



Doing Our Best to Provide You the Best

8D000011, Rev A

04/26

LIQUID TENDER - BOOM ARM



ASSEMBLY INSTRUCTIONS

You're a few simple steps away from having your NEW Demco Boom Arm assembled and ready to go. The following instructions are designed to help with that process. Should you have any questions, assistance is available from your Dealer or from Demco. 1-800-543-3626.



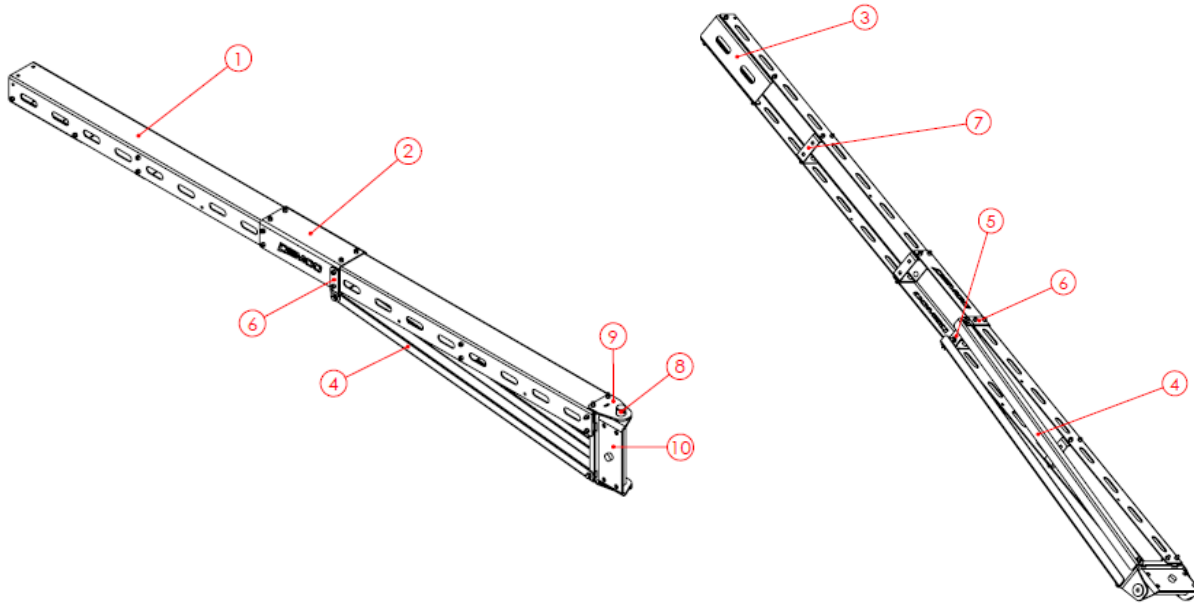
NOTE: Carefully study and understand the Operator's Manual and all safety guidelines before operating, adjusting, or repairing. It is the owner/operator's responsibility to read the manual and instruct other operators to do the same to help ensure safe, efficient operation of the equipment.

What's Included

*Assembly instructions and information for Demco Boom Arm.

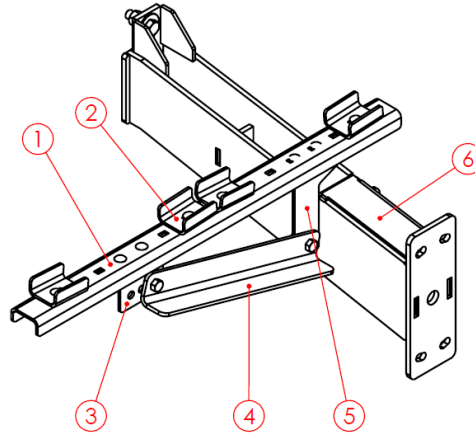
Boom Arm Assembly – 5D000542

Item	Qty	Description	Part Number
1	2	LT BOOM U-ARM, FORMED ARM	3D000971
2	1	LT BOOM U-ARM WIDE	3D000972
3	1	LT BOOM U-ARM LONG CROSS SUPPORT	3D000973
4	2	LT BOOM U-ARM L BRACE	3D000974
5	1	LT BOOM U-ARM U-BRACKET	3D000975
6	2	LT BOOM U-ARM STRAP	3D000976
7	4	LT BOOM U-ARM CROSS SUPPORT	3D000977
8	1	LT BOOM ARM, BOOM PIN WMT., LONG	5D000467
9	1	LT BOOM ARM, HINGE BRACKET ASSEMBLY	5D000540
10	1	LT BOOM ARM, BASE BOOM HINGE WELDMENT	5D000544



