

Dartron Industries, Inc. is not the manufacturer of Hurricane rides built from 1972 until 1991. This bulletin is being issued in the interest of correcting a potential problem on rides whose manufacturer is no longer in business. This bulletin in the interest of safety should in no way be construed as Dartron Industries, Inc. assuming the role of manufacturer of Hurricanes manufactured before 1992.

P.O. Box 13114  
 Salem, Oregon 97309  
 Phone: 503-362-2341  
 Fax: 503-362-2536

Bulletin #	SR - 5H - 903
Release Date	March 26, 1999
Effective Date	March 26, 1999
Supersedes	
Completion Date	June 30, 1999
Page	1 of 2

# SAFETY ALERT

Ride Manufacturer	Frank Hrubetz & Co., Inc. Killinski Mfg. Company Man-Co Mfg., Inc.	Affected Production Dates	1973 until 1991
Ride Name	Hurricane	Affected Serial #'s	All
Model Number	All		

**Reason For Release:** It has been determined that the changes explained below are necessary for the assured safe operation of the Hurricane ride. These changes must be retro fitted on all previously manufactured Hurricanes.

**Inspection** Before implementing the changes explained below remove the cars from the sweeps. Rotate the grease Zerk on the end of the Sweep. Add lubrication to this zerk until the cavity is full. Inspect the bolt or roll pin shown as item 20 on Page 2. If a bolt is found be sure the bolt is a grade 8. Inspect to be sure that it is not damaged and capable of maintaining the pin in its bore and prohibiting the pin from rotating. Replace with a 3/8 NC x 4" grade 8 bolt and grade 8 nyloc nut if any damage is found. Car buckets must also rotate freely in relation to the sweep, indicating that the bushings in the sweep end are not binding on the shaft. Keeper bolt orientation must be as shown on Page 2 in order to clear pin retainer.

**Detail of Issue**

**Pin Retainer**

Page 2 shows the pin retainers that must be bolted to both sides of the car buckets that are attached to the end of the sweeps on all Hurricanes. With the pin retainers in place the shaft will be retained in position in the sweep even without the proper functioning of the pin locating bolt. Using an electric drill, drill one hole in both sides of the sweep bucket. The location of these holes is shown in Page 2 at 2 7/8". Bolt the pin retainer on with one bolt so that the tab of the retainer covers the end of the bucket pin. Now use the retainer as a jig to drill through for the lineup of the second 3/8 hole. Bolt the retainer in place using grade 8 bolts, grade 8 nyloc nuts and flat washers as called out in the material list on page 2. Insert the bolt from the inside to the outside of the bucket. Place the nyloc nut on the outside face of the bucket so it can be easily inspected. Torque to 40 ft. lbs. The flat washers are located under the bolt head and under the Nyloc nut.

