Fontaine Evolution® Intermodal Flat Deck

Owner’s Guide

- Important Information
- Operator Instructions
- Troubleshooting
- Maintenance
- Replacement Parts

Fontaine Evolution

Intermodal Flat Deck

Owner’s Guide
Read this manual carefully and completely before operating or performing maintenance on your Fontaine Evolution flat deck. If you have any questions regarding your Fontaine Evolution please contact Fontaine Intermodal 205-385-0451.

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Important Information

This manual has been prepared to assist you in the safe operation and maintenance of your Fontaine Evolution intermodal flat deck. It contains important information on proper use.

**WARNING**
THIS SYMBOL IS USED THROUGHOUT THIS MANUAL TO CALL ATTENTION TO THE PROCEDURES YOU MUST FOLLOW EXACTLY. CARELESSNESS OR FAILURE TO FOLLOW INSTRUCTIONS MAY LEAD TO DEATH OR SERIOUS INJURY.

**CAUTION**
THIS SYMBOL INDICATES A PROCEDURE YOU MUST FOLLOW EXACTLY OR DAMAGE TO COMPONENTS OR EQUIPMENT MAY OCCUR. SERIOUS PERSONAL INJURY MAY ALSO RESULT FROM FAILURE TO FOLLOW THIS PROCEDURE.

**NOTE**
THIS SYMBOL IS USED THROUGHOUT THIS MANUAL TO CALL ATTENTION TO OPERATIONS, PROCEDURES AND INSTRUCTIONS THAT ARE IMPORTANT FOR PROPER SERVICE. IT MAY ALSO INDICATE INFORMATION THAT CAN MAKE SERVICE QUICKER OR EASIER.

Operator instructions are provided for assistance in the proper operation of your Evolution. Specific component operating instructions and your company’s procedures should be consulted. These may include DOT and employer training programs or instructions. This manual includes safety checks and procedures the operator must perform. As with all heavy equipment, it is very important to follow all customary safety processes and procedures.

**Preventive Maintenance.** It is important that every owner and/or operator have an organized Preventive Maintenance program (PMP). The United States Department of Transportation requires by law that maintenance records be kept on every commercial highway vehicle. It is to your advantage to be able to show that regularly scheduled inspection checks have been made on every piece of equipment operated.

A regular maintenance program will not only assure that you will get the most usage from your equipment, but it will also assist in demonstrating that your equipment has been properly maintained.

You can get help setting up and operating a preventive maintenance program by sending for a “Maintenance Manual for Trailers and Containers”. Contact the Truck Trailer Manufacturers Association, 1020 Princess Street, Alexandria, Virginia 22314.

**IMPORTANT**
Read this manual carefully. Should you have any questions, contact a FONTAINE factory representative immediately.

1-205-385-0451
For Warranty and Parts call
1-866-382-7278

This manual should be kept with the trailer in digital or printed form at all times and should remain with the trailer when it is sold. A digital file is available at www.fontaineintermodal.com/manual
Operating Limits And Restrictions

Concentrated load capacity: 48,000 lbs in 4 ft
Distributed load capacity: 80,000 lbs in 53 ft
Stacking height: 162"

⚠️ CAUTION

DURING EMPTY REPOSITIONING, IT IS THE DRIVER’S RESPONSIBILITY TO MAKE SURE THAT THE HEIGHT OF CHASSIS PLUS DECK AT ITS HIGHEST POINT IS LESS THAN 162" (13' 6").

Overall deck height: 27.5" (with arms down)

Width: The overall width of the deck and arms is 102". All intermodal loads should not exceed this width or have excess hanging from either side of the deck (this includes timbers).

Length: The overall length of the deck is 53 ft. All intermodal loads should not exceed this length or have excess hanging from either end of the deck.

