CHANCE MANUFACTURING CO., INC.

Number: 56
Date: 7-23-73
Supercedes:
Number:
Date:

America's Largest Manufacturer of Amusement Rides

Service Information

Effective Serial Numbers:

Ride: ZIPPER

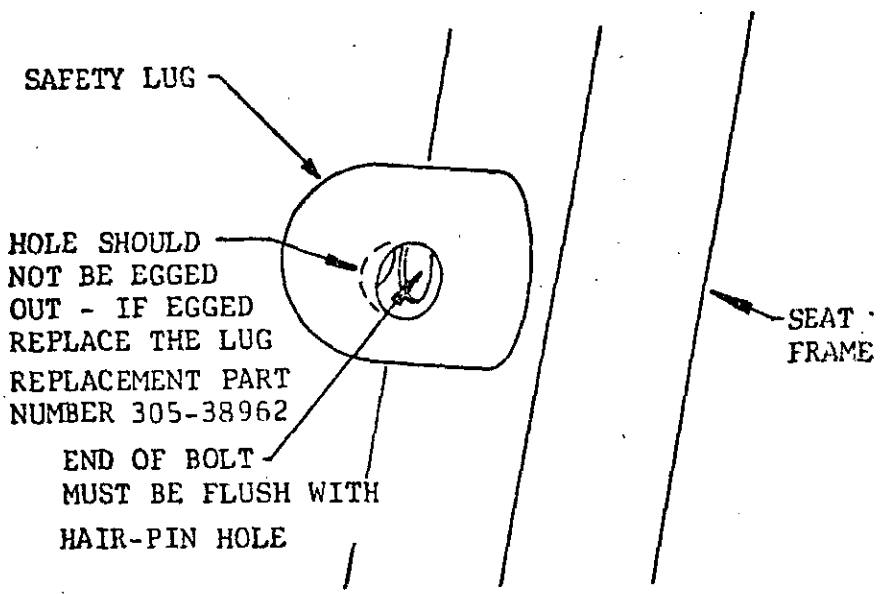
Subject: SEAT SAFETY LUG BOLT CHECK

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.

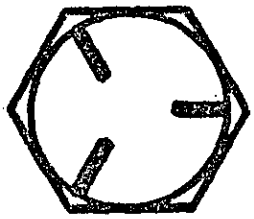
Remove the hair pin and open the car door. Using a flashlight or Trouble Light, etc., look into the hole in the Safety Lug where the hair pin goes through. The end of the bolt should be visible in the center of the lug.



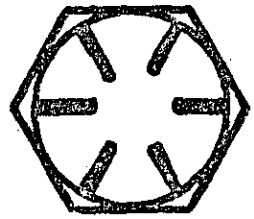
Factory and General Office, 4219 Irving, P.O. Box 12328 Wichita, Kansas 67277 Area Code (316) 942-7411
Sales Office: 1103 Ross Ave., Dallas, Texas 75202 Area Code (214) 742-3802

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.

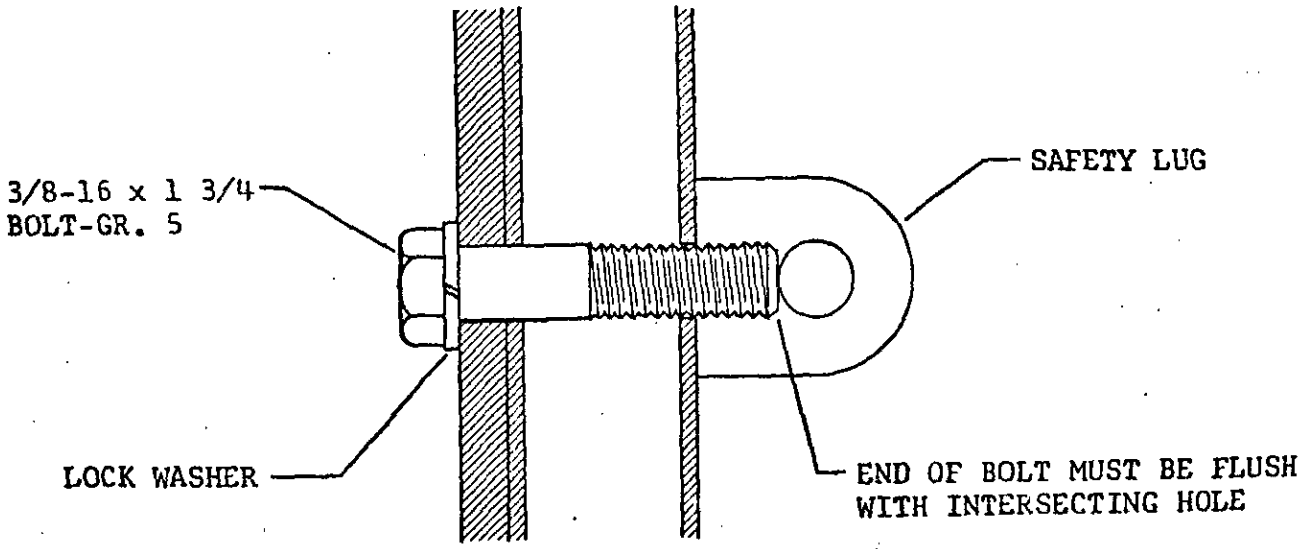
IMPROPER BOLT

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

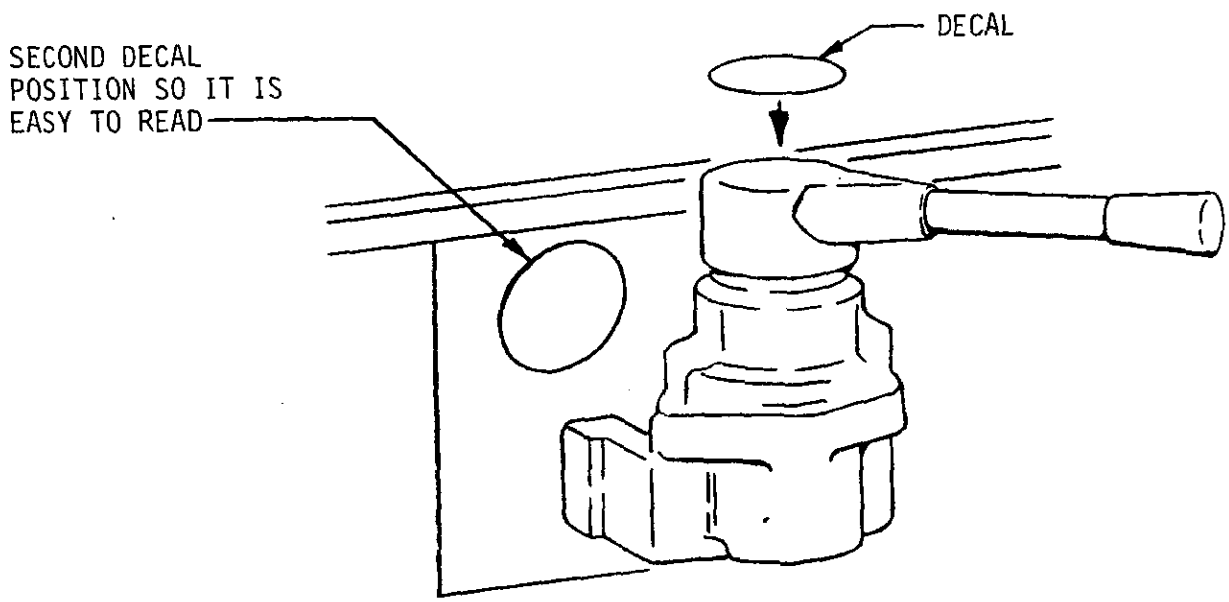
Effective Serial Numbers:

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.



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Form TP-0007-883

CHANCE MANUFACTURING CO., INC.

Number: 142
Date: 8-26-77
Supercedes:
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.

