



**CHANCE**  
MANUFACTURING CO., INC.

Number: 56

Date: 7-23-73

Supersedes:

Number:

Date:

America's Largest Manufacturer of Amusement Rides

# Service Information

Effective Serial Numbers:

Ride: ZIPPER

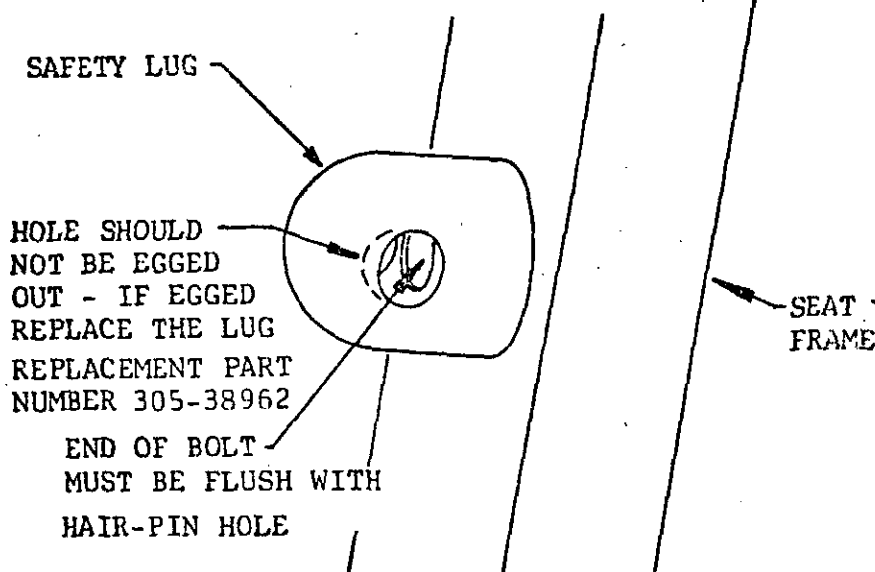
Subject: SEAT SAFETY LUG BOLT CHECK

## URGENT

Because of a recent condition found on one ZIPPER Ride, we are urging all owners to check the "Safety Lug" Bolts on the seats. The "Safety Lugs" are bolted to the seat frame. It is possible when replacing the Safety Lugs to use a bolt of insufficient length. Should this happen, the shorter bolt will only have a few threads gripping the Safety Lug. These few threads could be stripped and the Safety Lug come off. This only leaves the spring latch to hold the door which is sufficient unless the latch is sprung out.

The Safety Lugs and bolts can be inspected while still mounted on the car frame.

Remove the hair pin and open the car door. Using a flashlight or Trouble Light, etc., look into the hole in the Safety Lug where the hair pin goes through. The end of the bolt should be visible in the center of the lug.



Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277

Area Code (316) 942-7411

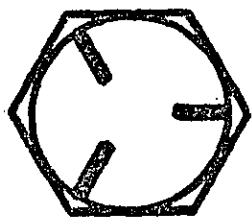
Sales Office:

1103 Ross Ave., Dallas, Texas 75202

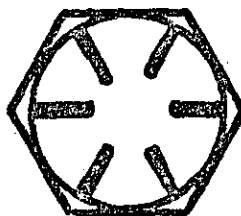
Area Code (214) 742-3802

Next, check the grade of the bolt by using the identifying marks on the bolt head.

If the bolt has at least 3 marks on head, it is at least a Grade 5 bolt and is okay.



GRADE 5 BOLT Notice head has three raised marks.



GRADE 8 BOLT Head has six raised marks.

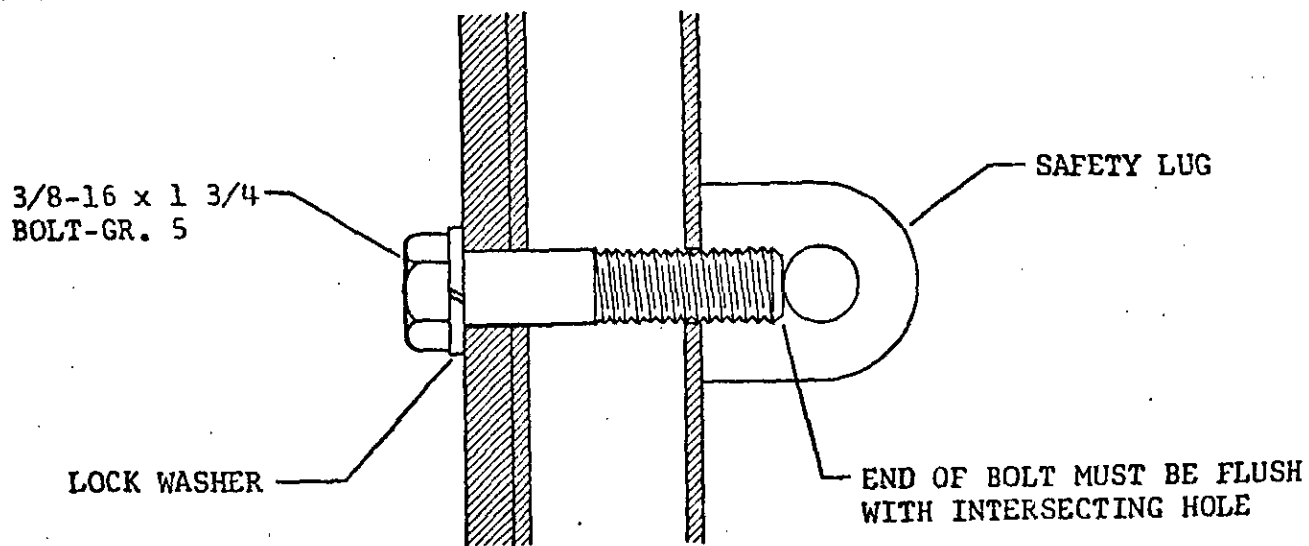
#### IMPROPER BOLT

If the end of the bolt is not visible or is of insufficient grade, it must be replaced.

Remove and discard old bolt. Inspect threads in Safety Lug. If threads appear to be stripping or rounding off, replace the lug and bolt. If threads are okay, replace the bolt. The proper bolt should be a 3/8-16 x 1 3/4 inch long bolt of at least a Grade 5.

#### WARNING

Do not substitute ordinary hardware store bolts, as these are usually only about a Grade 3.



#### SPRING DOOR LATCH

While inspecting the Safety Lug, also check the regular latch. Make sure Spring Latch is not sprung out. The latch must come over the striker plate adequately, so the door cannot be opened without pulling back on the Spring Latch.

If the Spring Latches are sprung (bent out) do not attempt to remove and bend back into position.



Number: 58

Date: 7-25-73

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers:

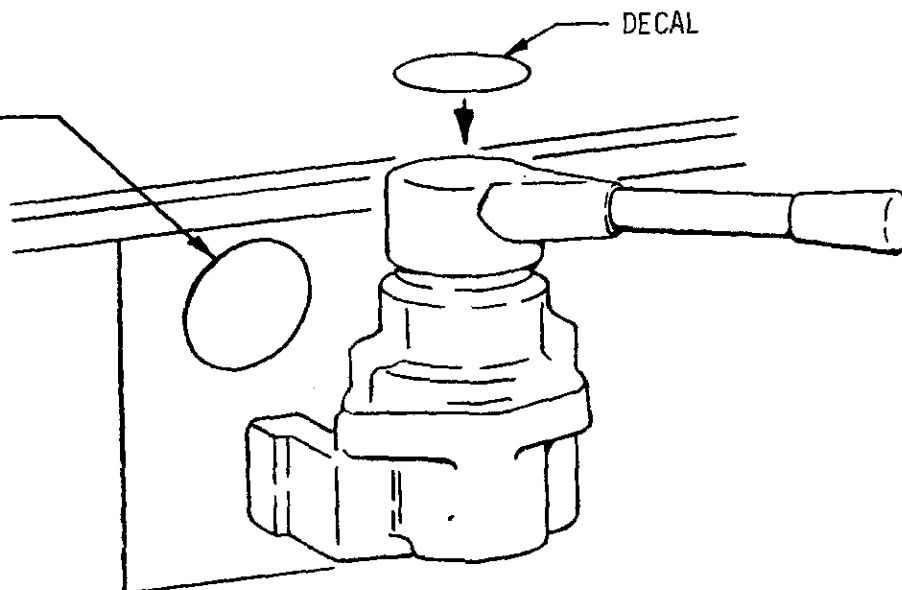
Ride: ZIPPER - ELECTRIC DRIVE ONLY      Subject: DECAL INSTALLATION

Enclosed with this sheet are two small self-stick decals. The decals say "Holding Brake Only". One decal is to be applied to the side of the parking brake. The decal is cut to fit over the area that reads "Not for Parking". The brake system is designed to hold the ride still only after it is stopped. Do not use the brakes to stop the ride.

Apply the decal to the brake valve, making sure the surface is clean, especially free from grease or oil. A non-oil base solvent such as alcohol or paint thinner is a good thing to use to assure a clean surface.

Attach the second decal to the mounting bracket or fence near the valve where the ride operator can easily see it. Again, make sure the surface is clean.

SECOND DECAL  
POSITION SO IT IS  
EASY TO READ



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**CHANCE**  
MANUFACTURING CO., INC.

Number: 142

Date: 8-26-77

Supersedes:

Number:

Date:

America's Largest Manufacturer of Amusement Rides

# Service Information

Effective Serial Numbers:

Ride: ZIPPER

Subject: SEAT DOOR LATCH

## URGENT

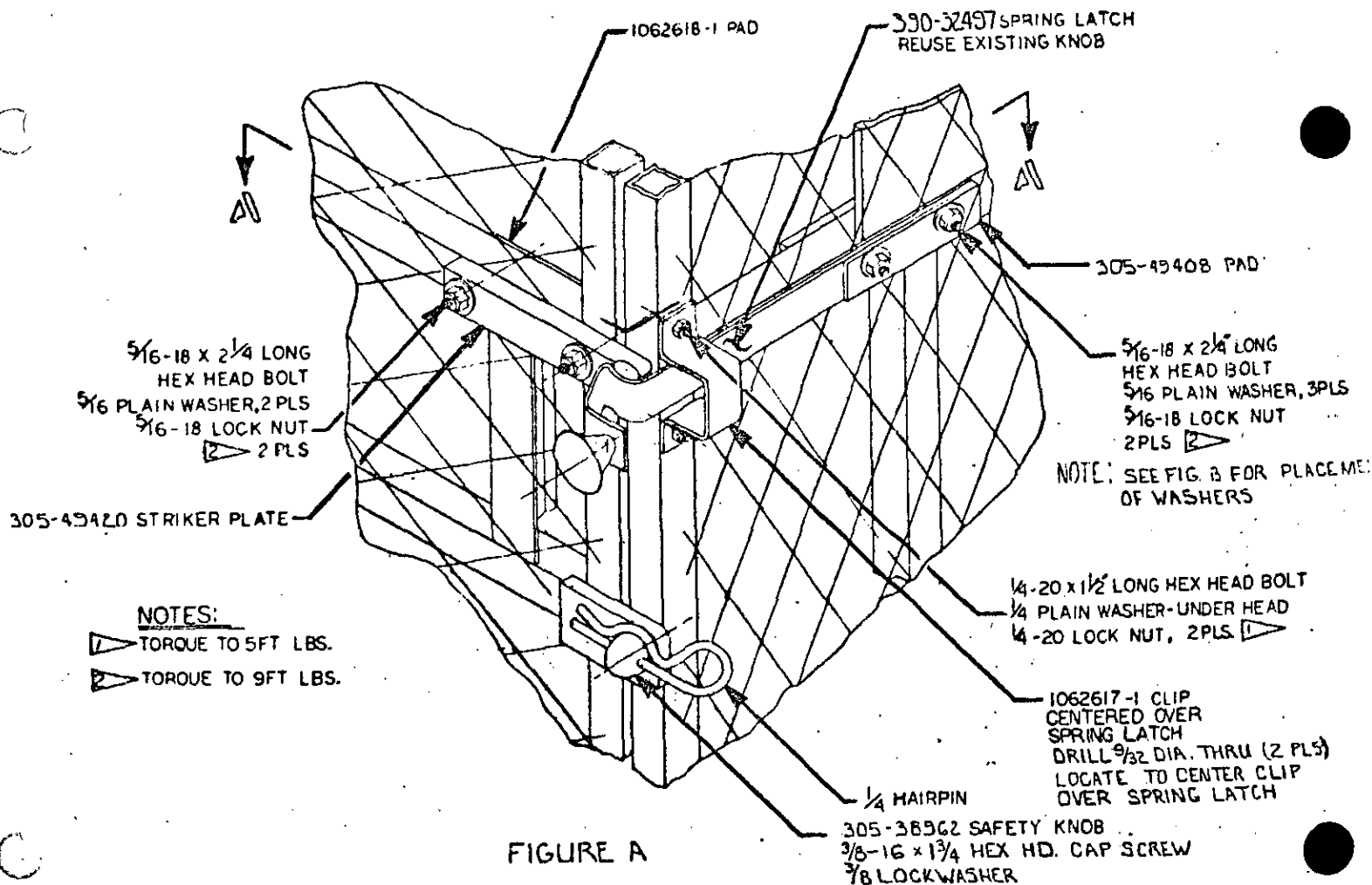
Recently there have been two tragic accidents involving the ZIPPER Ride in which the door came open, throwing out the passengers. Our investigations revealed that both the spring latch and the hairpin latch were in working condition when we arrived at the rides. It appears both accidents were caused by operator error.

These accidents triggered the temporary cancellation of public liability insurance for all ZIPPER Rides covered by the Empire Fire and Marine Insurance Company. Upon consultation with their representatives, they agreed to re-instate coverage, provided all operators were notified to inspect their existing latches and instruct their ride operators to make sure the door was completely latched and the hairpin installed before starting the ride in motion.

Chance Manufacturing agreed to make a seat latch kit available to all ZIPPER owners which is illustrated in this bulletin.

# PARTS REQUIRED (PER SEAT)

QUANTITY	PART DESCRIPTION	PART NUMBER
-	Complete Kit	305-38802
1	Spring Latch	390-32497
1	Pad	305-49408
2	Bolt	5/16-18 x 2 1/4"
6	Flat Washer	5/16
2	Lock Nut	5/16 x 18
1	Clip	1062617-1
2	Bolt	1/4-20 x 1 1/2"
2	Flat Washer	1/4"
2	Lock Nut	1/4-20
1	Safety Knob	305-38962
1	Cap Screw	3/8-16 x 1 3/4"
1	Lock Washer	3/8"
1	Hair Pin	1/4"
1	Striker Plate	305-49420
1	Pad	1062618-1
2	Bolt	5/16-18 x 2 1/4"
2	Flat Washer	5/16
2	Lock Nut	5/16-18



It is recommended that all ride owners install a new seat latch kit on their ride every year to help insure the safe operation of their ZIPPER.

Ride operators must be instructed to check all spring latches and hairpin latches daily. The spring latch reset must overlap the stricker plate by  $\frac{3}{4}$ ". (FIGURE B) The hair pin must have no more than  $\frac{1}{16}$ " clearance when it is in a relaxed position. (FIGURE C) The hair pin must also have a minimum release point of 8 pounds on a straight pull. A record should be kept of each inspection.

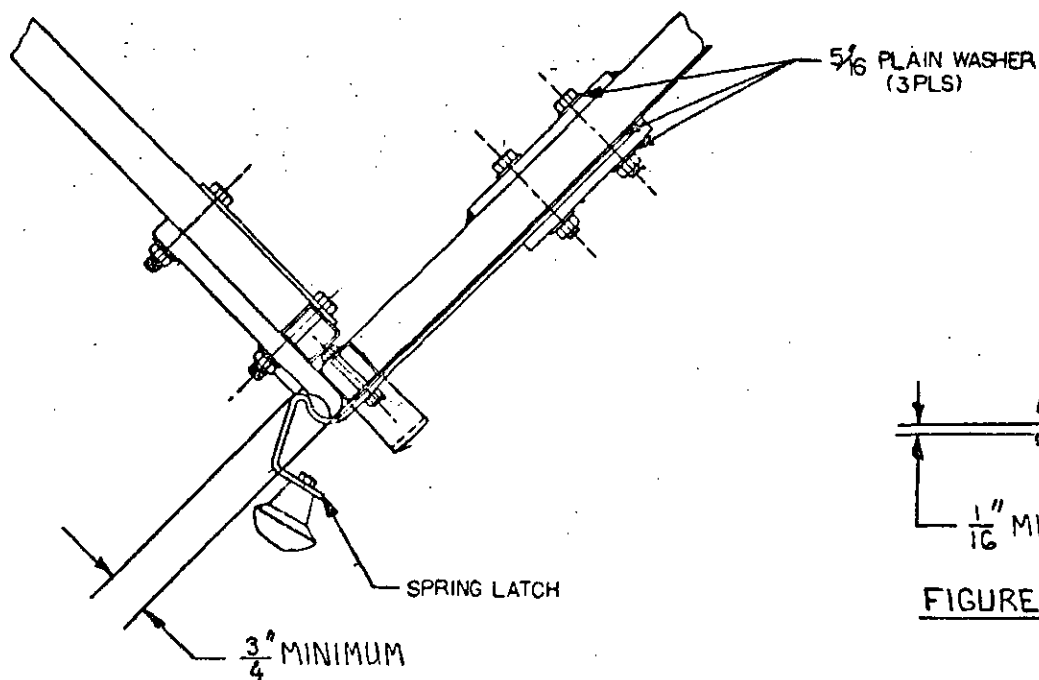


FIGURE B

FIGURE C

IN NO EVENT SHOULD THE RIDE BE OPERATED IF EITHER ONE OF THE LATCHES IS NOT IN GOOD WORKING ORDER.



**CHANCE**  
MANUFACTURING CO., INC.

Number: 05-142A

Date: 12-2-77

Superceeds: #142/8-26-77

Number: #56/7-23-73

Date: 12-2-77

America's Largest Manufacturer of Amusement Rides

# Service Information

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER

Subject: SEAT DOOR LATCH

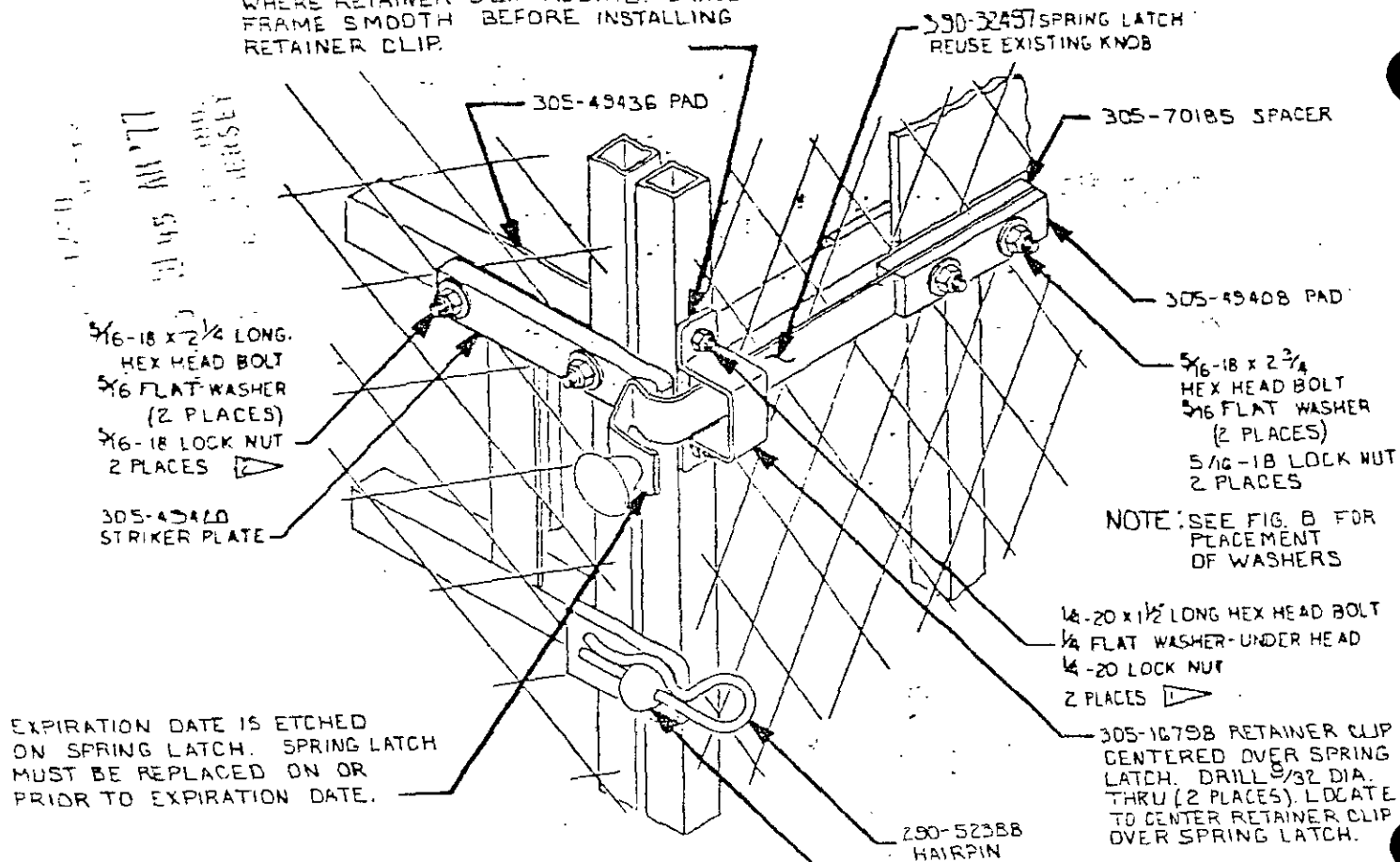
Service Information bulletins number 142 and 56, having been superceded-  
by this bulletin, are no longer in effect and should be destroyed.

Before installing this kit, read the instructions completely and familiarize  
yourself with the parts listed below.

If you have any questions concerning the installation of this kit, please notify  
Chance Manufacturing for assistance.

<u>QUANTITY</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
-	Complete Kit	305-38802
1	SERVICE INFORMATION BULLETIN	05-142-A
1	Spring Latch	390-32497
1	Pad	305-49408
1	Spacer	305-70185
2	Bolt-Grade 5	5/16-18 x 2 3/4"
4	Flat Washer	5/16
2	Lock Nut	5/16 x 18
1	Retainer Clip	305-16798
2	Bolt-Grade 5	1/4-20 x 1 1/2"
2	Flat Washer	1/4"
2	Lock Nut	1/4-20
1	Safety Knob	305-38962
1	Cap Screw-Grade 5	3/8-16 x 1 3/4"
1	Cap Screw-Grade 5	3/8-16 x 2"
1	Lock Washer	3/8"
1	Hair Pin	290-52388
1	Striker Plate	305-49420
1	Pad	305-49436
2	Bolt-Grade 5	5/16-18 x 2 1/4"
4	Flat Washer	5/16
2	Lock Nut	5/16-18
1	Certification of Compliance	---

REMOVE EXPANDED METAL FROM FRAME WHERE RETAINER CLIP MOUNTS. GRIND FRAME SMOOTH BEFORE INSTALLING RETAINER CLIP.



#### Notes:

1 Torque to 7 ft. lbs.

2 Torque to 15 ft. lbs.

3 Torque to 27 ft. lbs.

IF TORQUE WRENCH NOT AVAILABLE SNUG ALL NUTS IN GROUP AND THEN TURN 1/2 TURN

FIGURE A

### INSTALLATION INSTRUCTIONS

Remove and discard all the parts replaced by this kit.

#### STRIKER PLATE INSTALLATION

Install the 305-49420 Stricker Plate and 305-49436 Pad on the door. Position the Stricker Plate as shown in figure B. Torque attaching bolts to 15 ft. lbs.

#### SPRING LATCH INSTALLATION

Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (1/2" thick) Pad onto the two bolts. Install a flat washer and lock nut on each bolt. Center the spring Latch on the Stricker Plate and torque the bolts to 15 ft. lbs. Attach the knob from the discarded Spring Latch to the new Spring Latch.

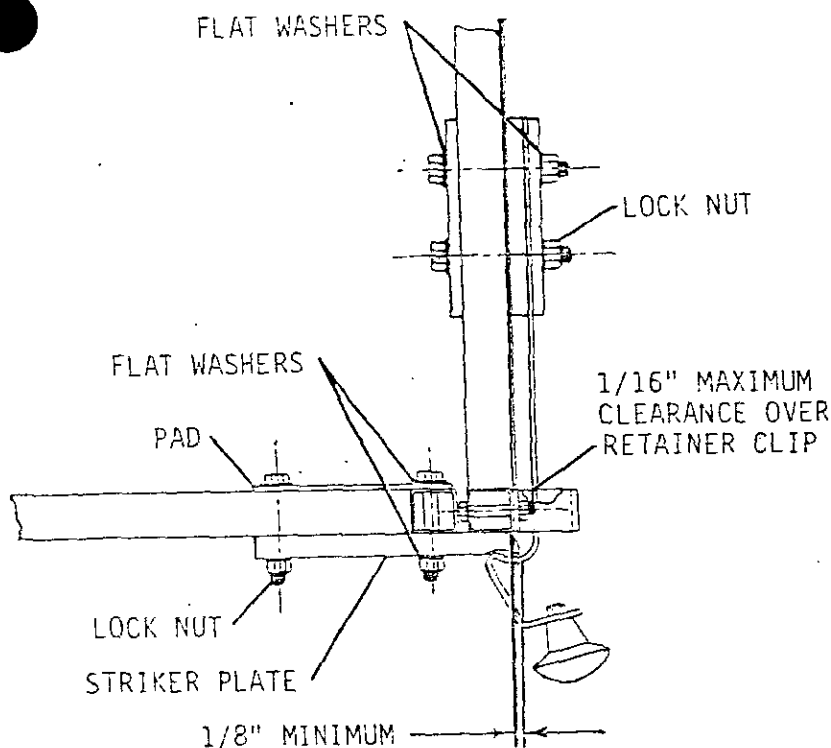


## RETAINER CLIP INSTALLATION

Center the 305-16798 Retainer Clip over the 390-32497 Spring Latch and the frame. Drill two 9/32 diameter holes through the frame to match the Retainer Clip. Install two bolts with flat washers under heads. Place lock nuts on bolts and torque to 7 ft. lbs.

## SAFETY KNOB INSTALLATION

Inspect the seat frame where cap screw attaches the 305-38962 Safety Knob. On seat frames which have a pad on the inside of the frame only, use a 3/8-16 x 1 3/4" grade 5 cap screw. (FIGURE C) On seat frames which have a pad on both the inside and the outside of the frame, use a 3/8-16 x 2" grade 5 cap screw. (FIGURE D) Install the proper length cap screw, with lock washer under head, through the frame. Attach the Safety Knob and torque the cap screw to 27 ft. lbs.



When installed, the striker plate should extend a minimum of 1/8" beyond the edge of the frame.

FIGURE B

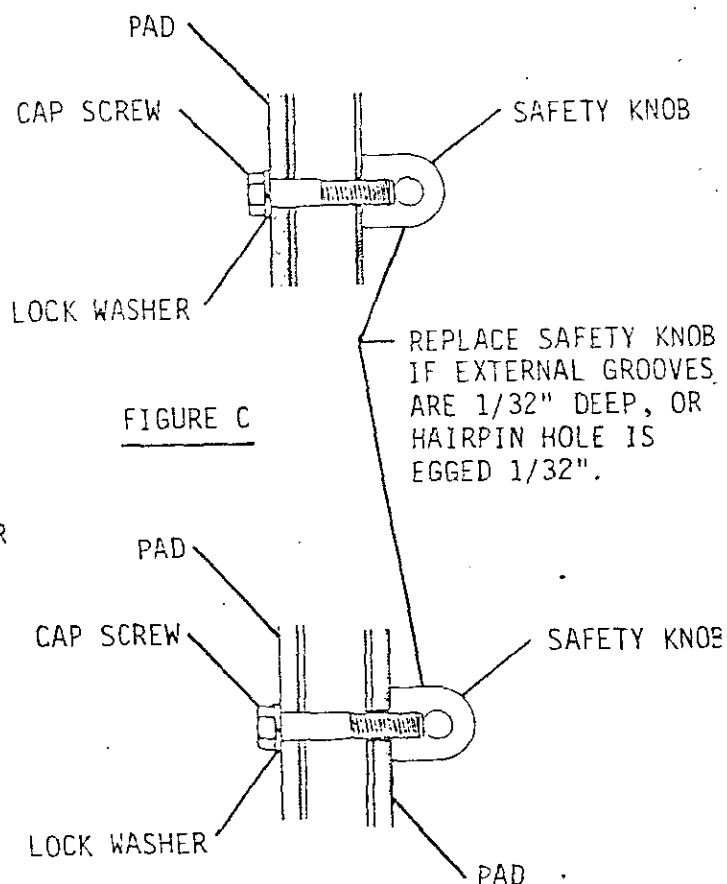


FIGURE C

FIGURE D

## INSPECTION INSTRUCTIONS

### SPRING LATCH INSPECTION

The 390-32497 Spring Latch on each seat must be checked daily. The Spring Latch must be centered on the 305-49420 Striker Plate and should clear the base of the 305-16798 Retainer Clip no more than  $1/16$ " as shown in figure B thus insuring adequate overlap of Spring Latch and Striker Plate and preventing the door from opening unless released by pulling on Spring Latch knob. Spring Latches which clear the base of the Retainer Clip more than  $1/16$  should be replaced immediately and the seat not used until this has been done. (FIGURE B) Do not attempt to straighten or repair the Spring Latch in any way. Each Spring Latch must be replaced on or before the expiration date (month and year) etched at the knob end.

### RETAINER CLIP INSPECTION

The 305-16798 Retainer Clip acts as both a centering device to insure that the 390-32497 Latch Spring is centered on the 305-49420 Striker Plate, and a stroke limiting device to prevent over stroking of the Spring Latch. Cap screws should be retorqued if found loose and replaced if they cannot be tightened to 7 ft. lbs.

### SAFETY KNOB INSPECTION

If the hair pin hole in the 305-38962 Safety Knob becomes egged  $1/32$ , or external grooves in knob are  $1/32$  deep, replace knob immediately and do not use seat until this has been done. If the Safety Knob can be moved in any way, tighten cap screw to 27 ft. lbs. or if torque wrench is not available, snug the cap screw and turn  $1/2$  turn. If this does not cure looseness, replace cap screw and lock washer or knob until tightness is accomplished. Do not use seat until this has been done.

### HAIR PIN INSPECTION

The hair pin must have no more than  $1/16$ " clearance when it is in a relaxed position. (FIGURE E) The hair pin must also have a minimum release point of 8 pounds on a straight pull.

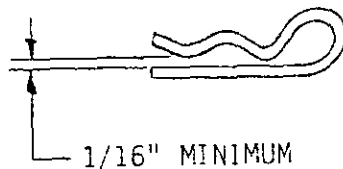


FIGURE E

IN NO EVENT SHOULD THE RIDE BE OPERATED IF EITHER ONE OF THE LATCHES IS NOT IN GOOD WORKING ORDER.

A record should be kept of each inspection and each part replacement.

NOTE: If it is necessary to replace any bolts or cap screws, refer to "REPLACEMENT OF BOLTS" page 3-3 of the Zipper Operations Manual.

The attached CERTIFICATION OF COMPLIANCE must be completed and returned to Chance Manufacturing Company, Inc., within seven (7) days of receipt of kit.



Number: 05-160

Date: 5-23-78

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

## SERVICE BULLETIN

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER

Subject: CROSS CABLES

It has been brought to our attention that some Zipper rides are being operated without the cross cables being used. These cross cables are important parts in that they affect the performance of the ride. At no time should less than three sets of cross cables be used. Failure to use the cross cables properly could result in major repair expenses.

If cross cables are not being used because they have broken, the cause of their breaking must be found and corrected.

Cross cables are used to help compensate for a small amount of misalignment in the seat support axles. If the misalignment becomes too severe the cross cables will break. Misalignment of the seat support axles will also result in rapid wear of the seat support axle wheels and binding or breaking of the wheel attaching bolts. Cross cables can also be broken if they are adjusted too tight or if they are twisted.

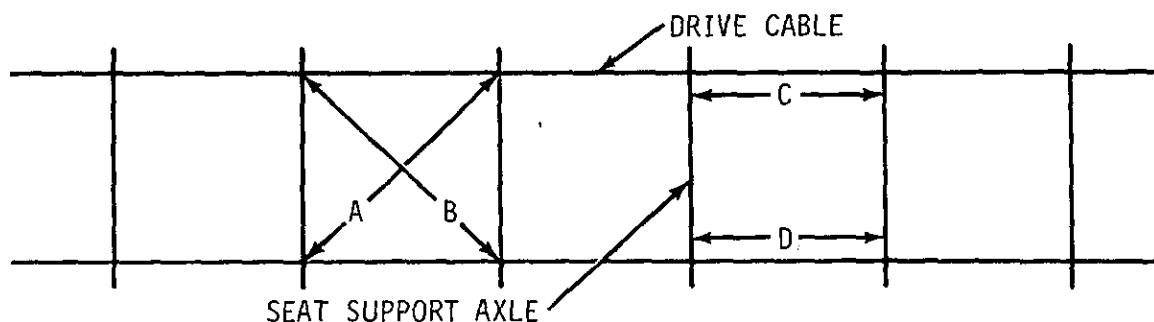


FIGURE A

Check the alignment of the seat support axles to see that they are square with one another. Measure and record the distance diagonally both directions (dimensions A and B) between common points on all of the seat support axles. (See Figure A) Measure and record the distance between all of the axles at common points parallel to the drive cables (dimensions C and D). If the C or D dimensions are not consistent, loosen the necessary U-bolt and move the seat support axle as required. Measurements and adjustments must be performed while the seat support axles are at a straight section of track and all of the cross cables have been removed.

If one of the drive cables has slipped the A dimensions will differ from the B dimensions, but the C and D dimensions will be the same. To correct this, install one cross rod at dimension A or B which ever is the longest (See Figure B) and tighten the cross rod. "Jog" the drive cables by running the cable drive first one direction and then the other for a few inches. Tighten the cross rod and repeat procedure until the A and B dimensions are the same.

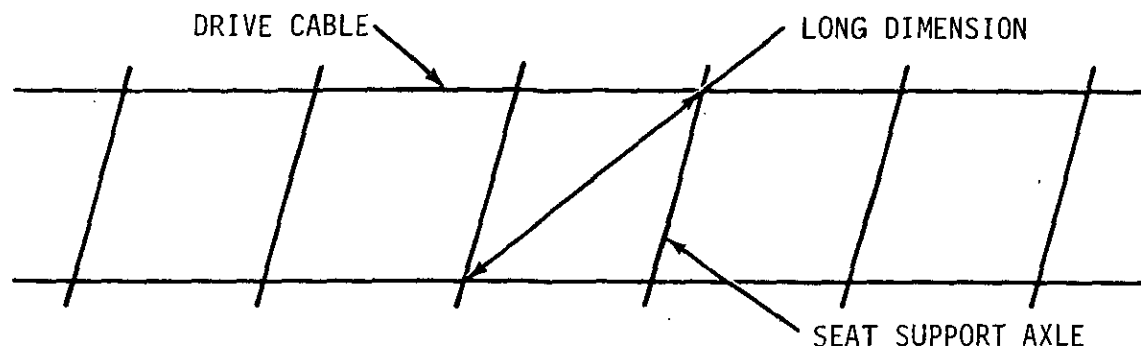


FIGURE B

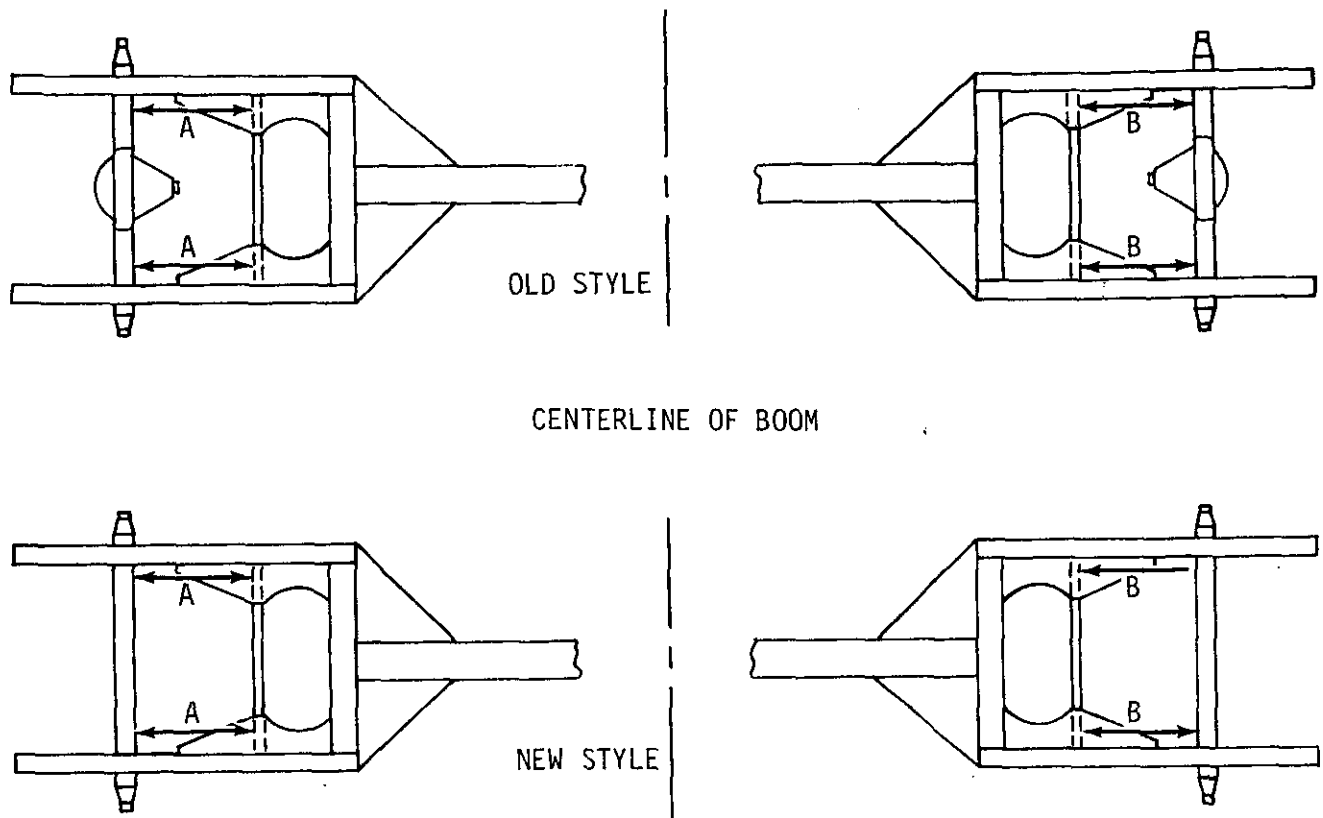
Misalignment of the seat support axles is commonly due to improperly adjusted sheave drive cables. Check the drive cables for proper adjustment before re-tightening the seat support axle U-bolts and installing the cross cables.

The drive cables are prestretched endless cables. There will, however, be some additional stretch as the cables are used. Because both cables will not stretch at the same rate, one cable will usually be longer than the other. If the longer cable is allowed to become too loose, it will slip on the drive sheave and allow the seat support axles to become misaligned.

The drive cables must be kept at the same length. If one cable becomes longer it will travel around the sheaves at a slower speed than the shorter one. The seat support axles and the cross cables will then "pull" the looser drive cable at the same speed as the tighter drive cable. This forces one of the cables to slip in the sheaves. The more difference there is in the lengths of the drive cables the more stress is put on the cross cables and the seat support axles. Both drive cables must be adjusted whenever either cable slips.

If one drive cable has stretched more than the other the C dimensions (See Figure A) differ from the D dimensions, but the A and B dimensions will be the same. This can be corrected by adjusting the sheave drive axles so that the shorter drive cable will stretch to the same length as the longer one.

Before adjusting the drive cables, check both sheave drive axles for alignment. Check each axle by measuring from a common point on the differential axle (old models) or the solid shaft axle (new models) to the first cross channel on the boom. (Fig. C ) The two dimensions must be the same on both sides of the same axle. Then compare the dimensions from both axles. There must be no more than one inch difference between the two axles.



BOTH A DIMENSIONS MUST BE THE SAME  
 BOTH B DIMENSIONS MUST BE THE SAME  
 THERE MUST BE NO MORE THAN ONE INCH DIFFERENCE  
 BETWEEN THE A AND B DIMENSIONS

FIGURE C

If after checking the adjustment of the drive axles, one of the drive cables appears loose, tighten that cable the minimum amount possible to prevent slippage.