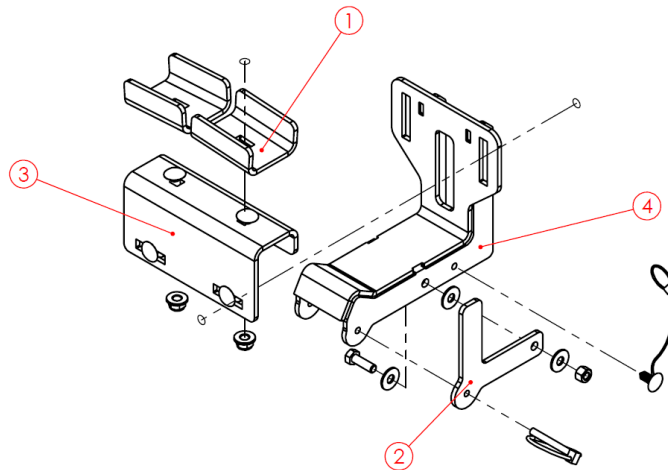
Frame Mount Assembly - 5D000463

Item	Qty	Description	Part Number
1	1	LT BOOM U-ARM, HANGER BRACE CHANNEL	3D000864
2	4	DD TOP DECK RAMP, STORAGE HANGER CLAMP	3D000803
3	1	LT BOOM ARM, HANGER KICKER MOUNT	3D000874
4	1	LT BOOM ARM, FRAME KICKER ANGLE	3D000873
5	1	LT BOOM ARM, HANGER VERTICLE BRACE	3D000923
6	1	LT BOOM ARM, FRAME MOUNT WELDMENT	5D000554



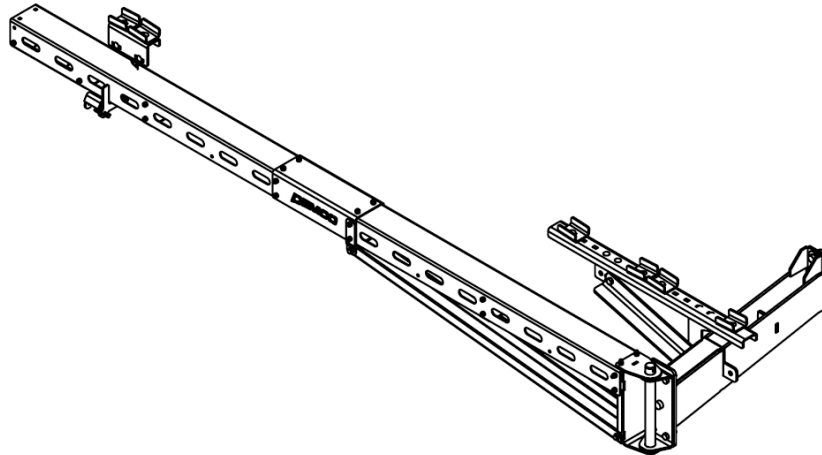
Cradle Assembly - 5D000541

Item	Qty	Description	Part Number
1	2	DD TOP DECK RAMP, STORAGE HANGER CLAMP	3D000803
2	1	LT BOOM ARM, CRADLE LOCK ARM - SS BOOM ARM	3D000984
3	1	LT BOOM ARM, CRADLE MOUNT	3D000979
4	1	LT BOOM ARM, BOOM CRADLE	5D000543



