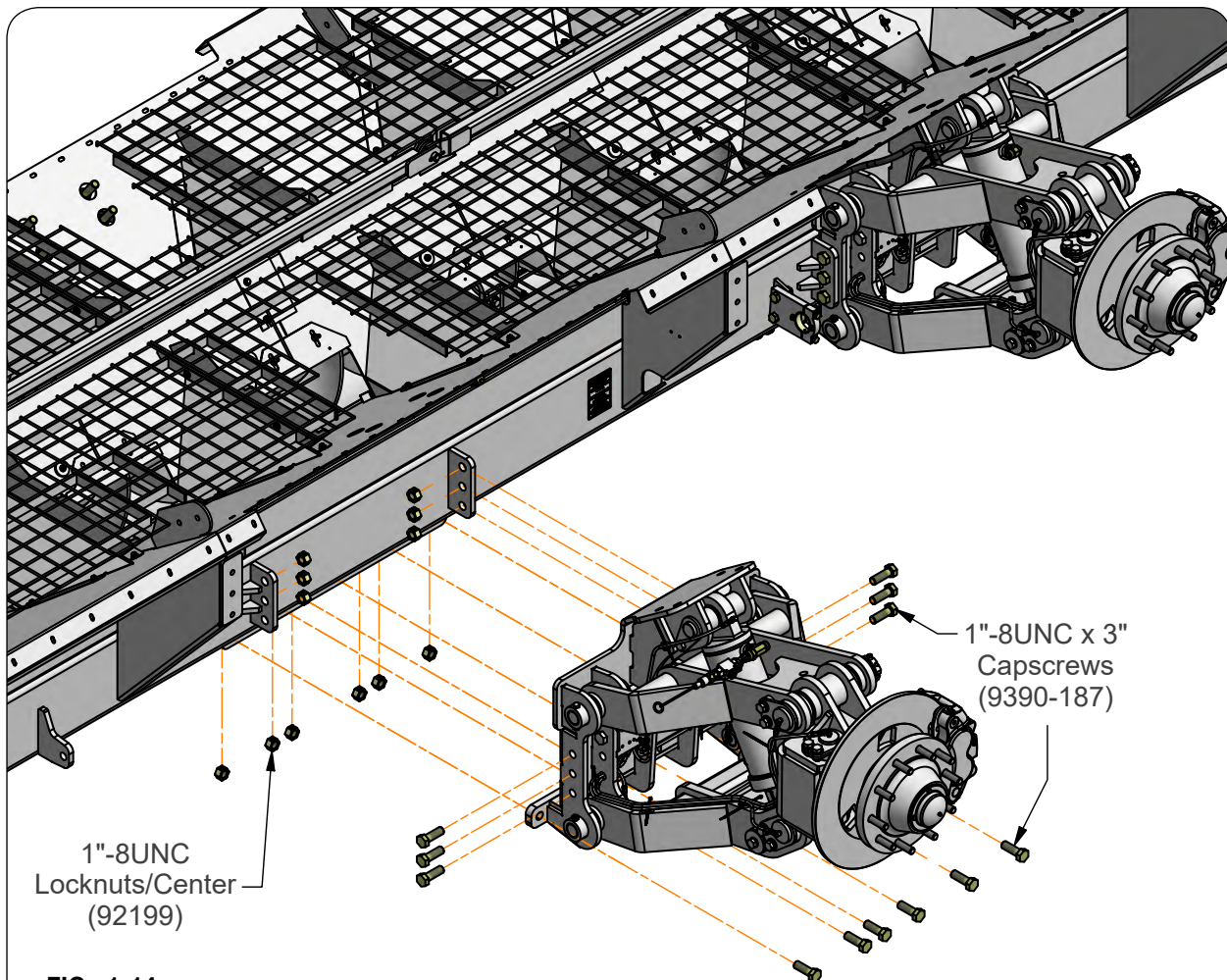
NOTE: The direction of travel, rubber track bar treads run backwards compared to tractor.

6. Using a safe lifting device rated at a minimum of 8,000 lbs. (3,636 kg.),

Steerable Tandem Assembly

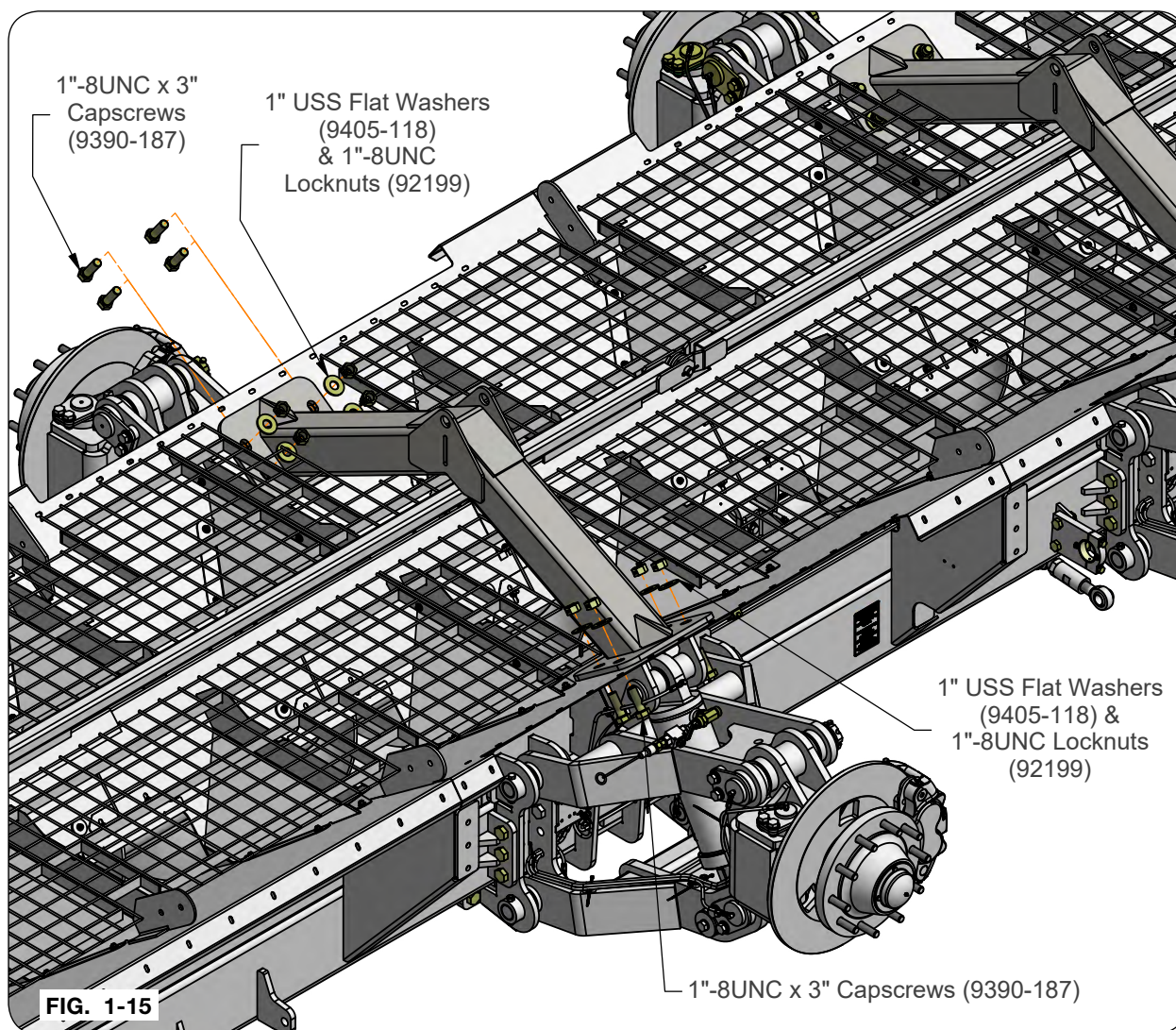
IMPORTANT

- *Damage to scale spindle wiring harness will cause scale to work improperly.*
1. Using a safe lifting device rated at a minimum of 2,000 lbs. (909 kg.), support left-hand front and rear steering linkage assembly. Loosely attach the steering linkage assembly to the bottom and sides using twelve 1"-8UNC x 3" capscrews (9390-187) and 1"-8UNC locknuts (92199) (FIG. 1-14).
 2. Using a safe lifting device rated at a minimum of 2,000 lbs. (909 kg.), support right-hand front and rear steering linkage assembly. Loosely attach the steering linkage assembly to the bottom and sides using twelve 1"-8UNC x 3" capscrews (9390-187) and 1"-8UNC locknuts (92199) (FIG. 1-14 - left-hand shown).



Steerable Tandem Assembly (continued)

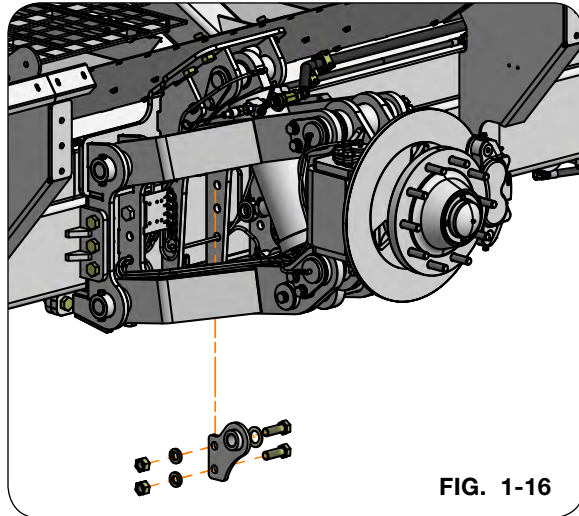
- Using a safe lifting device rated at a minimum of 250 lbs. (114 kg.), support the axle truss weldment (273415B). Position axle truss weldments (273415B) over the front and rear steering linkage assembly area of the grain cart. Loosely attach the axle truss weldments to the steering linkage assemblies with sixteen 1"-8UNC x 3" capscrews (9390-187), 1" USS flat washers (9405-118) and 1"-8UNC locknuts (92199) FIG. 1-15).



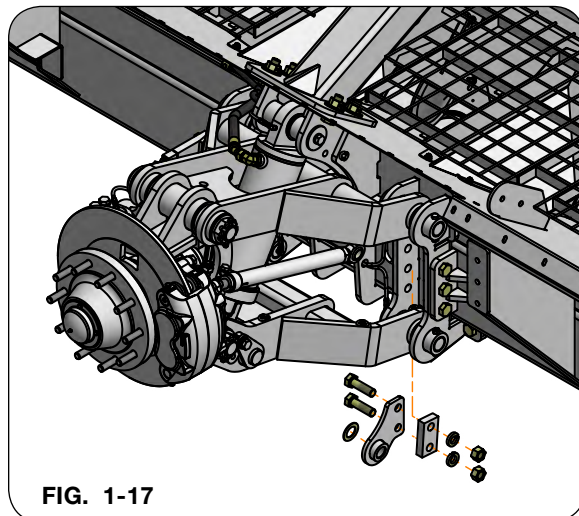
- Torque hardware according to "Torque Chart" located in this manual.

Steerable Tandem Assembly (continued)

5. Remove and save the front, left-hand pivot bushing weldment (286174B) with self-lubricating bushing (9004613), washer (286182), 1"-8UNC x 3" cap-screws (9390-187), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-16)



6. Remove and save the rear, left-hand pivot bushing weldment (286174B) with self-lubricating bushing (9004613), washer (286182), spacer (286183B), 1"-8UNC x 3 1/2" capscrews (9390-189), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-17)



Steerable Tandem Assembly (continued)

7. Remove and save the front, right-hand pivot bushing weldment (286175B) with self-lubricating bushing (9004613), washer (286182), 1"-8UNC x 3" cap-screws (9390-187), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-18)

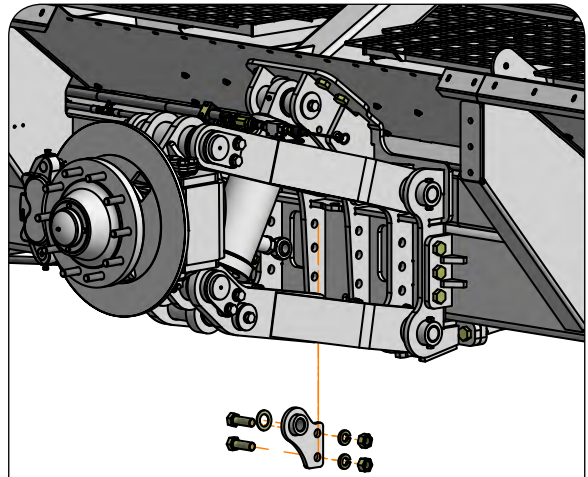


FIG. 1-18

8. Remove and save the rear, right-hand pivot bushing weldment (286175B) with self-lubricating bushing (9004613), washer (286182), spacer (286183B), 1"-8UNC x 3 1/2" capscrews (9390-189), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-19)

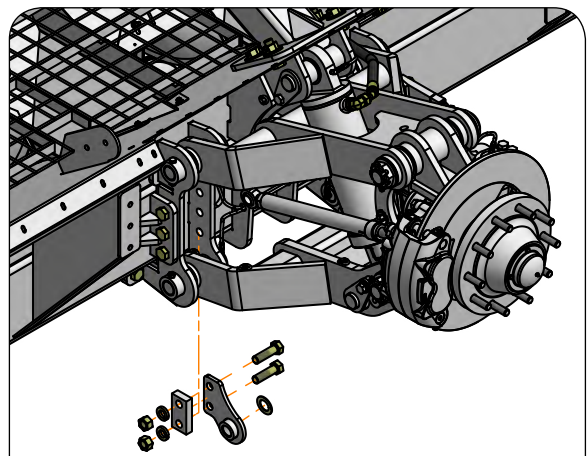
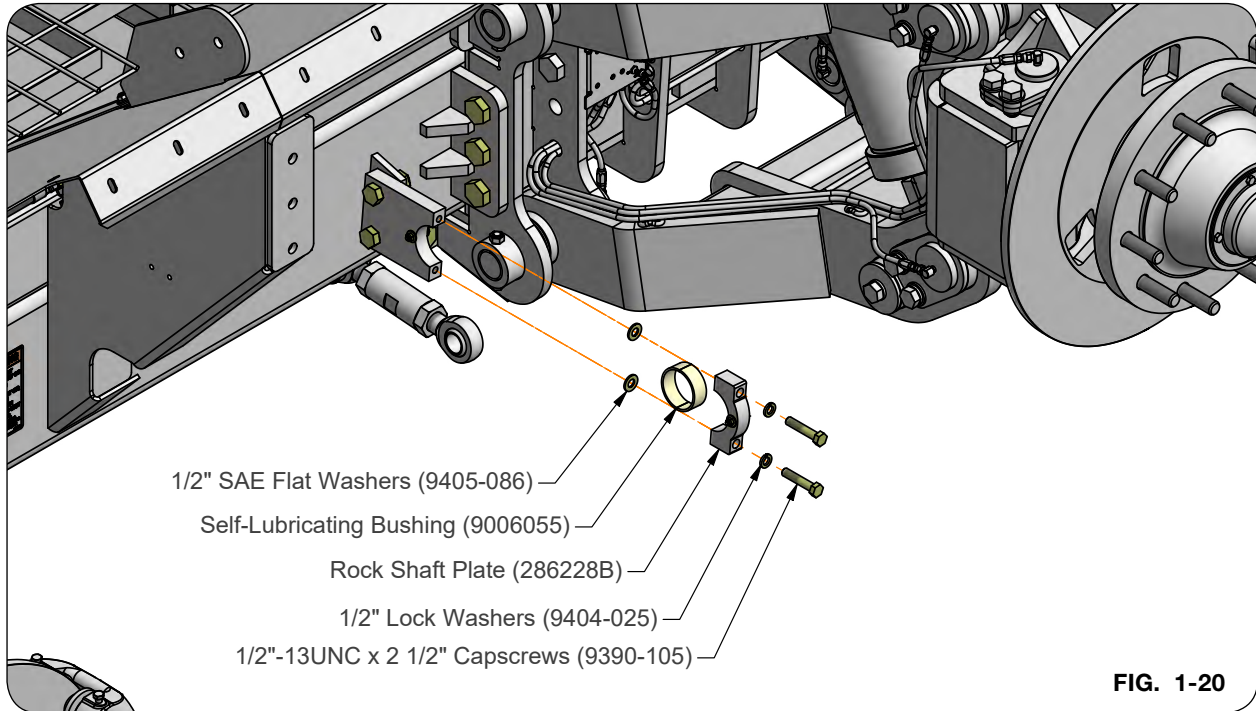


FIG. 1-19

Steerable Tandem Assembly (continued)

9. Remove and save the rock shaft plate (286228B), 1/2"-13UNC x 2 1/2" capscrews (9390-105), 1/2" lock washers (9404-025), self lubricating bushing (9006055), and 1/2" SAE flat washers (9405-086). (FIG. 1-20)

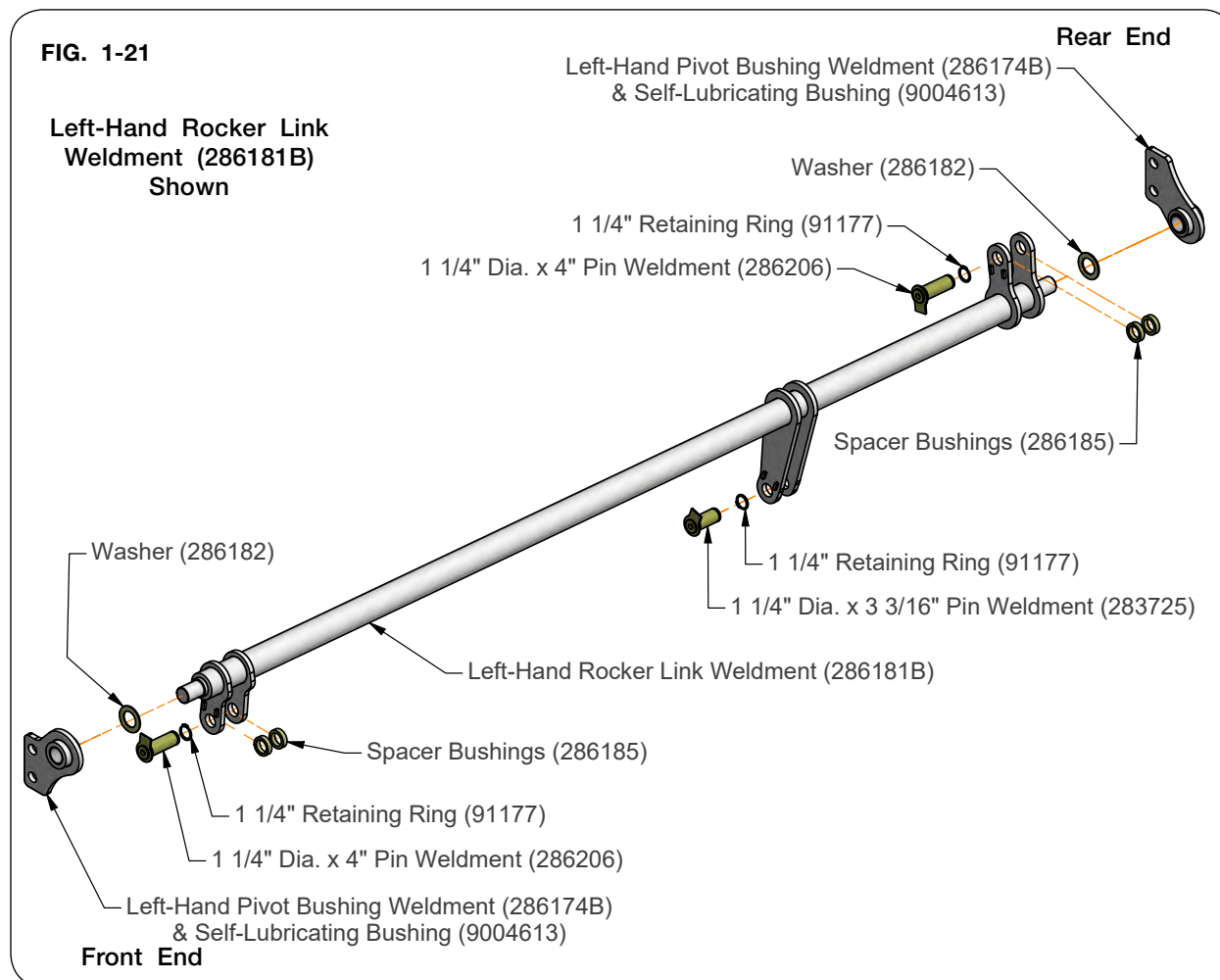


10. Cut the self lubricating bushing (9006055) in half.

NOTE: Bushing halves will eventually be placed around the rocker link weldments.

Steerable Tandem Assembly (continued)

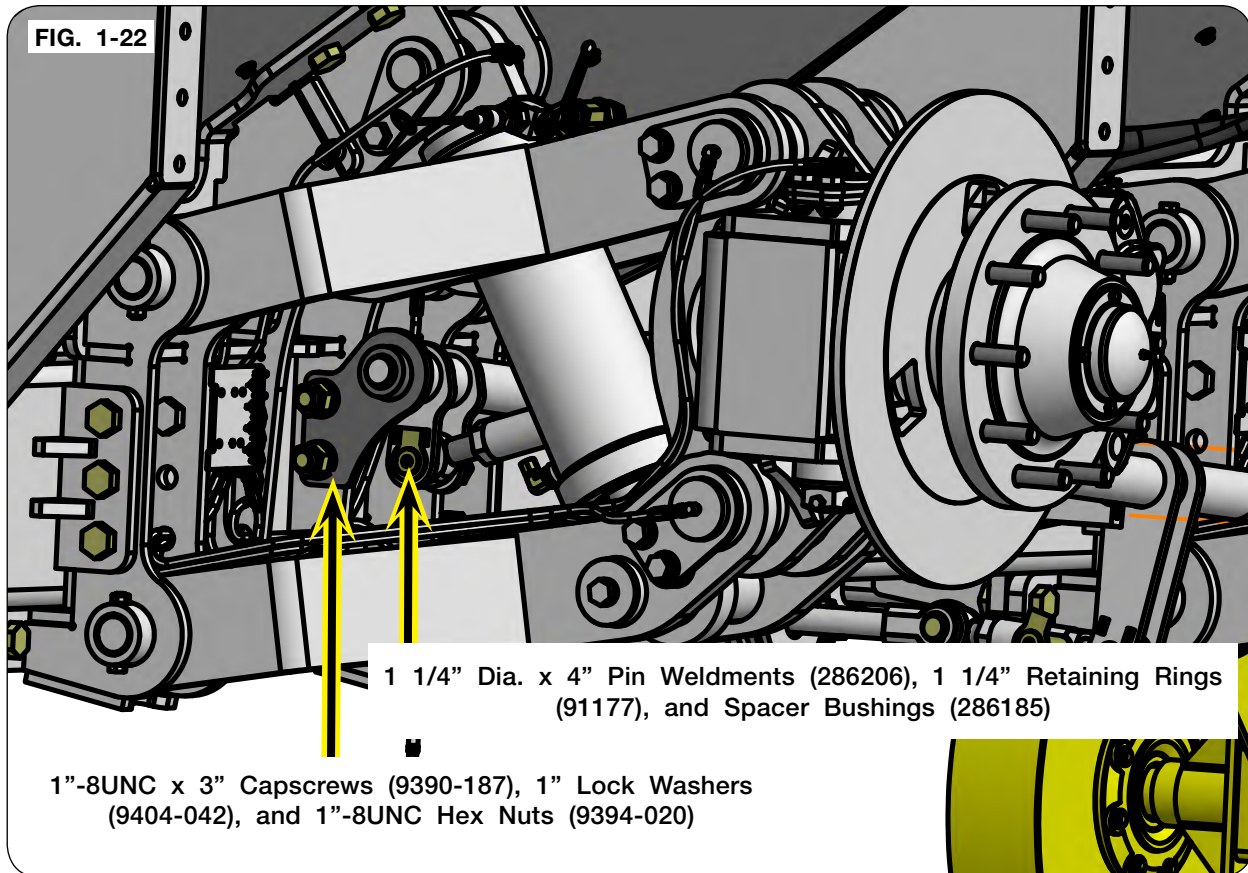
11. Using a safe lifting device rated at a minimum of 150 lbs. (68 kg.), support the left-hand rocker link weldment (286181B). (FIG. 1-21)
12. Remove and save the 1 1/4" Dia. x 3 3/16" pin weldment (283725), 1 1/4" Dia. x 4" pin weldments (286206), 1 1/4" retaining rings (91177), and spacer bushings (286185). (FIG. 1-21)
13. Repeat steps 11 through 12 for the right-hand rocker link weldment (286131B). (Reference FIG. 1-21)



14. Place the washers (286182), self-lubricating bushings (9004613) and left-hand pivot bushing weldments (286174B) to each end of the left-hand rocker link weldment (286181B). (FIG. 1-21)
15. Place the washers (286182), self-lubricating bushings (9004613) and right-hand pivot bushing weldments (286175B) to each end of the right-hand rocker link weldment (286131B). (Reference FIG. 1-21)

Steerable Tandem Assembly (continued)

16. Secure the front of the left-hand rocker link weldment (286181B) with left-hand pivot bushing weldment (286174B) to the front, left-hand steering linkage assembly with previously removed 1"-8UNC x 3" capscrews (9390-187), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-22)



17. Secure the front of the left-hand rocker link weldment (286181B) to the tie rod assembly with previously removed 1 1/4" Dia. x 4" pin weldment (286206), 1 1/4" retaining ring (91177), and spacer bushings (286185). (FIG. 1-22)

Steerable Tandem Assembly (continued)

18. Secure the rear of the left-hand rocker link weldment (286181B) with left-hand pivot bushing weldment (286174B) to the rear, left-hand steering linkage assembly with previously removed 1"-8UNC x 3 1/2" capscrews (9390-189), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-23)

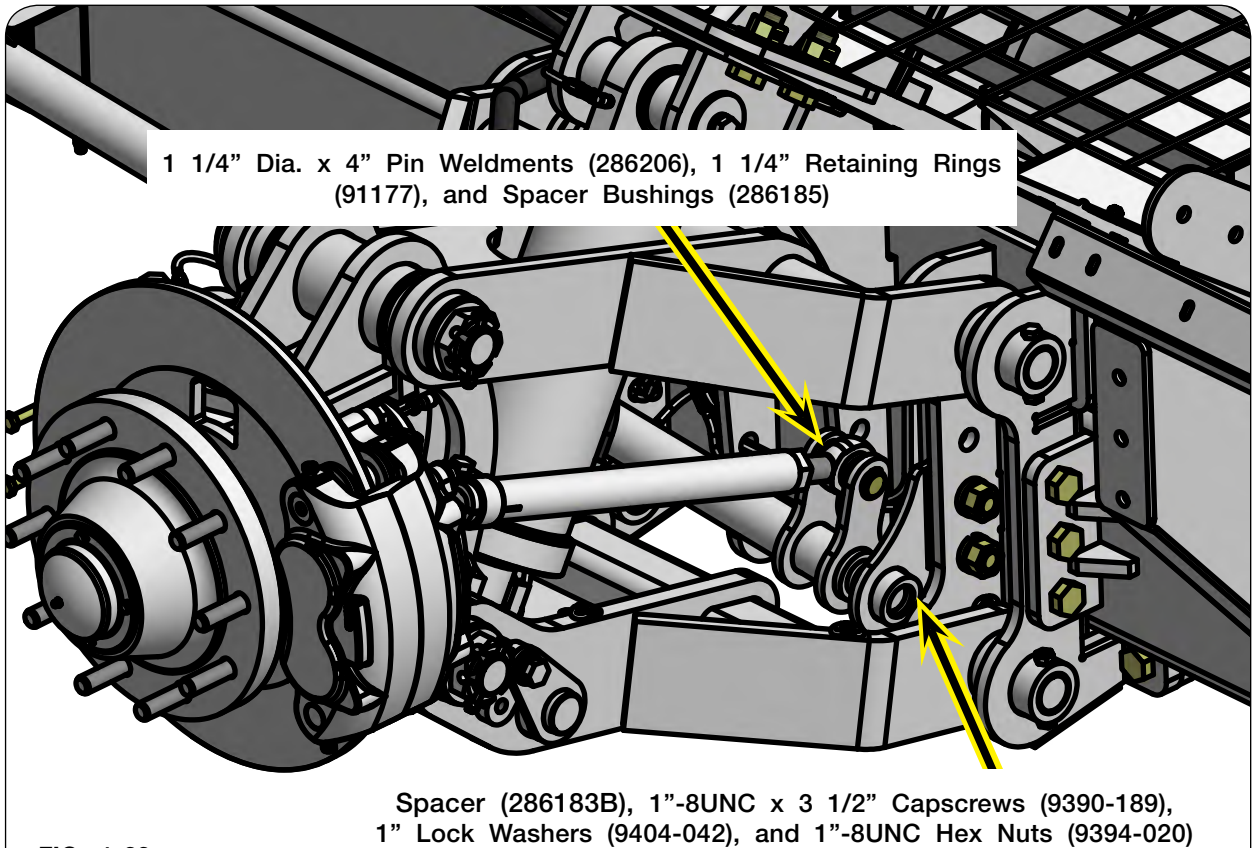
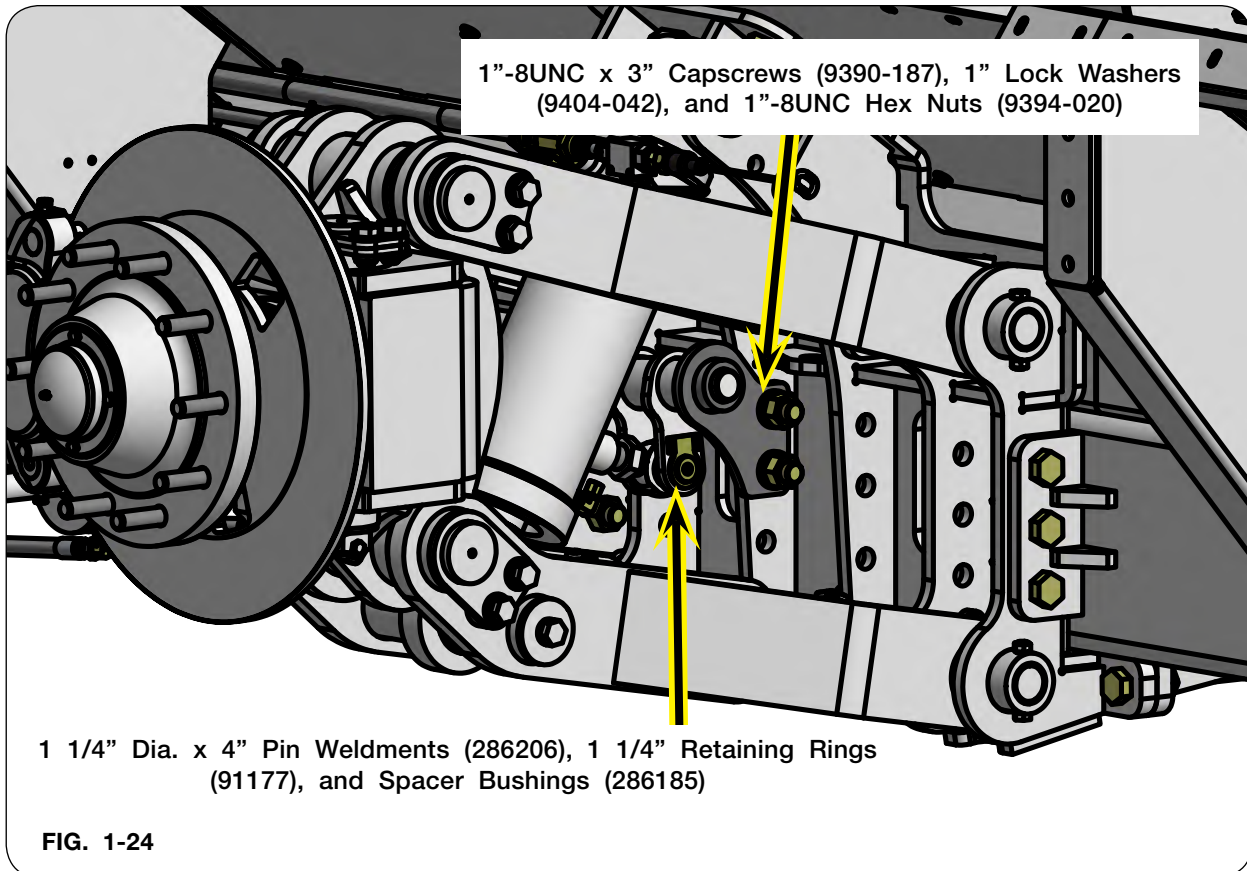


FIG. 1-23

19. Secure the rear of the left-hand rocker link weldment (286181B) to the tie rod assembly with previously removed 1 1/4" Dia. x 4" pin weldment (286206), 1 1/4" retaining ring (91177), and spacer bushings (286185). (FIG. 1-23)

Steerable Tandem Assembly (continued)

20. Secure the front of the right-hand rocker link weldment (286131B) with right-hand pivot bushing weldment (286175B) to the front, right-hand steering linkage assembly with previously removed 1"-8UNC x 3" capscrews (9390-187), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-24)



21. Secure the front of the right-hand rocker link weldment (286131B) to the tie rod assembly with previously removed 1 1/4" Dia. x 4" pin weldment (286206), 1 1/4" retaining ring (91177), and spacer bushings (286185). (FIG. 1-24)

Steerable Tandem Assembly (continued)

22. Secure the rear of the right-hand rocker link weldment (286131B) with right-hand pivot bushing weldment (286175B) to the rear, right-hand steering linkage assembly with previously removed 1"-8UNC x 3 1/2" capscrows (9390-189), 1" lock washers (9404-042), and 1"-8UNC hex nuts (9394-020). (FIG. 1-25)

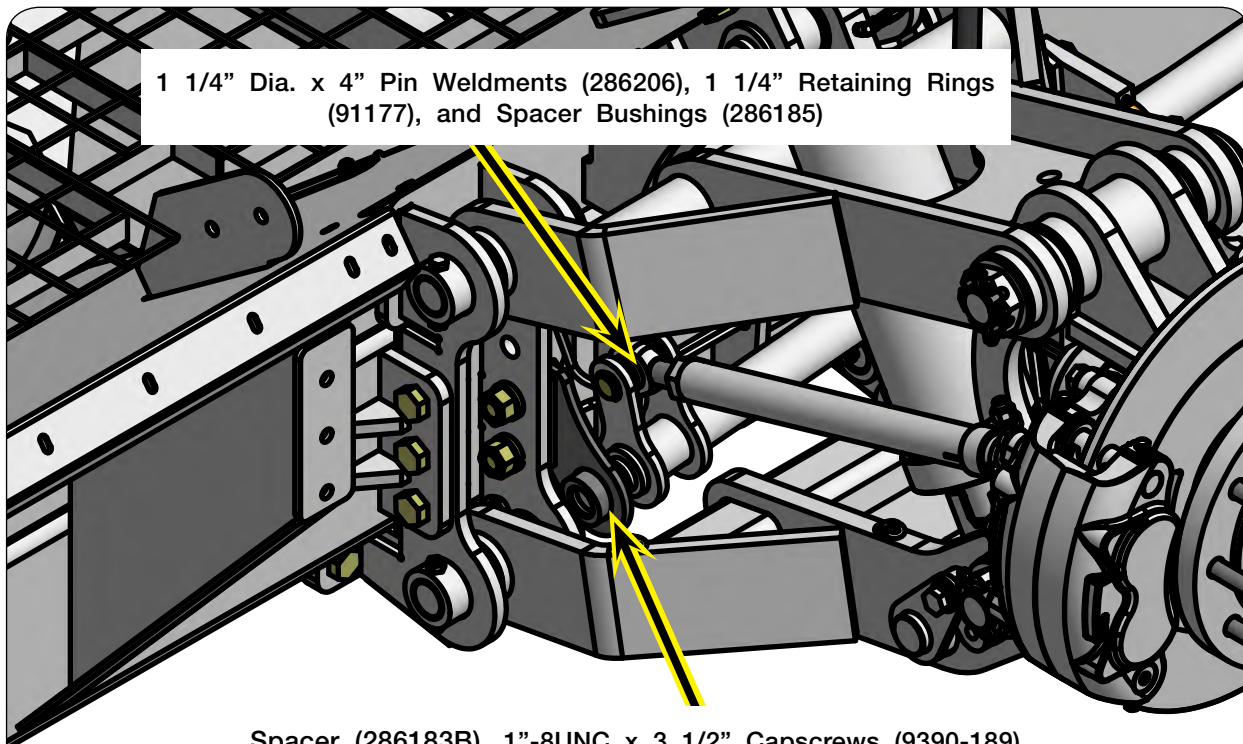


FIG. 1-25

23. Secure the rear of the right-hand rocker link weldment (286181B) to the tie rod assembly with previously removed 1 1/4" Dia. x 4" pin weldment (286206), 1 1/4" retaining ring (91177), and spacer bushings (286185). (FIG. 1-25)

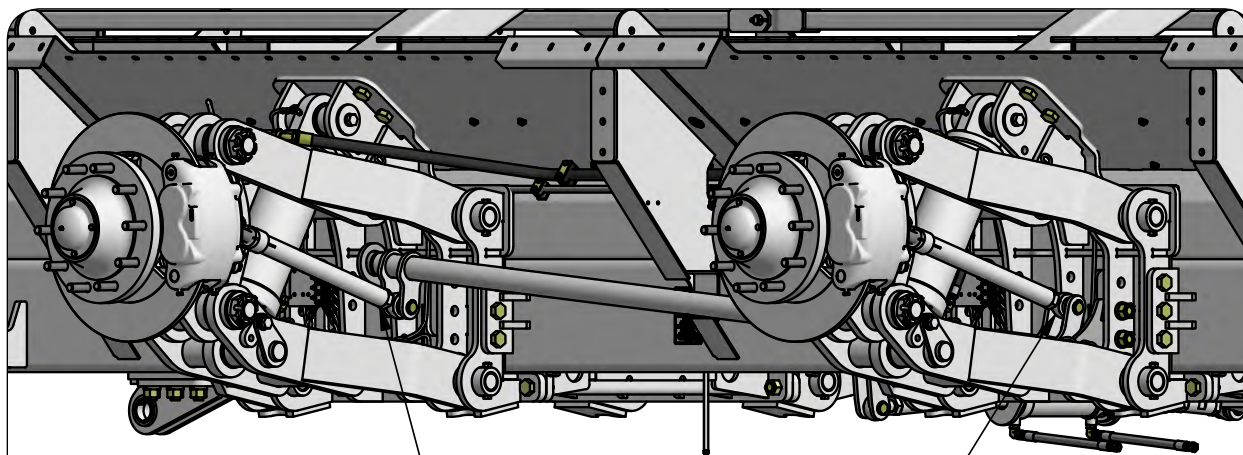
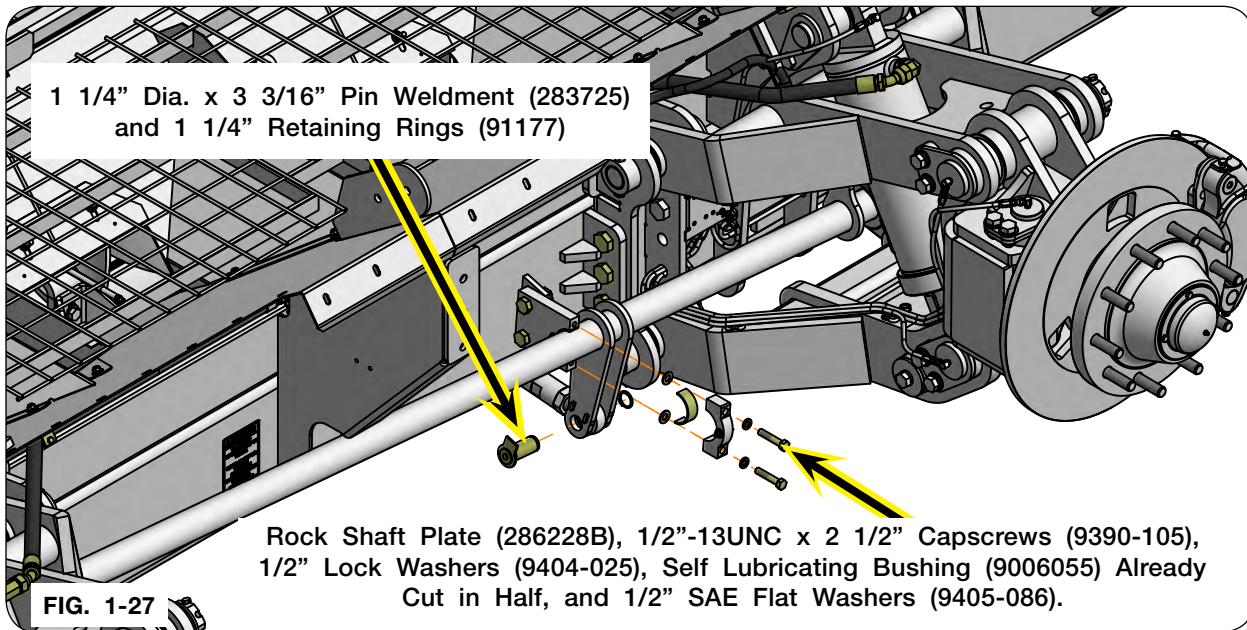


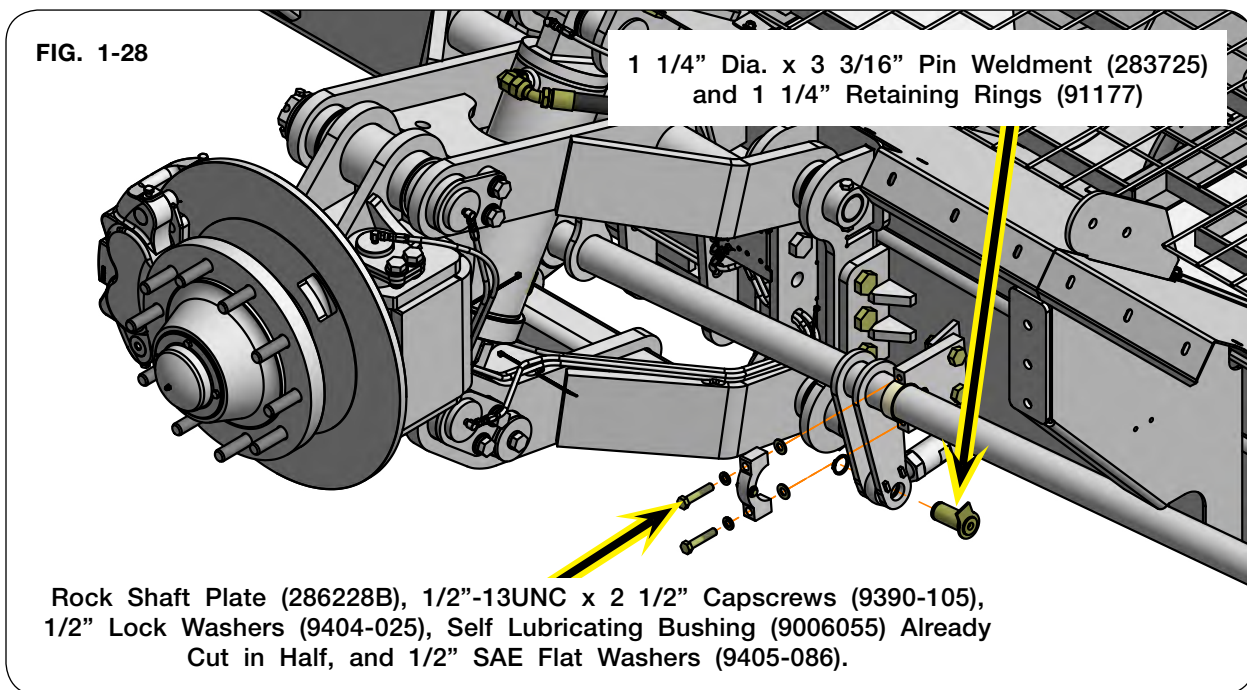
FIG. 1-26

Steerable Tandem Assembly (continued)

24. Secure the middle of the left-hand rocker link weldment (286181B) by placing the two halves of the self lubricating bushing (9006055) around the link and secure with the previously removed rock shaft plate (286228B), 1/2"-13UNC x 2 1/2" capscrews (9390-105), 1/2" lock washers (9404-025), and 1/2" SAE flat washers (9405-086). (FIG. 1-27)

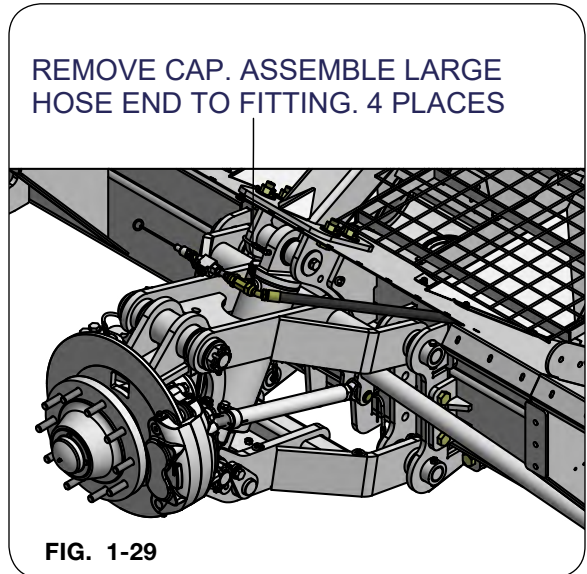


25. Secure the middle of the right-hand rocker link weldment (286131B) by placing the two halves of the self lubricating bushing (9006055) around the link and secure with the previously removed rock shaft plate (286228B), 1/2"-13UNC x 2 1/2" capscrews (9390-105), 1/2" lock washers (9404-025), and 1/2" SAE flat washers (9405-086). (FIG. 1-28)

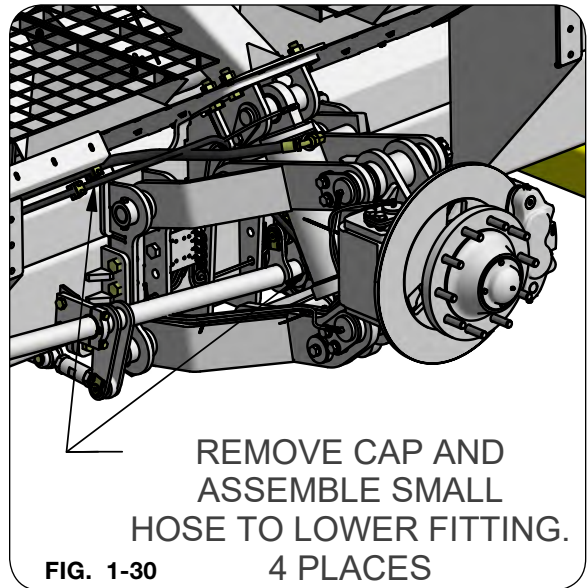


Steerable Tandem Assembly (continued)

- 26. Torque hardware according to “Torque Chart” located in this manual.
- 27. Remove the caps from the cylinder base end fittings and assemble the large hose end to the fittings.