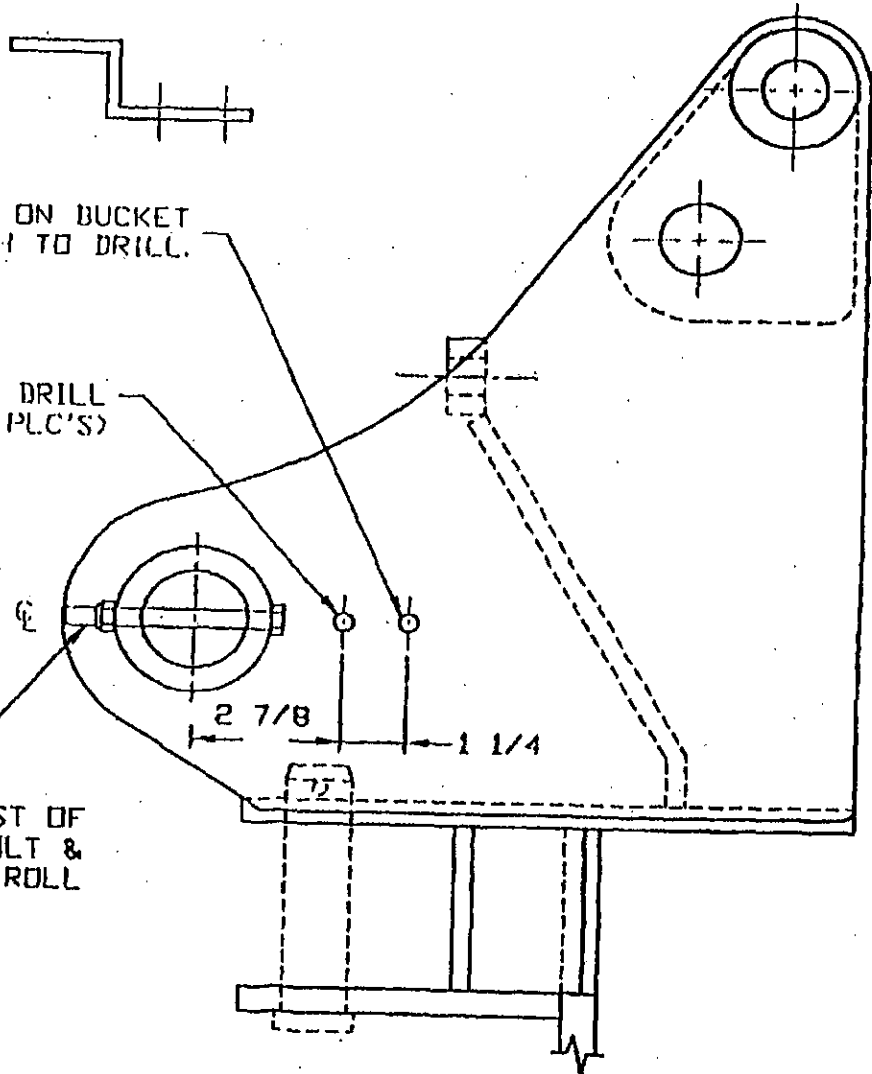
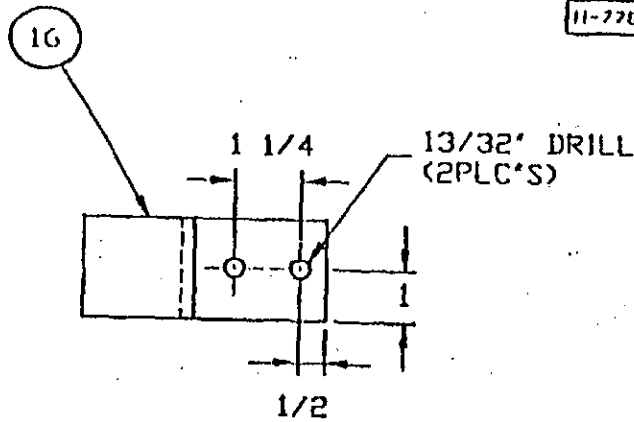
**Material Required**

Contact Steve Jones at Dartron concerning the purchase of the 12 pin retainers. The Hurricane owners must supply the exact hardware shown on Page 2.

**Inspection Required**

Daily inspection of the buckets are required. The inspection must insure that (1) The sweep end pin is lubricated (2) the pin locating bolt is in place and functioning properly (3) both pin retainers are securely bolted to the sides of the bucket.

ITEM	QTY.	DESCRIPTION
11-770-16	12	PIN RETAINER
11-770-17	24	3/8" NC. 1.5" GR 8 BOLT
11-770-18	24	3/8" NC. NYLOC NUT GR 8
11-770-19	40	3/8" FLAT WASHER



POSITION ITEM 16 ON BUCKET  
& CENTER PUNCH TO DRILL.

13/32 DRILL  
(2 PLC'S)

ITEM #20

ITEM #20 CONSIST OF  
3/8 GRADE 8 BOLT &  
NYLOCK NUT OR ROLL  
PIN.

Product: Hurricane

Released: March 26, 1999

Bulletin No.: SR-5H-901

Completion Date: June 30, 1999

Units Effected: 201061-5H, 108021-5H, 20311-5H, 204021-5H, 502151-5H, 611222-5H, 604052, 5H, 611181-5H, 701291-5H, 702133-5H, 702282-5H, 704016-5H, 711031-5H, 711101-5H, 712051-5H, 712151-5H, 801192-5H

## PRODUCT IMPROVEMENT BULLETIN

### Reason For Change:

Dartron has determined that the changes explained below are necessary for the assured safe operation of the hurricane ride. These Changes will be implemented on all new production and must be retro fitted on previously manufactured on all Hurricane rides previously manufactured by Dartron Industries, Inc.