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Sales Office: 1103 Ross Ave., Dallas, Texas 75202 Area Code (214) 742-3802

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

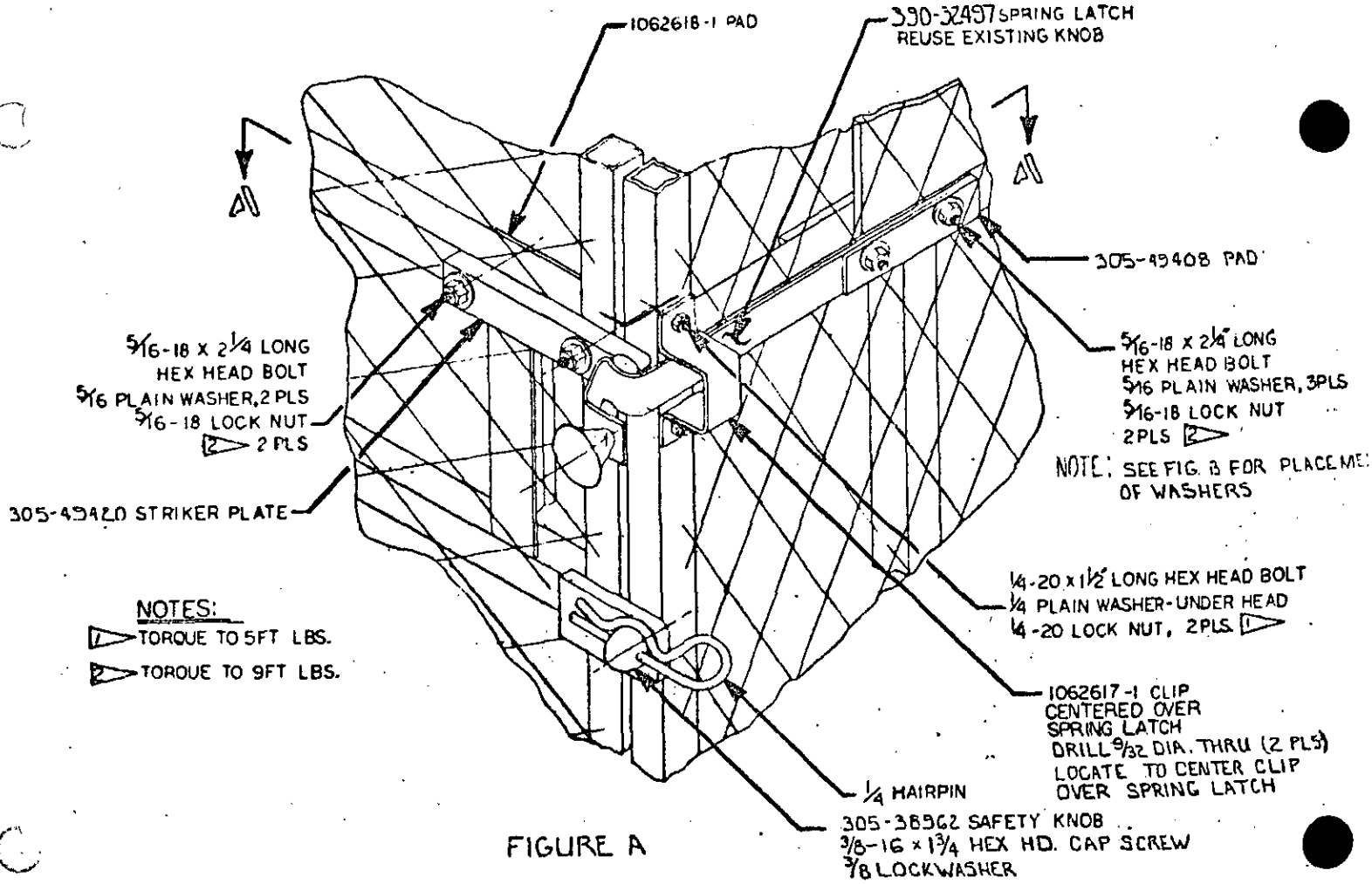


FIGURE A

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 3/4". (FIGURE B) The hair pin must have no more than 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.