⚠️ CAUTION

TIMBERS OR DUNNAGE LONGER THAN 96" (OR SHORTER DUNNAGE WITHIN THE PATH OF THE ARMS) WILL INTERFERE WITH THE UP AND DOWN OPERATION OF THE ARMS.
Required Decals

“Front” Decals (3) – These decals designate which end of the unit is the front of the deck. This is important for multiple reasons. Most importantly, the concentrated load center is not directly in the center of the deck; it is slightly forward. Once the deck is loaded so that the weight is properly distributed on the truck and axles, it needs to be placed in that same orientation when it is positioned on another chassis. Therefore “Front” always needs to be “Front”. In addition, toolboxes are toward the front for easy availability, and the arm operation handles are located on the road side (driver’s side) when the deck is oriented properly.

Placement: Top of the Front Arm Assembly crosspost and on each front Support Arm Brace.

“Fontaine Intermodal” (1) – This decal provides contact information for Fontaine Intermodal: address, phone number and website.

Location: Roadside front, next to the Unit Number Plate.

“Warning. When securing cargo follow DOT guidelines…” (4) – This decal denotes DOT guidelines for securing cargo. Because the Evolution is an intermodal product, AAR and other load securement regulations must be followed.

Location: Outside of the forklift cutouts on both sides of the deck.

“Front” Decals (3) – These decals designate which end of the unit is the front of the deck. This is important for multiple reasons. Most importantly, the concentrated load center is not directly in the center of the deck; it is slightly forward. Once the deck is loaded so that the weight is properly distributed on the truck and axles, it needs to be placed in that same orientation when it is positioned on another chassis. Therefore “Front” always needs to be “Front”. In addition, toolboxes are toward the front for easy availability, and the arm operation handles are located on the road side (driver’s side) when the deck is oriented properly.

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Location: Outside of the forklift cutouts on both sides of the deck.
**Required Decals (Continued)**

**CAUTION**

**KEEP HANDS CLEAR**

“Caution. Keep hands clear” (4) – The purpose of this decal is to clarify that there are moving parts that create potential pinch points. There are multiple pinch points associated with the operation of the arms. Please make everyone aware of this before operating the arms.

Location: Main web, directly to the inside of each Lock Box Assembly on both sides of deck.

**PLACE SINGLE COIL HERE**

“Place single coil here” (2) – This decal marks the location to place a single coil on the deck. This is important because the floor and the deck have added strength in this area and loads have been tested in this area.

Location: Main web next to the front fork lift cutout, both sides of deck.

**91” (inside loading height)**

**96 3/8” (inside loading width)**

**ONLY POCKETS, PIPE SPOOLS, LASHING RINGS, AND CHAIN TIE-DOWNS (IF SO EQUIPPED) ARE ACCEPTABLE ANCHOR POINTS PER CMVSS 905**

“Only pockets, pipe spools, lashing rings and chain tie downs...” (4) – This decal denotes what can be used as an anchor point on this deck. The rail/wheel track is never to be used to secure a load or a tarp. Straps should travel through the siderail and never over the rail.

Location: Outside of forklift cutouts, both sides of deck.

**CAUTION**

**POST OR BRACE NOT TO BE USED FOR ANCHORING LOAD RESTRAINTS.**

“Caution. Post or Brace not to be used for anchoring load restraints” (4) – This decal denotes that the Arm Assemblies and Arm Support Braces on the deck are not to be used for load securement. Never attach straps, chains or any load securement device to the Arm Assemblies and Arm Support Braces.

Location: Main web next to the front fork lift cutout on both sides of the deck.
Required Decals (Continued)

**WTP**

“WTP” (8) – WTP (Wide Top Pick) denotes the spacing for the crane to lift the deck at intermodal yards.
Location: Outside top of each Arm Assembly upright and on each side of the Arm Assembly crosstubes.

**DANGER**

“Danger. Post/brace Locking Pin must be engaged…” (4) – This decal tells the operator that the arm is not in the locked position unless the yellow tip of the Lock Box Pin is pulled out and visible.
Location: Front surface of each Lock Box.

**CAUTION**

“Caution. Remove any external chain tie downs…” (2) – This decal is a reminder to remove any load securement devices from the deck that are not being used before transit.
Location: Main web next to the front fork lift cutout, both sides of deck.