Fasteners for Boom Arm Assembly w/o Plumbing - 4D000119

Item	Qty	Description	Part Number
1	3	FLAT WASHER, 5/16" ZINC	1AF009E0000
2	2	FLAT WASHER, 5/8" ZINC	1AF009J0000
3	1	NYLON LANYARD, 8" U-LOCK LOOP TO EYE	1AF031DKA00
4	1	PRESS RIVET, 11/32" X 13/16" RIBBED, FOR NYLON LANYARD M111	1AF032D0000
5	1	LYNCH PIN, 1/4" X 1-3/4", YELLOW ZINC, SNAP LOCK, 1.31" USE	1AF034DAALO
6	16	CARRIAGE BOLT, 5/16"-18 X 3/4", GR5 ZINC	1AFC04EAALO
7	12	CARRIAGE BOLT, 3/8"-16 X 1-1/4", GR5 ZINC, SHORT NECK	1AFC04FAADO
8	14	CARRIAGE BOLT, 5/16"-18 X 1", GR5 ZINC	1AFC04FKA00
9	2	CARRIAGE BOLT, 3/8"-16 X 3/4", GR5 ZINC	1AFC04FLO00
10	1	HEX BOLT, 5/16"-18 X 1", GR5 ZINC	1AFC12EAA05
11	1	1/4"-20 GRADE A ZINC FINISH STEEL REVERSE LOCK NUT	1AFC05D0000
12	1	1/4"-20 x 1-1/2" GRADE 5 ZINC FINISH HEX CAP SCREW	1AFC12DAAH0
13	6	HEX BOLT, 1/2"-13 X 1-1/2", GR5 ZINC	1AFC12HAAH0
14	2	HEX BOLT, 5/8"-11 X 2", GR5 ZINC	1AFC12JAB05
15	31	NYLOCK NUT, 5/16"-18, GR2 ZINC	1AFC18E0000
16	2	NYLOCK NUT, 1/2"-13, GR2 ZINC	1AFC18H0000
17	2	NYLOCK NUT, 5/8"-11, GR5 ZINC	1AFC18J0000
18	4	HEX FLANGE BOLT, 3/8"-16 X 1", GR5 ZINC, SERRATED	1AFC37FAA05
19	18	3/8" -16 NYLON INSERT FLANGE NUT GRADE N5 ZINC	1AFZ08F0005
20	4	1/2" -13 NYLON INSERT FLANGE NUT GRADE N5 ZINC	1AFZ08H0005



Arm Assembly Instructions

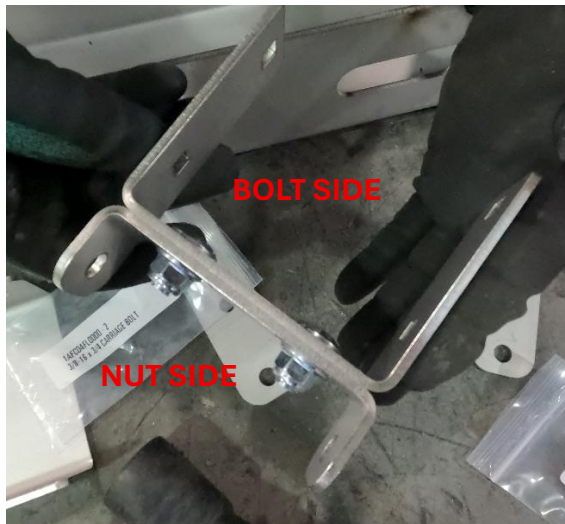
Step 1 – Material Collection

- Collect all Arm Assembly (5D000542) materials and all Fasteners (4D000119)
- Find an open/long enough area (8') for assembly