When adjusting the drive cables always adjust the axle closest to the center line of the boom. This will keep the boom as closely balanced as possible. Always remove the cross cables and cross rods when making adjustments to the drive cables.

Both ends of the drive axle being adjusted must always be moved the same amount. The tighter of the two cables will stretch more than the other and in time both cables will achieve the same tension.

If the cables have been adjusted improperly and have become so different in length that both cables cannot be brought to the same length by running one slightly looser than the other, then new cables must be installed.

Refer to Zipper Operation Manual for instruction on adjusting main drive cable.

After the drive cables have been adjusted, check the seat support axles again for alignment and readjust if necessary. Tighten U-bolts so that the drive cable is drawn against the bottom of the recess in the seat support axle. Check the U-bolts for tightness after one days use and weekly thereafter.

When cross cables are reinstalled after the sheave drive cables have been adjusted or when the ride is set up adjust cross cables so that they are snug, but not overly tight. Adjustments must be made while the seat support axles are at a straight section of track. When adjusting the cross cable hold the terminal on the turnbuckle end of the cable while turning the turnbuckle. This will keep the cable from twisting. Twisted cables will coil as the tension is lessened when the seat support axles go around the end of the track. As the seat support axles enter a straight section of track, the cross cables are pulled tight. This will cause a coiled cable to kink and/or break.

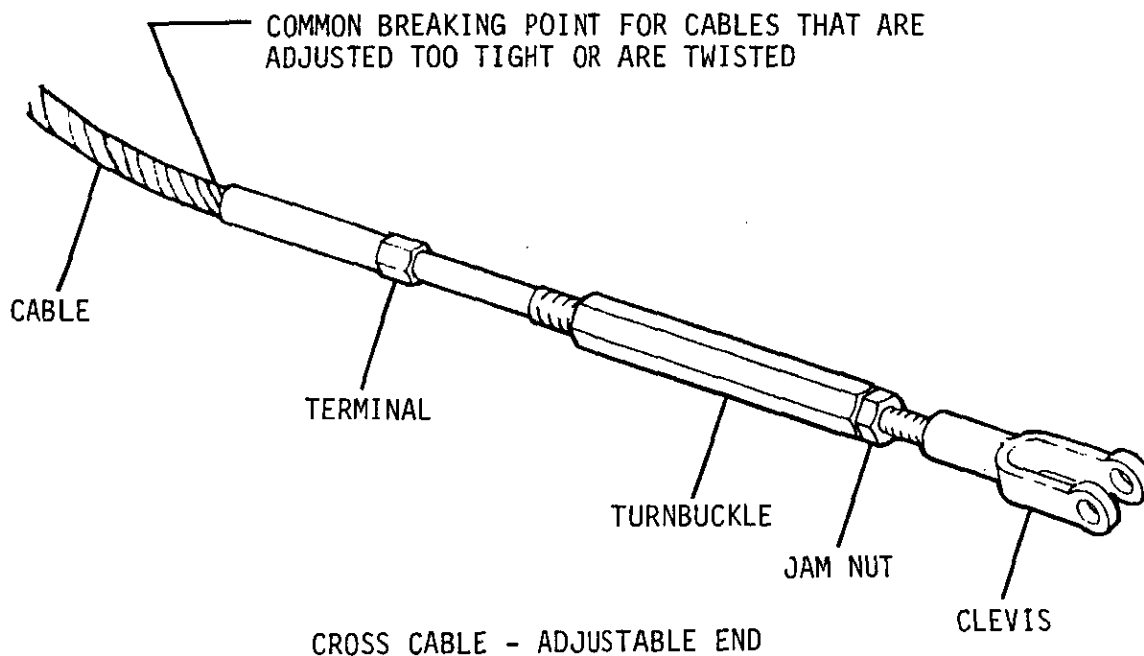


FIGURE D

Cross tie rods must be used when setting up or tearing down the ride to help keep the seat support axles in alignment during these operations.

All work must be done by competent qualified mechanics capable of understanding the function of the parts and their proper installation.

If you have any questions concerning the instructions in this Service Bulletin, please notify Chance Manufacturing for assistance.



Number: 05-157B

Date: 6-26-78

Supersedes: 05-157 (4-1-78)  
05-157A (6-12-78)

*America's Largest Manufacturer of Amusement Rides*

## SERVICE BULLETIN

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER

Subject: LAP BAR LATCH

Service Information Bulletins number 05-157 and 05-157A having been superceded by this bulletin, are no longer in effect and should be destroyed.

All work must be done by competent qualified mechanics capable of understanding the function of the parts and their proper installation.

Before installing this kit, read the instructions completely and familiarize yourself with the parts listed. Make certain all parts have been received. If any parts are missing, notify Chance Manufacturing Co. immediately. Do not substitute an inferior grade of material or part.

The attached CERTIFICATION OF COMPLIANCE must be completed and returned to Chance Manufacturing, Inc., within seven (7) days of receipt of kit.

If you have any questions concerning the installation of this kit, please notify Chance Manufacturing for assistance.

QUANTITY	PART DESCRIPTION	PART NUMBER
-	Complete Kit	305-38807
1	Service Information Bulletin	05-157B
6	Lap Bar Latch Assembly-Right Hand	305-39677
6	Lap Bar Latch Assembly-Left Hand	305-39678
	Lap Bar Latch Assemblies contain one each of the following:	
	Body (Pivot Weldment)	305-53024
	Handle (Latch Weldment)	305-14758
	Torsion Spring	205-72207
	Socket Head Shoulder Bolt	686-12215
	Hex Nut	691-47506
	Clevis Pin	290-51712
	SAE Washer	696-85370
	Cotter Pin	3/32"x1 1/2"
60	Bolt - Grade 5	1/4-20 X 2"
60	Lock Nut	1/4-20
12	Pivot Arm	305-02735
1	Certification of Compliance	P90-001/8-77

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## INSTALLATION INSTRUCTIONS

Discard all parts replaced by this kit.

Remove screening from area shown in FIGURE A.

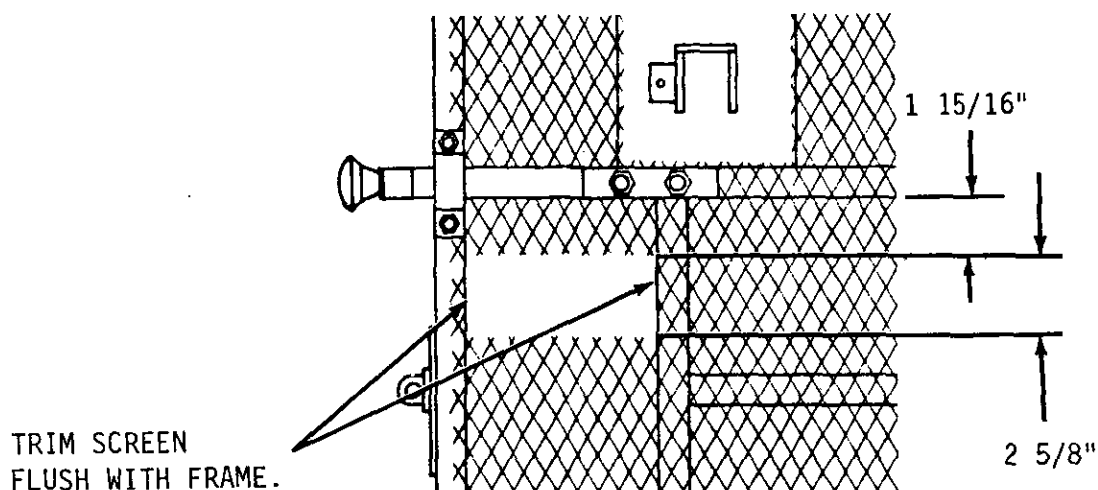


FIGURE A

Place the 305-39677 Lap Bar Latch in position as shown in FIGURE B. Use Lap Bar Latch as a pattern and drill the attaching holes through frame in 5 places using a 9/32\"

Attach Lap Bar Latch to frame with 1/4-20 X 1 3/4\" bolts and lock nuts. Insert bolts with 1/4\" flat washers under head and with nuts on the outside of the frame. Torque bolts to 72 inch pounds.

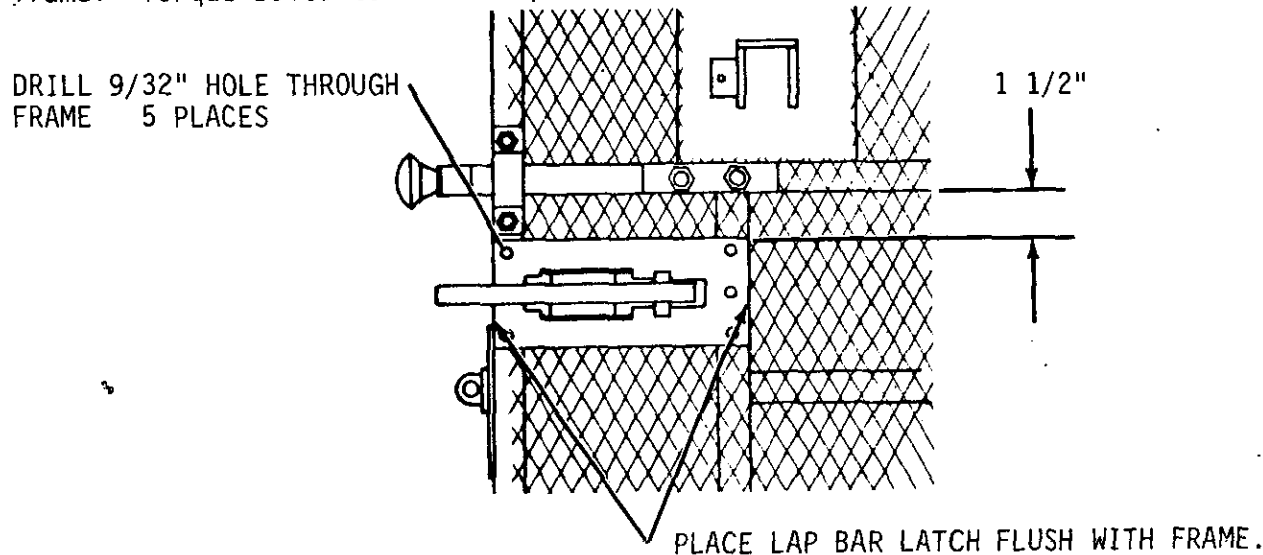


FIGURE B

Both right and left hand Lap Bar Latch included in this kit. Install Lap Bar Latch so that the heads of the Socket Head Shoulder Bolt and the Clevis Pin are on the top side of the Lap Bar Latch.

Remove cotter pins and clevis pins which secure Pivot Arm to the door and the Lap Bar Hinge. Remove old Pivot Arm and replace with new 305-02735 Pivot Arm. Install clevis pins and cotter pins.



DOOR SHOWN IN THE  
CLOSED POSITION

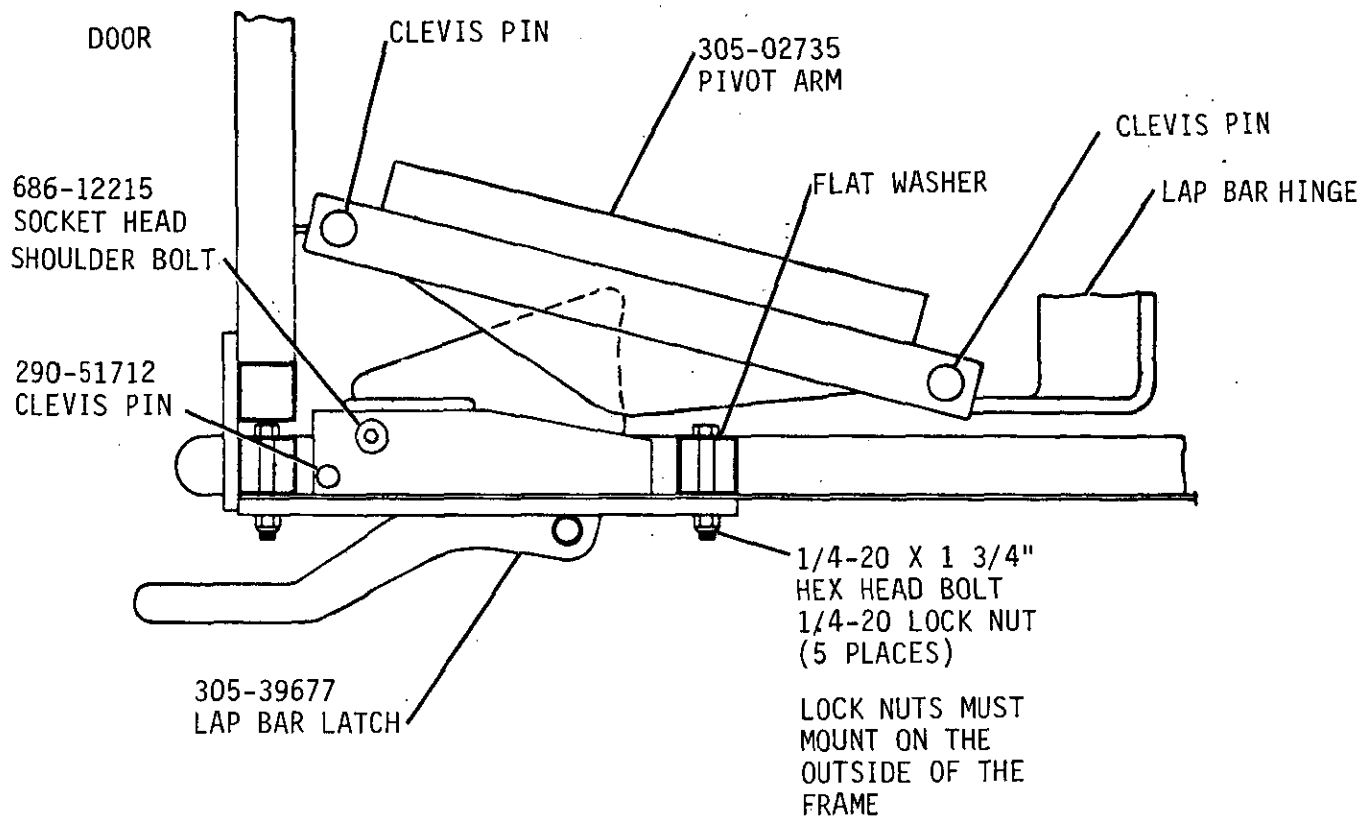


FIGURE C

Lap Bar Latch must overlap Lap Bar Hinge a minimum of 1/2".

DOOR SHOWN IN THE  
CATCH POSITION

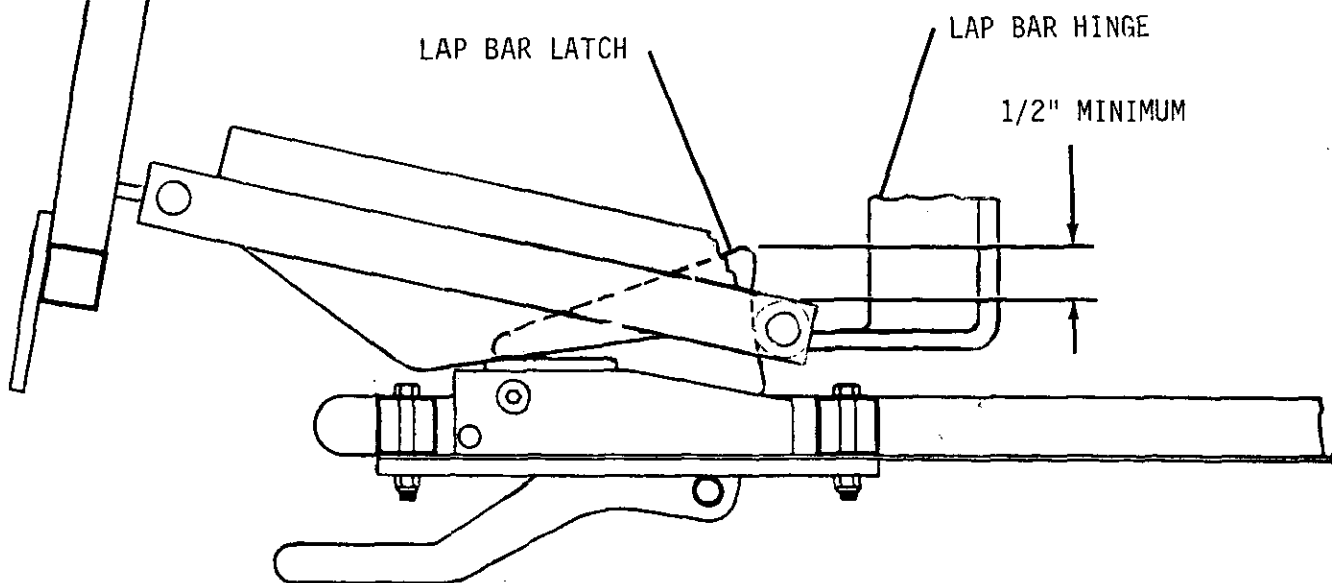
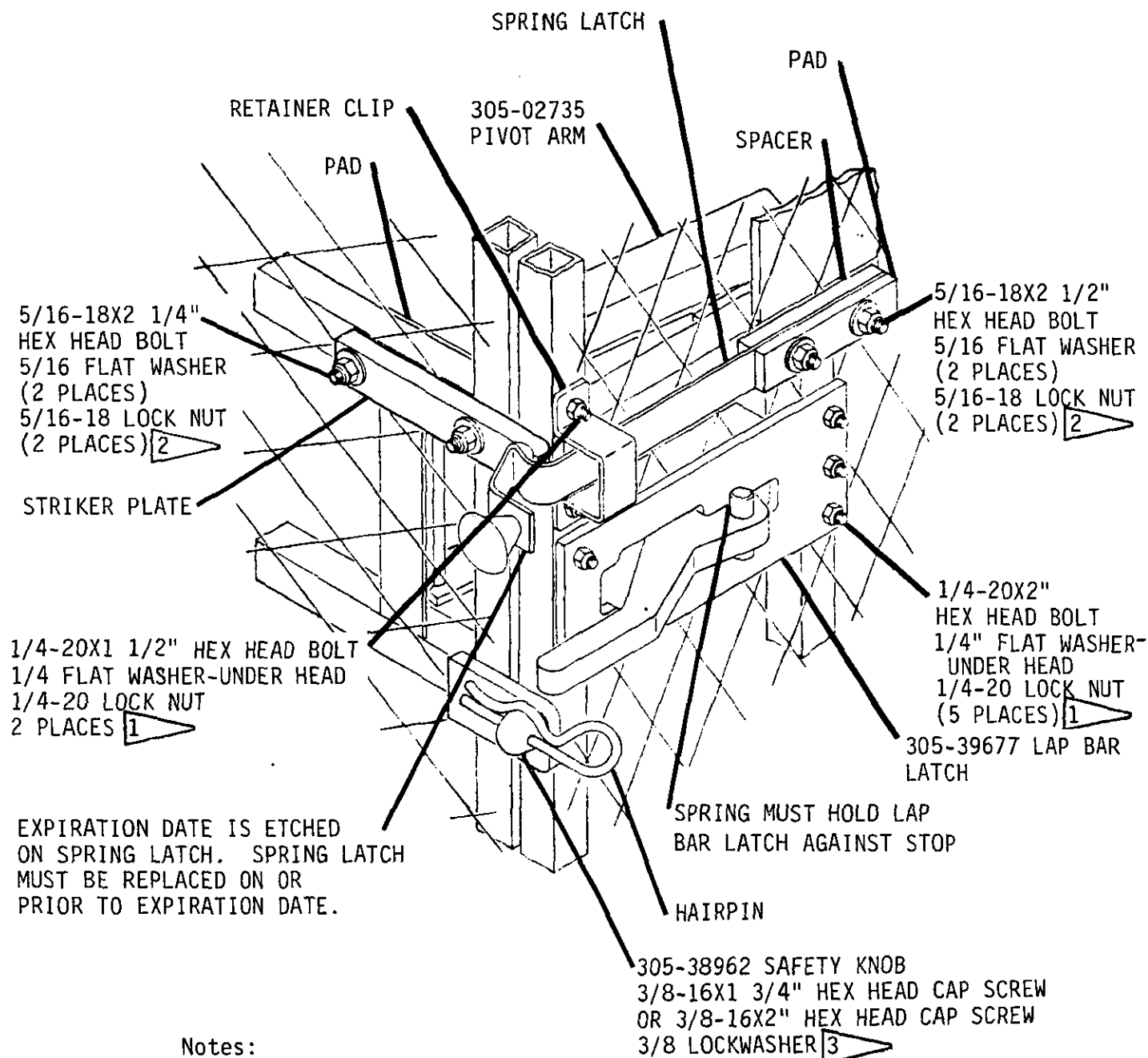


FIGURE D

## INSPECTION INSTRUCTIONS

The passenger securing system on each seat must be checked daily. A record should be kept of each inspection and part replacement.

IN NO EVENT SHOULD A SEAT BE USED IF ANY OF THE LATCHES ARE NOT IN GOOD WORKING ORDER.



IF TORQUE WRENCH NOT AVAILABLE SNUG ALL NUTS IN GROUP AND THEN TURN 1/2 TURN

FIGURE E

## LAP BAR LATCH INSPECTION

Move the 305-39677 Lap Bar Latch to the full open position then release the handle. The Lap Bar Latch should return to the full closed position against the stop. Open and close door and observe latch action. If the Lap Bar Latch fails to return completely replace the spring before the seat is used. Spring must be kept well coated with Loctite anti-seize lubricant number 767-64 or equivalent. Lap Bar Latch must move freely with no binding. Lap Bar Latch attaching bolts must be retorqued if found loose.

Inspect bolt which holds spring in Lap Bar Latch. If bolt is found loose, retorque to 11 ft. lbs. The clevis pin which provides a stop for the spring must have washer and cotter pin in place.

## LAP BAR HINGE INSPECTION

Inspect Lap Bar Hinge where it contacts the Lap Bar Latch. Replace Lap Bar Hinge if it is worn more than 1/8".

## SPRING LATCH INSPECTION

The 390-32497 Spring Latch must be centered on the 305-49420 Striker Plate and should clear the base of the 305-16798 Retainer Clip no more than 1/16" as shown in Figure F, thus insuring adequate overlap of Spring Latch and Striker Plate and preventing the door from opening unless released by pulling on Spring Latch knob. Spring Latches which clear the base of the Retainer Clip more than 1/16" should be replaced immediately and the seat not used until this has been done. (FIGURE F). Do not attempt to straighten or repair the Spring Latch in any way. Each Spring Latch must be replaced on or before the expiration date (month and year) etched at the knob end. Attaching bolts must be retorqued if found loose.

## RETAINER CLIP INSPECTION

The 305-16798 Retainer Clip acts as both a centering device to insure that the 390-32497 Latch Spring is centered on the 305-49420 Striker Plate, and a stroke limiting device to prevent over stroking of the Spring Latch. Cap screws must be retorqued if found loose.

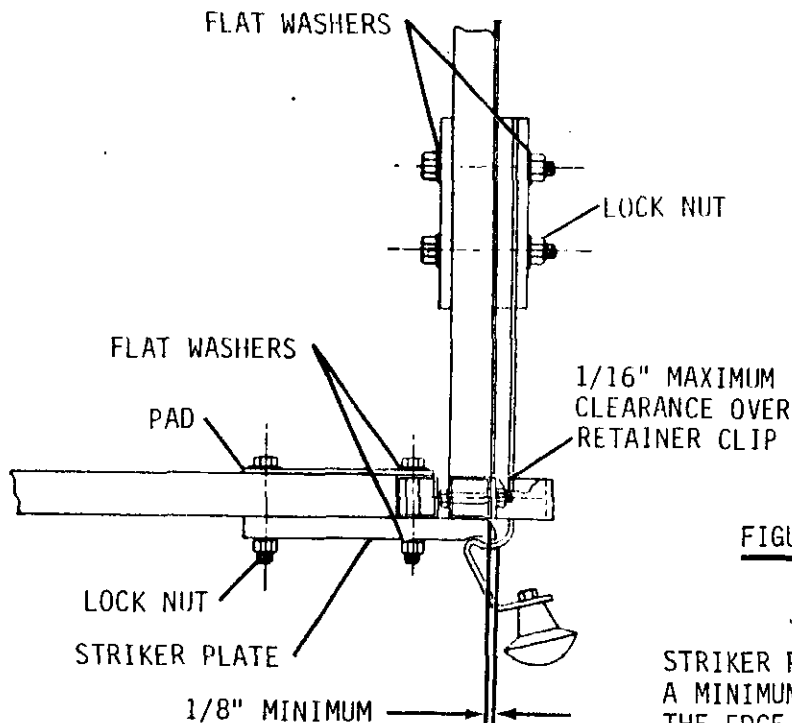


FIGURE F

STRIKER PLATE MUST EXTEND  
A MINIMUM OF 1/8" BEYOND  
THE EDGE OF THE FRAME.

## SAFETY KNOB INSPECTION

If the hair pin hole in the 305-38962 Safety Knob becomes egged  $1/32"$ , or external grooves in knob are  $1/32"$  deep, replace knob immediately and do not use seat until this has been done. If the Safety knob can be moved in any way, tighten cap screw to 24 ft. lbs. or if torque wrench is not available, snug the cap screw and turn  $1/2$  turn. If this does not cure looseness, replace cap screw and lock washer or knob until tightness is accomplished. Do not use seat until this has been done.

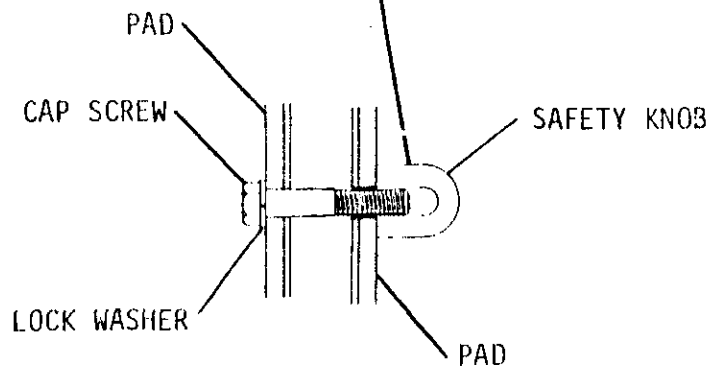
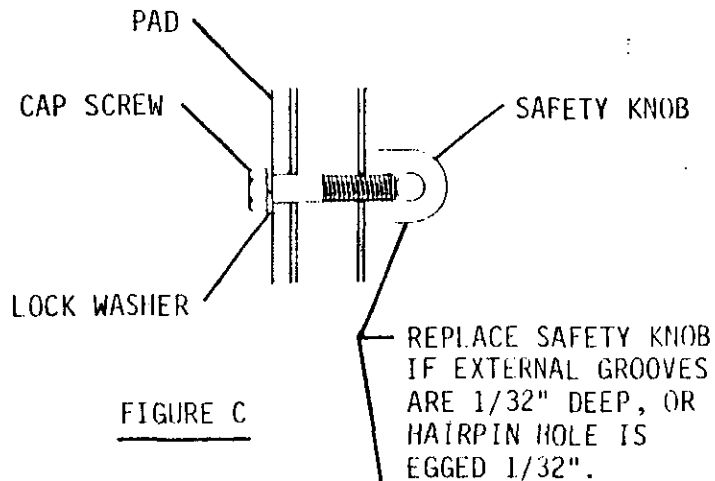


FIGURE G

## HAIR PIN INSPECTION

The hair pin must have no more than  $1/16"$  clearance when it is in a relaxed position. (FIGURE H).

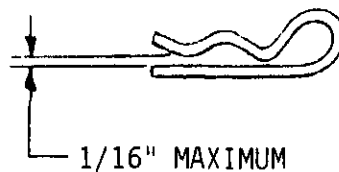


FIGURE H

IN NO EVENT SHOULD A SEAT BE USED IF ANY OF THE LATCHES ARE NOT IN GOOD WORKING ORDER.

## SEAT SUPPORT FRAME INSPECTION

Inspect all taper pins in seat support frame. Taper pin must always be inserted so that the heads of pins are to the inside of the frame to provide maximum seat clearance.

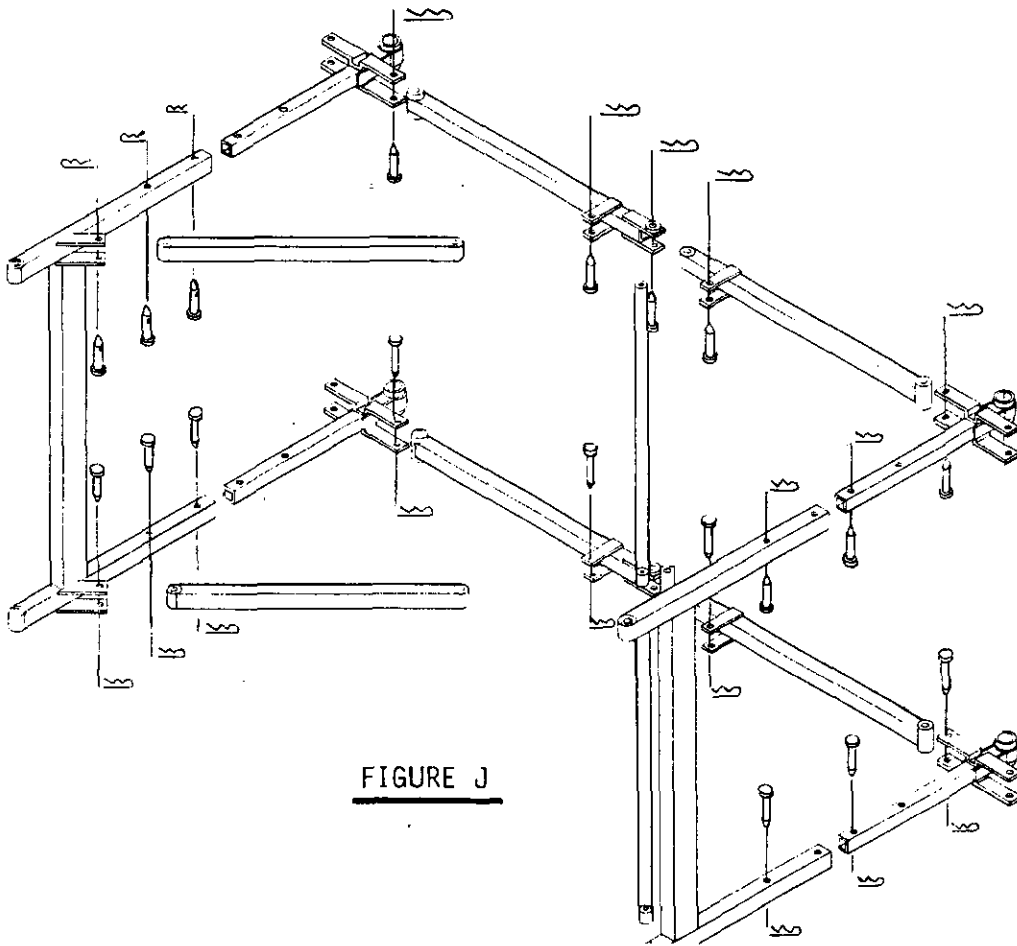


FIGURE J

The attached CERTIFICATION OF COMPLIANCE must be completed and returned to Chance Manufacturing Company, Inc., within seven (7) days of receipt of kit.



June 27, 1978

Dear ZIPPER Owner:

The Consumer Product Safety Commission has approved an additional lap bar safety latch to be installed on all ZIPPER rides. The latches are designed for easy bolt-on installation in the field with no modification of existing structure required. We are now manufacturing these latches and estimate beginning to fill orders by July 15, 1978, with all latches complete by August 15, 1978.

We are making these kits available to all ZIPPER owners at our cost of \$48.00 per latch, or \$576.00 per set of 12 seats. Please use the enclosed order form to order your kits and show shipping instructions for dates between July 15 and August 15. Telephone orders will be accepted. All shipments will be sent open account and freight collect. Shipping weight is approximately 125 lbs. All orders will be shipped in the order they are received.

The Federal lawsuit filed by the Consumer Product Safety Commission against Chance Manufacturing Company, Inc., and all ZIPPER owners has been dismissed in our favor. We feel that if all ZIPPER owners voluntarily install the new latch kit on their ZIPPER and return to us the Certificate of Compliance included with the kit that the threat of continued Federal litigation will be eliminated. The CPSC does have the option to reopen the case against the ride owners not installing the new kit.

Sincerely,

CHANCE MANUFACTURING COMPANY, INC.

Richard G. Chance  
President

RGC:ab

Box 12328 • Wichita, Kansas 67277 • (316) 942-7411  
Sales Office: 1103 Ross Avenue • Dallas, Texas 75202 • (214) 742-3802 • Cable - Duce Dallas - Telex 73-0300

**America's Largest Manufacturer of Amusement Rides**



Number: 05-170

Date: 10-9-78

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: ALL UNITS

Ride: ZIPPER Subject: LAP BAR INSPECTION

The Zipper lap bar latching device, described in Service Information Bulletin 05-1578, will not work if the lap bar fractures or breaks.

Chance Mfg. is requesting all Zipper owners to inspect the condition of the Zipper seat lap bars. This inspection must be performed by competent, qualified mechanics capable of understanding the function of the parts and their proper installation.

## WOODEN LAP BARS

Remove lap bars from hinges. Inspect ends of lap bars for worn mounting holes, cracks or any signs of deterioration. If any of these conditions exist the lap bar must be replaced before the seat can be used. This inspection should be performed annually.

Inspect lap bar covers daily and replace lap bars that have cracked or torn covers. Do not attempt to repair covers. Cracks or tears can allow wooden centers to become wet and possibly deteriorate under the padding where the wood cannot be seen. Install lap bars with mounting nuts on door side of lap bars.

NOTE: Wooden lap bars are no longer available but can be replaced with metal lap bars equipped with renewable padding. Mounting bolts are different and should be ordered with the metal lap bar.

## METAL LAP BARS

Inspect padding on lap bars daily. Replace any padding if it is cracked or torn, if Velcro seam will not stay closed or if any lacing eyelets are torn loose. Replace any broken laces.

Remove lap bars annually for inspection. Remove padding by opening Velcro bound seams and loosening lacings. Replace lap bars if metal shows any signs of deterioration or if mounting holes are worn. Install padding on lap bars and secure lap bars to hinges. Position mounting bolts so that heads are on door side of lap bars.

See reverse side for replacement part information.

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

REPLACEMENT PARTS

QTY. PER SEAT	PART DESCRIPTION	PART NUMBER
1	LAP BAR WITH PADDING	305-03879
1	LAP BAR WITHOUT PADDING	305-03877
1	PADDING	203-20790
4	HEX HEAD BOLT	686-07666
4	LOCK NUT	691-47816

If you have any questions concerning these inspection instructions, please contact  
Chance Manufacturing for assistance.





**CHANCE**  
MANUFACTURING CO., INC.

America's Largest Manufacturer of Amusement Rides

Number: 05-142B

Date: 2-21-78

Supersedes: #05-142A/12-2-7  
#142/8-26-77  
#56/7-23-73

## Service Bulletin

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER

Subject: SEAT DOOR LATCH

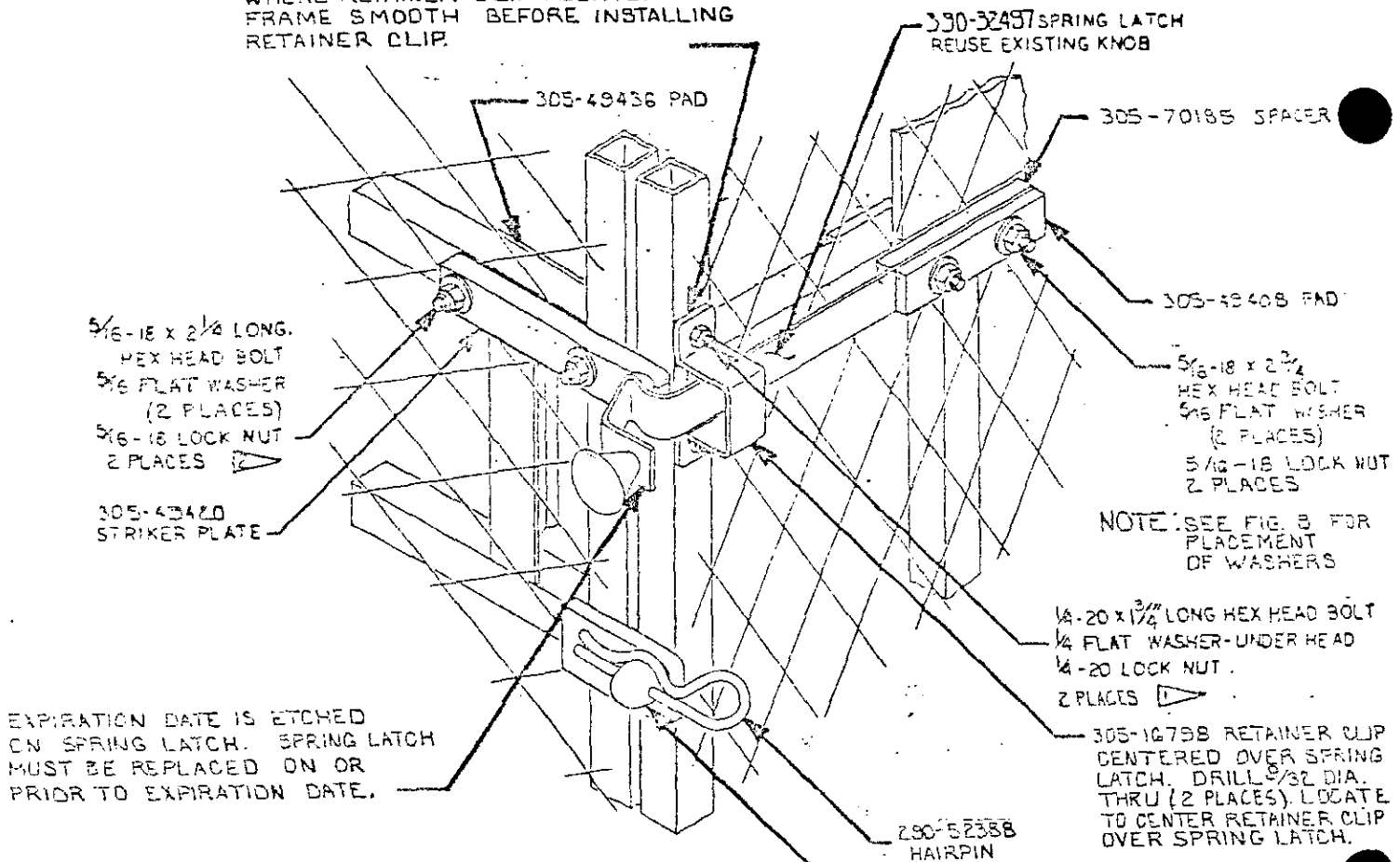
Service Information bulletins number 142 and 56, having been superceded by this bulletin, are no longer in effect and should be destroyed.

Before installing this kit, read the instructions completely and familiarize yourself with the parts listed below.

If you have any questions concerning the installation of this kit, please notify Chance Manufacturing for assistance.

<u>QUANTITY</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
-	Complete Kit	305-38802
1	SERVICE INFORMATION BULLETIN	05-142-A
1	Spring Latch	390-32497
1	Pad	305-49408
1	Spacer	305-70185
2	Bolt-Grade 5	5/16-18 x 2 3/4"
4	Flat Washer	5/16
2	Lock Nut	5/16 x 18
1	Retainer Clip	305-16798
2	Bolt-Grade 5	1/4-20 x 1 3/4"
2	Flat Washer	1/4"
2	Lock Nut	1/4-20
1	Safety Knob	305-38962
1	Cap Screw-Grade 5	3/8-16 x 1 3/4"
1	Cap Screw-Grade 5	3/8-16 x 2"
1	Lock Washer	3/8"
1	Hair Pin	290-52388
1	Striker Plate	305-49420
1	Pad	305-49436
2	Bolt-Grade 5	5/16-18 x 2 1/4"
4	Flat Washer	5/16
2	Lock Nut	5/16-18
1	Certification of Compliance	---

REMOVE EXPANDED METAL FROM FRAME WHERE RETAINER CLIP MOUNTS. GRIND FRAME SMOOTH BEFORE INSTALLING RETAINER CLIP.



EXPIRATION DATE IS ETCHED ON SPRING LATCH. SPRING LATCH MUST BE REPLACED ON OR PRIOR TO EXPIRATION DATE.