**9’6” HIGH**

“9’6” High” (4) – 9’6” is the overall height of the unit from its lowest point to its highest point with the arms in the upright position.
Location: Outside of Arm Assembly uprights toward the top.

**CAUTION**

“Unit Numbers” (2) – These decals denote the owner and their unit number.
Location: Outside of Arm Assembly uprights.

“Do not bump” (4) – Located on each arm.
“Load in 20 ft Capable Wells Only” (2) – Located on both sides.
Load Securement

NOTE

ALL WORKING LOAD LIMITS (WLL) PERTAIN TO STANDARD TEST RESULTS PERFORMED BY FONTAINE TRAILER COMPANY OR A QUALIFIED TESTING FACILITY.

Anchor Points describe points that are considered part of the trailer and NOT the securing device (chains, cables, straps). Securing devices must be of sufficient design to not cut into or deform the anchor point and must be rated equal to or greater than the Working Load Limit (WLL) of the anchor point to obtain maximum anchor point rating.

CAUTION

ALL ANCHOR POINTS MUST HAVE A VISUAL INSPECTION PRIOR TO USE. IF AN ANCHOR POINT IS VISIBLY DAMAGED (DEFORMED, BENT, TORN, RIPPLED, CRACKED (OR ANY OTHER STRUCTURAL DEFECT), DO NOT USE THE ANCHOR.

WARNING

DO NOT EXCEED THE WORKING LOAD LIMITS OF ANY ANCHOR POINT.

WARNING

THE LOAD LIMIT IS 5,400 LBS AT EVERY LOAD SECUREMENT LOCATION ON THE EVOLUTION WHERE THERE IS A CHAIN TIE DOWN; OR WHERE THERE IS A TURTLE PROPERLY PLACED, INSERTED INTO THE DECK GROOVES.

ANCHOR POINTS:

Chain tie downs – Maximum Load Limit- 5,400 lbs per tie down (22 per siderail, 44 per unit).

Turtle – Maximum Load Limit- 5,400 lbs per turtle.
Load Securement

FONTAINE PROVIDED WINCH AND WINCH STRAPS:

Ancra Sliding Double L style winch with AAR approved “Ancra Xtreme” strap (Maximum Load Limit is 5,400 lbs per strap).

![Ancra Sliding Double L style winch with AAR approved “Ancra Xtreme” strap](image)

<table>
<thead>
<tr>
<th>Company</th>
<th>Model or Ref. Part No.</th>
<th>Type or Description</th>
<th>Assy. WLL lb (kg)</th>
<th>AAR Marking</th>
<th>Approved Through (mm/yyyy)</th>
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<tbody>
<tr>
<td>SpanSet, Inc.</td>
<td>P/N 152622</td>
<td>4-in.-wide Wearguard(tm) orange premium polyester, PVC impregnated with SY-8110 permanent-mount winch assembly</td>
<td>5,000 (2256)</td>
<td>AAR-72MA</td>
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<td>P/N WS4xxP</td>
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<td>Pacific Cargo</td>
<td>P/N 45XX-FH-AAR</td>
<td>4-in. Web Assy. with 4-in. Flat Hook</td>
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<td>AAR-75A</td>
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<tr>
<td>Pacific Cargo</td>
<td>P/N 46XX-VR-AAR</td>
<td>4-in. Web Assy. with 4-in. V-ring ends</td>
<td>6,600 (2994)</td>
<td>AAR-75A</td>
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<td>Pacific Cargo</td>
<td>P/N 20521120</td>
<td>2-in. Ratchet Webbing Assy. 4-in. x 48-ft. strap with 1-in. Formed Eye.</td>
<td>3.335 (1513)</td>
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<td>Pacific Cargo</td>
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<td>Holland / Portec</td>
<td>P/N 20189790</td>
<td>2-in. Polyester Web Assy., Looped w/ Sewn Loop Ends and 3 Sleeve Protectors (a.k.a. Axle Strap)</td>
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<td>Railway Products</td>
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<td>Railway Products</td>
<td>P/N 20993910</td>
<td>2-in. Polyester Web Assy. w/ Sewn Loop Ends, one having a “D” ring w/ Keyhole.</td>
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<td>4-in. Polyester Web Tie-down Assy. w/ Flat Hook.</td>
<td>5,400 (2449)</td>
<td>AAR-81MA</td>
<td>01/15</td>
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<td>Railway Products</td>
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<td>Ancra Int1</td>
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<td>Ancra Int1</td>
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<td>5,400 (2449)</td>
<td>AAR-74A</td>
<td>04/15</td>
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The table below corresponds with the Association of American Railroads (AAR) Top Loading Rules, Section 1, Table 20.02 Current as of January 29, 2014.
Load Securement