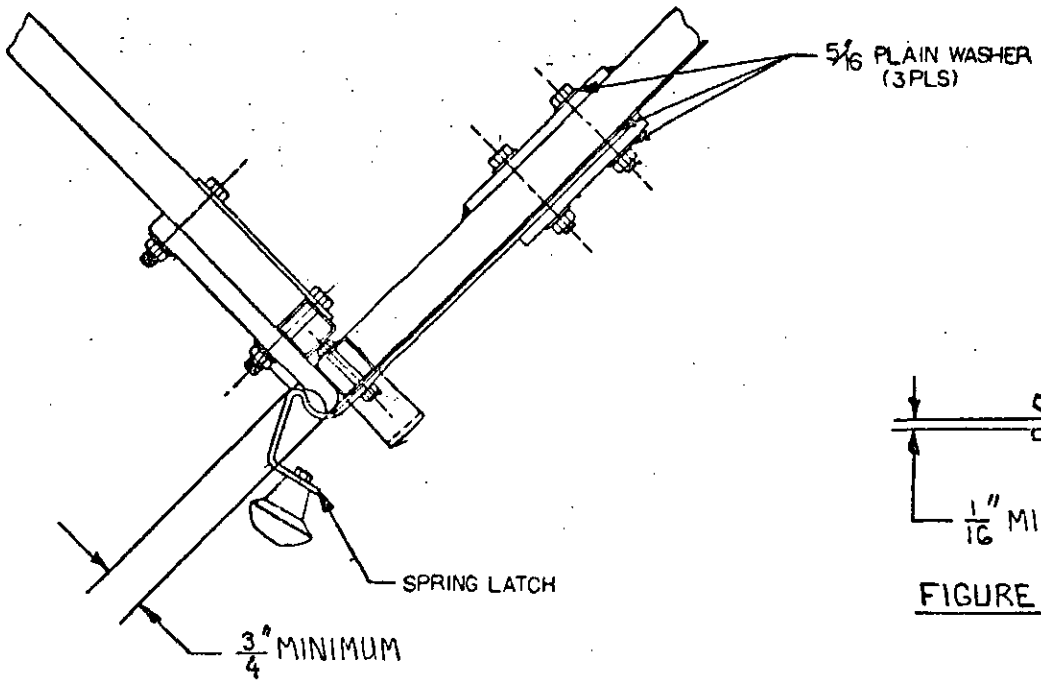


FIGURE B

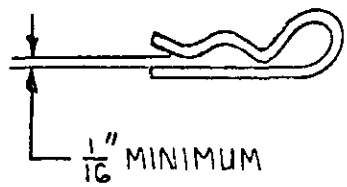


FIGURE C

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

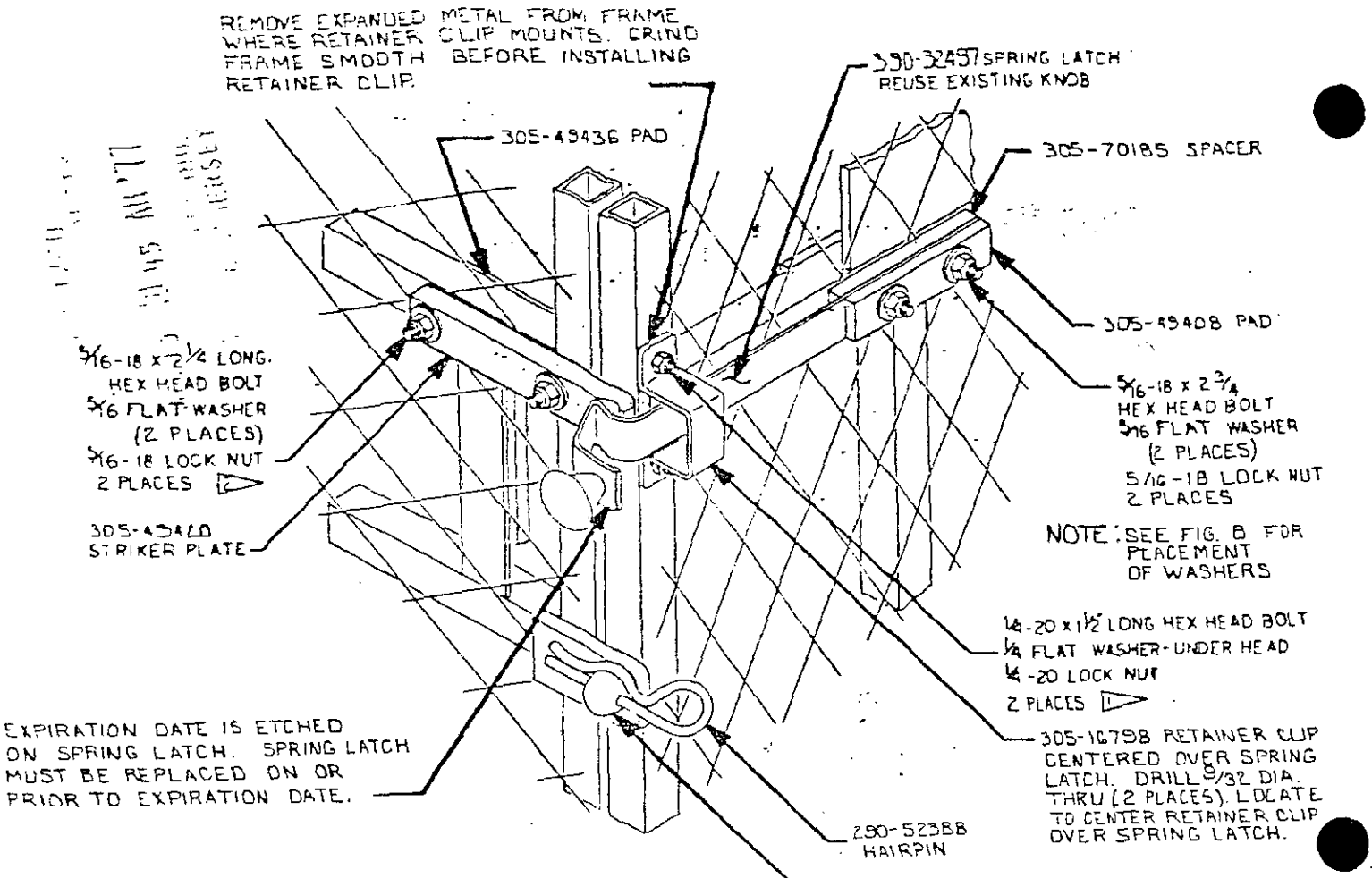
Subject: SEAT DOOR LATCH

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.

QUANTITY	PART DESCRIPTION	PART NUMBER
-	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	---



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

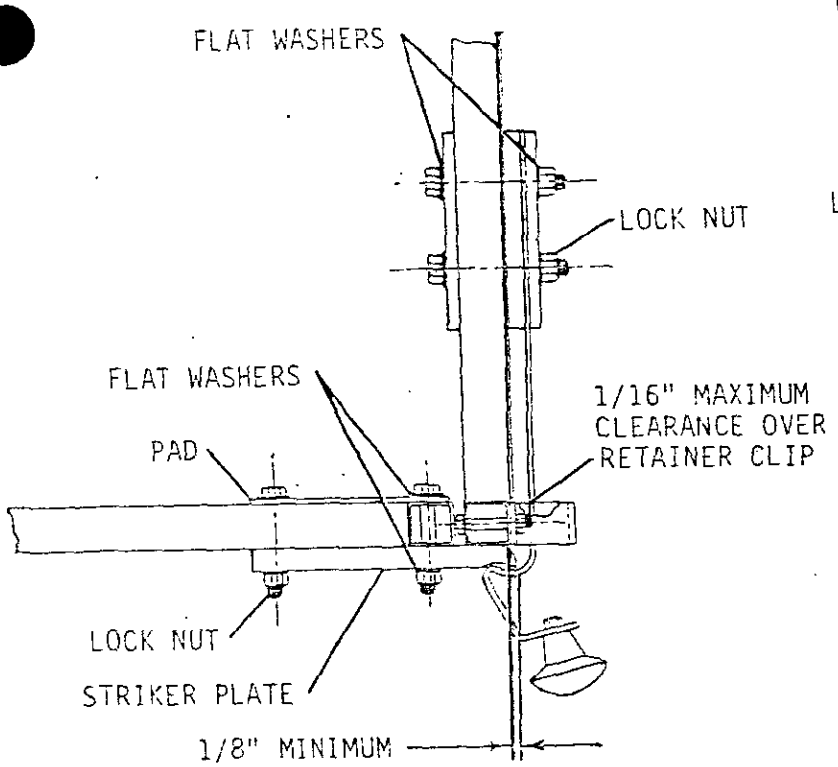
Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (¼" 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

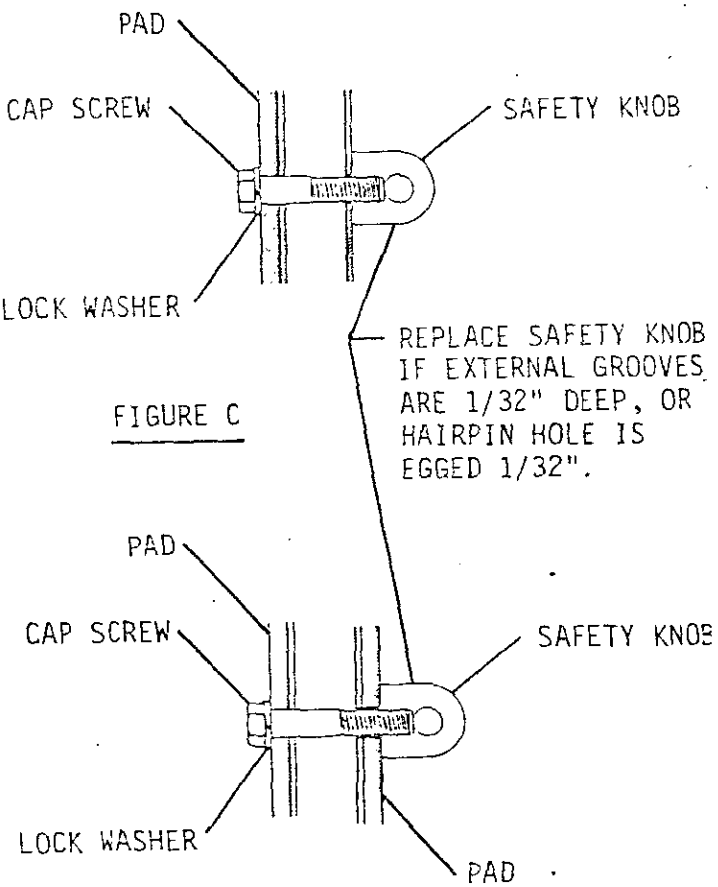


FIGURE C

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.

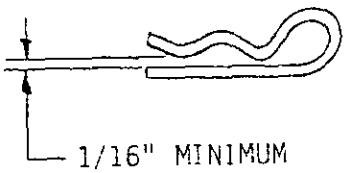


FIGURE E

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 neccessary 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.

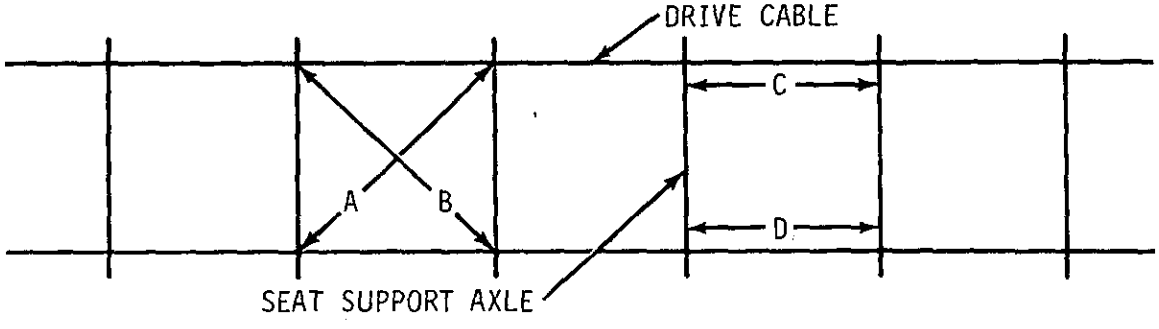


FIGURE A

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 consistant, 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 deminsion 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.

