



**CHANCE RIDES MANUFACTURING, INC.**  
**4200 Walker**  
**Wichita, KS 67277-2328**  
**U.S.A.**  
Phone: 1-316-942-7411 • FAX: 1-316-942-2012  
**Website: [www.chancerides.com](http://www.chancerides.com)**  
**E-mail: [rides@chancerides.com](mailto:rides@chancerides.com)**

Bulletin No:	B410CRM173-0
Release Date:	May 11, 2012
Effective Date:	Immediately
Supersedes:	N/A
Completion Date:	July 11, 2012
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# SERVICE BULLETIN

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: AVIATOR

Affected Serial Nos.: All

Model No.: 410

Abstract of Issue:  
Sweep Brace Kit

Reason For Release:

Chance Rides Manufacturing, Inc. has become aware of cracks in the sweeps on at least one AVIATOR amusement ride. Failure of a sweep could result in serious injury to passengers and/or bystanders. A kit has been developed to reinforce the sweeps.

Action to be Taken:

Chance Rides Manufacturing, Inc. requires all owner/operators of the above noted AVIATOR rides to order and install the Sweep Brace Kit, part number 410-226-001, within 60 days of the release date of this bulletin. The kit includes all necessary parts to rework one complete ride. Rework instructions are provided in this bulletin. The kit will be offered at a reduced price if ordered within this 60 day period.

After the Sweep Brace Kit is installed, the sweeps must be inspected annually as described in this bulletin.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation. Use only those components authorized, specified or provided by Chance Rides Manufacturing, Inc. All applicable OSHA safety standards and safe industry practices must be observed.

Observe all safety information contained in the manufacturer's manuals. Make available this bulletin and all related technical information to personnel using the equipment.

Chance Rides Manufacturing, Inc. issues notifications for the benefit of owners of amusement rides manufactured by Chance Rides Manufacturing, Inc. As a service to the industry, and in the interest of employee and public safety, Chance Rides Manufacturing, Inc. also issues notifications for the benefit of owners of amusement ride equipment for which the manufacturer no longer exists, such as the Allan Herschell Company, Chance Manufacturing Co., Inc., Chance Rides, Inc. (1985-2002), D.H. Morgan Manufacturing Co., Inc., etc. In doing so, Chance Rides Manufacturing, Inc. does not assume liability for losses associated with amusement ride equipment built by manufacturers other than Chance Rides Manufacturing, Inc.



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Ride Name: AVIATOR Affected Serial Nos.: All

Model No.: 410

Detail of Issue

### Sweep Inspection Procedure

The sweeps must be structurally sound before installation of the Sweep Brace Kit. To make sure that the sweeps are sound, magnetic particle (MT) inspection is required .

**IMPORTANT:** *Magnetic particle inspection is required prior to installation of the Sweep Brace Kit. Pay particular attention to the areas indicated by arrows in the illustration on the next page. Look for indications in the steel tubes, and check the welded joints for indications in the welds and the parent metal.*

*This procedure must be performed by NDT personnel qualified in accordance with the American Society of Non-Destructive Testing (ASNT), SNT-TC-1A, certified as Level II or greater.*

*After the Sweep Reinforcement Kit is installed, each sweep must be visually inspected in the same areas.*

**IF NO INDICATIONS ARE FOUND,** install the Sweep Brace Kit as described in this bulletin.

**IF ANY INDICATIONS ARE FOUND,** do not operate the ride. Contact the Customer Service Department at Chance Rides Manufacturing, Inc. immediately for instructions on the necessary repair procedure. Do not install the Sweep Brace Kit until any indications have been repaired.