SOME EXAMPLES OF IMPROPER SECUREMENT:

- Rubrail/wheel track is not considered an anchor point. Do not hook straps or chains!
- Support Arm uprights, Arm Support Braces and stacking blocks are never to be used as an anchor point!
- The bumper area and forklift lift areas are not to be used as anchor points.
- The flange of the main beam is not an anchor point.

WARNING

LOAD SECUREMENT IS THE DRIVER’S RESPONSIBILITY. FOR ALL INTERMODAL LOADS, DOT REGULATIONS AND RAILROAD REGULATIONS MUST BE MET. IT IS UP TO EACH CUSTOMER TO RECEIVE PRIOR APPROVAL FOR NEW TYPES OF LOADS FROM THE RAILROADS.

WARNING

WHEN LOADING AN EVOLUTION, KEEP IN MIND THAT THE LOAD WILL TRAVEL ACROSS COUNTRY WITH NO OPPORTUNITY TO ADJUST LOAD SECUREMENT. THUS, THE LOAD MUST BE SECURED CORRECTLY THE FIRST TIME. THERE IS NO SECOND CHANCE!
Introduction

The Fontaine Evolution features manually operated Support Arms for ease of use, convenience and unmatched reliability. While the Evolution Support Arms are designed to be very simple and user friendly, there are a few simple procedures and information you need to know prior to operation:

There are three basic Evolution arm positions:

1. **Collapsed position** - Single unit or stacked for repositioning. When repositioning a single Evolution deck in the empty position, the arms can be rotated down onto the deck surface, or “collapsed.”

   ![Collapsed position image]

   When repositioning multiple Evolution decks in the empty position, the arms can be rotated down onto the deck surface, or “collapsed” and stacked three-high or four-high for rail transport.

2. **Loading position** - Arms rotated outward for maximum access to deck surface for easier loading.

   ![Loading position image]

3. **Loaded transport position** – Locked into position for transporting loaded units either as a single unit for the road or double-stacked for intermodal rail.

   ![Loaded transport position image]
Section 2 - Arm Operation (continued)

Getting Started

To operate the Evolution arms, the Crank Shaft must be pulled out from inside the Support Arm. Using a Fontaine winch bar crank handle, insert the end into the center hole of the yellow painted Crank-Shaft, hook the lip of the handle behind the crank shaft and pull outward.

Once the crank shaft is exposed, insert the opposite end of the winch bar crank handle through the holes on either side and secure with the snap pin.

Use this end of the Crank Handle to pull out yellow Crank Shaft.

Use this end of the Crank Handle to connect to the yellow shaft in order to turn the crank.
Getting Started (continued)

During operation if the arms provide excessive resistance or no resistance, cease operating and call Fontaine for assistance: 205-385-0451.

⚠️ WARNING
FORCING THE ARM UP OR DOWN USING A CHEATER PIPE OR HANGING ON THE CRANK HANDLE COULD RESULT IN PERSONAL INJURY TO THE OPERATOR OR SOMEONE IN THE AREA AND MORE DAMAGE TO THE EQUIPMENT.