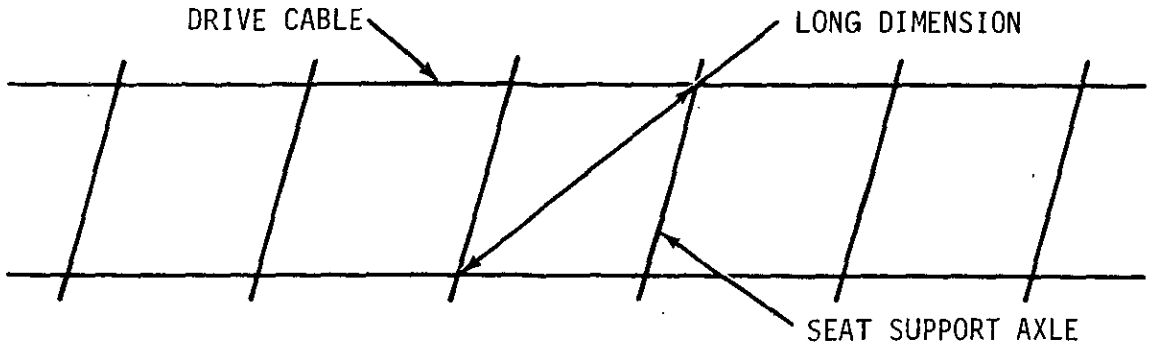


FIGURE B

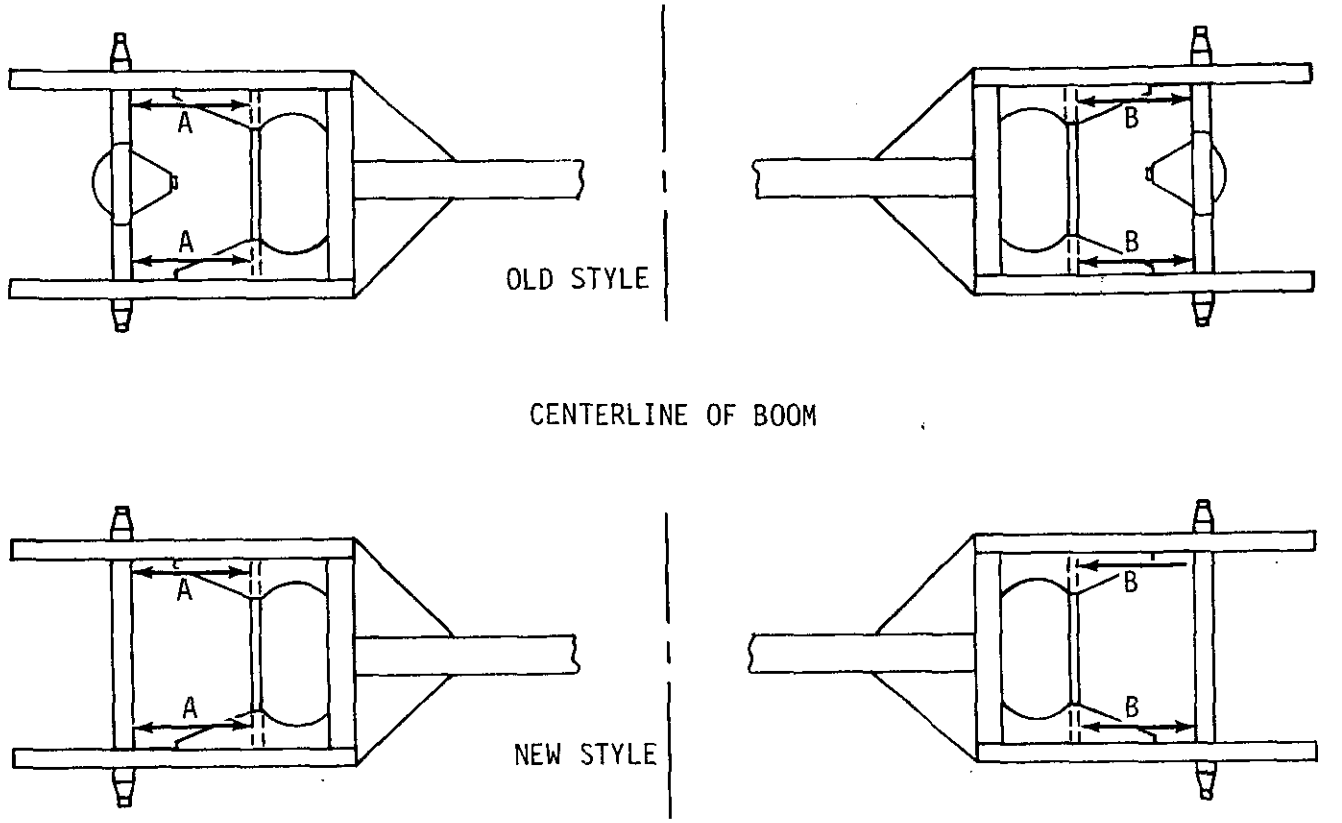
Misalignment of the seat support axles is commonly due to improperly adjusted sheave drive cables. Check the drive cables for proper adjustment before re-tightening the seat support axle U-bolts and installing the cross cables.

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 DEMINSIONS

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.

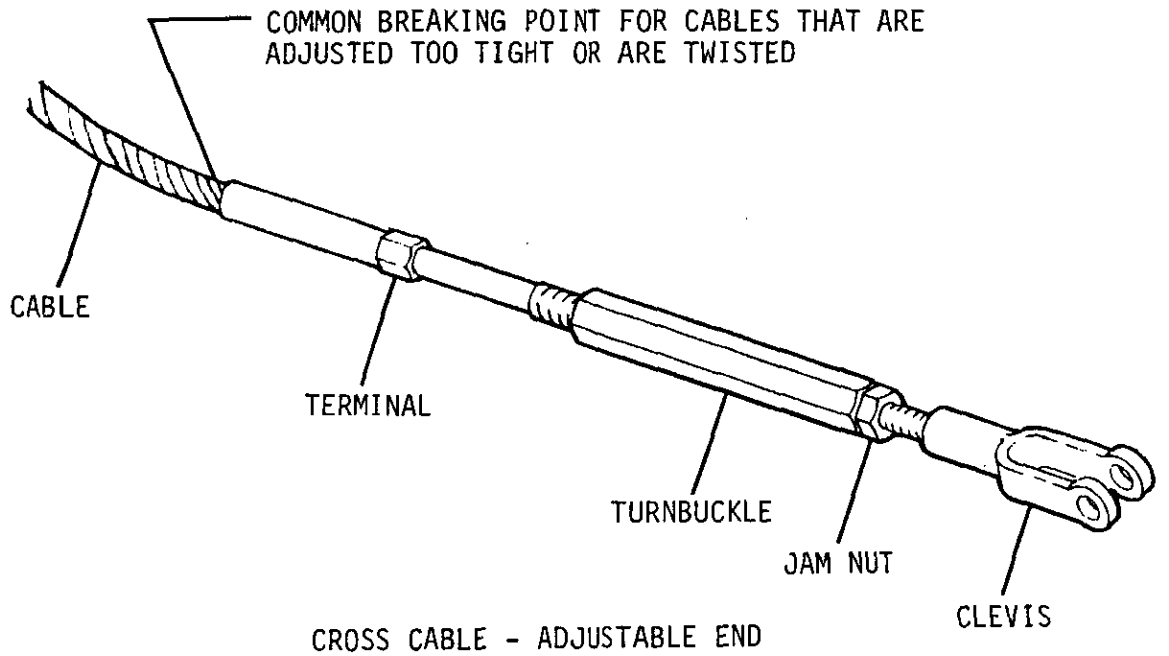
Both ends of the drive axle being adjusted must always be moved the same amount. The tighter of the two cables will stretch more than the other and in time both cables will achieve the same tension.

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.



CROSS CABLE - ADJUSTABLE END

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 Assemblys 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

INSTALLATION INSTRUCTIONS

Discard all parts replaced by this kit.

Remove screening from area shown in FIGURE A.

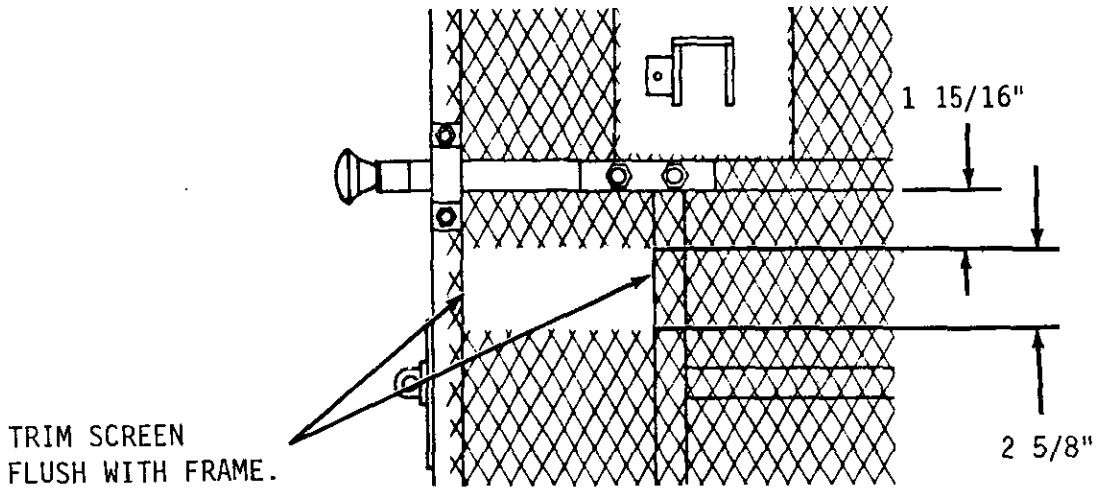


FIGURE A

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" drill.