### Inspection:

Before implementing changes explained below remove the cars from the sweeps. Find the grease zerk on the end of the sweep. Add lubrication to this zerk until the cavity is full. Inspect the bolt or roll pin shown as item 20 on Attachment I. Be sure the bolt is a grade 8. Inspect to be sure that it is not damaged and capable of maintaining the pin in its bore and prohibits the pin from rotating. Replace with a 3/8 NC x 4" grade 8 bolt and grade B nyloc nut if any damage is found. Car bucket must also rotate freely in relation to the sweep, indicating that the bushings in the sweep end are not binding on the shaft. Keeper bolt orientation must also be as shown in Attachment I in order to clear the pin retainer.

### Change to be implemented:

#### Pin Retainer

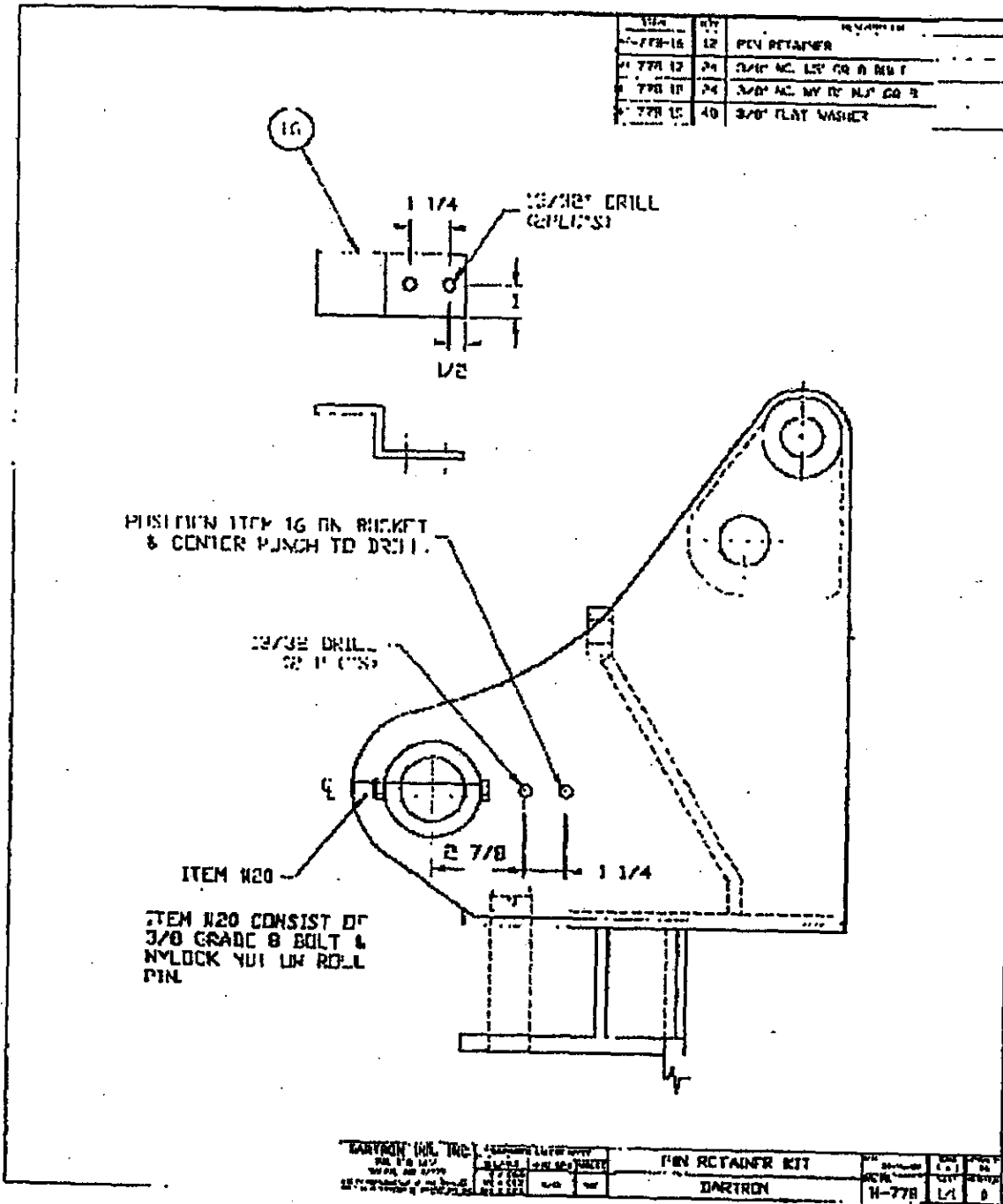
Attachment I shows the pin retainers that must be bolted to both sides of the car buckets that are attached to the end of the sweeps on all Hurricanes. With the pin retainers in place the shaft will be retained in position in the sweep even without the proper functioning of the pin locating bolt. Using an electric drill, drill 1 hole in both sides of the sweep bucket. The location of these holes is shown in Attachment I at 2 7/8". Bolt the pin retainers on with one bolt so that the tab of the retainer covers the end of the bucket pin. Now use the retainer as a jig to drill through, for the lineup of the second 3/8 hole. Bolt the retainer in place using grade 8 bolts, grade 8 nyloc nuts and flat washers, as called out in the material list in Attachment I. Insert the bolt from the inside to the outside of the bucket. Place the nyloc nut on the outside face of the bucket so it can be easily inspected. Torque to 40 ft lbs. The flat washers are located under the bolt head and under the nyloc nut.