**DO NOT ATTEMPT TO WELD OR OTHERWISE REPAIR THE SWEEPS EXCEPT AS SPECIFICALLY INSTRUCTED BY CHANCE RIDES MANUFACTURING, INC.**

**IMPORTANT:** *After the Sweep Reinforcement Kit is installed, the sweeps must be inspected annually as described in this bulletin.*



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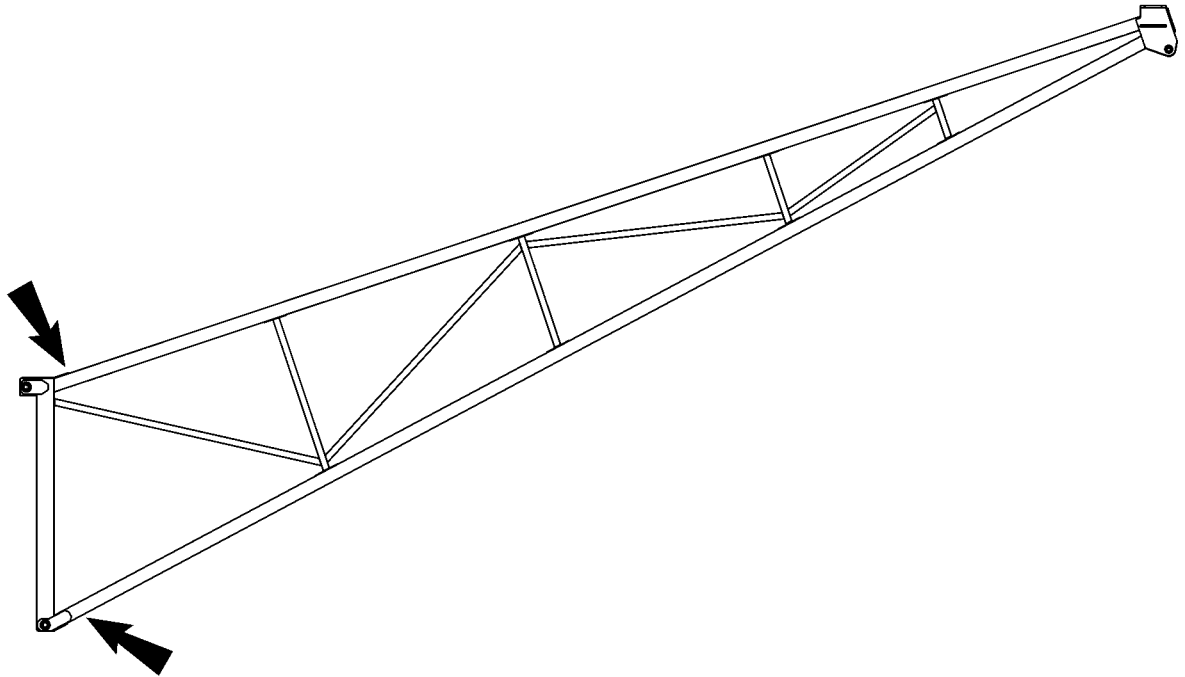
Affected Production Dates: All

Ride Name: AVIATOR

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Detail of Issue (continued):



*Use magnetic particle (MT) inspection in the areas indicated prior to installation of the Sweep Brace Kit.*

*After the kit is installed, the sweeps must be visually inspected annually in the same areas.*



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Ride Name: AVIATOR Affected Serial Nos.: All

Model No.: 410

Detail of Issue (continued):

**Sweep Reinforcement Kit Installation Instructions**

Once the sweeps are determined to be structurally sound, the Sweep Brace Kit must be installed. This can be done with the ride fully assembled, with the sweeps in the fully lowered position..

The SWEEP BRACE KIT (part number 410-226-001 contains the following:

<u>Part Number</u>	<u>Component</u>	<u>Quantity</u>
410-243-005	TURNBUCKLE .....	32
410-243-011	PLATE - Outer Turnbuckle .....	32
410-243-016	PLATE - Inner Turnbuckle .....	16
410-243-013	BACKING PLATE - Inner Turnbuckle .....	16
410-243-017	SPACER TUBE .....	64
60849400	CAPSCREW - Hex Head 1/2-13 x 1-3/4 Grade 8 .....	96
60852000	CAPSCREW - Hex Head 1/2-13 x 6 Grade 8 .....	64
64813505	NUT - Hex Lock (N/I) 1/2-13 Grade 8 .....	160
64813505	WASHER - Hardened 1/2 .....	320

Refer to the illustrations on the following pages for identification and location of each component.

1. Locate the inner turnbuckle plates and backing plates and spacers saddle plates as shown in the detail. Secure with fasteners provided and tighten to 55 ft-lbs.
2. Locate the outer turnbuckle plates as shown in the detail. Secure with fasteners provided and tighten to 55 ft-lbs.
3. Install the turnbuckles between each sweep and secure with pins and retainers provided.