#### Notes:

1 Torque to 7 ft. lbs.

2 Torque to 15 ft. lbs.

3 Torque to 27 ft. lbs.

IF TORQUE WRENCH NOT AVAILABLE SNUG ALL NUTS IN GROUP AND THEN TURN 1/2 TURN

FIGURE A

### INSTALLATION INSTRUCTIONS

Remove and discard all the parts replaced by this kit.

#### STRIKER PLATE INSTALLATION

Install the 305-49420 Stricker Plate and 305-49436 Pad on the door. Position the Stricker Plate as shown in figure B. Torque attaching bolts to 15 ft. lbs.

#### SPRING LATCH INSTALLATION

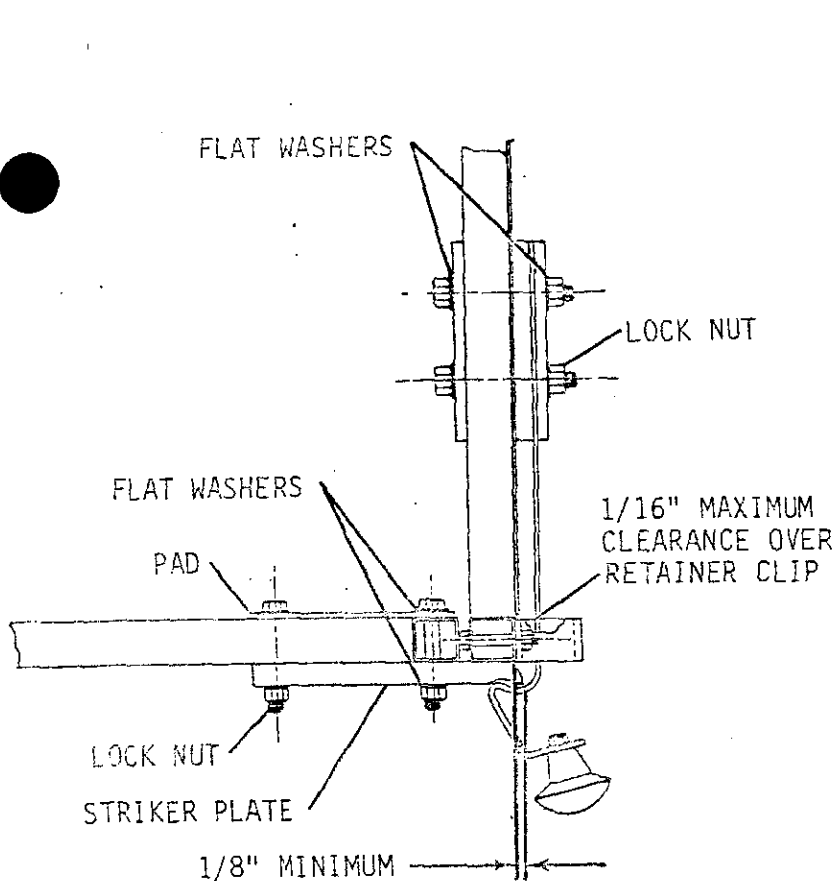
Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (1/4" thick) Pad onto the two bolts. Install a flat washer and lock nut on each bolt. Center the spring Latch on the Striker Plate and torque the bolts to 15 ft. lbs. Attach the knob from the discarded Spring Latch to the new Spring Latch.

## RETAINER CLIP INSTALLATION

Center the 305-16798 Retainer Clip over the 390-32497 Spring Latch and the frame. Drill two 9/32 diameter holes through the frame to match the Retainer Clip. Install two bolts with flat washers under heads. Place lock nuts on bolts and torque to 7 ft. lbs.

## SAFETY KNOB INSTALLATION

Inspect the seat frame where cap screw attaches the 305-38962 Safety Knob. On seat frames which have a pad on the inside of the frame only, use a 3/8-16 x 1 3/4" grade 5 cap screw. (FIGURE C) On seat frames which have a pad on both the inside and the outside of the frame, use a 3/8-16 x 2" grade 5 cap screw. (FIGURE D) Install the proper length cap screw, with lock washer under head, through the frame. Attach the Safety Knob and torque the cap screw to 27 ft. lbs.



When installed, the striker plate should extend a minimum of 1/8" beyond the edge of the frame.

FIGURE B

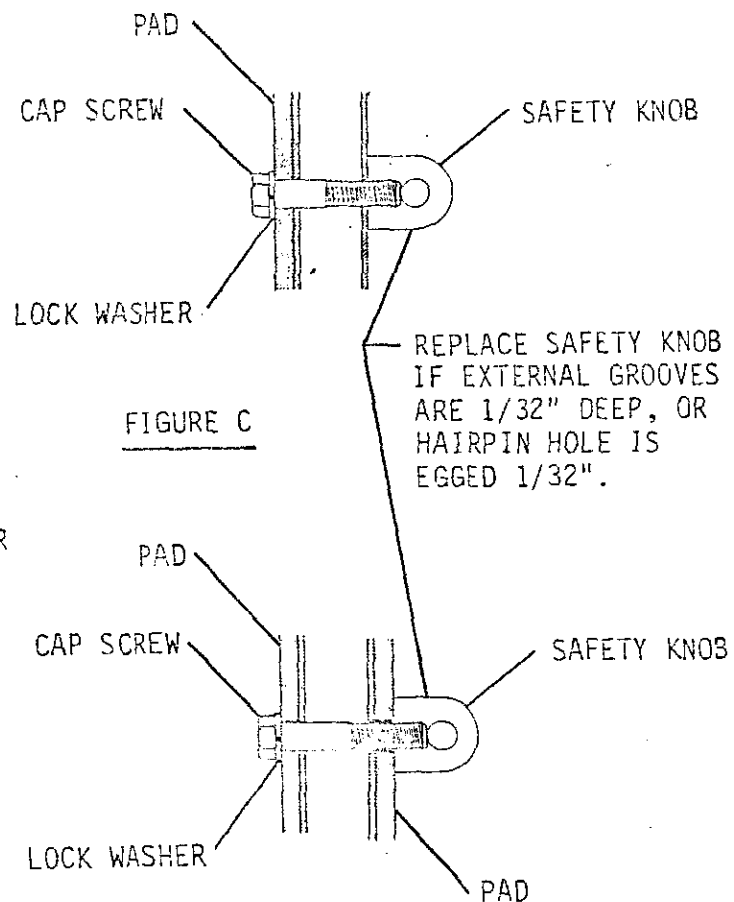


FIGURE C

FIGURE D

## INSPECTION INSTRUCTIONS

### SPRING LATCH INSPECTION

The 390-32497 Spring Latch on each seat must be checked daily. The Spring Latch must be centered on the 305-49420 Striker Plate and should clear the base of the 305-16798 Retainer Clip no more than  $1/16$ " as shown in figure B thus insuring adequate overlap of Spring Latch and Striker Plate and preventing the door from opening unless released by pulling on Spring Latch knob. Spring Latches which clear the base of the Retainer Clip more than  $1/16$  should be replaced immediately and the seat not used until this has been done. (FIGURE B) Do not attempt to straighten or repair the Spring Latch in any way. Each Spring Latch must be replaced on or before the expiration date (month and year) etched at the knob end.

### RETAINER CLIP INSPECTION

The 305-16798 Retainer Clip acts as both a centering device to insure that the 390-32497 Latch Spring is centered on the 305-49420 Striker Plate, and a stroke limiting device to prevent over stroking of the Spring Latch. Cap screws should be retorqued if found loose and replaced if they cannot be tightened to 7 ft. lbs.

### SAFETY KNOB INSPECTION

If the hair pin hole in the 305-38962 Safety Knob becomes egged  $1/32$ , or external grooves in knob are  $1/32$  deep, replace knob immediately and do not use seat until this has been done. If the Safety Knob can be moved in any way, tighten cap screw to 27 ft. lbs. or if torque wrench is not available, snug the cap screw and turn  $1/2$  turn. If this does not cure looseness, replace cap screw and lock washer or knob until tightness is accomplished. Do not use seat until this has been done.

### HAIR PIN INSPECTION

The hair pin must have no more than  $1/16$ " clearance when it is in a relaxed position. (FIGURE E) The hair pin must also have a minimum release point of 8 pounds on a straight pull.

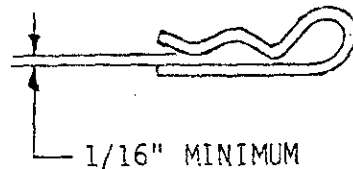


FIGURE E

IN NO EVENT SHOULD THE RIDE BE OPERATED IF EITHER ONE OF THE LATCHES IS NOT IN GOOD WORKING ORDER.

A record should be kept of each inspection and each part replacement.

NOTE: If it is necessary to replace any bolts or cap screws, refer to "REPLACEMENT OF BOLTS" page 3-3 of the Zipper Operations Manual.

The attached CERTIFICATION OF COMPLIANCE must be completed and returned to Chance Manufacturing Company, Inc., within seven (7) days of receipt of kit.



**CHANCE**  
MANUFACTURING CO., INC.

Number: B05-0201-00  
Date: 1-31-80  
Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# Service Bulletin

**Effective Serial Numbers:** ALL RIDES

**Ride:** ZIPPER

**Subject:** INSPECTION OF CABLE CLAMP "U"  
BOLTS

As a safety precaution, all Zipper owners are being asked to inspect all cable clamp "U" bolts (See Figure A).

Some of these cable clamp "U" bolts on Zippers manufactured during 1979, or included in service parts shipped, have been discovered not up to specifications by our Quality Assurance Program.

This condition could result in extensive wear both externally and at the cable clamping surface.

Please inspect all clamps for signs of wear and notify Chance Manufacturing if such a condition exists.

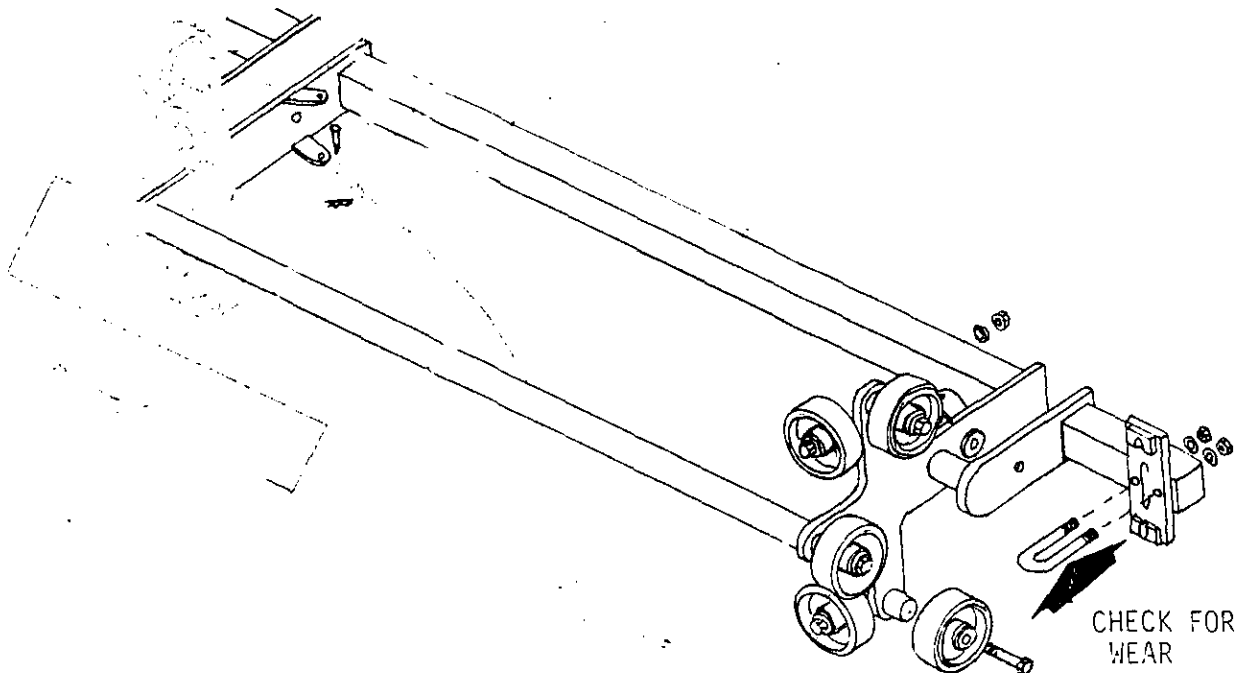


FIGURE A

Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277

Area Code (316) 942-7411

Sales Office:

1103 Ross Ave., Dallas, Texas 75202

Area Code (214) 742-3802



Number: B05-0203-00

Date: 3-27-80

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers:

RIDES MANUFACTURED IN 1979 & 1980

Ride:

ZIPPER

Subject:

CHECK VALVE LOCATION

As a preventative maintenance procedure, Chance Manufacturing Co., Inc. is requiring that all owners of Zippers manufactured in 1979 or 1980 inspect the location of a check valve in the hydraulic system on the back side of the tower.

Inspect hydraulic plumbing for check valve position as shown in FIGURE A.

Trace routing of line A, it should run directly to hydraulic reservoir and not be tied into any other lines.

If this check valve is not in position shown, contact Chance Manufacturing Co. for instructions in replacement.

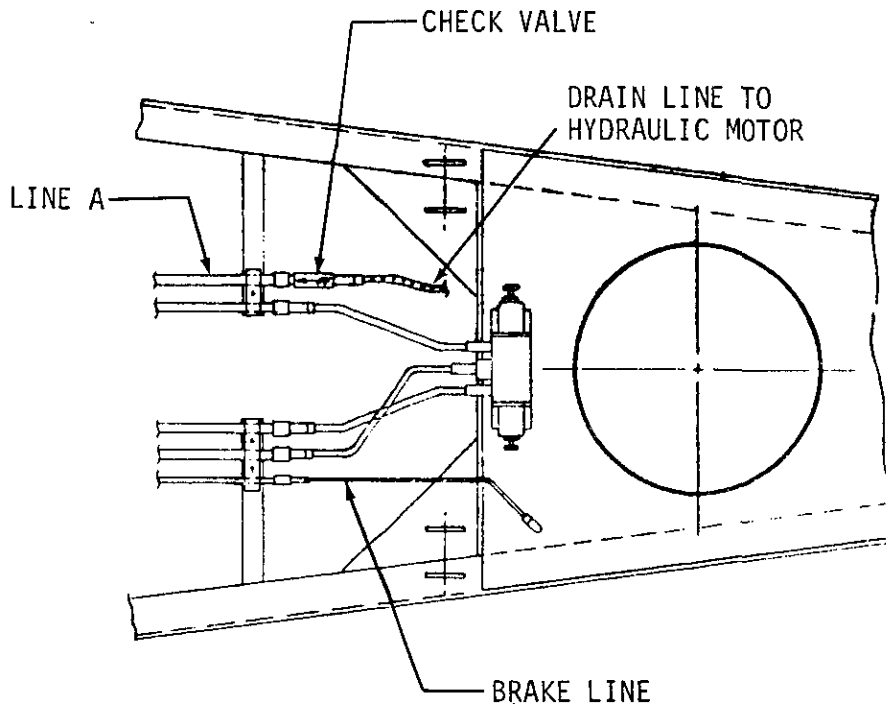


FIGURE A

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411



**CHANCE**  
MANUFACTURING CO., INC.

Number: B05-204-001

Date: 4-23-80

Supersedes:

America's Largest Manufacturer of Amusement Rides

# Service Bulletin

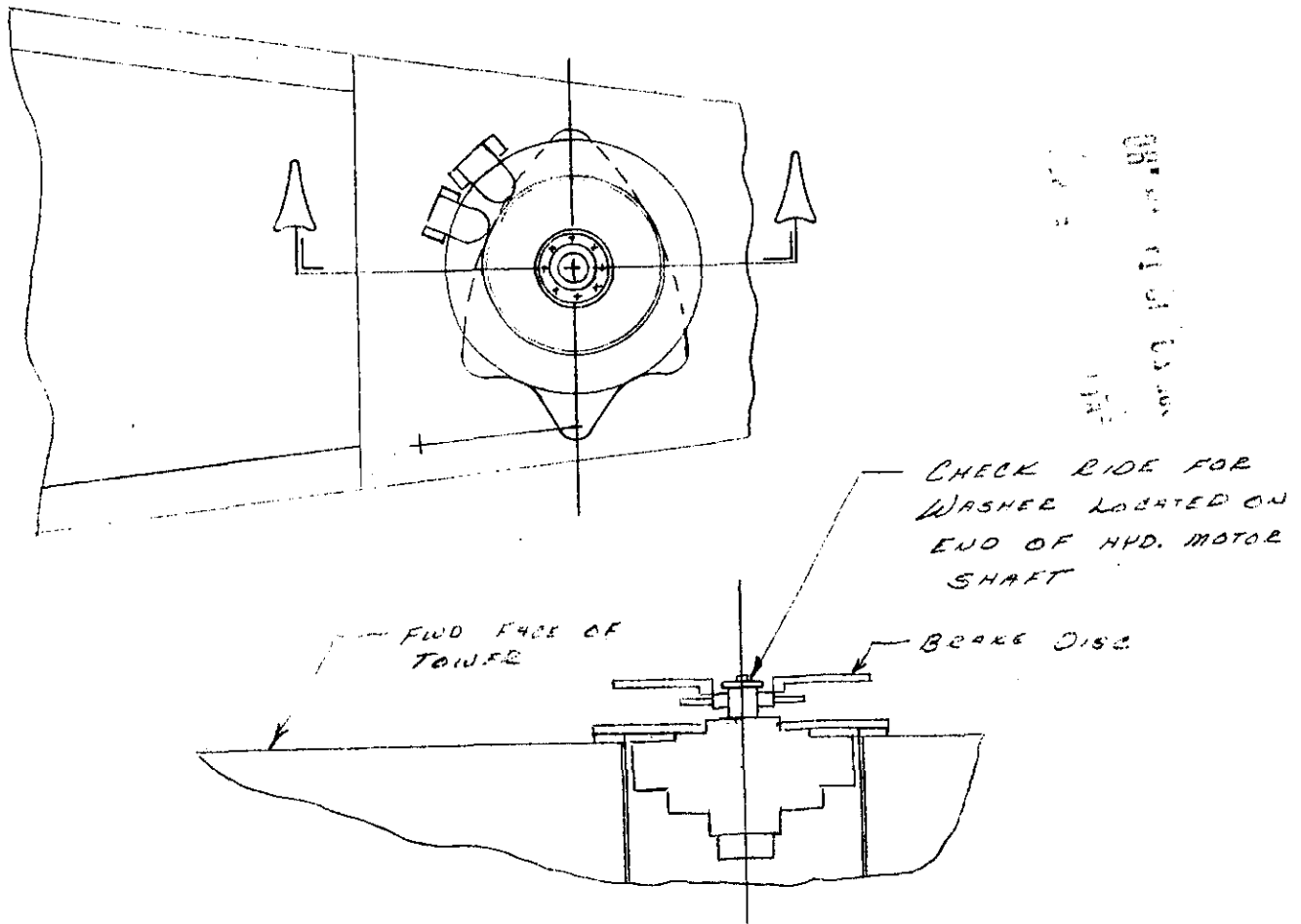
**Effective Serial Numbers:** UNITS 71 AND ON

**Ride:** ZIPPER

**Subject:** WASHER LOCATION

As a preventative maintenance procedure, Chance Manufacturing Co., Inc. is requiring that owners of Zippers with unit numbers 71 & on inspect the hydraulic motor shaft, making sure there is a washer located on the end of the motor shaft.

If this washer is not present, please contact Chance Manufacturing Co. for instructions in correction of this condition.



Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277

Area Code (316) 942-7411

Sales Office:

1103 Ross Ave., Dallas, Texas 75202

Area Code (214) 742-3802



Number: 805-0205-00 ✓

Date: 8-2-80

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: 68-1801 thru 79-1898

Ride: ZIPPER

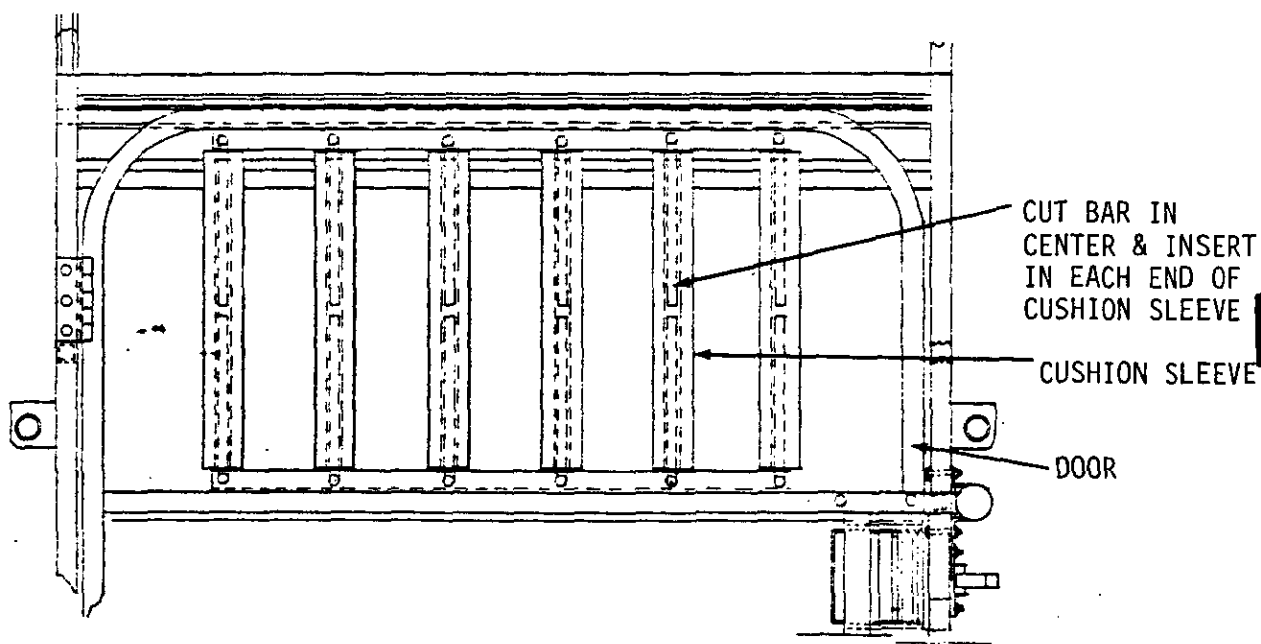
Subject: HAND GRIP ASSEMBLY

Chance Manufacturing has developed a two inch diameter cushioned padding that replaces the tubular padding on the six hand grip bars on the door of the Zipper seat.

These cushions are of an extremely tough self skinning urethane foam, bonded to a sleeve and provide increased passenger protection and safety.

We strongly recommend that this padding be added to all Zipper hand grip bars assemblies immediately. We are offering these cushions, D.P. # 305-21503 at our manufacturing cost of \$3.99 each for a period of 90 days. 72 of these cushions are required to do complete ride.

These pads are installed by cutting the existing grip bars in half and inserting a bar half in each end of the new cushion sleeve, and re-installing.



Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411





**CHANCE**  
MANUFACTURING CO., INC.

Number:

B05-0210-00

Date:

8-12-80

America's Largest Manufacturer of Amusement Rides

# Service Information

UNITS 68-1801 THRU 72-1870, 73-1872

Effective Serial Numbers:

ZIPPER

SEAT SUPPORT AXLE WHEEL

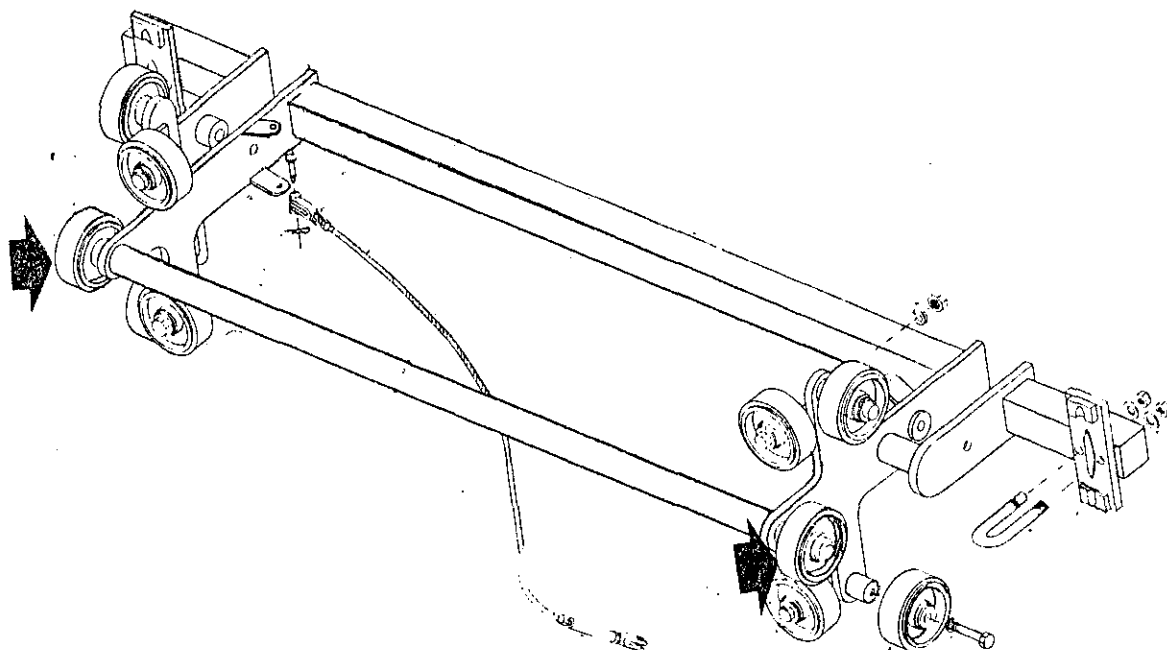
Ride:

Subject:

Chance Manufacturing Co. has been informed that the hard wheels used on the Zipper seat support axle is no longer available.

A replacement wheel is now available through Chance Manufacturing Co. and takes only minor modification to seat axle.

The replacement kit #K05-0210-00, which replaces one seat axle (12 kits should be ordered for complete ride) can be ordered through Chance Manufacturing Co., Inc. parts department.



SEAT SUPPORT AXLE

Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277

Sales Office:

1103 Ross Ave., Dallas, Texas 75202

Area Code (316) 942-7411

Area Code (214) 742-3802

PARTS LIST

QUANTITY	DESCRIPTION	PART NUMBER
1.....	DRAWING # K05-0210-00.....	SHEET 1
2.....	1/2-13 x 2" HEX HEAD CAPSCREW GR 8..	686-08496
2.....	WASHER (D05-0210-2).....	305-85641
2.....	SLEEVE (1062509-3).....	305-70118
2.....	WASHER (1062509-4).....	305-85597
2.....	WHEEL ASSEMBLY (1062511-1).....	305-86357
1.....	2 <del>g</del> c BOTTLE RED LOCTITE.....	290-01376



**CHANCE**  
MANUFACTURING CO., INC.

Number: B05-0215-00

Date: 1-7-81

Supersedes:

America's Largest Manufacturer of Amusement Rides

# Service Bulletin

**Effective Serial Numbers:** ALL UNITS

**Ride:** ZIPPER

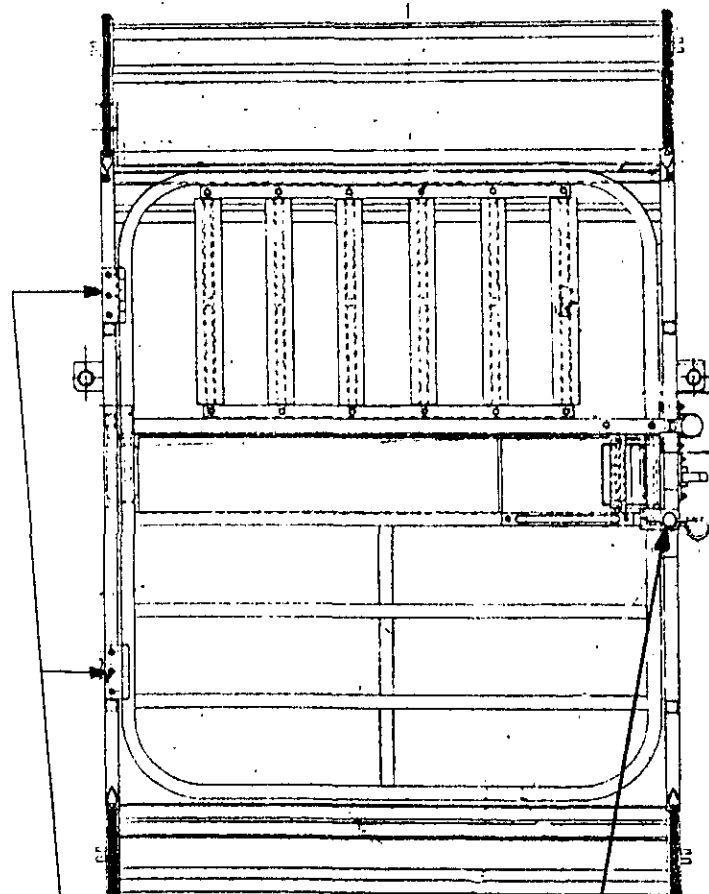
**Subject:** INSPECTION OF DOOR HINGES

As a Safety Precaution, Chance Mfg. Co. recommends that owners inspect the hinges on the ZIPPER seat doors.

Check for any type of cracks in hinges or structural support members supporting hinges on either the door or seat body frame. Check for cracks in welds attaching hinges to doors.

Check for hinge wear by opening and closing door, if door binds on inside of seat frame or will not close over hairpin safety knob without physically forcing into place, hinge wear may be excessive.

If any of the above conditions exist, contact Chance Manufacturing Co., Inc. immediately.



DOOR  
HINGES

HAIRPIN  
SAFETY  
KNOB

Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277

Sales Office: 1103 Ross Ave., Dallas, Texas 75202

Area Code (316) 942-7411

Area Code (214) 742-3802



Number: B05-0228-00

Date: 9-10-81

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: ALL UNITS

Ride: ZIPPER

Subject: SEAT HANGER KIT

Chance Manufacturing Co., Inc. is making available a bolt-on seat hanger kit that will replace the older style weld-on seat hanger, which will facilitate future replacement.

All seat hanger replacement parts ordered in the future will be bolt-on style.

Before installing this kit, read the instructions completely and familiarize yourself with the parts in the kit. Make certain all parts have been received. If any parts are missing, notify Chance Manufacturing Co., Inc. immediately. Do NOT substitute an inferior grade of material or parts.

All work must be performed by competent, qualified mechanics capable of understanding the functions of these parts and their proper installation.

If any questions arise concerning the installation of this kit, please contact Chance Manufacturing Company for assistance.

PARTS LIST		
QUANTITY	PARTS DESCRIPTION	PART NUMBER
1	COMPLETE KIT	K05-0228-00

CONSISTING OF:

1-PER SEAT OR RIDE.....	DRAWING #K05-0228-00.....	SHEET 1
1.....	HANGER WELDMENT (#1062624-1).....	305-32738
1.....	HANGER WELDMENT (#1062624-2).....	305-32739
8.....	HEX HEAD CAP SCREWS 1/2-13 x 1-3/4"...	686-08422
8.....	FLEXLOCK NUTS 1/2-13.....	691-48050
8.....	HARDENED WASHER 1/2".....	696-85530

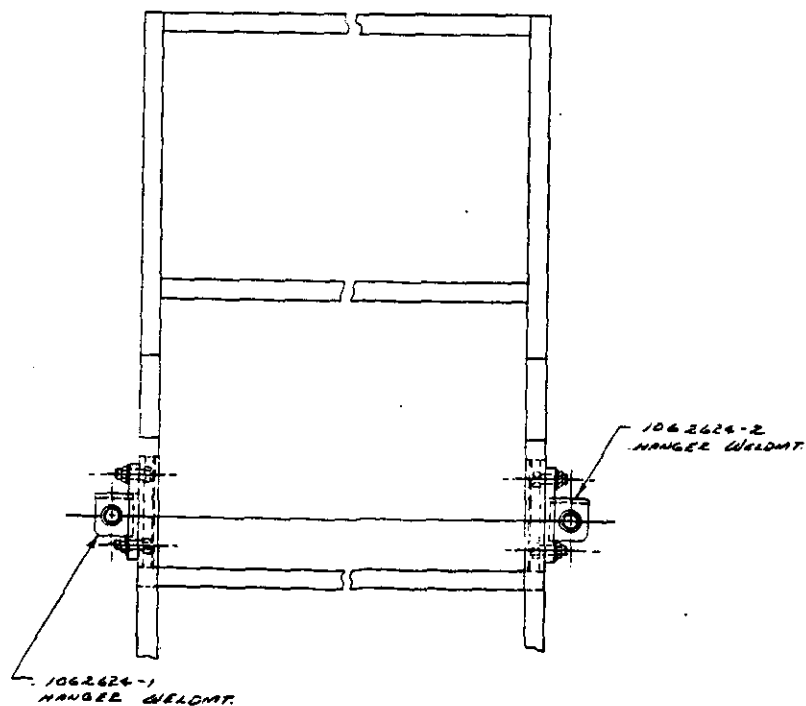
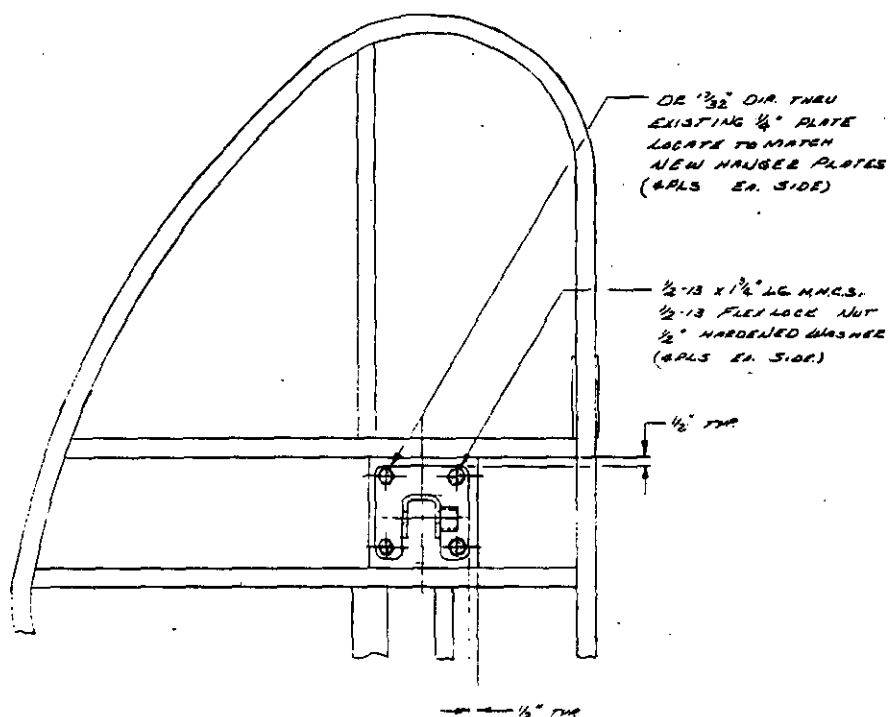
QUANTITY LISTED ABOVE IS FOR ONE ZIPPER SEAT. 12 KITS REQUIRED FOR COMPLETE RIDE.

## INSTALLATION INSTRUCTIONS

1. Remove existing car hanger ears from 1/4" plate with cutting torch and grind smooth.
2. If expanded metal covers existing 1/4" plate by more than 3/8" from any edge, it must be ground off and re-welded to 3/8" dimension from all edges. New welds to expanded metal should be added before removal of material extending past 3/8" limit.

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

3. Locate new hanger weldments on 1/4" plate as shown and drill through (4 places each side) 17/32" diameter. Locate to match new hanger weldments.
4. Install and tighten fasteners (4 places) each side. Torque to 55 ft. lbs.





Number: P05-0244-00  
Date: 5-15-84

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers:

68-1801 through 82-18112

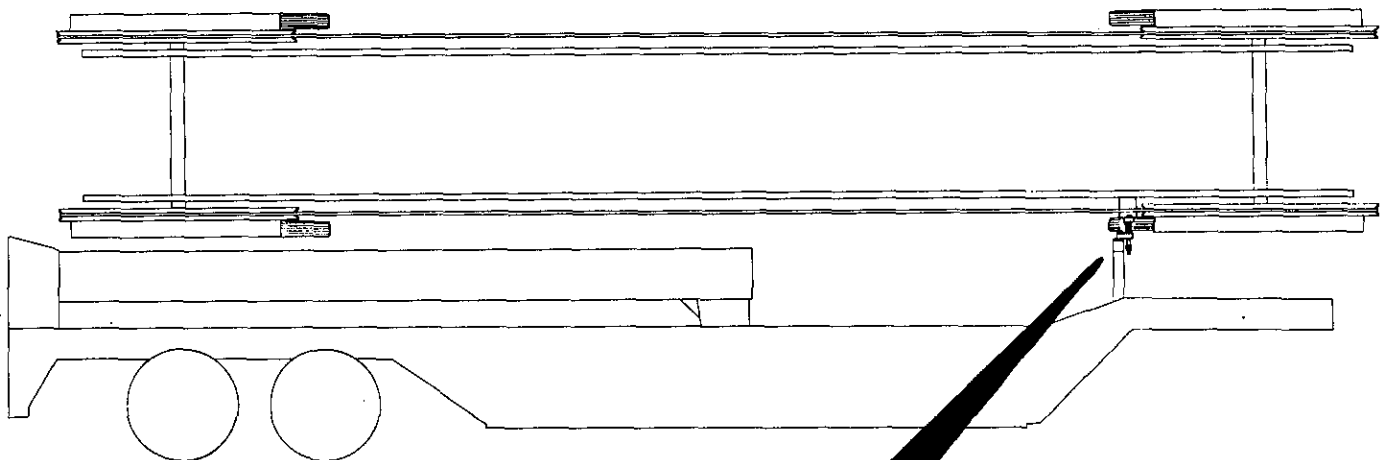
Ride:

ZIPPER

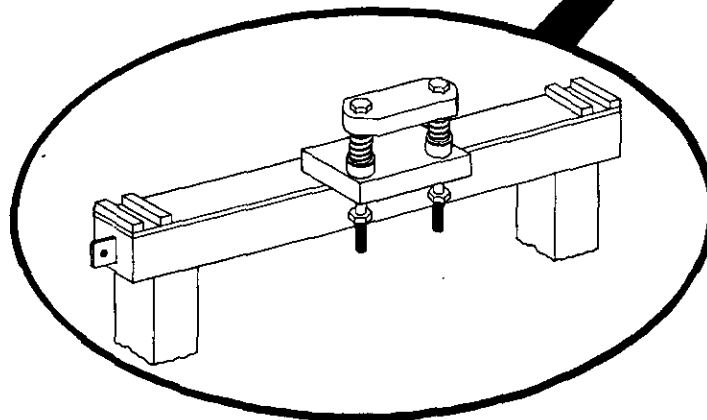
Subject:

Boom Support Kit

CHANCE MANUFACTURING CO., INC. has made available a Boom Support Kit. The kit provides a spring-loaded saddle to give better support to the boom during transport of the ride and helps prevent fatigue cracking of the boom.



D840095



Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

To order the Boom Support Kit, order K05-0244-01

<u>Qty. Req.</u> <u>Per Ride</u>	<u>D.P. Number</u>	<u>Description</u>
1		KIT - Boom Support (Includes the following parts)
1	305-25408	..Boom Extension (1063042-001)
1	305-75789	..Saddle Support (1063042-002)
1	305-54148	..Saddle Plate (1063042-003)
2	305-82346	..Shim Tube (1063042-004)
2	270-72094	..Spring
14	696-85338	..Flat Washer (1 x 9/64 thick)
2	691-48060	..Nut - Flexloc (1-8)
2	686-10420	..Capscrew (1-8 x 13)
1		..Installation Drawing (D05-0244-01)



Number: B05-0254-00

Date: 5-15-84

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

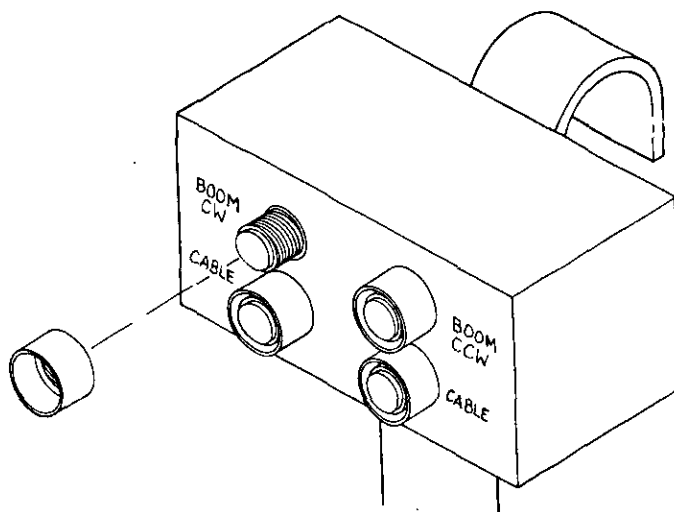
Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Switch Guards for Hand Control Box

As a safety precaution, CHANCE MANUFACTURING CO., INC. requires that all ZIPPER rides be equipped with switch guards on the pushbutton switches in the hand control box. The switch guards help prevent unintentional operation of the control buttons.