### Material required:

Contact Steve Jones at Dartron who will supply the 12 pin retainers at no cost. The Hurricane owners must supply the exact hardware shown on the material list found below.

**Inspection required:**

Daily inspection of the buckets are required. The inspection must insure that (1) the sweep end pin is lubricated (2) the pin locating bolt is in place and functioning properly (3) both pin retainers are securely bolted to the sides of the bucket.



**DARTRON INDUSTRIES INC.**

2725 19th Street S.E. PO Box 13114 Salem, Oregon 97309

**DARTRON INDUSTRIES  
INC.**

April 19, 1999

Mr. Henry Dombroski  
Henry T Cole Shows  
670 N Broad  
West Hazelton, PA. 18201

Dear Henry:

Dartron recently sent out Hurricane bulletin SR-5H-901. The bulletin stated a necessary safety addition to the car bucket, called a pin retainer.

The bulletin did not state a completion date to install the pin retainers. This letter gives the date of June 30, 1999 to complete the change.

If there are any questions please give Steve Jones or myself a call.

Sincerely,

*Bob Coil*

J. Robert Coil, President

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		Release Date:	May 22, 2000
		Effective Date:	May 22, 2000
		Supercedes:	N/A
		Completion Date:	August 1, 2000
		Page	1 of 2

# SAFETY ALERT

<b>Ride Manufacturer:</b>	Man-Co Mfg., Inc. Dartron Industries, Inc.	<b>Affected Production Dates</b>	1988 through 1999
<b>Ride Name:</b>	Hurricane	<b>Affected Serial #'s:</b>	All
<b>Model Number:</b>	All		

**Reason For Release:** It may be possible for a passenger in the back seat to release one or both passenger restraints by using a foot to maneuver the restraint release linkage rod.

**Abstract of Issue:**

A shield provided by Dartron should be bolted to the car floor in such a manner that the rod is shielded from the hands and feet of passengers in the back seat of the car.

**Action to be Taken:** A shield manufactured by Dartron **MUST BE** installed over the rear seat restraint release linkage rod by owners of Hurricane rides manufactured by Man-Co and Dartron.

**Installation**

Using the holes in the shield flange as templates, drill 2 holes 17/64" dia. through the floor of the car. Install bolts, washers, and locking nuts as shown below. Tighten bolts to no more than 100 in lbs of torque. **CAUTION:** Do not over-tighten nuts. They should be snug and not dimple fiberglass. **(SEE ATTACHED DRAWINGS)**