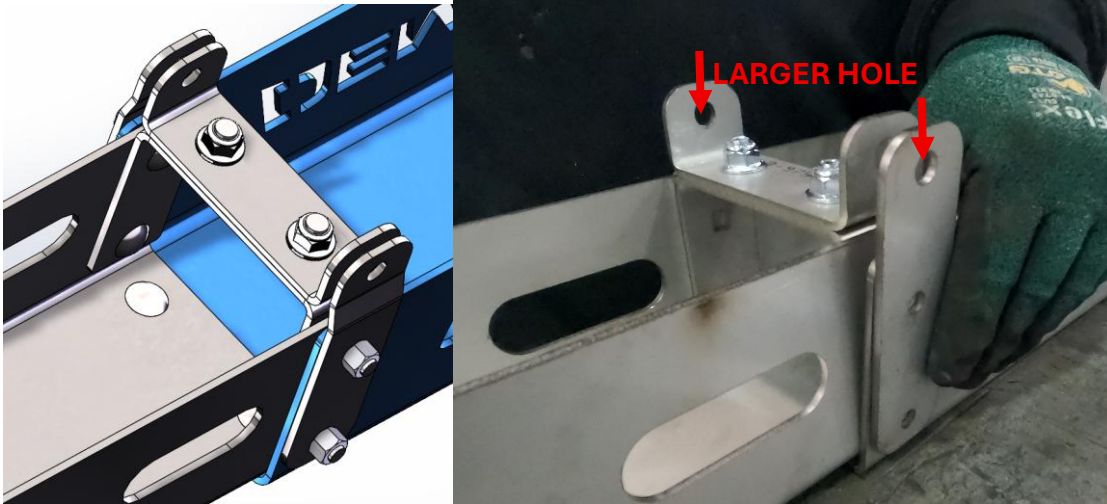


Step 2 – Connection Bracket

- Prep the brace location's cross support by joining together the Cross Support (3D000977) and the U-Arm U-Bracket (3D000975).
 - Qty 2 Each – 3/8"-16 x 3/4" Carriage Bolts (1AFC04FL000) and 3/8" Nylock Nuts (1AFZ08F0005). Torque to 30 ft/lbs.
 - TIP: Carriage Bolts rounded head must be on the longer bracket side, and the nuts must be on the short bracket side



- Align Boom U-Arm (3D000971) with the holes in the Connecting Bracket (3D000972) and insert the new assembly from the previous step to align with the side holes
- Align outside strap with the same hole **MAKING SURE THE LARGER 3/8" HOLE IS ON TOP**



- Insert required carriage bolts for the bottom and sides of the joined location **MAKING SURE THE BOLT HEADS ARE ON THE INSIDE WHERE THE HOSE WILL BE.** Torque to **18 ft/lbs.**
 - **Bottom** - Qty 2 Each - 5/16"-18 x 3/4" Carriage Bolts (1AFC04EAA0) and 5/16" Nylock Nuts (1AFC18E0000)
 - **Sides** - Qty 4 Each - 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)
 - **TIP:** Install the bottom bolts first to pull material tight to better align side holes



Step 3 – U-Arm Cross Supports

- Install a U-Arm Cross Support (3D000977) with the other remaining holes in the connection bracket, like the previous step **MAKING SURE THE BOLT HEADS ARE ON THE INSIDE WHERE THE HOSE WILL BE**. Torque to **18 ft/lbs**.



- **Bottom** – Qty 2 Each – 5/16"-18 x 3/4" Carriage Bolts (1AFC04EAA0) and 5/16" Nylock Nuts (1AFC18E0000)
 - **Sides** – Qty 4 Each – 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)
- Install a U-Arm Cross Support (3D000977) on both sides of the center in the two vertical hole locations, like the previous step **MAKING SURE THE BOLT HEADS ARE ON THE INSIDE WHERE THE HOSE WILL BE**. Torque to **18 ft/lbs**.



- **Sides** – Qty 4 Each – 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)
- Install the Long Cross Support (3D000973) on the **OPPOSITE** end from the connection bracket. Torque to **18 ft/lbs**.



- **Sides** – Qty 4 Each – 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)

Step 4 – Hinge Mounting Bracket & U-Arm Brace Supports

- Install the Hinge Mounting Bracket (5D000540) on the opposite end from the long Cross Support by slotting in the boom arm extensions between the pivot plate and bracket plates. Install all the nuts and bolts, **MAKING SURE THE BOLT HEADS ARE ON THE INSIDE WHERE THE HOSE WILL BE.** Torque to **18 ft/lbs.**



- Qty 6 Each – 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)
- Install both U-Arm L Braces (3D000974) by connecting to the exterior of the mounting bracket and in the slots of the brace location cross members. Install all bolts and nuts. Torque to **18 ft/lbs.**