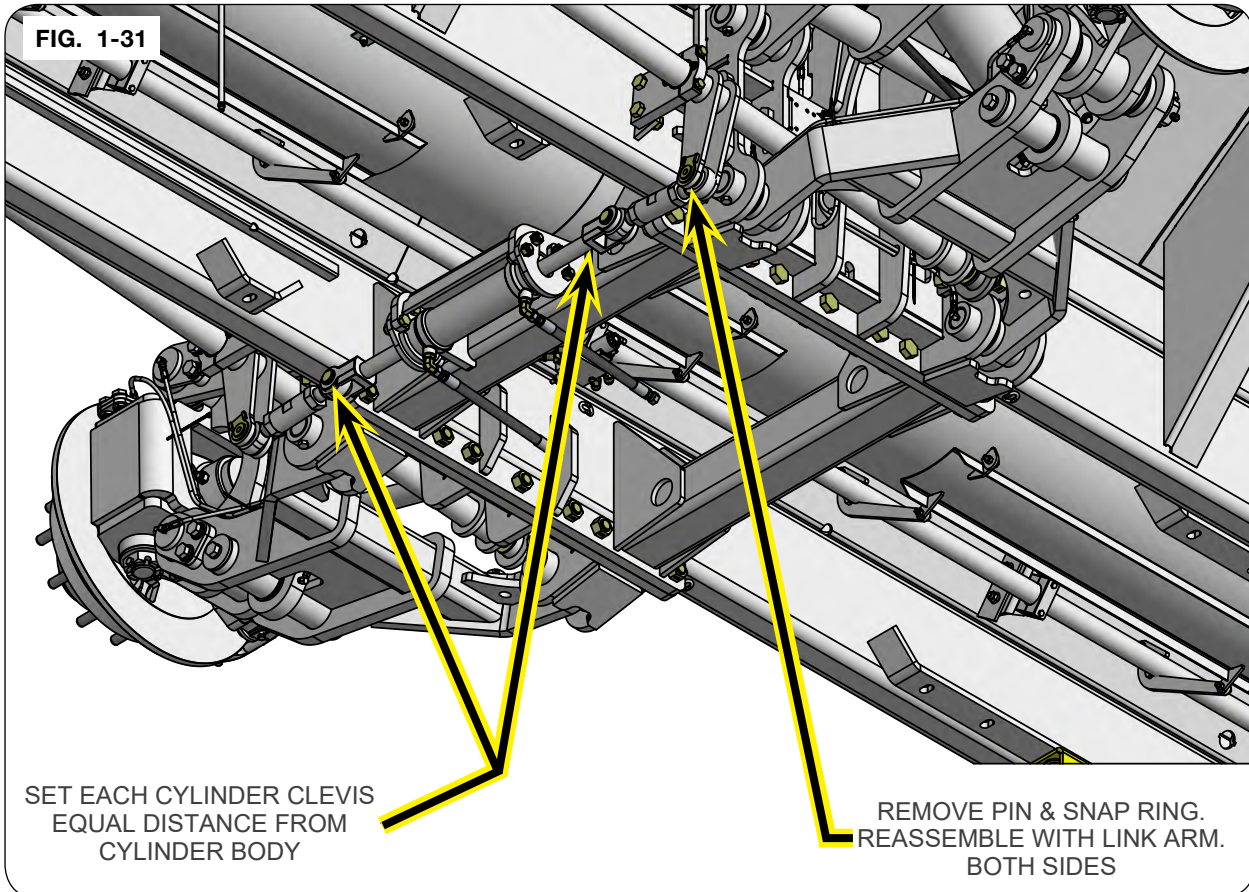


- 28. Remove the caps from the cylinder rod end fittings and assemble the smaller hose end to the fittings.



Steerable Tandem Assembly (continued)

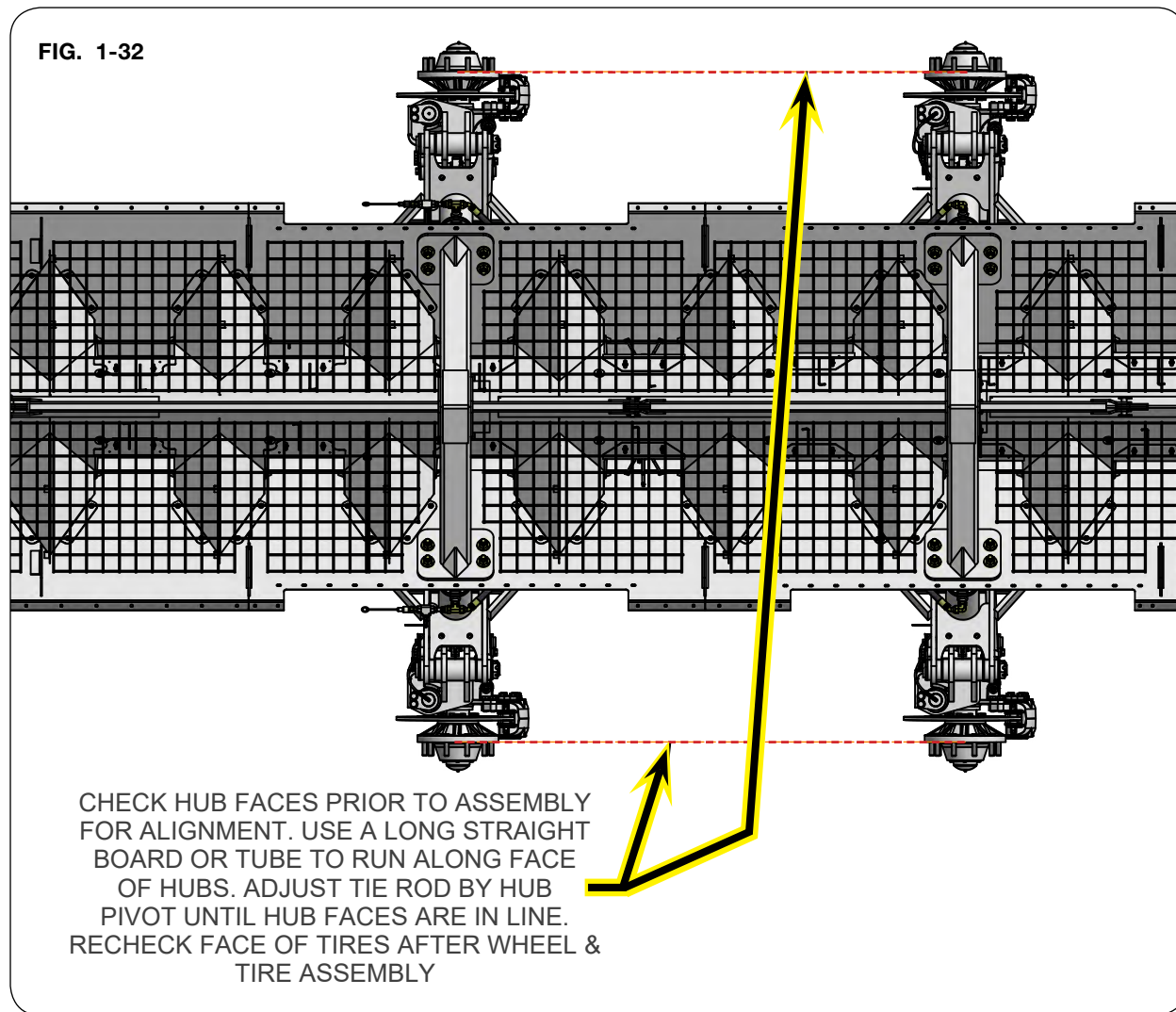
29. Set each cylinder clevis ends equal distance from the cylinder body (FIG. 1-31).
30. Attach the rocker link weldments to the turnbuckles with the pin and snap ring provided. (FIG. 1-31)



Steerable Tandem Assembly (continued)

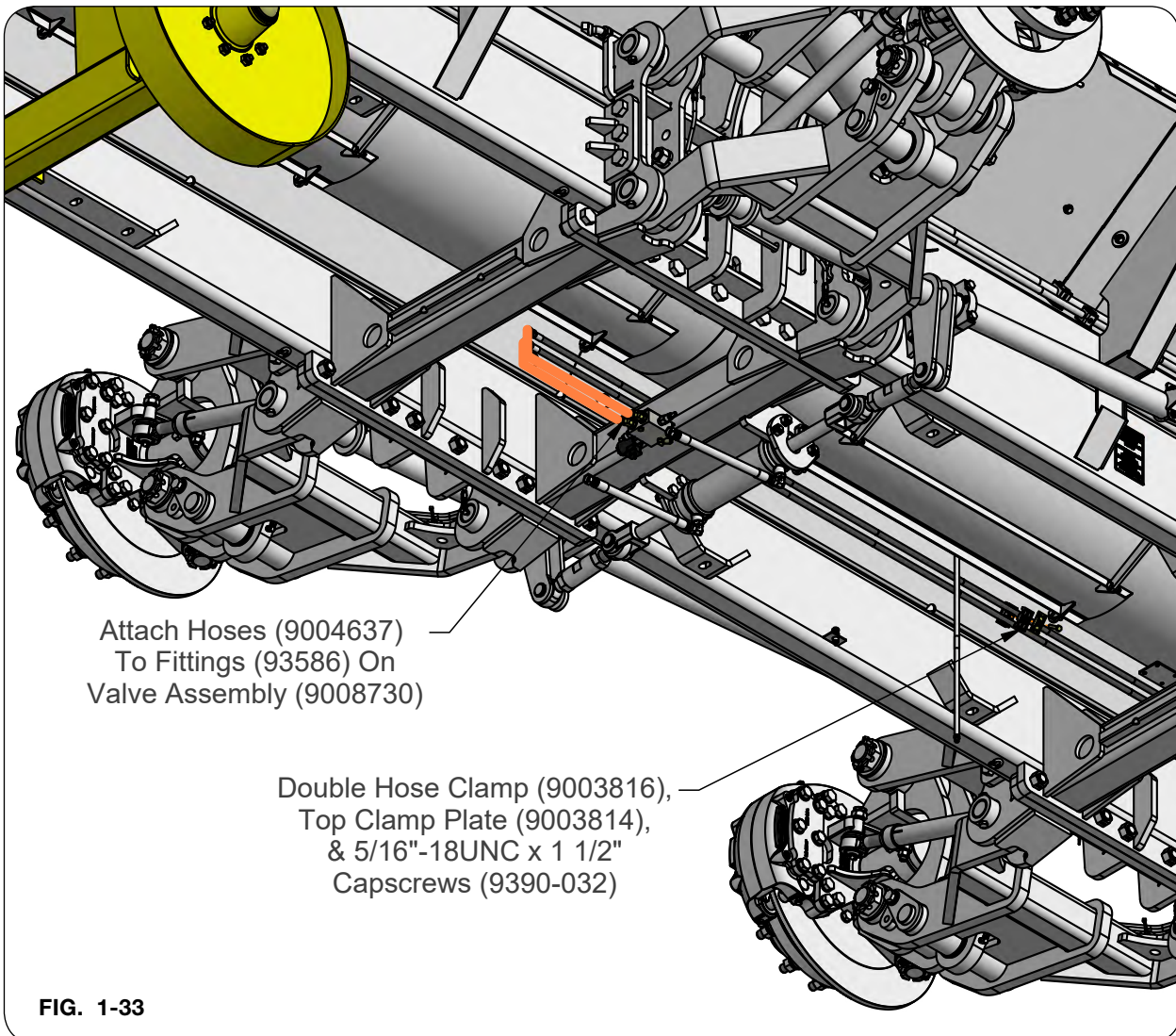
31. Check the hub faces.
32. Place a long straight board or tube along the face of the hubs.
33. Adjust the tie rods by hub pivot until the hub faces are in-line.

NOTE: Alignment will be checked again after the wheel and tire assemblies are attached.



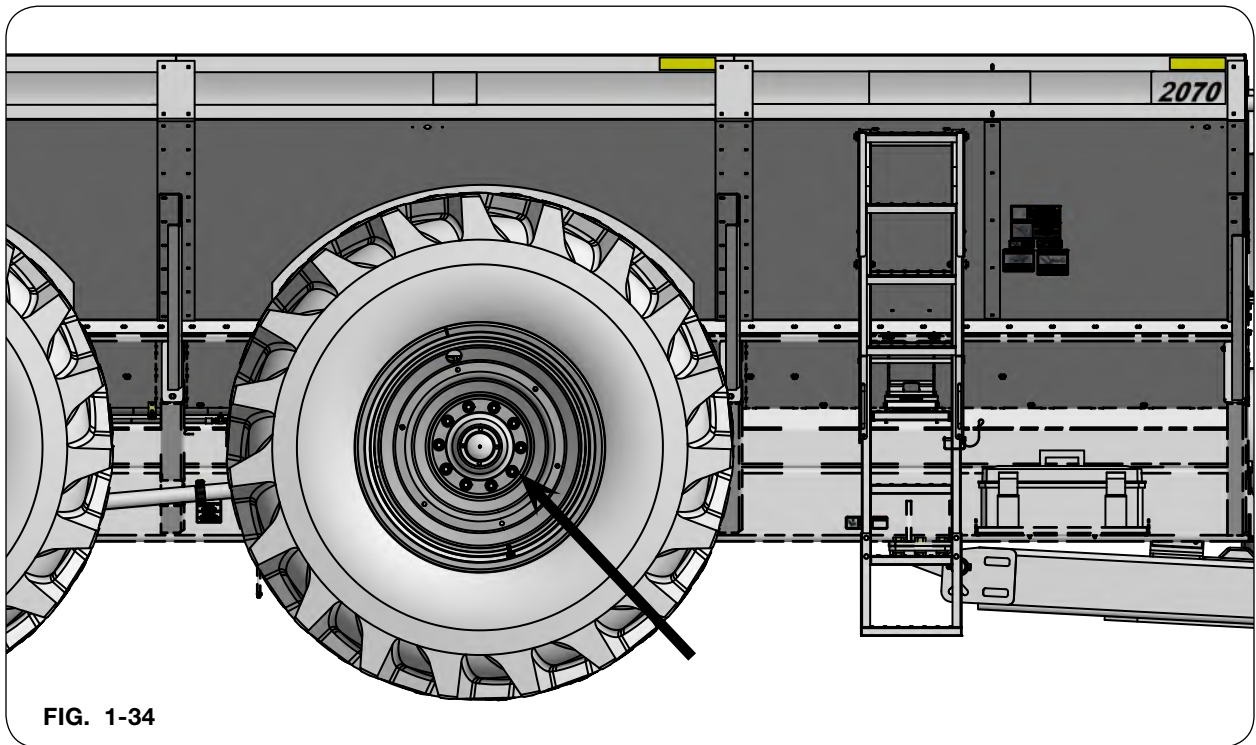
Steerable Tandem Assembly (continued)

34. Route the 1/4" x 430" hose (9004637) along the bottom of the cart with the 9/16-18 JIC female end towards the rear of the cart.
35. Attach the 1/4" x 430" hose (9004637) to the bottom of the cart with five double hose clamps (9003816), top clamp plate (9003814) and 5/16"-18UNC x 1 1/2" capscrews (9390-032). (FIG. 1-33)
36. Secure the 9/16-18 JIC female end of the 1/4" x 430" hose (9004637) to the 45° elbow fittings (93586) on the valve assembly (9008730). (FIG. 1-33)



Steerable Tandem Assembly (continued)

37. Using a safe lifting device rated at a minimum of 1,500 lbs. (682 kg.), attach the wheel and tire assemblies. (FIG. 1-34)
38. Secure the wheel and tire assemblies with the M22 x 1.5 flanged cap nuts (97319). Torque nuts to 475 Ft.-Lbs.

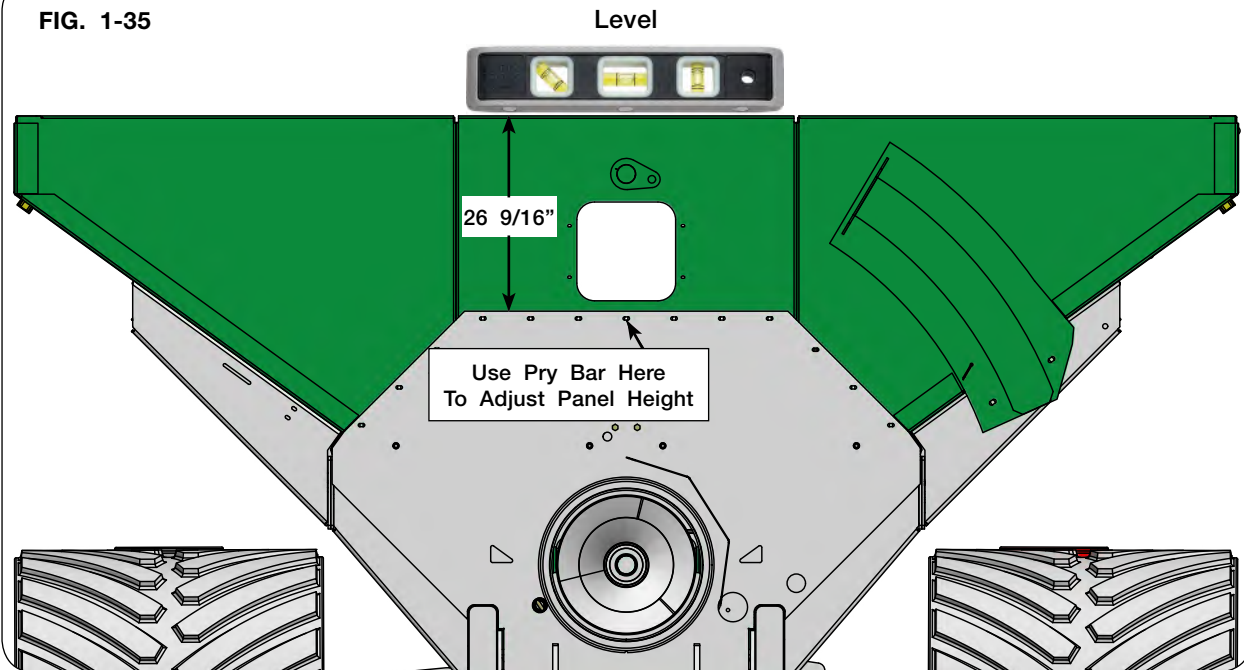


Tank Assembly

IMPORTANT

- Loosely install hardware. Do not tighten until instructed to do so. This will allow optimum fitment of the panels and braces.
 - Make sure the grain cart is level.
1. Use the panel lifting device provided and a safe lifting device rated at a minimum of 1,000 lbs. (454 kg.), loosely attach the front panels to the front of the cart with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). DO NOT assemble any hardware in the center hole.
 2. The top of the middle-front panel must be 26 9/16" to the top of the front hopper panel and level.
 3. Torque the front panels to the cart. See "Torque Chart" located in this manual.

FIG. 1-35



Tank Assembly (Continued)

4. Locate six splice trim hopper brace weldments (273085G or 273085R).
5. Use a safe lifting device rated at a minimum of 100 lbs. (45 kg.) to install all six splice trim hopper brace weldments (273085G or 273085R) to the back side of the hopper mount plate inside of the grain cart. Loosely attach the six braces to the cart with 5/8"-11UNC x 2" capscrews (9390-124), 5/8" lock washers (9404-030), 5/8" USS flat washers (9405-100), and 5/8"-11UNC hex nuts (9394-014).

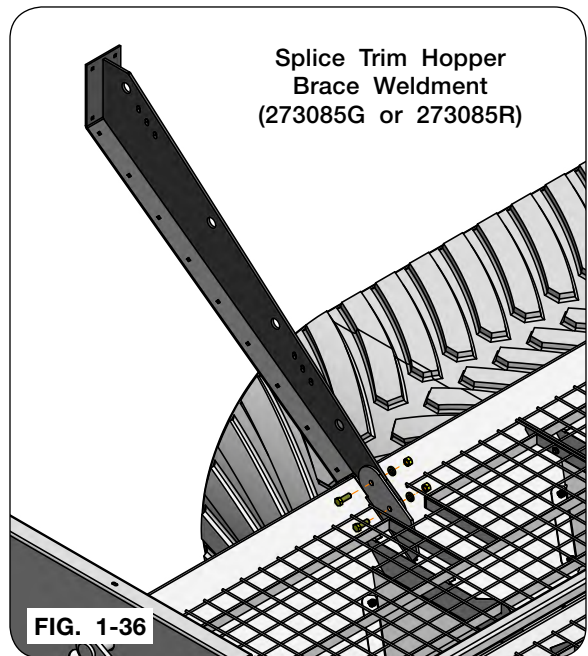
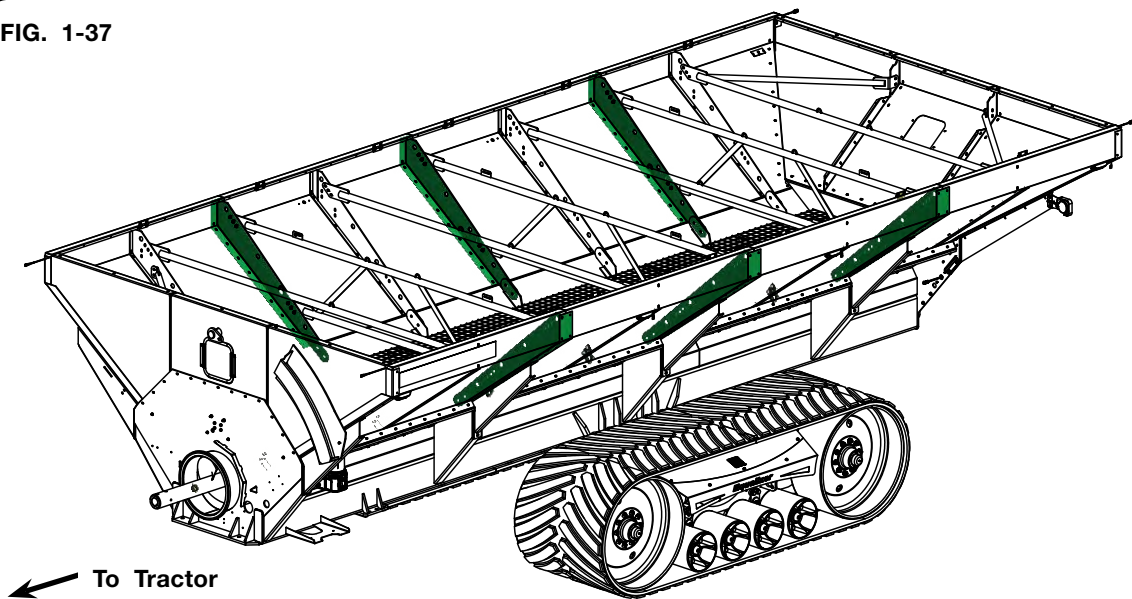


FIG. 1-37



Tank Assembly (Continued)

6. TRACK MODELS

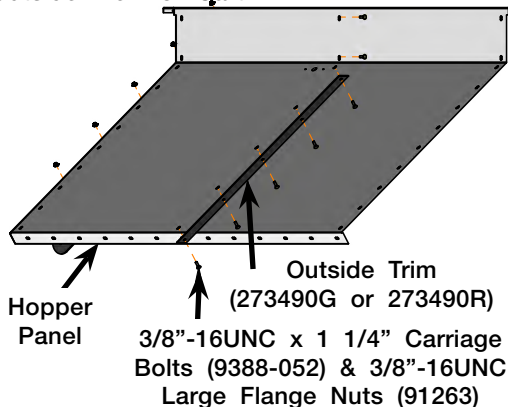
Locate eight outside trim plates (273490G or 273490R) and inside panel brace weldments (273367B). Also locate eight side hopper panels. (FIG. 1-38 & FIG. 1-39)

STEERABLE TANDEM MODELS

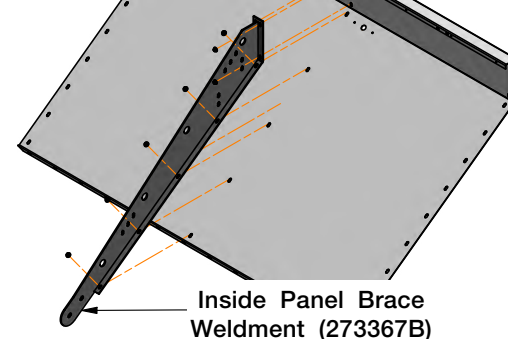
Locate four outside trim plates (273490G or 273490R) and inside panel brace weldments (273367B). Also locate the two front side hopper panels and two rear side hopper panels. (FIG. 1-38 & FIG. 1-39)

7. Use the panel lifting device provided and a safe lifting device rated at a minimum of 300 lbs. (136 kg.) to support a hopper panel. Attach using the inner hopper brace and exterior trim using 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-38 & FIG. 1-39)

Tracks ONLY 2nd & 3rd Panels **FIG. 1-38**
Outside View of Cart

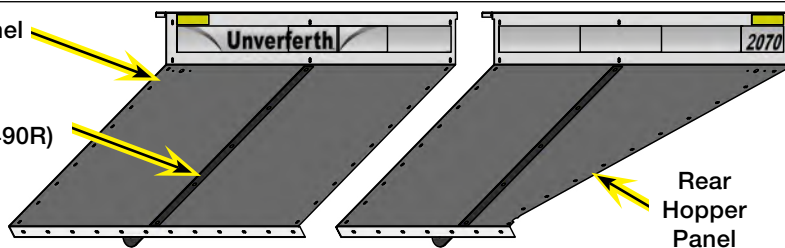


Tracks ONLY 2nd & 3rd Panels
Inside View of Cart



Front Hopper Panel

Outside Trim (273490G or 273490R)

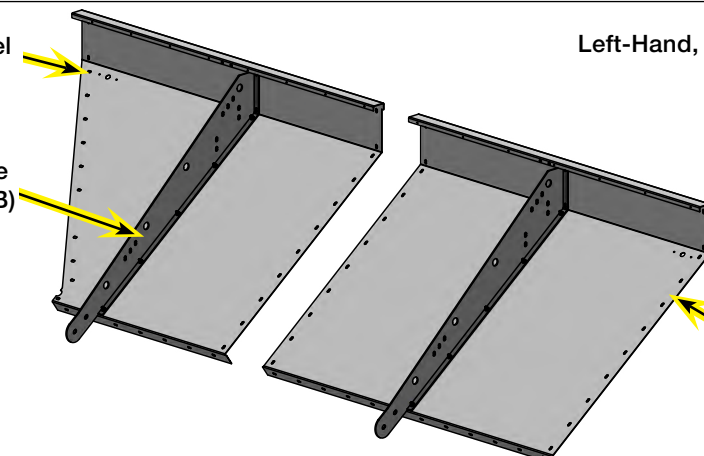


Left-Hand, Outside View of Cart

Rear Hopper Panel

Rear Hopper Panel

Inside Panel Brace Weldment (273367B)



Left-Hand, Inside View of Cart

Front Hopper Panel

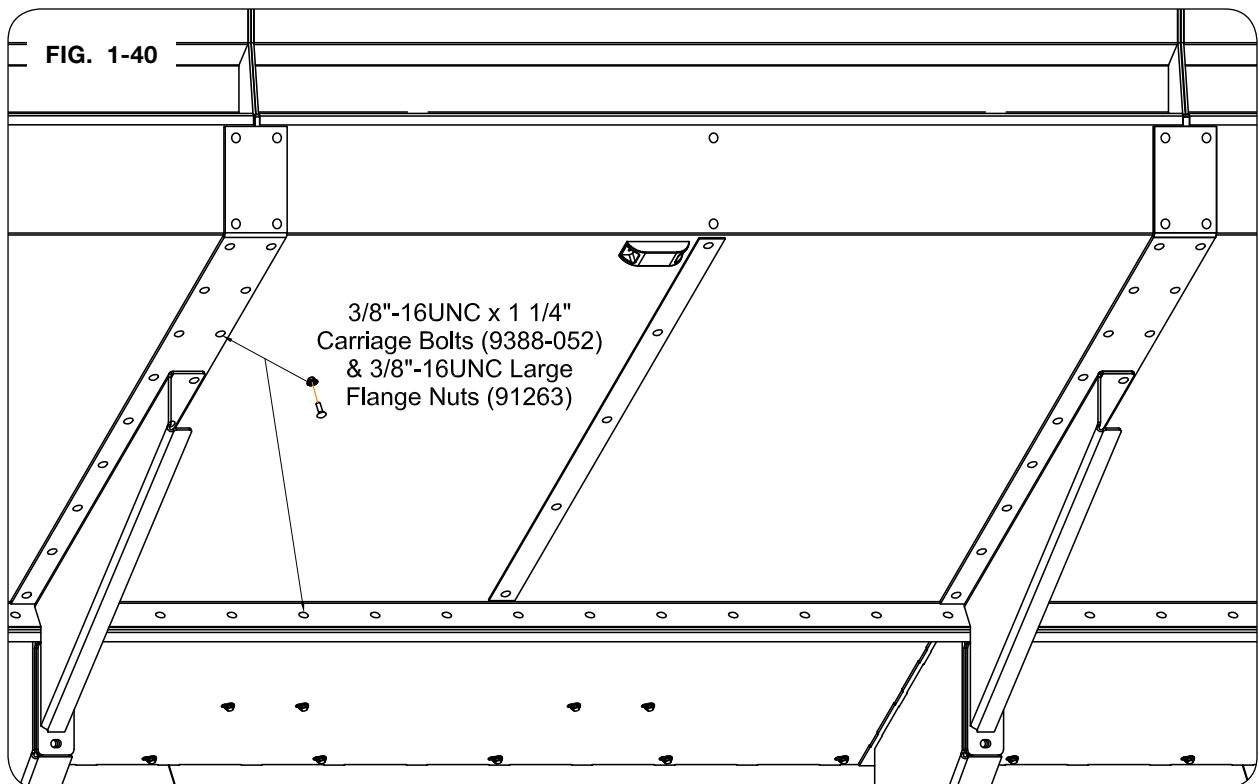
FIG. 1-39

Tank Assembly (Continued)

- Using the panel lifting device provided and a safe lifting device rated at a minimum of 300 lbs. (136 kg.), lift the hopper panels into position. Loosely secure panels to the panel braces and along the bottom of the hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Refer to steps 9 through 16.

NOTE: ADDITIONAL hardware will be added later when the exterior support braces are installed.

NOTE: Insert a pry bar to help align the holes in the panels with the braces and cart.

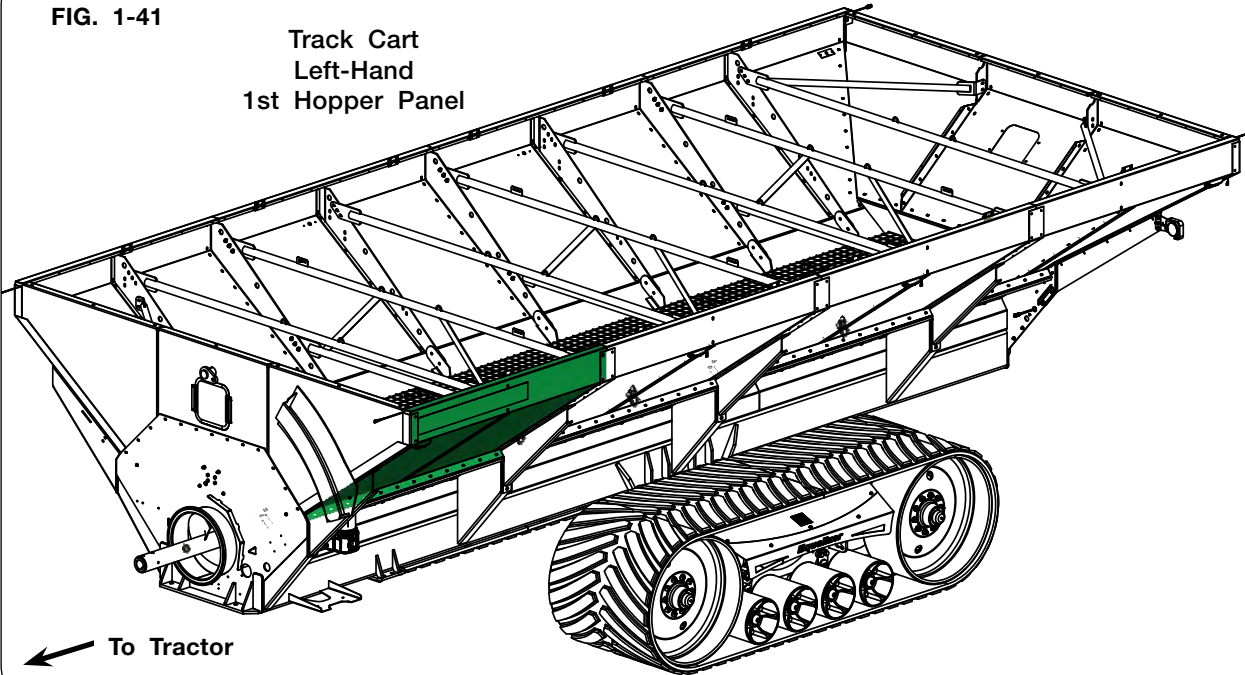


Tank Assembly (Continued)

9. Attach the left-hand front/1st hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-41 & FIG. 1-42)

FIG. 1-41

Track Cart
Left-Hand
1st Hopper Panel



Steerable Tandem Cart
Left-Hand
1st Hopper Panel

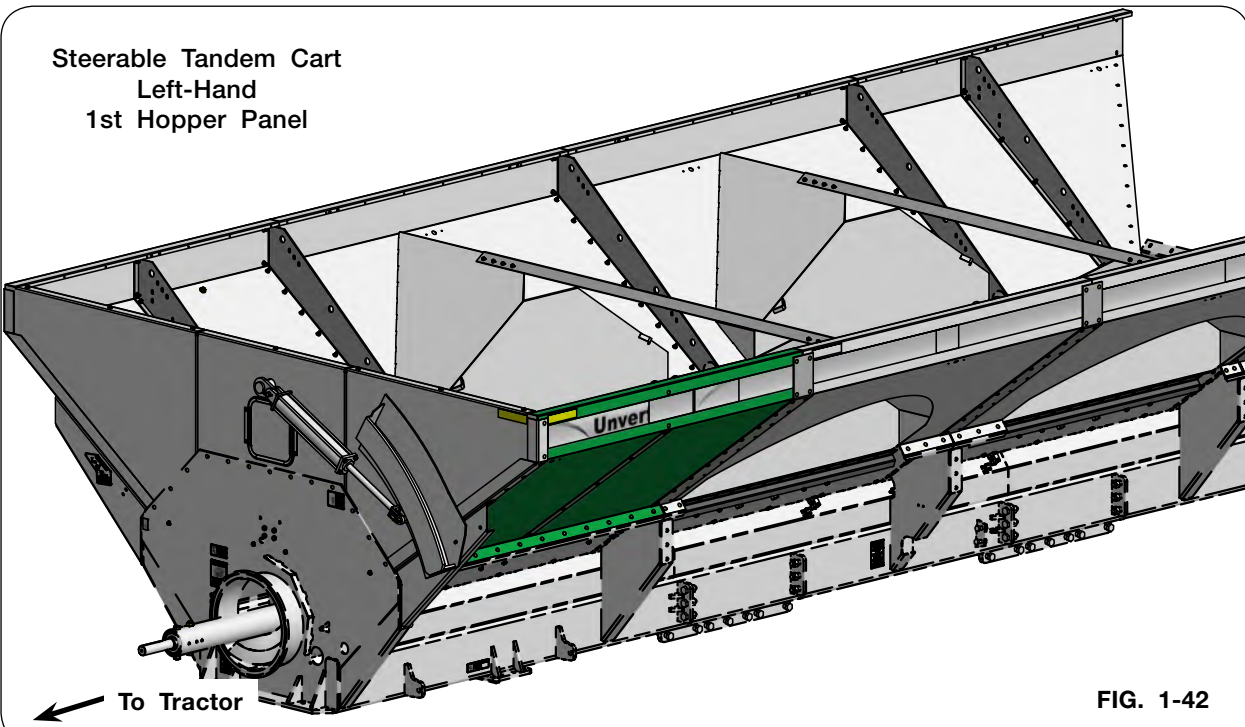


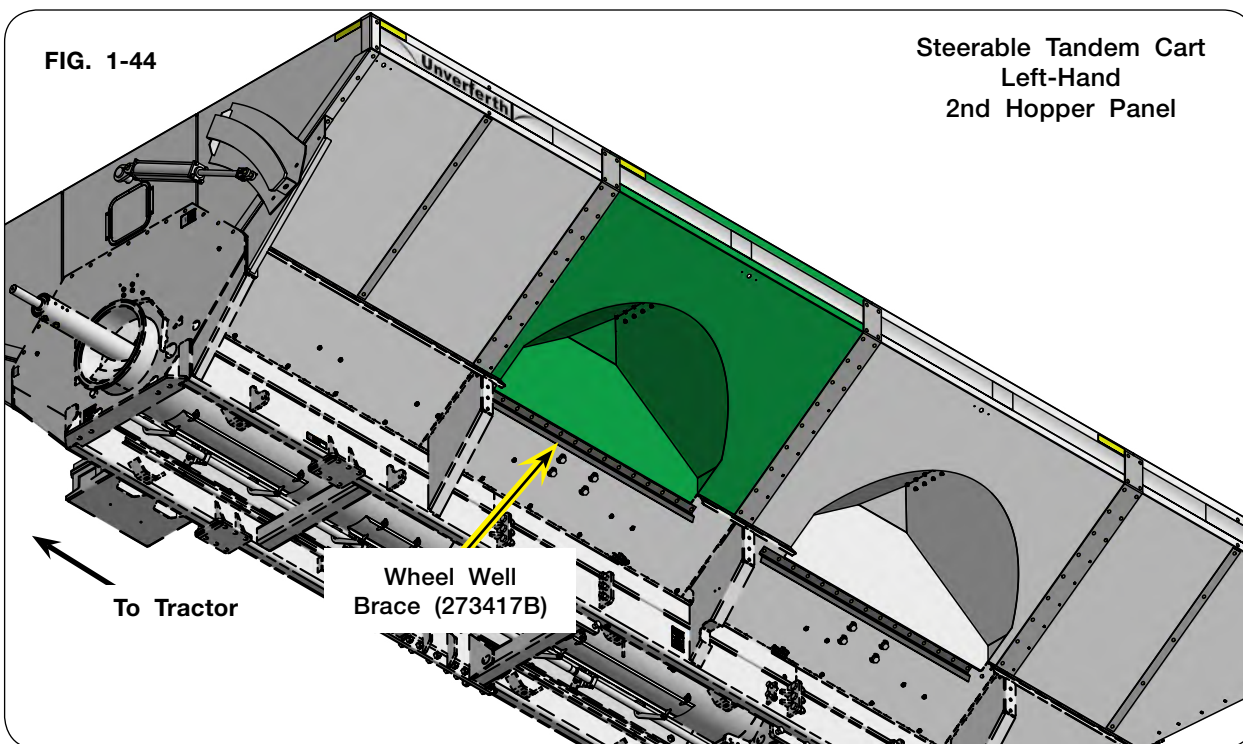
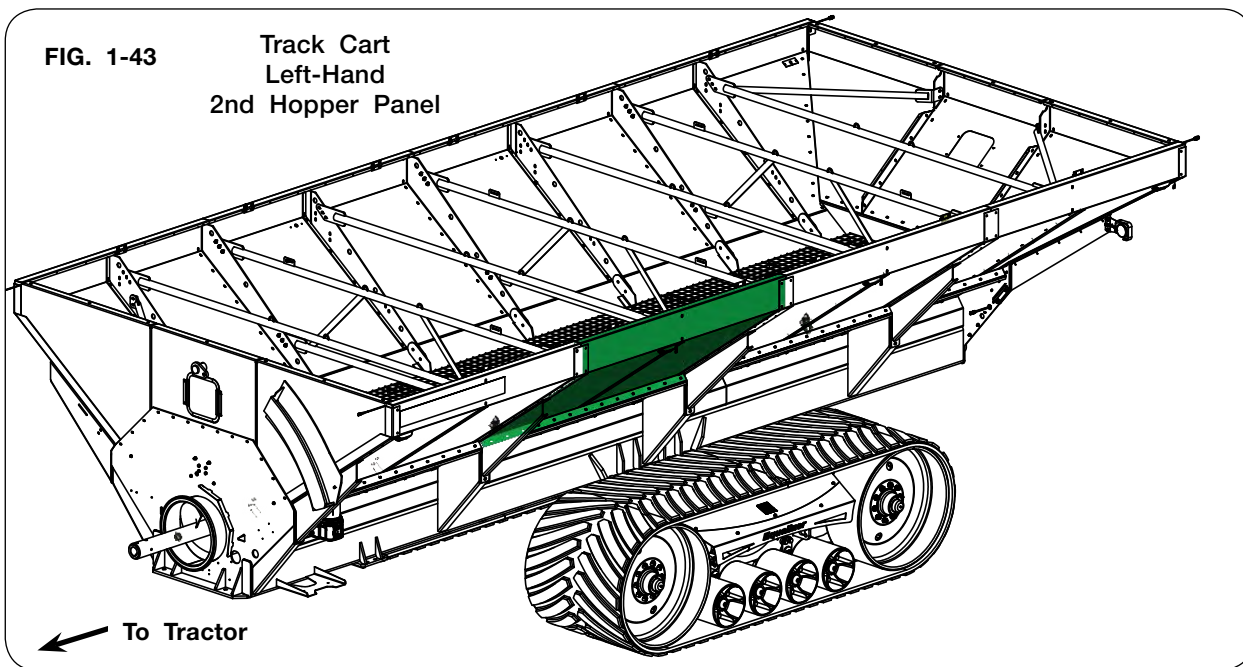
FIG. 1-42

Tank Assembly (Continued)

10. Attach the left-hand 2nd hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-43 & FIG. 1-44)

STEERABLE TANDEM CART ONLY

Secure the bottom of the 2nd hopper panel with wheel well brace (273417B), 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).