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.

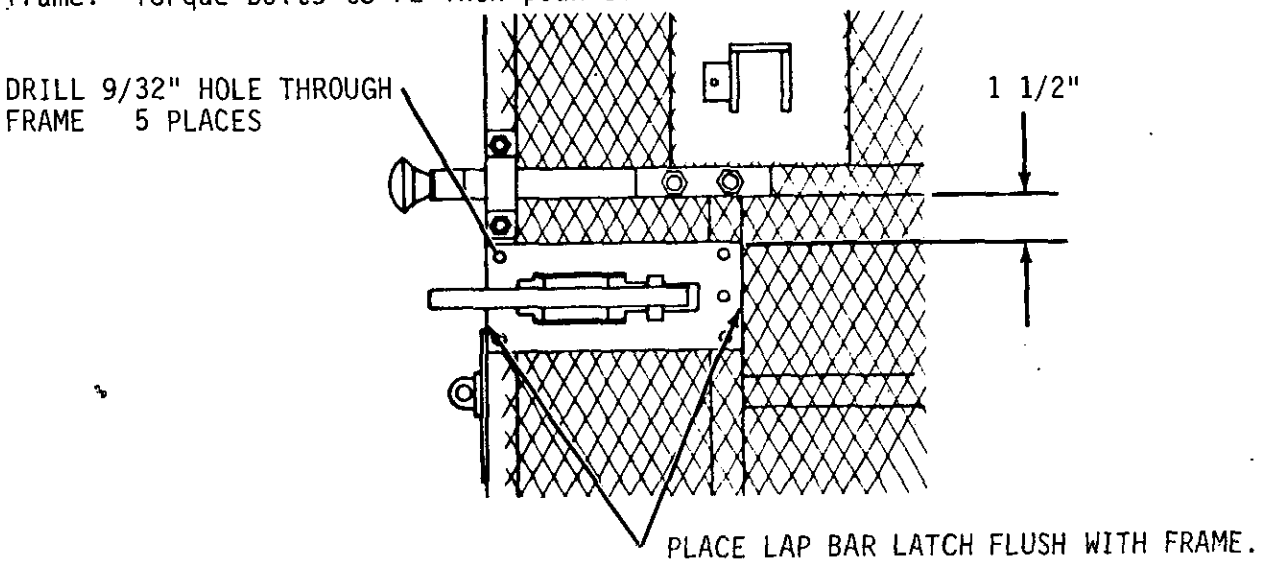


FIGURE B

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

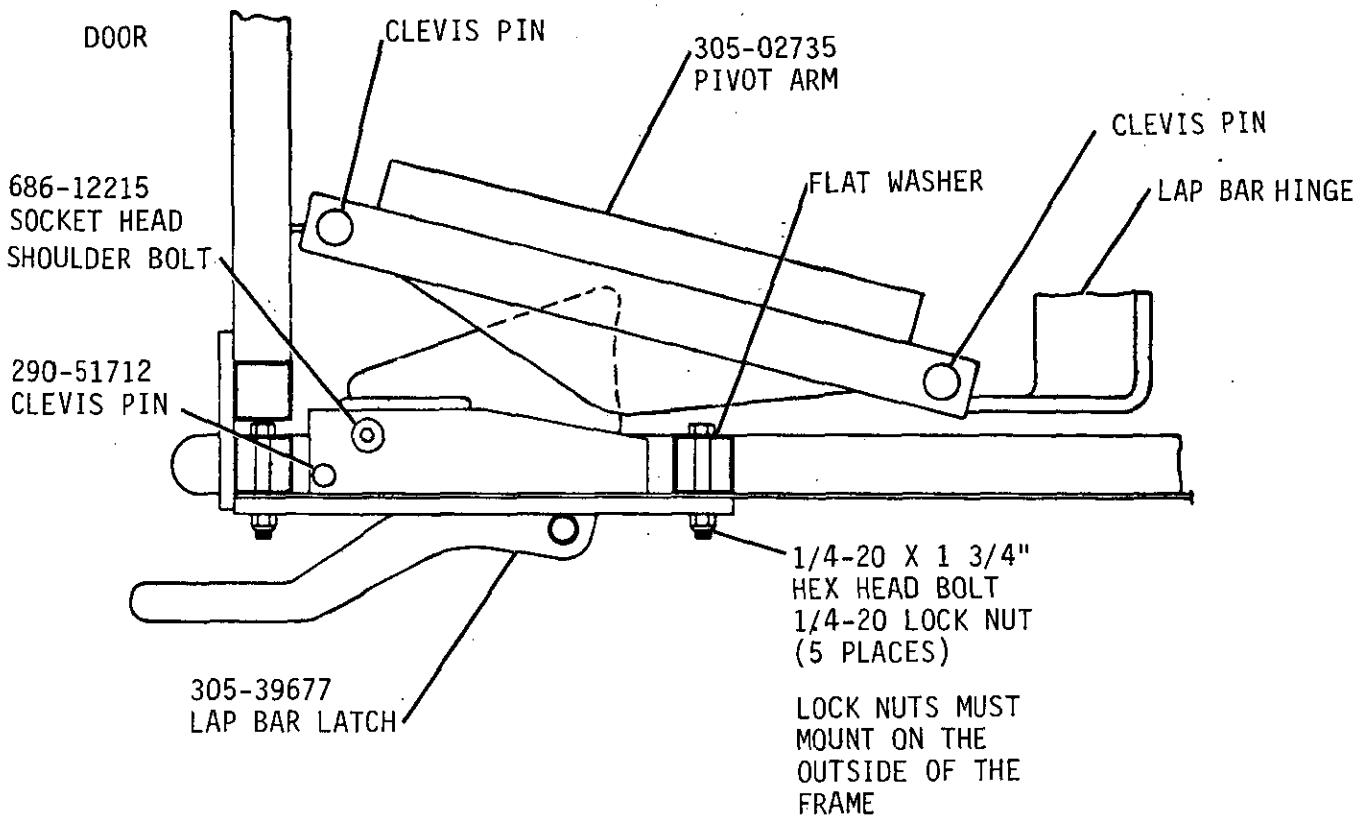


FIGURE C

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

DOOR SHOWN IN THE
CATCH POSITION

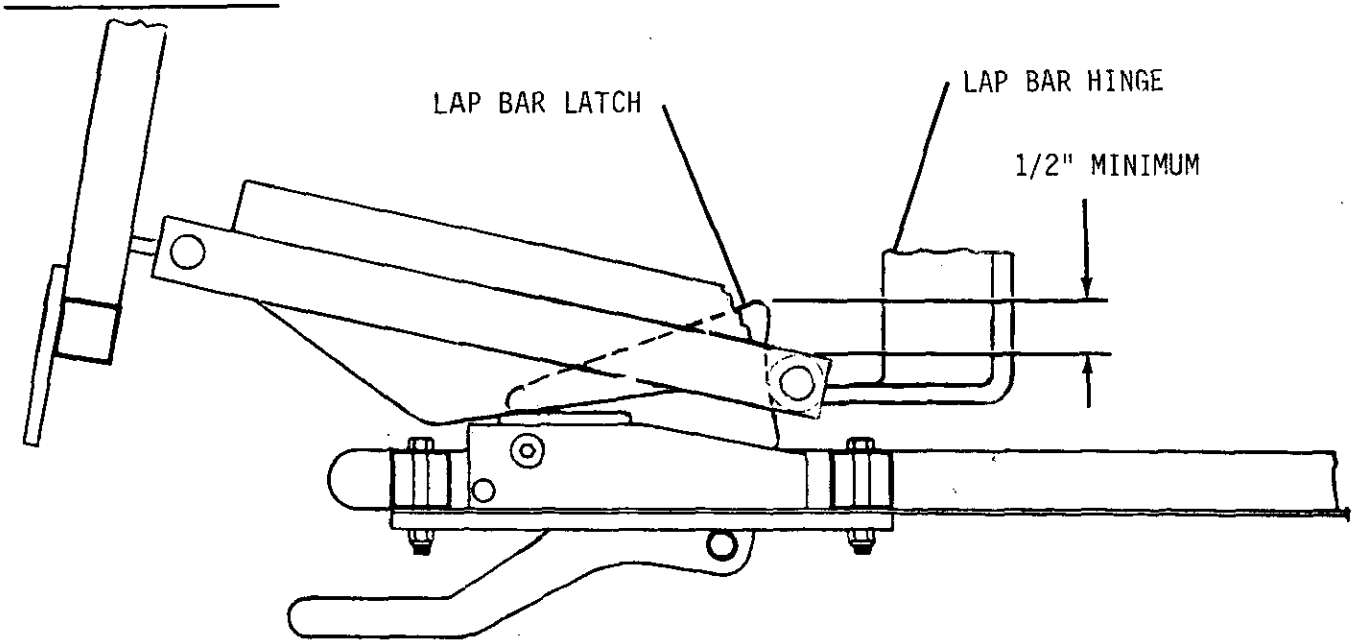
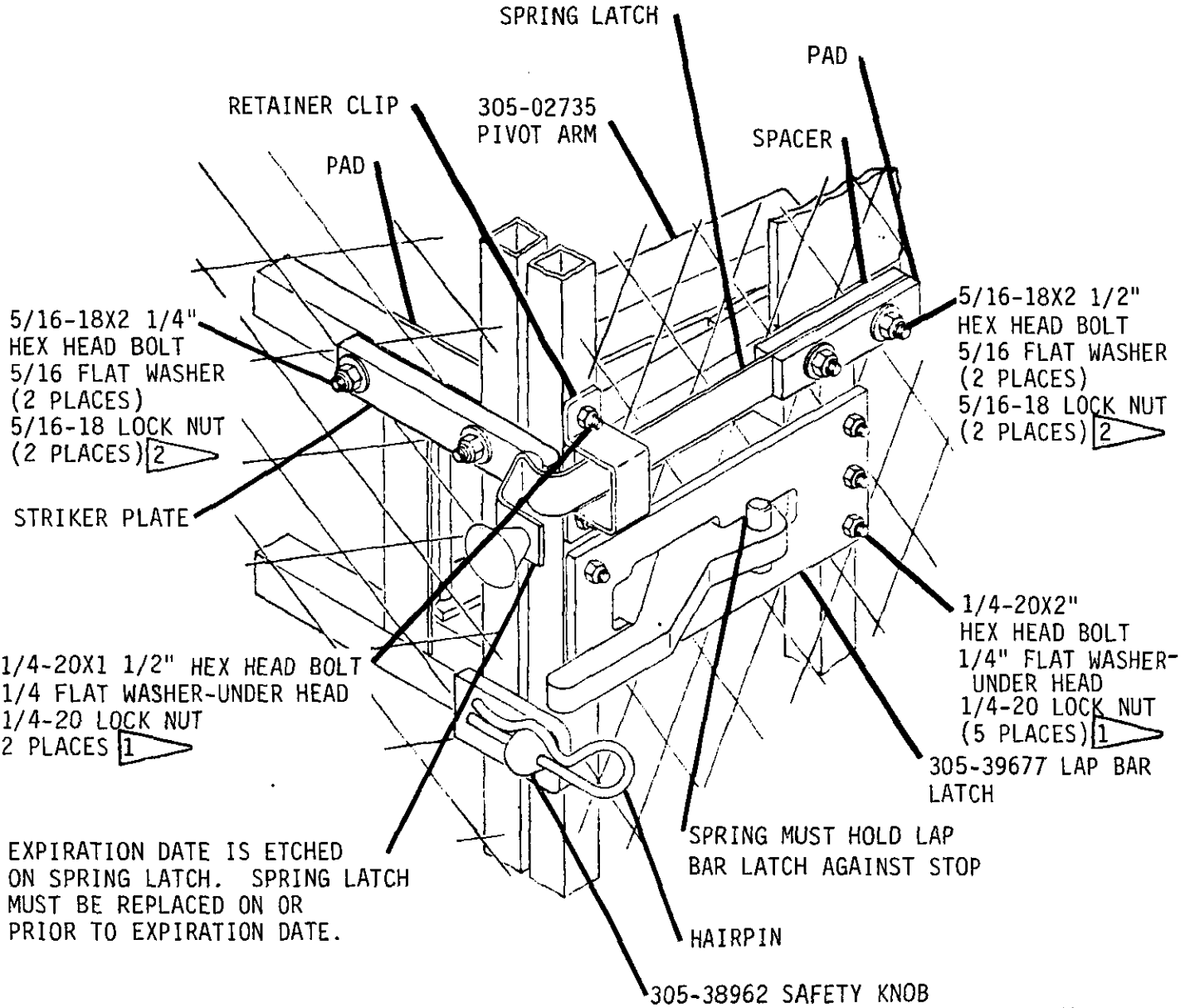


FIGURE D

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.



Notes:

1 Torque to 72 in. lbs.

2 Torque to 11 ft. lbs.

3 Torque to 24 ft. lbs.

