

# INVERTED-U

## ANCHOR TRACK™ SYSTEM

### Assembly and Operation Instruction Manual



A N C H O R  
**TR****CK**



## WARNING

# RIGID LIFELINES CONDITIONS OF USE AND WARNING STATEMENT

1. Read, understand, and follow the manual, assembly drawings, and warnings provided with your system **before** beginning installation.
2. This manual, and any other instructions, must be provided to the users of this equipment. The user must understand the equipment's proper use and limitations.
3. A fall event can result in serious injury or death. This equipment, when used properly, reduces the chances of those outcomes.
4. Always perform a hazard analysis **before use** that will identify impact hazards, swing hazards, or any other hazards that may exist. Address and correct all hazards **before use**.
5. Always have a written rescue plan that defines who will rescue a fallen worker, what equipment will be used, and optimum rescue response time. If the same system will be used for rescue, a minimum of a two-man system must be specified.
6. Follow all current requirements of ANSI Z359 (or CSA Z259 in Canada).
7. Each component and system must be employed and maintained in accordance with all OSHA and ANSI standards.
8. Per OSHA and ANSI (or CSA Z259 in Canada) requirements, designate a competent person who can fulfill obligations of all regulations.
9. Note the maximum number of users and weight capacities are listed on a label on the system. Exceeding the capacities listed on this label can result in serious injury or death.
10. Always check for overhead hazards, such as power lines, trees, overhead structures, or walls, before using or moving system.
11. Any component replacement, addition, or change to any portion of the system must be evaluated by a Qualified Person as defined by OSHA standards.
12. Never use this system for material handling.
13. Never use the system with scaffolding.
14. Never use the system alone without a monitor. Use the buddy system when using fall protection. The monitor, or "buddy," does not need to be attached to the system, but just nearby supervising.
15. Consult with a qualified person for minimum fitness requirements for workers. Determination of minimum fitness levels of workers prior to use of system is by others.
16. For mobile systems—It is the responsibility of the user and their management's Competent Person to determine that the system's base is level, the masts are plumb, and that the entire, leveled system is stable before every use.
17. For movable track systems—Always use the system in work spaces that allow you to move the system's runway as close as possible to the center of the work area.
18. **Before each use**, inspect the system for bent, broken, cracked, or missing components.
19. A competent person must thoroughly inspect the system **annually** and **after each fall event**.
20. There should never be any type of loading past the end stops for any reason.
21. When connecting track sections on runway systems, track splice and truss splice plates are required. For trussed track, splice joint centers must be within maximum 48 inches of the hanger support centers unless otherwise specified. For plain track, splice track centers must be within maximum 18 inches of the hanger support centers unless otherwise specified.
22. Systems with flush clamp hangers do not require sway bracing. However, all systems mounted to the ceiling must be laterally and longitudinally braced with bracing provided by others.



## WARNING

# RIGID LIFELINES CONDITIONS OF USE AND WARNING STATEMENT

23. If supplied, all drive systems are chain driven, and as a result, will experience some backlash in the drive assembly. Although backlash cannot be fully eliminated, it can be reduced by tightening the drive chain. Torque limiters, if supplied, require special attention. Most drive issues result from improper torque limiter adjustment or installation.
24. It is the customer's responsibility to confirm that the system and components will work in and are acceptable for their specific application and environment.
25. For foundation-mounted systems, bracing is not required for non-seismic applications. However, if any sway is perceived as undesirable, lateral bracing can be installed to the system by others. To achieve desired rigidity for a specific application, Rigid Lifelines® recommends consulting a professional engineer in your area to satisfy all codes and ordinances. For foundation-mounted systems, chemical anchor bolts supplied by others are required and must provide approximately 7000-pound pull-out force. More accurate pull-out forces are available upon request.
26. Engineering of any attachment points must be done by others.
27. Component appearances and dimensions shown are approximate and subject to change without notice. All catalog dimensions are developed using standard components for the spans and capacities. Substitution of optional trolleys or other components will affect certain dimensions.
28. All Rigid Lifelines Anchor Track™ Systems meet or exceed OSHA and ANSI requirements.
29. Never load the track at an angle greater than specified in the system's user manual.
30. Never use the system with the attachment point below the D-Ring of the harness.
31. Only the following self-retracting lanyard (SRL) design specifications are acceptable for use on Rigid Lifelines Anchor Track Systems:
  - a) 900-pound maximum average arresting force (MAAF)
  - b) 4.5 feet-per-second lock up speed
  - c) Disk or drum braking mechanism
  - d) Wire rope SRL's can be used for indoor or outdoor applications
  - e) Fabric or web SRL's can be used only for indoor applications
32. The following energy-absorbing lanyards are not acceptable: rip-stitch packs, shock packs, or stretchable energy.
33. Choose the shortest length SRL that will allow the workers to perform their job function. The shortest length SRL will reduce total fall distance by reducing "cable cinching" on the internal SRL pulley. Fabric lanyards stretch under load. The longer the lanyard, the longer the stretch.
34. Never use metallic cables or metallic SRL's around electrical power sources.
35. Only an ANSI (or CSA in Canada) full-body harness is acceptable for use on Rigid Lifelines Anchor Track Systems.
36. Never use body belts on this system.
37. Never add additional carabiners, D-Rings, shackles, or connecting hardware to this system.
38. On Traveling Bridge Anchor Track Systems, always position the bridge(s) directly overhead of worker(s) at all times.
39. If a boom is provided, never apply a lateral load at the boom tip.
40. Never deviate from the above unless you have written permission and authorization from Rigid Lifelines.



## WARNING

Follow the Inspection Checklists in this manual: review the first checklist before each use and the second checklist for after a fall event and annual inspections.

**NEVER EXCEED 30 DEGREES OFF-PLUMB (OFF-CENTER) LOADING.**



## WARNING

**This system must be used with an ANSI-rated self-retracting lanyard (SRL).**

**If the system is used outdoors, it is highly recommended that a steel cable SRL with heavy-duty housing be used for improved durability against UV radiation and moisture.**

A web strap ANSI-rated SRL may be acceptable for use as long as a Competent Person has evaluated the situation and determined that there are no factors present that can have an immediate negative impact on the integrity of the SRL's webbing material AND that the Competent Person inspects the condition of the SRL's webbing and housing prior to each use.



## WARNING

**Completely retracting the SRL after each use (e.g., using a retrieval tagline) is essential: otherwise, the SRL's internal spring remains under tension, and it quickly loses its ability to arrest a freefall properly.**

**Retrieval taglines must never be used as an anchorage; doing so could result in serious injury or death.**

# TABLE OF CONTENTS

**CONDITIONS OF USE AND WARNINGS STATEMENT** ..... i-iii

**SYSTEM APPLICATIONS** ..... 2

**STANDARDS AND COMPLIANCE** ..... 2

**REQUIRED TRAINING** ..... 2

**ASSEMBLY INSTRUCTIONS** ..... 3

    1. Equipment Needed for Assembly ..... 3

    2. Inventory ..... 3

    3. Attaching the Column Weldments to the Foundations ..... 3-4

    4. Attaching the Headers to the Column Weldments ..... 4-5

    5. If Provided, Attaching the Track Splice to the Track Sections ..... 5-7

    6. Attaching the Track to the Headers ..... 7-8

    7. Final Assembly ..... 9

    Intermediate Bumper Installation (if Supplied) ..... 10

**MAINTENANCE** ..... 11

**DISASSEMBLY** ..... 11

**LABELING** ..... 12

**INVERTED-U INSPECTION CHECKLISTS** ..... 13

    Inverted-U Anchor Track™ System ..... 13

    Annual Anchor Track™ System ..... 14

**PRODUCT WARRANTY COVERAGE** ..... 15

**ABOUT RIGID LIFELINES®** ..... BACK COVER

# SYSTEM APPLICATIONS

The Inverted-U Anchor Track™ System is used for fall protection applications. This fall protection system is labeled with maximum number of users and maximum arresting force; follow all limitations as noted on system label. Each user must attach to this system using a personal fall arrest system.

## STANDARDS AND COMPLIANCE

Please refer to local, state, and federal (OSHA) requirements governing occupational safety for additional information regarding personal fall arrest systems. The Inverted-U Anchor Track System meets or exceeds the requirements set forth in OSHA 1910, OSHA 1926, and ANSI Z359.

## REQUIRED TRAINING

This system is intended to be used by people who are trained in its correct application and use. It is the responsibility of the users and the users' management to assure that they are familiar with these instructions and are trained in the correct use and care of this equipment. Authorized users must also be aware of the operating characteristics, application limits, and the consequences of improper use, which can result in serious injury or death.