If your ride is not already equipped with these switch guards, order four (4) switch guards (part number 205-31604), and install per the instructions below.



A840062

1. Turn the main breaker to "OFF".
2. Remove the back cover from the hand control box.
3. Remove the existing nuts from each pushbutton switch and replace with switch guards. Hold the switches from the back side to prevent turning while tightening the switch guards.

**IMPORTANT:** The face of each pushbutton must be flush with or slightly recessed below the edge of the switch guard. If necessary, use the existing nuts behind the panel to adjust the switch to the correct position.

4. Install the back cover.

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411





Number: 805-0257-00

Date: June 6, 1984

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

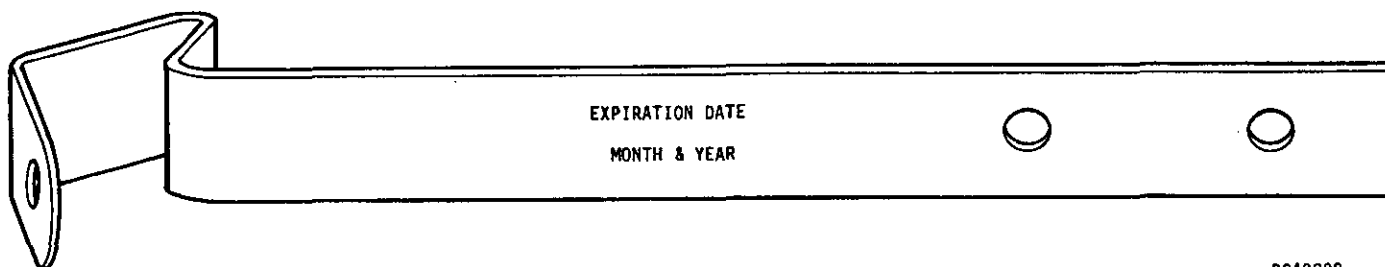
Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Replacement of Spring Latches

CHANCE MANUFACTURING CO., INC. wishes to emphasize the importance of yearly replacement of the spring latches on all doors.

An expiration date is electrically etched into each spring latch in the location shown below.



8840099

The expiration date is one year from the date the spring latch is shipped from CHANCE MANUFACTURING CO., INC. ALL SPRING LATCHES MUST BE REPLACED ON or BEFORE THE EXPIRATION DATE. DO NOT OPERATE THE RIDE UNTIL ALL SPRING LATCHES HAVE BEEN REPLACED. Discard the old spring latches immediately after removal.

**IMPORTANT:** If the expiration date has been altered, painted over, or is illegible, the spring latch must be replaced.

Order new spring latches each year as follows:

<u>Quantity Req'd. Per Ride</u>	<u>D.P. Number</u>	<u>Description</u>
12	390-32497	Spring Latch (CSN-25C17-1

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411



Number: B05-0215-0A  
Date: June 8, 1984  
Supersedes: B05-0215-00

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: ALL UNITS

Ride: ZIPPER

Subject: INSPECTION OF DOOR HINGES

This bulletin supersedes Bulletin No. B05-0215-00, which is no longer in effect and should be destroyed.

As a safety precaution, CHANCE MANUFACTURING CO., INC. requires that owners inspect the hinges on the ZIPPER seat doors.

Check the hinges for any type of cracks in the hinges or the structural members which support the hinges on either the door or the seat body frame. Also look for cracks in the welds attaching the hinges to the doors.

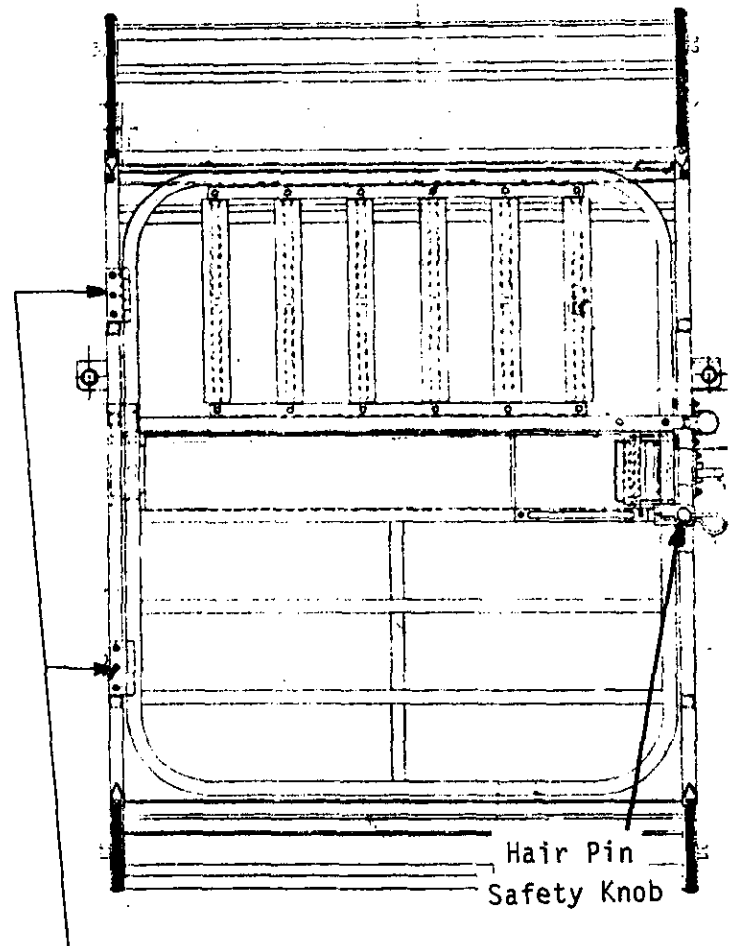
Check the hinge for wear by opening and closing the door. If the door binds on the inside of the seat frame, or will not close over the hair pin safety knob without forcing, the hinge must be replaced.

If any of the above conditions exist, replace the hinge.

Order new hinges from CHANCE MANUFACTURING under part number 390-33572.

NOTE: Attach each hinge to the seat frame with the hardware noted in the illustration.

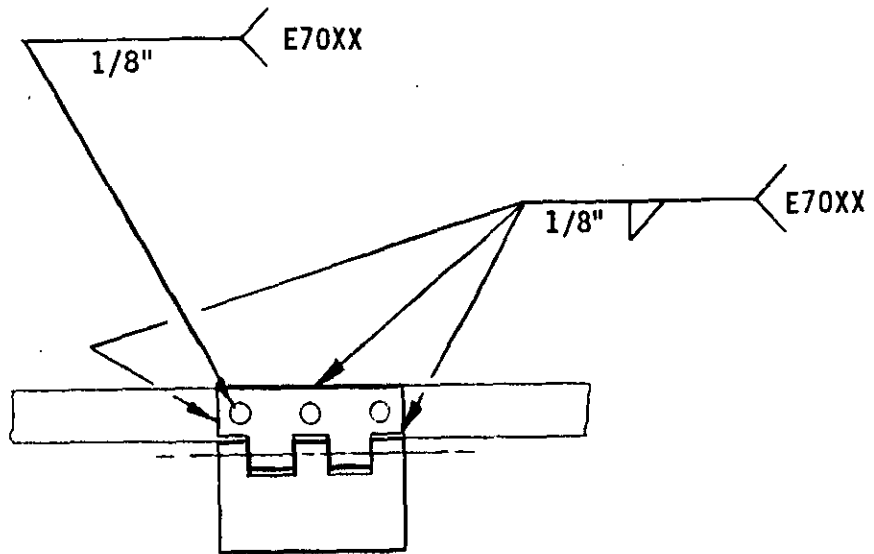
Weld the new hinges to the door as shown in the drawing on the following page.



390-33572 Door Hinge (2 reqd. per seat)  
686-07502 Hex Hd. Bolt - 5/16-18 x 2  
(3 reqd. per hinge)  
691-47812 Essna Lock Nut - 5/16-18  
(3 reqd. per hinge)

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

VIEW TYPICAL FOR BOTH HINGES





Number: B05-0258-00

Date: June 8, 1984

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

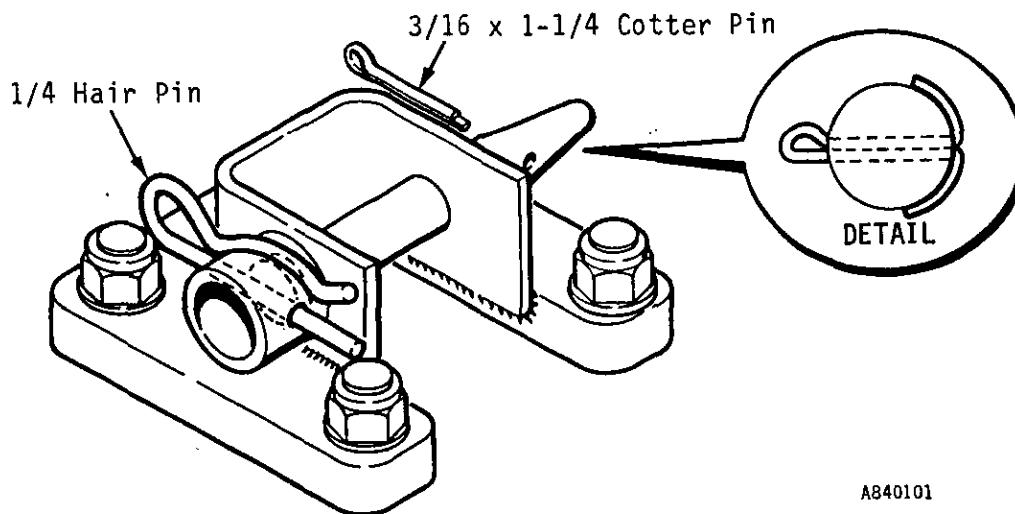
# SERVICE BULLETIN

Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Seat Hanger Pins

Recent field inspections have found ZIPPER seat hanger pins secured with incorrect parts. The illustration below shows the correct method of securing the tapered pin in the seat hanger.



A840101

A 1/4 inch hair pin MUST BE INSTALLED through the seat hanger tube, behind the head of the tapered pin. A 3/16 x 1-1/4 inch cotter pin must be installed as shown IN ADDITION TO THE HAIR PIN. Do not install a hair pin in the hole in the tapered pin.

Quantity Req'd.  
Per Ride

D.P. Number

Description

24 (2 per seat)  
24 (2 per seat)

694-51905  
699-51652

Hair Pin (1/4")  
Cotter Pin (3/16 x 1-1/4")

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Number: B05-0142-0C

Date: 12-1-84

Supersedes: 56 (7-23-73)  
142 (8-26-77)  
05-142A (12-2-77)  
05-142B (2-21-78)

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER Subject: SEAT DOOR LATCH

Service Bulletin Numbers 56, 142, 05-142A and 05-142B are superseded by this bulletin. They are no longer in effect and should be destroyed.

Before installing this kit, read these instructions completely and become familiar with the parts listed below.

If you have any questions concerning the installation of this kit, please notify CHANCE MANUFACTURING CO., INC. for assistance.

<u>QUANTITY</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
-	Complete Kit	305-38802
1	SERVICE INFORMATION BULLETIN	05-142-A
1	Spring Latch	390-32497
1	Pad	305-49408
1	Spacer	305-70185
2	Bolt-Grade 5	5/16-18 x 2 3/4"
4	Flat Washer	5/16
2	Lock Nut	5/16 x 18
1	Retainer Clip	305-16798
2	Bolt-Grade 5	1/4-20 x 1 3/4"
2	Flat Washer	1/4"
2	Lock Nut	1/4-20
1	Safety Knob	305-38962
1	Cap Screw-Grade 5	3/8-16 x 1 3/4"
1	Cap Screw-Grade 5	3/8-16 x 2"
1	Lock Washer	3/8"
1	Hair Pin	290-52388
1	Striker Plate	305-49420
1	Pad	305-49436
2	Bolt-Grade 5	5/16-18 x 2 1/4"
4	Flat Washer	5/16
2	Lock Nut	5/16-18
1	Certification of Compliance	---

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

REMOVE EXPANDED METAL FROM FRAME WHERE RETAINER CLIP MOUNTS. GRIND FRAME SMOOTH BEFORE INSTALLING RETAINER CLIP.

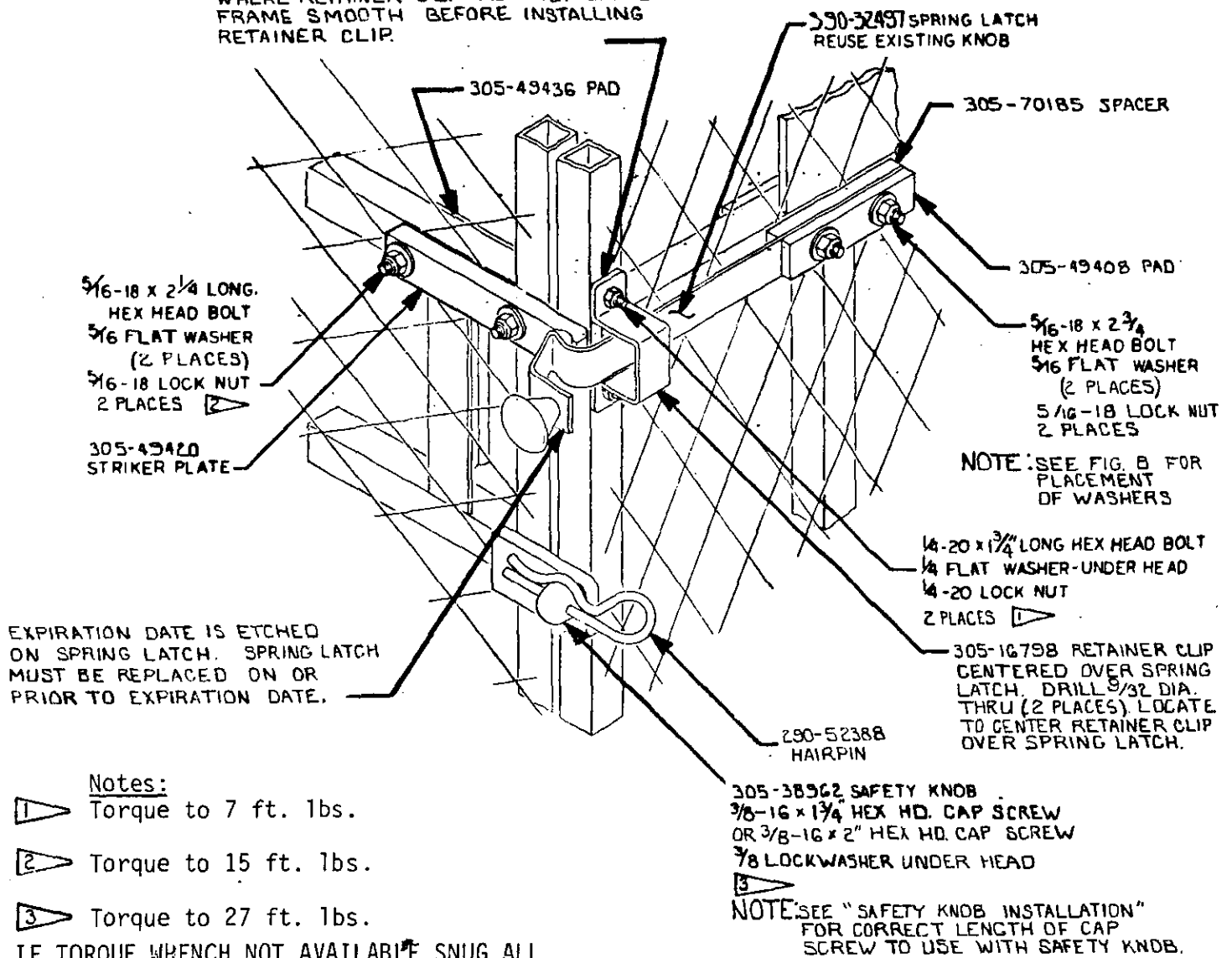


FIGURE A

## INSTALLATION INSTRUCTIONS

Remove and discard all the parts replaced by this kit.

### STRIKER PLATE INSTALLATION

Install the 305-49420 Stricker Plate and 305-49436 Pad on the door. Position the Stricker Plate as shown in figure B. Torque attaching bolts to 15 ft. lbs.

### SPRING LATCH INSTALLATION

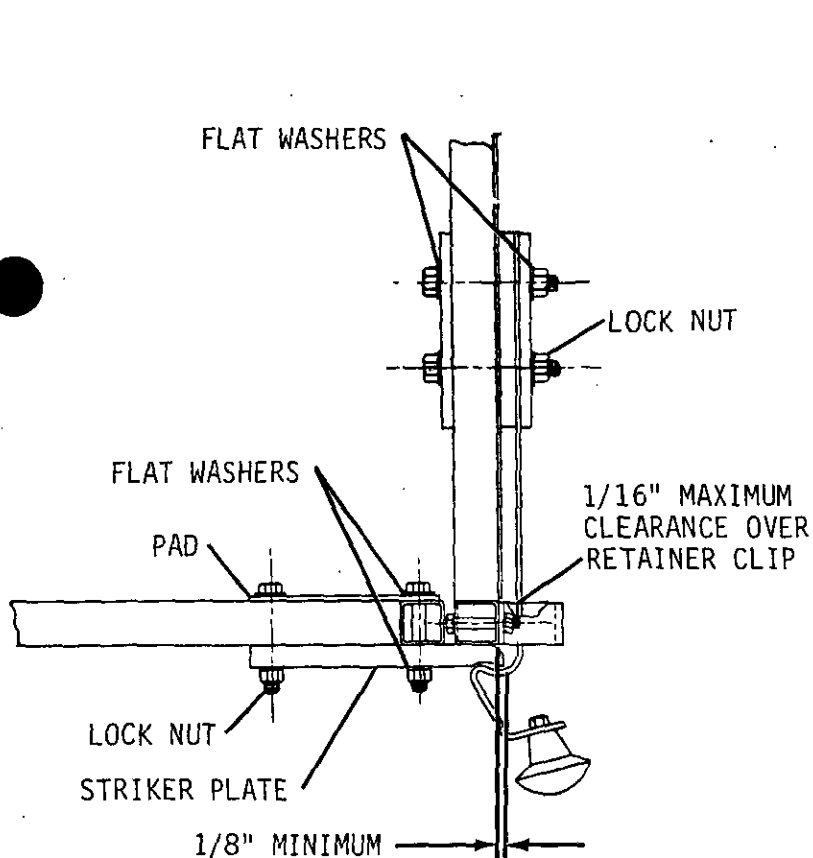
Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (1/2" thick) Pad onto the two bolts. Install a flat washer and lock nut on each bolt. Center the spring Latch on the Striker Plate and torque the bolts to 15 ft. lbs. Attach the knob from the discarded Spring Latch to the new Spring Latch.

## RETAINER CLIP INSTALLATION

Center the 305-16798 Retainer Clip over the 390-32497 Spring Latch and the frame. Drill two 9/32 diameter holes through the frame to match the Retainer Clip. Install two bolts with flat washers under heads. Place lock nuts on bolts and torque to 7 ft. lbs.

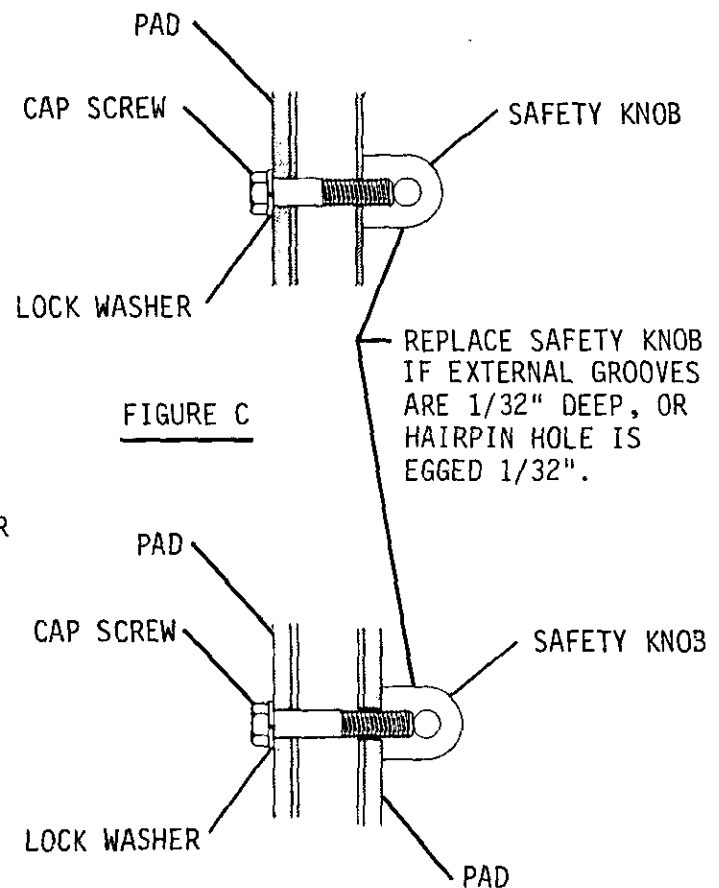
## SAFETY KNOB INSTALLATION

Inspect the seat frame where cap screw attaches the 305-38962 Safety Knob. On seat frames which have a pad on the inside of the frame only, use a 3/8-16 x 1 3/4" grade 5 cap screw. (FIGURE C) On seat frames which have a pad on both the inside and the outside of the frame, use a 3/8-16 x 2" grade 5 cap screw. (FIGURE D) Install the proper length cap screw, with lock washer under head, through the frame. Attach the Safety Knob and torque the cap screw to 27 ft. lbs.



When installed, the striker plate should extend a minimum of 1/8" beyond the edge of the frame.

FIGURE B



## INSPECTION INSTRUCTIONS

### SPRING LATCH INSPECTION

The 390-32497 Spring Latch on each seat must be checked daily. The Spring Latch must be centered on the 305-49420 Striker Plate and should clear the base of the 305-16798 Retainer Clip no more than  $1/16$ " as shown in figure B thus insuring adequate overlap of Spring Latch and Striker Plate and preventing the door from opening unless released by pulling on Spring Latch knob. Spring Latches which clear the base of the Retainer Clip more than  $1/16$  should be replaced immediately and the seat not used until this has been done.(FIGURE B) Do not attempt to straighten or repair the Spring Latch in any way. Each Spring Latch must be replaced on or before the expiration date (month and year) etched at the knob end.

### RETAINER CLIP INSPECTION

The 305-16798 Retainer Clip acts as both a centering device to insure that the 390-32497 Latch Spring is centered on the 305-49420 Striker Plate, and a stroke limiting device to prevent over stroking of the Spring Latch. Cap screws should be retorqued if found loose and replaced if they cannot be tightened to 7 ft. lbs.

### SAFETY KNOB INSPECTION

If the hair pin hole in the 305-38962 Safety Knob becomes egged  $1/32$ , or external grooves in knob are  $1/32$  deep, replace knob immediately and do not use seat until this has been done. If the Safety Knob can be moved in any way, tighten cap screw to 27 ft. lbs. or if torque wrench is not available, snug the cap screw and turn  $1/2$  turn. If this does not cure looseness, replace cap screw and lock washer or knob until tightness is accomplished. Do not use seat until this has been done.

### HAIR PIN INSPECTION

The hair pin must have no more than  $1/16$ " clearance when it is in a relaxed position.(FIGURE E) The hair pin must also have a minimum release point of 8 pounds on a straight pull.

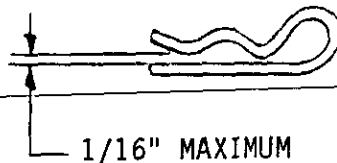


FIGURE E

IN NO EVENT SHOULD THE RIDE BE OPERATED IF EITHER ONE OF THE LATCHES IS NOT IN GOOD WORKING ORDER.

A record should be kept of each inspection and each part replacement.

NOTE: If it is necessary to replace any bolts or cap screws, refer to "REPLACEMENT OF BOLTS" page 3-3 of the Zipper Operations Manual.

The attached CERTIFICATION OF COMPLIANCE must be completed and returned to Chance Manufacturing Company, Inc., within seven (7) days of receipt of kit.







Number: B106R1006-0

Date: April 27, 1987

America's Largest Manufacturer of Amusement Rides

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# SERVICE BULLETIN

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Effective Serial Number: 106-117-86 through 106-128-87

Ride: ZIPPER

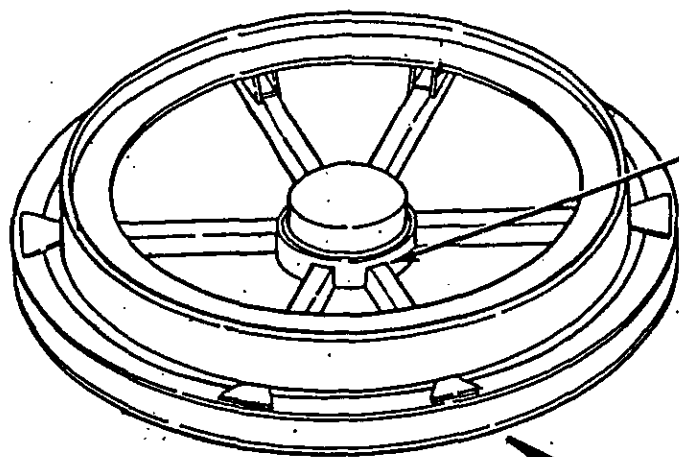
Subject: Cable Sheave Inspection

CHANCE RIDES, INC. has become aware of at least one ZIPPER ride in the field which developed cracks in the welded area of the cable sheave. As a safety precaution, CHANCE is requiring the inspection of the cable sheaves on all ZIPPER amusement rides with the above noted serial numbers.

Complete the cable sheave inspection using the instructions on the reverse side of this bulletin. Fill out and return the attached Certification Of Compliance for the procedure within fifteen (15) days from receipt of this bulletin.

## INSPECTION OF CABLE SHEAVES

READ THESE INSTRUCTIONS THOROUGHLY AND BECOME FAMILIAR WITH THE ENTIRE PROCEDURE. All work must be performed by competent, qualified mechanics, capable of understanding the function of the parts and their proper installation.

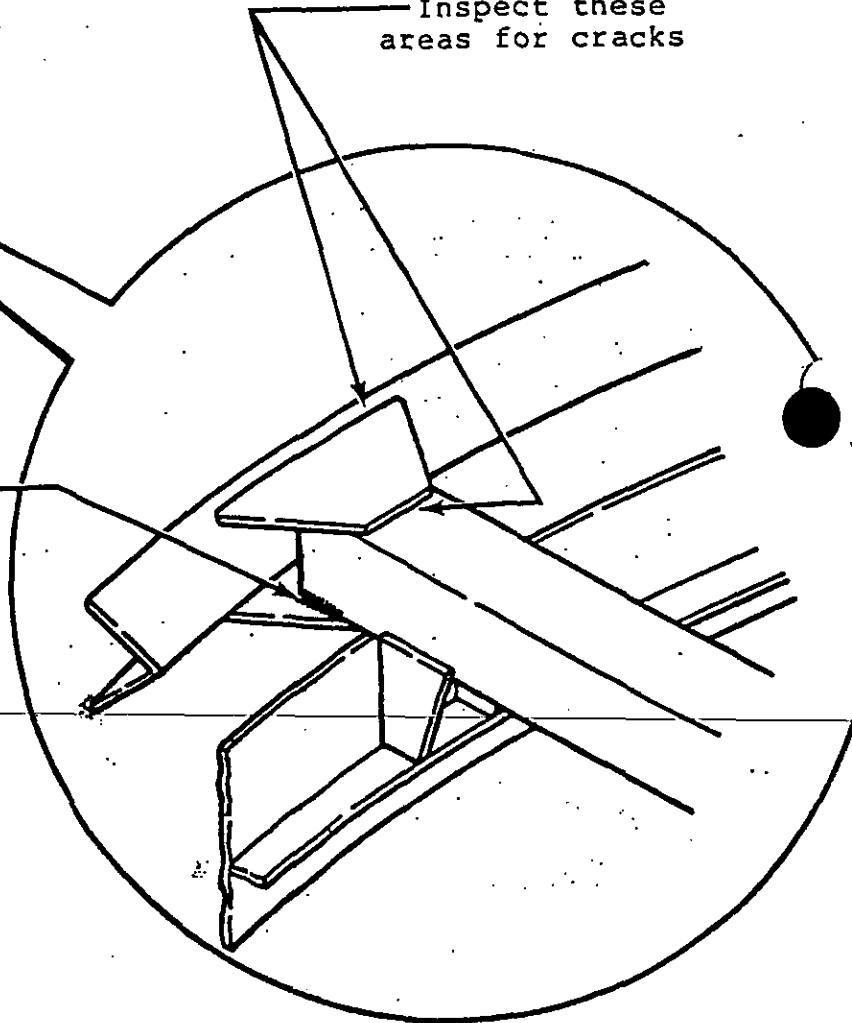


Inspect for cracks in or near welds between spokes and hub

Inspect these areas for cracks

Inspect weld between spokes and gusset (4 places)

IF THIS AREA IS NOT WELDED, CONTACT THE CHANCE CUSTOMER SERVICE DEPT. IMMEDIATELY



1. Inspect the cable sheave for cracks where the spokes weld to the hub. The weld must go completely around the spoke on all four sides.

2. Inspect for cracks where the spokes attach to the gussets around the outer rim. The welded areas must be exactly as shown and described in the illustration. Make sure there is a weld at all four places on each spoke.

3. IF ANY CRACKS ARE FOUND, OR IF ANY WELDS ARE QUESTIONABLE, CONTACT THE CHANCE CUSTOMER SERVICE DEPARTMENT IMMEDIATELY.



Number: B106R1007-0

Date: April 27, 1987

America's Largest Manufacturer of Amusement Rides

## SERVICE BULLETIN

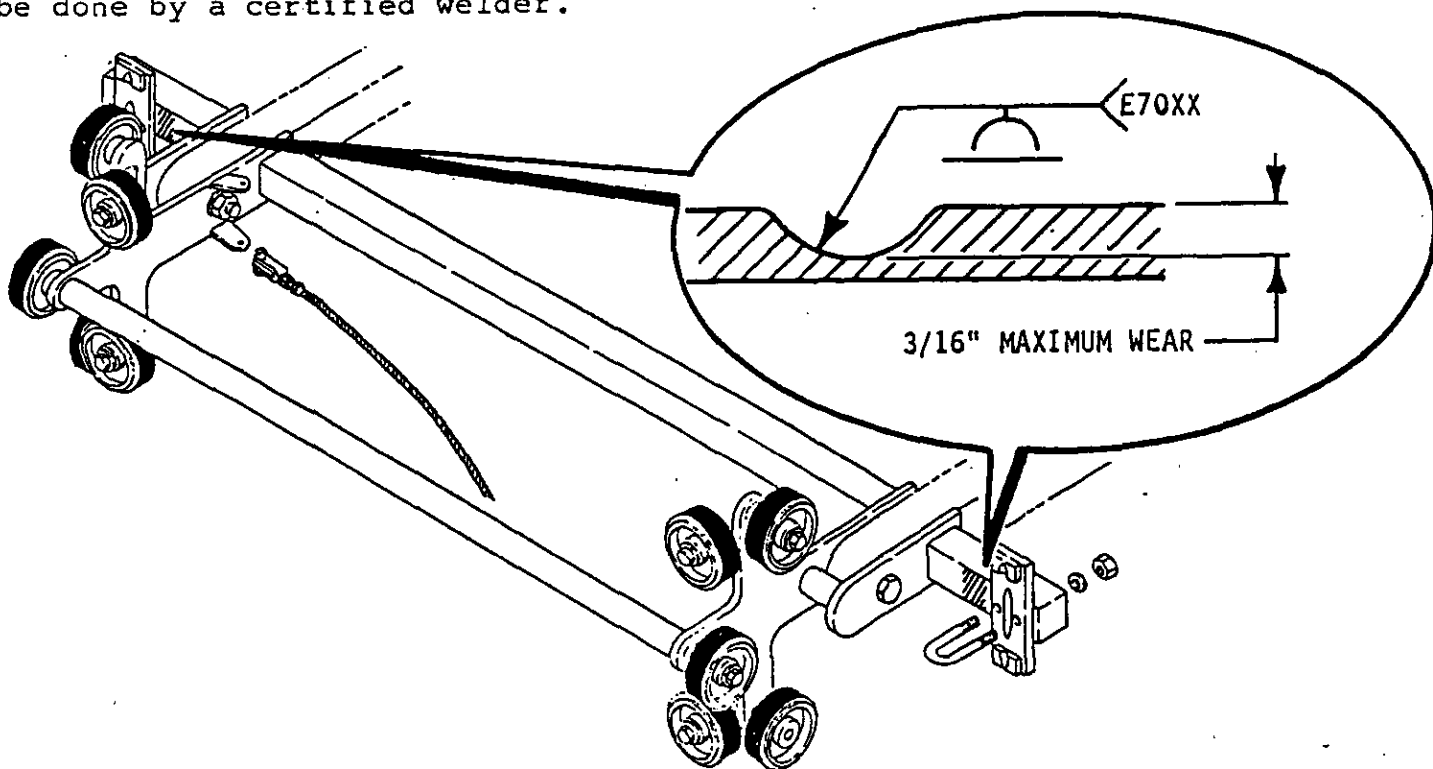
Effective Serial Number: All Units

Ride: ZIPPER

Subject: Seat Support Axle Inspection

CHANCE RIDES, INC. has received reports from the field of wear on the seat support axle frame near the cable clamps on ZIPPER amusement rides. This wear is caused by occasional contact with the cable sheave during operation.

If the wear is no deeper than  $3/16$ ", it can be corrected by welding the worn area and grinding the entire repaired area smooth as shown. All work must be done by competent, qualified mechanics, capable of understanding the function of the parts and their proper installation. All welding must be done by a certified welder.



If this type of wear occurs frequently, or the amount of wear is severe contact the CHANCE CUSTOMER SERVICE DEPARTMENT for further corrective measures.



Number: B106R1008-0

Date: April 27, 1987

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## SERVICE BULLETIN

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Effective Serial Number: 106-117-86 through 106-128-87

Ride: ZIPPER

Subject: Track Spacers

As a safety precaution, CHANCE RIDES, INC. requires that the owners of ZIPPER amusement rides with the above noted serial numbers inspect the track spacers between the straight and curved track sections at each end of the boom, and remove all 1-inch track spacers.

**DO NOT OPERATE THE RIDE WITH ONE-INCH TRACK SPACERS INSTALLED.**

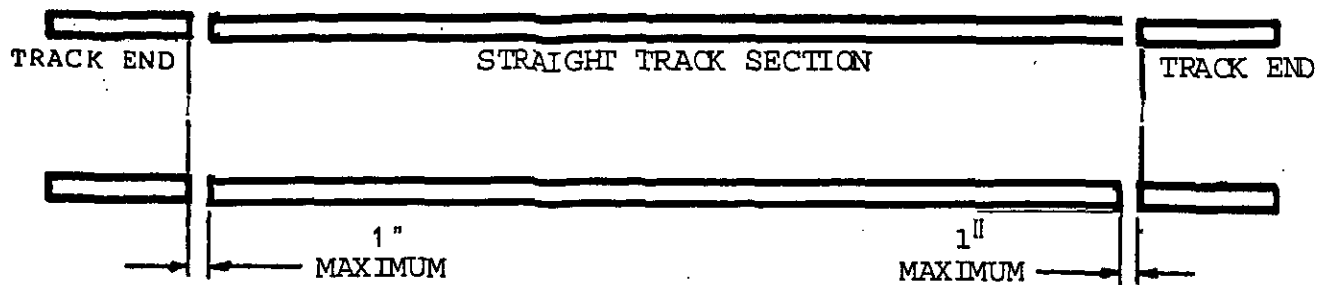
All work must be performed by qualified, competent mechanics, capable of understanding the function of the parts and their proper installation.

Remove all 1" track spacers from rides, and replace with the existing 2-inch or longer spacers (Provided in pin box when ride was delivered from factory). Be sure to use the appropriate size attach plate for each track spacer. See the instructions on Page 3 of this bulletin and the procedure in the operation manual.

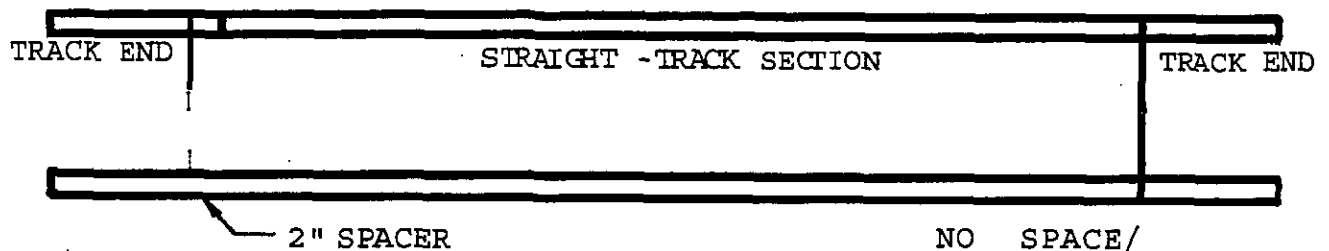
If the cable has not stretched enough to allow installation of the 2" spacer, a space of up to 1 inch is allowable at each end of the boom between the straight and curved sections of track.

Fill out and return the attached Certification Of Compliance for the procedure within fifteen (15) days from receipt of this bulletin.

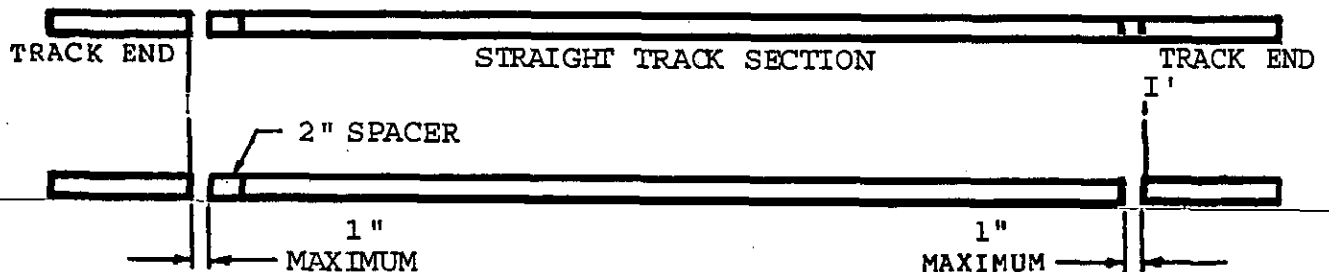
## ADJUSTMENT PROCEDURE



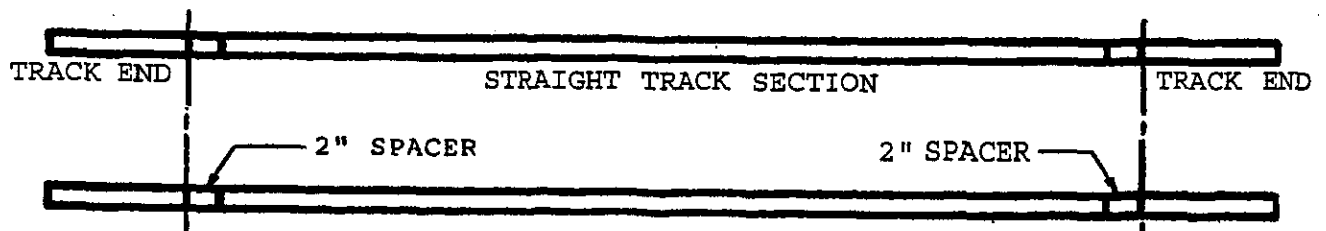
1. When cable adjustment becomes necessary, adjust the curved track ends equally on both ends of the boom, allowing no more than 1 inch spaces at each end as shown in the illustration above. (Rides leave the factory with approximately 1/2 inch spaces at each end.)