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

NOTE: SEE "SAFETY KNOB INSTALLATION" FOR CORRECT LENGTH OF CAP SCREW TO USE WITH SAFETY KNOB

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 completly replace the spring before the seat is used. Spring must be kept well coated with Loctite anti-seize lubricant number 767-64 or eqivalent. 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.

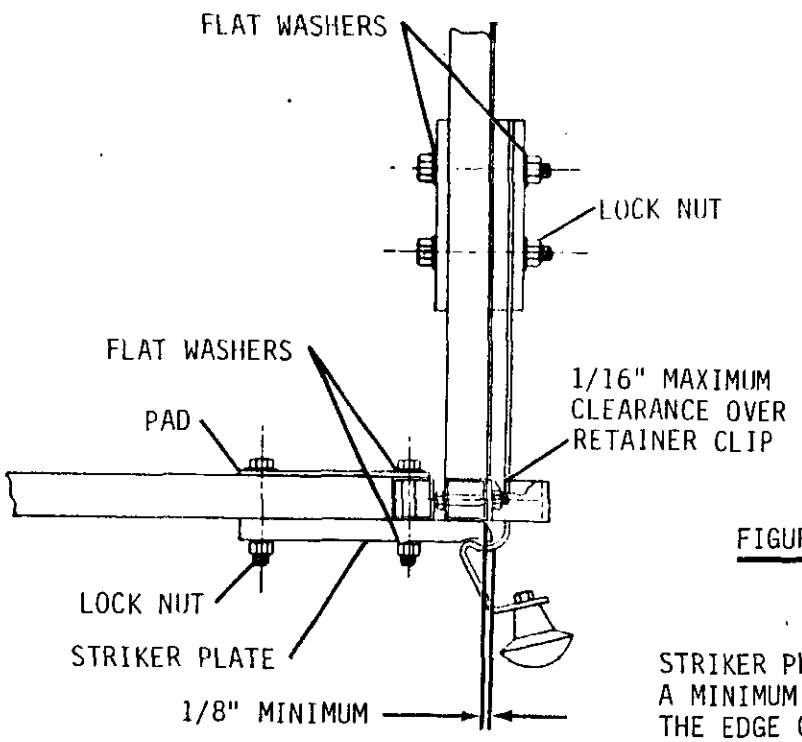


FIGURE F

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 tighteness is accomplished. Do not use seat until this has been done.