Fontaine offers a power unit to raise and lower the support arms. This device replaces the manual crank providing greater convenience and ease of operation. Call 866-382-7278 for more information.
Moving Arms from Flat to Upright

The Evolution has a double-pin locking system. Each Support Arm has a “Locating-Pin” and a “Locking-Pin” on both sides of the deck. For identification purposes, the Locating-Pin is always the pin closest to the end of the deck and the Locking-Pin is always the pin closest to the center of the deck.

**NOTE**
THE LOCATING-PIN IS ALWAYS THE PIN CLOSEST TO THE END OF THE DECK AND THE LOCKING-PIN IS ALWAYS THE PIN CLOSEST TO THE CENTER OF THE DECK.

To move the Support Arms from flat to upright:

1. Make sure that the Locating-Pin is engaged and that the Locking-Pin is NOT engaged.
2. Crank the handle in the desired direction of travel until the hook on the arm fully seats on the Locating-Pin and will turn no further.
3. Engage all pins and Lockout Tabs.

**CAUTION**
WHEN THE HOOK ON THE ARM FULLY SEATS ON THE LOCATING-PIN DO NOT USE EXCESSIVE FORCE TO TURN FURTHER AND NEVER USE A CHEATER BAR TO EXTEND THE HANDLE.

**WARNING**
FOR LOADED TRANSPORT ALL 4 LOCKING-PINS AND ALL 4 LOCATING-PINS SHOULD BE ENGAGED WITH THE POSITIVE LOCKOUT TABS FLIPPED DOWN.

Engage the Locking-Pins on both sides of the deck so that the yellow tips are visible and the positive Lockout Tabs are flipped down to lock the pins in position.
Section 2 - Arm Operation (continued)

Positioning Arms for Loading

For loading freight the arms can be set in the outward or “Loading” position.

1. Make sure the Locking-Pins are disengaged.

2. Turn the crank in the desired direction of travel and roll the arms downward until both Locating-Pins are free.

3. Disengage the Locating-Pins and flip down the positive Lockout Tab.

4. Turn crank backwards until the arm bottoms out on the 40 ft stacking block.

Locking-Pins are not engaged during loading.

Reverse this procedure to put arms back in the upright or loaded position.

NOTE

THE LOCATING-PIN IS ALWAYS THE PIN CLOSEST TO THE END OF THE DECK AND THE LOCKING-PIN IS ALWAYS THE PIN CLOSEST TO THE CENTER OF THE DECK.
Section 2 - Arm Operation (continued)

Positioning Arms for Empty Transit

1. Disengage all Locking-Pins.
2. Turn Crank Handle in desired direction of arm travel until the top stacking blocks rest on the deck.
3. Remove Crank Handle from crank shaft and push crank shaft in to arm.
4. Ensure that all 8 positive Lockout Tabs are in the down position.

Support Arms are designed to remain in the collapsed position without additional load securement (straps, etc.) Consult AAR loading standards for additional requirements.

When repositioning multiple Evolution decks in the empty position, the arms can be rotated down onto the deck surface, or “collapsed” and stacked three-high or four-high for rail transport.

NOTE
THE LOCATING-PIN IS ALWAYS THE PIN CLOSEST TO THE END OF THE DECK AND THE LOCKING-PIN IS ALWAYS THE PIN CLOSEST TO THE CENTER OF THE DECK.
Section 2 - Arm Operation (continued)

Stacking

1. Make sure arms are in the down position.
2. Move the Intermodal Box Connectors (IBCs/twistlocks) from the disengaged position on the side of the arm and insert them into the stacking block casting to engage the locks. Note: Evolution flat decks can be stacked three-high or four-high to reposition. On the top flat deck of the stack, the twist locks should be in the disengaged position so that the crane can load/unload the stack.
3. Check ground surface before stacking units to ensure safety.

Note: Evolution flat decks can be stacked three-high or four-high to reposition. On the top flat deck of the stack, the twist locks should be in the disengaged position so that the crane can load/unload the stack.