Every application of fall protection must be part of a comprehensive managed fall protection program. Each program must include, but is not limited to:

- Hazard analysis
- Authorized person training
- Competent person implementation
- Rescue procedures
- Rescue training

The above list is not a comprehensive list. Specific applications may need to include additional items, such as administrative controls or engineered controls. A Qualified Fall Protection Engineer or OSHA Qualified Person should review the comprehensive managed fall protection program to ensure that it is adequate for your specific application. For more information on how to set up a proper Fall Protection Program within your facility, follow ANSI Z359.2 *Minimum Requirements for a Comprehensive Managed Fall Protection Program*, which is available at: [www.assp.org](http://www.assp.org).

# ASSEMBLY INSTRUCTIONS

## 1. Equipment Needed for Assembly

- a) This manual
- b) Applicable safety equipment for workers' use during assembly, such as hard hats, safety shoes, etc.
- c) Telescoping fork truck or crane (minimum lifting height: 30 feet; minimum capacity: 2,000 pounds)
- d) Man lift/cherry picker (minimum height: 30 feet)
- e) Measuring tape
- f) Torque wrench
- g) Lifting straps
- h) Two six-inch by six-inch (or larger) wood blocks
- i) Long carpenter's level
- j) Wrench/Sockets sizes: 3/4 inch and 15/16 inch
- k) A spacious, level area for assembly (e.g., parking lot)
- l) A way to mark hanger locations, such as a permanent marker
- m) *FA-INVERTED-U-ASSEMBLY SHEET 1 OF 2*, hereafter referred to as *Inverted-U Assembly Drawing*, will be included as a separate document.
- n) *FA-INVERTED-U-ASSEMBLY SHEET 2 OF 2*, hereafter referred to as *Inverted-U Label Placement Drawing*, will be included as a separate document.
- o) The Anchor Trolley™ User Instruction Manual (Manual 103-0054), which is packaged with the Anchor Trolley, will be included as a separate document

## 2. Inventory

- a) Open all bundles and confirm that all components are accounted for: see *Building Materials Description* located in the top right corner of the Inverted-U Assembly Drawing. Note that the quantity of components in an assembly are multiplied by the number of the assemblies.
- b) Check for damage to components that may have occurred during shipping.

## 3. Attaching the Column Weldments to the Foundations

**Refer to Inverted-U Assembly Drawing for Steps A Through F**

- a) Although there are several base plate leveling methods, this manual describes the method of using leveling nuts provided by others and grout as required on a concrete foundation. Regardless of which base plate leveling method you use, the finished installation requires full contact of the base plate on the foundation. All anchor bolts must have plate washers with standard clearance holes and adequate thickness for oversized base plate holes. Along with plate washers, a standard flat washer must be used on each anchor bolt.

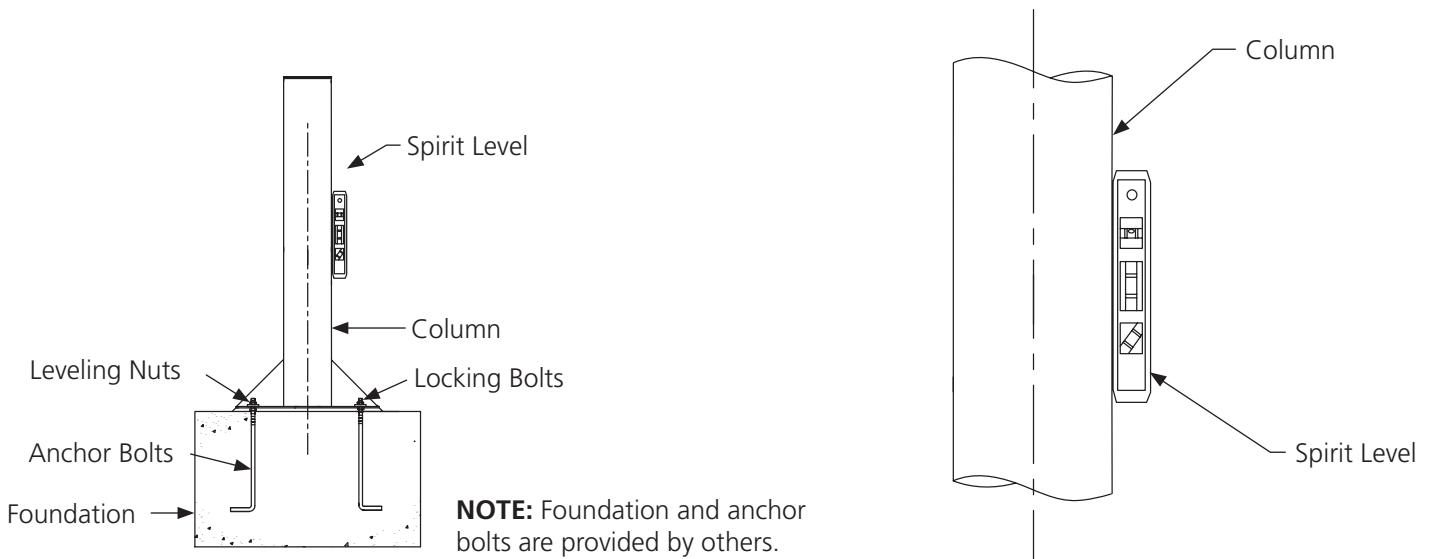
**NOTE:** It is solely the customer's responsibility to provide the proper concrete foundations and anchor bolts for this system. Before installing the column weldments, the concrete foundation must cure for the minimum time recommended by the concrete supplier. Do not deviate from the recommended foundation, foundation size, provided hardware, or installation recommendations without consulting a qualified professional. If the recommended foundation is unknown, contact Rigid Lifelines.

- b) Ensure the recommended concrete foundations (minimum 3,000 PSI and minimum 2,500 lbs/sq-ft soil pressure), reinforcement, and anchor bolts (minimum 3/4-inch diameter anchor bolts) are in place, and that the concrete foundations have had adequate time to cure.



- c) Per **Figure 1**, install one set of leveling nuts on the anchor bolts with the top surface approximately one inch above the foundation. Next, place the column weldment over the anchor bolts resting on leveling nuts. Install the second set of nuts with plate washers and flat washers. Clamp the plumb fixture to the top of the column weldment.

**Figure 1**



- d) Per **Figure 1**, use a spirit level to level the column. Adjust the leveling nuts until the spirit level indicates that the column weldment is plumb.
- e) Per **Figure 1**, when the column weldment is plumb, tighten the locking nuts.
- NOTE:** Do not grout the base plate until the column weldment is completely installed.
- f) Repeat steps a) through e) to attach the remaining column weldments (2 in *Building Materials Description*) to their foundations.

## 4. Attaching the Headers to the Column Weldments

Refer to Inverted-U Assembly Drawing for Steps A Through J

- a) Evenly balance a header (1 in *Building Materials Description*) on top of two six-inch by six-inch blocks so that the bolt holes are at the bottom.
- b) Feed a lifting strap under the header so the header's weight will be evenly distributed during lifting.
- c) Attach the other end of the lifting strap to a crane or forklift and use the crane/forklift to lift the header (1 in *Building Materials Description*) into the air.
- d) Position the header (1 in *Building Materials Description*) over the column weldment (2 in *Building Materials Description*) so that all bolt holes are aligned.
- e) Using a man lift, have another worker raise himself or herself to the top of the column weldment.
- f) Per **Detail "D,"** insert four bolts (D1) through four beam clips (D2) and four clip washers (D3) so that the clip washers (D3) are underneath the beam clips (D2).

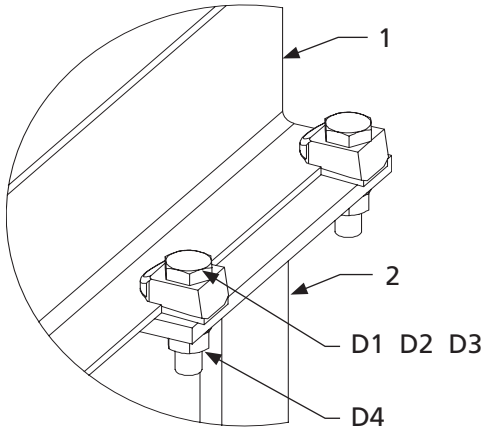


- g) Per **Detail “D,”** bolt the header (1) to the column weldment (2) by inserting the bolts (D1) with attached beam clips (D2) and clip washers (D3) through the holes on top of the column weldment (2) so that the beam clips (D2) hold onto the bottom flange of the header (1).

**NOTE:** Ensure that the straight edges of the clipped washers (A7) are facing away from the center of truss clamp plates (A1).

- h) Per **Detail “D,”** **Securely tighten** nuts (D4) to the bolts (D1). Adjust the beam clips (D2) as needed by tightening or loosening the nuts (D4) until the beam clips (D2) sit properly on the bottom flange of header (1).