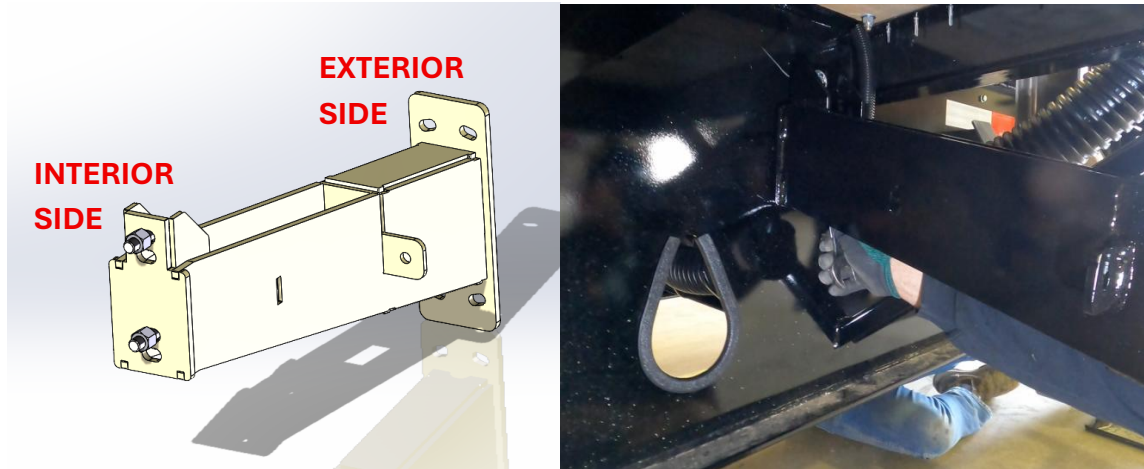


- Qty 4 Each – 5/16"-18 x 1" Hex Bolts (1AFC12EAA05) and 5/16" Nylock Nuts (1AFC18E0000)

Trailer Mount Bracket Assembly Instructions

Step 1 – Mount Bracket to Frame

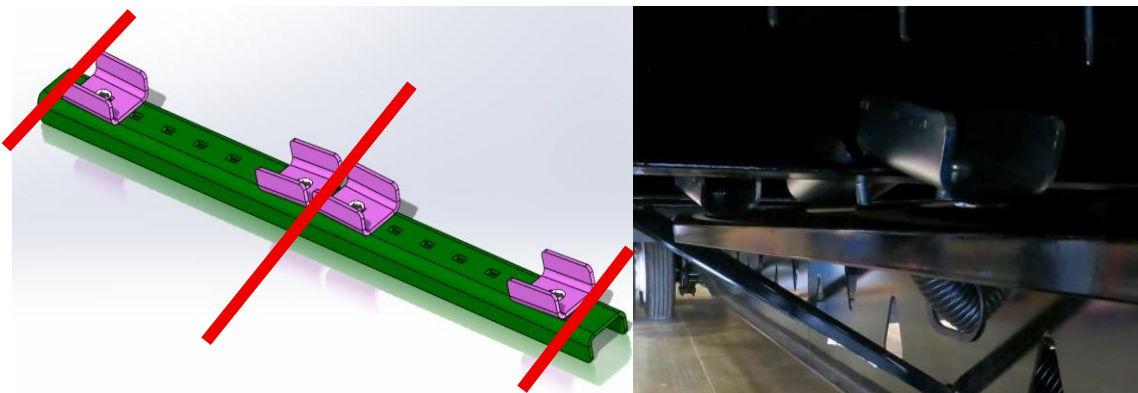
- With assistance, bolt in the Frame Mount Assembly (5D000463) to the main frame webbing of the trailer. Torque to **150 ft/lbs.**
 - **TIP:** Have one person ready with a wrench/impact and the nuts on the interior as the other holds in place and inserts the washer and bolt from the exterior
 - **TIP:** Bolt the top hole first to help keep vertically aligned and help hold to the webbing