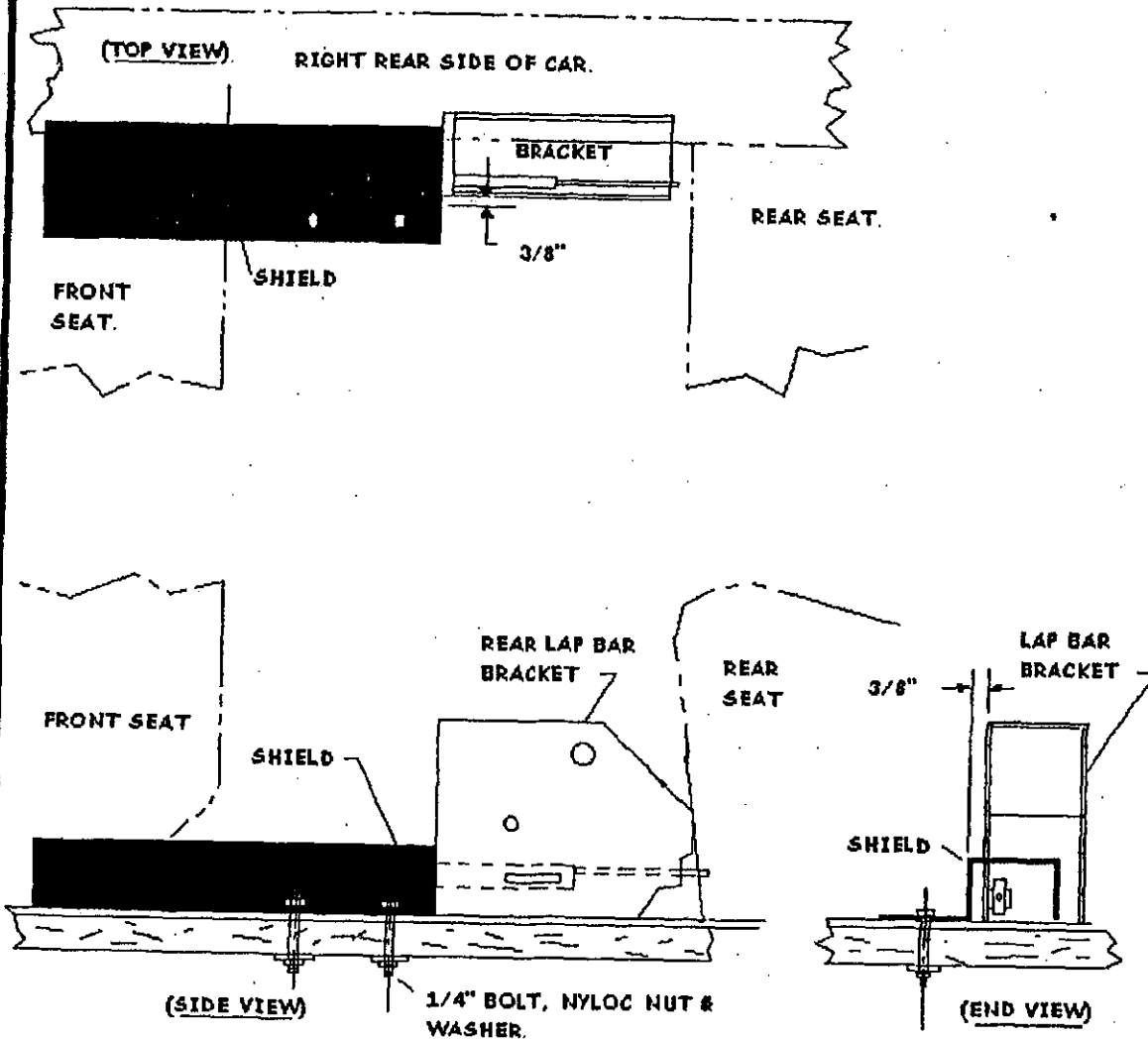
**Hardware**

Qty	Size	Description
2	1/4 x 1 3/4"	Bolts
2	1/4"	Washers
2	1/4"	Nyloc locking nuts

**To Obtain Material:**

Contact Steve Jones at Dartron Parts & Service. Parts will be shipped to your location. The cost will be \$70.00

SAFETY ALERT  
BULLETIN # SR-SH-005  
PAGE 2 OF 2



POSITION THE SHIELD SO THAT IT IS AGAINST THE REAR LAP BAR BRACKET AND 3/8" OUT FROM THE FACE OF THE BRACKET. (AS SHOWN ABOVE)