### Detail “D” (Headers to Column Weldments)



Item	Description
1	Header
2	Column Weldment
D1	5/8-Inch by 3-Inch Hex Head Bolt
D2	5/8-Inch Beam Clip
D3	5/8-Inch Clipped Washer
D4	5/8-Inch Hex Locknut

- i) Repeat steps **f)** through **h)** to attach the other end of the header (1) to the second column weldment (2).
- j) Repeat steps **a)** through **j)** to attach the remaining headers (1) to the remaining column weldments (2).

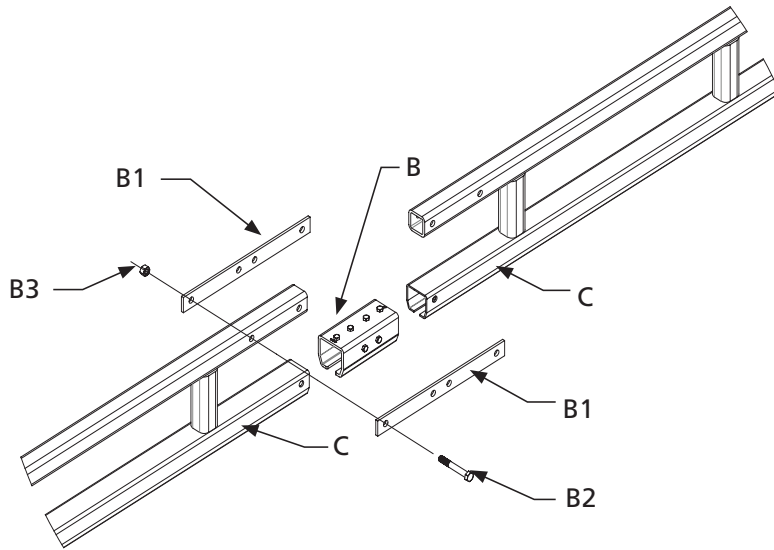
## 5. If Provided, Attaching the Track Splice to the Track Sections

Refer to Inverted-U Assembly Drawing for Steps A Through I

- a) Track splices are only required for systems containing more than four column weldments (2 in *Building Materials Description*). If you purchased a system with more than four column weldments (2 in *Building Materials Description*), follow the steps below to attach the track splice to the track sections. If your system doesn't require a track splice, proceed to step **6. Attaching the Track to the Headers**.
- b) Per **Figure 2**, the track splice joint (B) comes assembled using a sleeve with a total of eight set screws threaded into the top and both sides.
- c) Per **Figure 2**, slide the track splice joint (B) over the end of a track section (C), then butt the second track section (C) against the first. Center the track splice joint (B) over both track section ends.

- d) Per **Figure 2**, **securely tighten** the top two center set screws to push the track sections against the base of the track splice joint (B) until both track section bottom surfaces are aligned. Adjust both sets of side set screws so that the track slots are aligned and there is a smooth transition from one track section (C) to the other.
- e) Per **Figure 2**, after you properly align the track sections (see **Figure 3**), tighten the top set screws first before tightening the side set screws. Do not over-tighten set screws.
- f) Per **Figure 2**, bolt the track splice plates (B1) to the top of the track sections on both sides using nuts (B3) and bolts (B2). Torque the nuts (B3) to 51 foot-pounds.

**Figure 2**

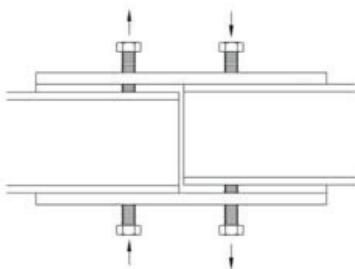


Item	Description
B	Track Splice Joint
B1	Track Splice Plate
B2	1/2-Inch Hex Head Bolt
B3	1/2-Inch Hex Locknut
C	Track Sections

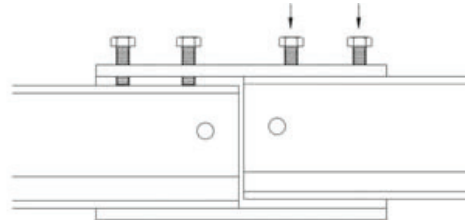
- g) Per **Figure 3**, the track splice joint must be properly aligned with the track sections.

**Figure 3**

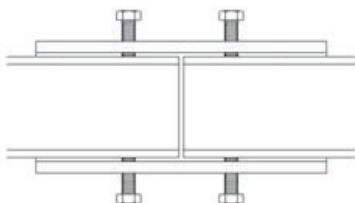
Top View of Incorrect Alignment



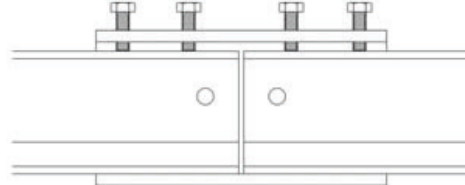
Side View of Incorrect Alignment



Top View of Correct Alignment

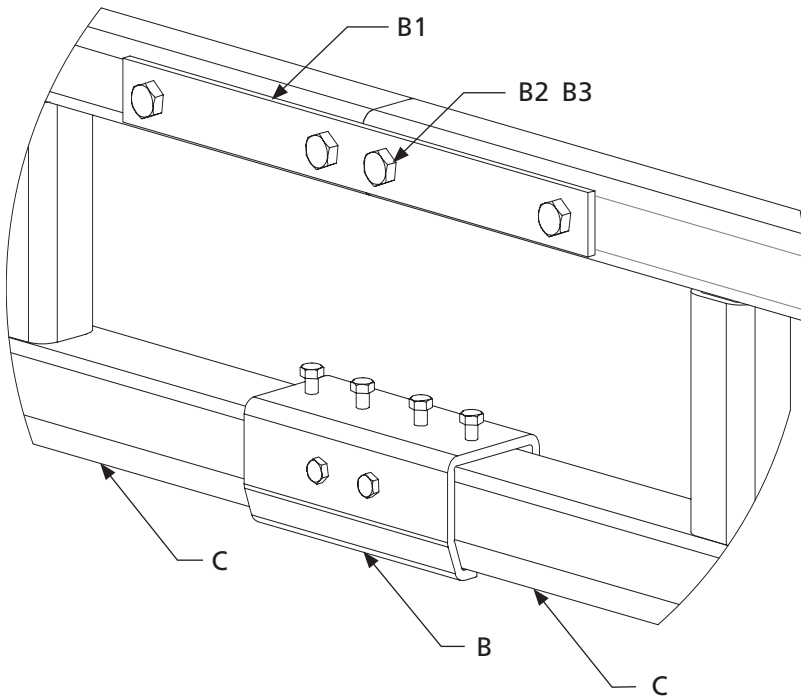


Side View of Correct Alignment



- h) If you ordered a multiple track system, repeat steps **b)** through **g)** to attach the remaining track splice(s) to the track sections.
- i) Refer to **Detail "B"** for an illustration of the properly attached track splice to the track sections.

### Detail "B" (Track Splice to Track Sections)



Item	Description
B	Track Splice Joint
B1	Track Splice Plate
B2	1/2-Inch Hex Head Bolt
B3	1/2-Inch Hex Locknut
C	Track Sections

## 6. Attaching the Track to the Headers

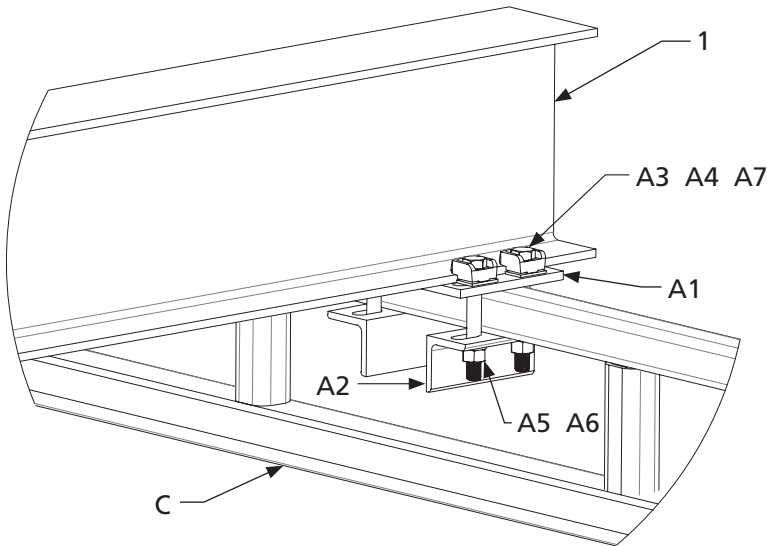
Refer to Inverted-U Assembly Drawing for Steps A Through N