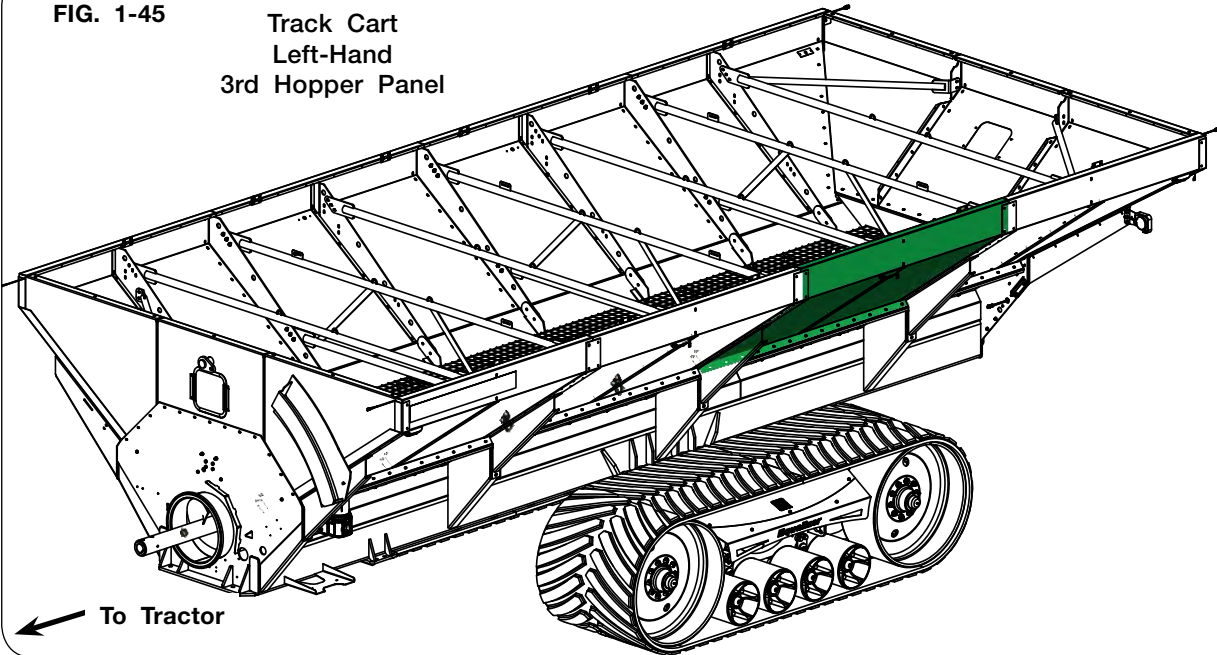
Tank Assembly (Continued)

11. Attach the left-hand 3rd hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-45 & FIG. 1-46)

STEERABLE TANDEM CART ONLY

Secure the bottom of the 3rd hopper panel with wheel well brace (273417B), 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).

FIG. 1-45
Track Cart
Left-Hand
3rd Hopper Panel



Steerable Tandem Cart
Left-Hand
3rd Hopper Panel

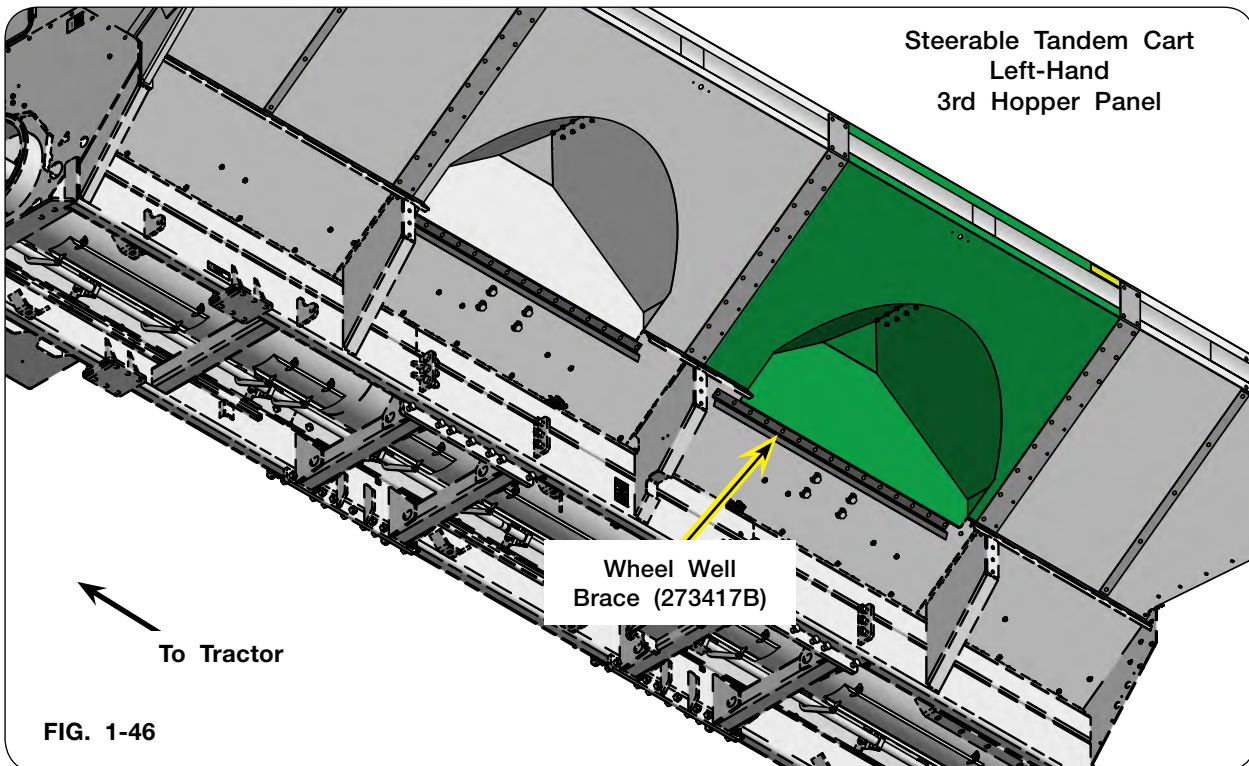
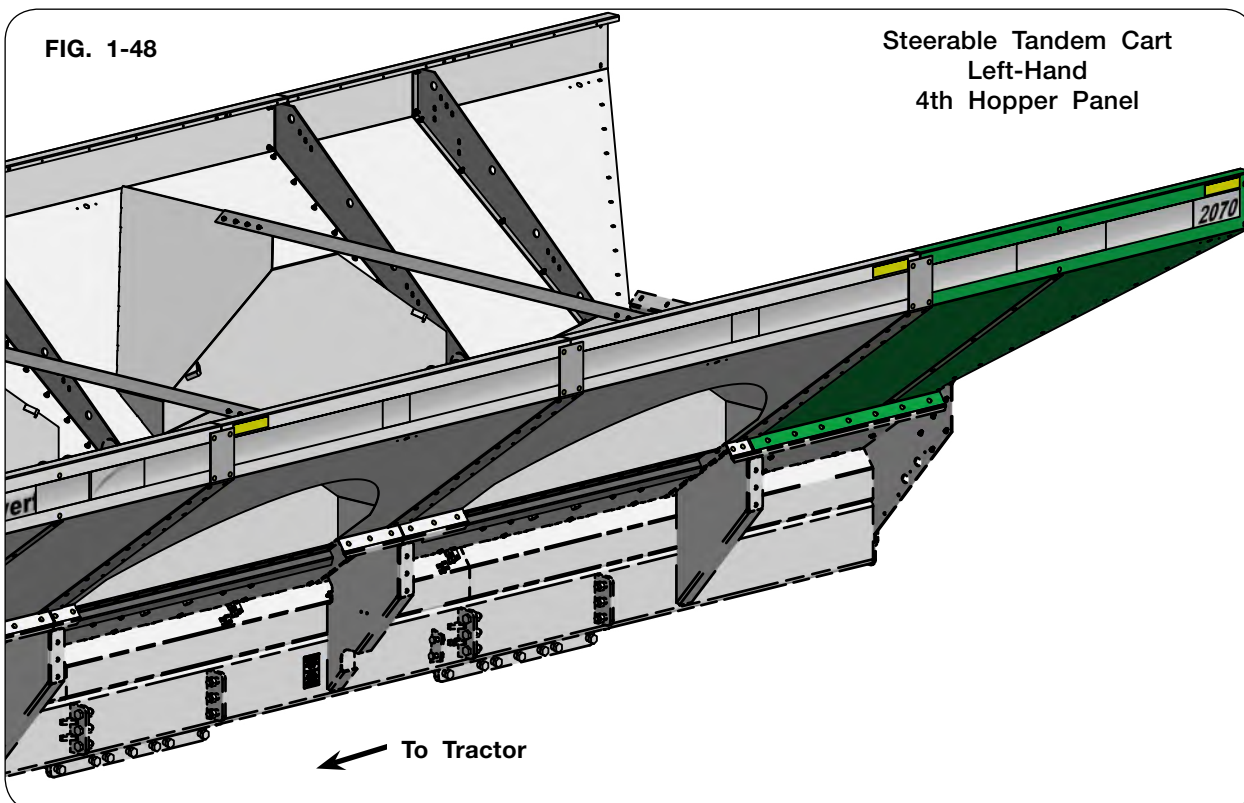
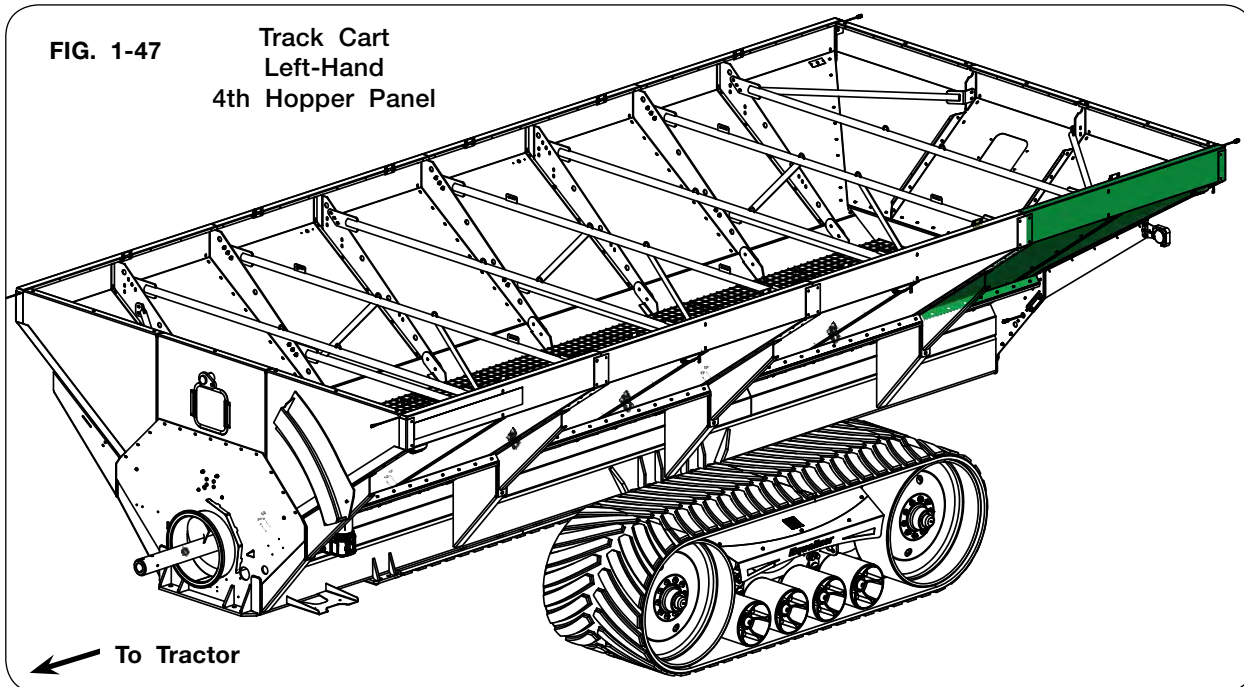


FIG. 1-46

Tank Assembly (Continued)

12. Attach the left-hand rear/4th hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-47 & FIG. 1-48)

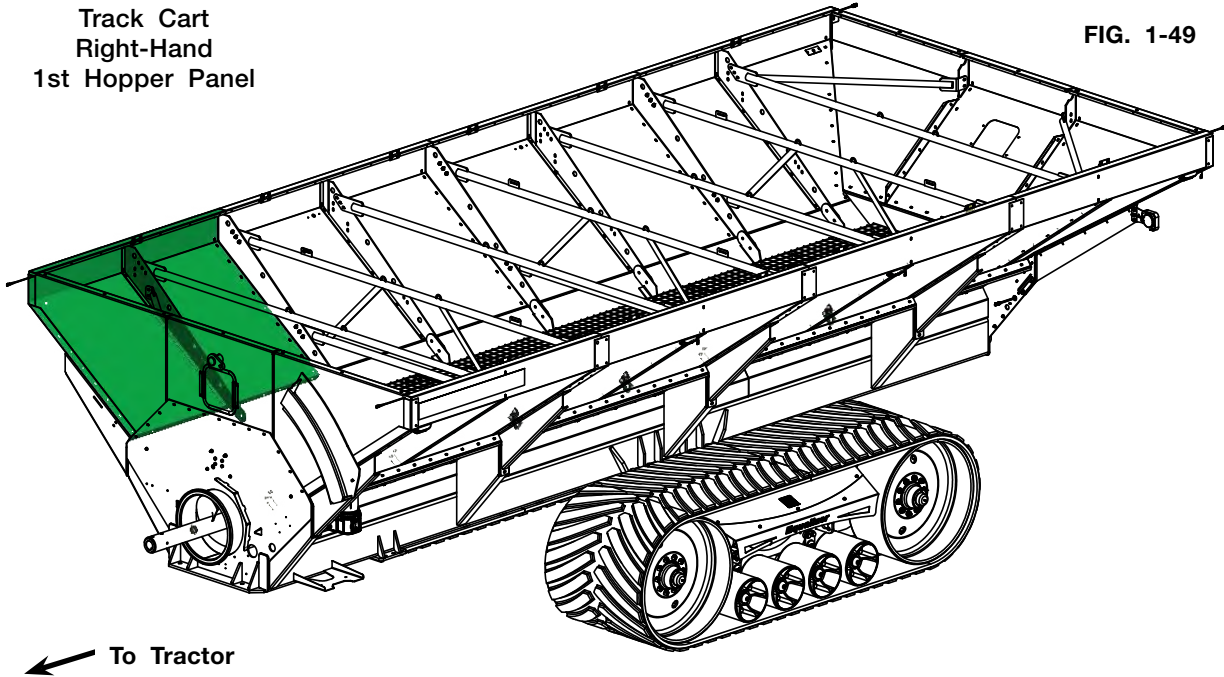


Tank Assembly (Continued)

13. Attach the right-hand front/1st hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-49 & FIG. 1-50)

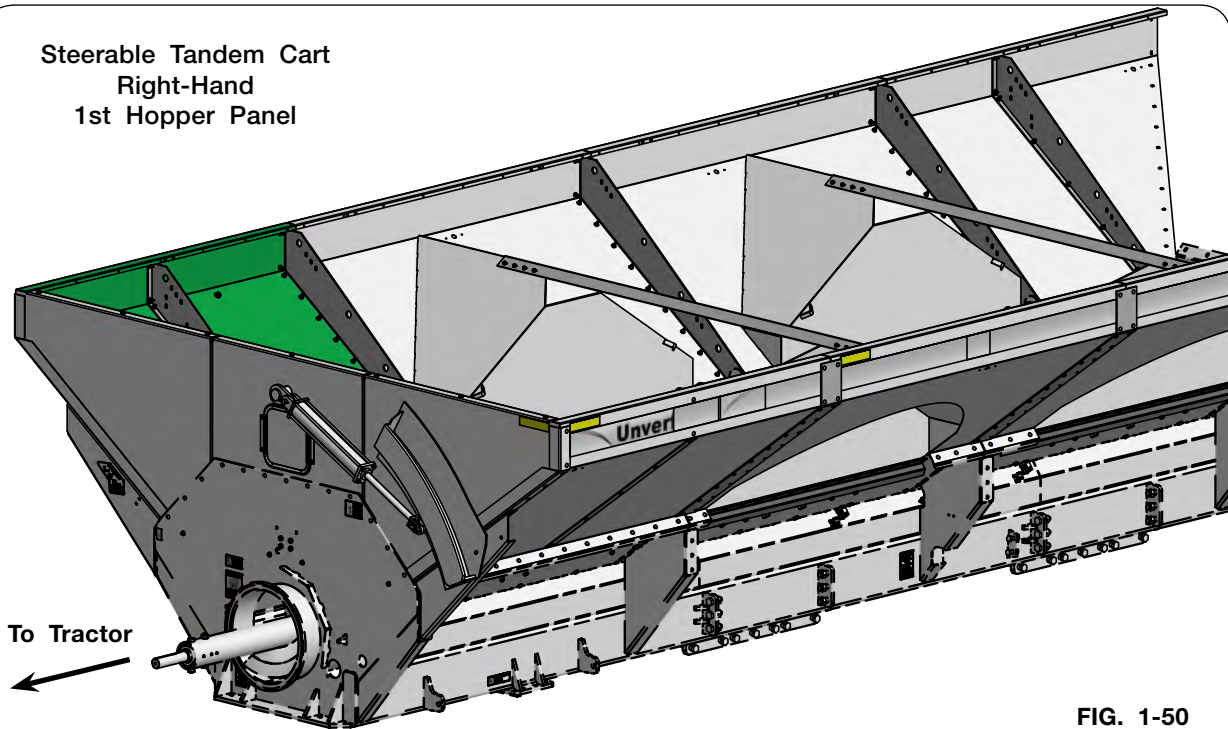
Track Cart
Right-Hand
1st Hopper Panel

FIG. 1-49



Steerable Tandem Cart
Right-Hand
1st Hopper Panel

FIG. 1-50

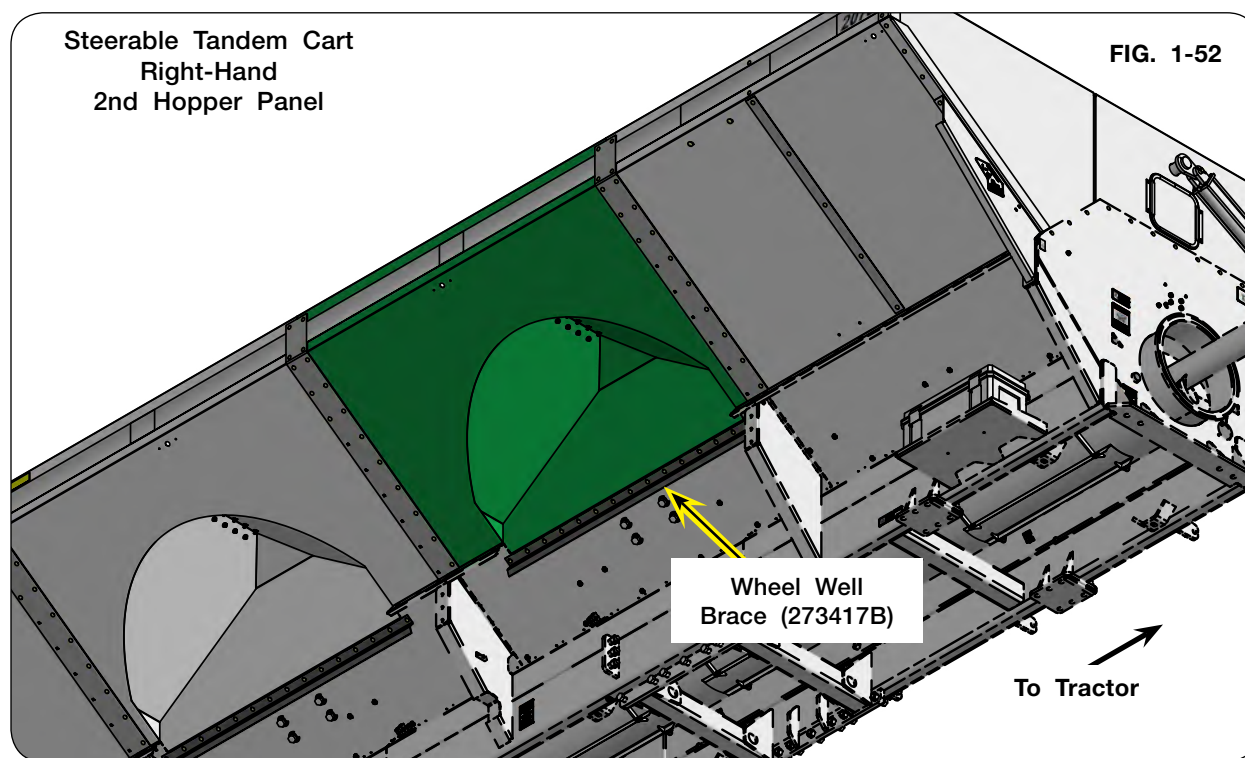
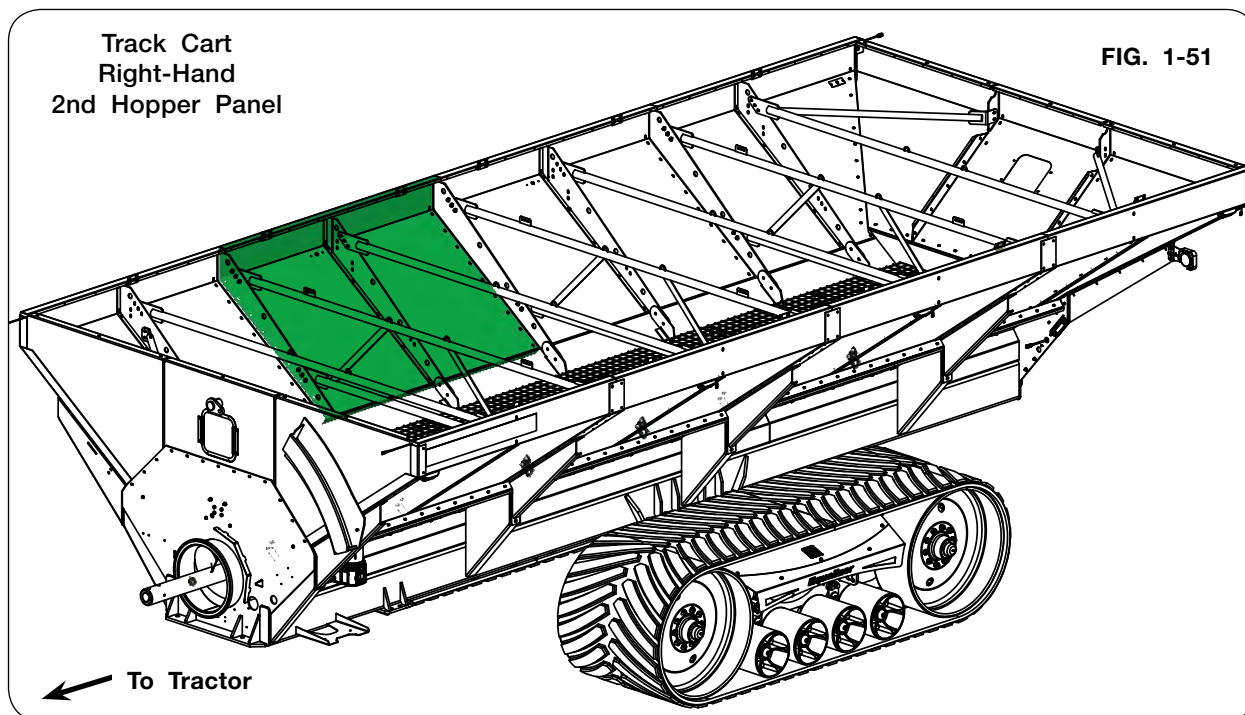


Tank Assembly (Continued)

14. Attach the right-hand 2nd hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-51 & FIG. 1-52)

STEERABLE TANDEM CART ONLY

Secure the bottom of the 2nd hopper panel with wheel well brace (273417B), 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).



Tank Assembly (Continued)

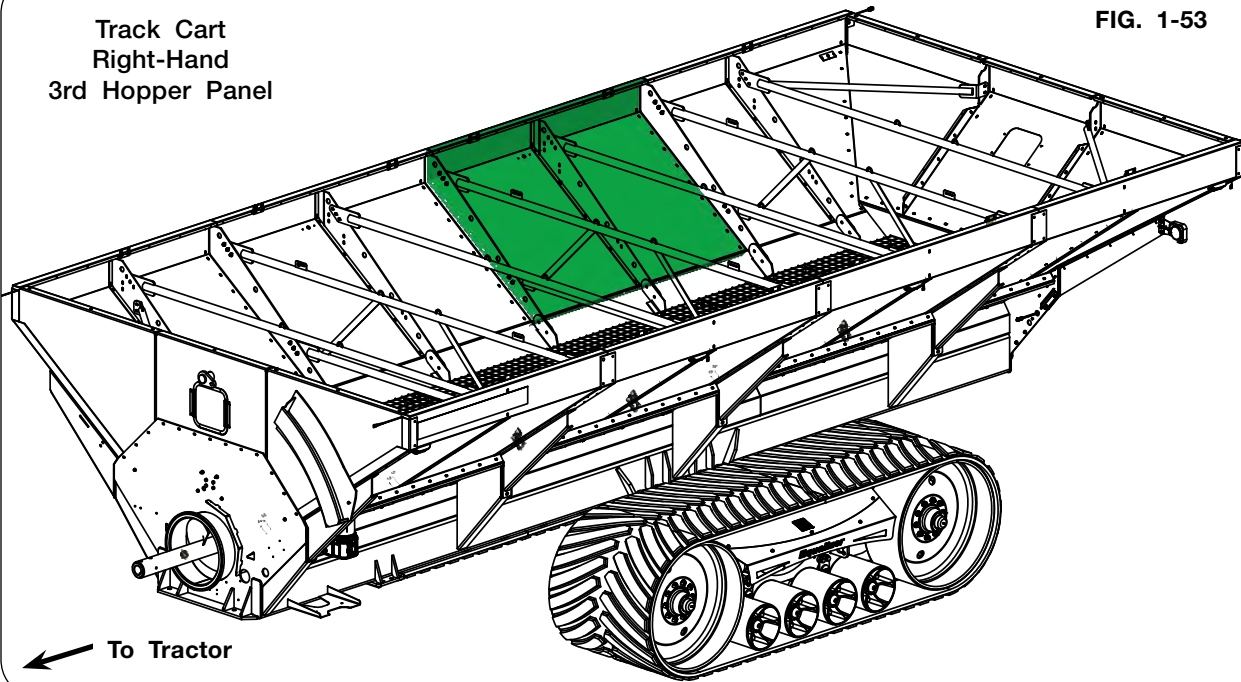
15. Attach the right-hand 3rd hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-53 & FIG. 1-54)

STEERABLE TANDEM CART ONLY

Secure the bottom of the 3rd hopper panel with wheel well brace (273417B), 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).

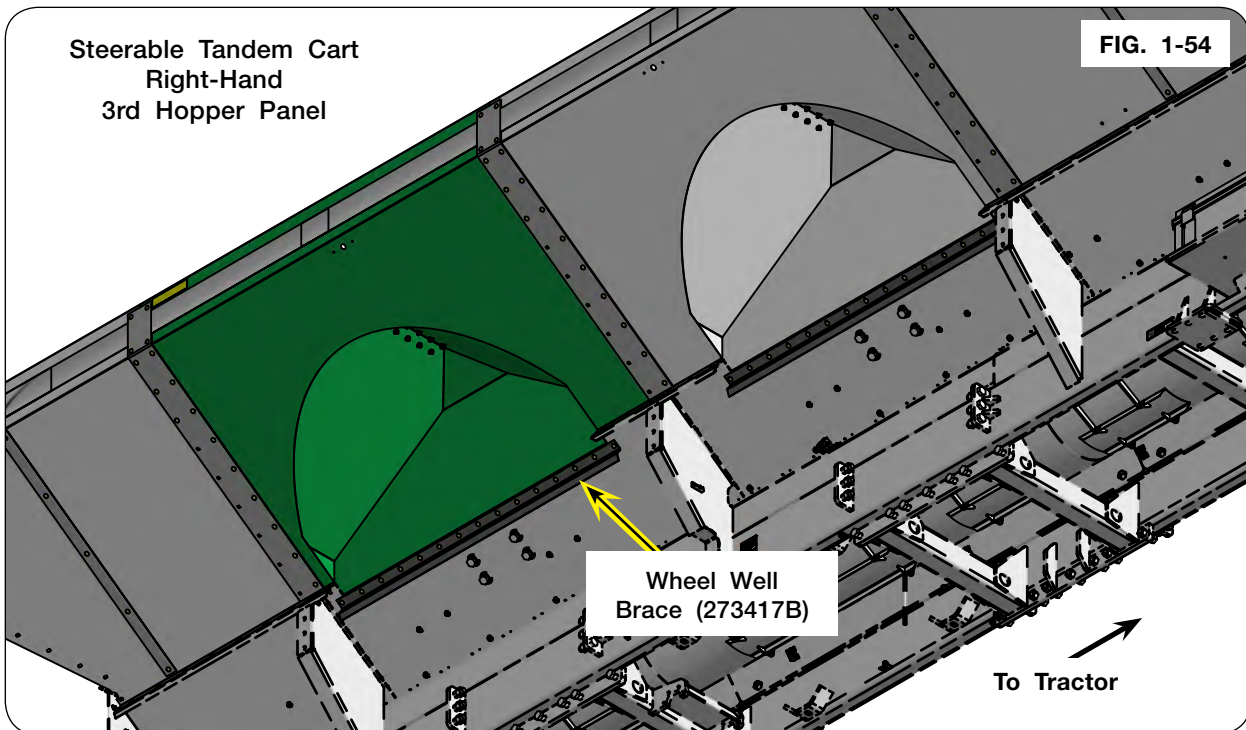
Track Cart
Right-Hand
3rd Hopper Panel

FIG. 1-53



Steerable Tandem Cart
Right-Hand
3rd Hopper Panel

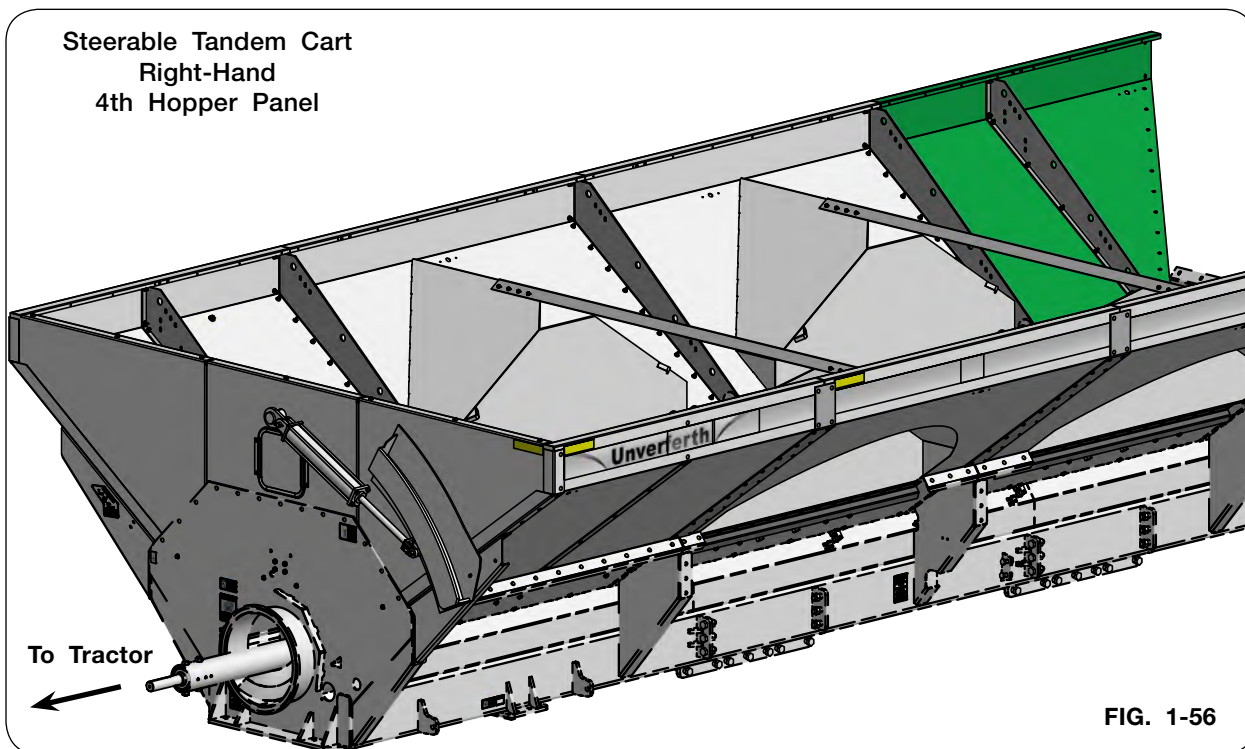
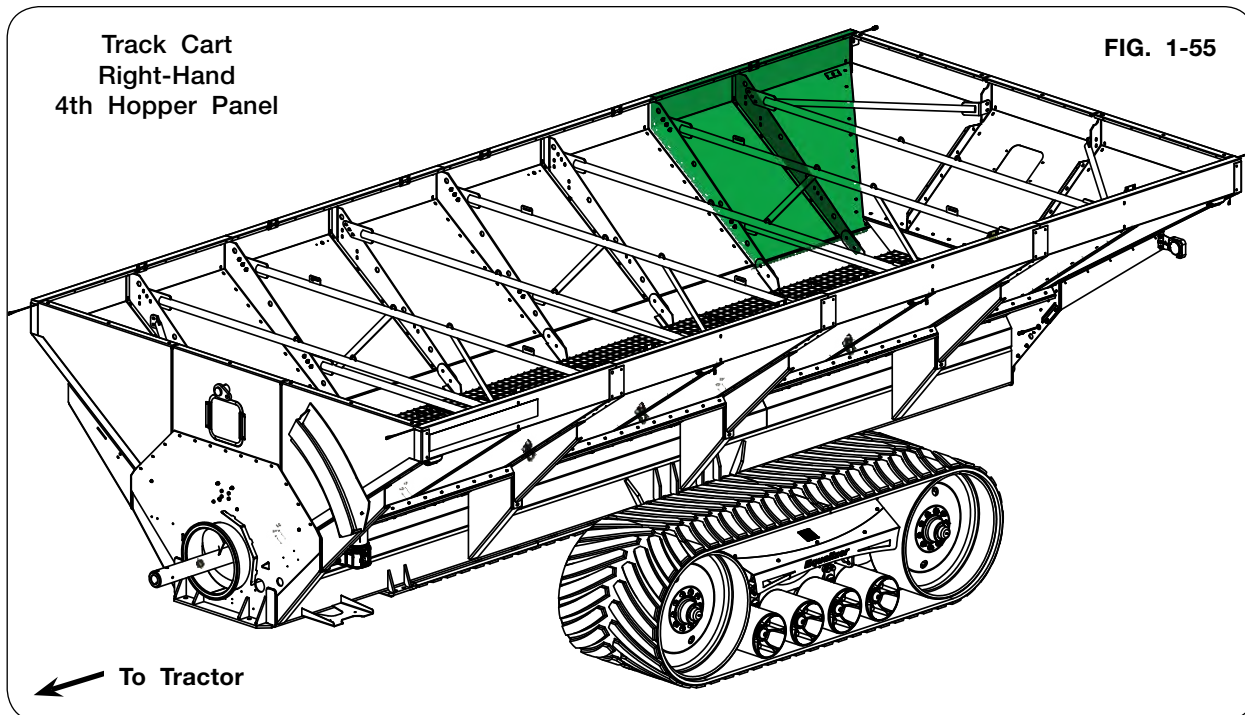
FIG. 1-54



Wheel Well
Brace (273417B)

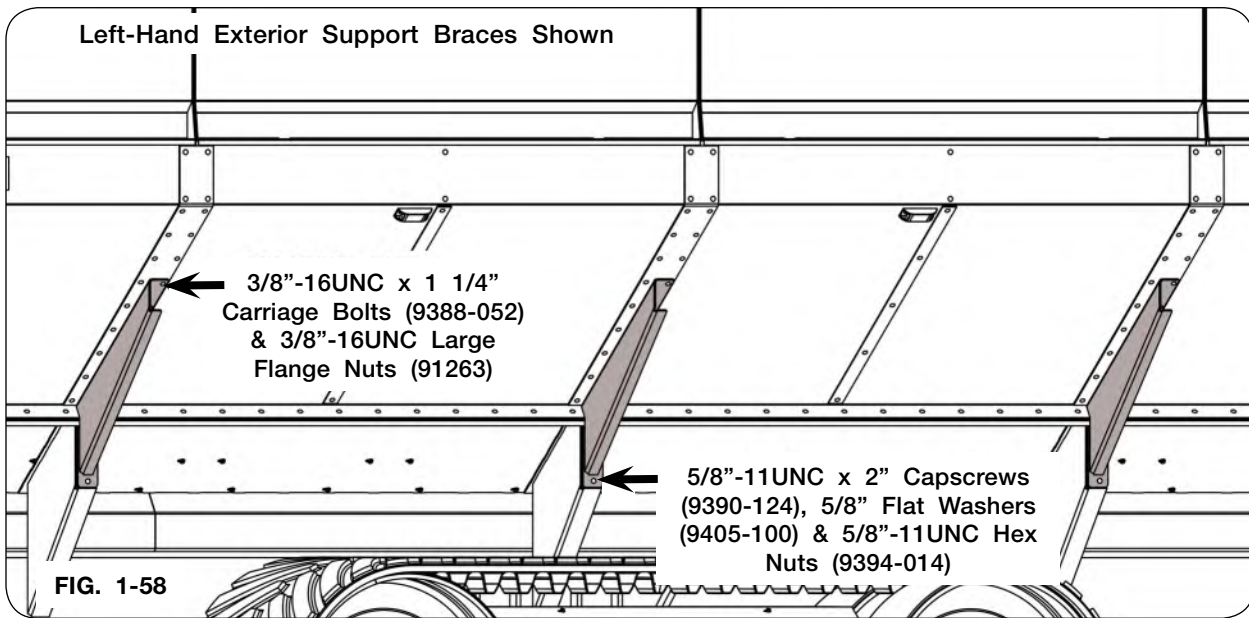
Tank Assembly (Continued)

16. Attach the right-hand rear/4th hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-55 & FIG. 1-56)



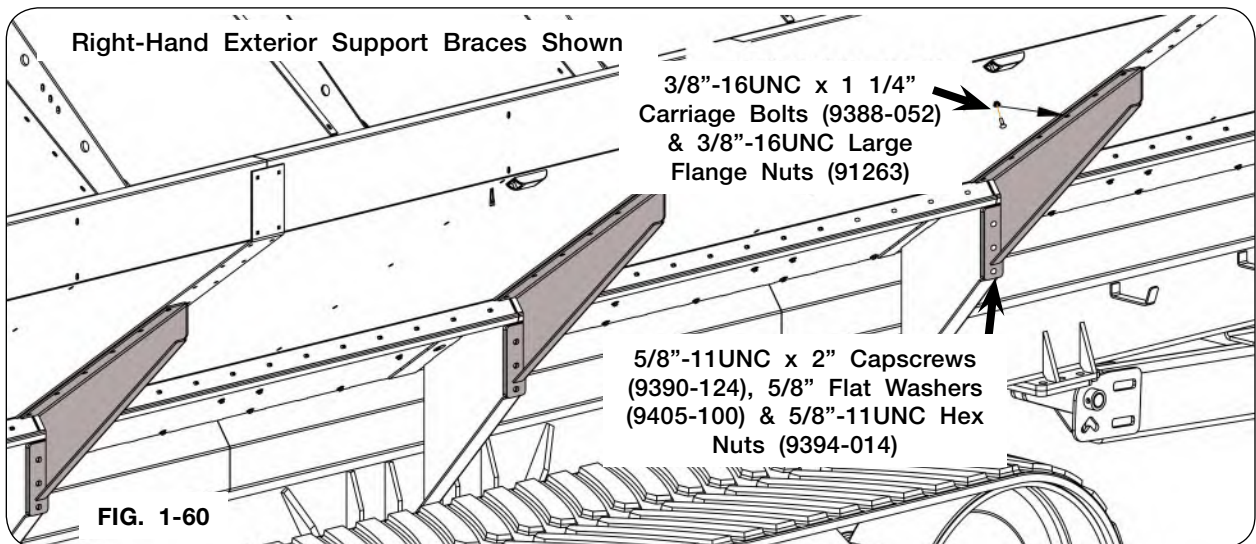
Tank Assembly (Continued)

- Loosely attach the left-hand exterior support brace to the hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Use clamps to help make sure the exterior support braces are properly positioned on the cart. Secure the exterior support brace to the grain cart with 5/8"-11UNC x 2" capscrews (9390-124), 5/8" flat washers (9405-100), and 5/8"-11UNC hex nuts (9394-014).