**IMPORTANT:** *When installing the turnbuckles, adjust the length of each turnbuckle so that the pin slips in. DO NOT TIGHTEN UNTIL ALL TURNBUCKLES ARE INSTALLED.*

4. When all turnbuckles are installed, tighten each turnbuckle 1/4 to 1/2 turn to put it in tension. ALL TURNBUCKLES MUST BE TIGHTENED THE SAME AMOUNT. Tighten the jam nut on each turnbuckle.



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Ride Name: AVIATOR

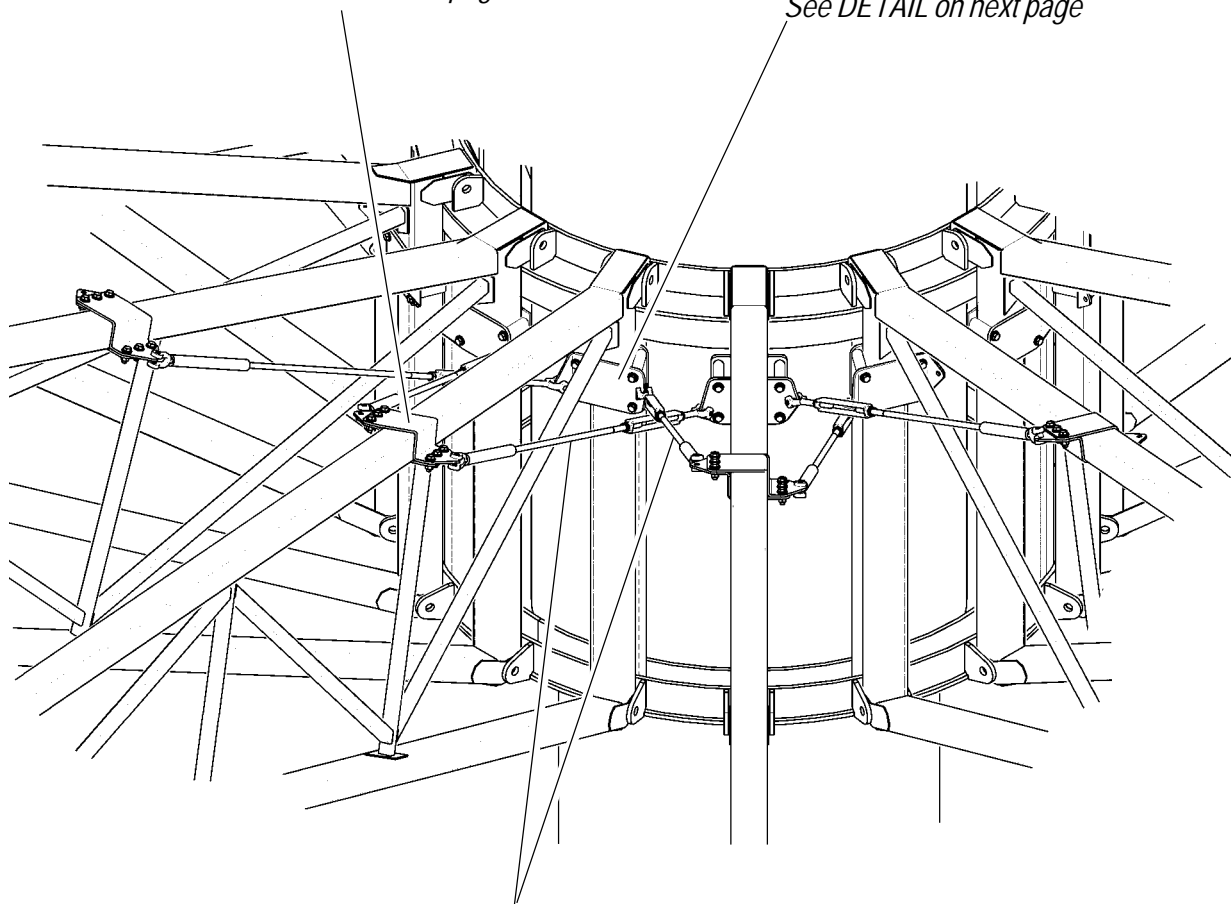
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Model No.: 410