2. When the cables have stretched enough that the maximum 1 inch space is reached at both ends of the boom, adjust the curved track ends at one end of the boom completely inward, so that there is no space between the straight and curved track sections. Install the 2 inch track spacers in the other end of the boom.



3. As the cables stretch and further adjustment is required, spaces of up to 1 inch are allowable as shown.



4. When cable stretch permits, adjust the space out of the end with spacers, and install 2 inch spacers in the opposite end of the boom.
5. Continue this adjustment procedure with 3 inch spacers as future adjustment becomes necessary.



Number: B05-0258-0A

Date: September 9, 1987

Supersedes: B05-0258-00

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers:

All Units

Ride:

ZIPPER

Subject:

Seat Hanger Pins

Recent field inspections have found ZIPPER seat hanger pins secured with hairpins which are worn, sprung or of the wrong size.

CHANCE MANUFACTURING CO., INC. now requires the use of special capscrews and nuts to secure the seat hanger pin on the seats which rack in place on the boom. The pins for the two seats which rack on the trailer deck must be secured with snapper pins. Refer to the illustration and instructions on the reverse side of this bulletin.

All work must be done by competent qualified mechanics, capable of understanding the function of the parts and their proper installation. If you have any questions regarding these instructions, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

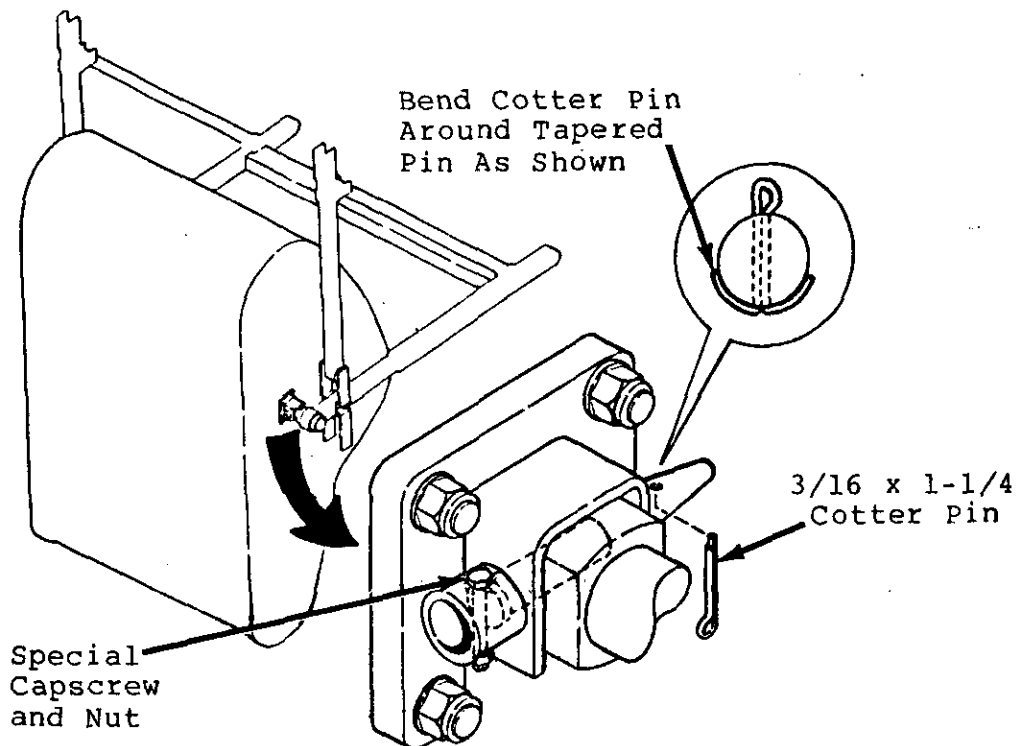
Order the following parts as required:

Quantity Req'd. Per Ride	Part Number	Description
20	690-12270	Capscrew - Special
20	691-48043	Nut - Flexlock (1/4-28)
4	290-52321	Snapper Pin (1/4)
24	699-51652	Cotter Pin (3/16 x 1-1/4)

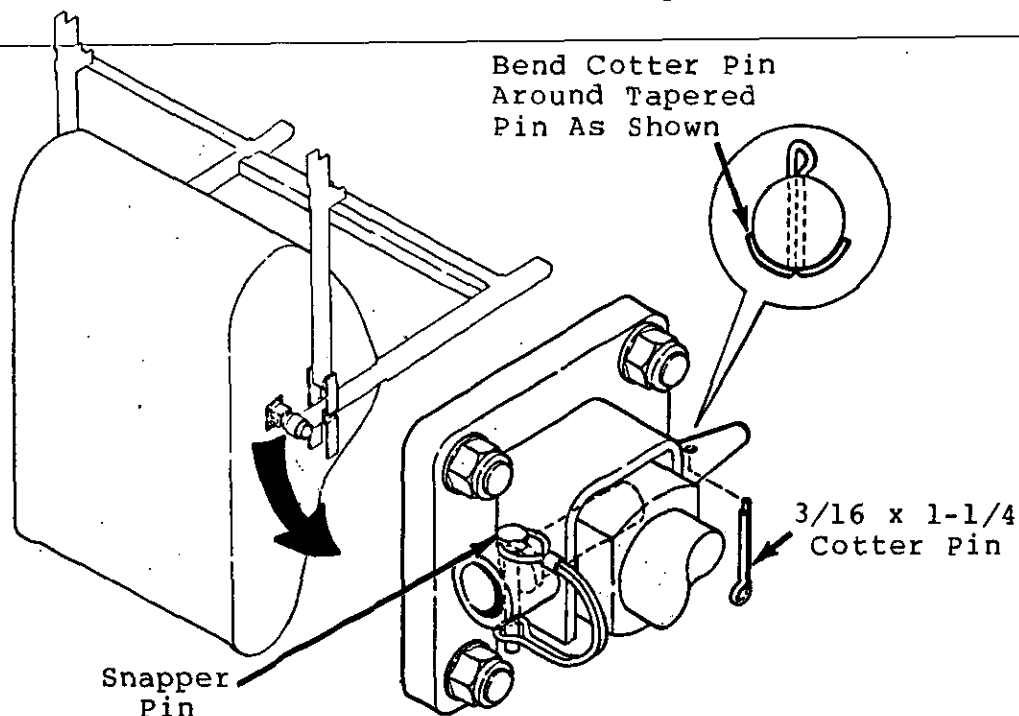
## INSTALLATION INSTRUCTIONS

1. Install the special capscrew through the tube in the seat hanger, behind the head of the tapered pin as shown on the ten (10) seats which rack in place on the boom. Tighten the nut until two or three capscrew threads protrude from the lock ring on the nut. **DO NOT OVERTIGHTEN.** Install the 3/16 x 1-1/4 cotter pin as shown **IN ADDITION TO THE CAPSCREW.** Do not install a hairpin in the hole in the tapered pin.

SAFETY  
COMPLIANCE  
N.J.D.O.L.  
Nov 10 11 09 AM '87



2. Install the snapper pin through the tube on in the seat hanger, behind the head of the tapered pin as shown on the two (2) seats which rack on the trailer deck. Install the 3/16 x 1-1/4 cotter pin as shown **IN ADDITION TO THE SNAPPER PIN.** Do not install a hairpin in the hole in the tapered pin.







Number: B106R1014-0

Date: September 9, 1987

Supersedes:

America's Largest Manufacturer of Amusement Rides

## SERVICE BULLETIN

Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Seat Hanger Pins

Recent field inspections have found ZIPPER seat hanger pins secured with hairpins which are worn, sprung or of the wrong size.

CHANCE RIDES, INC. now requires the use of special capscrews and nuts to secure the seat hanger pin on the seats which rack in place on the boom. On some early production rides, two seats are removed for racking on the trailer deck. The pins for these two seats must be secured with snapper pins. Refer to the illustration and instructions on the reverse side of this bulletin.

All work must be done by competent qualified mechanics, capable of understanding the function of the parts and their proper installation. If you have any questions regarding these instructions, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

Order the following parts as required:

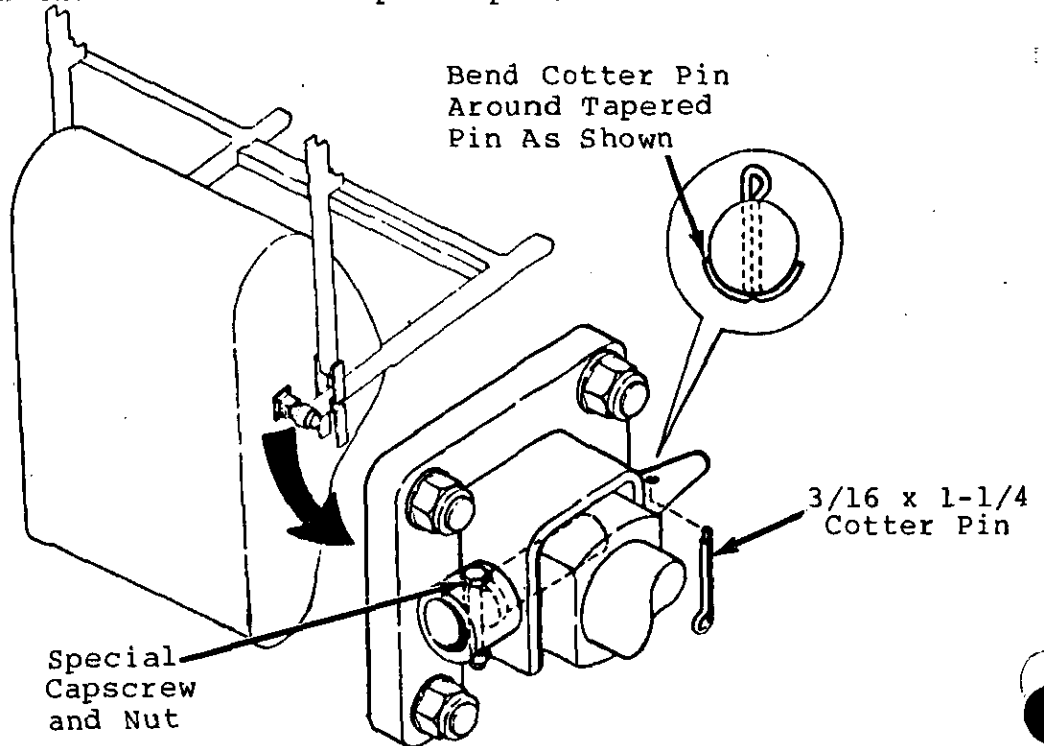
Quantity Req'd. Per Ride	Part Number	Description
24	690-12270	Capscrew - Special
24	691-48043	Nut - Flexlock (1/4-28)
4*	290-52321	Snapper Pin (1/4)
24	699-51652	Cotter Pin (3/16 x 1-1/4)

\* Snapper pin is used only on rides which rack two seats on the trailer deck. When used, reduce the quantity of special capscrews and nuts to 20.

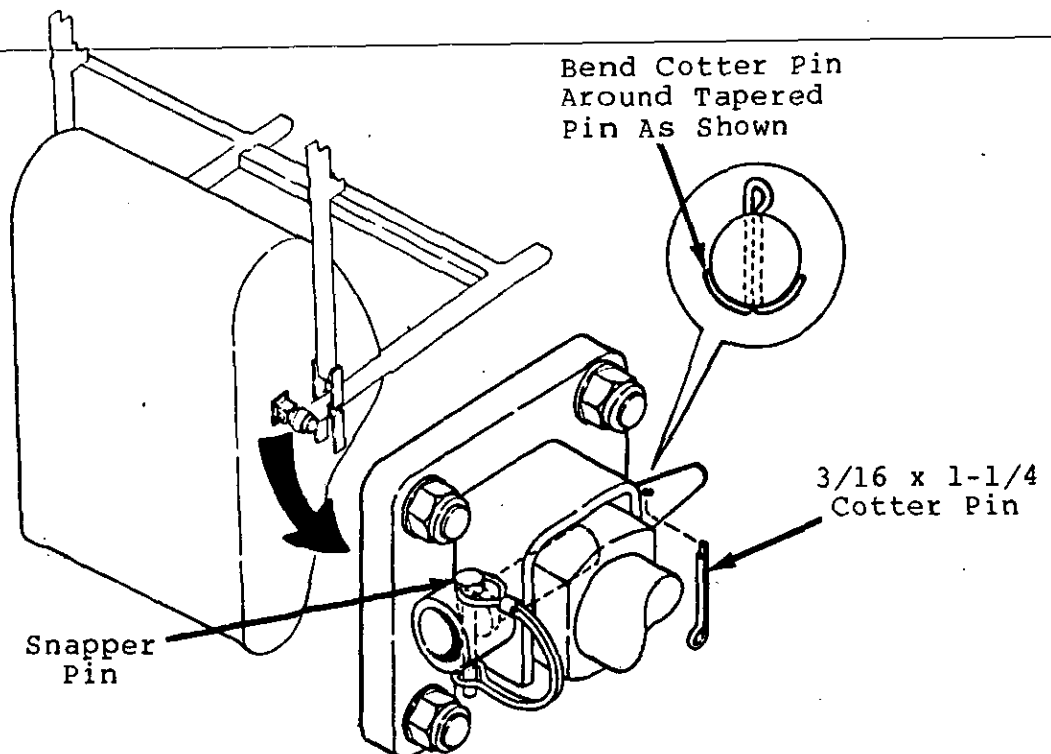
## INSTALLATION INSTRUCTIONS

1. Install the special capscrew through the tube in the seat hanger behind the head of the tapered pin as shown on ALL the seats which rack place on the boom. Tighten the nut until two or three capscrew threads protrude from the lock ring on the nut. DO NOT OVERTIGHTEN. Install the 3/16 x 1-1/4 cotter pin as shown IN ADDITION TO THE CAPSCREW. Do not install a hairpin in the hole in the tapered pin.

SAFETY  
COMPLIANCE  
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Nov 10 11 09 AM '87



2 If your ride has two (2) seats which rack on the trailer deck, install the snapper pins through the tube in the seat hanger, behind the head of the tapered pin as illustrated. Install the 3/16 x 1-1/4 cotter pin IN ADDITION TO THE SNAPPER PIN. Do not install a hairpin in the hole in the tapered pin.





Number: B05-0303-00

Date: September 9, 1987

Supersedes:

America's Largest Manufacturer of Amusement Rides

# SERVICE BULLETIN

Effective Serial Numbers:

All Units

Ride:

ZIPPER

Subject:

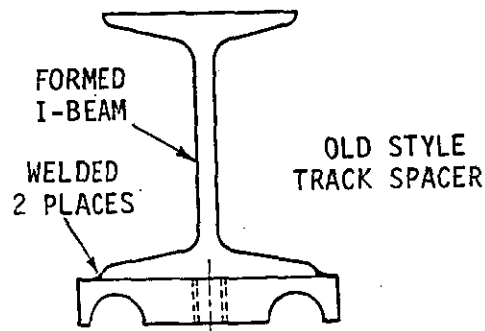
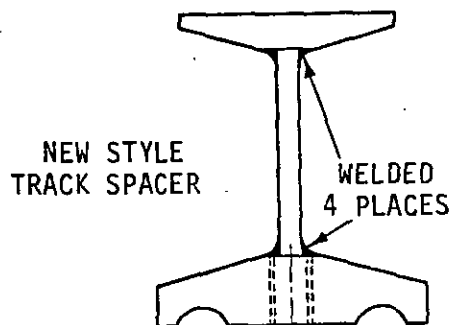
Track Spacers

As a safety precaution, CHANCE MANUFACTURING COMPANY, INC. requires that the owners of all ZIPPER amusement rides replace the track spacers between the straight and curved track sections at each end of the boom. A heavy, fabricated spacer is now available to replace the formed I-beam spacer previously used (See illustration).

AFTER JANUARY 1, 1988, DO NOT OPERATE THE RIDE WITH THE OLD STYLE TRACK SPACERS INSTALLED.

All work must be performed by qualified, competent mechanics, capable of understanding the function of the parts and their proper installation. Remove all old style track spacers from rides, and replace with the new style 1-1/2, 2, 2-1/2, and 3-inch spacers. Be sure to use the correct size attach plate for each track spacer. Refer to the instructions on Service Bulletin B05-0297-00 and the procedure in the operation manual.

Fill out and return the attached Certification Of Compliance for the procedure no later than January 1, 1988.



<u>Part Number</u>	<u>Description</u>
305-69871	TRACK SPACER - 1-1/2" Long (1062171-015)
305-70093	TRACK SPACER - 2" Long (1062171-004)
305-69870	TRACK SPACER - 2-1/2" Long (1062171-006)
305-70094	TRACK SPACER - 3" Long (1062171-005)
305-53350	ATTACH PLATE - 1-1/2" Long (1062170A032)
305-53871	ATTACH PLATE - 2" Long (1062170A019)
305-53349	ATTACH PLATE - 2-1/2" Long (1062170A031)
305-53349	ATTACH PLATE - 3" Long (1062170A018)

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411



## Certification of Compliance

SERVICE BULLETIN B05-0303-00

We hereby certify the procedure outlined in the above-mentioned service bulletin has been performed on the \_\_\_\_\_

Serial No(s) \_\_\_\_\_, in accordance with the instructions and specifications supplied by Chance Manufacturing Company, Inc.

Date Bulletin Received \_\_\_\_\_

Date Procedure Performed \_\_\_\_\_

Name and Address of Person performing Procedure:

\_\_\_\_\_  
\_\_\_\_\_

**Attested:**

Owner \_\_\_\_\_

Maintenance Supervisor \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

By: \_\_\_\_\_

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

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

Results: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This certification must be completed and returned to  
CHANCE MANUFACTURING COMPANY, INC. no later than January 1, 1988.

MAINT. SERVICE  
1988



Number: B106R1013-0

Date: September 9, 1987

## SERVICE BULLETIN

Effective Serial Number: All Units

Ride: ZIPPER

Subject: Track Spacers

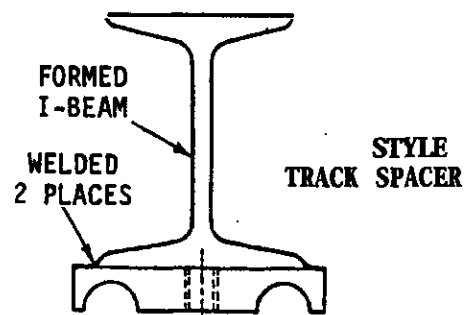
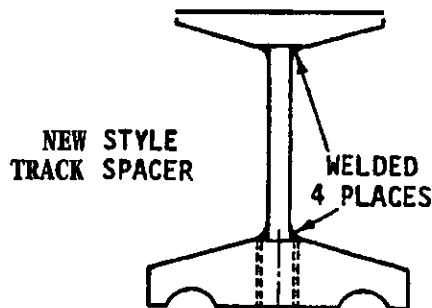
As a safety precaution, CHANCE RIDES, INC. requires that the owners of all ZIPPER amusement rides replace the track spacers between the straight and curved track sections at each end of the boom. A heavy, fabricated spacer is now available to replace the formed I-beam spacer previously used (See illustration).

AFTER JANUARY 1, 1988, DO NOT OPERATE THE RIDE WITH THE OLD STYLE TRACK SPACERS INSTALLED.

All work must be performed by qualified, competent mechanics, capable of understanding the function of the parts and their proper installation.

Remove all old style track spacers from rides, and replace with the new style 1-1/2, 2, 2-1/2, and 3-inch spacers. Be sure to use the correct size attach plate for each track spacer. Refer to the instructions on Service Bulletin B106R1008-0 and the procedure in the operation manual.

Fill out and return the attached Certification Of Compliance for the procedure no later than January 1, 1988.



<u>Part Number</u>	<u>Description</u>
305-69871	TRACK SPACER - 1-1/2" Long (1062171-015)
305-70093	TRACK SPACER - 2" Long (1062171-004)
305-69870	TRACK SPACER - 2-1/2" Long (1062171-006)
305-70094	TRACK SPACER - 3" Long (1062171-005)
305-53350	ATTACH PLATE - 1-1/2" Long (1062170A032)
305-53871	ATTACH PLATE - 2" Long (1062170A019)
305-53349	ATTACH PLATE - 2-1/2" Long (1062170A031)
305-53349	ATTACH PLATE - 3" Long (1062170A018)



Number: B106R1024-0

Date: Nov. 28, 1988

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## SERVICE BULLETIN

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Effective Serial Number: 106-125-86 And On

Ride: **ZIPPER**

Subject: Operation Of Shut-Off  
Valves For Hydraulic  
Leveling Jacks

As a safety precaution, CHANCE RIDES, INC. requires that the owners of all **ZIPPER** amusement rides instruct their employees to follow the correct procedure for operation of the shut-off valves for the hydraulic leveling jacks. Safety decals are enclosed with this bulletin to remind employees of these instructions.

Install the five decals (part no 277-22B200), one on each leveling jack and one near the shut-off valves. After the decals have been installed, always follow the recommended operating procedures.

### **WARNING**

**RETRACT THE HYDRAULIC LEVELING JACKS AND CLOSE SHUT-OFF VALVES FOR THE JACKS DURING NORMAL RIDE OPERATION.**

**If the valves are left open, hydraulic pressure from the drive system, or pressure from hydraulic oil expanding due to heat can cause one or more of the jacks to extend, making the ride unstable. Injuries to passengers and/or bystanders can result.**



Number: B05-0344-00

Date: June 7, 1989

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Inspection And Rework Of  
Seat Support Frames



**WARNING: FAILURE TO COMPLY WITH THIS SERVICE BULLETIN CAN RESULT IN FAILURE OF THE SEAT SUPPORT FRAMES, CAUSING INJURY TO PASSENGERS, AND/OR BYSTANDERS.**

It has been determined by CHANCE MANUFACTURING CO., INC. that cracks can develop in ZIPPER seat support frames.

All owners of the above noted ZIPPER amusement rides are required to inspect their rides and if necessary, perform the rework described in this bulletin.

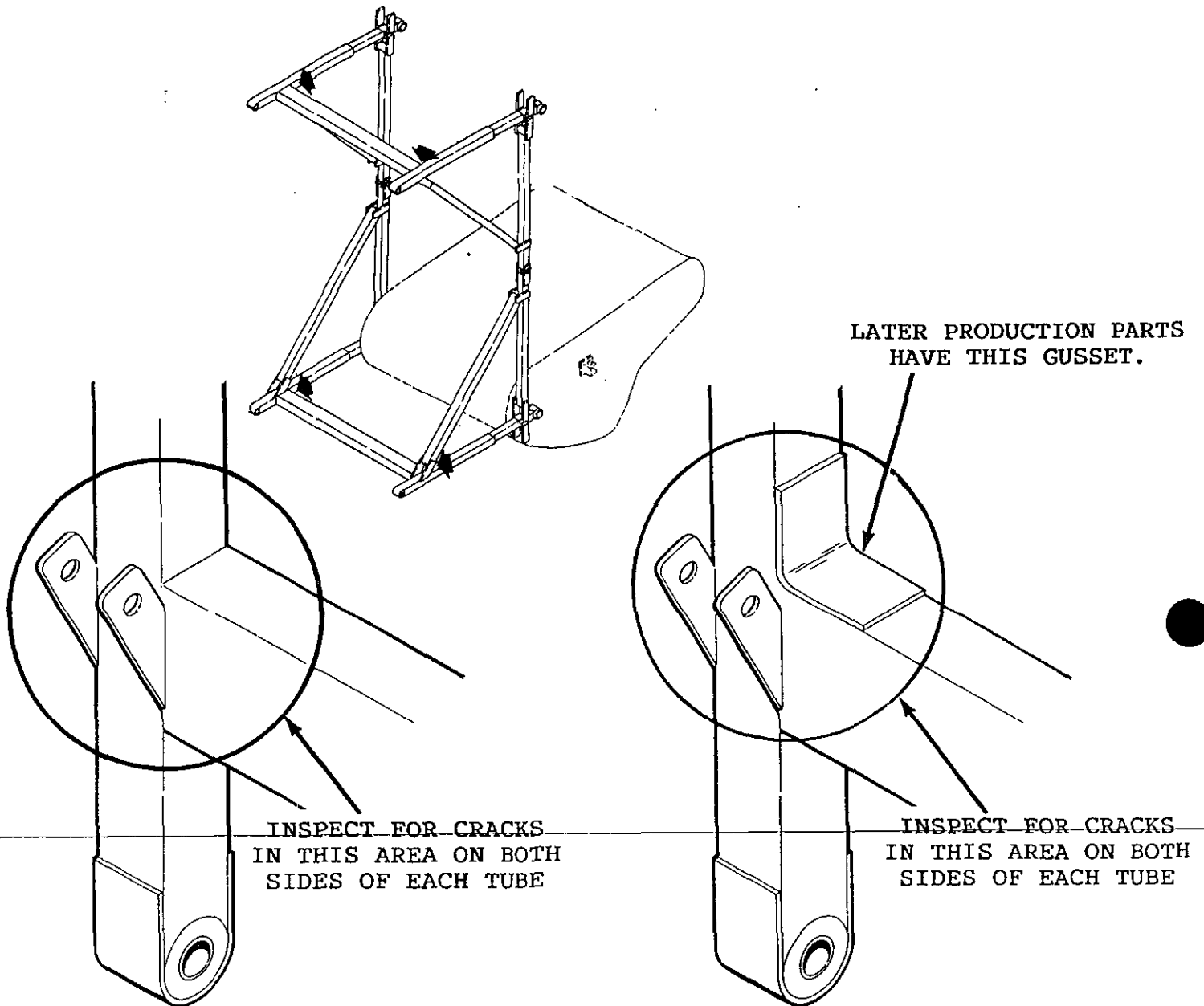
Perform the inspection using the instructions on the following pages of this bulletin. If rework is required, order Kit No. K05-0344-00 and install the kit using the instructions provided. The inspection and all work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

Return the attached Certification Of Compliance within 15 days from receipt of the bulletin. If there are any questions regarding the instructions or this inspection, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

## INSPECTION PROCEDURE

Check each seat support frame (12 per ride) for cracks as shown in the following illustration. Inspect the weld and the tubing near the welded joint.



- If a crack is found in a seat support frame, replace the frame with a new part. Do not attempt to weld or otherwise repair a cracked seat support frame. DO NOT OPERATE THE RIDE.
- If no cracks are present, and the seat support frame does not have the reinforcing gusset, order Kit No. K05-0344-00. Install the kit using the following instructions.

**IMPORTANT:** Perform this inspection monthly or at every set-up, whichever occurs first.



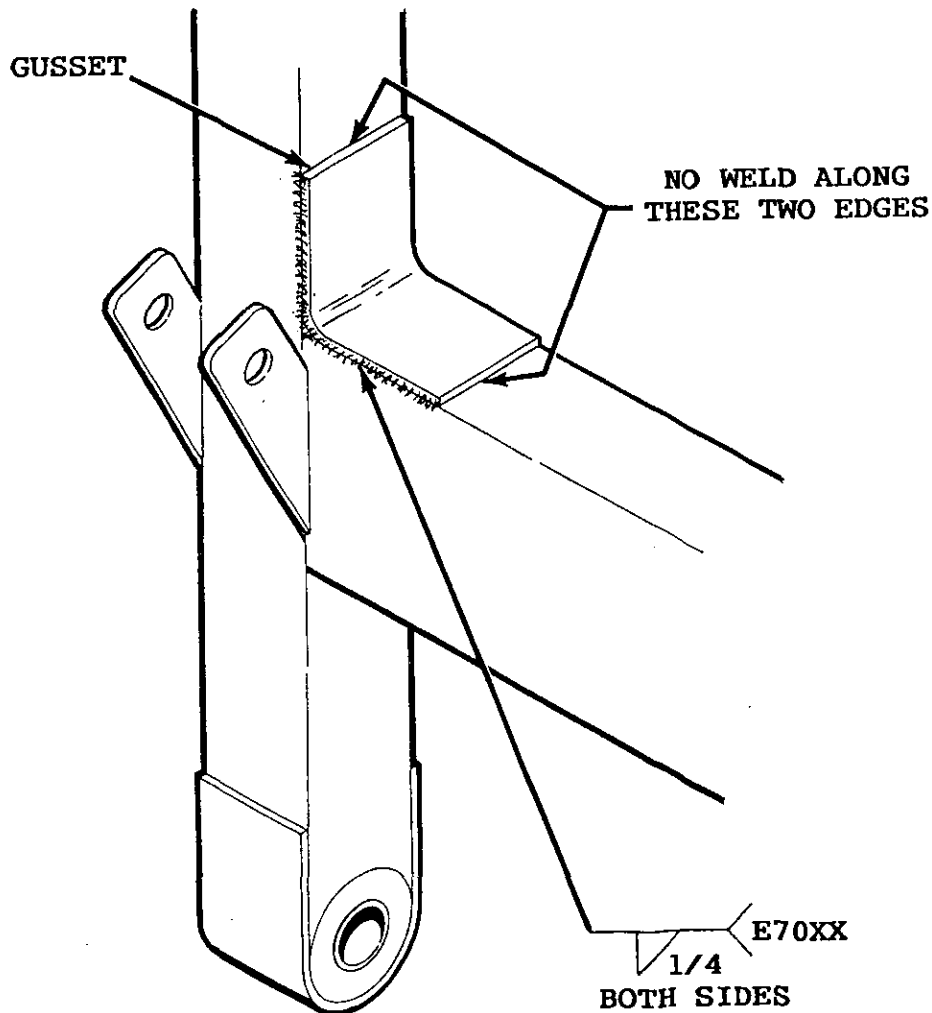
### PARTS LIST

The following parts are included in Kit No. K05-0344-00,  
to rework one complete ride (12 seat support frames).

<u>Part Number</u>	<u>Description</u>	<u>Qty.</u> <u>Reqd.</u>
305-XXXXXXX	GUSSET - Seat Support Frame (1062500-032)	.... 24

### REWORK INSTRUCTIONS

All seat support frames must have the reinforcing gusset like later productions parts. Locate and weld the gusset two places on the seat support frame as shown.





Number: B106R1040-0

Date: June 7, 1989

America's Largest Manufacturer of Amusement Rides

## SERVICE BULLETIN

Effective Serial Number: All Units

Ride: ZIPPER

Subject: Inspection And Rework Of  
Seat Support Frames



**WARNING: FAILURE TO COMPLY WITH THIS SERVICE BULLETIN CAN  
RESULT IN FAILURE OF THE SEAT SUPPORT FRAMES, CAUSING IN-  
JURY TO PASSENGERS, AND/OR BYSTANDERS.**

It has been determined by CHANCE RIDES, INC. that cracks can develop in ZIPPER seat support frames.

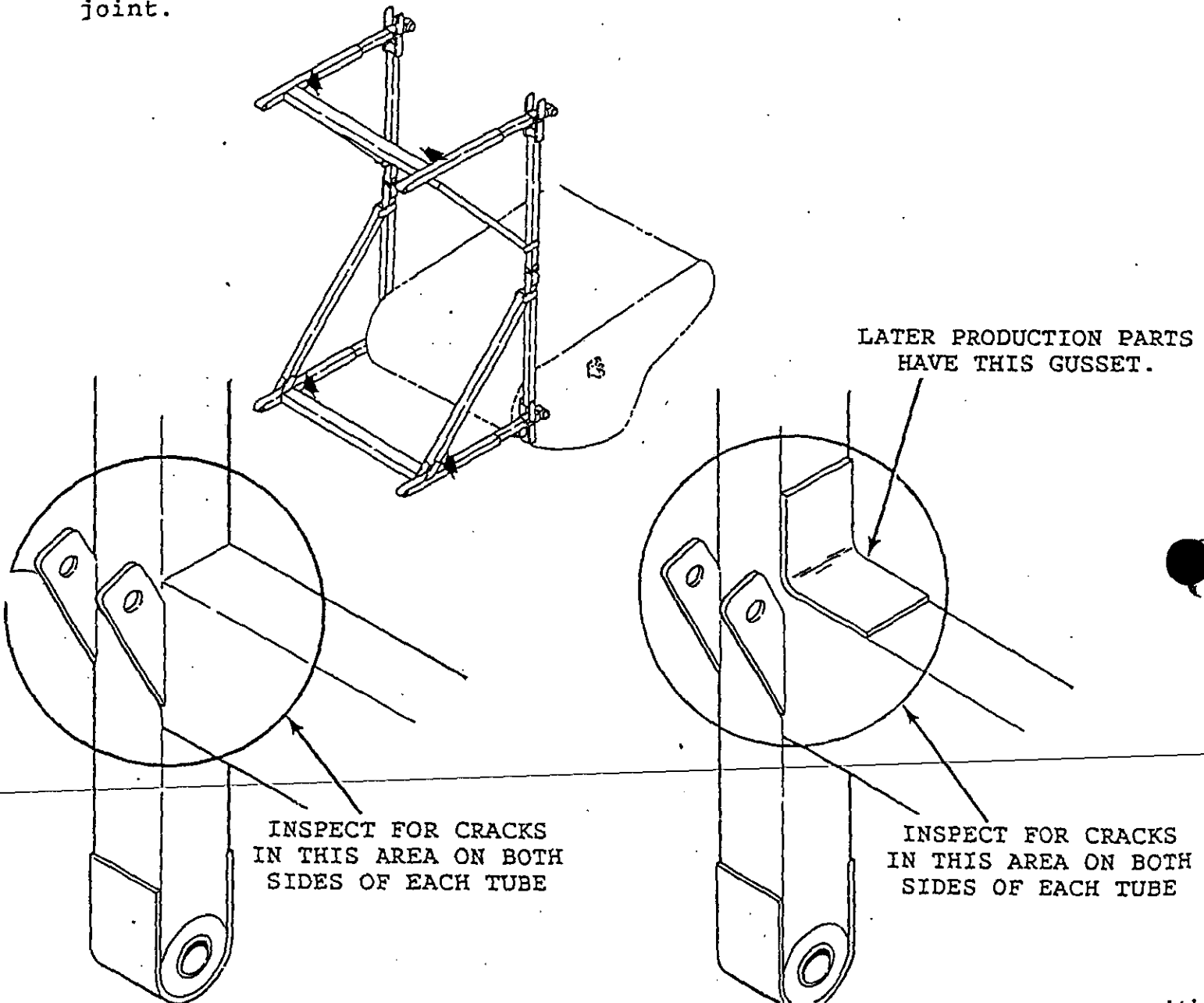
All owners of ZIPPER amusement rides are required to inspect their rides and if necessary, perform the rework described in this bulletin.

Perform the inspection using the instructions on the following pages of this bulletin. If rework is required, order Kit No. K05-0344-00 and install the kit using the instructions provided. The inspection and all work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

Return the attached Certification Of Compliance within 15 days from receipt of the bulletin. If there are any questions regarding the instructions or this inspection, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

## INSPECTION PROCEDURE

Check each seat support frame (12 per ride) for cracks as shown in the following illustration. Inspect the weld and the tubing near the welded joint.



- If a crack is found in a seat support frame, replace the frame with a new part. Do not attempt to weld or otherwise repair a cracked seat support frame. DO NOT OPERATE THE RIDE.
- If no cracks are present, and the seat support frame does not have the reinforcing gusset, order Kit No. K05-0344-00. Install the kit using the following instructions.

**IMPORTANT:** Perform this inspection monthly or at every set-up, whichever occurs first.

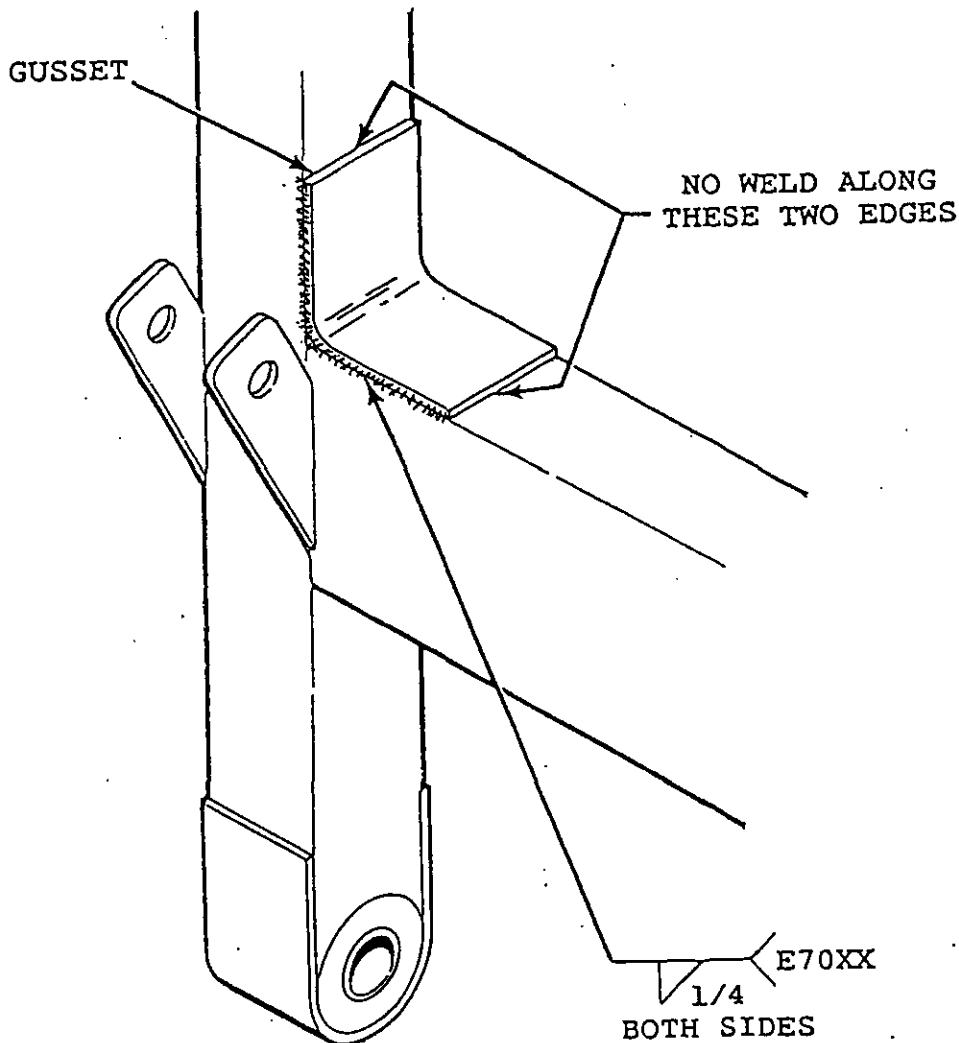
### PARTS LIST

The following parts are included in Kit No. K05-0344-00,  
to rework one complete ride (12 seat support frames).

<u>Part Number</u>	<u>Description</u>	<u>Qty.</u> <u>Reqd.</u>
305-3191400	GUSSET - Seat Support Frame (1062500-032)	.... 24

### REWORK INSTRUCTIONS

All seat support frames must have the reinforcing gusset like later productions parts. Locate and weld the gusset two places on the seat support frame as shown.





Number: B05-0347-00

Date: August 1, 1989

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: All Units

Ride: ZIPPER

Subject: Lap Bar Inspection

Lap bars on the ZIPPER are essential to passenger safety, and must be maintained properly. Operating the ride with worn or damaged lap bars, incorrect lap bars, wooden lap bars, or incorrectly mounted lap bars can result in injury to passengers.

CHANCE MANUFACTURING CO., INC. therefore requires the inspection of lap bars on all ZIPPER amusement rides, to ensure that all rides are equipped with the specified lap bars, and that the lap bars are properly installed.

Perform the inspection, using the instructions on the following pages of this bulletin. Return the attached Certification Of Compliance for the inspection within fifteen (15) days from receipt of this bulletin.