- Using a measuring tape and a permanent marker, measure and mark 18 inches in from each end of the track (C in *Building Materials Description*) for standard overhang. These locations are where the hanger kits (A in *Building Materials Description*) should be installed on the end headers (1 in *Building Materials Description*).
- NOTE:** 18-inch overhang is standard. Refer to your Final Assembly Drawing for correct overhang lengths.
- Per **Detail "A,"** insert four bolts (A3) through four beam clips (A4) and clipped washers (A7) so that the clipped washers (A7) are underneath the beam clips (A4).
- Per **Detail "A,"** insert the bolts (A3), beam clips (A4), and clipped washers (A7) through the truss clamp plate (A1).
- NOTE:** Ensure that the straight edges of the clipped washers (A7) are facing away from the center of truss clamp plates (A1).
- Per **Detail "A,"** place the end of the truss clamp plate (A1) and attached hardware (A3, A4, and A7) on the marked spot on the track (C) so that the bolts (A3) hang down on both sides of the track (C). Ensure that the end of the truss clamp plate (A1) is 18 inches in from each end of the track (C) for standard overhang.
- Per **Detail "A,"** **securely tighten** the angle truss clamps (A2) to the bolts (A3) using flat washers (A5) and nuts (A6) so that the flat washers (A5) are between the angle truss clamps (A2) and nuts (A6). Ensure that the angle truss clamps (A5) form *inverted-L's*.
- Repeat steps **b)** through **e)** to attach another hanger kit (A in *Building Materials Description*) to the marked spot on the other end of the track (C in *Building Materials Description*).
- Using a crane and lifting straps, lift the track (C in *Building Materials Description*) to the end header (1 in *Building Materials Description*).
- Use a man lift or cherry picker to reach the track (C in *Building Materials Description*) and end header (1 in *Building Materials Description*).
- Per **Detail "A,"** position the track (C) and attached components (A1-A7) so that two beam clips (A4) are on each side of the end header (1).

**NOTE:** Track splice joints (B in *Building Materials Description*) must be within 48 inches of a header (1).

- j) Per **Detail "A,"** place the beam clips (A4) so they are holding onto the bottom flange of the header (1). Adjust the beam clips (A4) as needed by tightening or loosening the nuts (A6) until the beam clips (A4) sit properly on the bottom flange of the header (1). **Securely tighten** the beam clips (A4) to the bottom flange of the header (1).

### Detail "A" (Track to Headers)



Item	Description
1	Header
A1	Truss Clamp Plate
A2	Angle Truss Clamp
A3	5/8-inch Hex Head Bolt
A4	Beam Clip
A5	5/8-Inch Flat Washer
A6	5/8-Inch Hex Locknut
A7	5/8-Inch Clipped Washer
C	Track

- k) Repeat steps **g)** through **j)** to attach the track (C in *Building Materials Description*) to the other end header (1 in *Building Materials Description*).
- l) Now that the track (C in *Building Materials Description*) is attached to the end headers (1 in *Building Materials Description*), repeat steps **b)** through **e)** and **j)** to attach the track (C in *Building Materials Description*) to the remaining headers (1 in *Building Materials Description*).
- m) After the track (C in *Building Materials Description*) has been **securely tightened** to all headers (1 in *Building Materials Description*), ensure that all beam clips (A4 in *Building Materials Description*) are installed horizontally and level within plus or minus five degrees. Then torque all nuts (A6 in *Building Materials Description*) to 108 foot-pounds.
- n) After the track (C in *Building Materials Description*) has been properly torqued, torque all header-to-column-weldment nuts (D4 in *Building Materials Description*) to 108 foot-pounds.

## 7. Final Assembly

Refer to Inverted-U Assembly Drawing for Steps A Through G

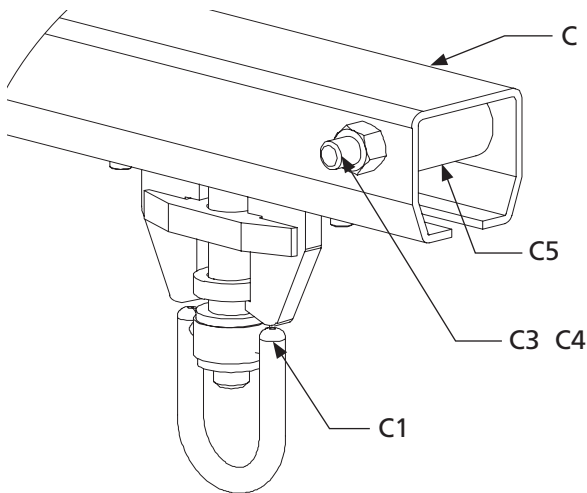
- a) Ensure that the track (C in *Building Materials Description*) is secured properly to the headers (1 in *Building Materials Description*) and that the column weldments (2 in *Building Materials Description*) are securely fastened to their foundations.
- b) Confirm that all of the system's nuts are torqued to the required specifications below prior to removing support rigging (your telescoping fork truck or crane) from any component.

Bolt Diameter	Hex Nut Torque	Minimum Hex Locknut Torque
1/2 Inch	78 Foot-Pounds	51 Foot-Pounds
5/8 Inch	154 Foot-Pounds	93 Foot-Pounds
3/4 Inch	257 Foot-Pounds	151 Foot-Pounds
7/8 Inch	341 Foot-Pounds	224 Foot-Pounds
1 Inch	514 Foot-Pounds	325 Foot-Pounds

**NOTE:** The 5/8-inch beam clip nuts (A6 and D4) should be torqued to 108 foot-pounds.

- c) Per **Detail "C,"** insert your Anchor Trolley™ (C1) into the track (C). For a multiple track system, install one Anchor Trolley per track.
- d) Per **Detail "C,"** install the track's end stops by inserting the bolts (C3) through the holes at both ends of the track (C) and through the rubber sleeves (C5).

### Detail "C" (Trolley[s] and End Stops to Track)



Item	Description
C	Track
C1	Swiveling Connector Anchor Trolley
C3	End Stop Bolt
C4	1/2-Inch Hex Locknut
C5	End Stop Rubber Sleeve

**NOTE:** The 1/2-inch hex locknuts (C4) should be torqued until securely tightened against the track. Be careful not to damage the track in any way.

- e) Attach and torque the end stop nuts (C4) until securely tightened against the track.
- f) For multiple track systems, repeat steps a) through e) to insert the remaining Anchor Trolleys (C1) into the remaining tracks (C).
- g) **This system must be used with an ANSI-rated self-retracting lanyard (SRL).** Connect your SRL and retrieval tagline in accordance with the manufacturer's specifications and your training.

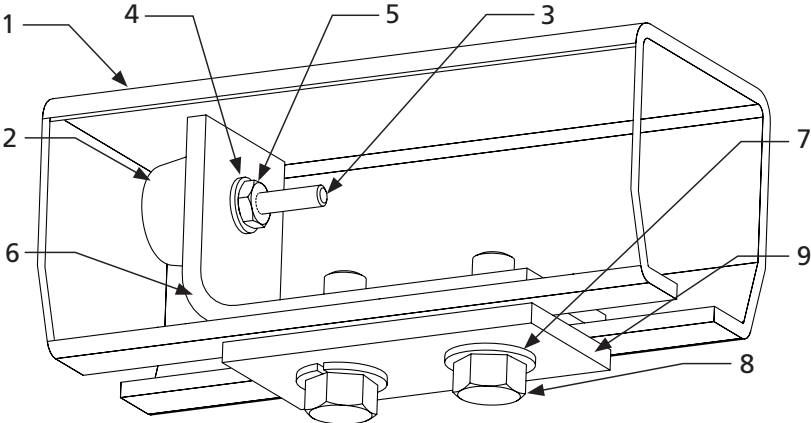
# INTERMEDIATE BUMPER INSTALLATION (IF SUPPLIED)

**NOTE:** Follow the approval drawing, if provided, to prevent overloading of the track and system.

1. Using a man or scissor lift, remove an end stop from the end of the track if end stop is present.
2. Per **Figure 4**, slide the top plate (6) and attached components (2, 3, 4, and 5) into the track (1) and to the desired location in the track. Ensure that the rubber bumper (2) is facing the trolley.
3. Per **Figure 4**, insert two bolts (8) through two split lock washers (7).
4. Per **Figure 4**, align the holes in the bottom plate (9) with the holes in the top plate (6). Ensure that the bottom plate (9) is underneath the track (1).
5. Per **Figure 4**, securely tighten the bolts (8) and attached split lock washers (7) through the aligned holes in the bottom plate (9) and top plate (6) so that the bolt heads are underneath the bottom plate (9). Ensure that the split lock washers (7) are between the bolt head and the bottom of the bottom plate (9).
6. Using a torque wrench, torque 3/8-inch diameter bolts to 33 foot-pounds. Torque 1/2-inch diameter bolts to 78 foot-pounds. See the tables below.
7. Reinsert the end stop that was removed in step 1.