<i>Dartron Industries, Inc.</i>	P.O. Box 13114	Bulletin #	SR - 5H - 004
	Salem, Oregon 97309	Release Date	June 1, 2000
	Phone: 503-362-2341	Effective Date	August 1, 2000
	Fax: 503-362-2536	Supersedes	Owner's Manual
		Completion Date	August 1, 2000
		Page	1 of 1

# SAFETY ALERT

<b>Ride Manufacturer:</b>	Dartron Industries, Inc.	<b>Affected Production Dates</b>	1992 thru 1999
<b>Ride Name:</b>	Hurricane	<b>Affected Serial #'s:</b>	All
<b>Model Number:</b>	N/A		
<b>Reason For Release:</b>	Dartron has changed the height requirements for riders and the signage requirements for operators for all Hurricanes manufactured by Dartron.		
<b>Detail of Issue</b>	<b>HEIGHT REQUIREMENTS</b>		

- 1) Height must be 46" or above to ride unaccompanied.
- 2) Height of 42" and above but under 46" can ride only if accompanied by a mature and responsible person who rides in the same seat.
- 3) Height below 42" cannot ride the Hurricane under any circumstances.

### SIGNAGE REQUIRED

At all times when the Hurricane is operating, signage including the information below and height requirements must be 'posted in a manner that it is clearly visible and easy to read by guests before they enter the ride. This signage can include additional restrictions or warnings but must include the following:

#### Restrictions on Riders

##### **Guests Are Advised This Activity May Include:**

Strong Centrifical Forces  
Rapidly Changing Heights

##### **To Participate You Must Be In Good Health And Free From:**

Heart Ailments • Back Disorders • Neck Disorders • Pregnancy • Seizures  
Dizziness • Motion sickness • Other Physical Ailments Which May Be Aggravated By The Motion Of This Ride.

##### **It Is Necessary That You:**

Remain in the seated position while in the passenger car.  
Do not extend your hands and arms over the sides of the car.  
Enter and exit this activity slowly and carefully.  
Be aware that the walking surfaces may be slippery.  
Watch where you are walking to avoid tripping on any uneven surface.

##### **You Should Not Participate If You Are Under The Influence Of:**

Drugs, Alcohol, and/or Prescription Medication  
Physically Or Mentally Challenged Guests May Not Find This Activity Suitable.



# Dartron

INDUSTRIES, INC.

August 4, 2004

Mr. Al Rechk  
New Jersey  
Ride Safety Inspector Division

Re: Hurricane Bulletin # SR-5H-903

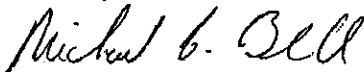
This letter is to clarify the procedure to visually inspect the car bucket pin retainer if it is found to be a roll pin.

1. You must be able to see through the roll pin. Remove grease, dirt, paint, etc with a small screwdriver or other device until the hollow center of the roll pin can be inspected. The center of the roll pin needs to appear to be a straight hole with no bends or obvious deformations.
2. The ends of the roll pin that are in the boss on the car bucket need to appear to be in alignment with the bore of the roll pin as it continues through the car bucket pin.

Dartron Industries considers that a roll pin that meets these two conditions to be correct and suitable for use. If the conditions stated in steps 1 or 2 are not met, the roll pin must be removed and replaced with the 3/8 grade 8 bolt described in the bulletin. Misalignment of the retainer pinholes between the boss on the car bucket and the sweep endpin can sometimes occur. This can be corrected by reaming the holes into alignment with a 3/8-drill bit.

Dartron Industries does not require that all six-pin retainers be upgraded to 3/8 bolts if repairs have to be made on an individual car bucket.

Sincerely,



Michael G Bell  
Technical Coordinator

FACSIMILE TRANSMITTAL SHEET

TO: *Al Reiche* FROM: *Rick Bell*  
 COMPANY: *New Jersey Ride Inspector* DATE: *8-4-04*  
 FAX NUMBER: *609-984 7084* TOTAL NO. OF PAGES INCLUDING COVER: *2*

RE: YOUR REFERENCE NUMBER:

URGENT     FOR REVIEW     PLEASE COMMENT     PLEASE REPLY     PLEASE RECYCLE

NOTES/COMMENTS:

*Clarification requested for our bulletin  
 #SR-5H-903*

*732-928-8493*