All work must be performed by competent, qualified mechanics, capable of understanding the function of the parts and their proper installation. If there are any questions regarding the instructions or this inspection, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

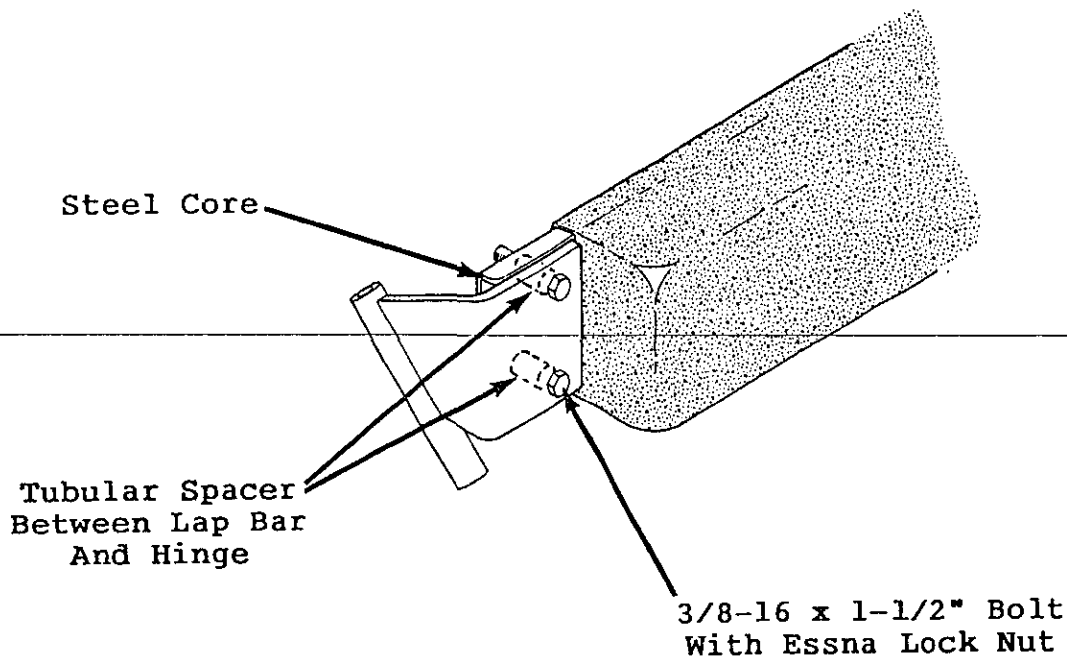
**NOTE:** Insert this bulletin into your Operation & Maintenance Manual for future reference.

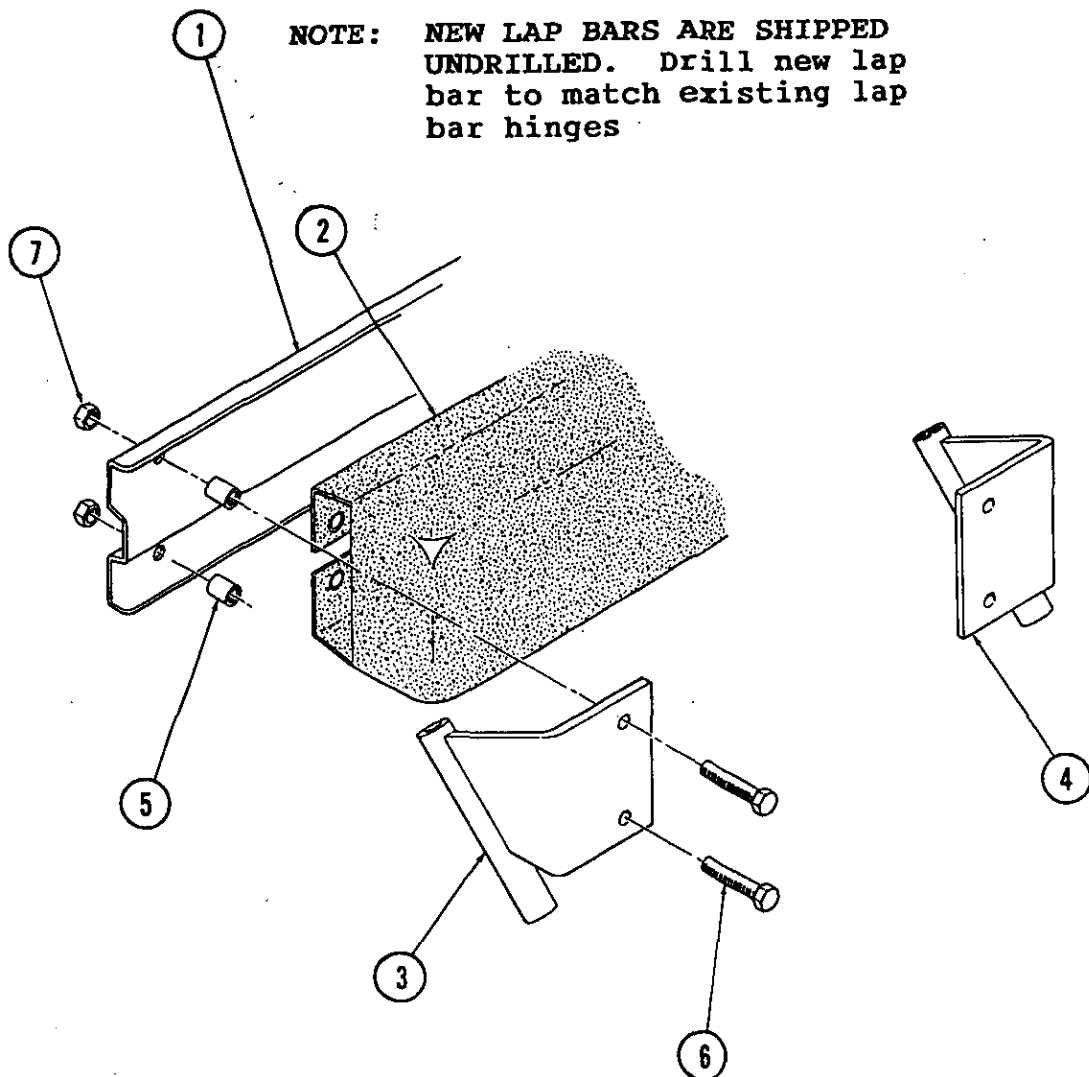
## INSPECTION INSTRUCTIONS

Inspect the lap bar on every vehicle for the following:

1. The lap bar must be identical to the lap bar shown below. The core must be formed steel. WOOD LAP BARS AND LAP BARS WITH "FORMED-FOAM" PADDING ARE NOT ALLOWED.
2. The lap bar must be installed exactly as shown. The bolts which fasten the lap bar to the lap bar hinge at each side must be 3/8-16 x 1-1/2" long, with the tubular spacer installed between the lap bar and the hinge. Tighten the mounting bolts to 19-24 ft-lbs.
3. Lap bar padding must be in good repair. Minor repairs to the replaceable factory padding are permissible, if its original size and shape are not altered.

Install Lap Bar On  
This Side Of Lap Bar Hinge





### PARTS LIST

(Use this parts list to order any necessary parts)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty. Reqd. Per Seat</u>
1	30387700	STIFFENER BAR (1062615-001) . . . . .	1
2	22079000	LAP BAR PAD (1081153-001) . . . . .	1
3	33346500	LAP BAR HINGE (1062612-001) . . . . .	1
4	33347200	LAP BAR HINGE (1062612-002) . . . . .	1
5	37024400	SPACER - Tubular (1062637-001) . . . . .	4
6	60767000	CAPSCREW - Hex Head (3/8-16 x 1-1/2) . . . . .	4
7	64781600	LOCK NUT - Essna (3/8-16) . . . . .	4



Number: B106R1048-0

Date: August 1, 1989

America's Largest Manufacturer of Amusement Rides

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# SERVICE BULLETIN

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Effective Serial Number: All Units

Ride: ZIPPER

Subject: Lap Bar Inspection

Lap bars on the ZIPPER are essential to passenger safety, and must be maintained properly. Operating the ride with worn or damaged lap bars, incorrect lap bars, wooden lap bars, or incorrectly mounted lap bars can result in injury to passengers.

CHANCE RIDES, INC. therefore requires the inspection of lap bars on all ZIPPER amusement rides, to ensure that all rides are equipped with the specified lap bars, and that the lap bars are properly installed.

Perform the inspection, using the instructions on the following pages of this bulletin. Return the attached Certification Of Compliance for the inspection within fifteen (15) days from receipt of this bulletin.

All work must be performed by competent, qualified mechanics, capable of understanding the function of the parts and their proper installation. If there are any questions regarding the instructions or this inspection, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

**NOTE:** Insert this bulletin into your Operation & Maintenance Manual for future reference.

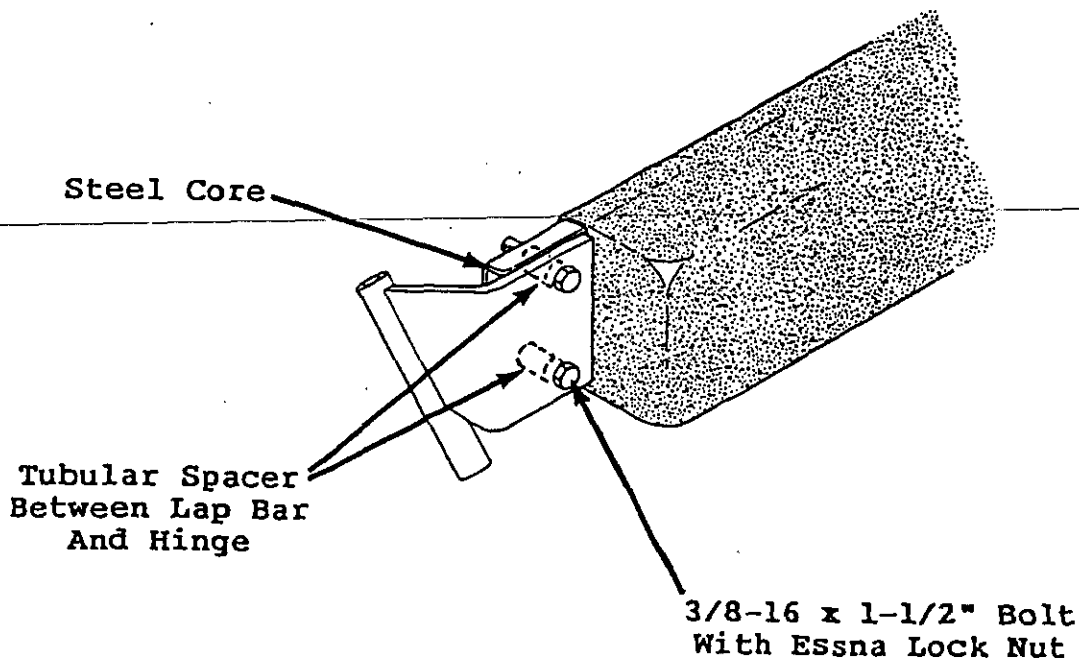


## INSPECTION INSTRUCTIONS

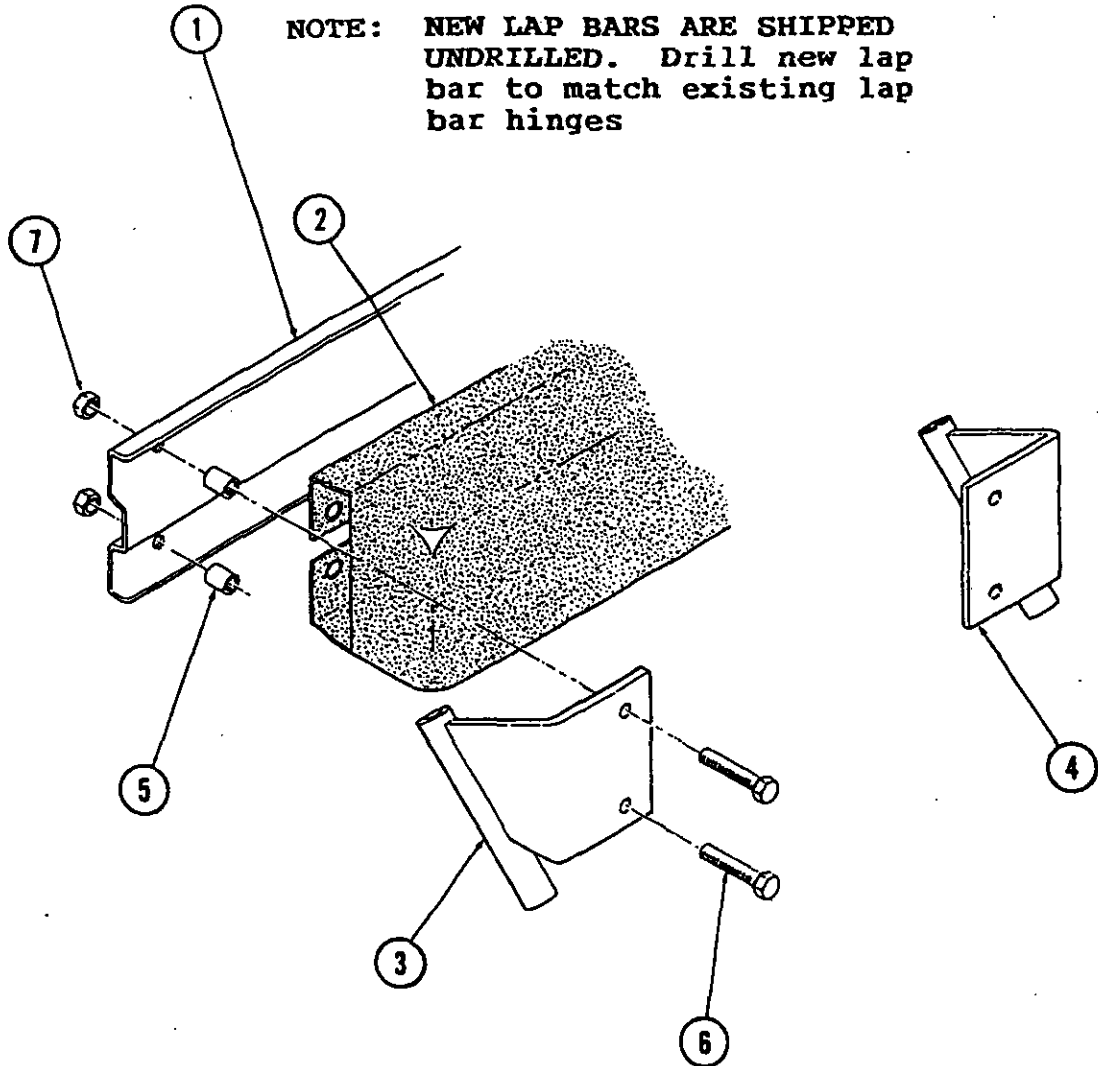
Inspect the lap bar on every vehicle for the following:

1. The lap bar must be identical to the lap bar shown below. The core must be formed steel. WOOD LAP BARS AND LAP BARS WITH "FORMED-FOAM" PADDING ARE NOT ALLOWED.
2. The lap bar must be installed exactly as shown. The bolts which fasten the lap bar to the lap bar hinge at each side must be 3/8-16 x 1-1/2" long, with the tubular spacer installed between the lap bar and the hinge. Tighten the mounting bolts to 19-24 ft-lbs.
3. Lap bar padding must be in good repair. Minor repairs to the replaceable factory padding are permissible, if its original size and shape are not altered.

Install Lap Bar On  
This Side Of Lap Bar Hinge



NOTE: NEW LAP BARS ARE SHIPPED  
UNDRILLED. Drill new lap  
bar to match existing lap  
bar hinges



# PARTS LIST

(Use this parts list to order any necessary parts)

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty. Reqd.</u> <u>Per Seat</u>
1	30387700	STIFFENER BAR (1062615-001)	12
2	22079000	LAP BAR PAD (1081153-001)	12
3	33346500	LAP BAR HINGE (1062612-001)	1
4	33347200	LAP BAR HINGE (1062612-002)	1
5	37024400	SPACER - Tubular (1062637-001)	4
6	60767000	CAPSCREW - Hex Head (3/8-16 x 1-1/2)	4
7	64781600	LOCK NUT - Essna (3/8-16)	4



Number: 805-0350-00

Date: Feb. 1, 1990

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: All Units with a manufacturing date  
that is one year old or older

Ride: ZIPPER

Subject: AXLE FRAME INSPECTION AND  
REINFORCEMENT PLATE KIT

Proper alignment of the axles frames is essential to smooth operation and long service life of all components. If the ride is operated with misalignment, the axle frames can develop cracks, and eventually fail, resulting in possible injury to passengers.

As a safety precaution, Chance Manufacturing Co., Inc. requires that all ZIPPER amusement ride axle frames be inspected and kit no. K05-0350-00 be installed.

Perform the inspection and the addition of kit no. K05-0350-00, using the instructions on the reverse side of this bulletin. Return the attached Certification Of Compliance for this work within fifteen (15) days from receipt of the kit.

## NOTICE

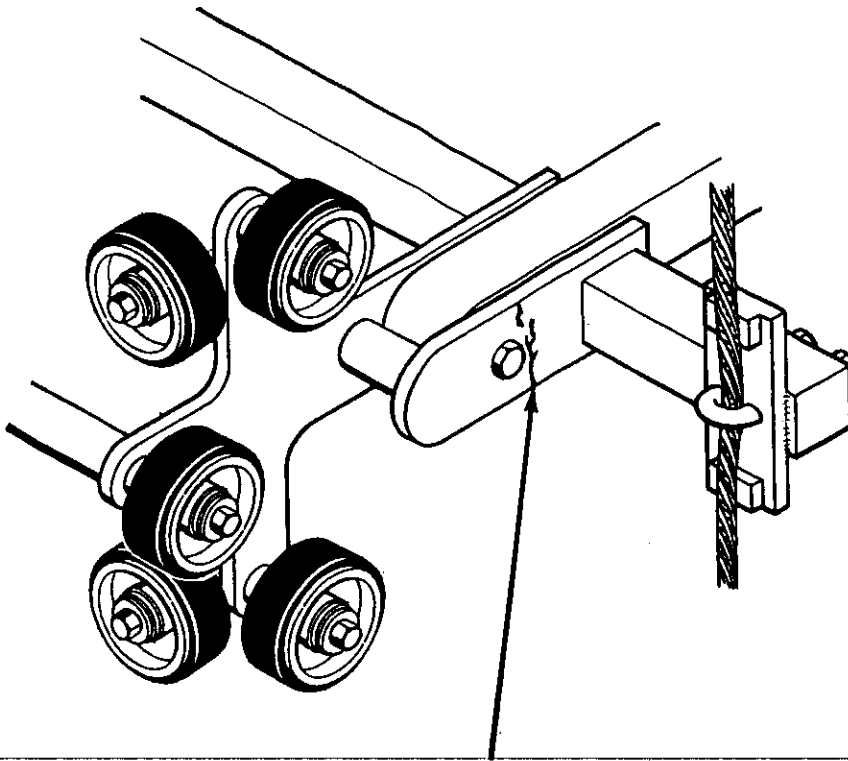
All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

Use only those components authorized, specified or provided by the manufacturer. If any alterations and/or modifications or additions and installations of unauthorized components are made to the original design without the manufacturer's explicit written consent or without direct supervision by a manufacturer's representative, Chance Manufacturing Co., Inc. makes no claim as to the integrity of the altered or modified ride.

Factory and Sales Office: 4219 Irving • P.O. Box 12328 • Wichita, Kansas 67277 • (316) 942-7411

## Inspection Instructions

Inspect both ends of each axle frame for cracks as shown in Illustration A.



INSPECT FOR CRACKS  
IN THIS AREA

ILLUSTRATION A

If cracks are found, replace the axle frame with a new part. Do not attempt to weld or otherwise repair a cracked axle frame. Order part number 305-03240 for a new axle frame weldment (does not include wheels).

Install kit no. K05-0350-00 as shown in Illustrations B and C. Two plates must be added to each end of every axle frame.

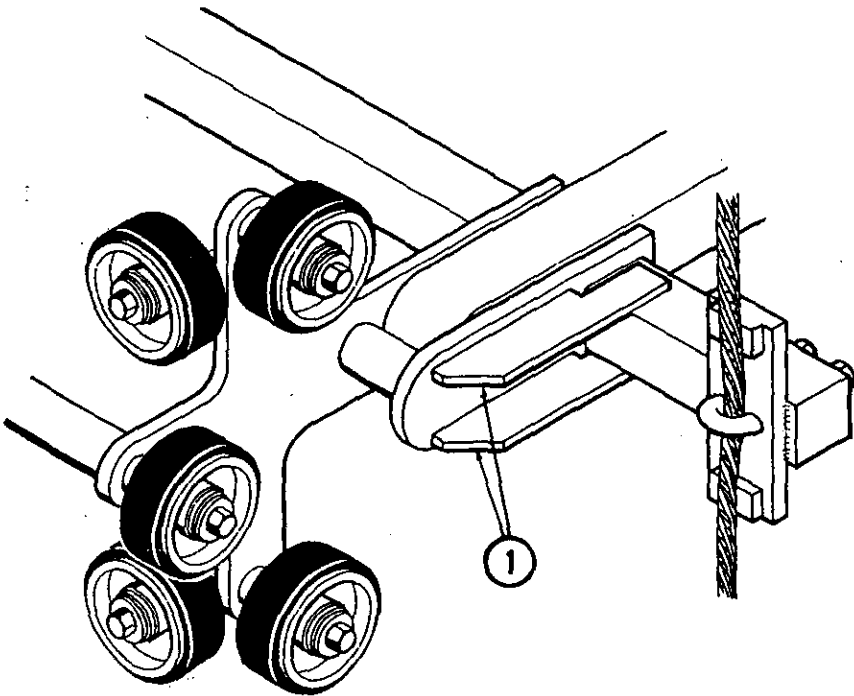


ILLUSTRATION B

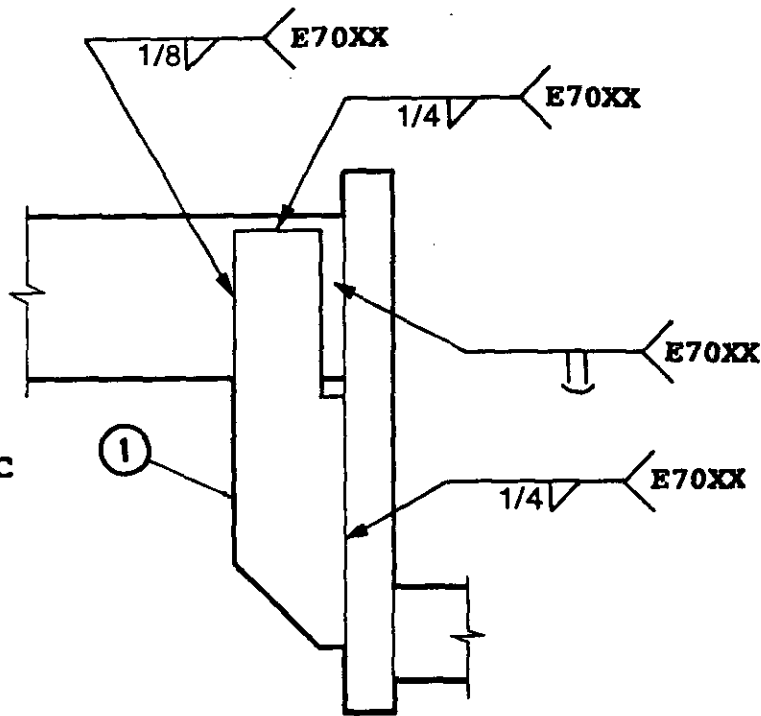


ILLUSTRATION C

PARTS LIST

Kit Number K05-0350-00 Axle Frame Rework

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1	71531600	3/8 x 1-1/2 x 8" Plate	48



NUMBER: B106R1051-0

DATE: Feb. 1, 1990

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units with a manufacturing date  
that is one year old or older

Ride: ZIPPER

Subject: AXLE FRAME INSPECTION AND  
REINFORCEMENT PLATE KIT

Proper alignment of the axles frames is essential to smooth operation and long service life of all components. If the ride is operated with misalignment, the axle frames can develop cracks, and eventually fail, resulting in possible injury to passengers.

As a safety precaution, Chance Rides, Inc. requires that all ZIPPER amusement ride axle frames be inspected and kit no. K05-0350-00 be installed.

Perform the inspection and the addition of kit no. K05-0350-00, using the instructions on the reverse side of this bulletin. Return the attached Certification Of Compliance for this work within fifteen (15) days from receipt of the kit.

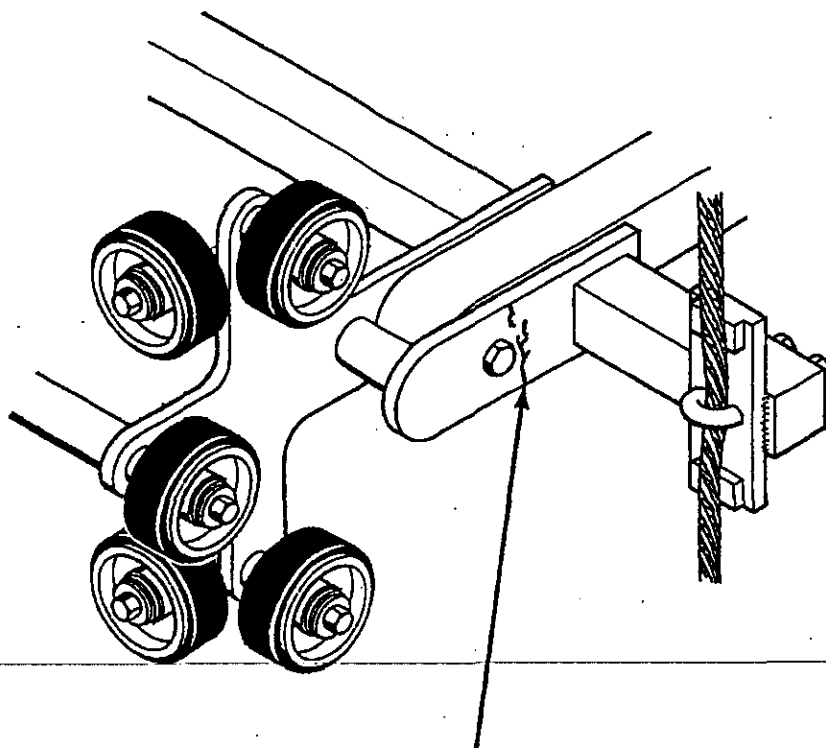
### NOTICE

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 the manufacturer. If any alterations and/or modifications or additions and installations of unauthorized components are made to the original design without the manufacturer's explicit written consent or without direct supervision by a manufacturer's representative, Chance Rides, Inc. makes no claim as to the integrity of the altered or modified ride.

## Inspection Instructions

Inspect both ends of each axle frame for cracks as shown in Illustration A.



INSPECT FOR CRACKS  
IN THIS AREA

ILLUSTRATION A

If cracks are found, replace the axle frame with a new part. Do not attempt to weld or otherwise repair a cracked axle frame. Order part number 305-03240 for a new axle frame weldment (does not include wheels).

Install kit no. K05-0350-00 as shown in Illustrations B and C. Two plates must be added to each end of every axle frame.

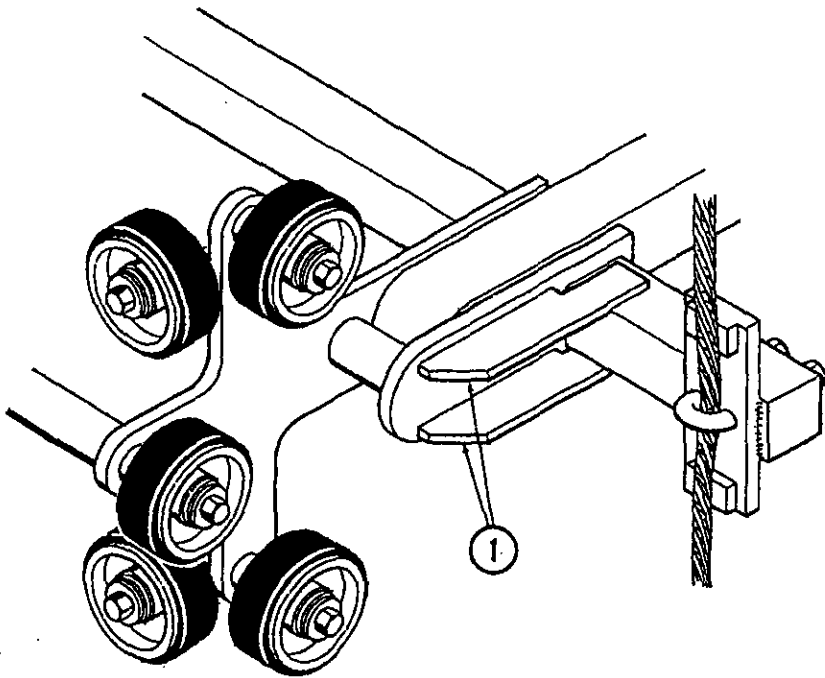


ILLUSTRATION B

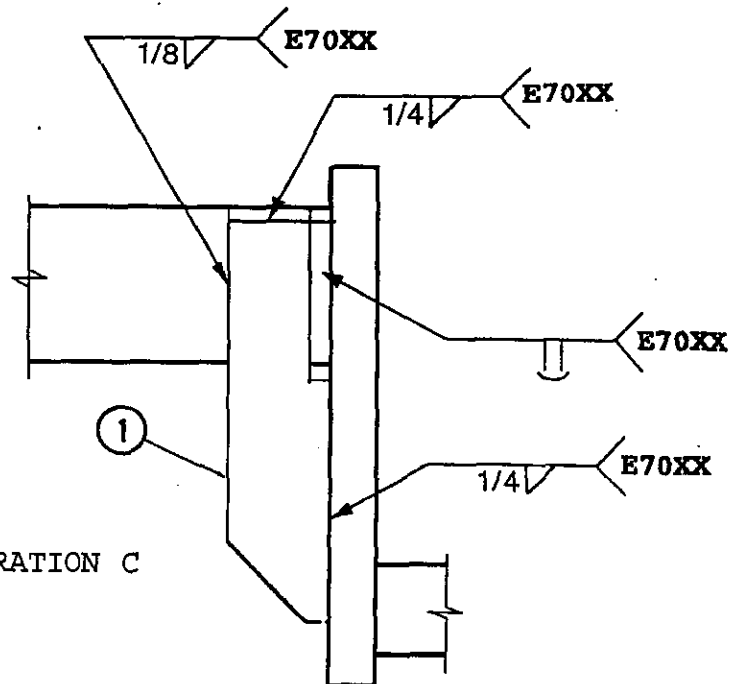


ILLUSTRATION C

# PARTS LIST

Kit Number K05-0350-00 Axle Frame Rework

Item	Part No.	Description	Qty.
1	71531600	3/8 x 1-1/2 x 8" Plate	48





Number: B05-0359-00  
Date: Feb. 9, 1990

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

## **SERVICE BULLETIN**

Effective Serial Numbers: ALL UNITS

Ride: ZIPPER

Subject: Inspection of Boom and  
Spindle Area

Chance Manufacturing Co., Inc. has become aware of a ZIPPER amusement ride in which cracks have developed in the area around the spindle where it attaches to the boom. All ZIPPER owners are required to perform the inspection on the spindle area as described on the reverse side of this bulletin. The Certification Of Compliance must be filled in and returned to Chance Manufacturing Co., Inc. within 15 days from receipt of this bulletin.

This inspection should be performed on an annual basis.

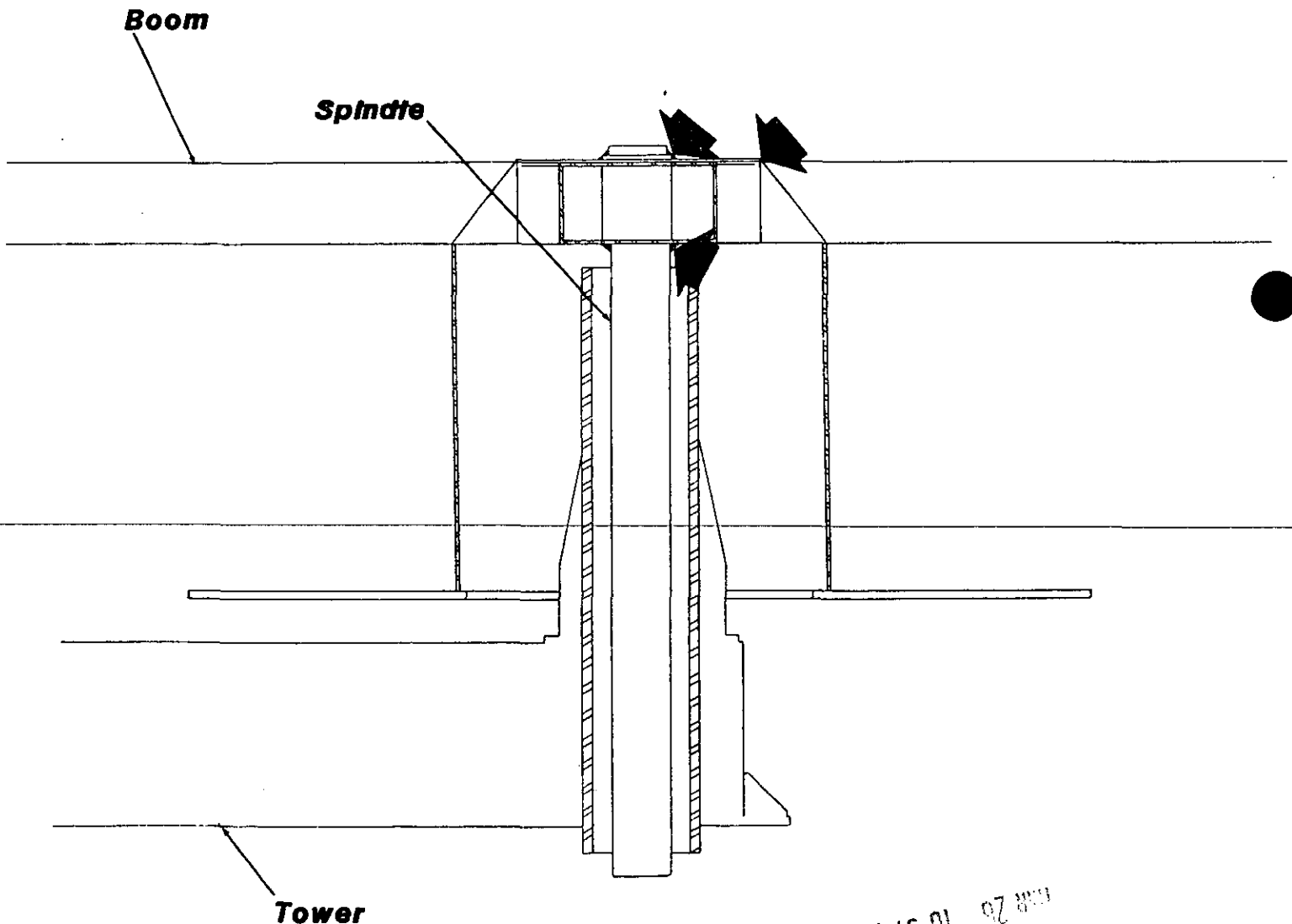
The inspection must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation. If there are any questions regarding the instructions or this inspection, contact the Chance Customer Service Department.

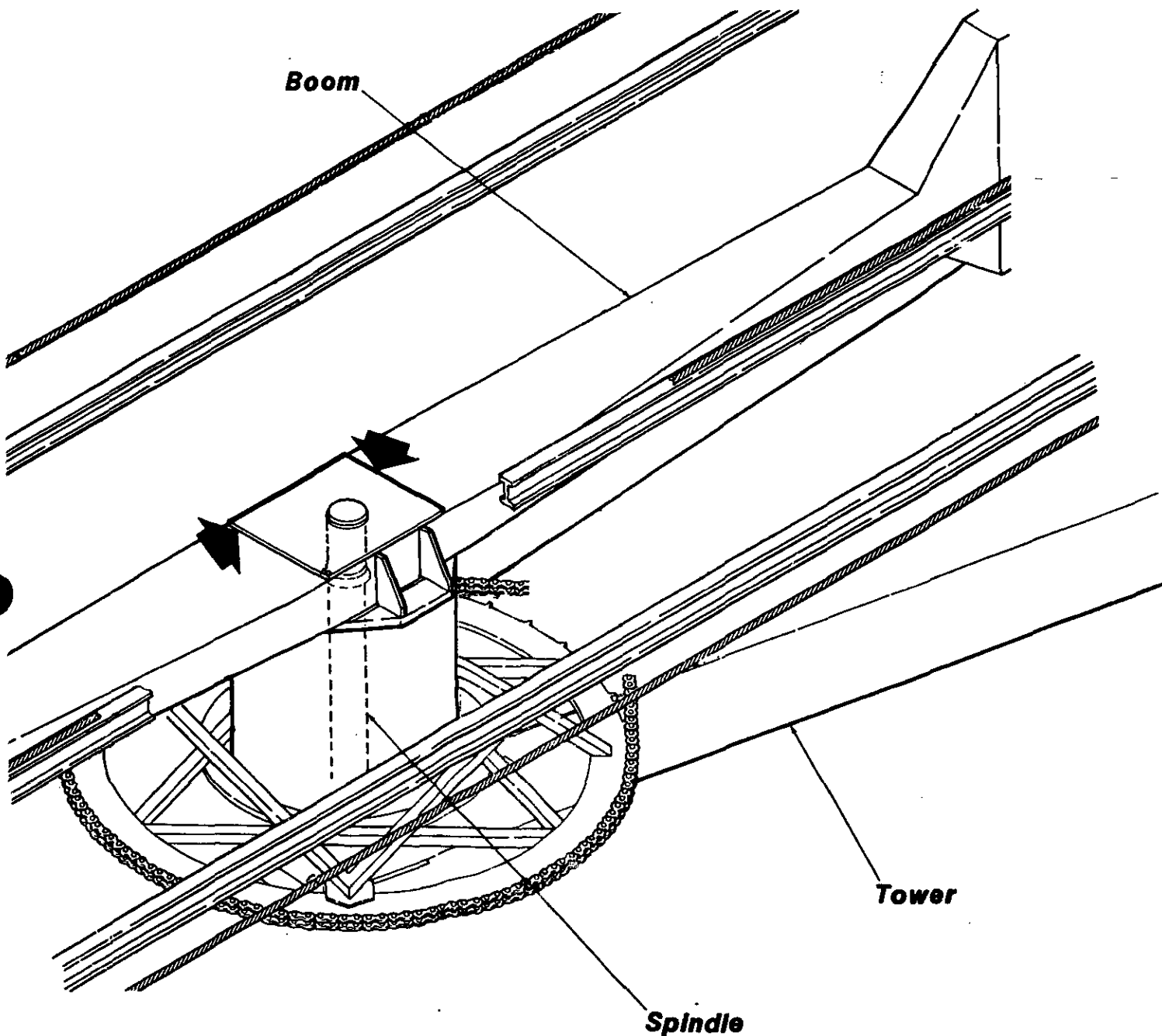
### NOTICE

USE ONLY THOSE COMPONENTS AUTHORIZED, SPECIFIED OR PROVIDED BY THE MANUFACTURER. IF ANY ALTERATIONS AND/OR MODIFICATIONS OR ADDITIONS AND INSTALLATIONS OF UNAUTHORIZED COMPONENTS ARE MADE TO THE ORIGINAL DESIGN WITHOUT THE MANUFACTURER'S EXPLICIT WRITTEN CONSENT OR WITHOUT DIRECT SUPERVISION BY A MANUFACTURER'S REPRESENTATIVE, CHANCE MANUFACTURING CO., INC. MAKES NO CLAIMS AS TO THE INTEGRITY OF THE ALTERED OR MODIFIED RIDE.

## Inspection Procedures

1. With the ride in the roading position, clean all weld areas with a suitable solvent to remove dirt and grease residues.
2. Inspect all weld areas for cracks as shown in the following illustrations.
3. Inspection should be done from the inside as well as the outside of the boom area.
4. If any cracks are found, DO NOT ATTEMPT TO REPAIR OR REWELD THEM, contact Chance Customer Service immediately. DO NOT OPERATE THE RIDE UNTIL CHANCE CUSTOMER SERVICE HAS BEEN NOTIFIED.







B106R1057-0

Feb. 9, 1990

America's Largest Manufacturer of Amusement Rides

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# SERVICE BULLETIN

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## ALL UNITS

### ZIPPER

### Inspection of Boom and Spindle Area

Chance Rides, Inc. has become aware of a ZIPPER amusement ride in which cracks have developed in the area around the spindle where it attaches to the boom. All ZIPPER owners are required to perform the inspection on the spindle area as described on the reverse side of this bulletin. The Certification Of Compliance must be filled in and returned to Chance Rides, Inc. within 15 days from receipt of this bulletin.

This inspection should be performed on an annual basis.

The inspection must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation. If there are any questions regarding the instructions or this inspection, contact the Chance Customer Service Department.

### NOTICE

USE ONLY THOSE COMPONENTS AUTHORIZED, SPECIFIED OR PROVIDED BY THE MANUFACTURER. IF ANY ALTERATIONS AND/OR MODIFICATIONS OR ADDITIONS AND INSTALLATIONS OF UNAUTHORIZED COMPONENTS ARE MADE TO THE ORIGINAL DESIGN WITHOUT THE MANUFACTURER'S EXPLICIT WRITTEN CONSENT OR WITHOUT DIRECT SUPERVISION BY A MANUFACTURER'S REPRESENTATIVE, CHANCE RIDES, INC. MAKES NO CLAIMS AS TO THE INTEGRITY OF THE ALTERED OR MODIFIED RIDE.