Tank Assembly (Continued)

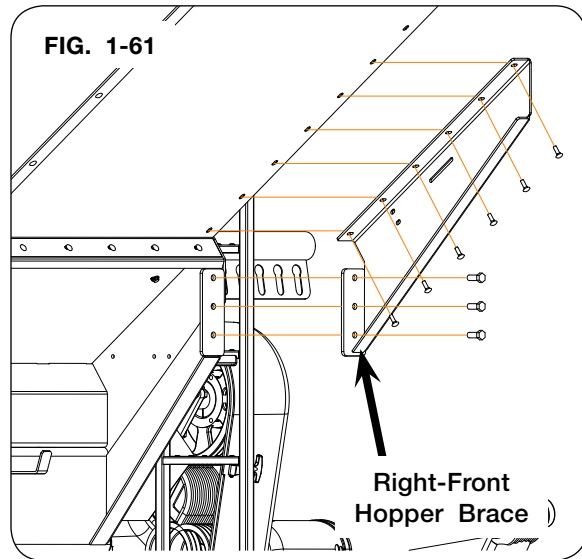
18. Loosely attach the right-hand exterior support brace to the hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Use clamps to help make sure the exterior support braces are properly positioned on the cart. Secure the exterior support brace to the grain cart with 5/8"-11UNC x 2" capscrews (9390-124), 5/8" flat washers (9405-100), and 5/8"-11UNC hex nuts (9394-014).



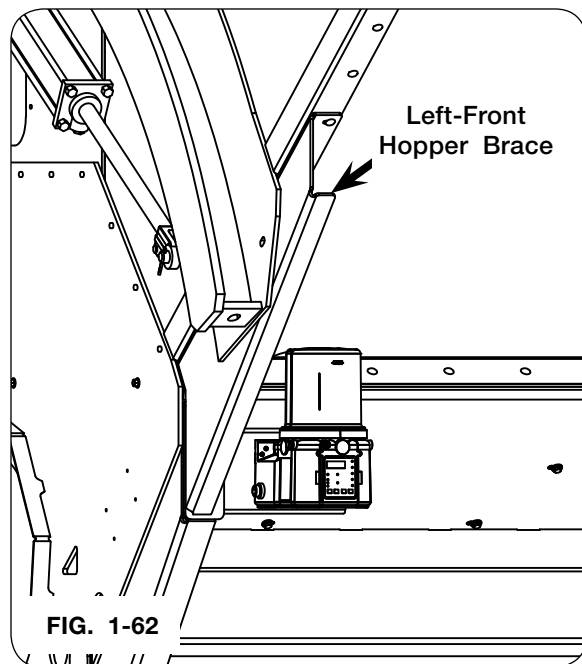
19. Torque the bottom of the exterior support brace to the side of the cart. See "Torque Chart" located in this manual.

Tank Assembly (Continued)

20. Loosely attach the right-front exterior support brace to the hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Secure the right-front exterior support brace to the grain cart with 5/8"-11UNC x 2" capscrews (9390-124) and 5/8"-11UNC hex nuts (9394-014).

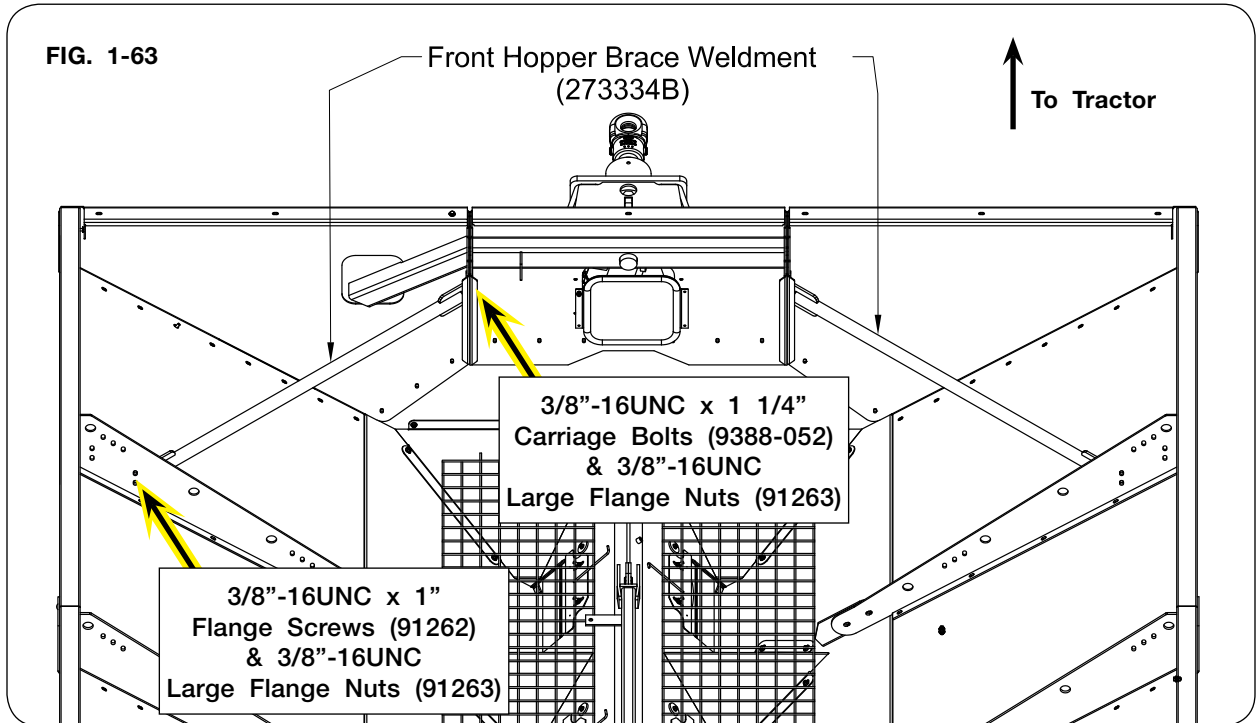


21. Loosely attach the left-front exterior support brace to the hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Secure the left-front exterior support brace to the grain cart with 5/8"-11UNC x 2" capscrews (9390-124) and 5/8"-11UNC hex nuts (9394-014).



Tank Assembly (Continued)

22. Loosely attach the front and side hopper panels with front hopper brace weldments (273334B), using 3/8"-16UNC x 1 1/4" carriage bolts, 3/8"-16UNC x 1" flange screws (91262), and 3/8"-16UNC large flange nuts (91263).



Tank Assembly (Continued)

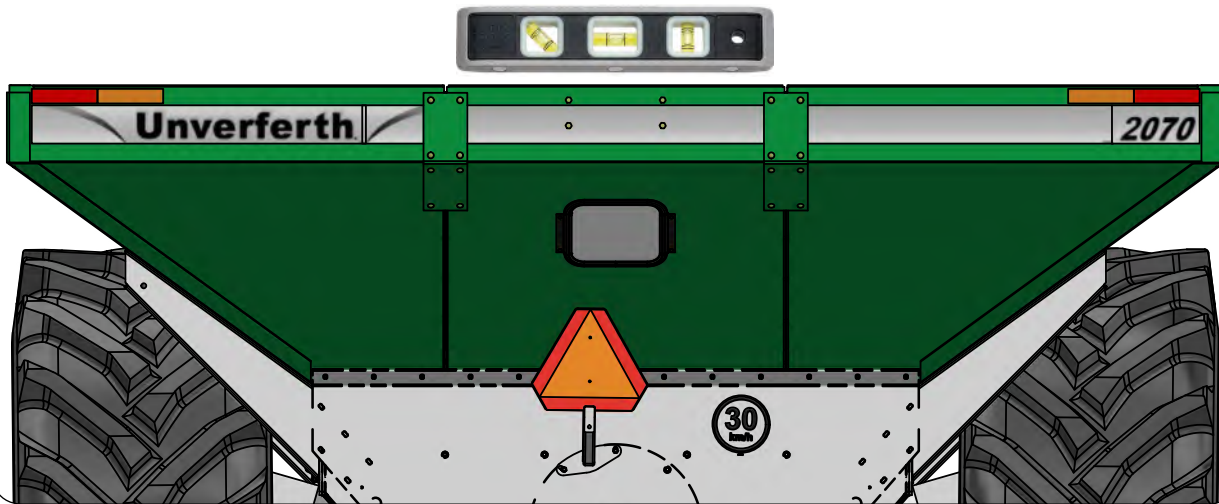
23. Use the panel lifting device provided and a safe lifting device rated at a minimum of 1,000 lbs. (454 kg.), loosely attach the rear hopper panels with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).

IMPORTANT

- *Make sure the tops of the rear panels remain level.*

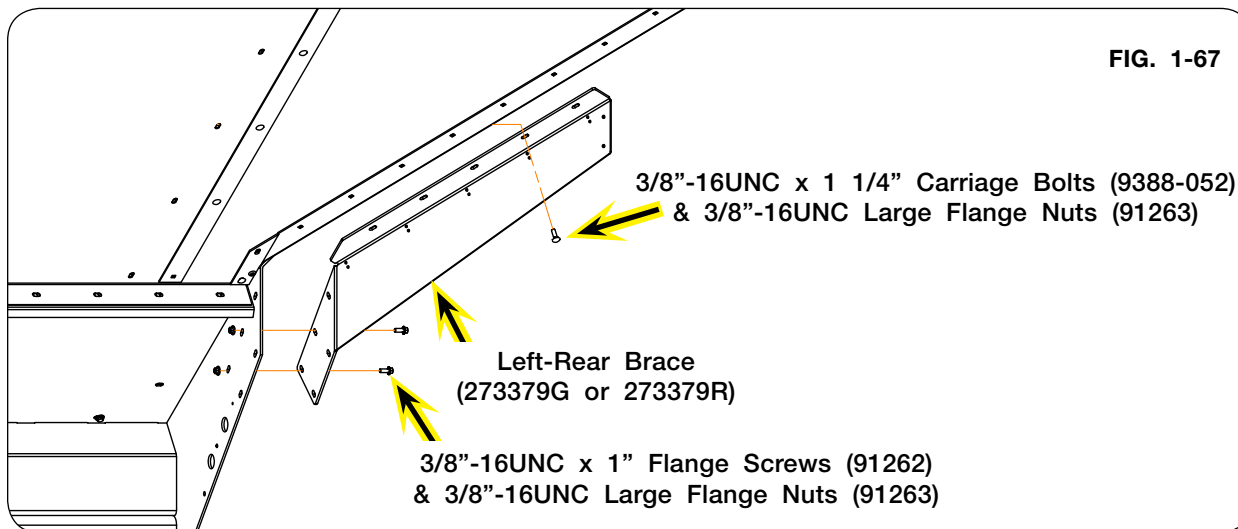
FIG. 1-66

Level

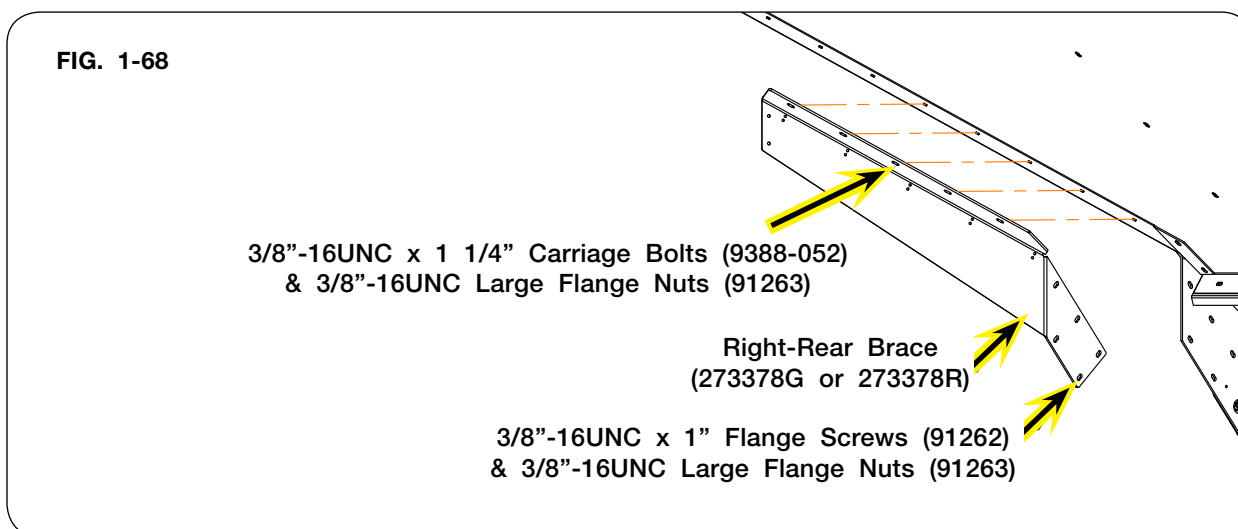


Tank Assembly (Continued)

24. Use safe lifting device rated at a minimum of 300 lbs. (136 kg.), loosely attach the left-rear brace (273379G or 273379R) to the left-rear hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Attach the bottom of the left-rear brace (273379G or 273379R) to the left-rear panel with 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).

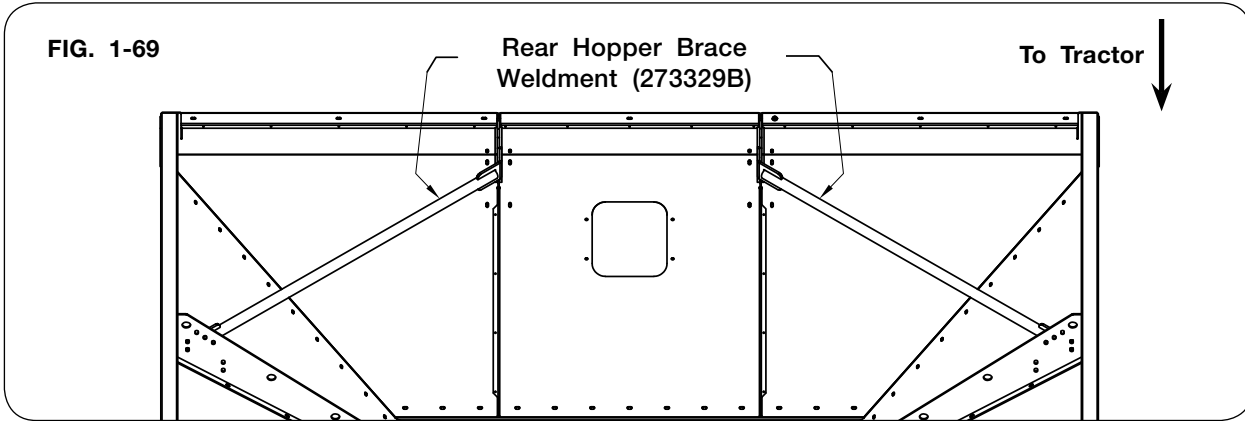


25. Use safe lifting device rated at a minimum of 300 lbs. (136 kg.), loosely attach the right-rear brace (273378G or 273378R) to the right-rear hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263). Attach the bottom of the right-rear brace (273379G or 273379R) to the right-rear panel with 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).

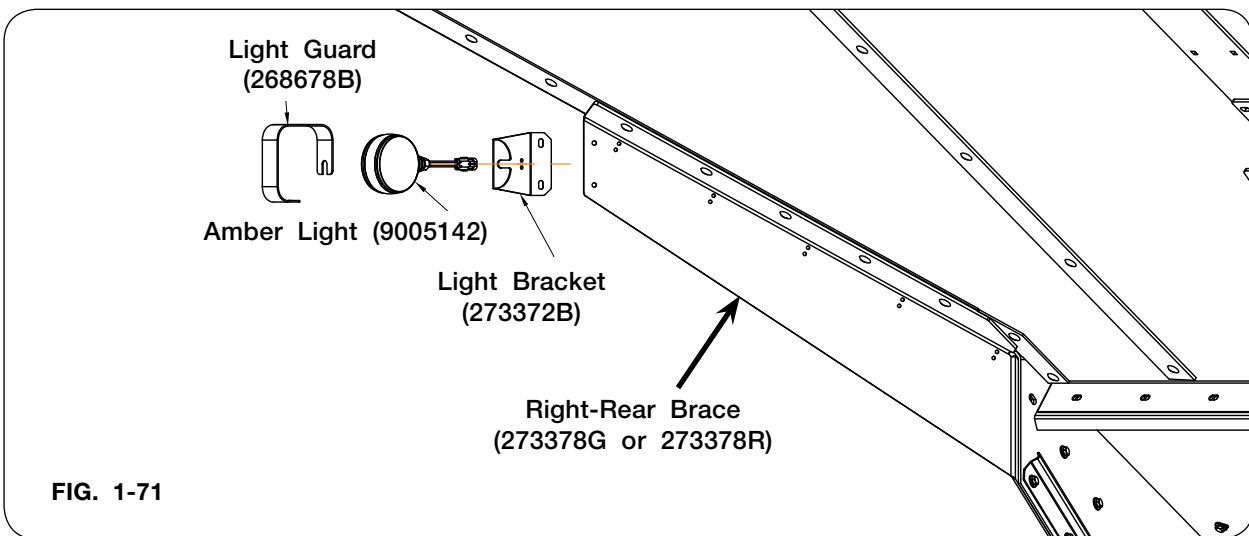
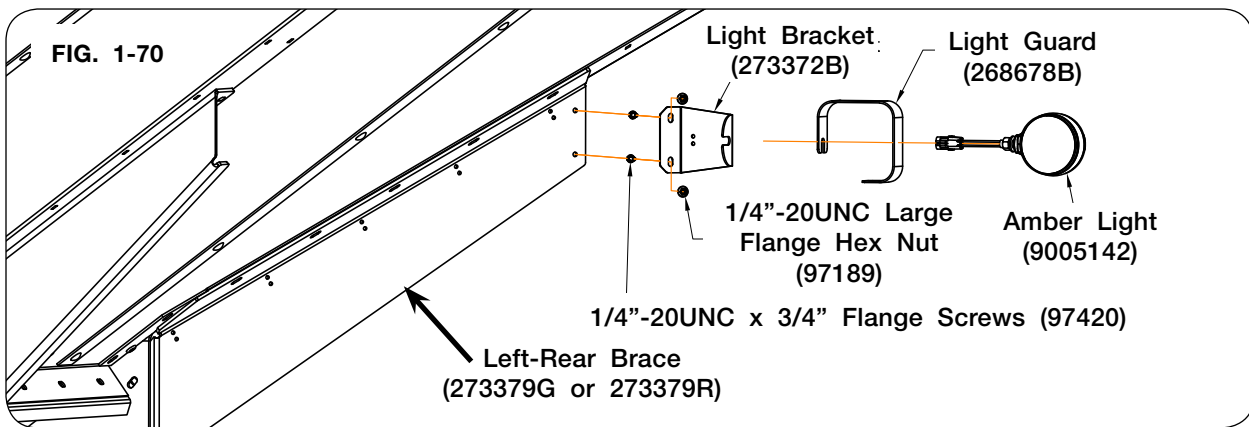


Tank Assembly (Continued)

26. Using a safe lifting device rated at a minimum of 100 lbs. (45 kg.), loosely attach the cross tube weldments (273149B) with 1/2"-13UNC x 1 1/2" flange screws (9005705) and 1/2"-13UNC lock nuts (9003397).

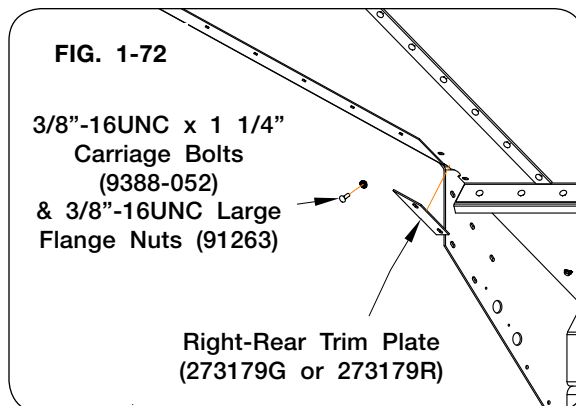


27. Attach the light guards (268678B), light brackets (273372B), and amber light (9005142).
28. Secure the amber light assembly to the rear braces as shown below.



Tank Assembly (Continued)

29. Attach the rear trim plate (273179G or 273179R) to the right-rear hopper panel with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).

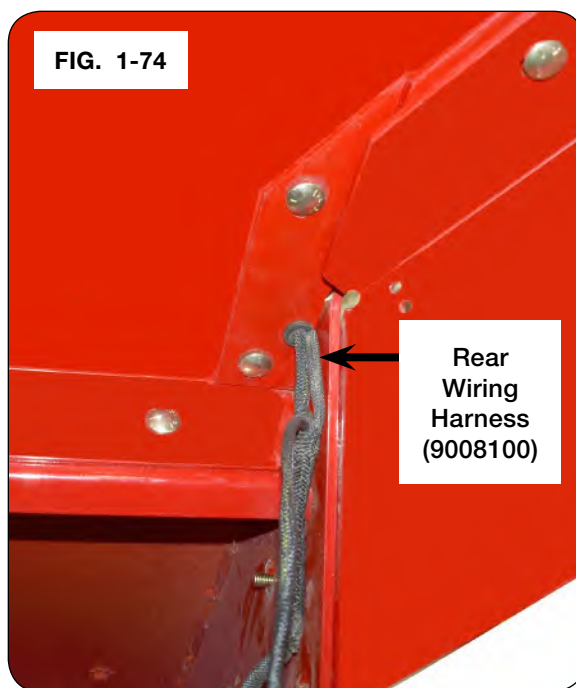
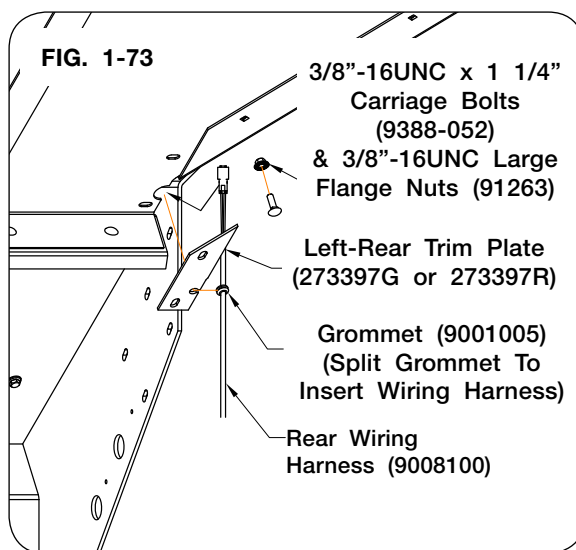


30. Insert the rear wiring harness (9008100) through the grommet (9001005).

31. Place the rear wiring harness (9008100) lead through hole in the cart. Rear wiring harness (9008100) will connect to the right-rear running light/clearance wiring harness (9009368). Reference "Electrical Diagram".

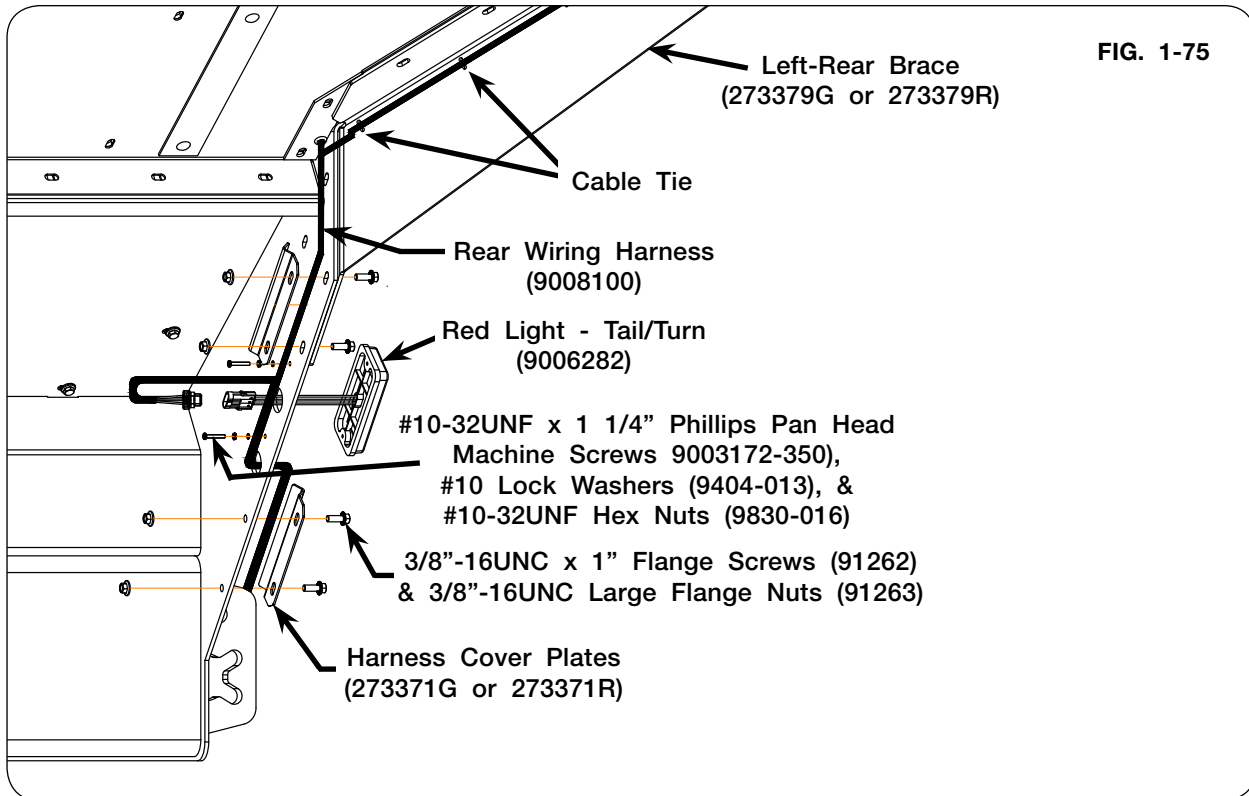
32. Attach the grommet with the wiring harness to the rear trim plate (273397G or 273397R).

33. Secure the rear trim plate (273397G or 273397R) to the cart with 3/8"-16UNC x 1 1/4" carriage bolts (9388-052) and 3/8"-16UNC large flange nuts (91263).

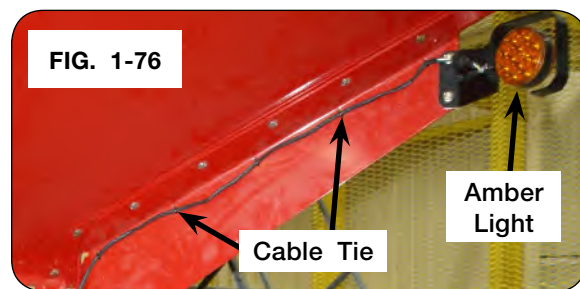


Tank Assembly (Continued)

34. Attach the red light (9006345) to the left-rear of the cart with #10-32UNF x 1 1/4" phillips pan head machine screws (903172-350), #10 lock washers (9404-013), and #10-32UNF hex nuts (9830-016).

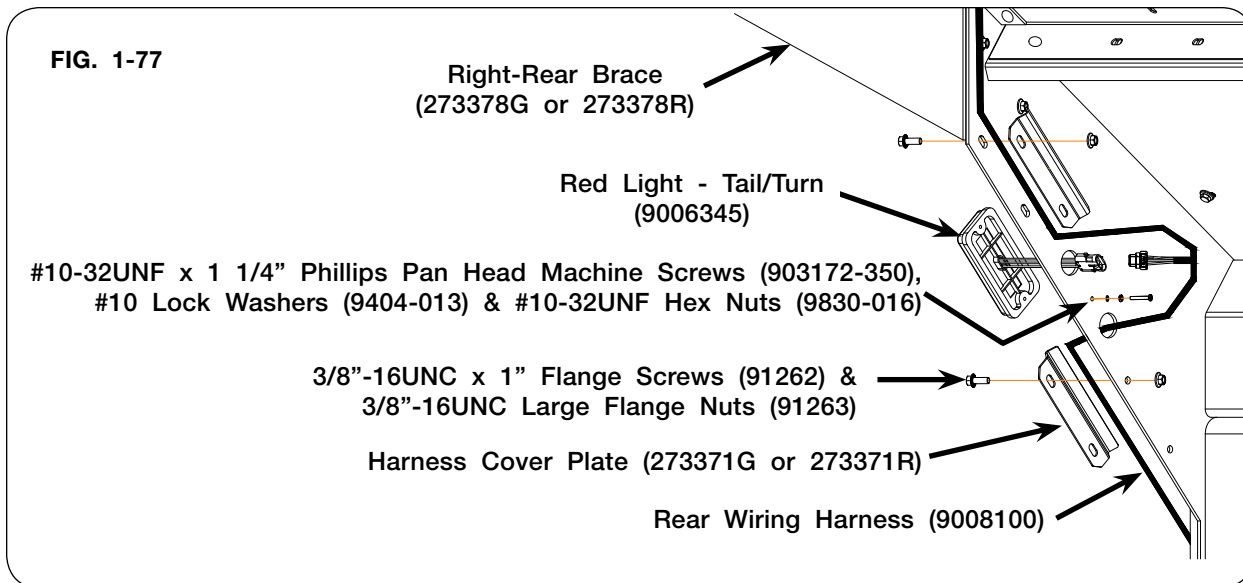


35. Secure the rear wiring harness (9008100) to the cart with harness cover plates (273371G or 273371R) and cable ties (9000106).
36. Attach the rear wiring harness (9008100) to the amber light (9005142).

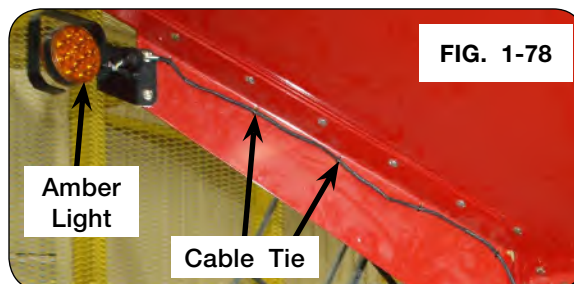


Tank Assembly (Continued)

- Attach the red light (9006345) to the right-rear of the cart with #10-32UNF x 1 1/4" phillips pan head machine screws (903172-350), #10 lock washers (9404-013), and #10-32UNF hex nuts (9830-016).

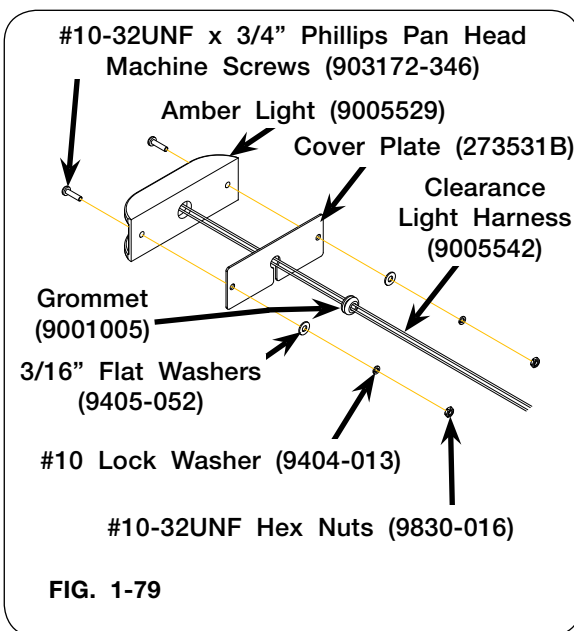


- Secure the rear wiring harness (9008100) to the cart with harness cover plates (273371G or 273371R) and cable ties (9000106).



- Attach the rear wiring harness (9008100) to the amber light (9005142).

- Attach the eight amber running lights (9005529) to the hopper panels with light cover plate (273531B), grommet (9001005), #10-32UNF x 3/4" phillips pan head machine screws (903172-346), 3/16" flat washers (9405-052), #10 lock washers (9404-013), and #10-32UNF hex nuts (9830-016).



Tank Assembly (Continued)

41. Route the running light/clearance wiring harness (9005890) along the upper left-hand side of the hopper and attach the four amber clearance light harnesses (9005542). Reference “Electrical Diagram”.

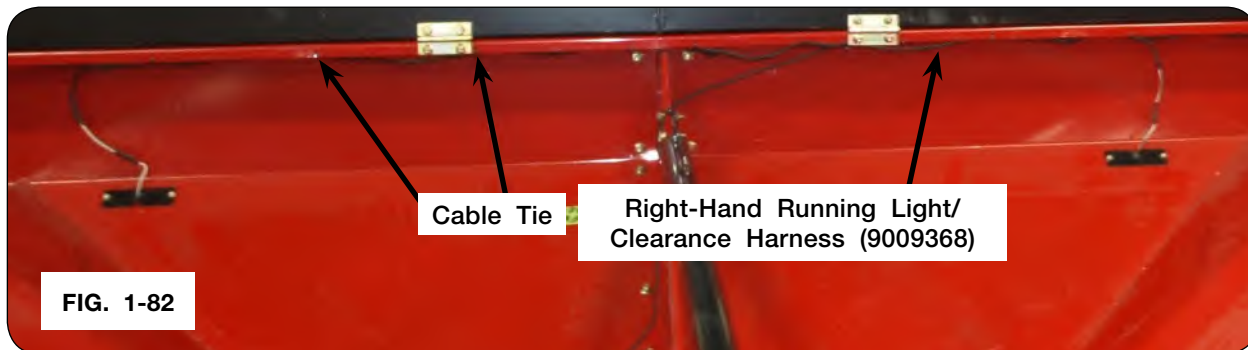
FIG. 1-80



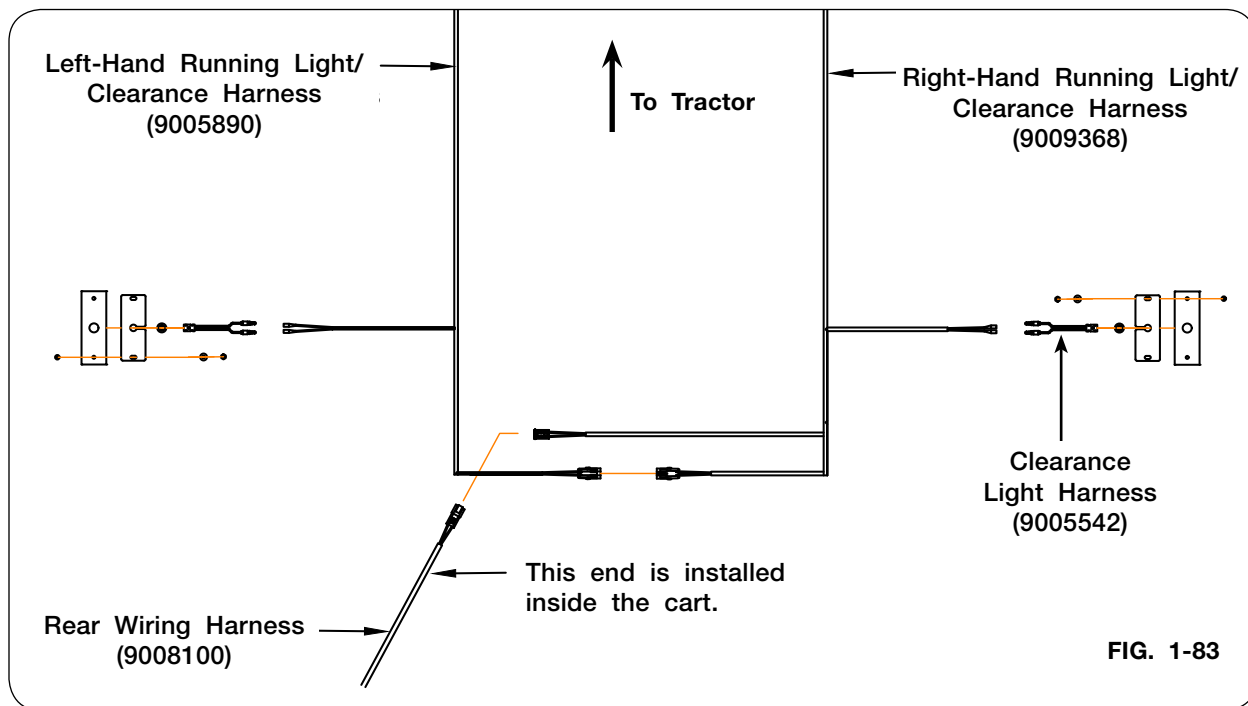
FIG. 1-81

Tank Assembly (Continued)

42. Route the running light/clearance wiring harness (9009368) along the upper right-hand side of the hopper and attach the four amber running light pig tails. (Reference Electrical Diagram)



43. Connect left and right running light/clearance wiring harnesses together.

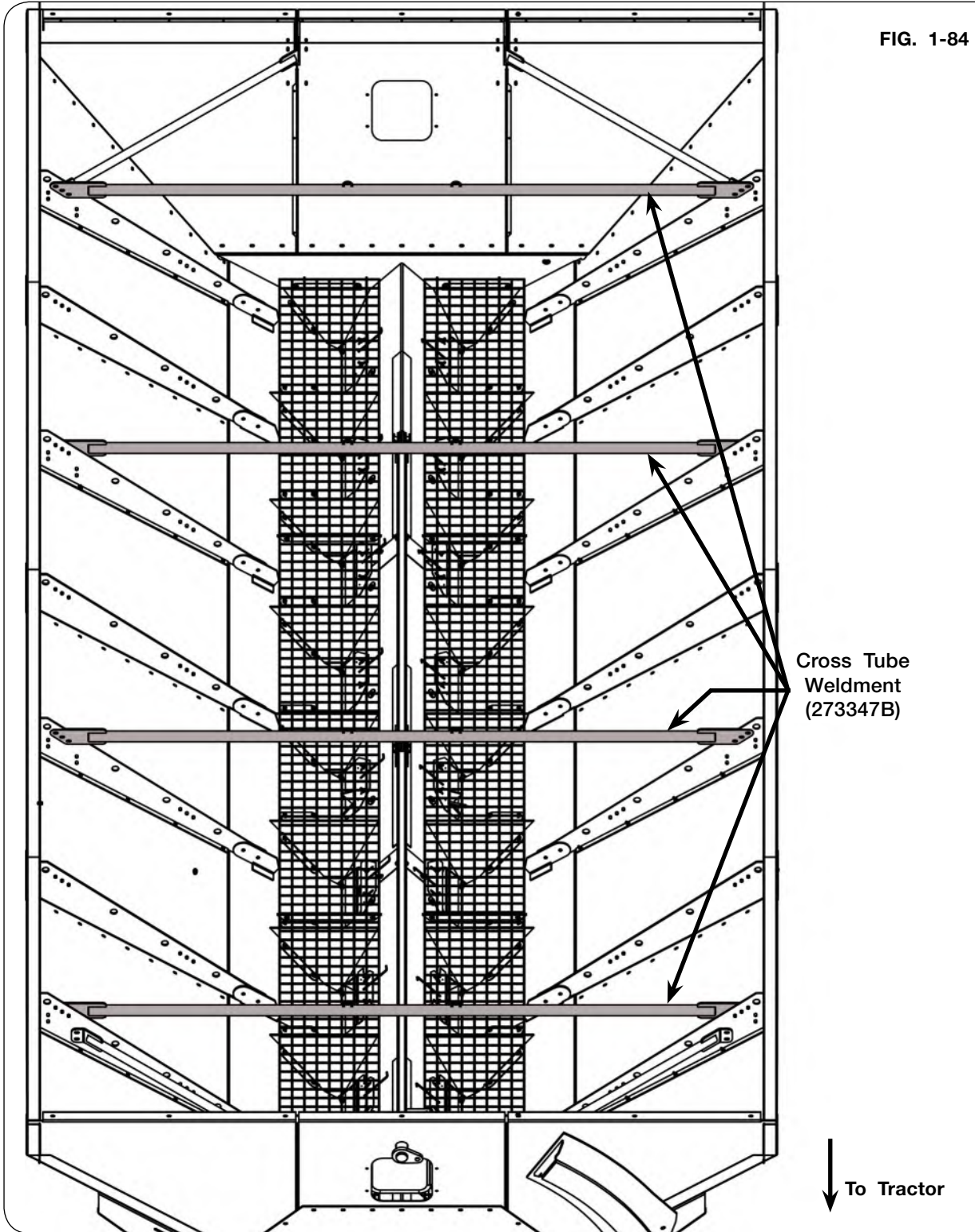


44. Connect the rear wiring harness (9008100) that was installed inside the cart to the right-hand running light/clearance wiring harness (9009368).