- Stacking block
- Disengaged IBC
- Insert twistlock into stacking block and engage.
- Twistlock
- Engaged IBC

Note: For yard storage decks can be stacked as high as 8 units, but only 1 can be lifted at a time with a forklift, or four at a time with an intermodal overhead crane.

For repositioning purposes, Evolution decks can be stacked four high for road and rail transport.
Section 3- Troubleshooting

Arm Alignment

Problem: Arm Support Brace hits the sides of the Lock Box when moving in or out.

Solution: Adjust the axle position in the Arm Support Brace in or out to achieve desired clearance. Use 3/4” SAE washers as spacers to position the arm so it clears the lock box as it moves in and out. Make sure to tighten lock nut after making the adjustment.

Problem: Locking-Pin will locate on curb side but not on road side.

Solution: Check lock box for damage. If there is no sign of damage, lock the curb side and crank the handle one or two more clicks. This will help to line up the Locking-Pin.

If it still will not locate properly, check the axle and wheel assembly in the Arm Support Brace for damage. If the axle is bent or damaged it could possibly not allow for the arm to locate. The in field/short term solution is to use the handle to pry the arm into position and pull the pin through. This is not a long term solution and could damage the deck over a period of time. The problem should be reported immediately and repaired as soon as possible.
Problem: Locking-Pin is stuck or hard to slide.

Solution: First, try holding the pin handle in the “open thumb” position as this allows the force on the pin to be more in line with the hole location. Next, try to push on the yellow face of the Locking-Pin with the end of the crank handle.

Next, try to crank the arms up one or two clicks. If the pressure is off of the Locating-Pin, it will bind up the Locking-Pin. Do not over-torque the gearbox. If it will not turn without using excessive force then this is not the problem. (Never use a cheater bar!)

If these solutions do not work, lightly tap on the handle as close to the lock box as possible.

Worst case scenario, lightly tap on yellow tip of pin with a blunt object until the pin is recessed.

If it takes any if the last three to move the pin, check the face of the lockbox for visible damage.

Problem: The handle is missing/broken from the Locking/Locating-Pin.

Solution: Short term solution, use a screwdriver or other slim tool to slide the pin in or out of position. Report problem immediately; pin will have to be replaced. Caution: never use a finger to push a pin.

**WARNING**

NEVER PUSH DIRECTLY ON A LOCKING-PIN OR A LOCATING-PIN WITH YOUR FINGER. USE THE END OF THE CRANK HANDLE TO PUSH DIRECTLY ON A LOCKING OR LOCATING-PIN.

Problem: The Arm Support Brace is hanging free and the axle/wheel assembly is broken.

Solution: Short term solution is to manually guide the arm into the locking position while cranking the arms into position. Then lock the pin normally. If “down” is the desired position, manually guide the Support Arm down while cranking and secure the arm to the deck using a winch strap. Report problem immediately.

Long term solution: Remove the broken piece from the arm using an adjustable wrench. Replace with a new assembly.

**NOTE**

TIP: REGULAR APPLICATION OF GREASE TO THE EXPOSED SURFACE OF THE PIN WILL DECREASE FRICTION WHEN SLIDING PINS IN AND OUT (SEE SECTION 4-MAINTENANCE).
Section 4 - Maintenance

Preventive Maintenance

Following is a list of Preventative Maintenance items to be performed as needed (at least every 6 months). Most of these procedures are accomplished in a matter of minutes, and more frequent ongoing inspection is recommended.

The grease fittings in the connection between the main arm and the small arms should be greased.

Remove grease zerk access plug to lubricate the arm axle grease zerk with Red XP Grease (Extreme Pressure).

Check for areas missing conspicuity tape, and check for major areas of rust or missing paint and for overall visible damage (full length sides and rear).
Section 4 - Maintenance

Preventive Maintenance (continued)

Check Fontaine Crank Handle and polymer bushing.

The pin fastening the Arm Support Brace to the Arm Assembly is held in place by a washer welded on the inside. Visually inspect this area for cracks, damage or wear.