Figure 4

**NOTE:** Intermediate bumpers should not be used as end stops.



500 Series Track (P/N: 1500IB)

Item	Description
1	Track
2	Rubber Bumper
3	10-32 NC by 1-1/4-Inch Machine Screw
4	#10 Lock Washer
5	10-32 NC Nut
6	Top Plate
7	3/8-Inch Split Lock Washer
8	3/8-Inch by 1-Inch Hex Head Bolt
9	Bottom Plate

**NOTE:** For part number 1500IB, item 8 requires a 9/16-inch wrench or socket.

600, 700, and 900 Series Track (P/N: 1700IB)

Item	Description
1	Track
2	Rubber Bumper
3	10-32 NC by 1-1/4-Inch Machine Screw
4	#10 Lock Washer
5	10-32 NC Nut
6	Top Plate
7	1/2-Inch Split Lock Washer
8	1/2-Inch by 1-1/2-Inch Hex Head Bolt
9	Bottom Plate

**NOTE:** For part number 1700IB, item 8 requires a 3/4-inch wrench or socket.



# MAINTENANCE

1. Visually inspect the system before each use and fully inspect the system after a fall event and annually. Refer to the INSPECTION CHECKLISTS in the next section of this manual for checklists for *Inverted-U Anchor Track™ System* and *Annual Anchor Track™ System*.
2. **If the system fails ANY inspection point on any of the inspection checklists, immediately remove the system from service and call Rigid Lifelines® at 800-869-2080 for instructions.**
3. During the first month after a new installation, a weekly inspection of the system should be performed using the *Annual Anchor Track™ System Inspection Checklist*. It is important to note that every system application and use will be different, meaning some conditions of use will require more frequent inspection. Examples of such conditions include two or three shift operations or working with or near corrosive chemicals or elements.
4. Refer to the Anchor Trolley™ User Instruction Manual (Manual 103-0054), which comes packaged with the Anchor Trolley, for its trolley inspection checklists.
5. Download and print additional blank inspection checklists from the literature tab at [RigidLifelines.com](http://RigidLifelines.com).

# DISASSEMBLY

**Warning:** Disassembly must be performed by a skilled rigger. All parts must be secured to prevent falling during all stages of disassembly.

1. Before disassembling the Rigid Lifelines Fixed-Height Rolling A-Frame, ensure that each component is safely rigged and secure.
2. Read and understand each step before beginning the disassembly process.
3. To disassemble the system, follow the assembly instructions in reverse order.

**Warning:** Do not stand under the system during disassembly.



# LABELING

The letters correspond to the letters on the Inverted-U Label Placement Drawing. All labeling must be legible and attached to the system. For replacement labels, contact Rigid Lifelines®.

## RIGID LIFELINES LABEL PLACEMENT DISCLAIMER

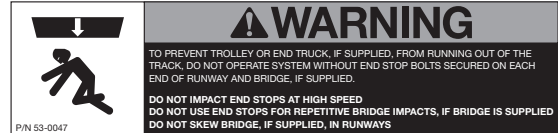
If system is shipped unpainted or without properly secured labels, proper label placement is the sole responsibility of the end user. Follow the Label Placement Drawing shipped with this user manual to place labels correctly. Rigid Lifelines cannot be held liable for any damage or injury resulting from omitted or improper label placement.

**"A"**



P/N 53-0206

**"B"**



P/N 53-0047

**"C"**



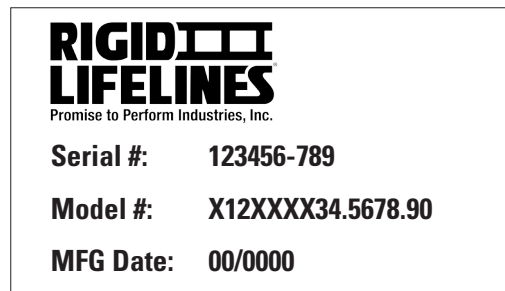
P/N 53-0359

**"D"**



P/N 53-0023

**"E"**



### Notes on Label Placement Drawing

- Label **53-0206 "A"** should be centered on the outside of the end header weldments.
- Label **53-0047 "B"** should be placed on both ends of the lower section of trussed track on both sides of each track section.
- Label **53-0359 "C"** should be centered on the lower section of trussed track on both sides of each track section and is **P/N 53-0535** for one person systems, **53-0536** for two person systems, and **53-0359** for **three** to **eight** person systems, along with **53-0413** through **53-0418** respectively. Labels **P/N 53-0413** through **53-0418** are the capacity numbers three through eight for the Anchor Track Label and should be placed to the right of the line following "Rigid Lifelines."
- Label **53-0023 "D"** should be placed to the right of label **"C"** on the lower section of trussed track on both sides.
- Label **"E"** should be placed on every other column and to the left of label **"C"** on the lower section of every other trussed track on both sides.

# INVERTED-U ANCHOR TRACK™ SYSTEM INSPECTION CHECKLIST

## Before Each Use

Inspector Name: \_\_\_\_\_

Date: \_\_\_\_\_

System Number: \_\_\_\_\_

Model: \_\_\_\_\_



Inspect the Inverted-U Anchor Track™ System before each use according to this inspection checklist. If the system fails any point on the inspection checklist, remove the system from service and contact Rigid Lifelines.

INSPECTION POINTS	Inspection Result (✓)	
	PASS	FAIL
1. Test the swiveling connector(s) on each trolley to verify that each trolley rotates and swivels freely.		
2. Verify that the trolley(s) can easily and smoothly roll the full length of the runway track(s).		
3. Check all system welds for cracks.		
4. Check system components for corrosion. Corrosion may not exceed 10 percent of material thickness, including the material thickness (thread height) of bolt threads.		
5. Check system components for bent or damaged areas.		
6. Check support structure for stability.		
7. Visually check all bolted assemblies for proper connections and properly secured bolts and nuts.		

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# AFTER A FALL EVENT AND ANNUAL ANCHOR TRACK™ SYSTEM INSPECTION CHECKLIST

Inspector Name: \_\_\_\_\_

Date: \_\_\_\_\_

System Number: \_\_\_\_\_

Model: \_\_\_\_\_



Inspect the Inverted-U Anchor Track™ System annually and after a fall event according to this inspection checklist. If the system fails any point on the inspection checklist, remove the system from service and contact Rigid Lifelines.

INSPECTION POINTS	Inspection Result (✓)	
	PASS	FAIL
1. Check that the beam clamps are installed horizontally within + / - five degrees.		
2. Check that end stop bolts are present and have locknuts installed.		
3. Using a torque wrench, check that all bolts are present and torqued to values shown on Assembly Drawing.		
4. Check that splices, if supplied, are centered on track joints.		
5. Verify that capacity labels are present, attached, and legible. See Label Placement Drawing.		
6. Verify that the number of trolleys matches the value on the capacity label.		
7. Verify that the fall arrest system is not being used for material handling.		
8. Check the track for levelness within + / - 1/4 inches per 20 feet of track.		
9. Check the track flanges. Track flanges cannot be bent downward more than five degrees.		
10. Check the track thickness. Track thickness cannot be worn more than 10 percent.		
11. Check all system welds for cracks.		
12. Check system components for corrosion and bent or damaged areas.		
13. Check that all wheel studs, if supplied, are torqued to value shown on Assembly Drawing. Note that these 1/2-inch wheel studs have a different torque value than the system's other 1/2-inch bolts.		
14. Verify trolley can traverse entire length of track without snags.		
15. Inspect the trolley following the <i>After a Fall Event and Annual Inspection Checklist</i> in the Rigid Lifelines Anchor Trolley™ User Instruction Manual (103-0054).		
16. Test the operation of the trolley's swiveling connector and verify that it can rotate freely.		
17. Test the operation of the trolley and verify that the wheels rotate freely.		
18. Check system components for loose components.		
19. Check system components for loose or missing fasteners.		
20. Check system support structure for stability.		
21. Verify that hanger assemblies are installed properly and fasteners are torqued to proper values.		
22. Check that the support arms pivot bolts, if supplied, are properly installed and tightened.		
23. Check system for unauthorized modifications. Only Rigid Lifelines can authorize modifications. Remove system from service if it is modified in any way.		