- Qty 2 Each – 5/8"-11 x 2" Hex Bolts (1AFC12JAB05), 5/8" Flat Washers (1AF009J0000) and 5/8" Nylock Nuts (1AFC18J0000)

Step 2 – Loosely Mount Hanger Brace Channel to Decking

- Loosely bolt in the Hanger Brace Channel (3D000864) and the Storage Hanger Clamps (3D000803) so they straddle the decking I beams. **DO NOT TORQUE YET TO ALLOW FOR ADJUSTMENTS.**

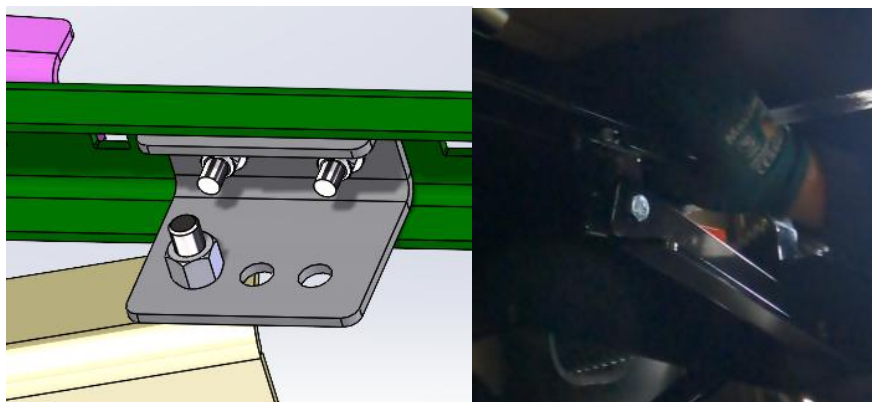


- Qty 4 Each – 3/8"-16 x 1-1/4" Carriage Bolts (1AFC04FAAD0) and 3/8" Nylock Nuts (1AFC08F0005)

- Loosely bolt in the Longer Vertical Hanger Brace (3D000923) and the Frame Kicker Angle Brace (3D000873) to the Hanger Brace Channel (3D000864) and Frame Mount (5D000554). Make sure the longer Vertical Hanger Brace is in the MIDDLE between the Frame Mount location and the Kicker Angle Brace. **DO NOT TORQUE YET TO ALLOW FOR ADJUSTMENTS.**



- Bottom - Qty 1 Each - 1/2" x 1-1/2" Hex Bolt (1AFC12HAAH0) and 1/2" Nylock Nut (1AFC18H0000)
 - Top - Qty 2 Each - 3/8"-16 x 1-1/4" Carriage Bolts (1AFC04FAAD0) and 3/8" Nylock Nuts (1AFZ08F0005)
- Loosely bolt in the Shorter Vertical Hanger Brace (3D000874) and the Frame Kicker Angle Brace (3D000873) to the Hanger Brace Channel (3D000864). Make sure the angle brace is on the exterior of the Shorter Vertical Hanger Brace. **DO NOT TORQUE YET TO ALLOW FOR ADJUSTMENTS.**
 - TIP: Depending on the length of your trailer, a different hole may be required to fit properly
 - TIP: Depending on the tools you are using, the bottom bolt may need to be removed and installed after torquing the top bolts



- Bottom - Qty 1 Each - 1/2" x 1-1/2" Hex Bolt (1AFC12HAAH0) and 1/2" Nylock Nut (1AFC18H0000)
 - Top - Qty 2 Each - 3/8"-16 x 1-1/4" Carriage Bolt (1AFC04FAAD0) and 3/8" Nylock Nuts (1AFZ08F0005)

Step 3 – Torque Hanger Brace to Decking

- Torque all bolts to spec
 - 3/8" Bolts and Nuts – 30 ft/lbs
 - 1/2" Bolts and Nuts – 75 ft/lbs



Step 4 – Mount Hinge Bracket

- Place and bolt on Boom Arm Hinge Bracket (5D000544) to support bracket. Torque to 75 ft/lbs.
 - TIP: Torque in an X pattern to seat properly to the support bracket
 - TIP: Make sure the bracket is perfectly square with the support bracket to ensure the boom arm will swing level