The Locking Pins and Locating Pins should be checked for visible damage and greased as needed.

All bolts should be checked for tightness. Hand tight is sufficient for test.

Check all toolbox doors to insure they are anchored properly to the deck and check for keys.

See Appendix A:
Evolution Axle/Hub Bolt Installation/ Tightening/Maintenance
Section 4 - Maintenance (continued)

Preventive Maintenance (continued)

Check Rubber Bumper for visible damage.

Check underneath crossmembers for visible damage.

Check floor area for visible damage.

Check the Arm Support Brace axle and wheel assemblies for damage.

Check forklift insert points for visible damage.
Preventive Maintenance (continued)

Check for presence and security of all twistlocks.

Check for damaged decals/ unit numbers.

Check all winch stops are still in place.
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Aluminum deck piece parts

Floor end plate
Part #: 90012010

Corner cap
Part #: 90012002
Aluminum piece parts

- Routed lock box Part #: 90010070
- Routed arm cross beam Part #: 90010010
- Coil package cross beam Part #: 90010020
- Storage box floor Part #: 90010037
- Storage box I-beam Part #: 90010035
- Spacer I-beam Part #: 90010036
- Front tool box weldment Part #: 90010700
- Forklift tube top plate extrusion Part #: 90010038
- Forklift tube top support Part #: 90010030
- Aluminum pieces are at multiple locations
Arm assembly

Front arm assembly
Part #: 90013000F

Arm support brace
Part #: 90014000

Rear arm assembly
Part #: 90013000R

Arm axle bushing
Part #: 90010004
Arm axle assembly

Arm axle
Part #: 90010060

5/8"x 2" SHCS bolt UNC
Part #: 90017007
Brace pin assembly

Brace pin weldment
Part #: 90010050

Brace pin washer
Part #: 90010053
NOTE: Brace pin washer is welded to the pin on the inside to retain pin in place.
Brace wheel assembly

- Bushing (1)
  Part #: 90017038

- SAE Washers (4)
  Part #: 90017037

- Lock nut ¾” UNC Nylon Insert
  Part #: 90017006

Brace wheel assembly
Part #: 90010040
Brake assembly

Brake axle assembly (left hand)
Part #: 90010501

Brake axle assembly (right hand)
Part #: 90010502

Arm drive bushing
Part #: 90010007

Arm drive flange gasket
Part #: 90010009

Brake assembly key
Part #: 90010526

½"x 1 ¼" SHCS bolt UNC
Part #: 90017004

M12x 25mm SHCWS bolt
Part #: 90017005

Serrated flat washer- 1/2"
Part #: 90017001

See Appendix A:
Evolution Axle/Hub Bolt Installation/ Tightening/Maintenance
Bumper assembly

Bumper bracket
Part #: 90011300

Brace Arm Retainer
Part #: 90011390

Carriage bolt 3/8"x 1 ¾" UNC grade 5
Part #: 90017008

3/8" USS flat washer
Part #: 90017009

3/8" lock nut UNC nylon insert
Part #: 90017010

Support bumper
Part #: 90010008

Bumper assembly

Brace Arm Retainer
Part #: 90011390

Carriage bolt 3/8"x 1 ¾" UNC grade 5
Part #: 90017008

3/8" USS flat washer
Part #: 90017009

3/8" lock nut UNC nylon insert
Part #: 90017010

Support bumper
Part #: 90010008
Fontaine crank handle
Part #: 90017028
Curb side axle cap

Located under trailer on both ends
Arm drive end flange–curb side
Part #: 90010005

½"x 1¼" SHCS bolt UNC
Part #: 90017004

Serrated flat washer- 1-2"
Part #: 90017001
## Decals

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<th>Decal Type</th>
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<th>Part #</th>
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<tr>
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Note: page 5-7 shows many decal locations
Gearbox assembly