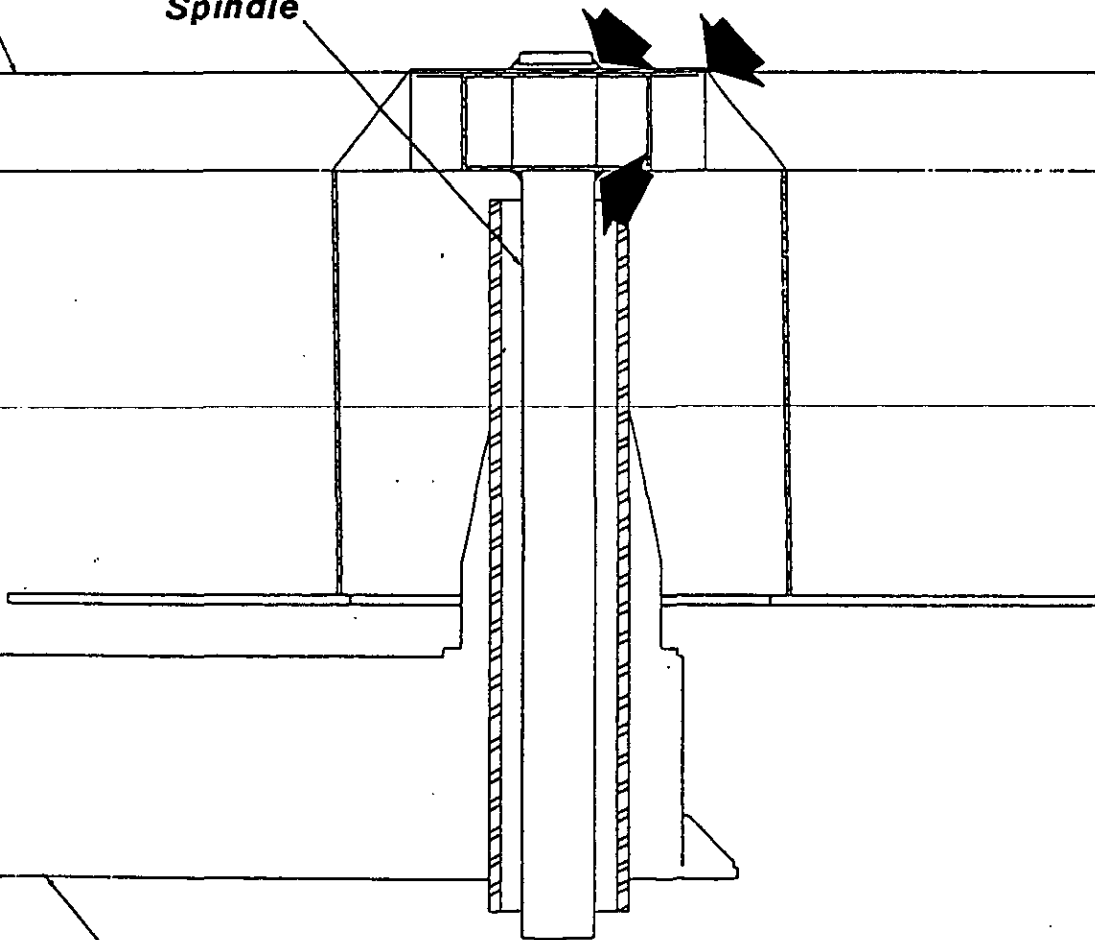
### Inspection Procedures

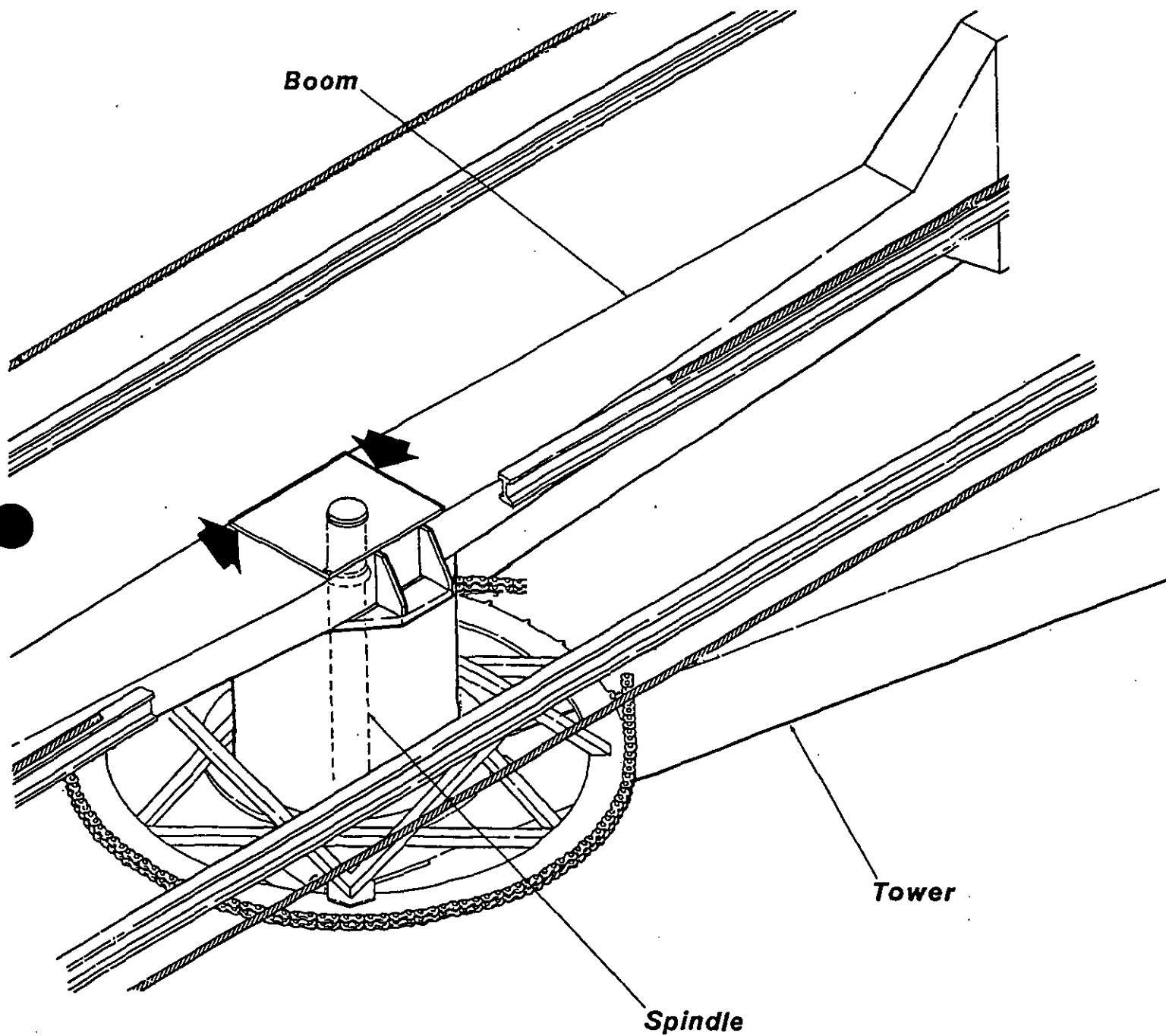
1. With the ride in the roading position, clean all weld areas with a suitable solvent to remove dirt and grease residues.
2. Inspect all weld areas for cracks as shown in the following illustrations.
3. Inspection should be done from the inside as well as the outside of the boom area.
4. If any cracks are found, DO NOT ATTEMPT TO REPAIR OR REWELD THEM, contact Chance Customer Service immediately. DO NOT OPERATE THE RIDE UNTIL CHANCE CUSTOMER SERVICE HAS BEEN NOTIFIED.

**Boom**

**Spindle**

**Tower**







NUMBER: A106R1057-A

DATE: MAY 22, 1990

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

# SERVICE BULLETIN

Effective Serial Number: All Units - Chance Rides, Inc.  
(Excluding units #145 and on)  
All Units - Chance Manufacturing Co., Inc.  
(Excluding those units which have  
repair kit K106R1057-A added.)

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: NDT Inspection of boom weld  
around spindle



**WARNING: FAILURE TO COMPLY WITH THIS SAFETY ALERT BULLETIN  
CAN RESULT IN INJURY TO PASSENGERS**

Cracks on the bottom of the boom around the spindle have been found on some ZIPPER amusement rides. Chance Rides, Inc. requires all owners of ZIPPER rides indicated above regardless of boom type, to have a qualified testing laboratory perform the liquid penetrant inspection technique outlined on the reverse side of this bulletin. This inspection must be completed within 15 days from receipt of this bulletin or by July 1, 1990, whichever occurs first, and on an annual basis, thereafter.

Once this NDT technique has been completed the attached Certificate of Compliance and a copy of the NDT report must be sent to Chance Rides, Inc.

If the inspection reveals any linear indications, DO NOT OPERATE THE RIDE. DO NOT ATTEMPT TO WELD OR REPAIR THE RIDE. A rework kit has been developed for this repair. CONTACT CHANCE RIDES, INC. CUSTOMER SERVICE DEPARTMENT IMMEDIATELY.

The ZIPPER rides which are exempt from this bulletin, see illustration C, must be inspected as outlined in Service Bulletin B106R1057-0 or B05-0359-00.

Factory and Sales Office: 4819 Irving • P.O. Box 12328 • Wichita, Kansas 67277-2328 • (316) 942-7411 • FAX: (316) 942-7415

The following liquid penetrant inspection technique meets the requirements of ASTM E1220-87 and must be performed by a qualified and certified Level II or Level III inspector.

1. Pre-Clean:  
Lightly dress weld areas as shown in illustration A and B with grinding pad to remove rust, paint, and other contaminants.
2. Apply Penetrant:  
The visible dye, color contrast, solvent removable penetrant must thoroughly cover the weld areas.
3. Dwell Time:  
The penetrant shall remain on the area of interest for a minimum of 10 minutes.
4. Excess Penetrant Removal:
  - A. Wipe as much of the penetrant from the weld area as possible by using a clean, dry, lint-free cloth rag.
  - B. Removal of penetrant residue is done by wiping the weld area with a clean, lint-free cloth rag that has been moistened with the cleaner remover.
5. Developer Application:  
Apply a thin even coating of a non-aqueous developer to the weld area and allow it to develop for a minimum of seven minutes.
6. Inspection:  
Thoroughly inspect all weld areas for linear indications. IF ANY LINEAR INDICATIONS ARE FOUND, DO NOT OPERATE THE RIDE. CONTACT THE CHANCE RIDES, INC. CUSTOMER SERVICE DEPARTMENT IMMEDIATELY. Fill out test report with results and send a copy to Chance Rides, Inc.
7. Post Clean:  
Clean weld areas with penetrant cleaner remover and wipe off residues with a cloth rag.



ILLUSTRATION A

Boom

Spindle

Tower

A106R1057-A  
PAGE 3 OF 5

ILLUSTRATION B

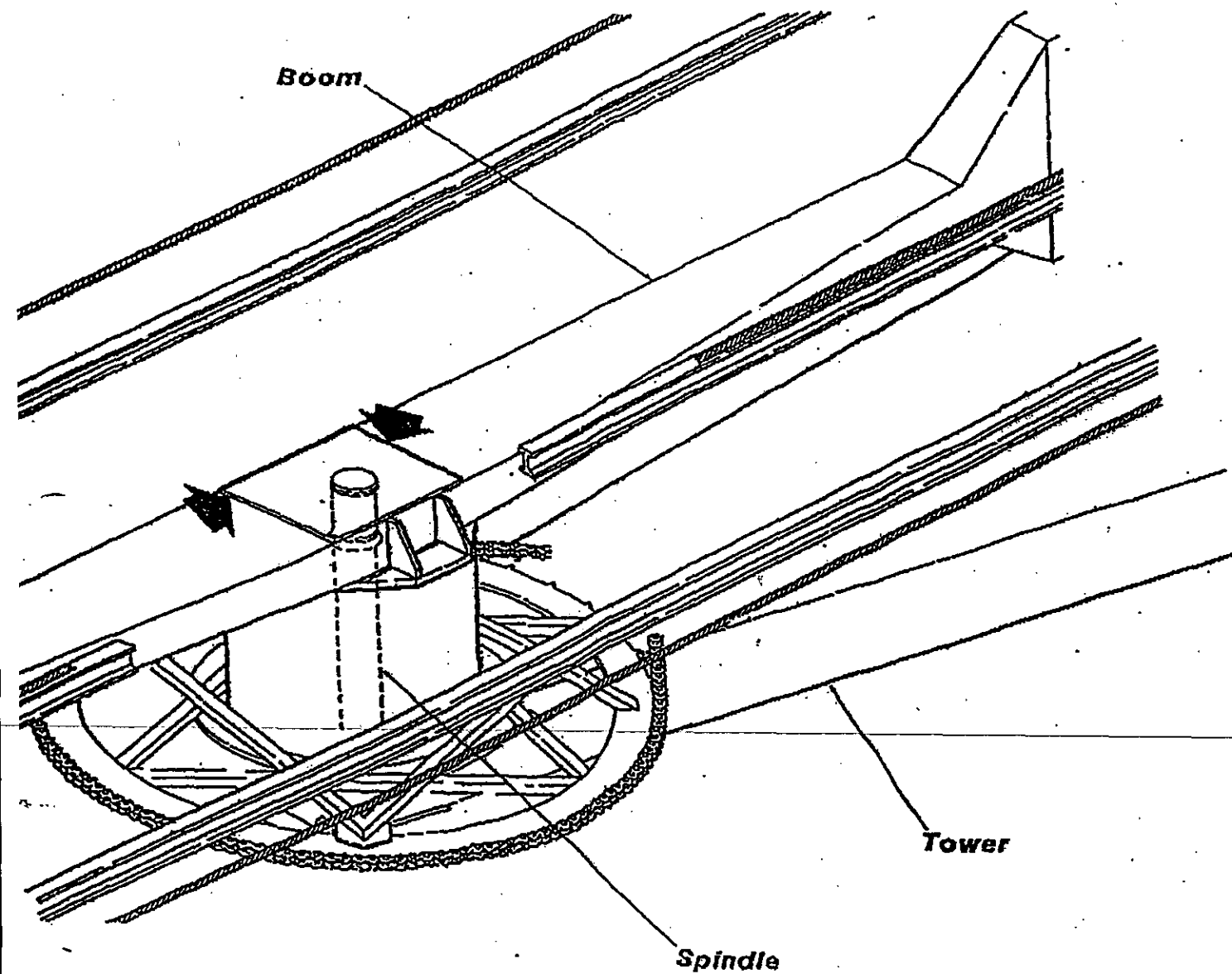
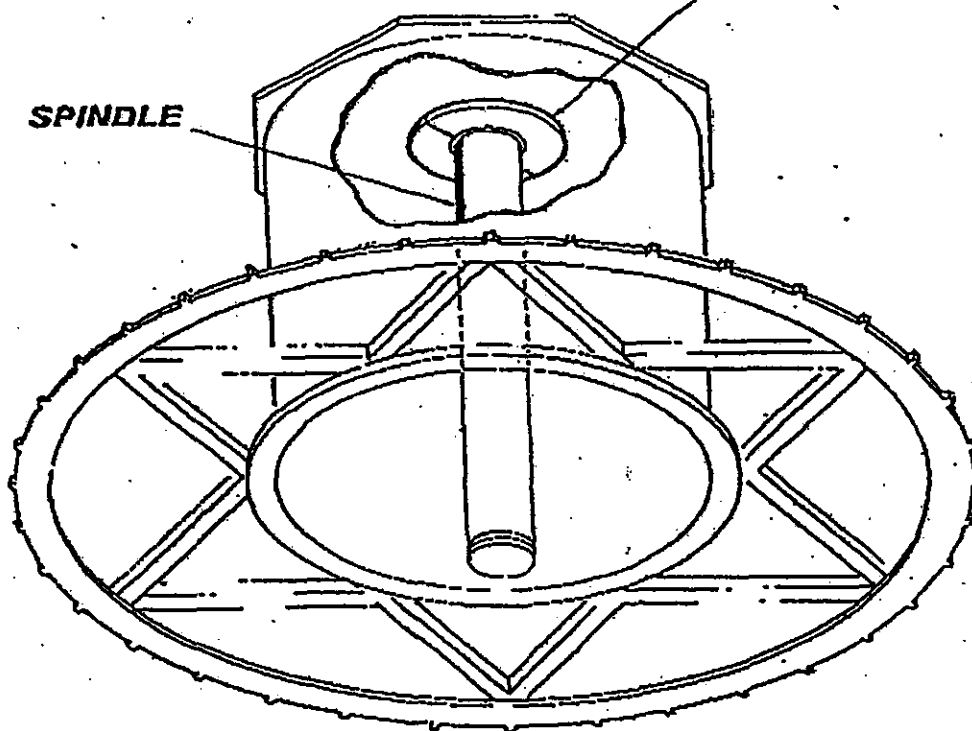


ILLUSTRATION C

Kit No. K106R1057-A

SPINDLE



A106R1057-A  
PAGE 5 OF 5



NUMBER: B106R1080-0

DATE: JULY 6, 1990

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.

All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: Boom Support Kit Adjustment

Chance Rides, Inc. has become aware that the boom support kits on some ZIPPER amusement rides have not been maintained per manufacturer's specifications. This kit supports the boom during roading. If the manufacturer's specified adjustments are not maintained, damage to the boom may occur.

If your ride is equipped with Kit number K05-0244-01, refer to the reverse side of this bulletin for the manufacturer's specifications on proper adjustment.

All work must be performed by qualified personnel., capable of understanding the function of the parts and their proper installation.

### NOTICE

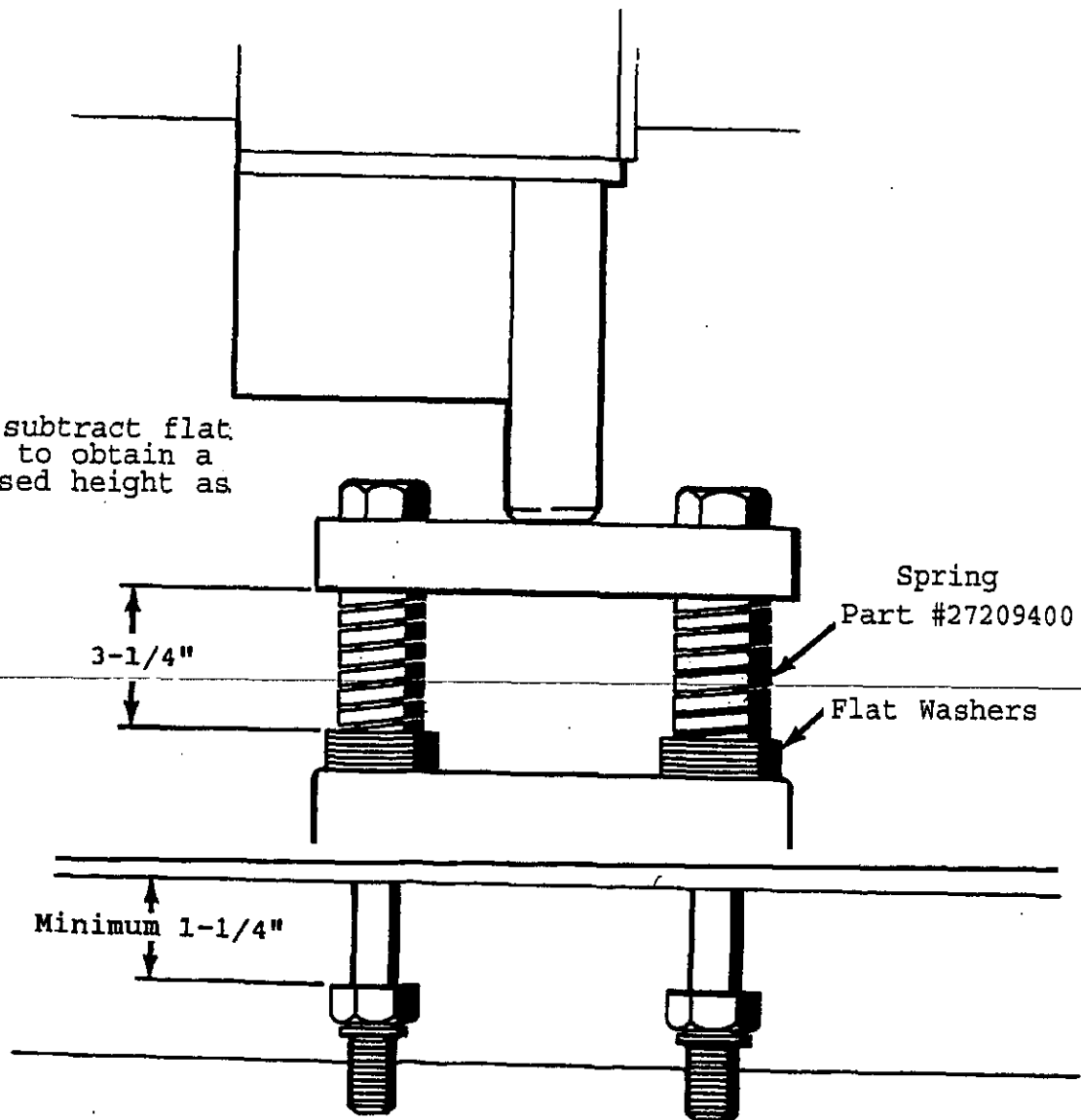
Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.

All adjustments to the boom support kit must be made with the ride in the down (roading) position and the trailer secured to the tractor.

Springs should not be broken or sprung out of shape.

Add or subtract flat washers to obtain a compressed height as shown.





NUMBER: B106R1094-0

DATE: MAR. 1, 1991

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.

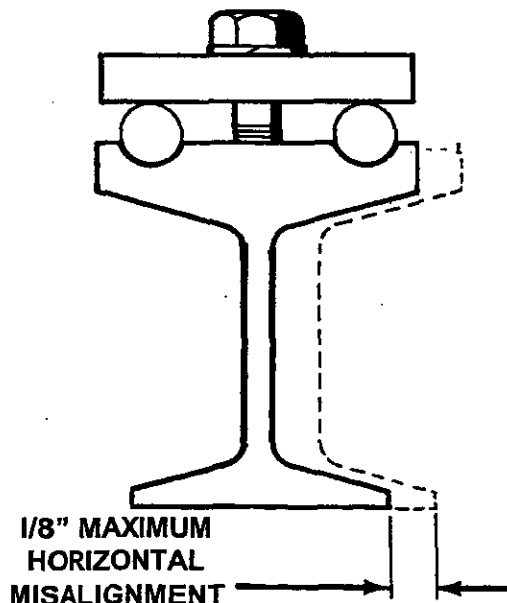
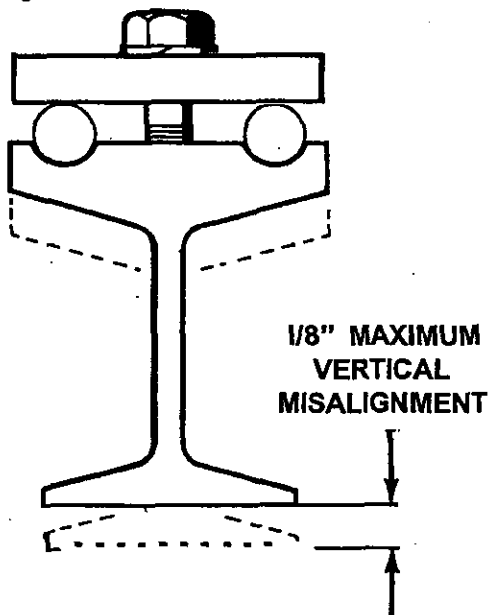
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with rides produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: Track Alignment/Trolley Bolts

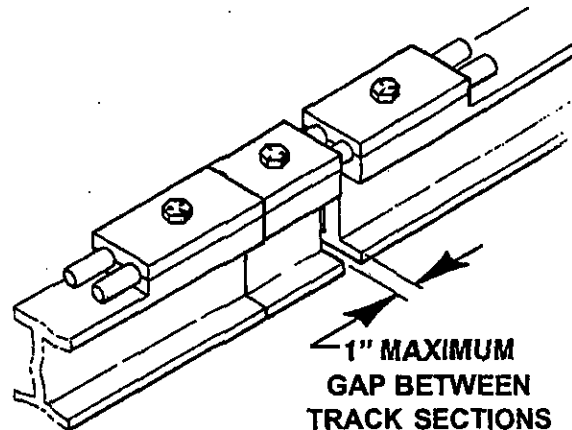
Chance Rides, Inc. has become aware of at least one ZIPPER amusement ride on which the straight track and the curved tracks became misaligned. If this occurs, damage to both the wheels and the bolts holding the wheels may occur. Chance Rides, Inc. requires all ZIPPER owner/operators to check the alignment of the track at each set up or monthly, whichever occurs first.



The maximum misalignment of the track sections, in either an up and down or side to side direction is 1/8".

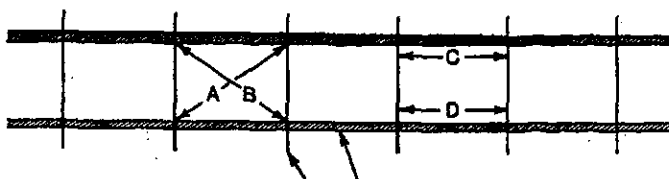
All owner/operators of ZIPPER rides must adhere to the following maintenance on the track and trolley wheels.

1. Use only the proper track spacers, attaching plates and pins (refer to Chance Rides service bulletins, numbers B106R1008-0 and B106R1013-0). Only grade 5 1/2-13 x 1-1/4" hex head cap screws are to be used. All items must be in good condition.
2. Maintain the smallest possible gap between the straight and curved sections of track. The maximum total allowable gap between track sections is 1" (refer to Chance Rides service bulletin number B106R1008-0).



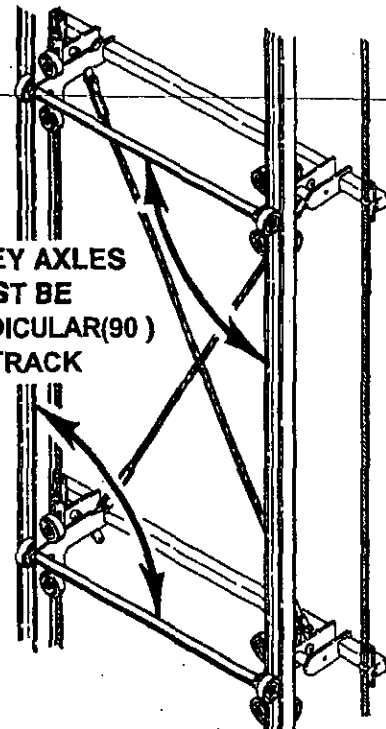
3. Trolley axles must be perpendicular to the track so the wheels run freely and do not bind.

Trolley axles are properly aligned when "A" = "B" and "C" = "D".

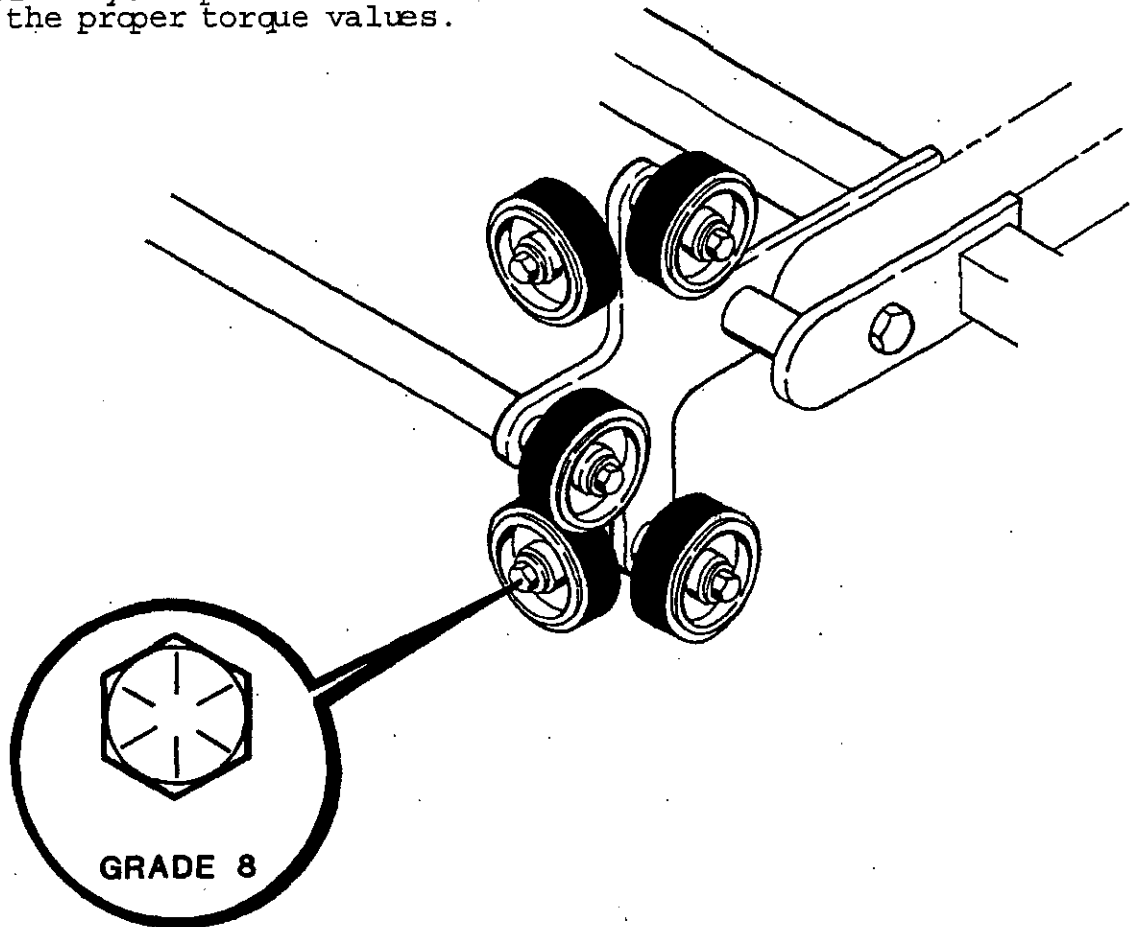


SEAT SUPPORT AXLE    DRIVE CABLE

TROLLEY AXLES  
MUST BE  
PERPENDICULAR(90°)  
TO TRACK



4. All trolley wheels must be secured with grade 8 bolts. Refer to the operation/maintenance manual for the correct length bolt for each wheel on your particular ride and for the proper torque values.



All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

#### NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.





NUMBER: B106R1095-0

DATE: MARCH 1, 1991

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.

All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Co., Inc.

Ride: Zipper

Subject: Seat Support Assembly Bushing

Recent field inspections have found seat support assembly bushings on ZIPPER amusement rides either badly worn or not clamped correctly. Chance Rides, Inc. requires all owner/operators of ZIPPER rides to inspect these bushings to ensure that the manufacturer's specifications are being met.

The bushing used in the seat support assembly is a specially manufactured bushing with an overall length of 2-1/8 inches. This length allows for the trolley axle weldment to clamp to the bushing. This holds the bolt stationary in the bushing as the bushing turns inside the seat support assembly. The outside diameter of the bushing is the wear area. The bolt wearing into the bushings is an indication that the bolt was not adequately tightened. If this occurs the bushing must be replaced and the bolt tightened securely so as to adequately clamp the bushing.

Lubrication of the bushing is done once a week or at each set up, whichever occurs first. Use number 2 lithium base grease on the bushing, applied through the grease zerk at the end of the seat support assembly.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

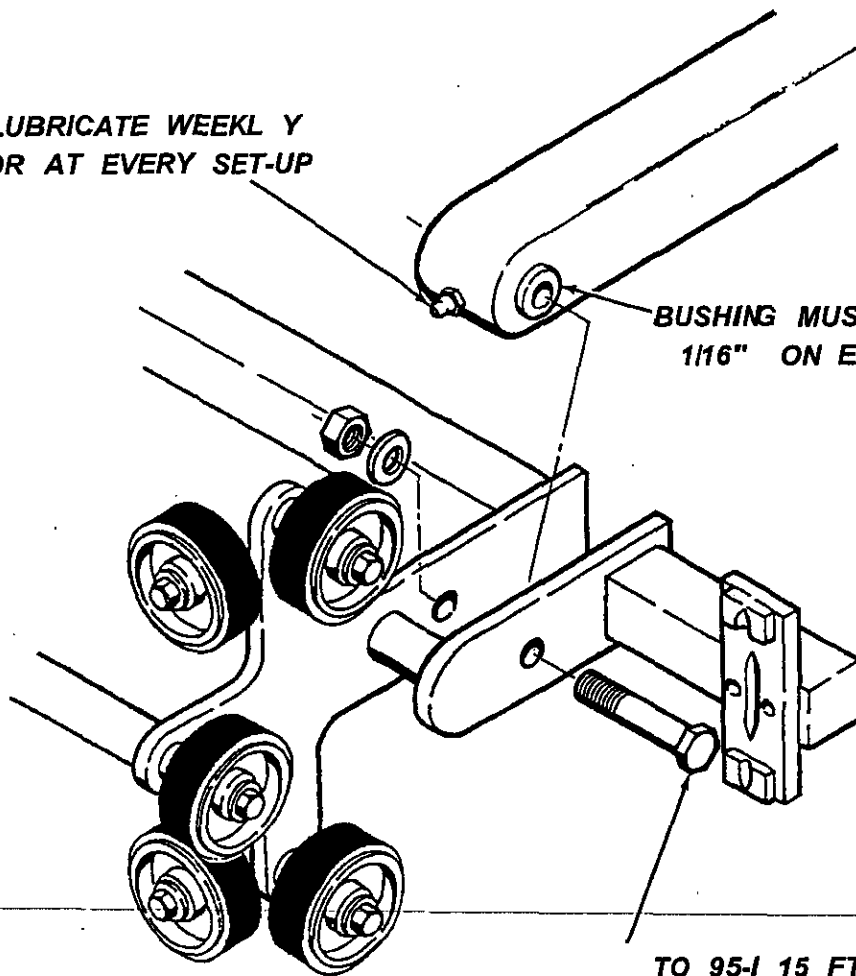
### NOTICE

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Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.

LUBRICATE WEEKLY  
OR AT EVERY SET-UP

BUSHING MUST PROJECT  
1/16" ON EACH SIDE



TO 95-1 15 FT-LBS.



NUMBER: B106R1096-0

DATE: APRIL 5, 1991

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.

Ride: ZIPPER

Subject: Seat Spindle Lubrication

Chance Rides, Inc. has become aware that some ZIPPER amusement rides have experienced wear to the seat spindles in the bearing areas and to the bearings as well. This is caused by a lack of lubrication in those areas. A loss of lubrication to some bearings may occur due to settling during roading.

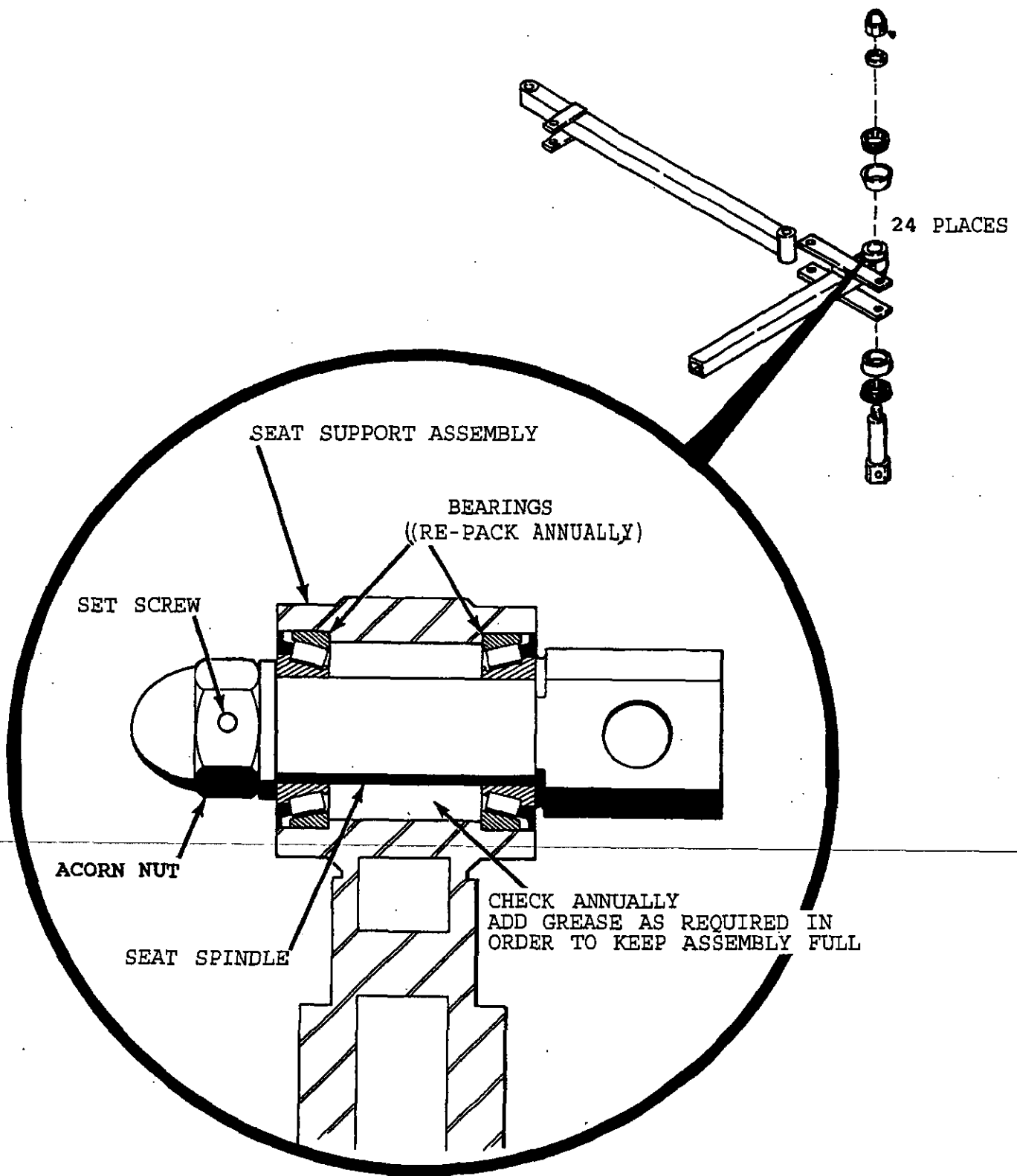
Proper lubrication of the bearings and the seat support assemblies is essential to minimize wear. The bearings in the seat support assemblies must be repacked annually. The seat support assemblies must be checked annually and repacked as required to keep them full of grease. Use only number 2 lithium base grease on bearings and in the seat support assemblies.

All work must be performed by aualified personnel, capable of understanding the fun&ion of the part's and their proper installation.

### NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.



When reassembling, tighten acorn nut until all back and forth movement of the seat spindle is eliminated. Seat spindle must still turn freely. Secure acorn nut with set screw.



NUMBER: B106R1116-0

DATE: NOV. 16, 1992

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.  
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: Safety Notice

In an effort to maintain the highest level of safety, Chance Rides, Inc. has reviewed the action of the ZIPPER amusement ride and the standard operating safety practices. For the safety of all passengers, Chance Rides, Inc. has revised its standard operating policy for the ZIPPER. Chance Rides, Inc. requires all owner/operators of Zipper rides to adopt the new safety policies, outline in this bulletin, into practice.

The remote control switch, which plugs into the operator's control pedestal, must be used only for set-up and tear-down of the ride. This remote control switch is not to be used during loading and unloading of the seats when the ride is in operation.