Tank Assembly (Continued)

45. TRACK CART ONLY

Use safe lifting device rated at a minimum of 100 lbs. (45 kg.), loosely attach the cross tube weldments (273347B) with 1/2"-13UNC x 1 1/2" flange screws (9005705) and 1/2"-13UNC lock nuts (9003397).



Tank Assembly (Continued)

45. (continued)

STEERABLE TANDEM CART ONLY

Use safe lifting device rated at a minimum of 100 lbs. (45 kg.), loosely attach the cross tube weldments (273347B) with 1/2"-13UNC x 1 1/2" flange screws (9005705) and 1/2"-13UNC lock nuts (9003397).

Loosely attach the internal wheel well braces (273491B) with 3/8"-16UNC x 1" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).

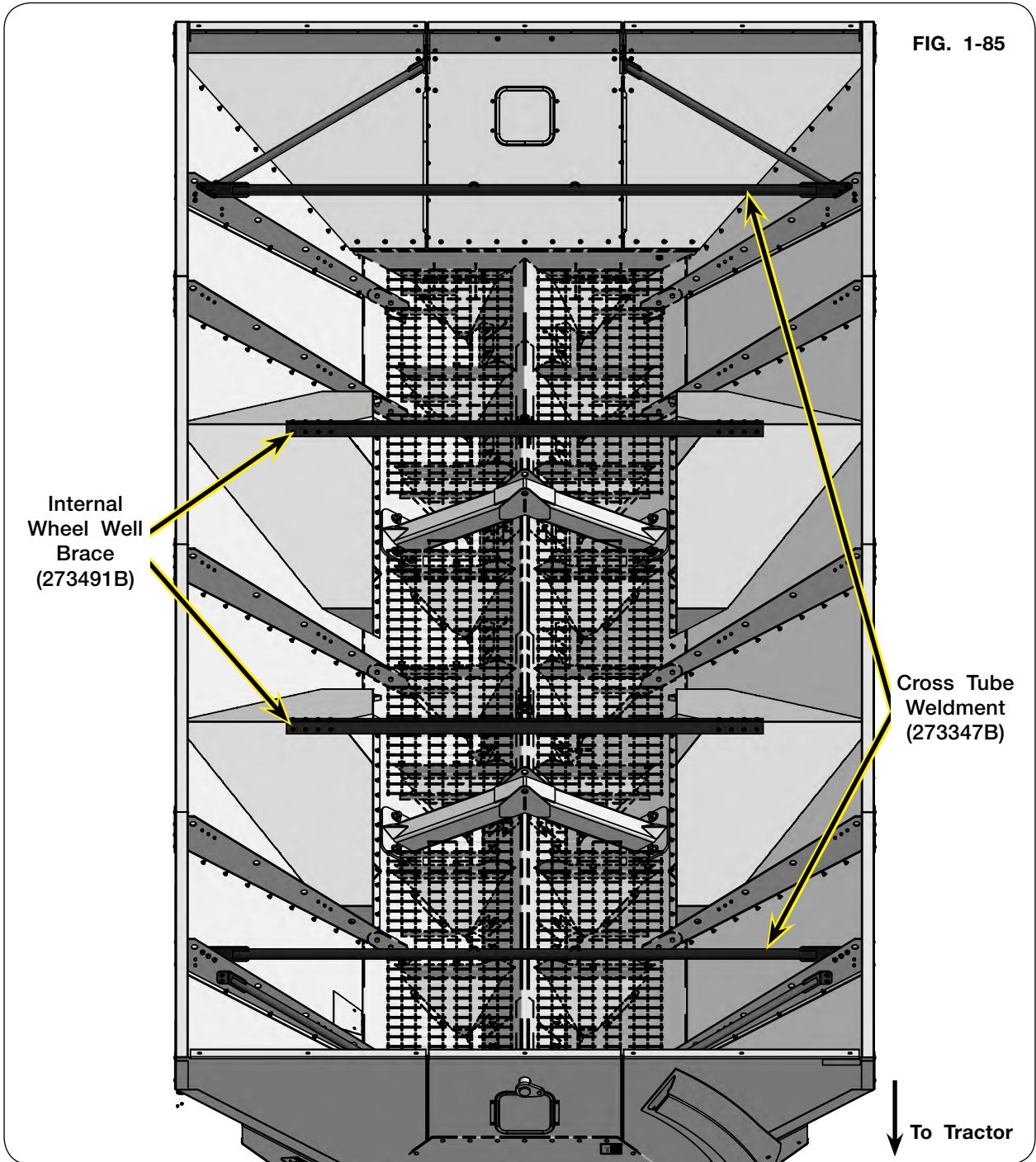


FIG. 1-85

Internal
Wheel Well
Brace
(273491B)

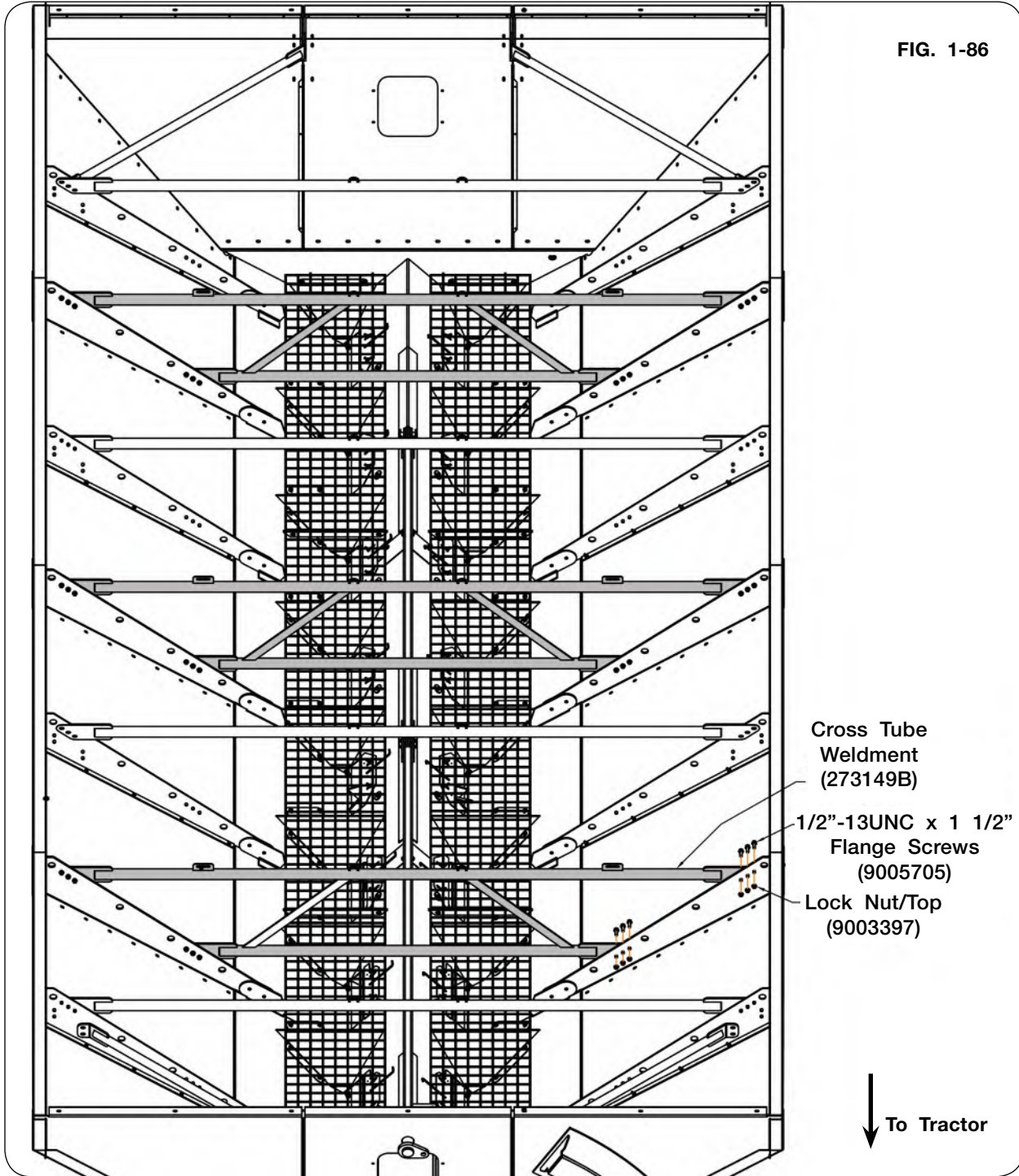
Cross Tube
Weldment
(273347B)

To Tractor

Tank Assembly (Continued)

46. TRACK CART ONLY

Use safe lifting device rated at a minimum of 100 lbs. (45 kg.), loosely attach the cross tube weldments (273149B) with 1/2"-13UNC x 1 1/2" flange screws (9005705) and 1/2"-13UNC lock nuts (9003397).

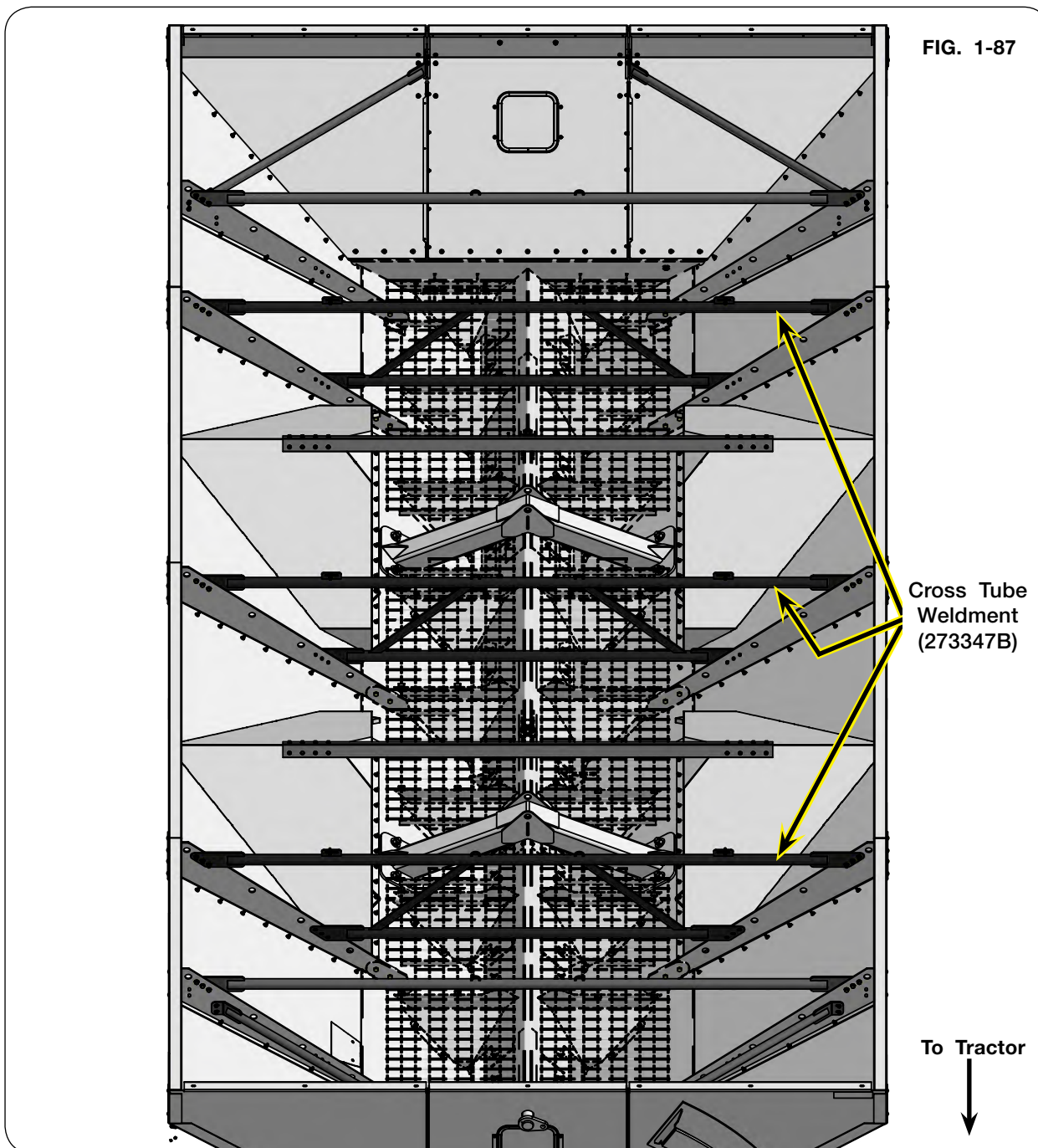


Tank Assembly (Continued)

46. (continued)

STEERABLE TANDEM CART ONLY

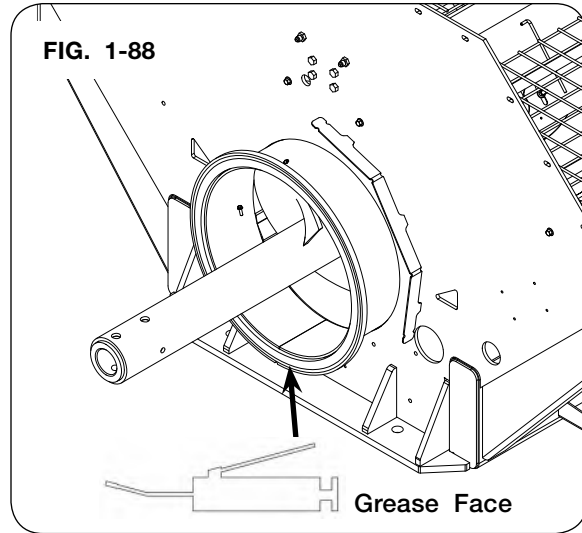
Use safe lifting device rated at a minimum of 100 lbs. (45 kg.), loosely attach the cross tube weldments (273347B) with 1/2"-13UNC x 1 1/2" flange screws (9005705) and 1/2"-13UNC lock nuts (9003397).



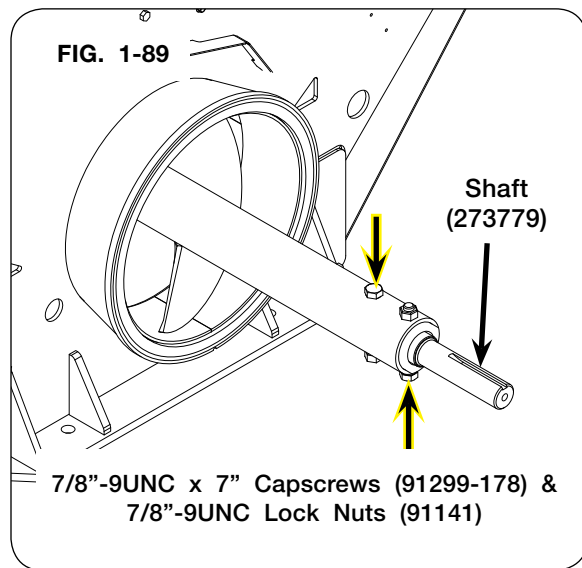
47. Sight down the sides. Visually verify the all the sides are straight. Adjust the cross braces as necessary. Torque all tank assembly hardware. See "Torque Chart" located in this manual.

Auger Assembly

1. Lubricate the face of the cart where the lower auger will attach.

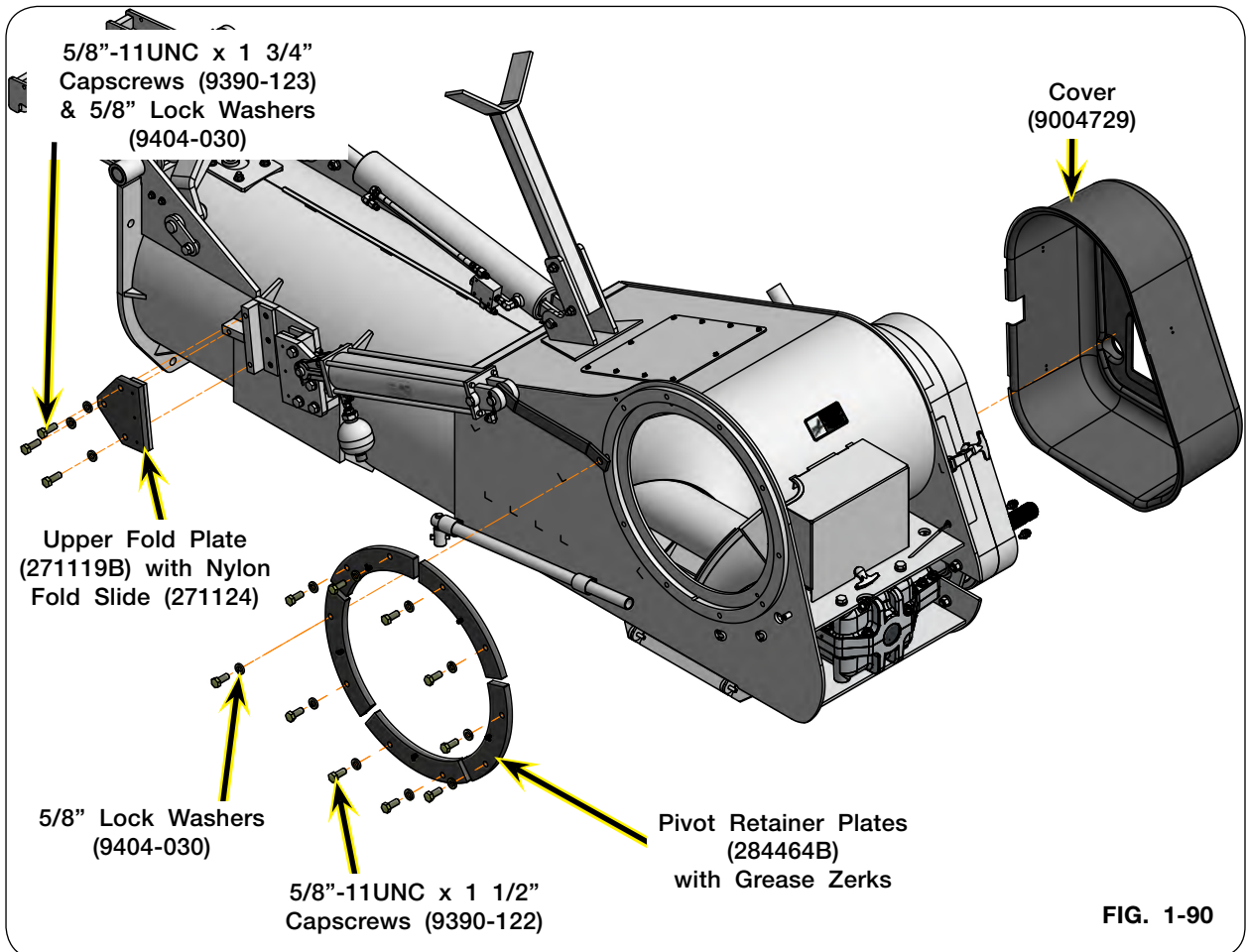


2. Install the 2 3/4" Dia. x 17 5/8" shaft (273779) into the front of the cart and secure using two 7/8"-9UNC x 7" capscrews (91299-178) and 7/8"-9UNC center lock nut (91141). Install hardware in opposite directions. Torque accordingly.



Auger Assembly (Continued)

3. Remove and save the cover (9004729) from the lower section of the vertical auger.



4. Remove and discard the strap that is securing the auger fold cylinder.
5. Remove and save the 5/8"-11UNC x 1 1/2" capscrews (9390-122), 5/8" lock washers (9404-030), and pivot retainers plates (284464B) with grease zerks.
6. Remove and save the 5/8"-11UNC x 1 3/4" capscrews (9390-123) and 5/8" lock washers (9404-030), and upper fold plate (271119B) with nylon fold slide (271124).

Auger Assembly (Continued)

- Using a safe lifting device rated at a minimum of 1,500 lbs. (682 kg.), align the holes in the back side of the lower auger with the holes in the cart.

NOTE: Horizontal auger shaft must go through the front of the lower auger as shown in FIG. 1-91.

- Retain lower auger with pivot retainer plates (284464B), 5/8"-11UNC x 1 1/2" capscrews (9390-122) and 5/8" lock washers (9404-030).

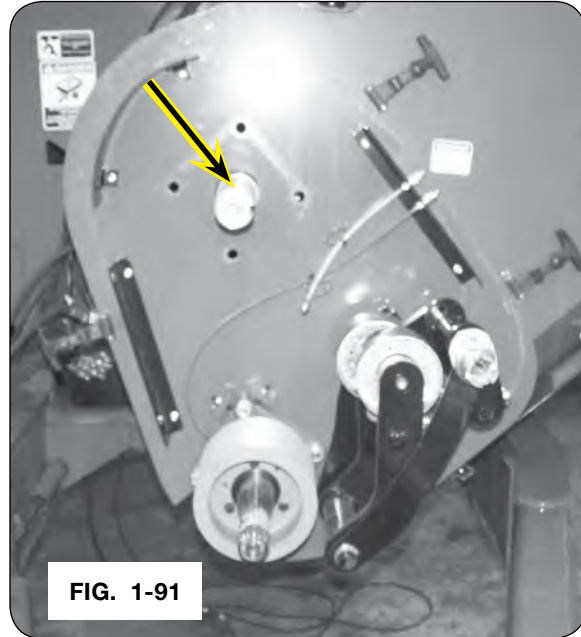


FIG. 1-91

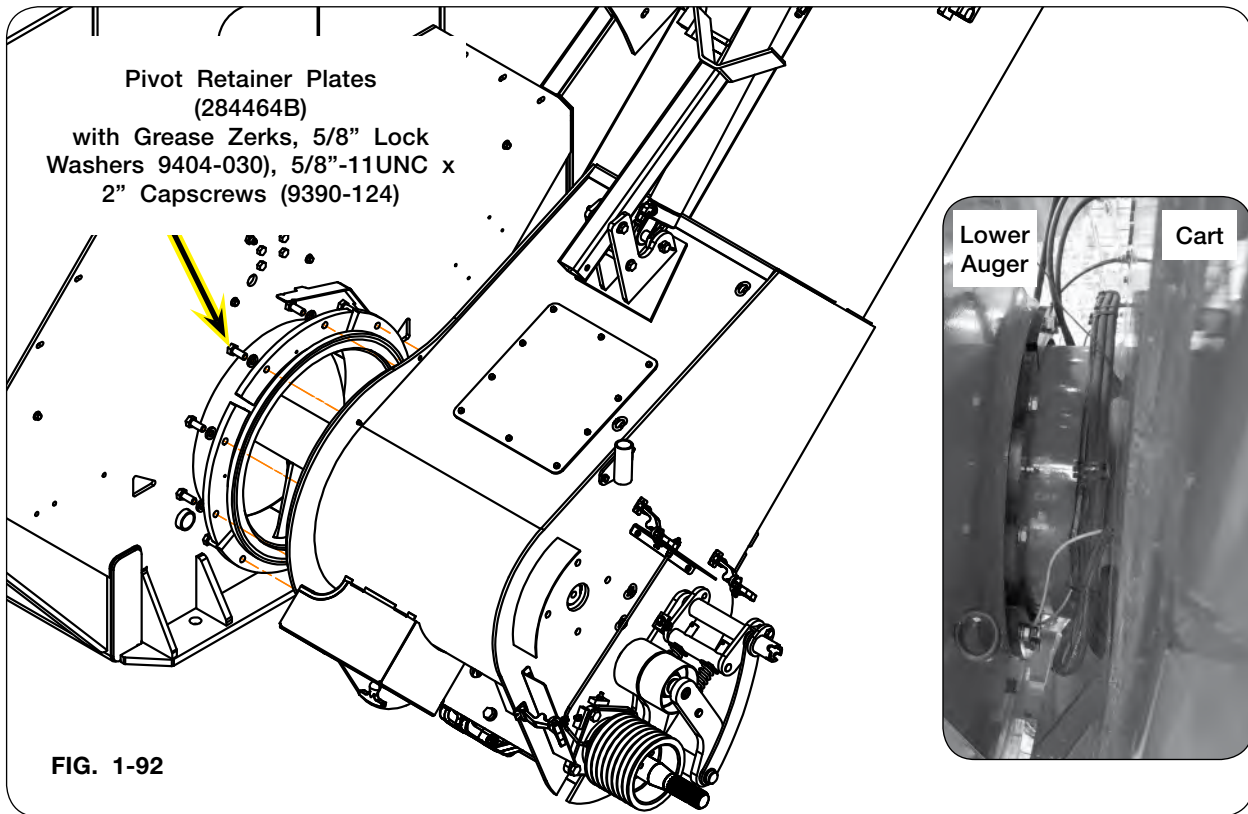
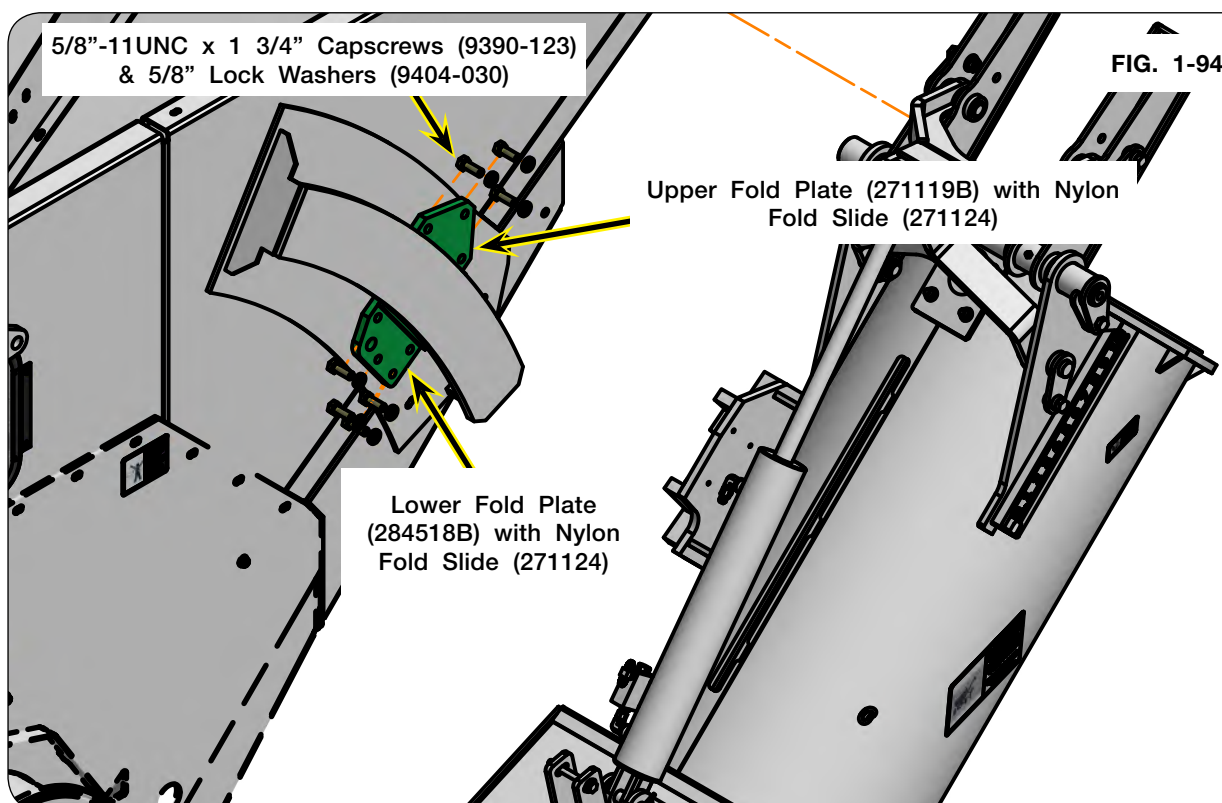
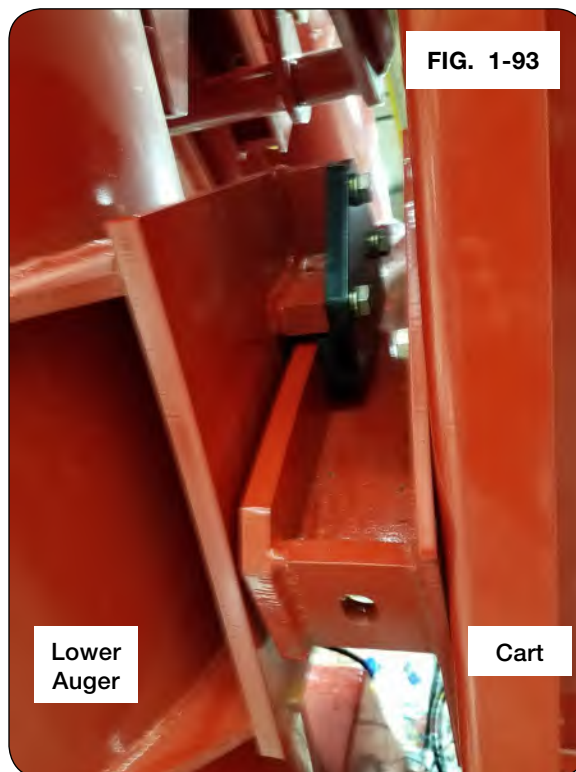


FIG. 1-92

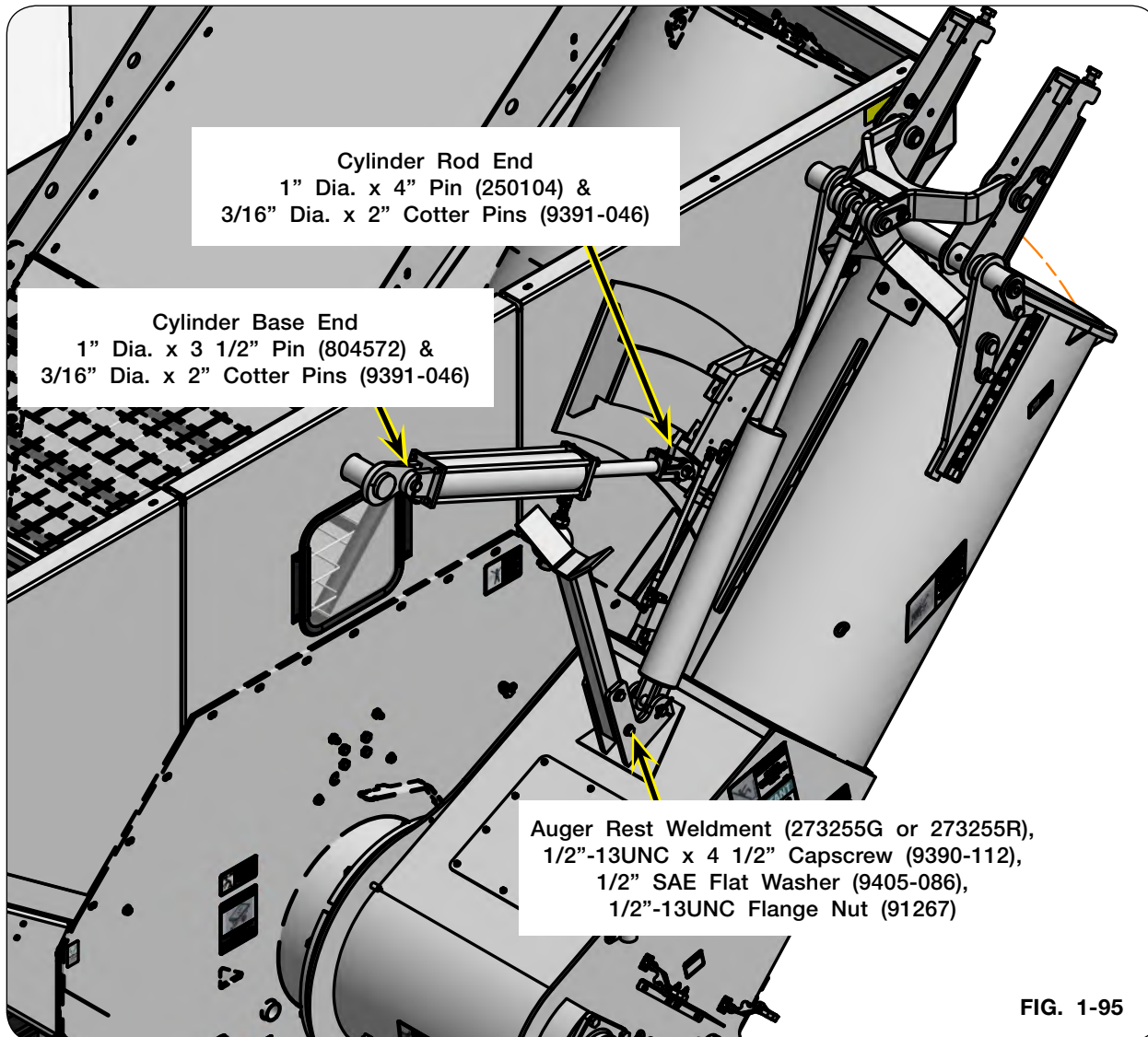
Auger Assembly (Continued)

9. Attach the upper portion of the lower auger to the cart with lower fold plate (284518B) with nylon fold slide (271124), upper fold plate (271119B) with nylon fold slide (271124), 5/8"-11UNC x 1 3/4" capscrews (9390-123), and 5/8" lock washers (9404-030).



Auger Assembly (Continued)

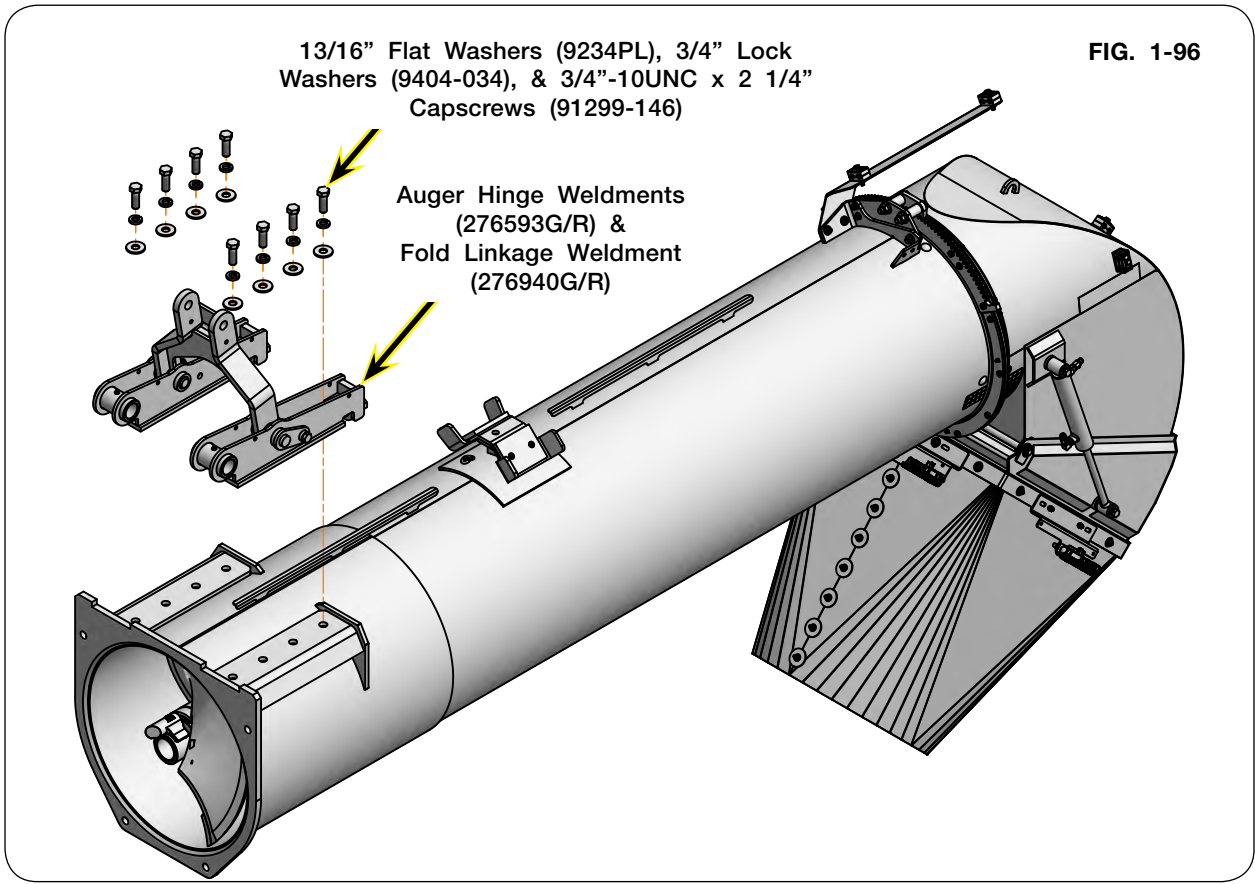
10. Install the tilt cylinder to the cart. Attach the base end to the cart with 1" Dia. x 3 1/2" pin (804572) and 3/16" Dia. x 2" cotter pins (9391-046). The rod end attaches to the auger with 1" Dia. x 4" pin (250104) and 3/16" Dia. x 2" cotter pins (9391-046).



11. Remove the auger rest weldment (273255G or 273255R) bottom hardware 1/2"-13UNC x 4 1/2" capscrew (9390-112), 1/2" SAE flat washer (9405-086), and 1/2"-13UNC flange nut (91267). Rotate the auger rest weldment (273255G or 273255R) and re-install the 1/2"-13UNC x 4 1/2" capscrew (9390-112), 1/2" SAE flat washer (9405-086), and 1/2"-13UNC flange nut (91267).

Auger Assembly (Continued)

12. Remove the auger hinge weldments and fold linkage weldment from the lower auger assembly.
13. Reattach the auger hinge weldments and fold linkage weldment to the upper auger assembly with 13/16" flat washers (9234PL), 3/4" lock washers (9404-034), and grade 8 3/4"-10UNC x 2 1/4" capscrews (91299-146).



Auger Assembly (Continued)

14. Use safe lifting device rated at a minimum of 1,500 lbs. (682 kg.), place upper auger into position.

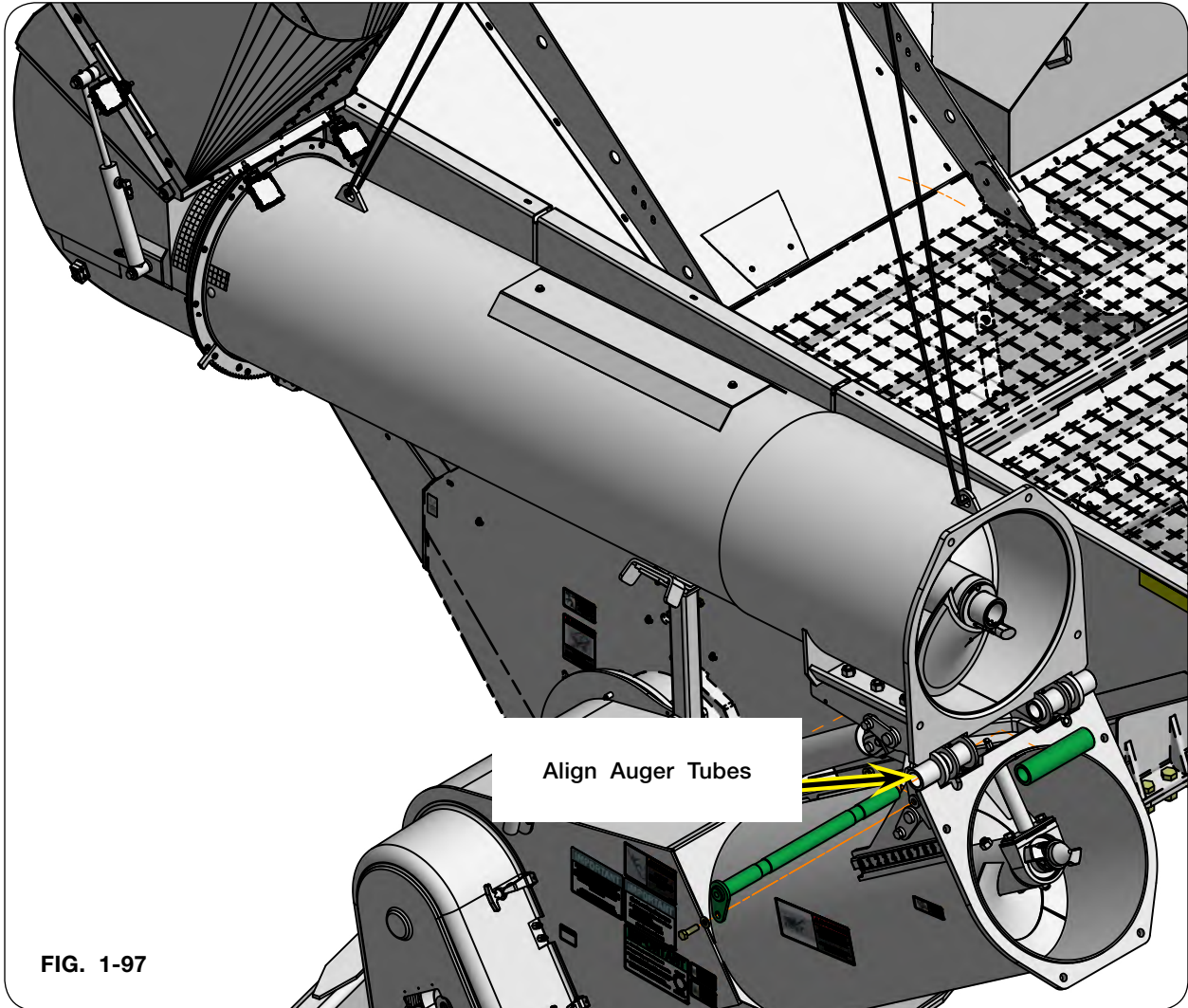
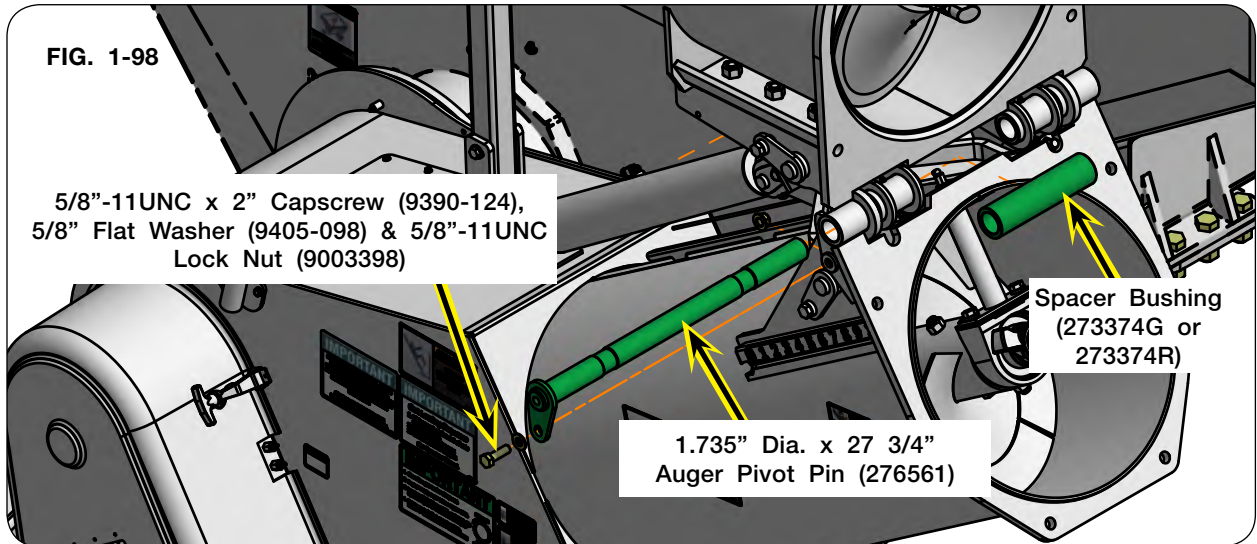


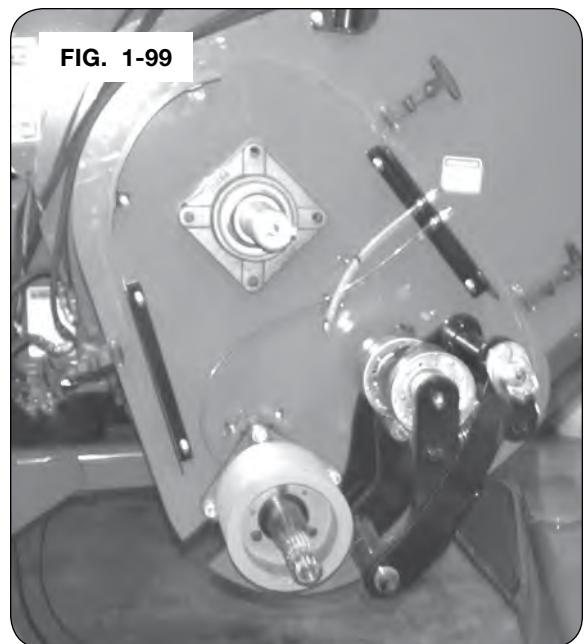
FIG. 1-97

Auger Assembly (Continued)

15. Insert the auger pivot pin (276561) through auger hinge and spacer bushing (273374G or 273374R).

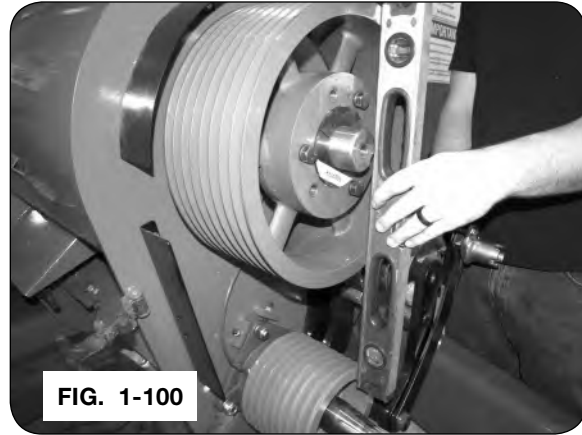


16. Secure auger pivot pin (276561) with 5/8"-11UNC x 2" capscrew (9390-124), 5/8" flat washer (9405-098), and 5/8"-11UNC lock nut (9003398).
17. Attach the flange bearing (9005565) on the horizontal auger shaft. with 5/8"-11UNC x 2" capscrews (9390-124), 5/8" lock washers (9404-029), and 5/8"-11UNC hex nuts (9394-014).