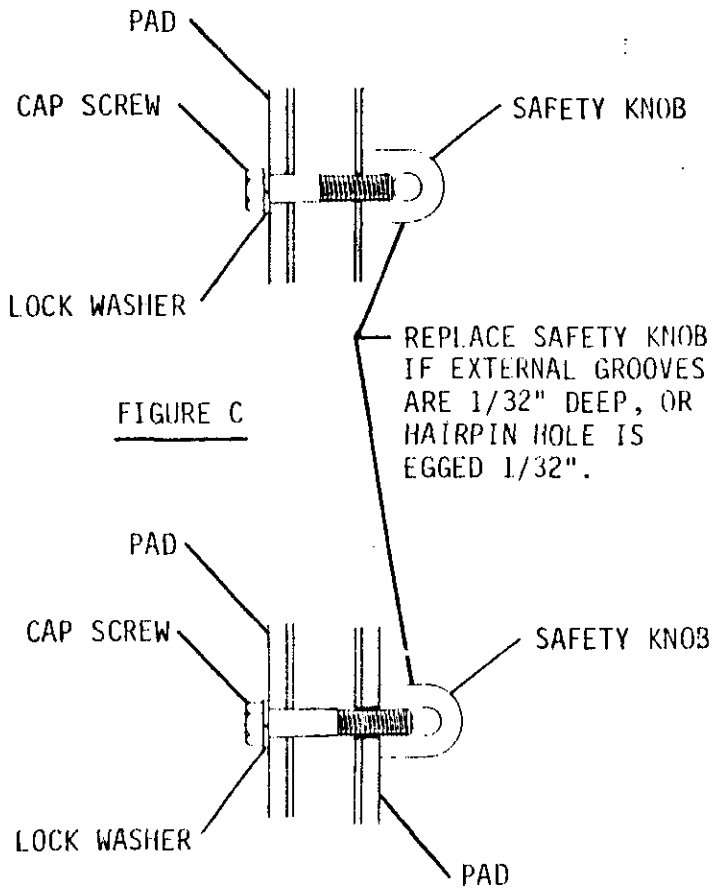


FIGURE C

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).

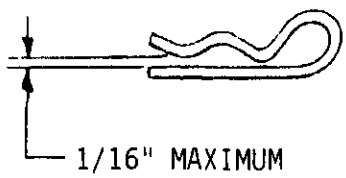


FIGURE H

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.

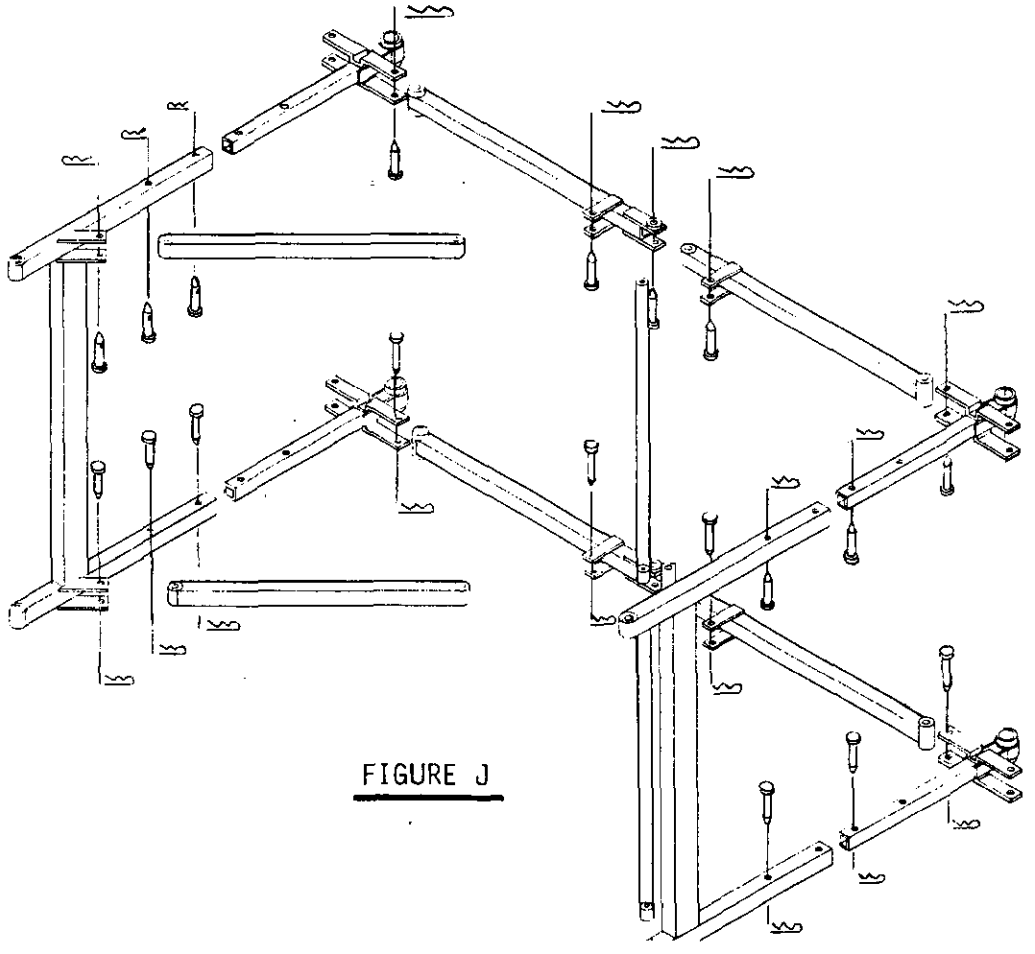


FIGURE J

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

CHANCE MANUFACTURING CO., Inc.

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

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 05-157B, 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.

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

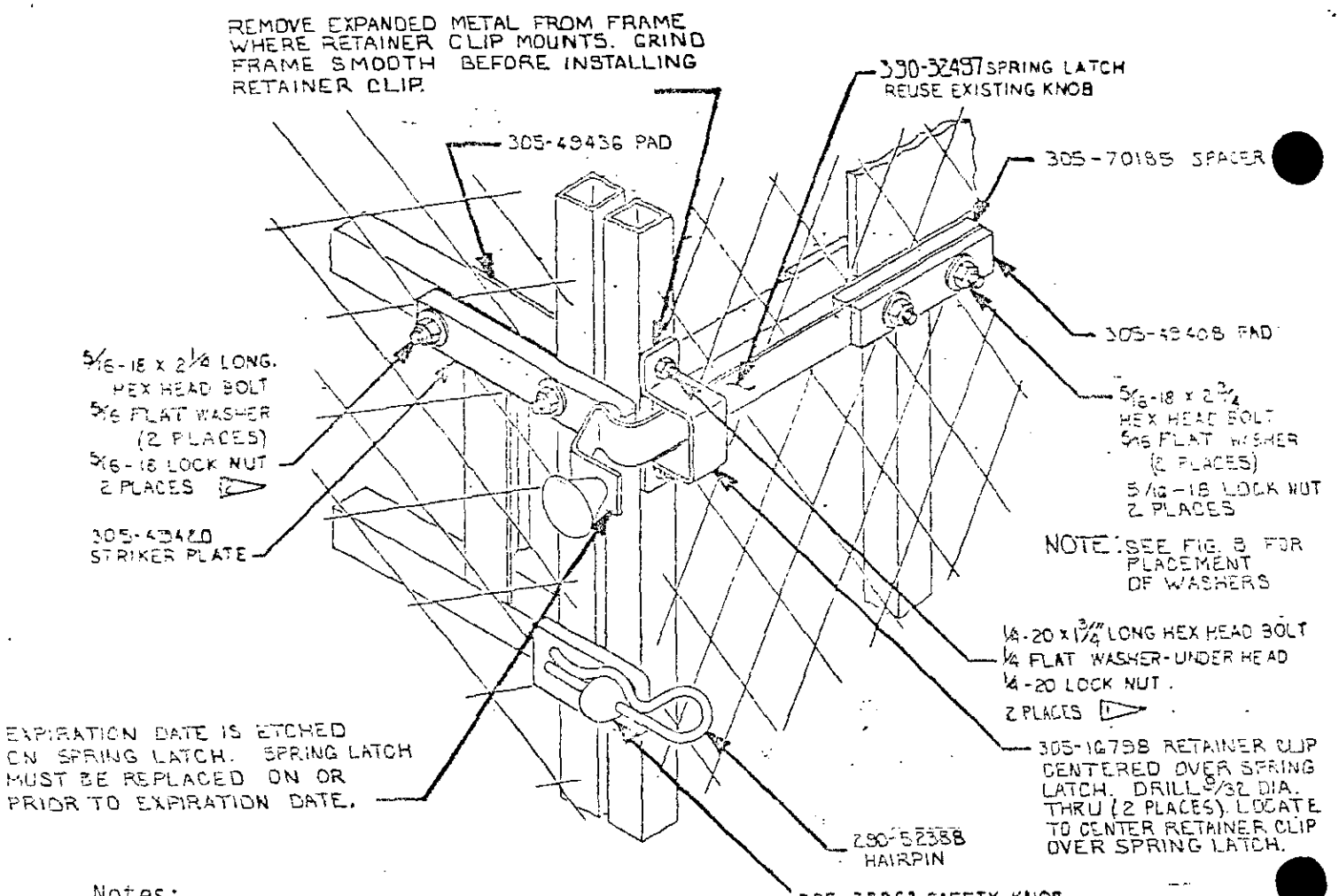
Ride: ZIPPER **Subject:** SEAT DOOR LATCH

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.