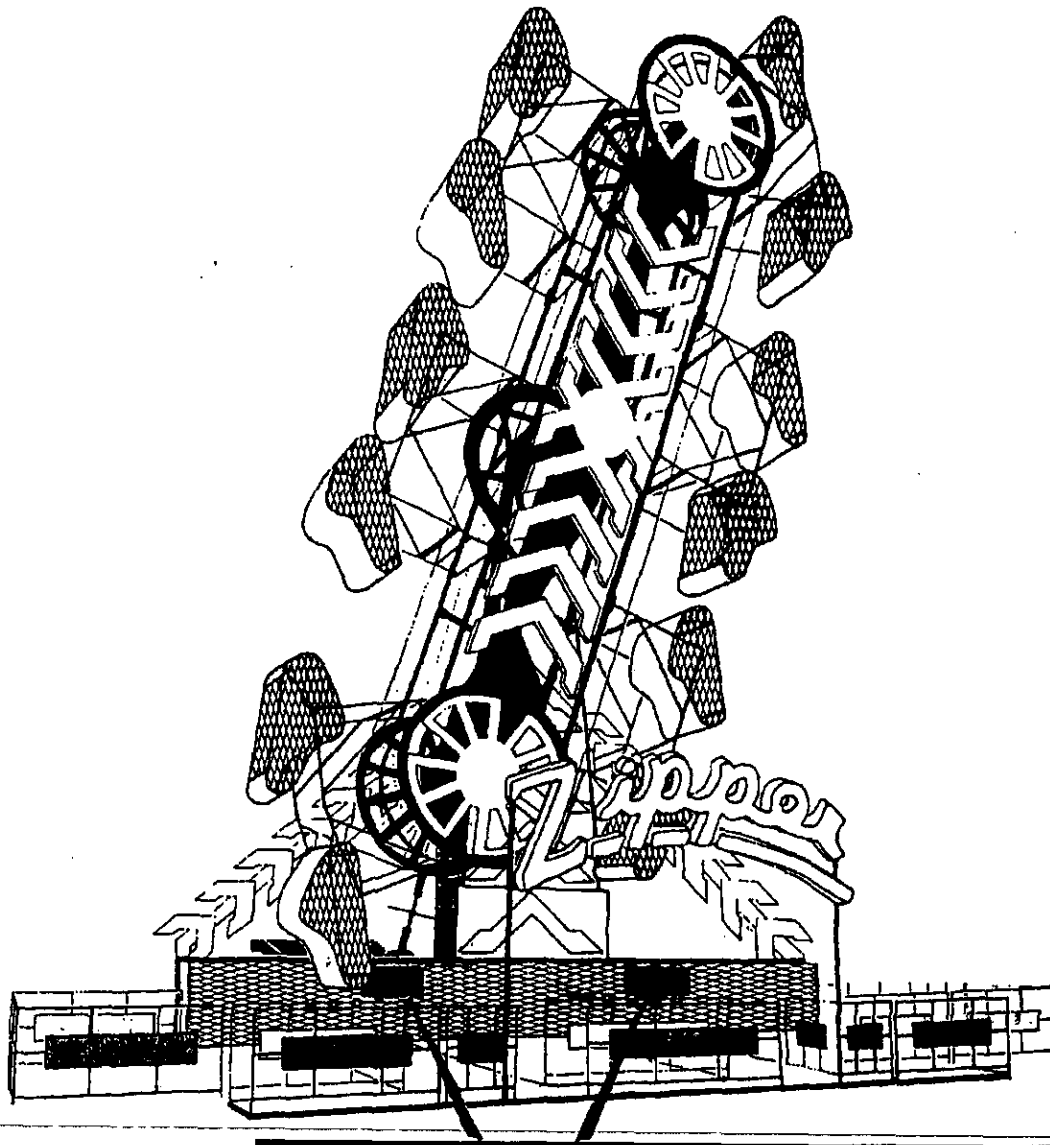
All safety announcements given to passengers as they load should include, but not be limited to the following:

1. No single riders.
2. Secure all loose articles.
3. To properly ride this ride, all passengers must hold onto the grab bars on the inside of the door, with both hands when the ride is in motion.

In addition to the above safety announcement items, no person who is pregnant, visibly ill, or under the influence of drugs or alcohol must be permitted to ride.

Chance Rides, Inc. has also increased the height restrictions for passengers on the ZIPPER Ride. NO ONE UNDER 48 INCHES IN HEIGHT SHALL BE PERMITTED TO RIDE.

Chance Rides, Inc. has developed a NOTICE TO PASSENGERS decal, part number 22181605, available at no charge if ordered within 90 days of the date on this bulletin. All owner/operators of ZIPPER amusement rides are required to either order and install this decal or to post signage of similar wording. All NOTICE TO PASSENGERS decals should be installed as outlined in this bulletin.



## **NOTICE TO PASSENGERS**

1. NO ONE UNDER 48 INCHES IN HEIGHT MAY RIDE.
2. NO SINGLE RIDERS.
3. NO PERSON WHO IS PREGNANT, VISIBLY ILL OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL IS PERMITTED ON THE RIDE.
4. SECURE ALL LOOSE ARTICLES.
5. TO PROPERLY RIDE THIS RIDE, ALL PASSENGERS MUST HOLD ONTO THE GRAB BARS ON THE INSIDE OF THE DOOR WITH BOTH HANDS WHEN THE RIDE IS IN MOTION.



NUMBER: B106R1151-0

DATE: JULY 1, 1994

SUPERSEDES: B05-0257-00

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.  
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: Replacement of Spring Latches

Chance Manufacturing Co. Inc., Service Bulletin Number B05-0257-00 has been superseded by this Service Bulletin and is no longer in effect. All copies of Service Bulletin B05-0257-00 should be destroyed.

Chance Rides, Inc., through testing and design change, has developed a new spring latch assembly for the vehicle doors on above noted ZIPPER amusement rides. This new spring latch assembly makes use of a new style backing plate, a new leaf spring, and a spring latch. This design extends the life of the spring latch.

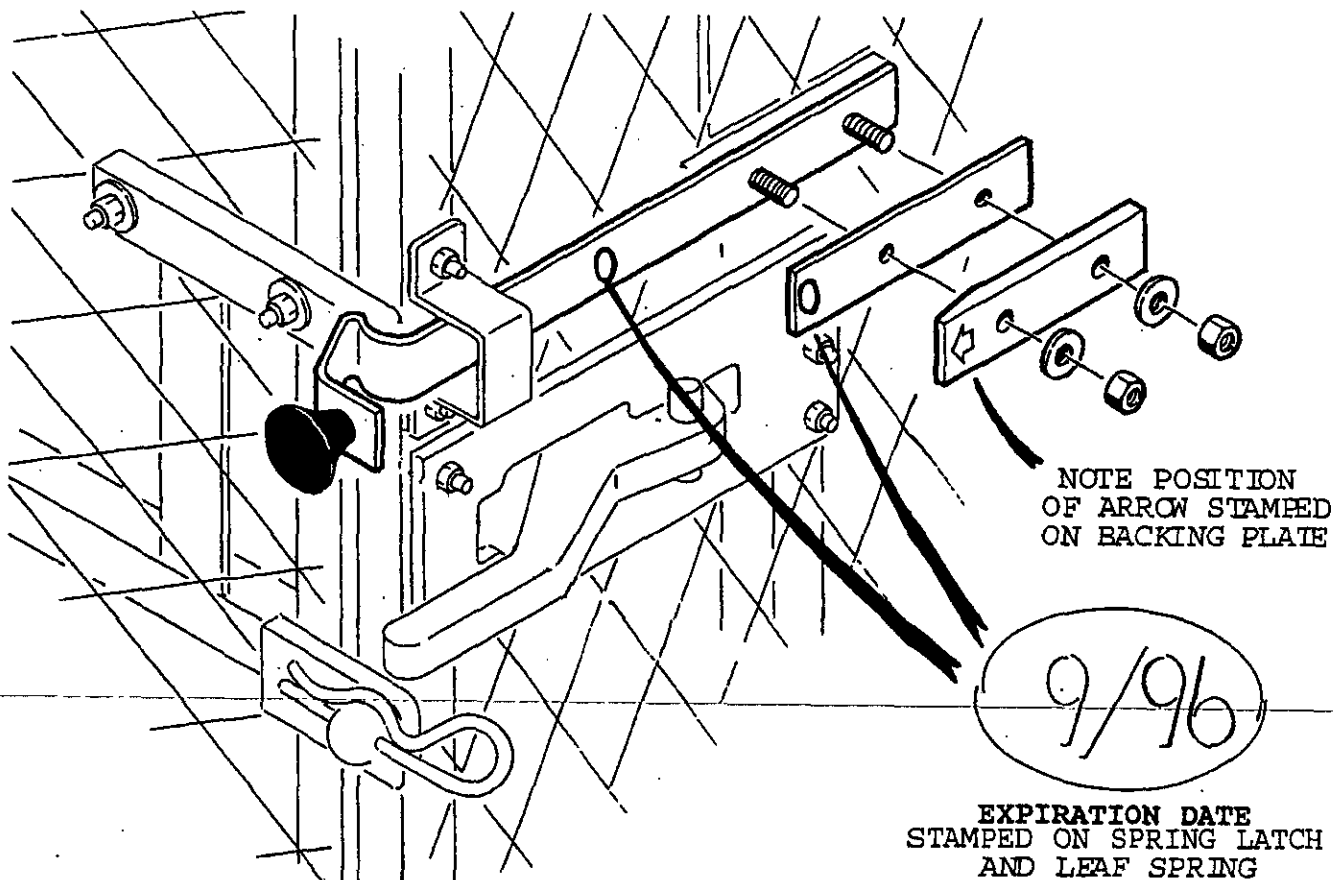
Both the spring latch and leaf spring are dated items. They are stamped with an expiration date and must be replaced on or before that date. The spring latch and the leaf spring are good for up to a maximum of a two (2) year period, and are dated for the last month of the preceding quarter in which they are shipped. Dated items ordered in January, February and March will be dated "12" for the last month (December) of the preceding quarter; those ordered in April, May and June will be dated "3" for the last month (March) of the preceding quarter; those ordered in July, August and September will be dated "6" for the last month (June) of the preceding quarter; those ordered in October, November and December will be dated "9" for the last month (September) of the preceding quarter.

If the expiration date has been altered painted over, or is illegible, the spring latch or leaf spring must be replaced.

Replacement parts: (parts must be used in combination with each other)

<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
33249700	Spring Latch	12
37204000	Leaf Spring	12
34940800	Backing Plate	12

IMPORTANT: The spring latches, leaf springs and backing plates must be installed exactly as shown in this bulletin.



All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

#### NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.





NUMBER: B090R1169-A

DATE: APRIL 21, 1995

SUPERSEDES: B090R1169-0

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.  
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: FALLING STAR, SKYDIVER, TRABANT Subject: Safe Rider Policy  
WIPEOUT AND ZIPPER

This Chance Rides, Inc. Service Bulletin supersedes Service Bulletin number B090R1169-0. All copies of bulletin number B090R1169-0 should be destroyed.

Chance Rides, Inc. anticipates that it may be possible for a rider sitting in a seat on one of the above noted amusement rides to intentionally turn sideways in the seat, removing their legs from underneath the lap bar. If a rider does this, they are not properly secured and personal injury could result. In order to reduce the possibility of an unsafe condition from occurring, Chance Rides, Inc. highly recommends all owners/operators of the above noted amusement rides to adopt and enforce an operational policy that would inhibit such misuse of the ride.

One such policy which can be used to help inhibit the misuse of the amusement ride is a "no single rider" policy. Chance Rides, Inc., however, recognizes the fact that this type of policy may not be practical or suitable in all circumstances. It is therefore up to the individual owner/operator to develop their own operational policy which best meets their own needs while maintaining the safe operation of the ride.

All owner/operators must realize that horseplay or other behavior on the part of the rider, that leads to an unsafe condition must not be tolerated. All operators of amusement rides must follow the manufacturer's guidelines in giving their pre-operational instructions and warnings and then giving their undivided attention to the ride and its passengers at all times the ride is in motion. As stated in the operation/maintenance manuals, the operator must immediately stop the ride if anyone is in a dangerous or unsafe position on the ride.



NUMBER: B106R1171-0

DATE: AUG. 3, 1995

SUPERSEDES:

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## SERVICE BULLETIN

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Effective Serial Number: All Units - Chance Rides, Inc.  
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

Ride: ZIPPER

Subject: Trolley Wheel Installation

On the above noted ZIPPER amusement rides, two different types of trolley wheels are used. One is commonly referred to as a hard wheel part number 38635700. The other trolley wheel is commonly referred to as a soft wheel, part number 28632600. Each ZIPPER ride requires twenty-four (24) hard wheels and ninety-six (96) soft wheels.

It has come to the attention of Chance Rides, Inc. that during replacement of the trolley wheels, some are not being properly installed. Proper installation of the trolley wheels is required for the safe operation of the ride. Failure to properly install a trolley wheel can result in personal injury to those near the ride, due to the separation of the wheel from the ride. All owner/operators of ZIPPER amusement rides are required to adhere to the following specifications when replacing trolley wheels.

The soft wheels presently used are equipped with sealed bearings. These wheels require a longer hex head capscrew than the soft wheels which did not have sealed bearings. The proper hex head capscrew to be used with a soft wheel that has a sealed bearing is a 3/8-16 x 23/4 grade. Some soft wheels are secured in place by means of a 3/8 lock washer and a 3/8-16 hex head nut while others fasten directly in to a blind hole.

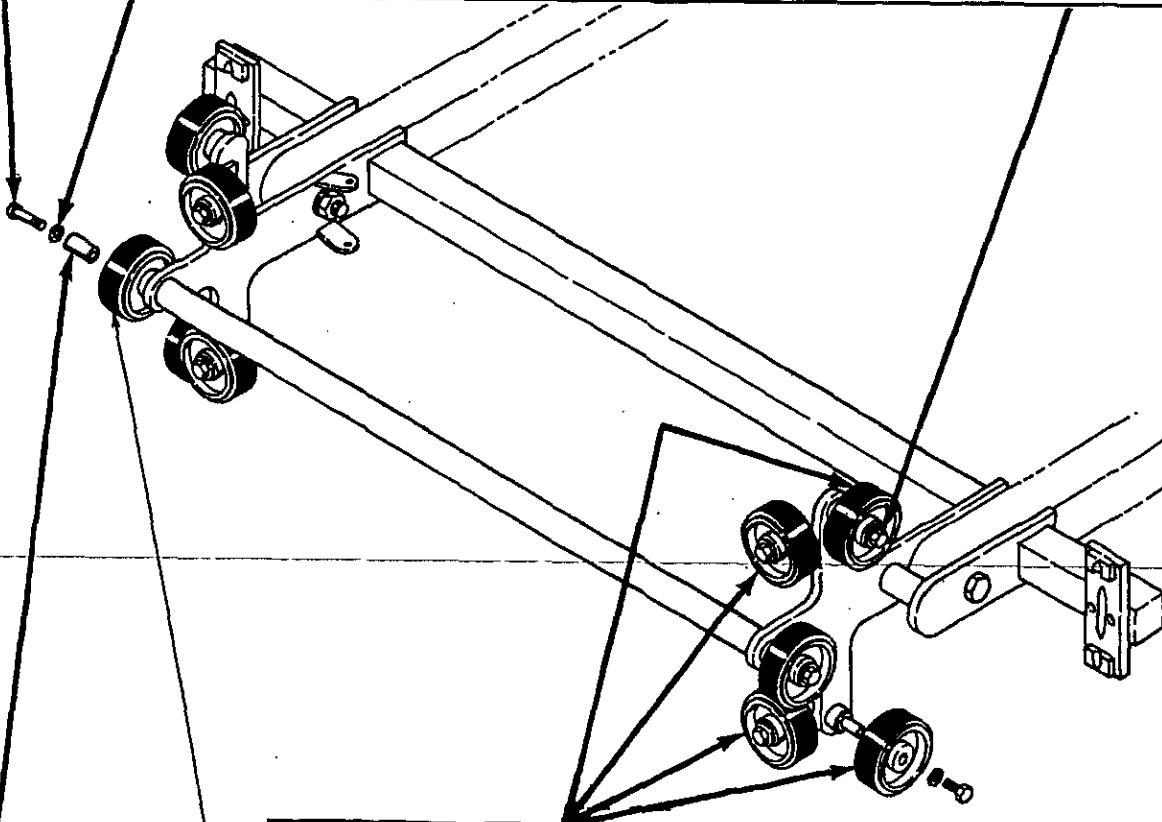
ZIPPER rides with a serial number of 73-1878 and on require a special adaptor to be used with the hard wheels. The part number for the adaptor is 37011800. The adaptor is inserted through the hard wheel with the wheel being secured in place by a 1/2-13 x 2 grade 8 hex head capscrew, part number 60849600.

NOTE: Owner/operators of ZIPPER amusement rides with a serial number between 68-1801 and 73-1877 must consult their owner's manual to determine the correct cap screw used to secure the hard wheels for their particular ride.

HEX HEAD CAPSCREW - 1/2-13 x 2 Long, Grade 8  
(Part number 6084960)

ADAPTER WASHER (Part number 38559700)

HEX HEAD CAPSCREW - 3/8-16 X 2-3/4" Long, Grade 8  
(Part number 60787600)



SOFT WHEEL WITH SEALED BEARING - 8 req'd per axle  
(Part number 28632600)

HARD WHEEL & BEARING ASSY - 2 req'd per axle  
(Part number 38635700)  
..WHEEL ONLY (Part number 38636400)  
..BEARING ONLY (Part number 20514800)

ADAPTER (Part number 37011800)



NUMBER: A106R1173-0

DATE: AUG. 4, 1995

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

## SAFETY ALERT

Effective Serial Number: All Units - With New Style Seat Hangers  
Chance Rides, Inc.  
Chance Manufacturing Co, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY  
LIABILITY for losses associated with rides  
produced by Chance Manufacturing Company, Inc.

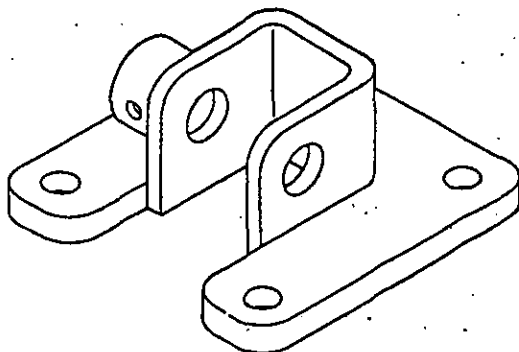
Ride: ZIPPER

Subject: Seat Hangers

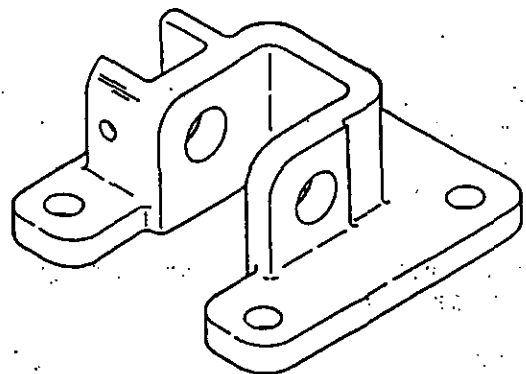
**WARNING:** Failure to comply with this Safety Alert Bulletin  
can result in injury to passengers.

Chance Rides, Inc. has become aware of cracks developing in the new style ZIPPER seat hangers. All owner/operators of the above noted ZIPPER amusement rides are required to perform the inspection outlined in this Safety Alert.

Note: This inspection pertains to the new style seat hanger only.



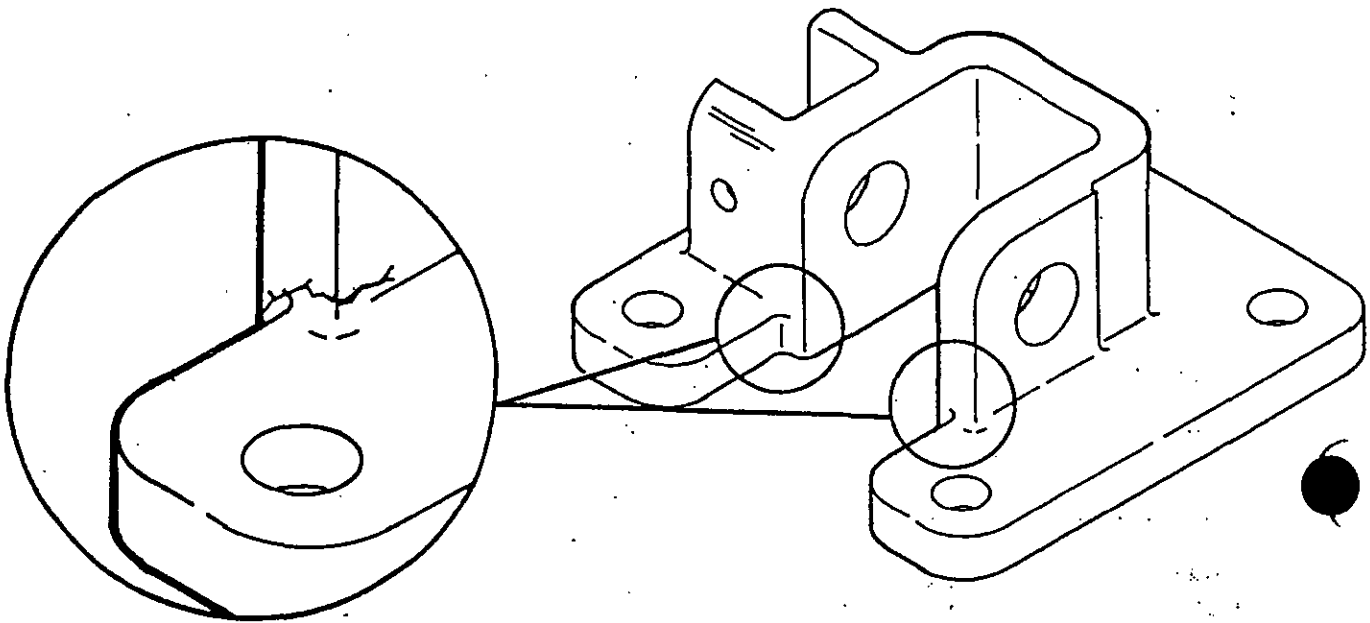
old style  
(weldment)



new style  
(casting)

### Inspection Procedures

1. Visually inspect seat hanger for cracks in the areas shown on illustration below.
2. If cracks are found, do not operate the ride, call the Chance Customer Service Department at 1-800-CHANCE1.
3. Visual inspection must be done daily, prior to operation of the ride.



All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

#### NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or unauthorized components.



The World's Ride Company

**CHANCE RIDES, INC.**

4219 Irving  
Wichita, KS 67277-2328  
U.S.A.

Phone: 1-800-242-6231 • FAX: 1-316-942-7416

Website: [www.rides.com](http://www.rides.com)

Bulletin No: B106R1170-A

Release Date: November 15, 2000

Effective Date: November 15, 2000

Supersedes: B106R1170-0

Completion Date: N/A

Page: 1 of 5

# SERVICE BULLETIN

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: ZIPPER

Affected Serial Nos.: All units

Model No.: 106

Abstract of Issue:

Seat Hangers

**Reason For Release:**

Chance Rides, Inc. has developed a new seat hanger for the above noted ZIPPER amusement rides. This improved design is reinforced to increase the service life of the seat hanger.

This bulletin supersedes all previously published information. It contains detailed information on visual identification of all three seat hanger designs, installation, and replacement parts.

**Action to be Taken:**

Prior to this new seat hanger design, two previous designs have been produced. All three designs are acceptable, provided that all specifications outlined in this bulletin are met, with respect to condition, associated parts, correct mounting fasteners and proper installation.


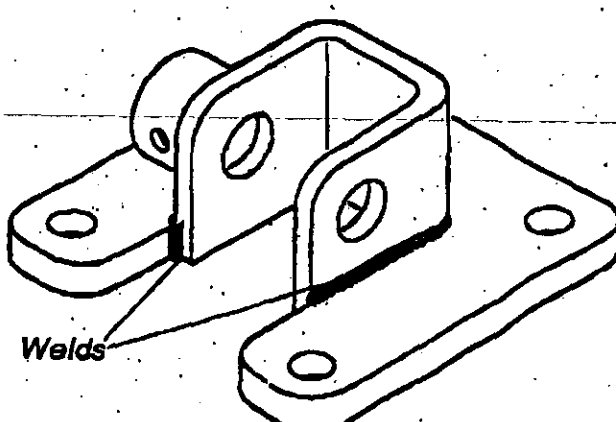
Chance Rides, Inc. requires a daily visual inspection of all seat hangers and associated parts including the mounting fasteners for signs of wear or damage. The seat hanger must be replaced when the hole for the taper pin exceeds 0.860 inch.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

## NOTICE

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Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.

	<b>CHANCE RIDES, INC.</b> 4219 Irving Wichita, KS 67277-2328 U.S.A. Phone: 1-800-242-6231 • FAX: 1-316-942-7418 Website: <a href="http://www.rides.com">www.rides.com</a> E-mail: <a href="mailto:rides@rides.com">rides@rides.com</a>	Bulletin No: B106R1170-A
		Release Date: November 15, 2000
		Effective Date: November 15, 2000
		Supersedes: B106R1170-0
		Completion Date: N/A
		Page: 2 of 5
Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All		
Ride Name: ZIPPER Affected Serial Nos.: All units		
Model No.: 106		
<b>Detail of Issue</b>		
<b>Seat Hanger Identification</b> Note the differences between the seat hangers which may be installed on the ride as shown in the following illustrations.		
ALL THREE SEAT HANGER DESIGNS SHOWN ARE ACCEPTABLE, provided that all specifications outlined in this bulletin are met with respect to condition, associated parts, correct mounting fasteners and proper installation.		
		
<b>SEAT HANGER IDENTIFICATION - Design #1</b> The original style bolt-on seat hanger is a weldment. Different parts are used for left-hand and right-hand installation.		



**CHANCE RIDES, INC.**

4219 Irving  
Wichita, KS 67277-2328

U.S.A.

Phone: 1-800-242-6231 • FAX: 1-316-942-7416

Website: [www.rides.com](http://www.rides.com)

E-mail: [rides@rides.com](mailto:rides@rides.com)

Bulletin No: B106R1170-A

Release Date: November 15, 2000

Effective Date: November 15, 2000

Supersedes: B106R1170-0

Completion Date: N/A

Page: 3 of 5

Ride Manufacturer: CHANCE RIDES, INC.

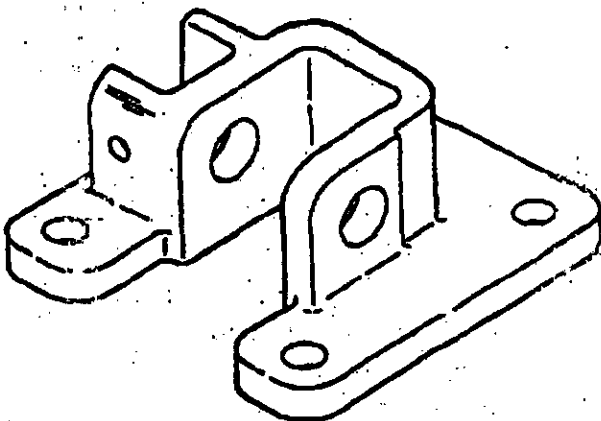
Affected Production Dates: All

Ride Name: ZIPPER

Affected Serial Nos.: All units

Model No.: 106

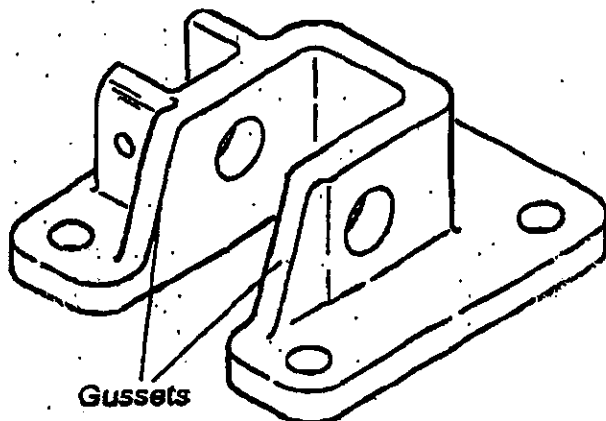
Detail of Issue (continued):



**SEAT HANGER IDENTIFICATION -  
Design #2**

This seat hanger is an investment casting. It has wider bearing surfaces than Design #1 for the taper pin which secures the seat. The same part is used for both left-hand and right-hand installations.

**IMPORTANT:** This seat hanger must be inspected daily per Chance Service Bulletin A106R1173-0.



**SEAT HANGER IDENTIFICATION -  
Design #3**

This seat hanger is an investment casting and is similar to Design #2. It has reinforcing gussets to increase its service life. The same part is used for both left-hand and right-hand installations.

This seat hanger is not subject to inspection per Chance Service Bulletin A106R1173-0.





# **CHANCE RIDES, INC.**

4219 Irving  
Wichita, KS 67277-2328  
U.S.A.

Phone: 1-800-242-6231 • FAX: 1-316-942-7416

Website: [www.rides.com](http://www.rides.com)

E-mail: [rides@rides.com](mailto:rides@rides.com)

Bulletin No: B106R1170-A

Release Date: November 15, 2000

Effective Date: November 15, 2000

Supersedes: B106R1170-0

Completion Date: N/A

Page: 4 of 5

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: ZIPPER

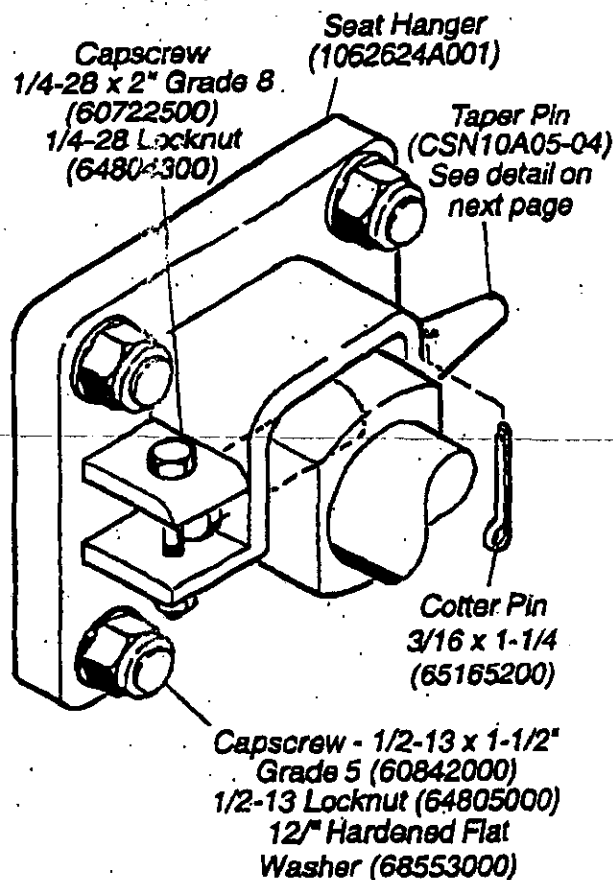
Affected Serial Nos.: All units

Model No.: 106

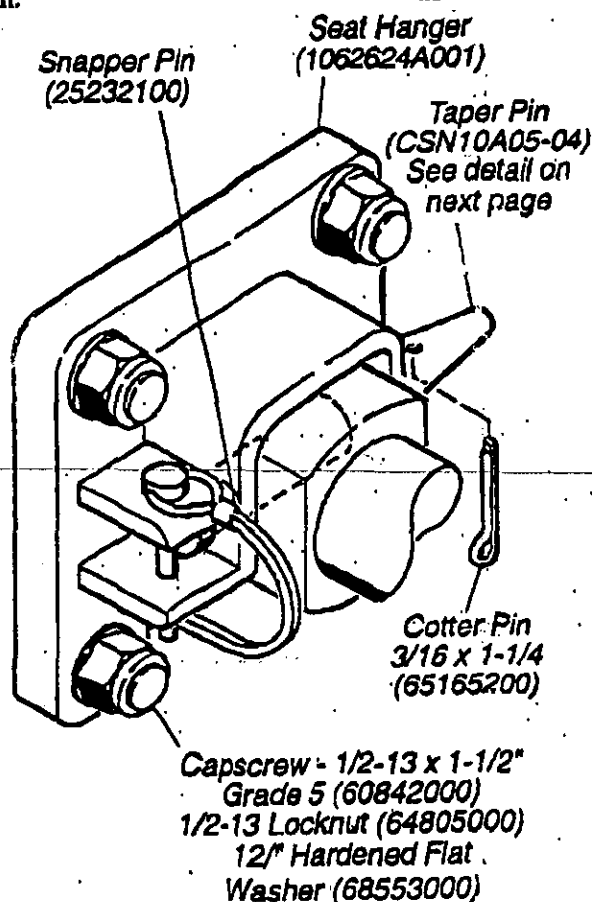
## **Detail of Issue (continued):**

### **Seat Hanger Installation**

Regardless of which style seat hanger is used, the mounting fasteners must be those specified in the following illustrations. All parts must be installed exactly as shown.



On seats which rack in place on the boom  
A Grade 8 capcrew must be installed through the seat hanger, behind the head of the taper pin. The nut must be tightened until snug. **DO NOT OVER-TIGHTEN.** A cotter pin must be installed in the other end of the taper pin.



On seats which rack on the trailer deck  
On rides which rack two seats on the trailer deck, snapper pins are installed behind the head of the taper pin as shown. A cotter pin must be installed in the other end of the taper pin. Hairpins are not allowed.

**CHANCE RIDES, INC.**

4219 Irving

Wichita, KS 67277-2328

U.S.A.

Phone: 1-800-242-6231 • FAX: 1-316-942-7418

Website: [www.rides.com](http://www.rides.com)E-mail: [rides@rides.com](mailto:rides@rides.com)

Bulletin No: B106R F170-A

Release Date: November 15, 2000

Effective Date: November 15, 2000

Supersedes: B106R1170-0

Completion Date: N/A

Page: 5 of 5

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: ZIPPER

Affected Serial Nos.: All units

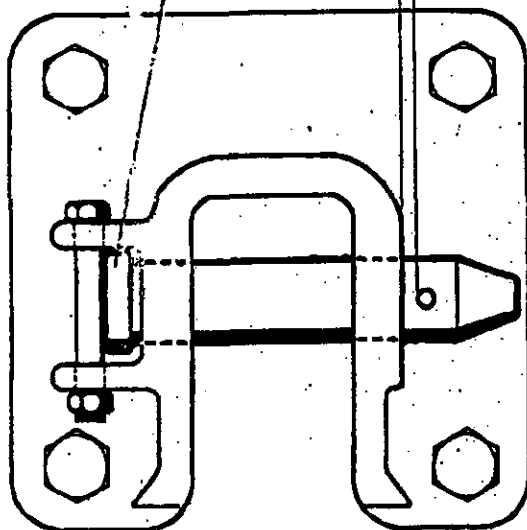
Model No.: 106

## Detail of Issue (continued):

If the grip length of the taper pin is too short, the cotter pin will wear against the seat hanger. This is not acceptable. Check for correct taper pin grip length as shown in the following illustrations.

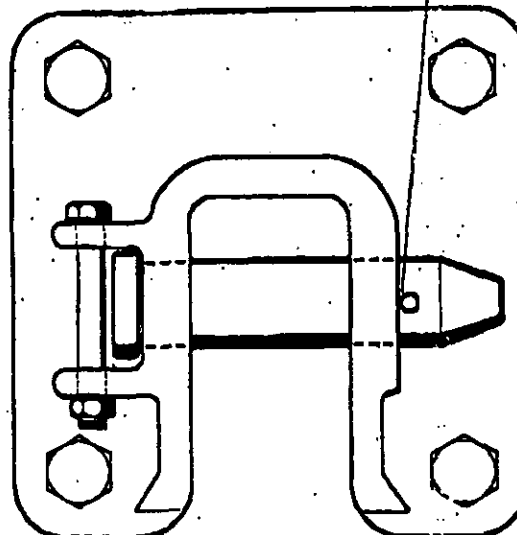
Head of taper pin in  
contact with capscrew

← Clearance between cotter pin and seat hanger



Taper pin grip length is  
**CORRECT**

No clearance between  
cotter pin and seat hanger

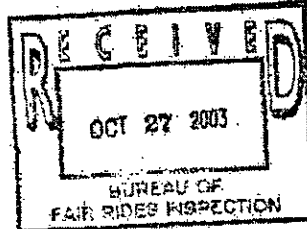


**WRONG**  
Taper pin grip length is too short

4200 W. Walker  
Wichita, KS 67209  
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Web: www.rides.com



**Fax**



To: Mike Ranehart  
State of Florida

From: Steven Laycock O&A/Product Safety Mgr.

Fax: 850-488-9023

Pages: 3

Phone:

Date: October 27, 2003

Re: Zipper

CC:

There seems to be some confusion among persons inspecting the seat hangers and seat hanger pins on the above noted amusement ride in relationship to the interpretation of Chance Rides, Inc. service bulletin number B106R1170-A. We are attempting to clarify this issue in the 2004 Field Inspection Guide. Please find following two pages from this new inspection guide. I am supplying these pages to you at this time along with an explanation in an effort to help the inspectors make a more educated inspection.

This bulletin was originally issued because of a change made to the seat hanger. The thickness of the walls of the seat hanger was increased to give the seat hanger a longer life. When this was done, the existing pin was now too short, the hole for the cotter pin would be partly covered by the wall of the seat hanger. In this situation, the cotter pin could be deformed or cut in two by the seat hanger. Thus a taper pin with a longer grip length was specified.

With the new taper pin in place and pushed to one side so that the head of the pin is against the retaining bolt, the cotter pin should not contact the seat hanger. Not much clearance is required, only enough so that the seat hanger can not wear, deform, or shear the cotter pin. As long as the wall of the seat hanger can not do this, there is sufficient clearance.

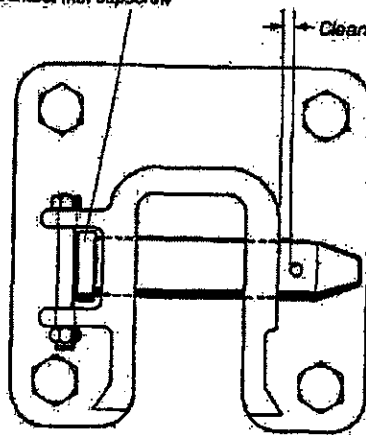
If you have any questions regarding this information, please feel free to contact me.

The correct grip length for the taper pin is  $2-13/16"$ , measured from under the head of the pin to the centerline of the hole.

If the grip length of the taper pin is too short, the cotter pin will wear against the seat hanger. This is not acceptable.

Check for correct taper pin grip length as shown in the following illustrations.

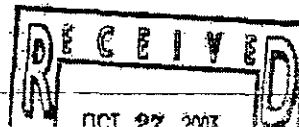
Head of taper pin in contact with capscrew



Clearance between cotter pin and seat hanger

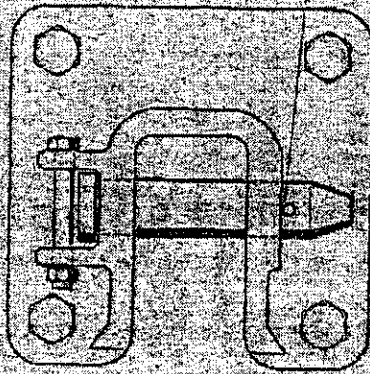
**NOTE:** Clearance shown in this illustration is exaggerated for clarification. There must be adequate clearance when the head of the taper pin is in contact with the capscrew to prevent the cotter pin from wearing against the seat hanger. Wear includes deforming, shearing, or other damage to the cotter pin.

Taper pin grip length is  
CORRECT

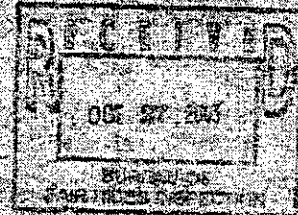


16

No clearance between center pin and seat hanger



WRONG  
Taper pin grip length is too short





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**Bulletin No: B106CRM130-0**

**Release Date: July 20, 2004**

**Effective Date: July 20, 2004**

**Supersedes: N / A**

**Completion Date: See Text**

**Page: 1 of 1**

# SERVICE BULLETIN

**Ride Manufacturer: CHANCE RIDES, INC.**

**Affected Production Dates: All**

**Ride Name: ZIPPER**

**Affected Serial Nos.: All Units**

**Model No.: 106**

**Abstract of Issue:**

**Inspection of Boom Electrical Wiring**

**Reason For Release:**

Chance Rides Manufacturing, Inc. has become aware that the wiring at the boom collector rings on the ZIPPER amusement ride can wear against the collector ring cover. This can result in wearing through the insulation or even break the wires.

**Action to be Taken:**

Chance Rides Manufacturing, Inc. requires all owner/operators of ZIPPER amusement rides to inspect the wiring near the collector ring cover immediately on receipt of this bulletin, then monthly thereafter.

If any damage is found, repair or replace the affected parts. Make sure the wires are secured away from any areas of contact, using clamps or wire ties. It may also be necessary to cut a portion of the collector ring cover for clearance.

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., 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.