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## PRODUCT WARRANTY COVERAGE

Rigid Lifelines warrants its products to be free from defects in material and workmanship as follows:

- Engineered Track Equipment, Wearable End Truck Wheels, and Anchor Trolley™ Wheels and Teeth: Ten Years
- Motorized Products and Drive Components and Paint and Finishes for Non-Aluminum Components: Two Years
- Soft Goods, Devices, Connectors, and Accessories: One Year

### Ten-Year Warranty Coverage:

- Defects in equipment material and workmanship of manual track systems and equipment
- Only applies to the wearable wheels on end trucks and wearable Anchor Trolley wheels and teeth

Rigid Lifelines warrants its manual Anchor Track™ systems and equipment to be free from defects in material and workmanship for a period of ten (10) years or 20,000 hours, commencing on the date of shipment to the first retail purchaser. This warranty extends only to parts that are not subject to normal wear and tear from use (nonwearable), with the exception that it does apply to the wearable wheels supplied on end trucks and wearable Anchor Trolley wheels and teeth.

### Two-Year Warranty Coverage:

- Defects in equipment material and workmanship of motorized systems and equipment
- Paint coatings and finishes for non-aluminum components

Rigid Lifelines warrants motorized equipment to be free from defects in material and workmanship for a period of two (2) years or 4,000 hours, commencing on the date of shipment to the first retail purchaser. Rigid Lifelines warrants its paint and finishes for a period of two (2) years. Warranty claims related to coatings must be accompanied by documentation of the product's application and environmental conditions from time of delivery to time of claim.

### One-Year Warranty Coverage:

- Defects in soft goods, devices, connectors, and accessories

Rigid Lifelines warrants fall protection soft goods, devices, connectors, and accessories to be free from defects in material and workmanship for a period of one (1) year, commencing on the date of shipment to the first retail purchaser.

## WARRANTY TERMS & CONDITIONS

All warranty claims must be approved by Rigid Lifelines before any work is performed. Rigid Lifelines's obligation under this warranty is limited to the replacement or repair of Rigid Lifelines products at the factory or separate location approved by Rigid Lifelines. **Other than the above mentioned warranty, Rigid Lifelines will not honor any other warranties—whether expressed, implied, or statutory—and disclaims any warranties of merchantability or fitness for a particular purpose.** Rigid Lifelines has the right to reject any warranty claim due to harsh and/or inappropriate environmental conditions.

### Rigid Lifelines Is Not Liable for:

- Indirect, incidental, or consequential damages including lost profits, operating costs, loss of production, or travel expenses
- Components or accessories not manufactured by Rigid Lifelines (with the exception of soft goods components and accessories sold and warranted by Rigid Lifelines. For such components and accessories, the warranty shall be determined by the terms and conditions of any warranty provided by the manufacturer of such components and accessories.)
- Defective equipment or system failure caused by misuse, negligence, and improper installation or maintenance
- Equipment that has been used in excess of its rated capacity or beyond its service factors
- Rework and modification of any equipment that has been altered without Rigid Lifelines's written authorization
- Freight charges and damage incurred by freight carriers
- Any loss, injury, or damage to persons or property resulting from failure or defective operation of material or equipment
- This warranty is void for any product that is designed to deform or absorb energy during a fall event and needs to be replaced after a fall event has occurred

### Reimbursement Disclaimer:

- Written notice of any claimed system defect must be given to Rigid Lifelines within ninety (90) days of shipment.
- All requests for reimbursement must be accompanied by proper documentation.
- Reimbursement is provided in the form of a credit unless otherwise approved by Rigid Lifelines management.
- Reimbursement for labor will be provided at a maximum rate of \$75 per hour.
- All reimbursement is subject to approval by Rigid Lifelines management.

# ABOUT RIGID LIFELINES®

## OUR MISSION:

Rigid Lifelines is driven by passion for providing our customers with quality, user-friendly solutions to keep workers safer and more productive at elevation.

## OUR COMMITMENT

Rigid Lifelines professionals are dedicated to designing and manufacturing a variety of fall protection systems that meet or exceed OSHA requirements and ANSI Z359 code. Our team of engineers and safety professionals combine over 30 years of experience in the fall protection industry to manufacture fall protection systems that utilize the most advanced technology and designs.

Rigid Lifelines production facilities are certified under the ISO 9001:2015 Quality Management System to provide superior quality products. And every welder at Rigid Lifelines is certified to handle steel (D1.1) and aluminum (D1.2) in accordance with the rigorous requirements and lab testing established by the American Welders Society (AWS).

Rigid Lifelines engineers are involved with ANSI Z359 Technical Review Committee and the ANSI Z359.19 Rigid Horizontal Rail Standard. We also participate with the Safety & Health Technology Committee of the Association of Iron & Steel Technology. Our involvement allows us to keep a constant pulse on the trends in both industry practice and government regulation.

## OUR PRODUCTION:

All of our systems are designed and manufactured in the United States of America. We have production facilities in Las Vegas, Nevada, and at our headquarters in Morgantown, Pennsylvania.

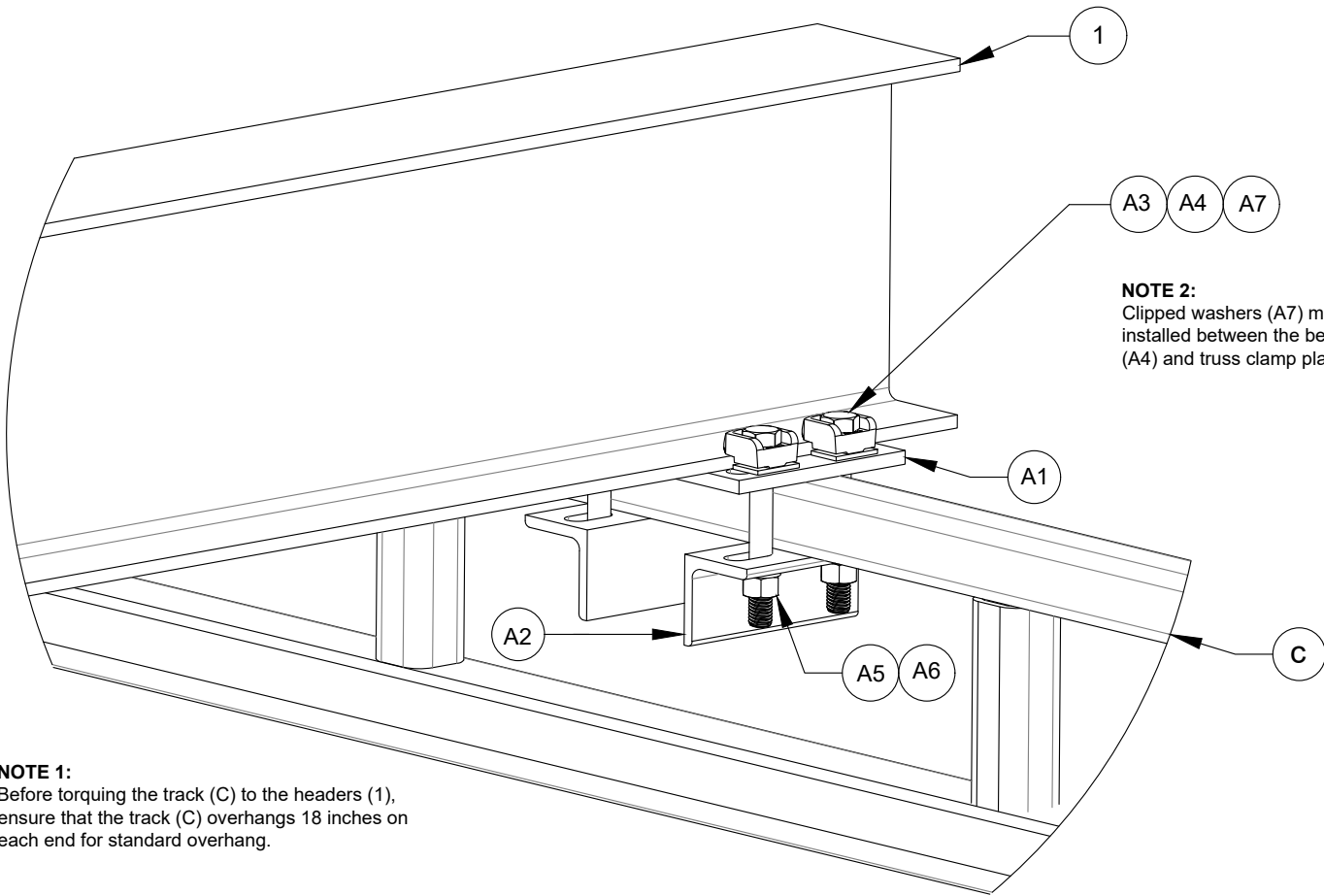


Morgantown, PA | Las Vegas, NV  
Toll Free: (800) 869-2080 | Local: (610) 286-7200 | Outside US: 1-610-286-7200 | Fax: (610) 286-0085  
[RigidLifelines.com](http://RigidLifelines.com) | [info@RigidLifelines.com](mailto:info@RigidLifelines.com)