Auger Assembly (Continued)

18. Attach the upper pulley.
19. Insert the taper lock bushing with keyway.
20. Insert the keyway.
21. Secure upper pulley with
22. Using a straight edge, align the upper and lower pulleys.
23. Torque hardware.
24. Attach the belts.



Auger Assembly (Continued)

25. Belt tension is adjusted with hex nuts below the spring, FIG. 1-102. All belt tension **MUST** be released from linkage. Loosen outer hex nut and adjust inner nut to establish a 3 1/16" pre-load dimension between the heavy washers. Tighten the outer hex nut against inner nut to lock position. Check the lower belt pulley to ensure belts are aligned in their grooves and with the tensioner handle, engage the roller/idler linkage against the belts and over-center stop. The compressed spring should now be approximately 1 3/4" between the washers and generating a force of approximately 480 lbs. (218 kg.) against the belts. Release and tighten belts multiple times to confirm positions and final adjustments. See FIG. 1-103 and FIG. 1-104.

26. Tighten belt to retain them into the lower pulley for cover guard assembly. Reinstall the cover guard and the PTO shaft to the gearbox input shaft. Clear work area and test run drive train for 3 minutes at no greater than 1000 RPM.

27. Disengage PTO and turn off tractor. Through the cover access door, check the compressed spring length (1 3/4") between the washers and check each belt for uniform tension. If more adjustment is needed refer to Step 27. If no additional spring adjustment is available, then both belts must be replaced with a new match set.

NOTE: Always replace belts in matched sets.

28. Pulleys must be aligned with the fixed idler. Belts should be centered on idler for longest belt life.

29. After tightening taper-lock bushing hardware, lay a straight edge across face of the drive and driven belt pulleys to ensure alignment between the grooves on the pulleys.

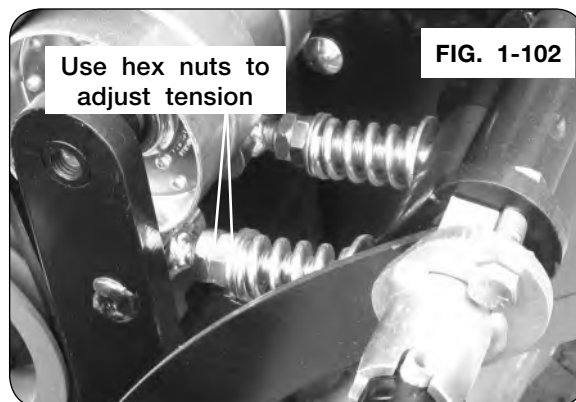


FIG. 1-102

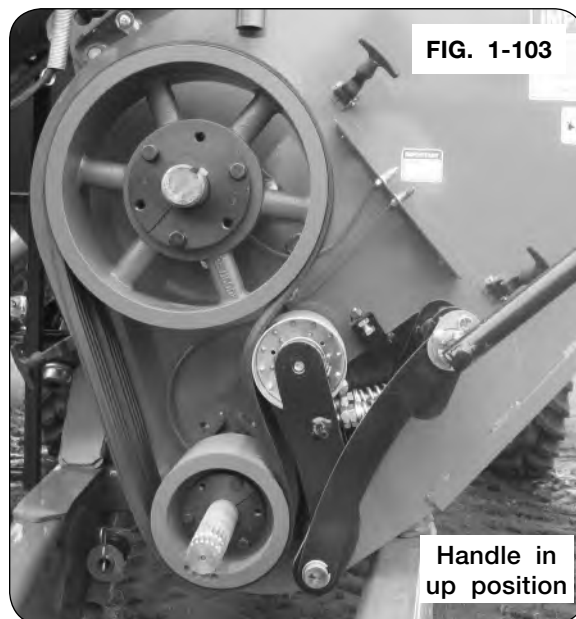


FIG. 1-103

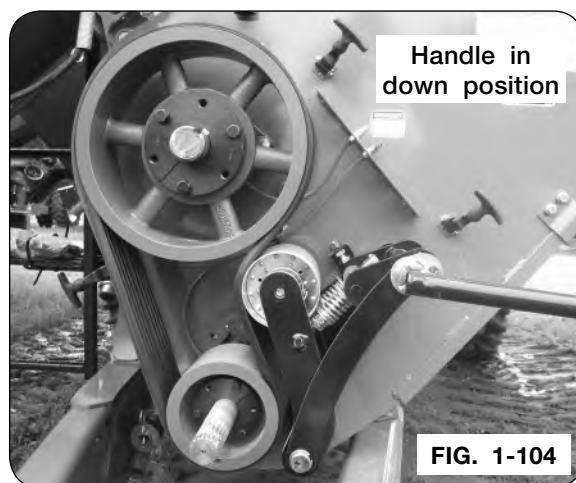
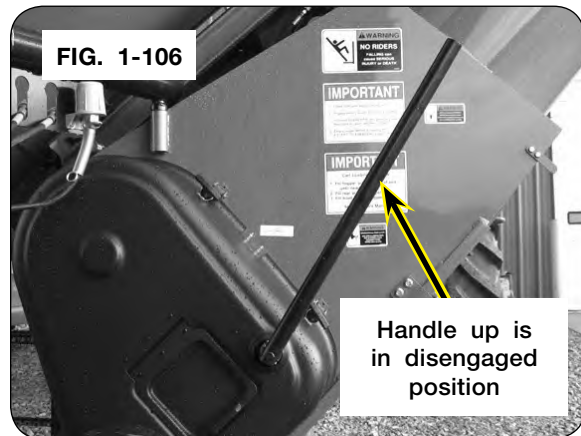
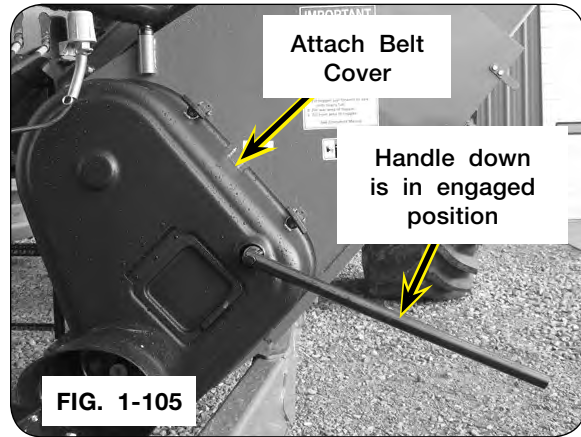


FIG. 1-104

Auger Assembly (Continued)

- 30. Attach the belt cover (9004729).
- 31. Engage the belt tensioner (FIG. 1-105).

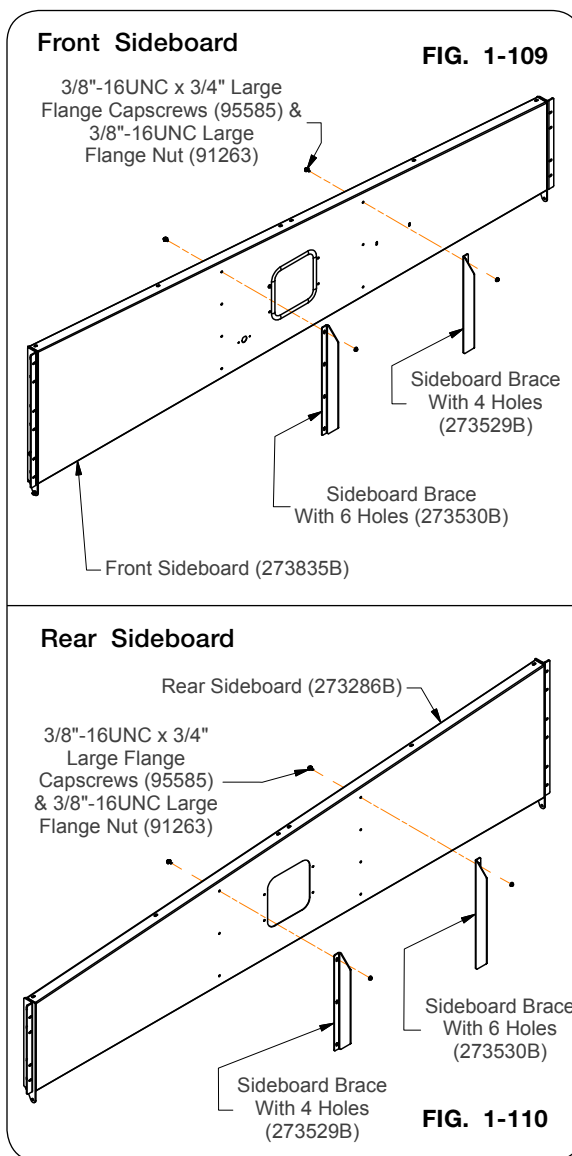


Sideboard Assembly

1. Loosely install the hinges (9004626) on the left and right sideboards with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).



2. Attach the sideboard braces (273529B and 273530B) to the front and rear sideboards with 3/8"-16UNC x 3/4" large flange capscrews (95585) and 3/8"-16UNC large flange nuts (91263).



Sideboard Assembly (Continued)

- Using the panel lifting device provided and a safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach front sideboard (273835B) with braces (273529B and 273530B) to the front hopper panels with 3/8"-16UNC x 3/4" large flange screws (95585) and 3/8"-16UNC large flange nuts (91263).

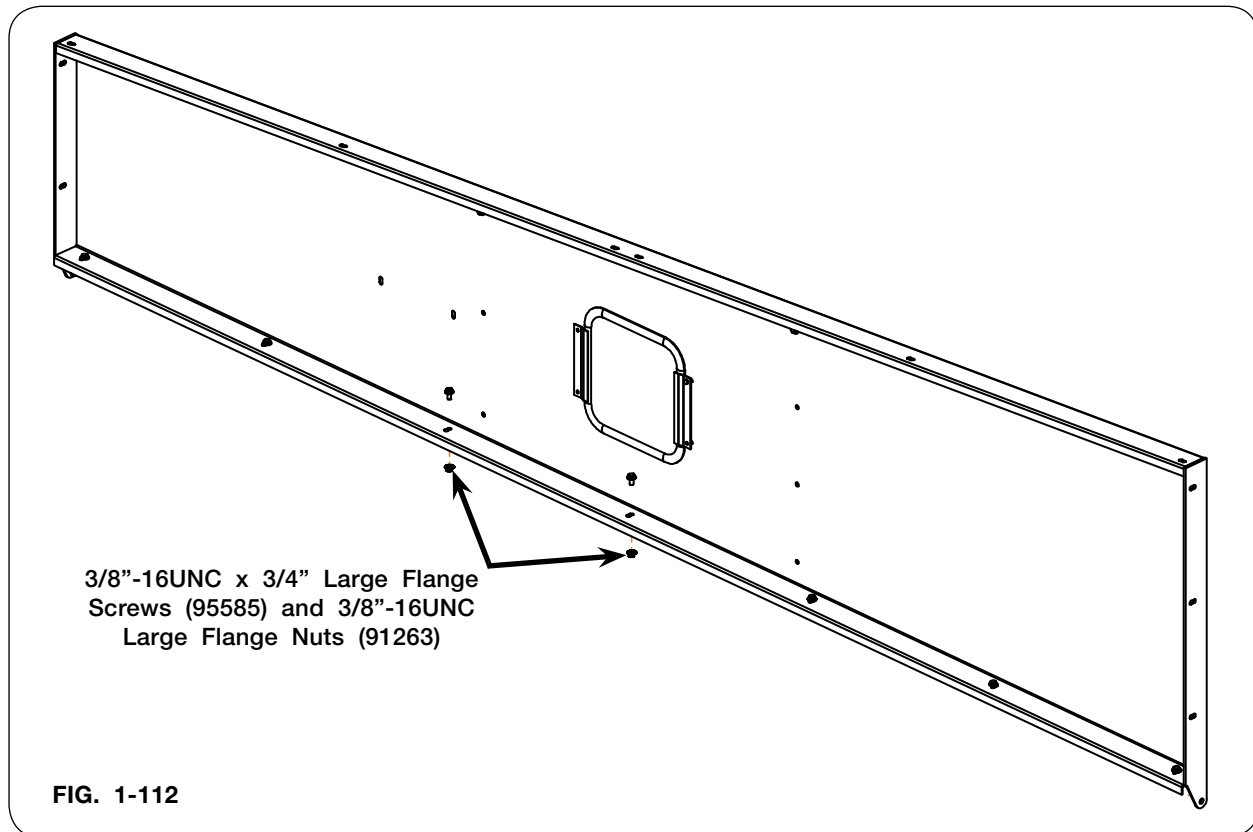
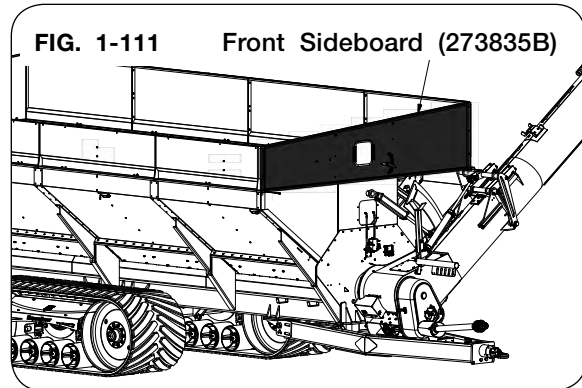
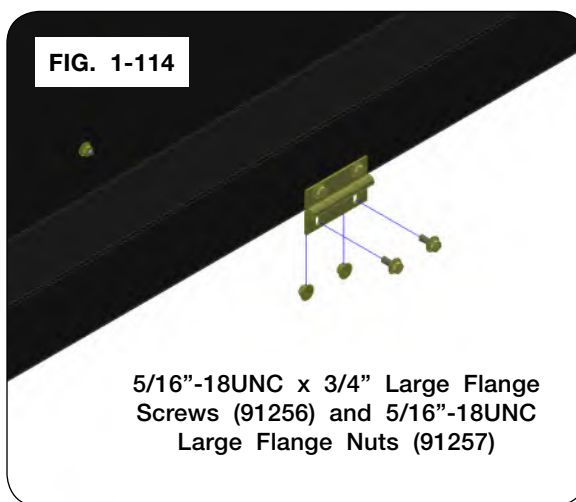
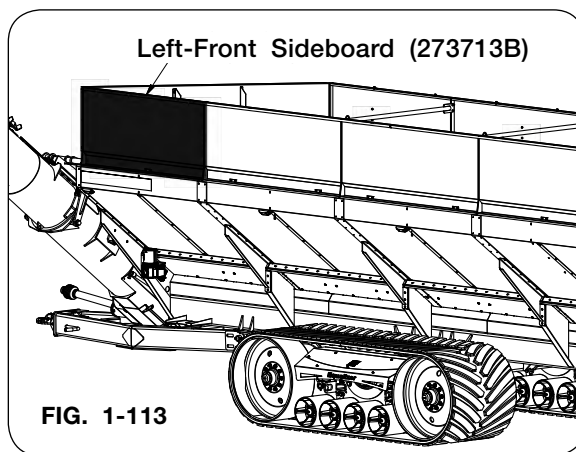


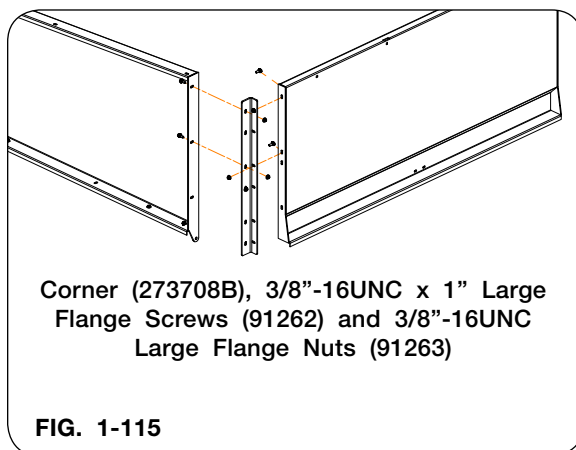
FIG. 1-112

Sideboard Assembly (Continued)

- Using the panel lifting device provided and a safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach left-front sideboard (273713B) with hinge (9004626) to the left-front/1st hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

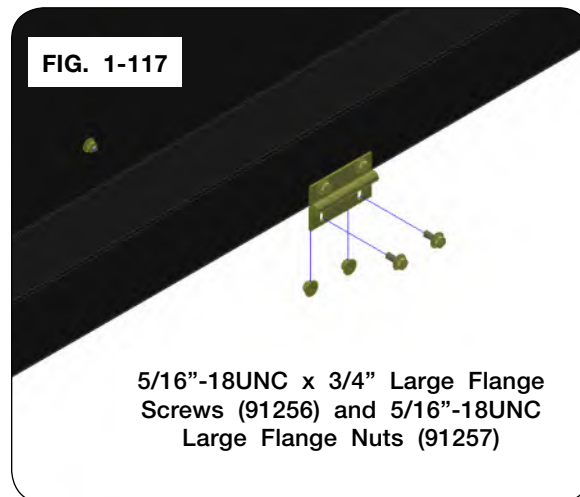
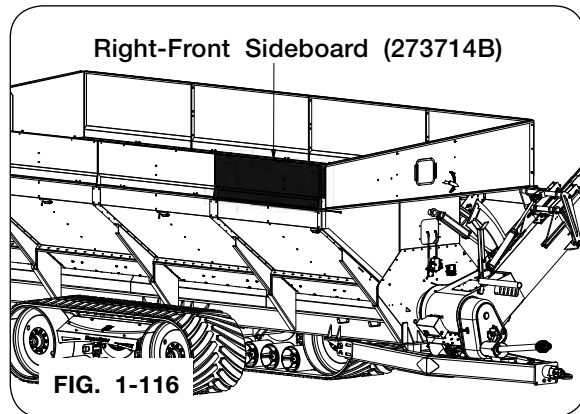


- Attach the front sideboard (273835B) to the left-front sideboard (273713B) with corner plate (273708B), 3/8"-16UNC x 1" large flange screw (91262), and 3/8"-16UNC large flange nuts (91263).

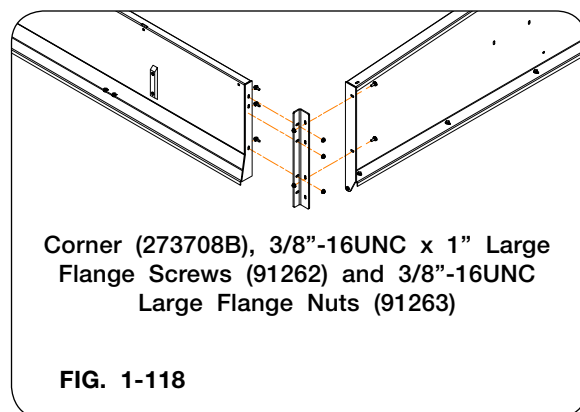


Sideboard Assembly (Continued)

6. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach right-front sideboard (273714B) with hinge (9004626) to the right-front/1st hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).



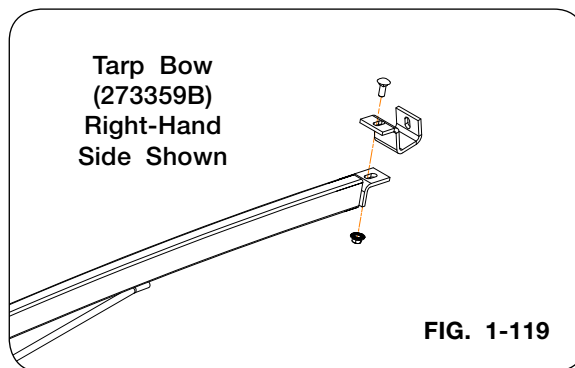
7. Attach the front sideboard (273835B) to the right-front sideboard (273714B) with corner plate (273707B), 3/8"-16UNC x 1" large flange screw (91262), and 3/8"-16UNC large flange nuts (91263).



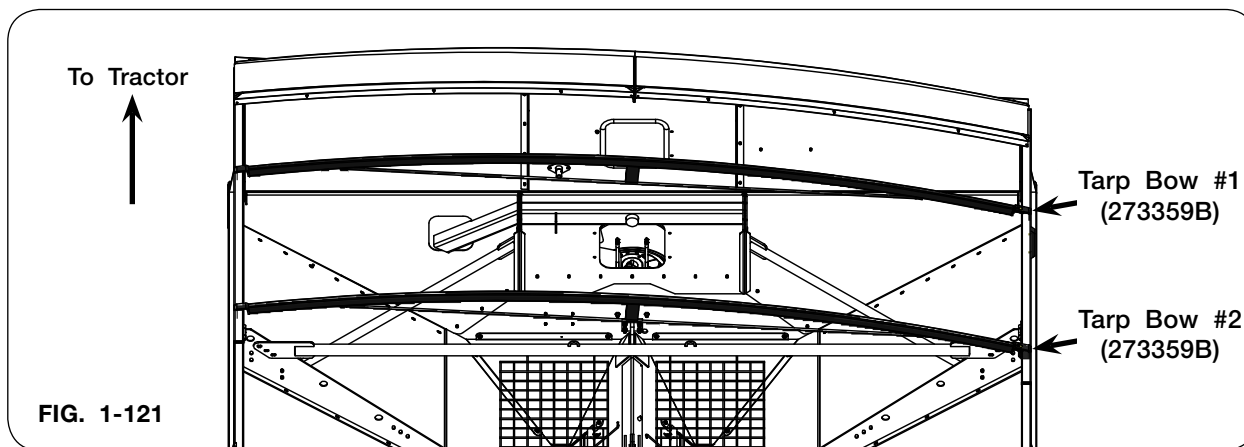
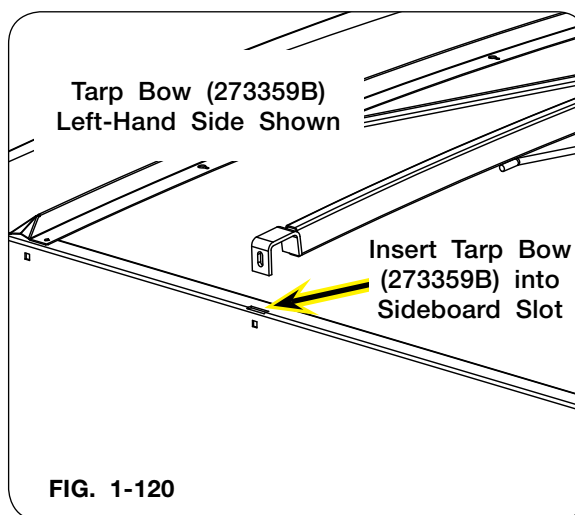
Sideboard Assembly (Continued)

8. Attach the brackets (300977B) to the right-hand side of the tarp bow weldments (273359B) with 3/8"-16UNC x 1" carriage bolts (9388-051) and 3/8"-16UNC large flange nuts (91263).

NOTE: The right-hand side of the tarp bow weldments (273359B) with bracket (300977B) will be secured to the sideboards later on with the tarp latch plates.

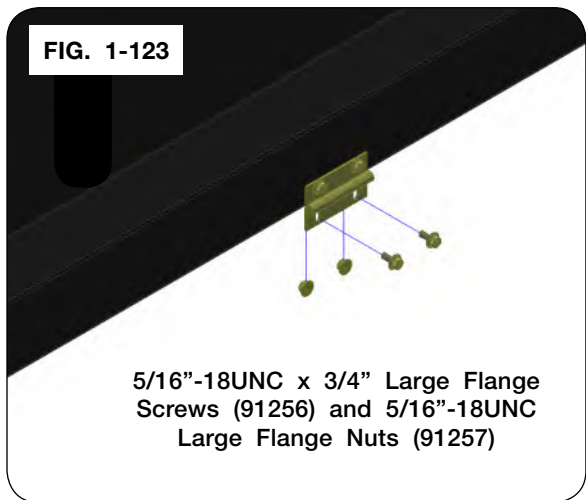
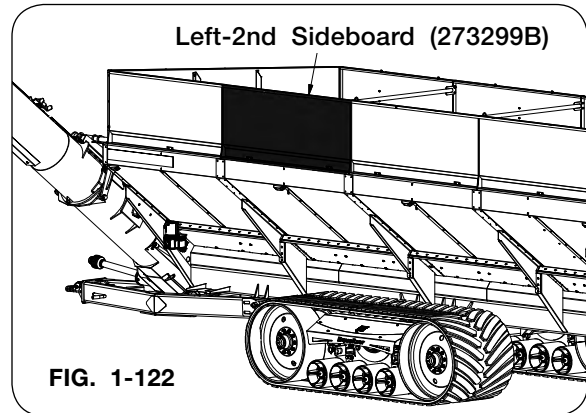


9. Insert two tarp bow weldment (273359B) tabs into the left-hand sideboard.

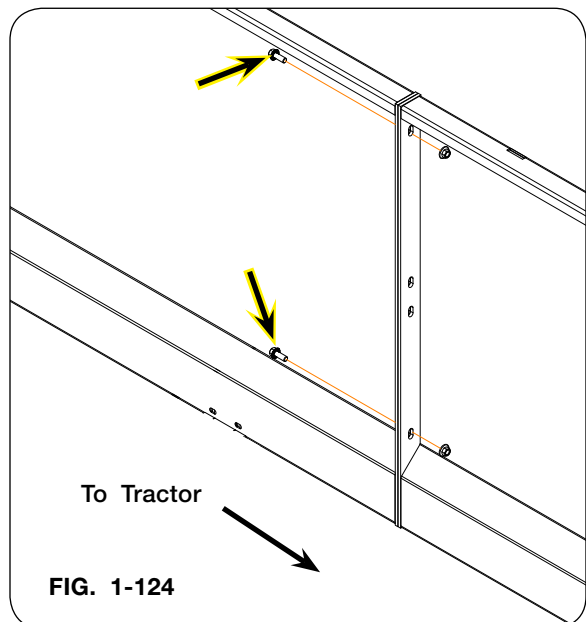


Sideboard Assembly (Continued)

10. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach left-2nd sideboard (273299B) with hinges (9004626) to the left/2nd hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

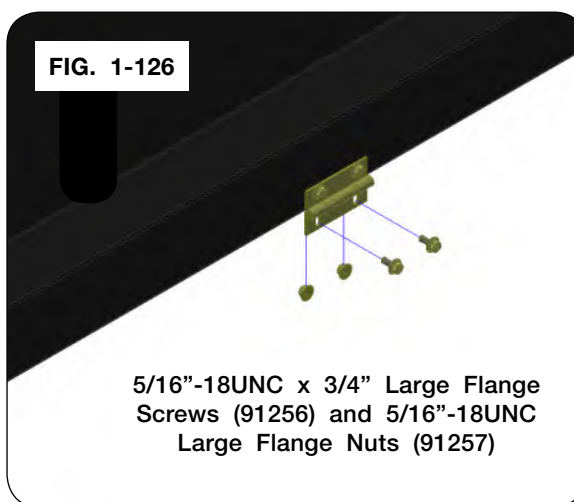
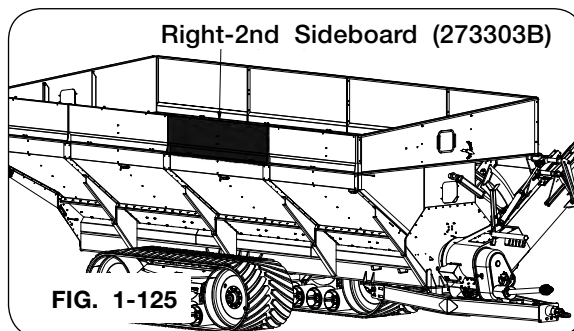


11. Secure the left-front sideboard (273713B) to the left-2nd sideboard (273299B) with 3/8"-16UNC x 1" large flange screws (91262) and 3/8"-16UNC large flange nuts (91263).

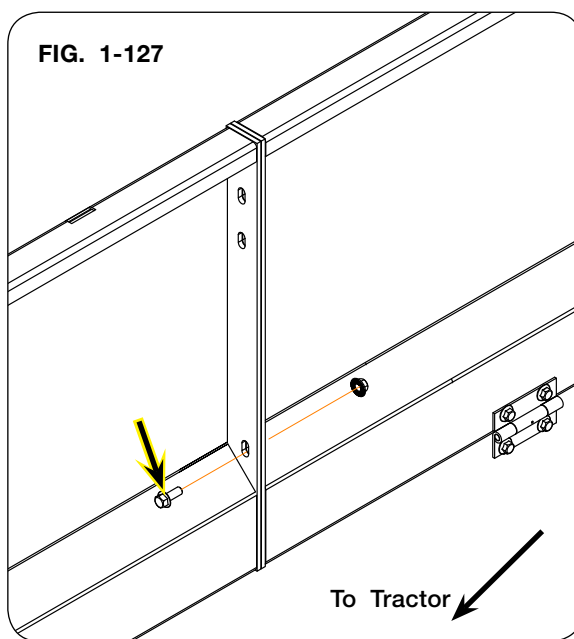


Sideboard Assembly (Continued)

12. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach right-2nd sideboard (273303B) with hinges (9004626) to the right/2nd hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

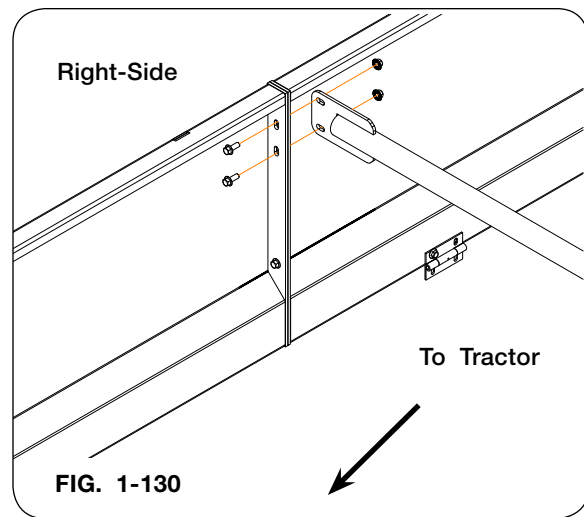
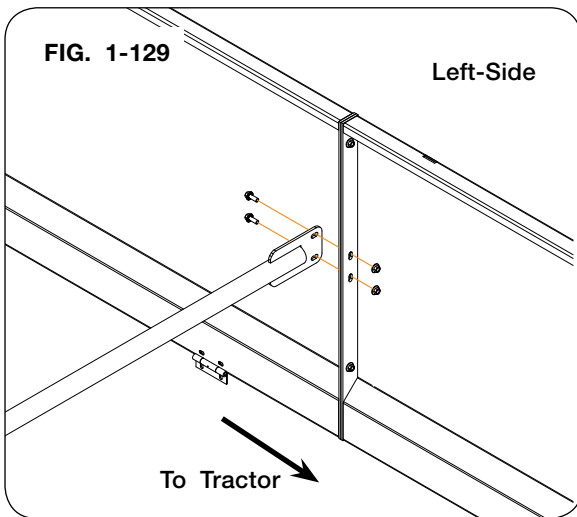
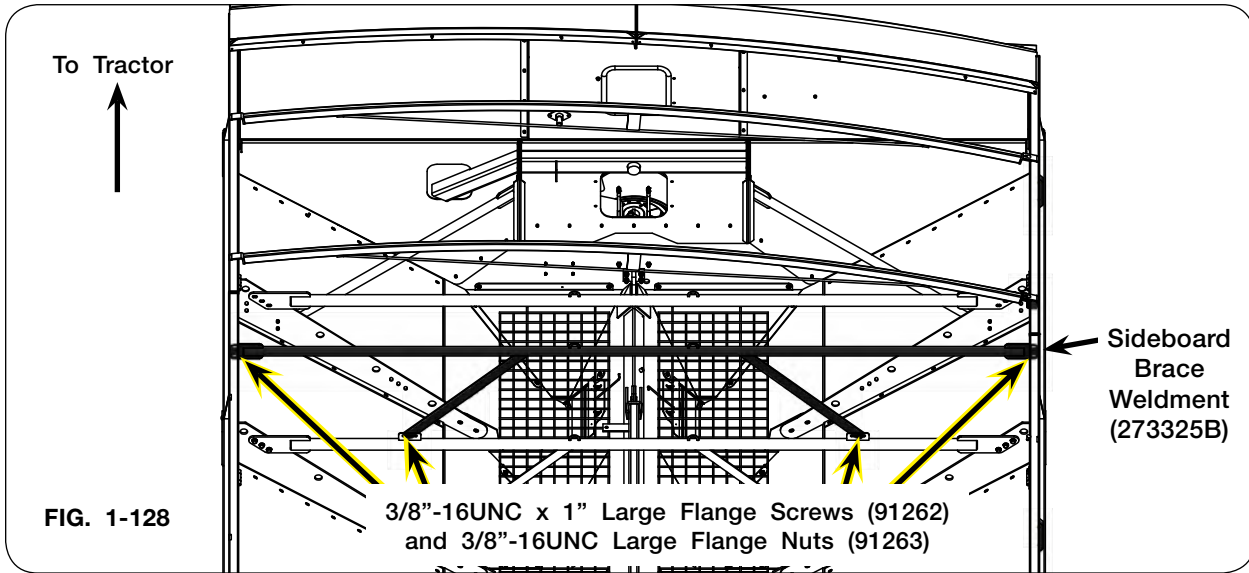


13. Secure the right-front sideboard (273714B) to the right-2nd sideboard (2732303) with 3/8"-16UNC x 1" large flange screw (91262) and 3/8"-16UNC large flange nut (91263).



Sideboard Assembly (Continued)

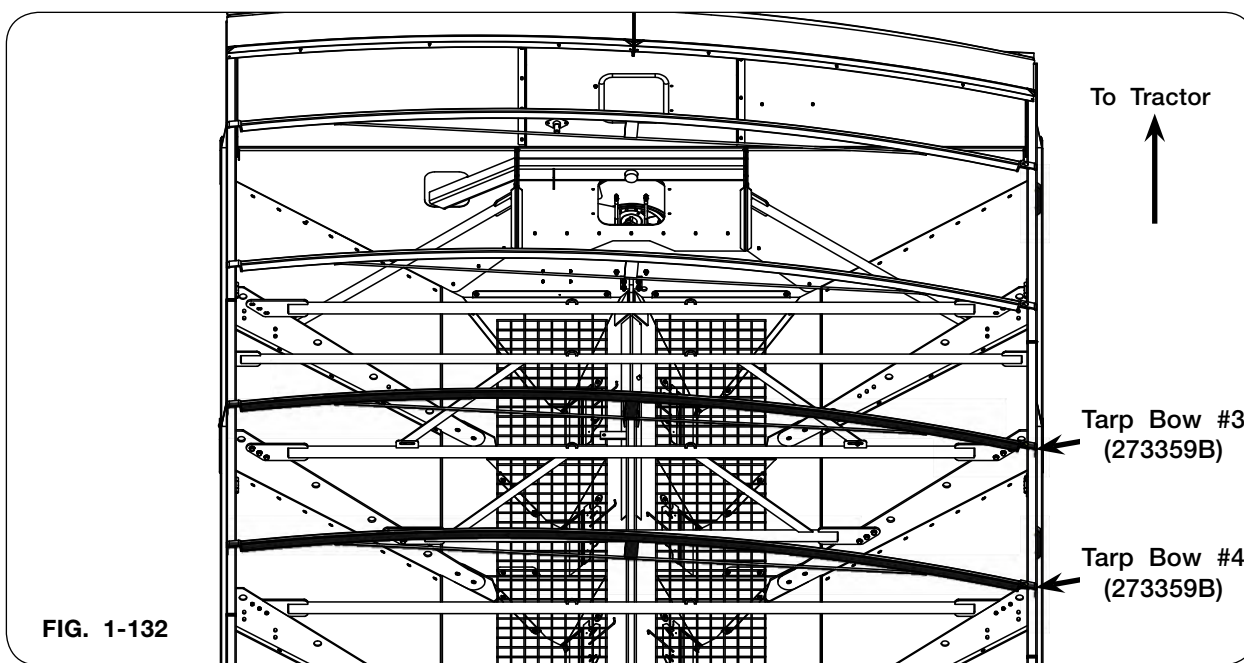
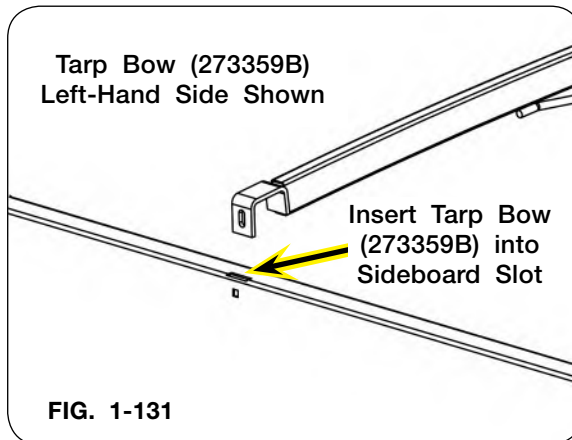
14. Use a safe lifting device rated at a minimum of 50 lbs. (23 kg.), loosely assemble the sideboard brace weldment (273325B) to the sideboards and the hopper cross brace with 3/8"-16UNC x 3/4" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).



Sideboard Assembly (Continued)

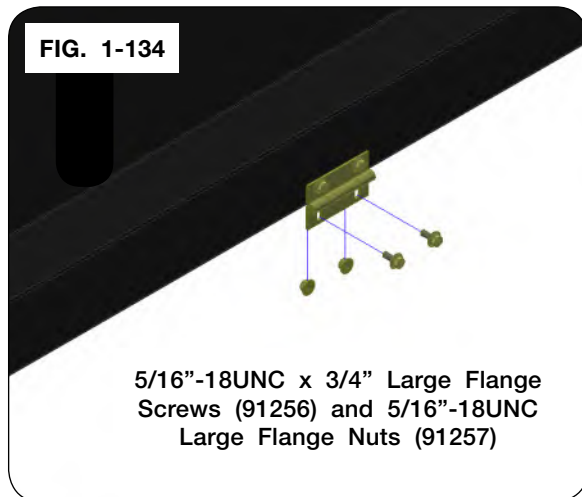
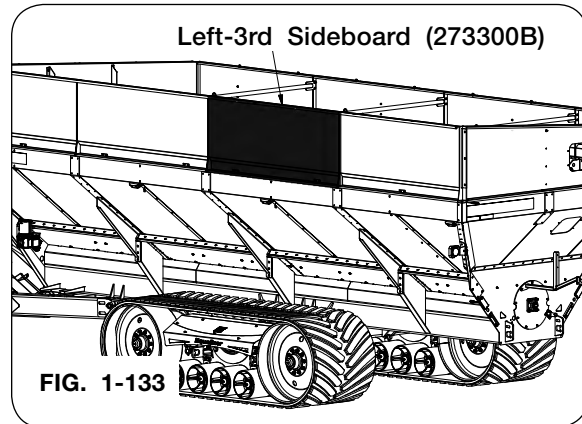
NOTE: The right-hand side of the tarp bow weldments (273359B) with bracket (300977B) will be secured to the sideboards later on with the tarp latch plates.