- Qty 4 Each – 1/2" x 1-1/2" Hex Bolts (1AFC12HAAH0) and 1/2" Nylock Nuts (1AFC18H0000)

Boom Arm and Cradle Assembly Instructions

Step 1 – Mount Boom Arm to Bracket

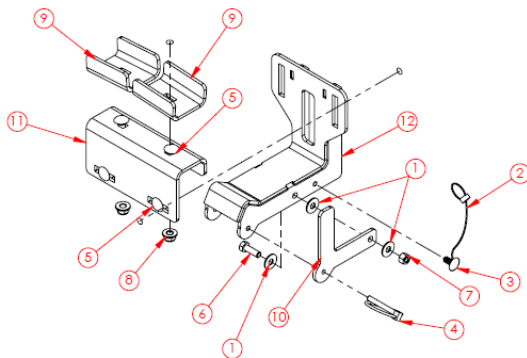
- With assistance, join the boom arm assembly with the Hinge Bracket (5D000544). Slide the Boom Pin (5D000467) through both holes and install a nut and bolt to lock in place. Torque to **9 ft/lbs.**



- Qty 1 Each – 1/4"-20 x 1-1/2" Hex Bolt (1AFC12HAAH0) & 1/4" Reverse Lock Nut (1AFC05D0000)

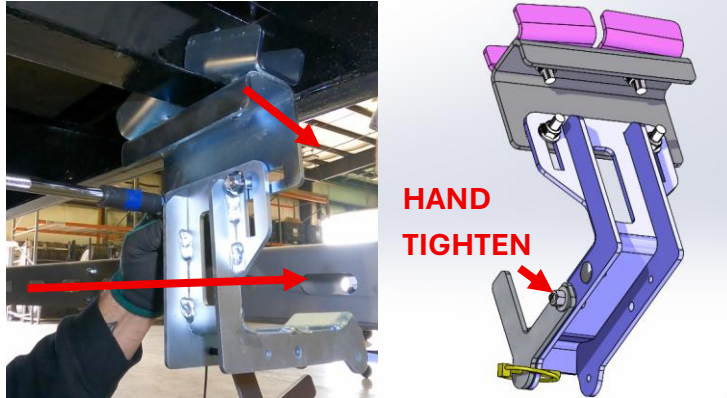
Step 2 – Boom Arm Cradle

- Loosely assemble Cradle (5D000541) on the side, leaving one Storage Hanger Clamp (3D000803) off to install on the underside of the trailer. **DO NOT TORQUE YET TO ALLOW FOR ADJUSTMENTS.**



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	3	1AF009E0000	5/16 FLAT WASHER
2	1	1AF031DKA00	NYLON LANYARD
3	1	1AF032D0000	PRESS RIVOT FOR NYLON LANYARD M111
4	1	1AF034DAAL0	1/4" x 1-3/4" LYNCH PIN
5	4	1AFC04FAAD0	3/8"-16 x 1-1/4" SH NECK CARR GR 5
6	1	1AFC12EAA05	5/16" x 1" HEX BOLT
7	1	1AFC18E0000	5/16"-18 NYLOCK NUT
8	4	1AFZ08F0005	NUT, .375NC NYLON LOCK
9	2	3D000803	DD TOP DECK RAMP, STORAGE HANGER CLAMP
10	1	3D000984	LT BOOM ARM, CRADLE LOCK ARM - SS BOOM ARM
11	1	3D000979	LT BOOM ARM, CRADLE MOUNT
12	1	5D000543	LT BOOM ARM, BOOM CRADLE

- Mount the cradle to the I beam on the **FURTHEST END** of the boom arm and **AS TIGHT TO SIDE RAIL AS POSSIBLE**. Depending on the trailer length, this location may vary due to angle supports on the trailer.
 - Torque 3/8" nuts to **30 ft/lbs**.
 - Hand Tighten the lock arm's nut tight, but not so tight the arm will no longer pivot.



- Test that the cradle locks the boom arm in correctly, and that the boom arm swings freely.



Assembly Complete!

DEMCO

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**Demco warranty policies, operator manuals, and product registration
can be found online:**

www.demco-products.com