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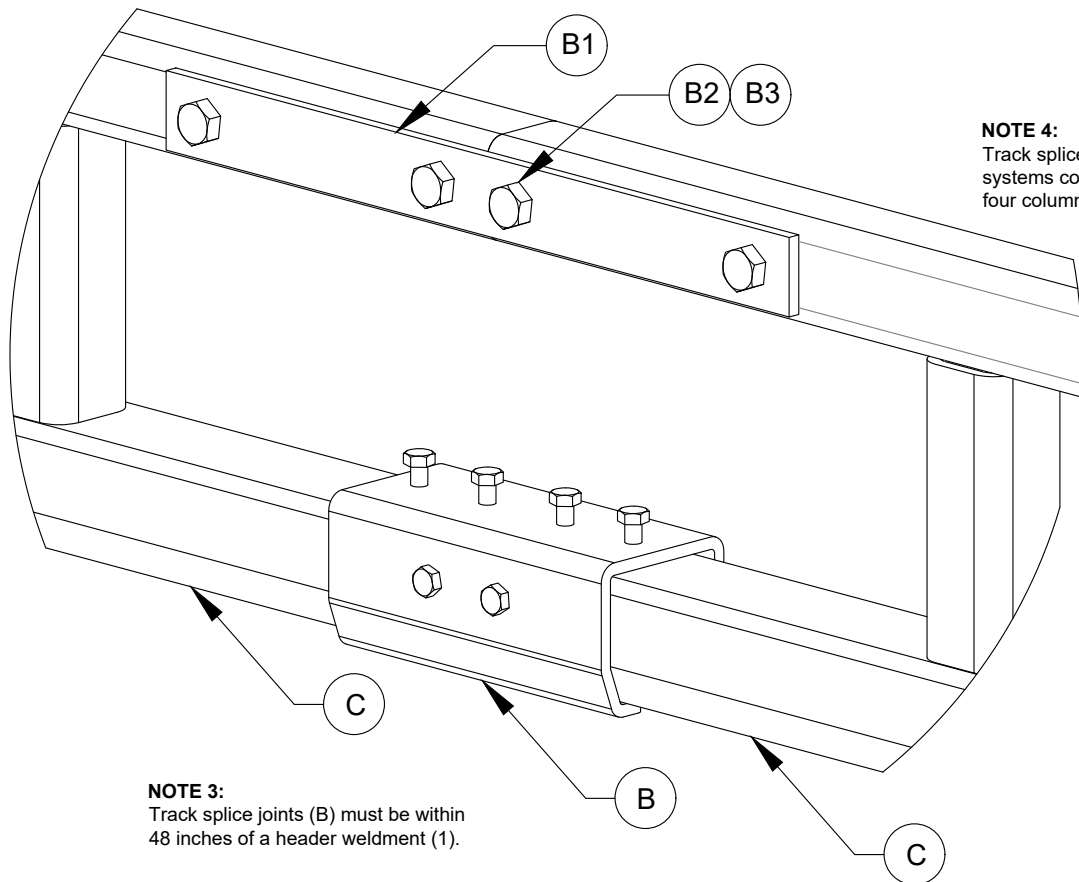
### Detail "A" (Track to Headers)



**NOTE 1:**  
Before torquing the track (C) to the headers (1), ensure that the track (C) overhangs 18 inches on each end for standard overhang.

**NOTE 2:**  
Clipped washers (A7) must be installed between the beam clips (A4) and truss clamp plates (A1).

### Detail "B" (Track Splice to Track Sections)

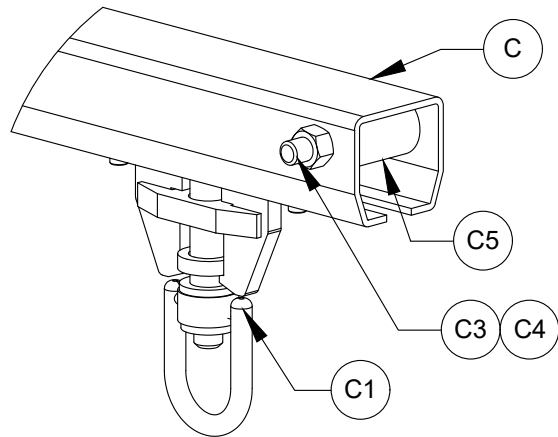


**NOTE 4:**  
Track splices are only required for systems containing more than four column weldments (2).

**NOTE 3:**  
Track splice joints (B) must be within 48 inches of a header weldment (1).

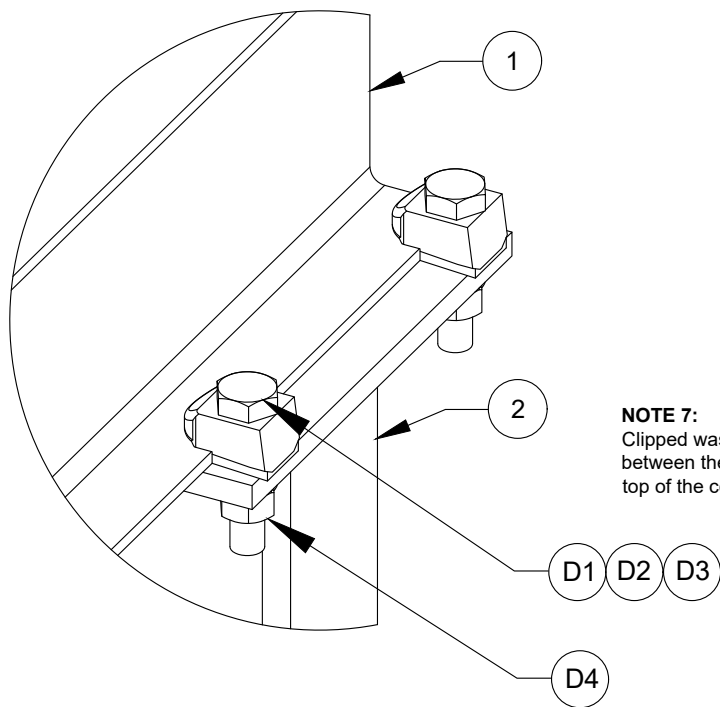
**NOTE 5:**  
Quantities shown are for a system containing three headers (1), six column weldments (2), two single track runways (C), and one track splice joint (B).

### Detail "C" (Trolley[s] and End Stops to Track)



**NOTE 6:**  
End stop bolts (C3), end stop locknuts (C4), and end stop rubber sleeves (C5) come in packs labeled "FA-X00ES" (C2).

### Detail "D" (Headers to Column Weldments)



**NOTE 7:**  
Clipped washers (D3) must be installed between the beam clips (D2) and the top of the column weldment (2).

Item	Quantity	Part Number	Building Materials Description
1	3	W/XXXX-XX.XX	Header
2	6	FA-U-CW-W/X-5XX	Column Weldment
-A-	X	FA-K-XX-X.XX-X/X	FA, Kit, Hanger, X.XX" FLX X/X"
A1	3	PCTX.XX	Truss Clamp Plate, X X/X" Flange
A2	6	ACT2-3.5	Angle Clamp Truss 2-3/12" TT, Through R730
A3	12	10-03XX	Bolt, 5/8"-11 NC GR5
A4	12	18-0021F	Beam Clip Forged, 5/8" W SH Tail, (1/4" TH)
A5	12	15-0004	Flat Washer 5/8" Plated
A6	12	13-0001	Nut, Hex Lock 5/8"-11 NC
A7	12	18-000X	5/8" Clipped Washer
-B-	1	FA-1X03	Fall Arrest Track Splice, X00 with Bolts
B1	2	SP-1	Plate Only, Splice (Used in "SP" Kits)
B2	4	10-021X	Bolt, 1/2"-13 NC GR5
B3	4	13-0003	Nut, Hex Lock 1/2"-13, GR 2
-C-	2	Runway	Fall Arrest Track
C1	1	FA-XXX-AT	FA, Swiveling Connector Anchor Trolley
C2	2	FA-X00ES	Fall Arrest End Stop Kit
C3	2	10-02XX	End Stop Bolt
C4	2	13-0003	Nut, Hex Lock 1/2"-13
C5	2	RR1.25-X	End Stop Rubber Sleeve
-D-	X	N/A	Header and Column Weldment Hardware
D1	24	10-0303	Bolt, 5/8"-11NC X 3" GR5
D2	24	18-0021F	Beam Clip Forged, 5/8" W SH Tail, (1/4" TH)
D3	24	18-000X	5/8" Clipped Washer
D4	24	13-0001	Nut, Hex Lock 5/8"-11 NC

#### Component Assembly Schedule


- Bolt Column Weldments to Foundations
- Bolt Headers to Column Weldments (**Detail "D"**)
- If Provided, Bolt Track Splice to Track Sections (**Detail "B"**)
- Bolt Track to Headers (**Detail "A"**)
- Install Trolley(s) and End Stops to Track (**Detail "C"**)

#### Torque Specifications

Bolt Diameter	Hex Nut Torque	Minimum Hex Locknut Torque
1/2 Inch	78 Foot-Pounds	51 Foot-Pounds
*5/8 Inch	154 Foot-Pounds	93 Foot-Pounds
3/4 Inch	257 Foot-Pounds	151 Foot-Pounds
7/8 Inch	341 Foot-Pounds	224 Foot-Pounds
1 Inch	514 Foot-Pounds	325 Foot-Pounds

\*The 5/8-inch beam clip nuts (A6 and D4) should be torqued to 108 foot-pounds.