15. Insert two tarp bow weldment (273359B) tabs into the left-hand sideboard.

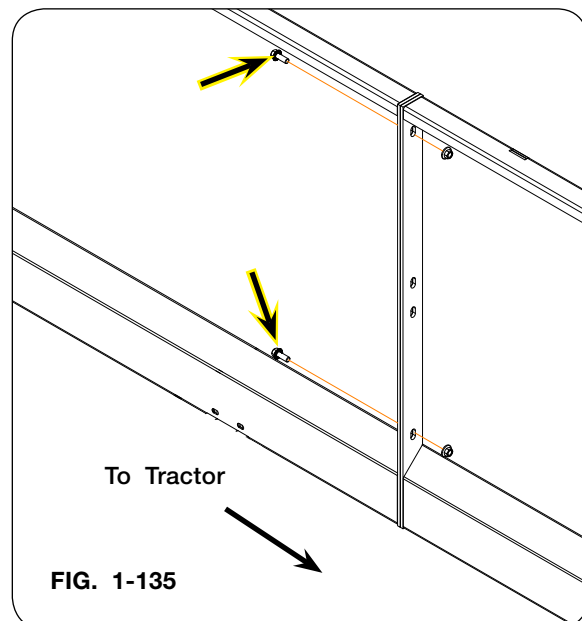


Sideboard Assembly (Continued)

16. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach left-3rd sideboard (273300B) with hinges (9004626) to the left/3rd hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

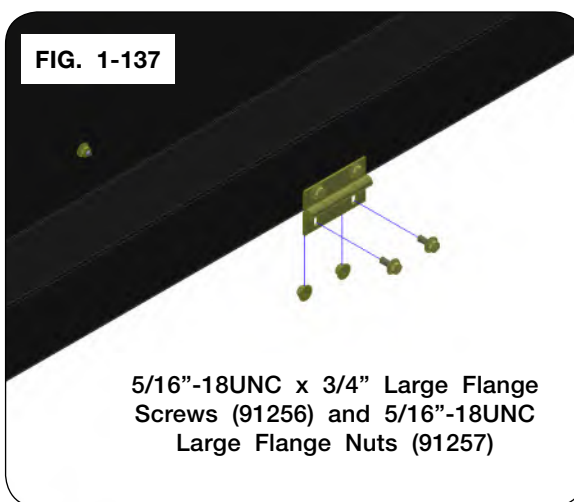
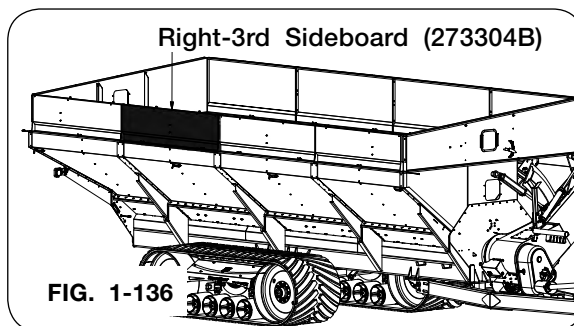


17. Secure the left-2nd sideboard (273299B) to the left-3rd sideboard (273300B) with 3/8"-16UNC x 1" large flange screw (91262) and 3/8"-16UNC large flange nuts (91263).

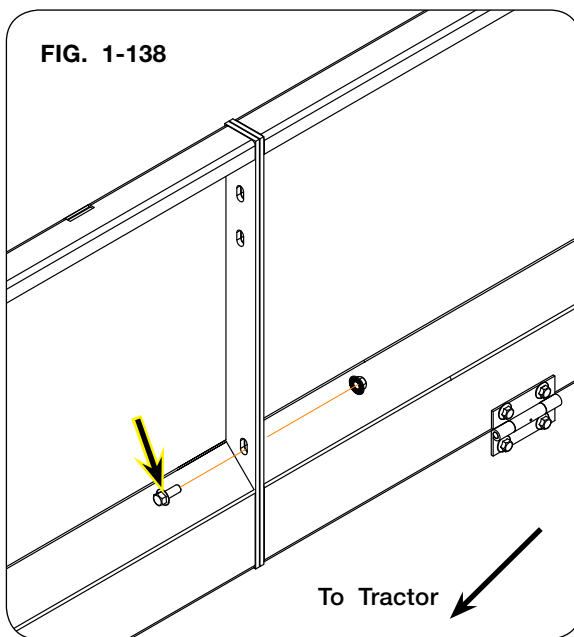


Sideboard Assembly (Continued)

18. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach right-3rd sideboard (273304B) with hinges (9004626) to the right/3rd hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

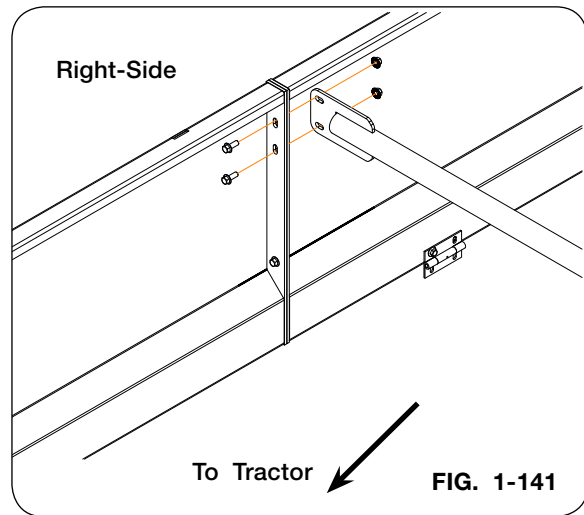
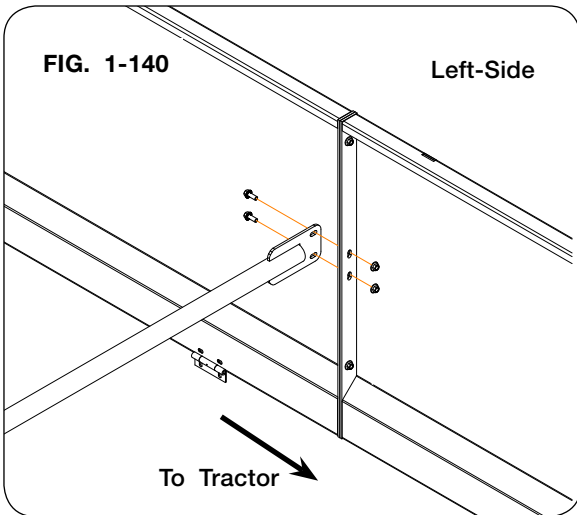
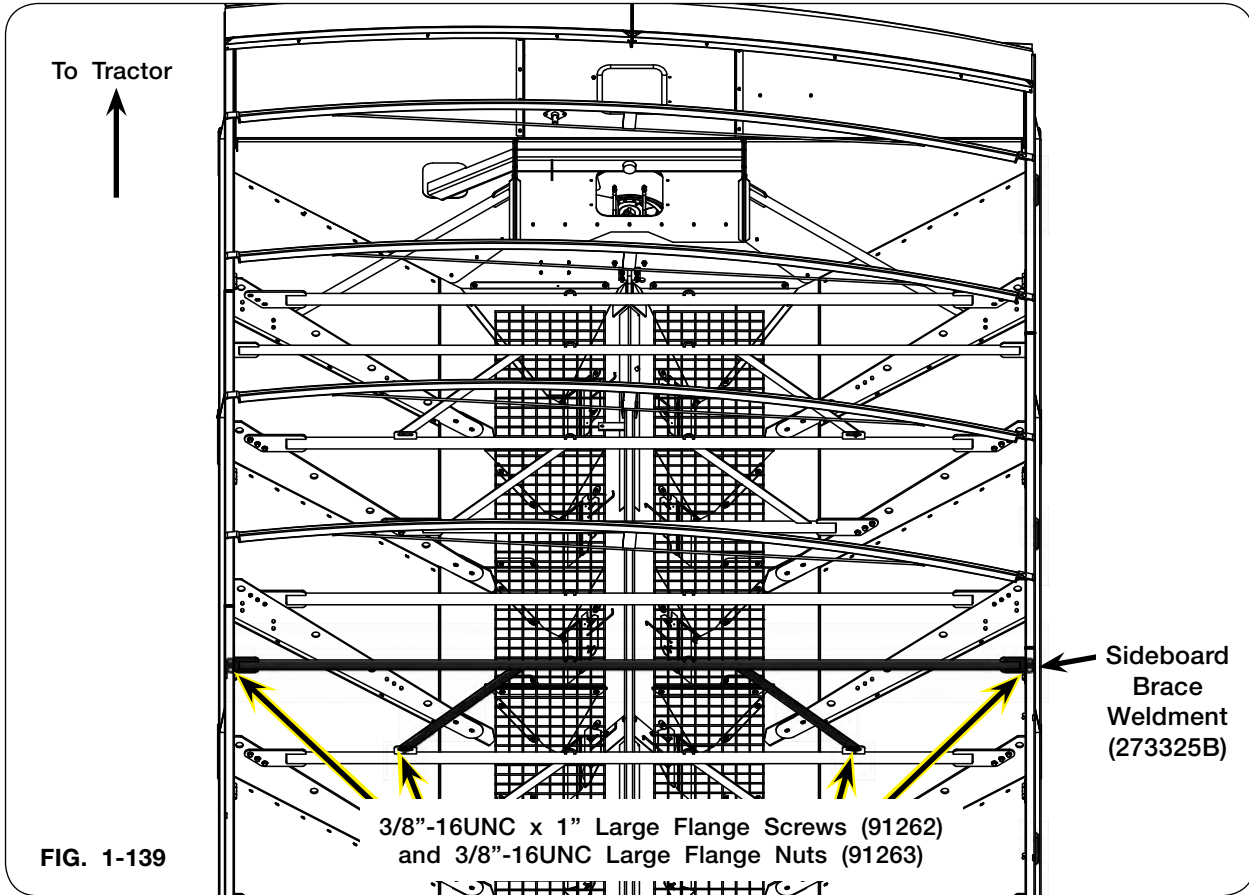


19. Secure the right-2nd sideboard (2732303) to the right-3rd sideboard (2732304) with 3/8"-16UNC x 1" large flange screw (91262) and 3/8"-16UNC large flange nut (91263).



Sideboard Assembly (Continued)

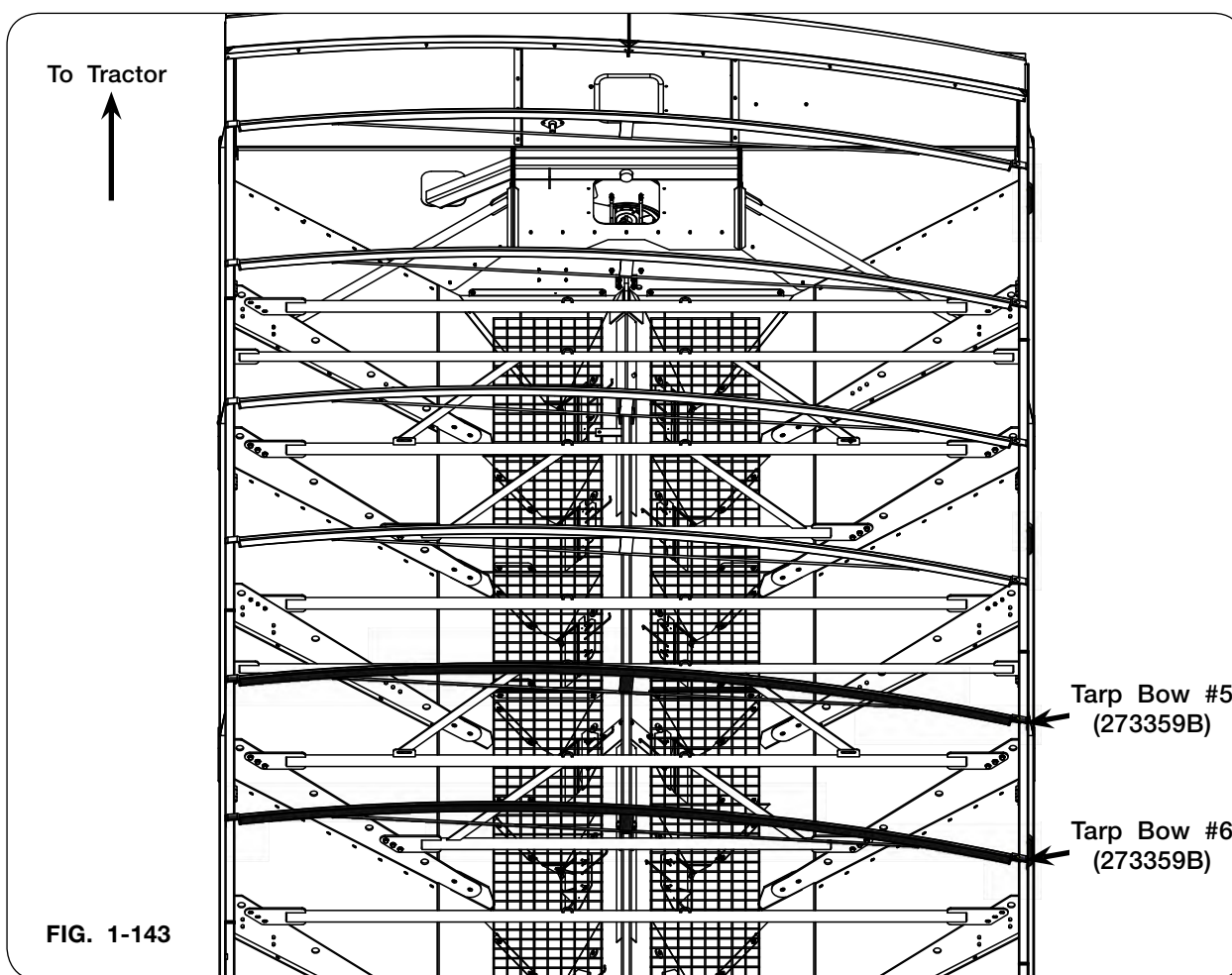
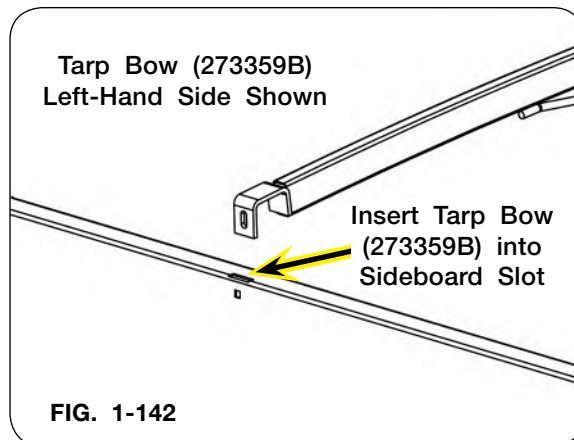
20. Use a safe lifting device rated at a minimum of 50 lbs. (23 kg.), loosely assemble the sideboard brace weldment (273325B) to the sideboards and the hopper cross brace with 3/8"-16UNC x 3/4" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).



Sideboard Assembly (Continued)

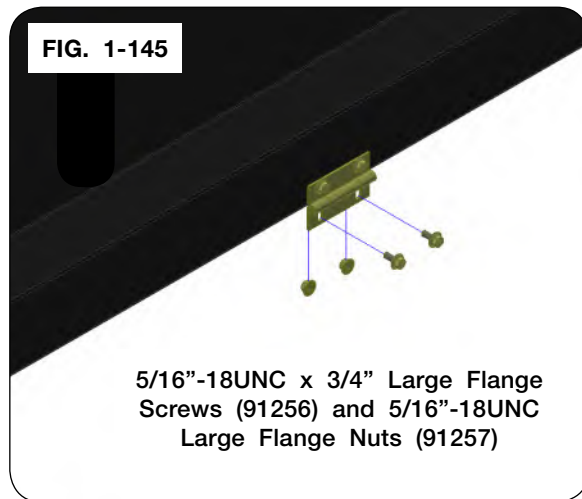
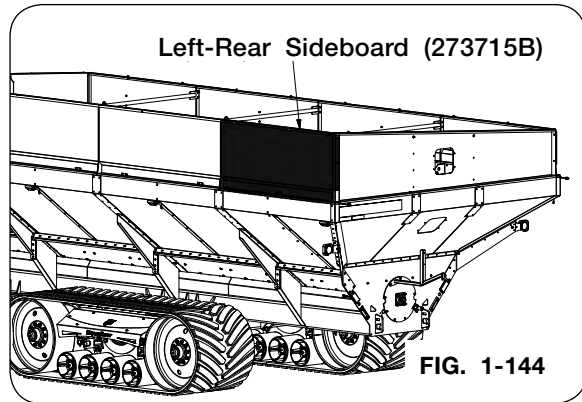
NOTE: The right-hand side of the tarp bow weldments (273359B) with bracket (300977B) will be secured to the sideboards later on with the tarp latch plates.

21. Insert two tarp bow weldment (273359B) tabs into the left-hand sideboard.

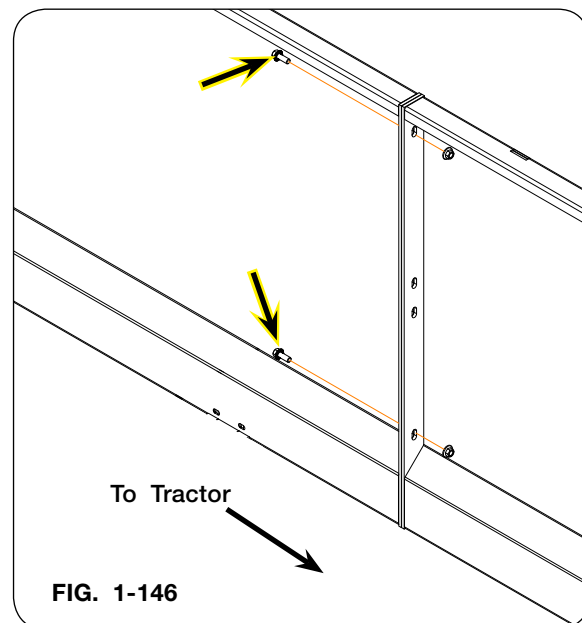


Sideboard Assembly (Continued)

- 22. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach left-4th sideboard (273300B) with hinges (9004626) to the left/4th hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

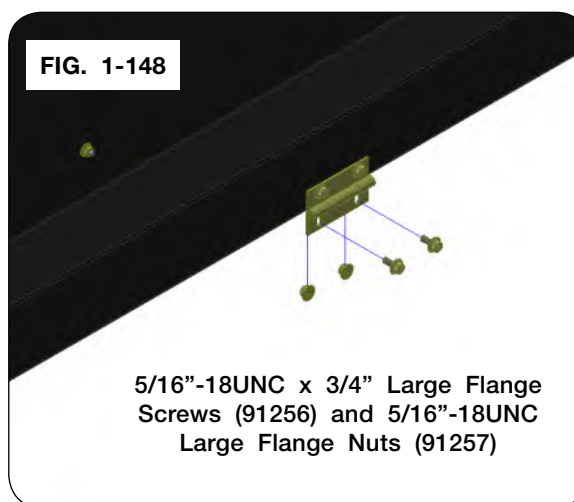
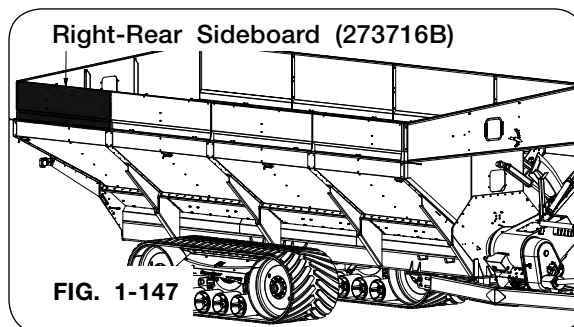


- 23. Secure the left-3rd sideboard (273300B) to the left-4th sideboard (273300B) with 3/8"-16UNC x 1" large flange screw (91262) and 3/8"-16UNC large flange nuts (91263).

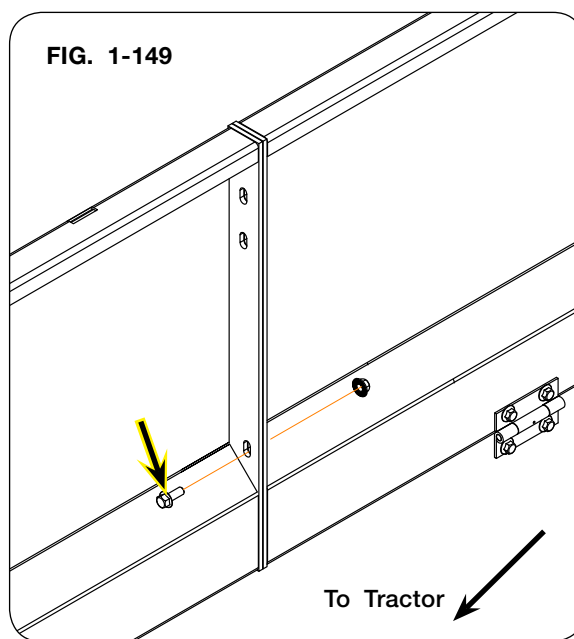


Sideboard Assembly (Continued)

24. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach right-4th sideboard (273304B) with hinges (9004626) to the right/4th hopper panel with 5/16"-18UNC x 3/4" large flange screws (91256) and 5/16"-18UNC large flange nuts (91257).

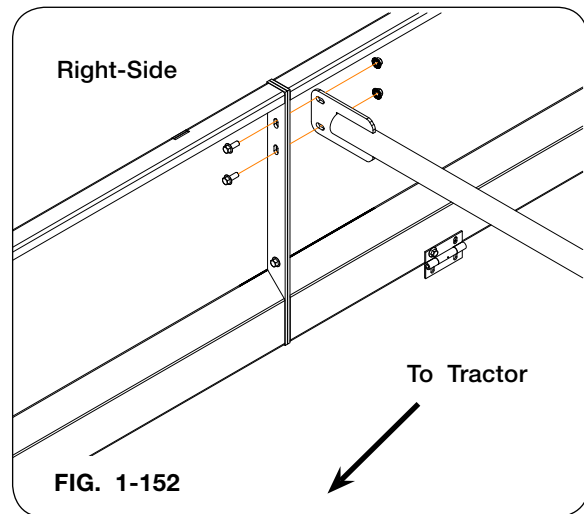
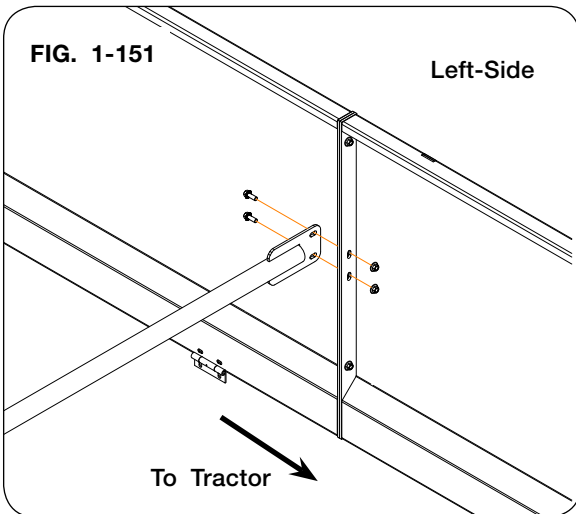
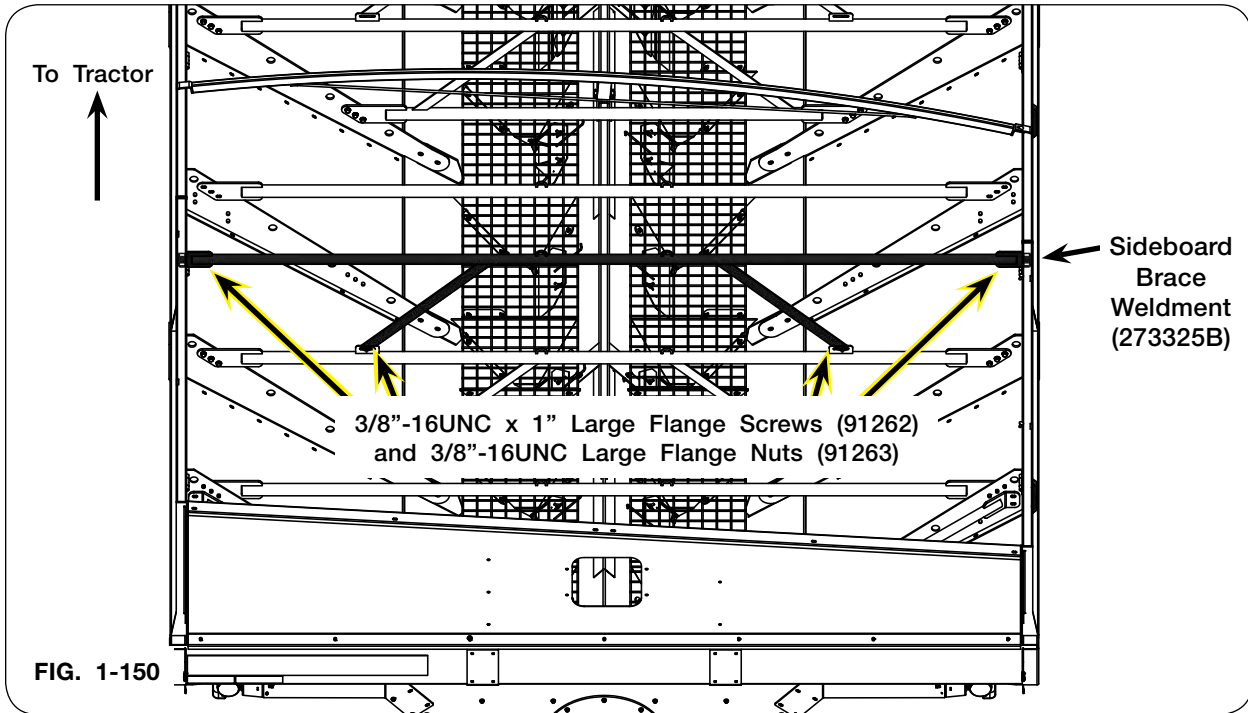


25. Secure the right-3rd sideboard (2732304) to the right-4th sideboard (2732304) with 3/8"-16UNC x 1" large flange screw (91262) and 3/8"-16UNC large flange nut (91263).



Sideboard Assembly (Continued)

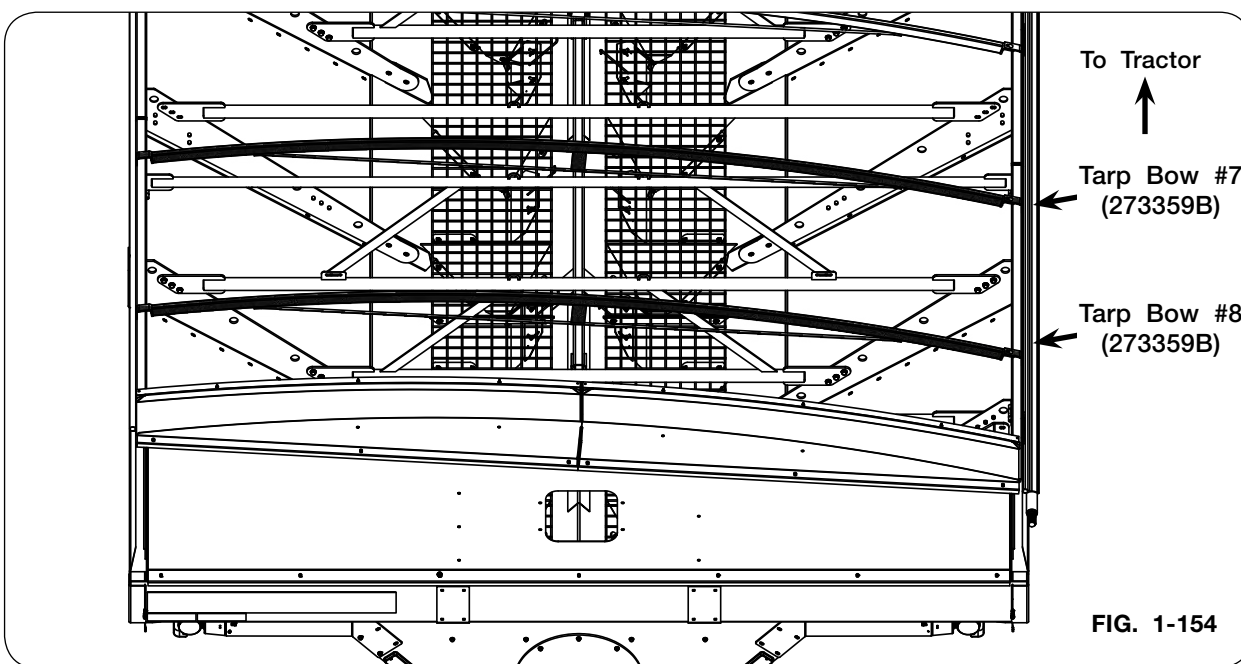
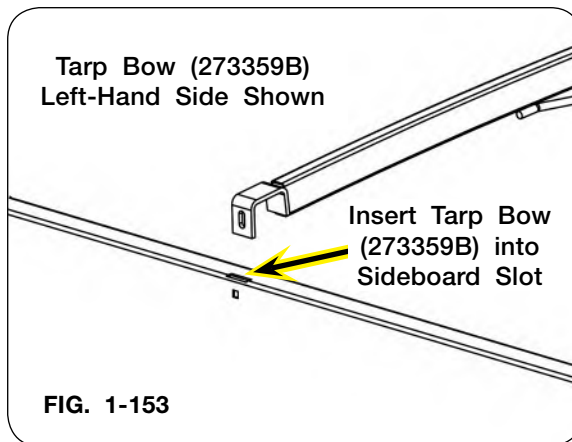
26. Use a safe lifting device rated at a minimum of 50 lbs. (23 kg.), loosely assemble the sideboard brace weldment (273325B) to the sideboards and the hopper cross brace with 3/8"-16UNC x 3/4" flange screws (91262) and 3/8"-16UNC large flange nuts (91263).



Sideboard Assembly (Continued)

NOTE: The right-hand side of the tarp bow weldments (273359B) with bracket (300977B) will be secured to the sideboards later on with the tarp latch plates.

27. Insert two tarp bow weldment (273359B) tabs into the left-hand sideboard.



Sideboard Assembly (Continued)

28. Use safe lifting device rated at a minimum of 200 lbs. (91 kg.), attach rear sideboard (273286B) with braces (273529B and 273530B) to the rear hopper panels with 3/8"-16UNC x 3/4" large flange screws (95585) and 3/8"-16UNC large flange nuts (91263).

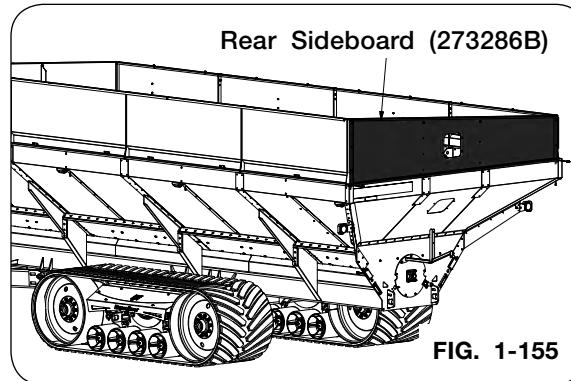
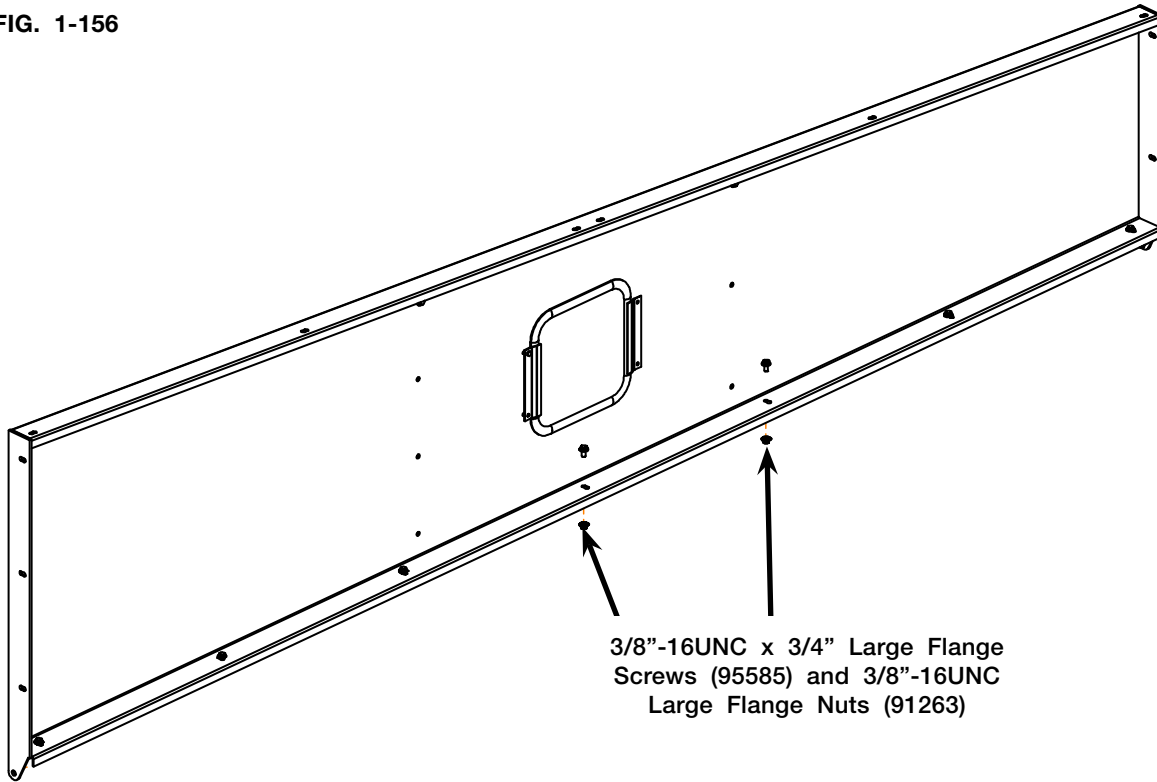
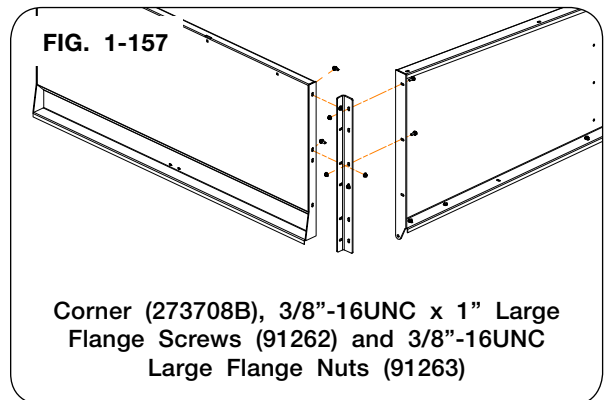


FIG. 1-156

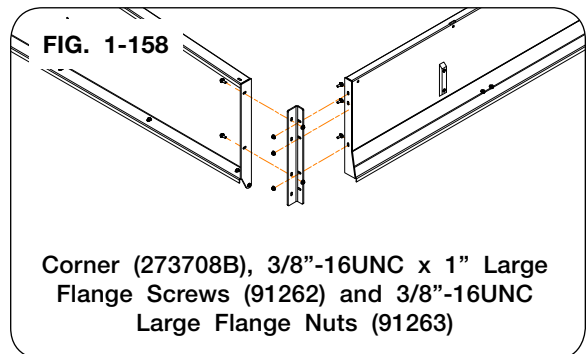


Sideboard Assembly (Continued)

29. Attach the rear sideboard (273286B) to the left-rear sideboard (273715B) with corner plate (273708B), 3/8"-16UNC x 1" large flange screw (91262), and 3/8"-16UNC large flange nuts (91263).

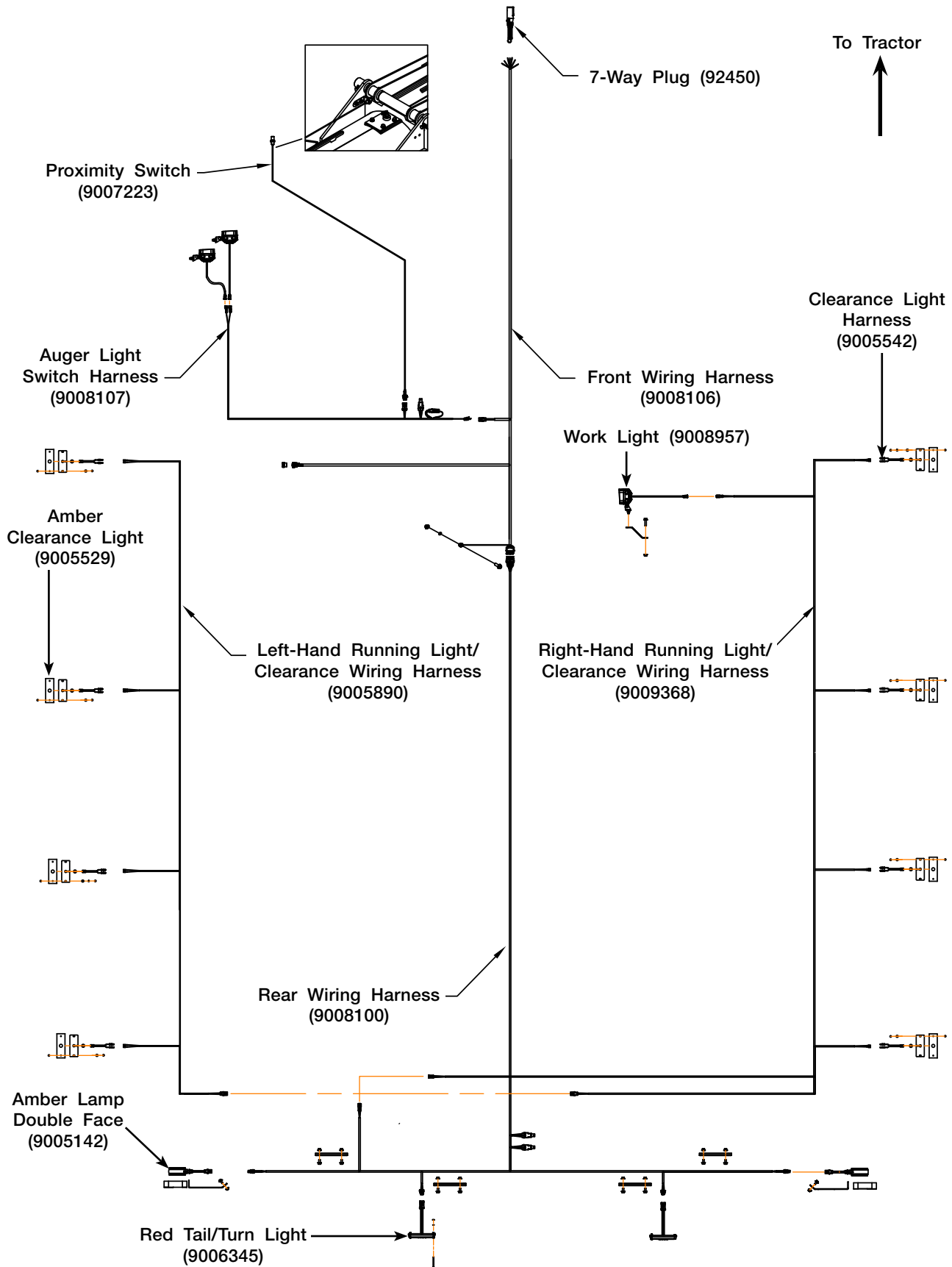


30. Attach the rear sideboard (273286B) to the right-rear sideboard (273716B) with corner plate (273707B), 3/8"-16UNC x 1" large flange screw (91262), and 3/8"-16UNC large flange nuts (91263).



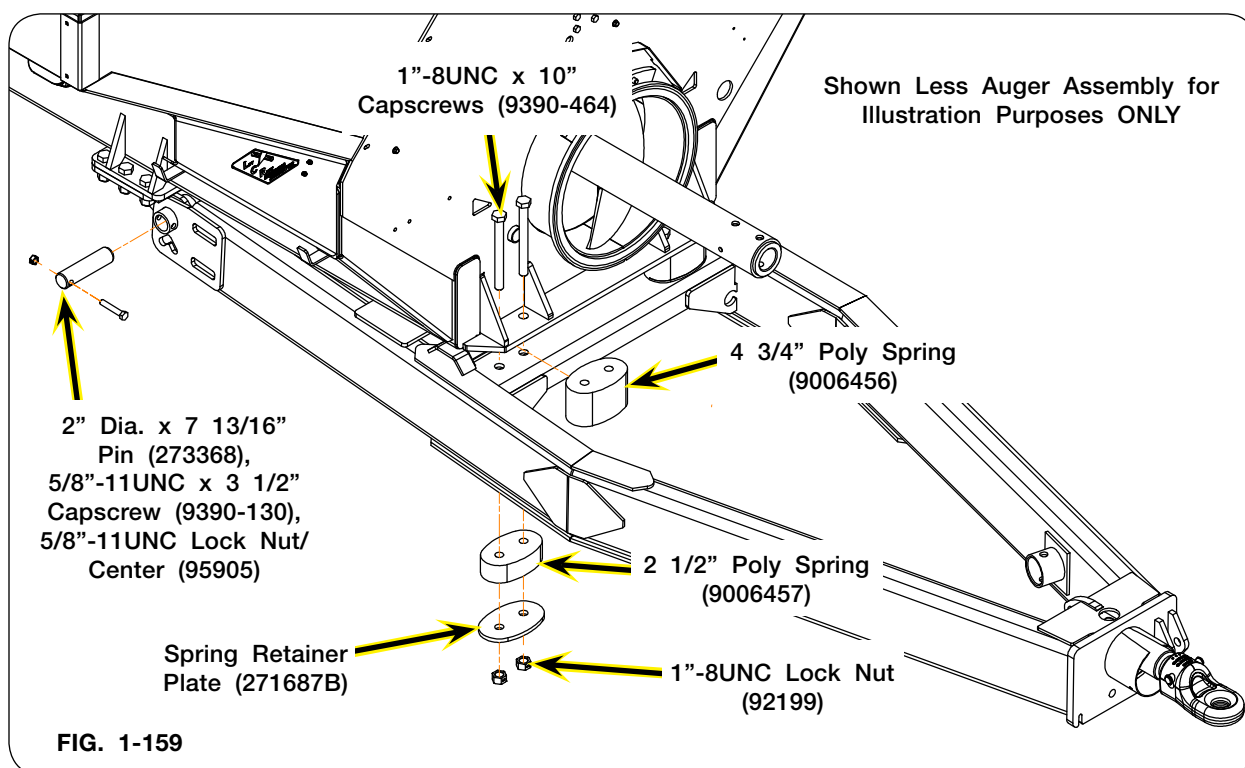
31. Sight down the sides. Adjust the sideboard brace weldments as necessary. Torque all sideboard assembly hardware. See "Torque Chart" located in this manual.