Gearbox
Part #: 90015000

½"x 4 ½" SHCS bolt
UNC
Part #: 90017002

½" lock washer
Part #: 90017007

½" nut UNC
Part #: 90017003
Huck and Collar

25/64” Huck Pin
Part #: 90015001

25/64” Huck Collar
Part #: 90015002

Multiple locations on trailer
IBC (Intermodal Box Connectors)
Road side front and curb side rear
Part #: **90013430**

IBC (Intermodal Box Connectors)
Curb side front and road side rear
Part #: **90013440**
Lock box assembly

Lock box assembly
Part #: 90011600

Lock box stiffener
Part #: 90011622

½" x 1 ½" NC Hex head bolt
Part #: 90017025

¾" lock washer
Part #: 90017024

½" Lock nut with nylon insert NC
Part #: 90017026

Lock box handle
Part #: 90010002

Yellow rubber handle grip
Part #: 90010003

Lock box pin
Part #: 90010001

For service call 205-385-0451
To order parts call: 866-382-7278
Steel crossmember brackets

Steel pieces are at multiple locations

- **Lock box X-beam right rear mount bracket**
  Part #: **90011633**

- **X-brace right bracket**
  Part #: **90011041**

- **MTR mount X-brace left bracket**
  Part #: **90011044**

- **Lock box X-beam left rear mount bracket**
  Part #: **90011632**

- **X-brace left bracket**
  Part #: **90011042**

- **MTR mount X-brace right bracket**
  Part #: **90011043**

- **Lock box X-beam front mount bracket**
  Part #: **90011631**
Steel end cap assembly

- Front and rear skirt
  Part #: **90011200**

- Front and rear skirt cover plate
  Part #: **90011211**

- Frame end cap gusset
  Part #: **90011212**
Steel part pieces

Steel cross brace
Part #: 90011010

Arm brace box top gusset
9-1/4" long
Part #: 90011008

Gear reducer bracket brace
11-15/16" x 1-5/8"
Part #: 90011007

Steel pieces are at multiple locations

Gear reducer mount plate
Part #: 90011006

Forklift tube reinforcement tab
12-15/16" x 2-5/8"
Part #: 90011002

Coil PX X-Brace mount tab
8" x 3"
Part #: 90011001

www.fontaineintermodal.com
For service call 205-385-0451
To order parts call: 866-382-7278
Tool box doors

Side Hinge toolbox door (front)  
Part #: 90010090

Bottom hinge toolbox door (rear)  
Part #: 90010093
Winches

Winches slide for multiple positions

Ancra Double L winch
Note: strap not included
Part #: 90017012

4"x 30’ Xtreme orange winch strap Ancra
Part #: 90017013

Winch strap hook holder
Part #: 90017014
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance
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Step 1: Clamp Arm
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance

Clamping Arm

• Place clamp through siderail pocket and outside of arm nearest the axle

• Tighten clamp until arm is secure against the axle tube (as shown in previous slide)

Note: Arm must be clamped to completely tighten bolts. Otherwise a false torque will result in loosening of the bolts after first cycle of arm.
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance

Step 2: Hardware/Prep
Preparing for Bolt install

• Place serrated washer on bolt
• Apply Loctite 2760 to threads of bolt

Note: Proper application of threadlocker when using a plated bolt requires a primer be used. Loctite 2760 is primerless and eliminates this step.
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance

Step 3: Install Bolts

• With Bolts prepped, begin threading bolts through the brake/cam assembly into axle

• Once all 8 bolts are in, begin tightening the bolts

• Using a alternating pattern, tighten all bolts
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance

Step 4: Final Check

• After all bolt have been tightened, remove clamp
• Cycle arm one time
• Recheck bolts for tightness
• Process is now complete
Appendix A
Evolution Axle/Hub Bolt Installation/Tightening/Maintenance

Preventative Maintenance

• Periodically Steps 1 & 3 should be repeated to check for any possible loosening
The Evolution intermodal flat deck is the perfect solution for converting flatbed freight from road to rail, allowing forward thinking freight companies to take full advantage of the highly efficient and cost effective North American intermodal rail network.