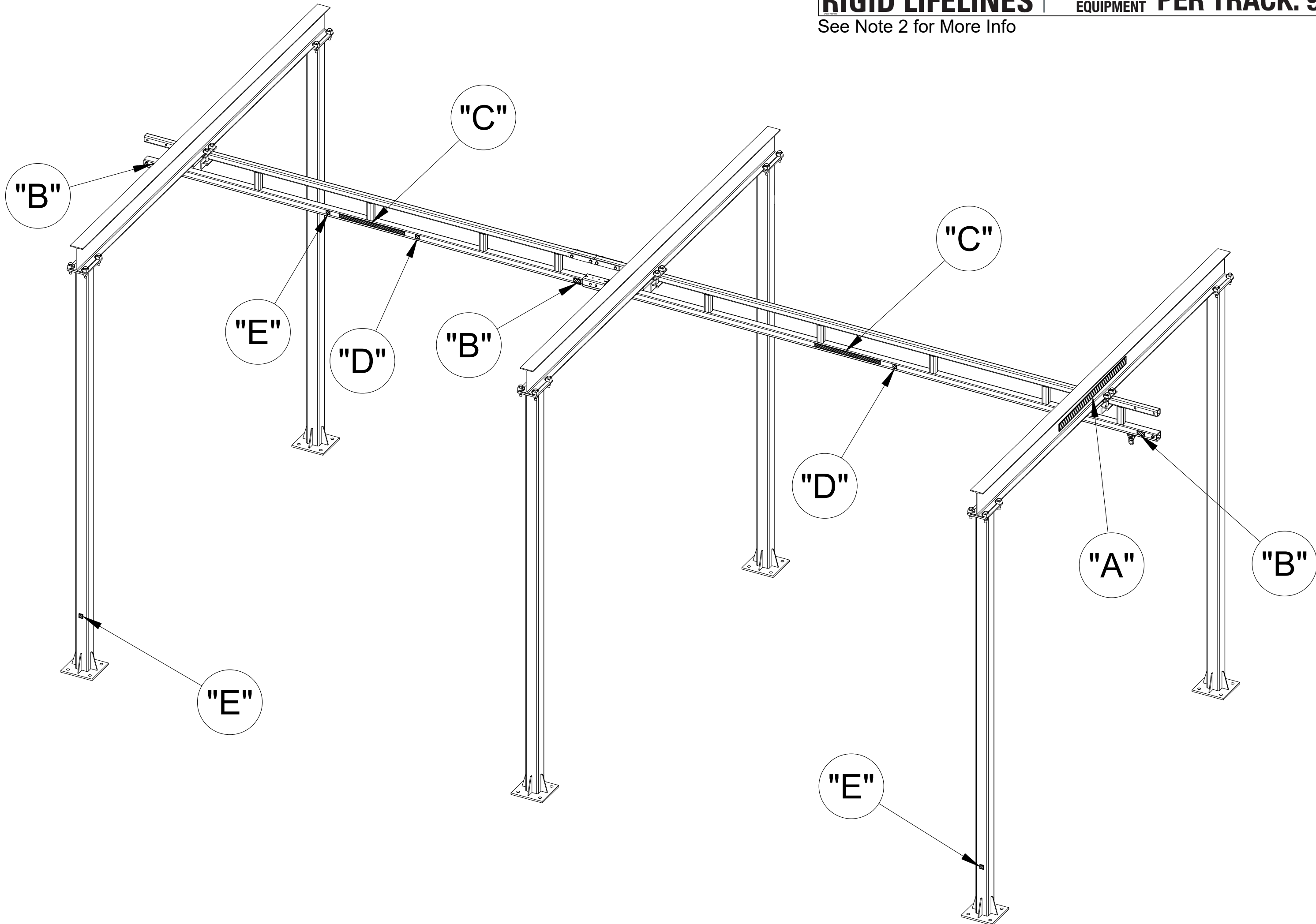
#### Sheet 1 of 2

REV.	DATE	NAME	REVISION DESCRIPTION	
CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE. DO NOT SCALE DRAWING			<div> Promise to Perform Industries, Inc.</div>	
APPROVALS				
DRAWN: ZAR		03/27/15	<div>FALL ARREST INVERTED-U ASSEMBLY DRAWING</div>	
CHECKED:				
APPVD: JRG		02/03/21		
PLOT DATE: Wt.				
PROJECT NO.:		SCALE:	SIZE DWG. NO.	
INSTRUCTIONS		NTS	C FA-INVERTED-U-ASSEMBLY REV. -	
			CAD FILE: FA-INVERTED-U-ASSEMBLY SHEET 1 OF 2	



**NOTE 1:**  
Label **53-0206 "A"** should be centered on the outside of the end header weldments.  
Label **53-0047 "B"** should be placed on both ends of the lower section of trussed track on both sides of each track section.  
Label **53-0023 "D"** should be placed to the right of label **"C"** on the lower section of trussed track on both sides.  
Label **"D"** should be placed on every other column and to the left of label **"C"** on the lower section of every other trussed track on both sides.

**NOTE 2:**  
Label **"C"** should be centered on the lower section of trussed track on both sides of each track section and is **P/N 53-0535** for one person per track systems, **53-0536** for two people per track systems, and **53-0359** for **three to eight** people per track systems, along with **53-0413** through **53-0418** respectively. Labels **P/N 53-0413** through **53-0418** are the capacity numbers three through eight for the Anchor Track label and should be placed to the right of the line following "Rigid Lifelines."



**"A"**

**RIGID LIFELINES**  
P/N 53-0206  
(800) 869-2080 :: RigidLifelines.com

See Note 1 for More Info53-0206

**"B"**

P/N 53-0047

**WARNING**  
TO PREVENT TROLLEY OR END TRUCK, IF SUPPLIED, FROM RUNNING OUT OF THE TRACK, DO NOT OPERATE SYSTEM WITHOUT END STOP BOLTS SECURED ON EACH END OF RUNWAY AND BRIDGE, IF SUPPLIED.  
DO NOT IMPACT END STOPS AT HIGH SPEED  
DO NOT USE END STOPS FOR REPETITIVE BRIDGE IMPACTS, IF BRIDGE IS SUPPLIED  
DO NOT SKEW BRIDGE, IF SUPPLIED, IN RUNWAYS

See Note 1 for More Info53-0047

**"C"**

**RIGID LIFELINES**  
See Note 2 for More Info

PEOPLE & EQUIPMENT  
PER TRACK. 900 LB. MAAF EA. PERSON

(800) 869-2080  
RigidLifelines.com  
53-0359

**"E"**

**RIGID LIFELINES**  
Promise to Perform Industries, Inc.

Serial #: 123456-789  
Model #: X12XXXX34.5678.90  
MFG Date: 00/0000


See Note 1 for More Info

**"D"**

**MADE IN**  
★★★★★  
**THE USA**  
P/N 53-0023

53-0023  
See Note 1 for More Info

Sheet 2 of 2

REV.	DATE	NAME	REVISION DESCRIPTION		
CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE. DO NOT SCALE DRAWING			<div></div>		
APPROVALS		DATE			
DRAWN:	ZAR	03/27/15	<div><b>FALL ARREST</b> INVERTED-U LABEL PLACEMENT DRAWING</div>		
CHECKED:					
APPVD:	JRG	02/03/21			
PLOT DATE:	WT.				
PROJECT NO.:	SCALE:		SIZE	DWG. NO.	REV.
INSTRUCTIONS	NTS		C	FA-INVERTED-U-ASSEMBLY	-
			CAD FILE:	FA-INVERTED-U-ASSEMBLY	SHEET 2 OF 2