Electrical Diagram



Tongue Assembly

1. Remove the 2" Dia. x 7 13/16" pins (273368), 5/8"-11UNC x 3 1/2" capscrews (9390-130), 5/8"-11UNC lock nuts (95905) from the tongue assembly (FIG. 1-159)
2. Use safe lifting device rated at a minimum of 2,000 lbs. (909 kg.), lift the tongue assembly into position.
3. Align the hole in the pins with the mounting holes. Insert the 2" Dia. x 7 13/16" pins (273368), 5/8"-11UNC x 3 1/2" capscrews (9390-130), 5/8"-11UNC lock nuts (95905) previously removed (FIG. 1-159). Torque 5/8"-11UNC hardware. See "Torque Chart" in this manual.



4. Place the 4 3/4" poly spring (9006456) between the grain cart and the tongue assembly (FIG. 1-159).
5. Insert the 1"-8UNC x 10" capscrews (9390-464) through the grain cart frame and through the 4 3/4" poly springs (9006456) (FIG. 1-159).
6. Attach the 2 1/2" poly spring (9006457) and spring retainer plate (271687B) to the underside of the tongue assembly using the previously installed 1"-8UNC x 10" capscrews (9390-464) and new 1"-8UNC lock nuts (92199) (FIG. 1-159).

Ladder Assembly

1. Using a safe lifting device rated at a minimum of 100 lbs. (46 kg.) attach the ladder assembly to the right-hand side panel with 1/2"-13UNC x 1" carriage bolts (9388-102), 1/2" USS flat washers (9405-088), and 1/2"-13UNC large flange nuts (91267). FIG. 1-160
2. Torque 1/2"-13UNC hardware. See "Torque Chart" in this manual.

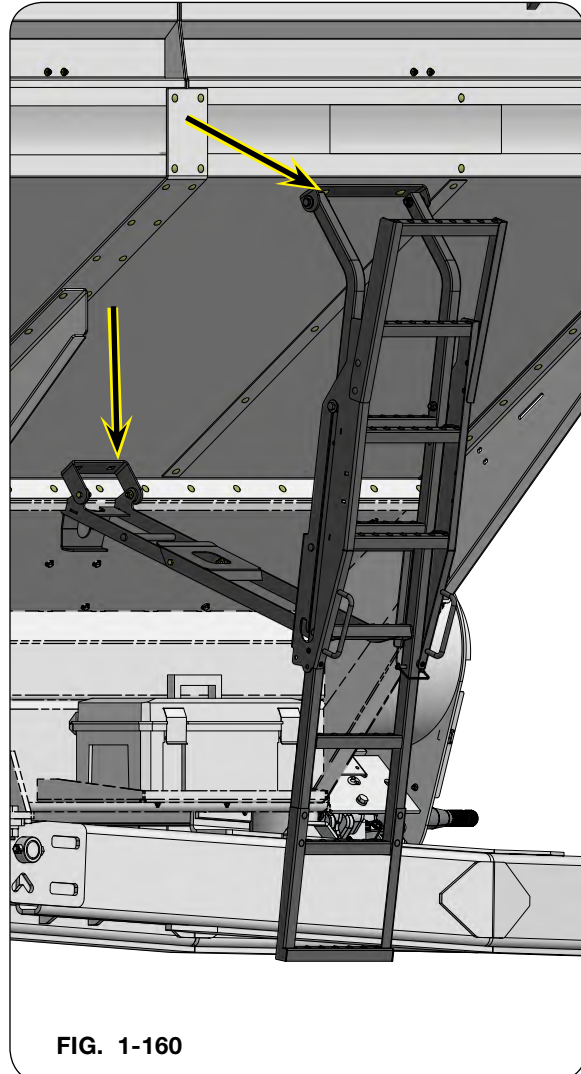


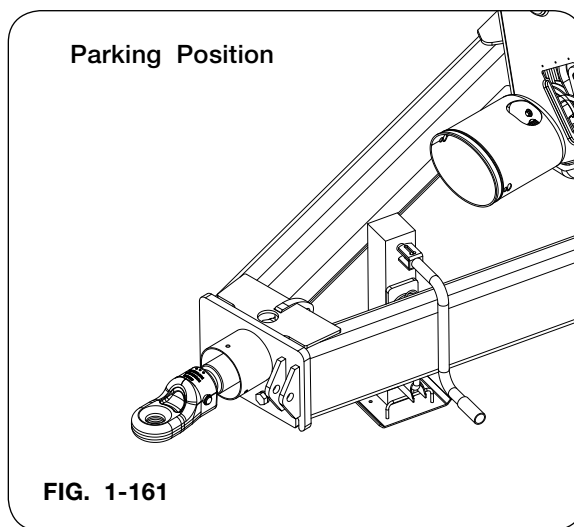
FIG. 1-160

Jack Installation

WARNING

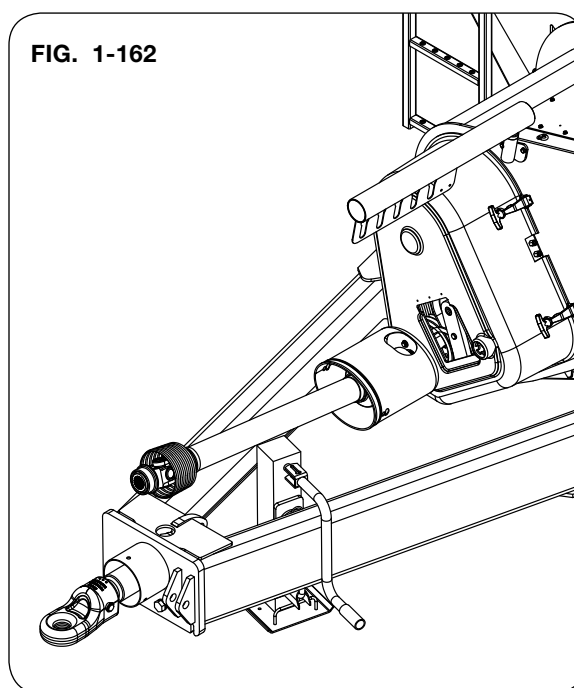
- UNHITCHING A LOADED CART CAN CAUSE SERIOUS INJURY OR DEATH DUE TO TONGUE RISING OR FALLING. ALWAYS HAVE A LOADED CART ATTACHED TO A TRACTOR. THE JACK IS INTENDED TO SUPPORT AN EMPTY CART ONLY.

Attach jack to the left side of the frame using pin and hair pin. FIG. 1-161



PTO Installation

Attach PTO assembly. FIG. 1-162



Transport Chain

1. Attach with transport chain (9004898) to the front of the tongue assembly with 1"-8UNC x 4" capscrew (91299-191) and 1"-8UNC lock nut (92199) (FIG. 1-163).



SMV Emblem

Before the cart is used the reflective surface of the SMV must face rearward. This may require removal of film protecting the reflective surface or removing and reinstallation of the SMV. When reinstalling the SMV make sure that it is mounted with the wide part of the SMV at the bottom.

1. Attach the SMV emblem (TA510514) to the tarp crank holder (273501B).



Toolbox Installation

1. Attach toolbox (9008634) to the toolbox mounting bracket with two 1/4"-20UNC x 1 1/4" capscrews (9390-006), fender washers (94763), 1/4" USS flat washers (9405-064), and 1/4"-20UNC lock nuts (9936). FIG. 1-165

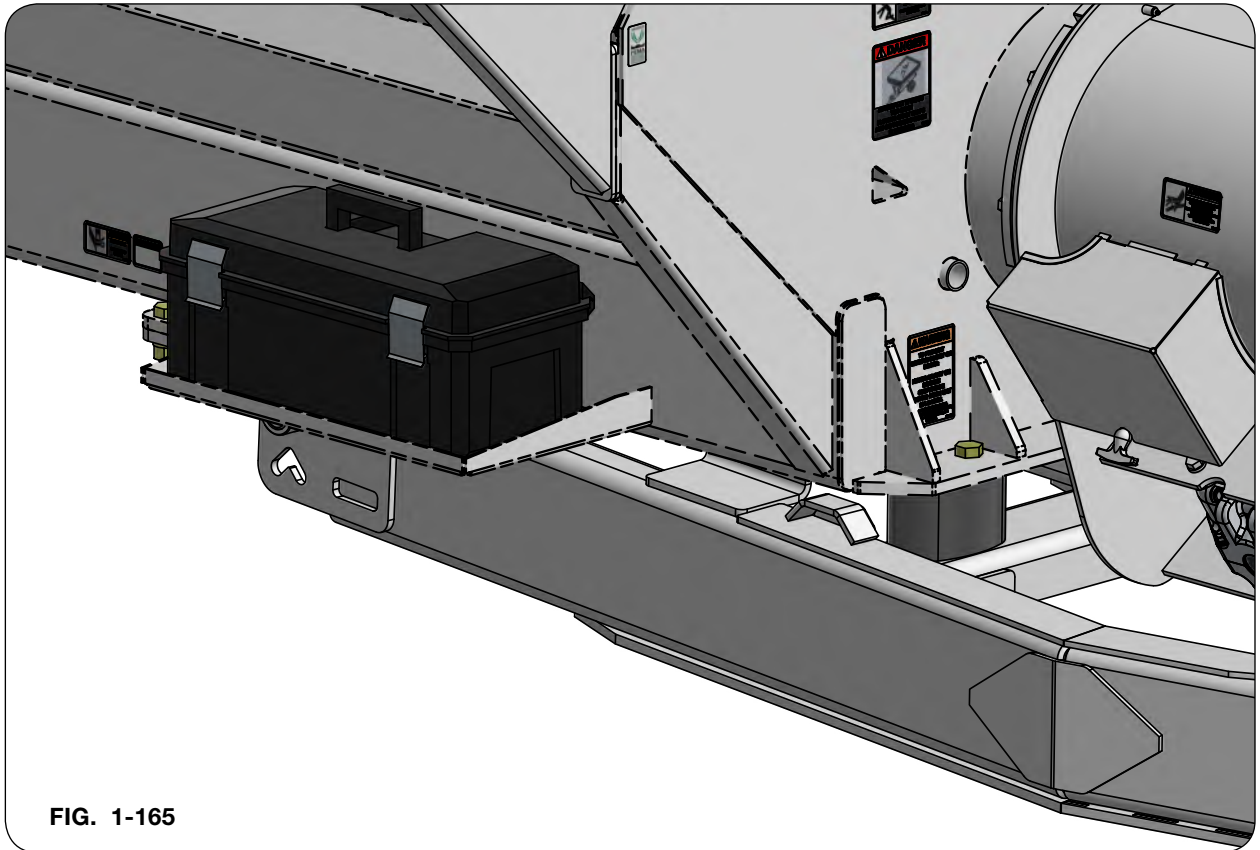


FIG. 1-165

Weather Guard Tarp Installation

DANGER

- NEVER ENTER CART WITH AUGER OR TRACTOR RUNNING. SERIOUS INJURY OR DEATH CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE AND REMOVE KEY BEFORE ENTERING CART.

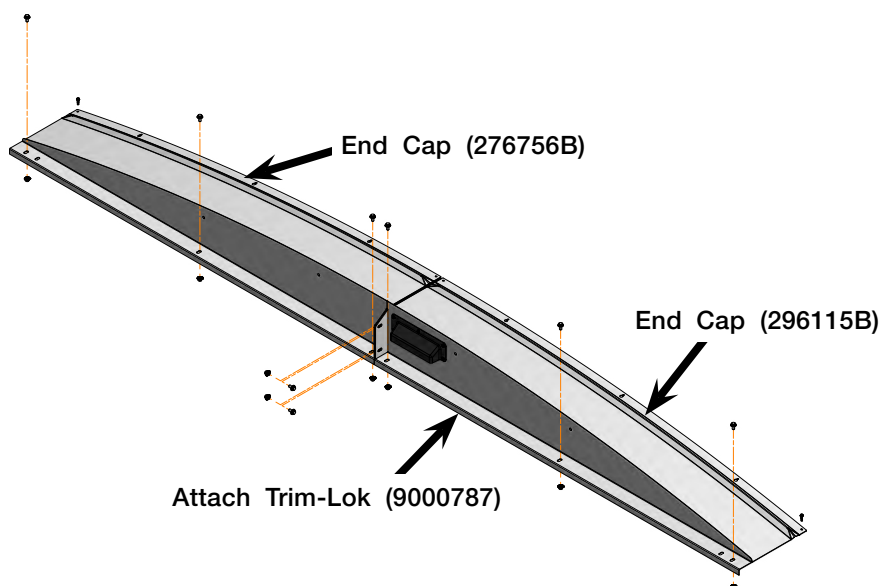
WARNING

- TO PREVENT PERSONAL INJURY OR DEATH ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE CART TO ASSIST THE PERSON WORKING INSIDE THE CART, AND THAT ALL SAFE WORK PLACE PRACTICES ARE FOLLOWED. THERE IS RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE CART.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 250 LBS. (114 KG.) SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.

End Caps

1. Attach the end caps (276756B and 296115B) together with 3/8"-16UNC x 3/4" large flange capscrews (95585) and 3/8"-16UNC large flange nuts (91263) (FIG. 1-166).

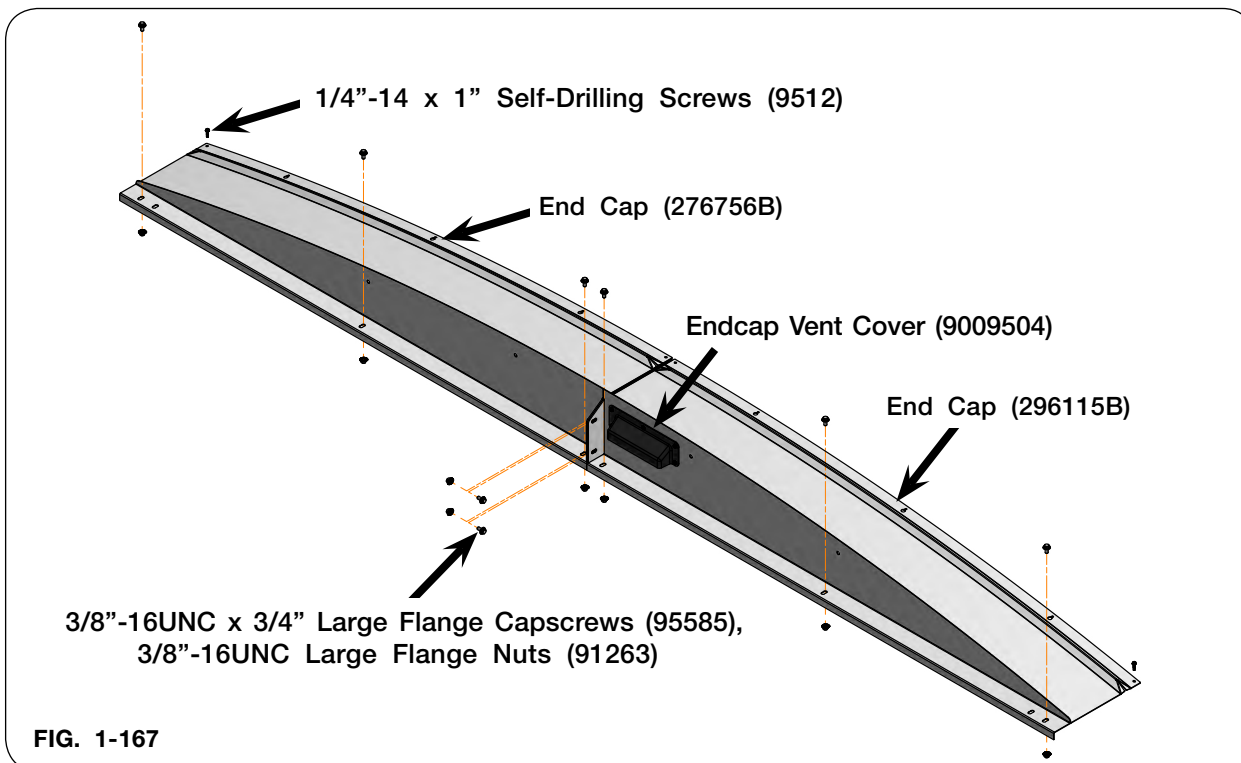
FIG. 1-166



2. Place trim-lok (9000787) along the bottom edge of the end caps (FIG. 1-166).

Weather Guard Tarp Installation (Continued)

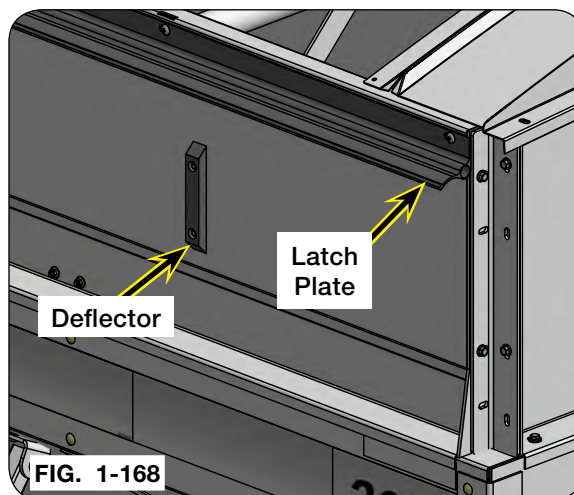
3. Position the end caps (276756B and 296115B) on the cart aligning with the corresponding bolt holes. Secure the end caps (276756B and 296115B) using 3/8"-16UNC x 3/4" large flange capscrews (95585), 3/8"-16UNC large flange nuts (91263), and 1/4"-14 x 1" self-drilling screws (9512) (FIG. 1-167).



4. Attach endcap vent cover (9009504) with 1/4"-14 x 1" self-drilling screws (9512). (FIG. 1-167)

Latch Plates & Deflectors

1. Locate latch plates (273364 - Front; 273365 - Rear) flush with the top of the right-hand vertical cart panel. Secure using 3/8"-16UNC x 1" torx head machine screw (9005312) and 3/8"-16UNC flange nuts (91263).
2. Attach the deflectors (9005307) to the pre-drilled holes in the right-hand sideboards with 1/4"-20UNC x 1" self-threading screws (9004355) and 3/8"-16UNC flange nuts (91263). FIG. 1-168

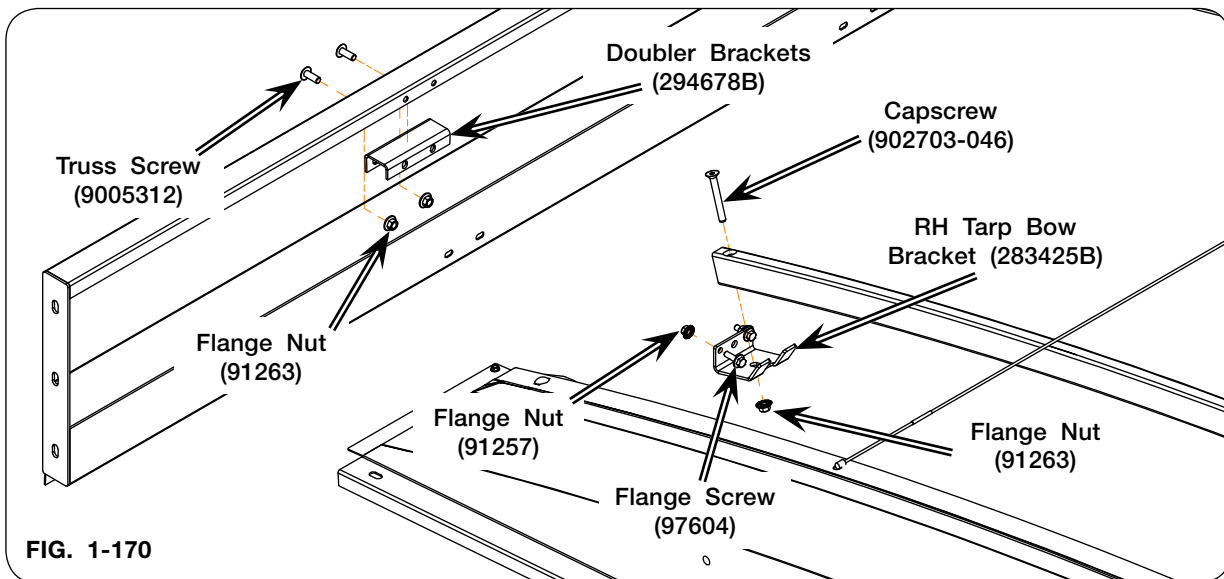
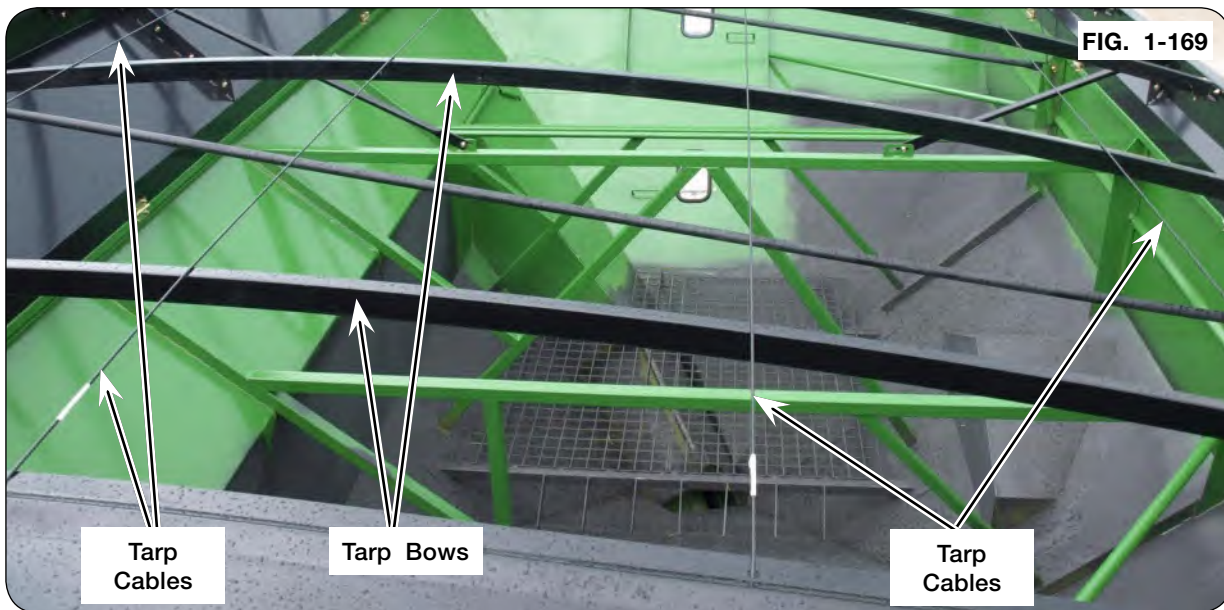


Weather Guard Tarp Installation (Continued)

Tarp Installation

NOTE: Ensure doublers are inside the sideboard lip. See Figure 2-14.

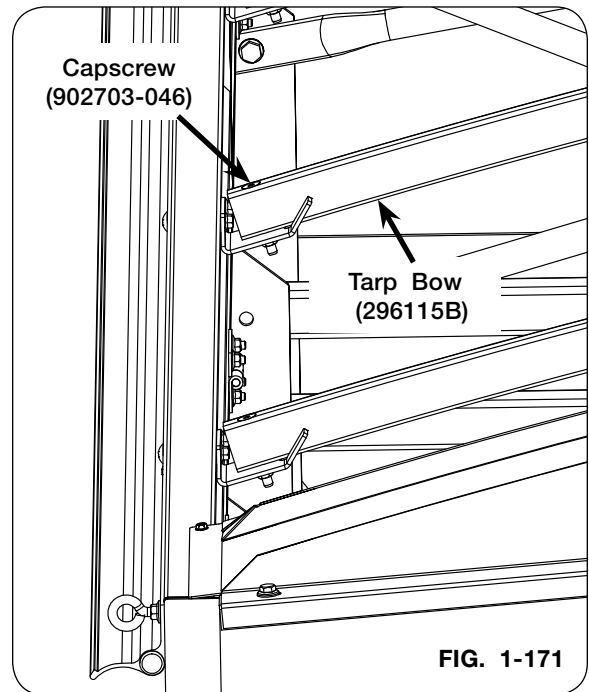
1. Install eight long tarp bows (291289B) across top of the cart, using RH tarp bow mounting brackets (283425B), LH tarp bow mounting brackets (283427B), doubler brackets (294678B), 3/8"-16UNC x 3" capscrew (902703-046), 3/8"-16UNC flange nut (91263), 3/8"-16UNC x 1" torx head machine screws (9005312), 5/16"-18UNC x 1" flange screw (97604) and 5/16"-18UNC flange nut (91257). FIG. 1-169 & 1-170.



Weather Guard Tarp Installation (Continued)

NOTE: Ensure capscrew head (902703-046) is flush with the top of bow weldment (296115B). FIG. 1-171

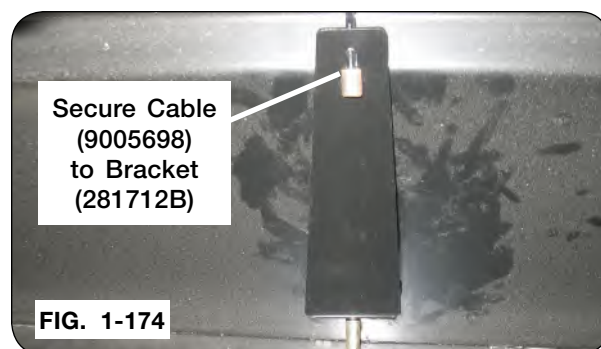
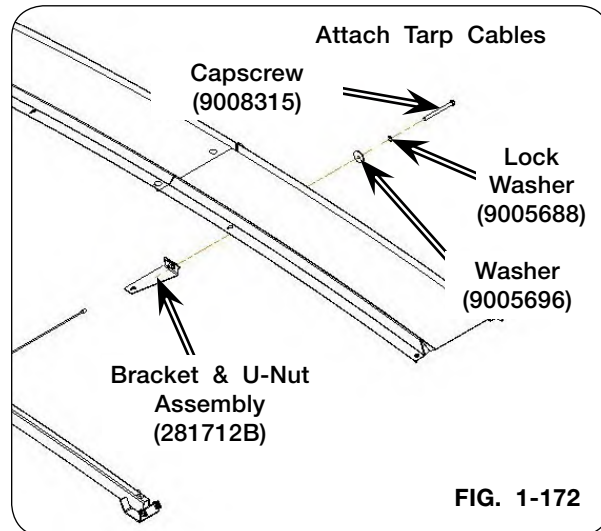
2. Tighten all hardware.



Weather Guard Tarp Installation (Continued)

Attach Cable Assemblies

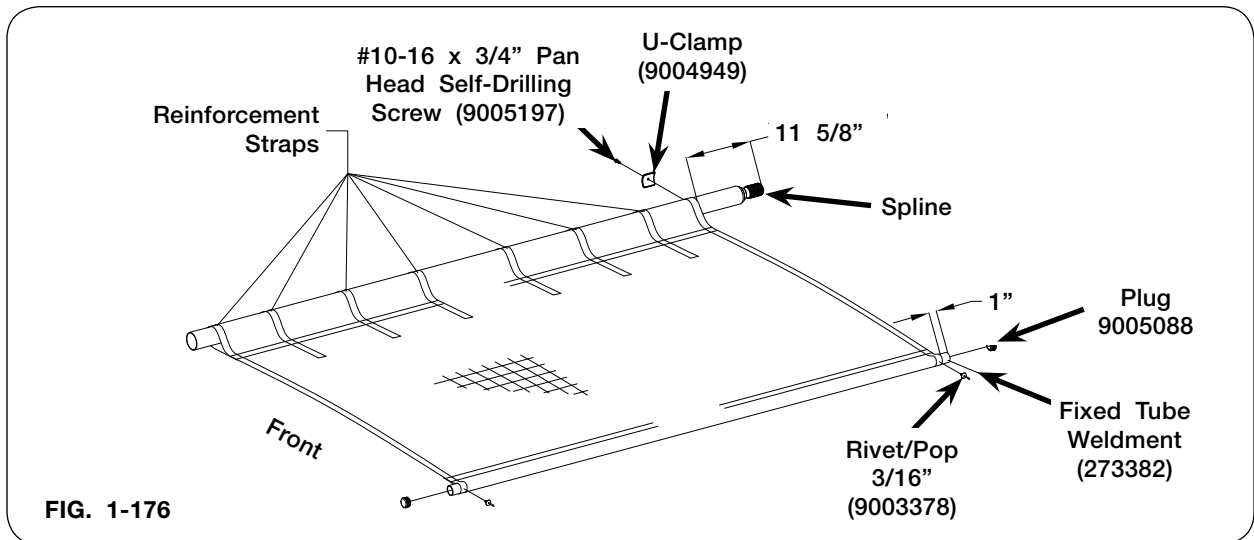
1. Install four tarp cables across the top using 3/8"-16UNC x 6" capscrew (9008315), 3/8" star/lock washer (9005688), 3/8" fender washer (9005696) and bracket & U-nut assembly (281712B). FIG. 1-172 through 1-175.
2. Assemble nylon coated cable through keyhole slot in front end cap and route over tarp bows. Assemble through keyhole slot in rear end cap and attach to adjusting bracket under end cap. See FIG. 1-173 and 1-174. Do not overtighten.



Weather Guard Tarp Installation (Optional) (Continued)

Attaching Tarp

1. On a clean floor, lay the tarp out flat with the raw edge of the hems and pockets down and the exterior side facing up. (FIG. 1-176)



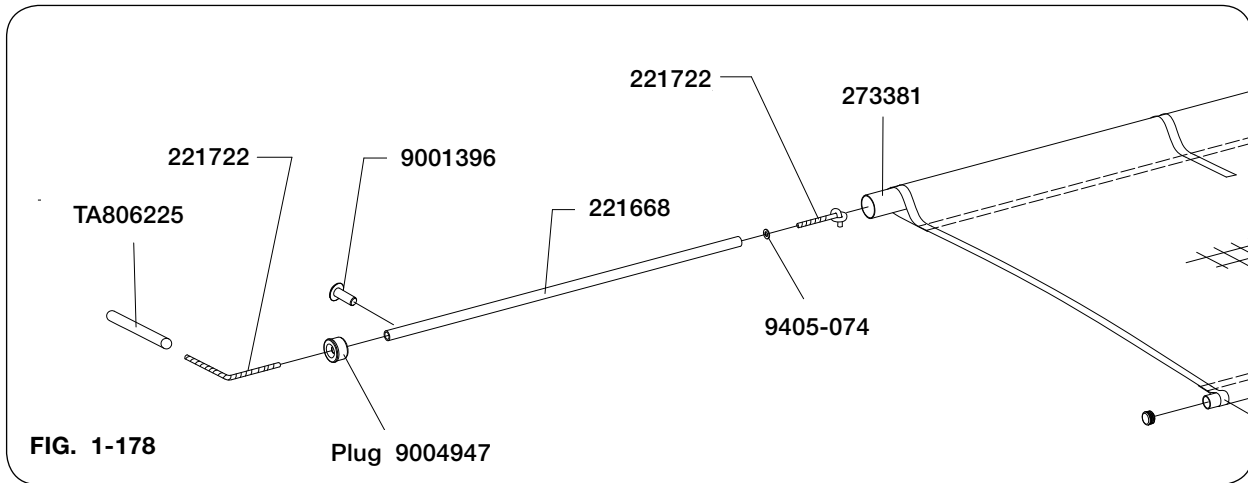
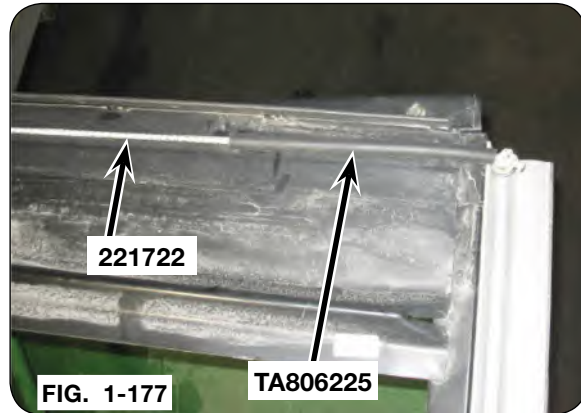
2. Insert the small fixed 1 1/8" tube (273382) by sliding it into the small pocket of the tarp. Leave 1" of the tube sticking out one end and drill a 3/16" hole through the center of the outer reinforcement strap and tube. Fasten with a rivet (9003378). At the other end, pull on the tarp by hand to stretch it until there is 1" of tube sticking out. Drill hole and install rivet. Press the 1 1/8" plugs (9005088) into each end of the tube. FIG. 1-176.

INSTALLATION TIP: Tarp is designed to be stretched the length of the tube to reduce wrinkling. For easier assembly, apply liberal dusting of baby powder on tube and inside of tube pockets before sliding tubes in pockets.

3. Insert the 2" roll tube into the large pockets, with the splined shaft to the rear. Measure 11 5/8" from the end of the spline to the start of the tarp. Install the first U-clamp (9004949) and self-drilling screws (9005197) to the first reinforcement strap, to secure the tarp to the tube. Work down the roll tube putting the U-clamps and self-drilling screws on each reinforcement strap. Make sure to keep the tarp pulled tight to reduce wrinkling. (FIG. 1-176)

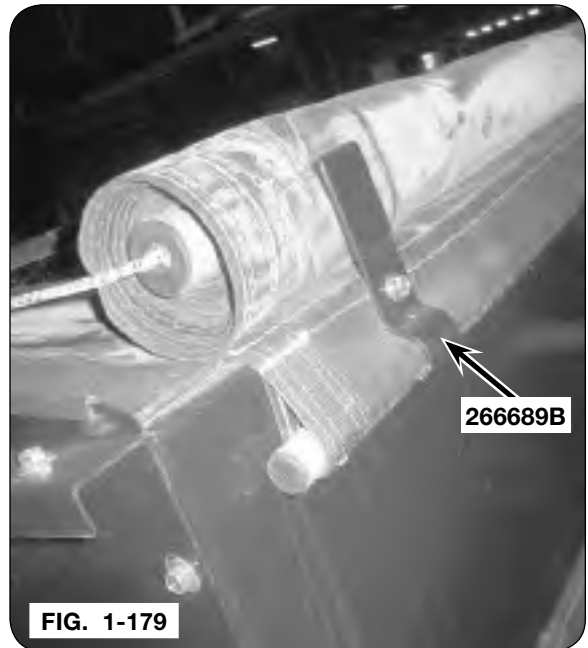
Weather Guard Tarp Installation (Optional) (Continued)

4. Insert knotted stretch rope/bungee (221722) through 3/8" flat washer (9405-074), plastic tube (221668), end plug (9004947) and hose (TA806225). Place these items as an assembly into front end of 2" tube (273381) and press the end plug (9004947) into the end of the tube. Screw self-drilling screw (9001396) through the roll tube into end plug (9004947) to retain the end plug. (Fig. 1-177 and Fig. 1-178).

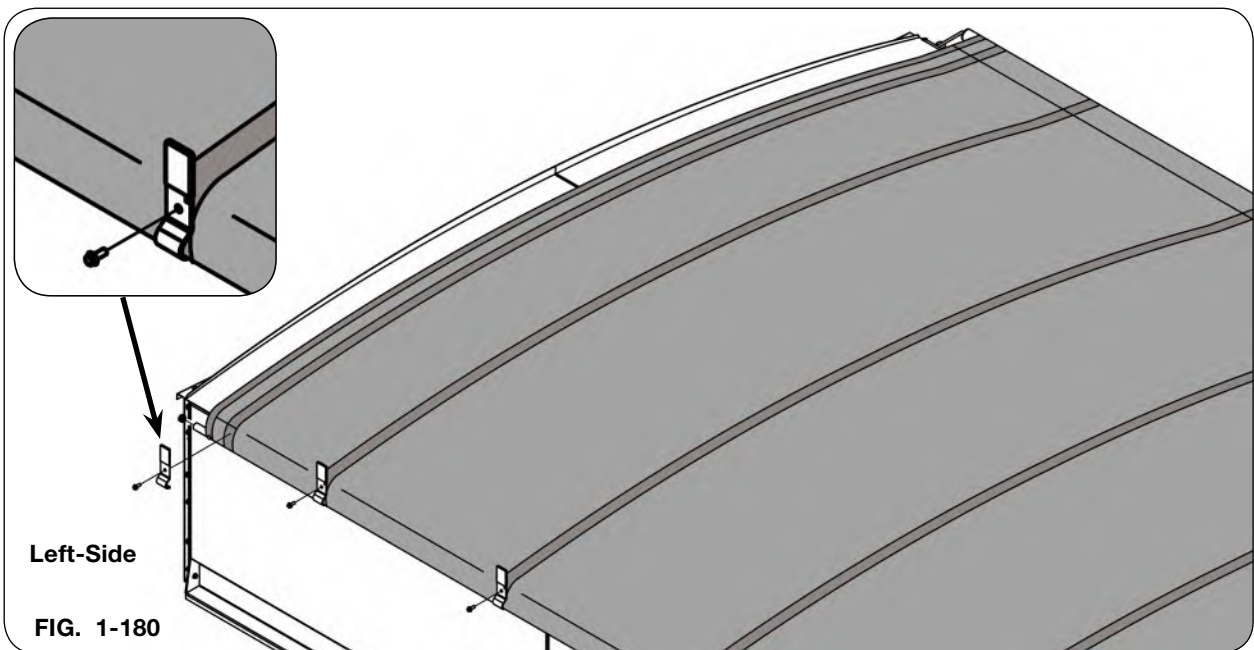


Weather Guard Tarp Installation (Continued)

5. Using appropriate lifting device rated at a minimum of 250 lbs. (114 kg.) position tarp on top of left hand side of cart. Place the stationary tube of the assembled tarp into the hold down brackets (266689B) located on the left-hand side of the cart. (Fig. 1-179).



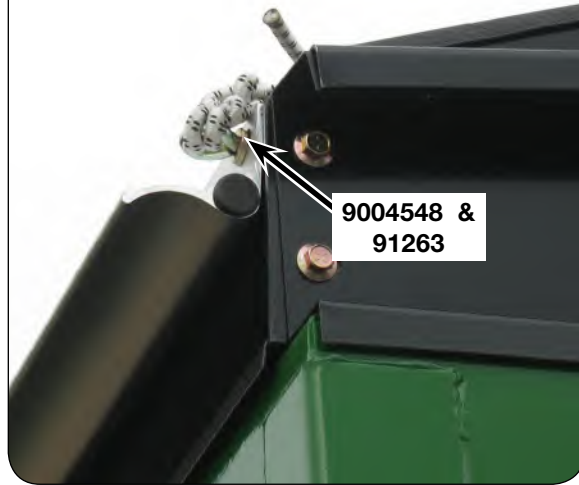
6. Roll tarp by hand across the bows and end caps to the covered position. Place the 1 1/8" stationary tube side of the tarp on top of the left side of the box, centered from front to back of box. **BE CAREFUL NOT TO LET THE TARP ROLL OFF OF THE BOX.** Assemble the tarp stops (266689B) (with caps) to the left-side boards and if applicable, the left-side tarp bow (273359B) by using 3/8"-16UNC x 1" large flange bolts (91262) and 3/8"-16UNC large flange nuts (91263). (FIG. 1-180)



Weather Guard Tarp Installation (Continued)

7. Unroll the tarp and insert stretch cord through the top of the eye bolt (9004548) and knot off. See Fig. 1-181.

FIG. 1-181



Weather Guard Tarp Installation (Optional) (Continued)

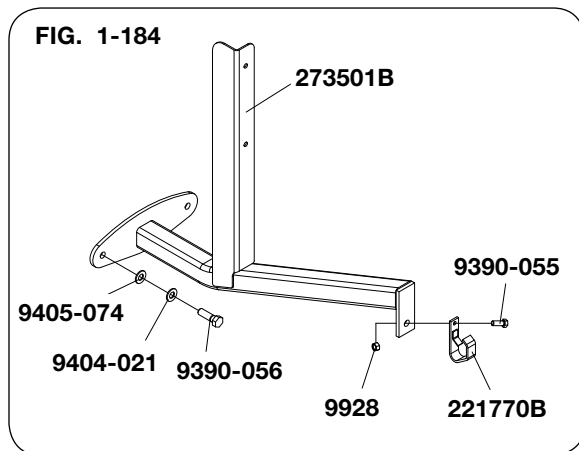
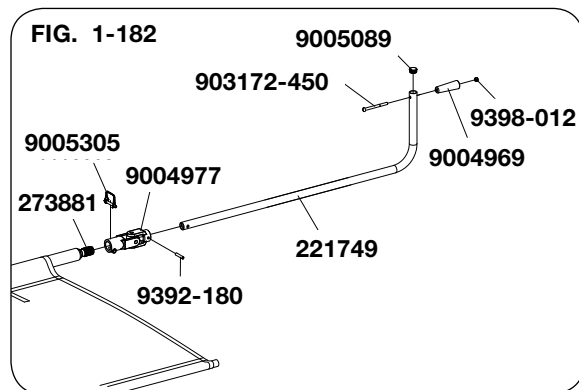
Hand Crank Handle

1. Insert U-joint (9004977) over splined coupling (273381) and secure with wire lynch pin (9005305). Insert crank handle (221749) into U-joint and secure with roll pin (9391-180). Insert round head bolt (903172-450) into bottom hole of crank handle (221749) and slide plastic handle (9004969) onto bolt securing with locknut (9398-012). Insert 1 1/4" plug (9005089) into end of handle. See Fig. 1-182.

2. Remove two 3/8"-16UNC x 1" large flange screws (91262) from the rear auger plate. (FIG. 1-183)

3. Attach the handle bracket weldment (273501B) to the rear auger plate with two 3/8"-16UNC x 1 1/4" capscrews (9390-056), 3/8" lock washers (9404-021), and 3/8" flat washers (9405-074) (FIG. 1-184).

4. Attach the handle retainer (221770B) with capscrew (9390-055) and locknut (9928). (FIG. 1-184)



Complete Torque Chart

Cap screws - Grade 5

NOTE:

- Grade 5 cap screws can be identified by three 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
1/4-20	8-10	11-13
1/4-28	9-11	11-15
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	61-68	84-92
1/2-20	68-75	91-102
9/16-12	90-98	121-133
9/16-18	100-110	134-148
5/8-11	120-135	161-183
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 (continued)

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	81-88	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.*



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