Detail of Issue (continued):

*Outer Turnbuckle Plate*  
*See DETAIL on next page*

*Inner Turnbuckle Plate, Backing Plate*  
*and 4 Spacer Tubes*  
*See DETAIL on next page*



**Turnbuckle**

*Install as shown and secure with pin and retainer provided.*  
**DO NOT TIGHTEN UNTIL ALL TURNBUCKLES ARE INSTALLED**



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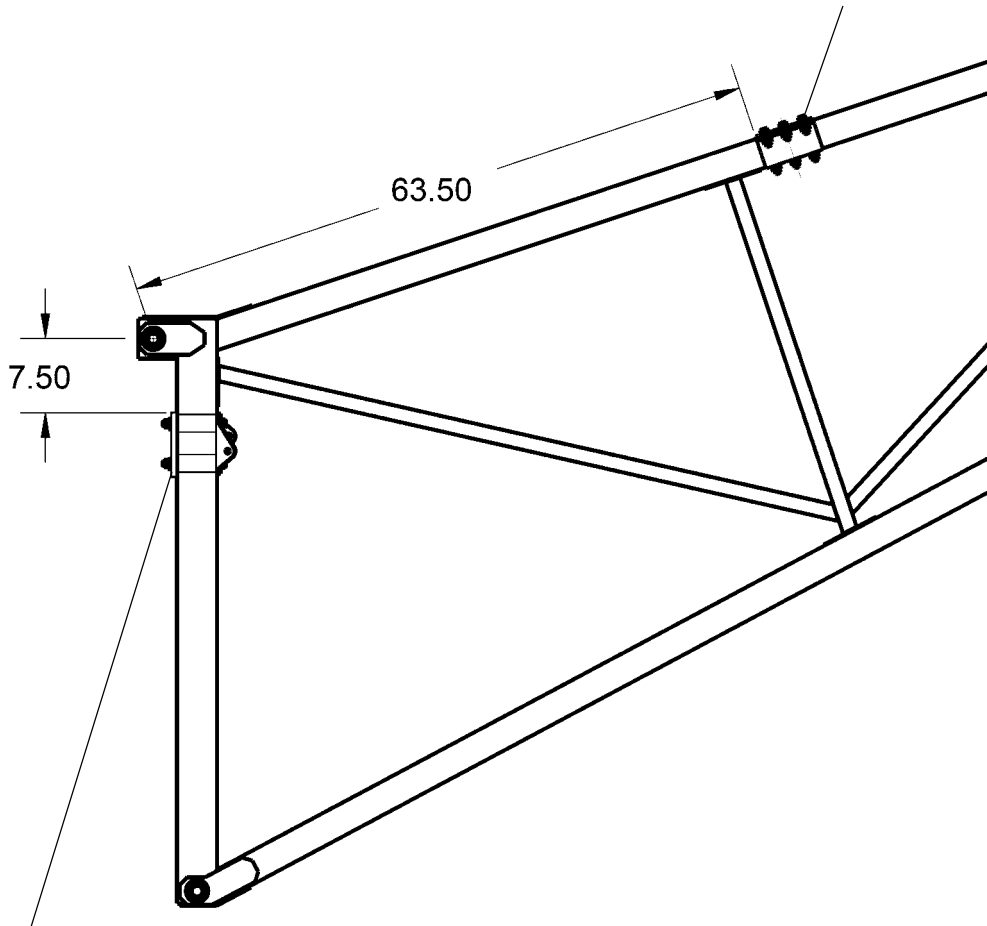
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Detail of Issue (continued):

**DETAIL OF PLATE LOCATION**

**Outer Turnbuckle Plate**

*Install two on each sweep as shown.  
Secure with 1/2-13 Grade 8 capscrew, hardened washers and nut provided. Tighten to 55 ft-lbs.*



**Inner Turnbuckle Plate, Backing Plate and Spacer Tubes**

*Install on each sweep as shown.  
Secure with 1/2-13 Grade 8 capscrew, hardened washer and nut provided. Tighten to 55 ft-lbs.*