QUANTITY	PART DESCRIPTION	PART NUMBER
-	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	---



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

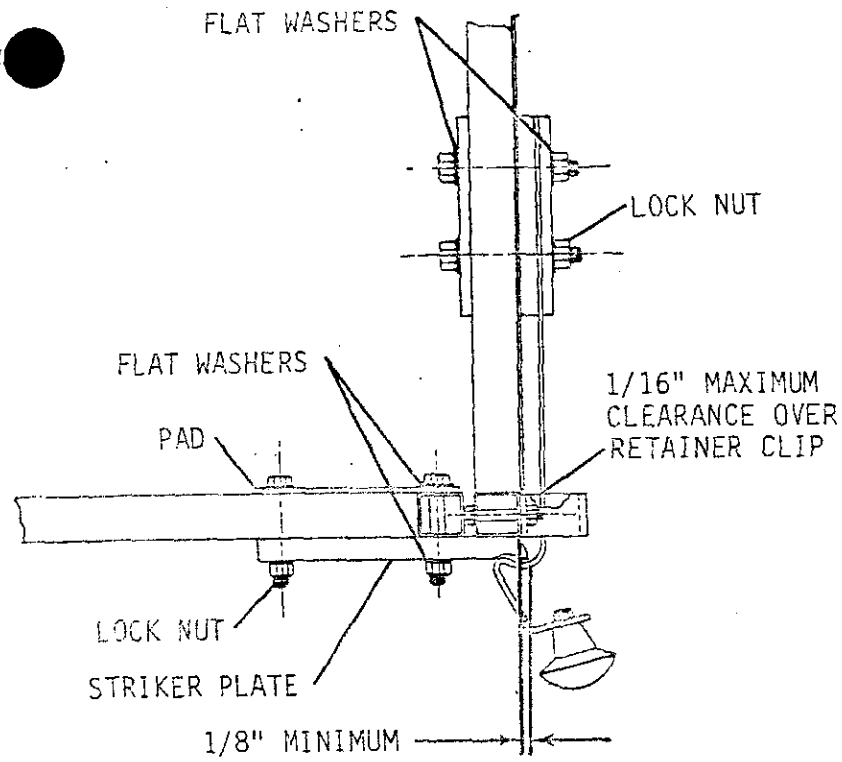
Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (¼" 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

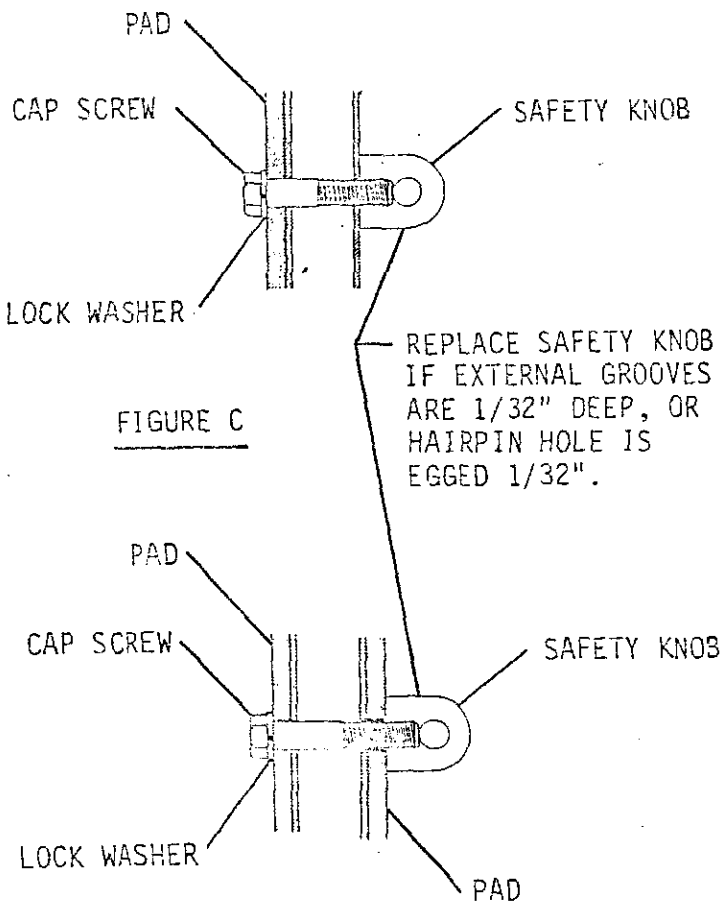


FIGURE C

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.

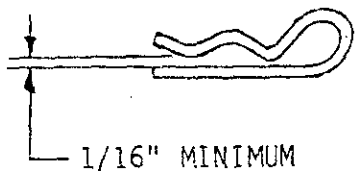


FIGURE E

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 neccessary 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.

1/22/80

Number: B05-0201-00

Date: 1-31-80

CHANCE
MANUFACTURING CO., INC.

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.

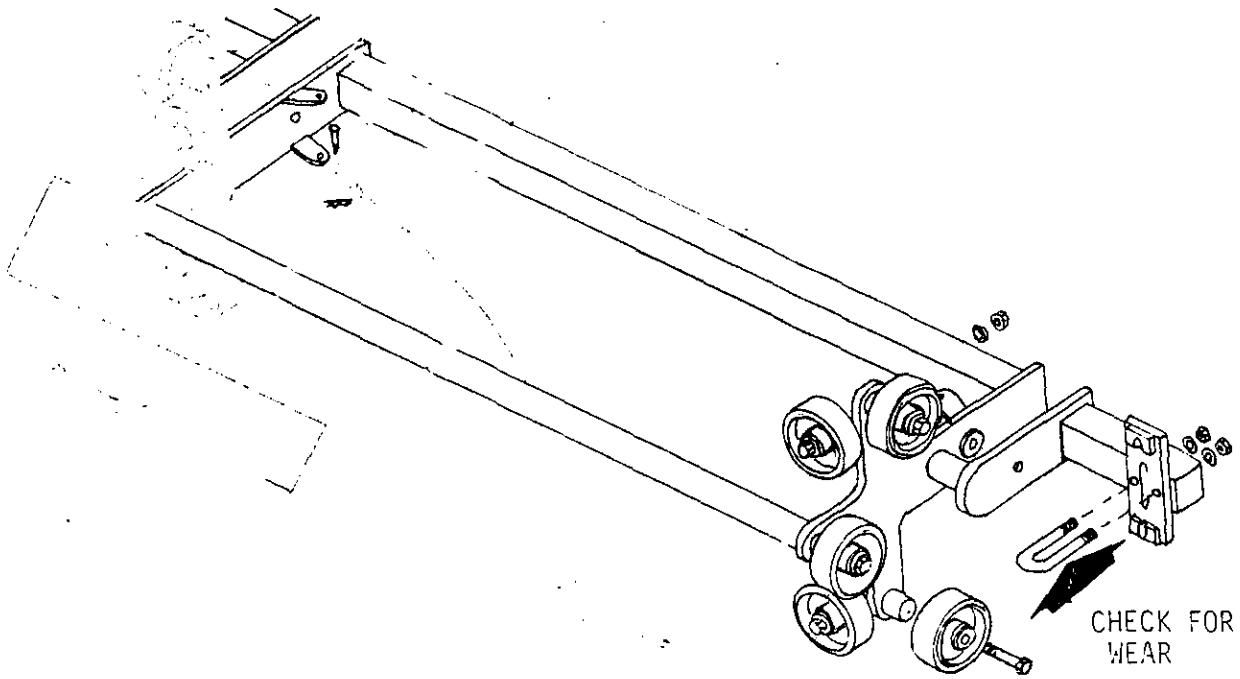


FIGURE A

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.

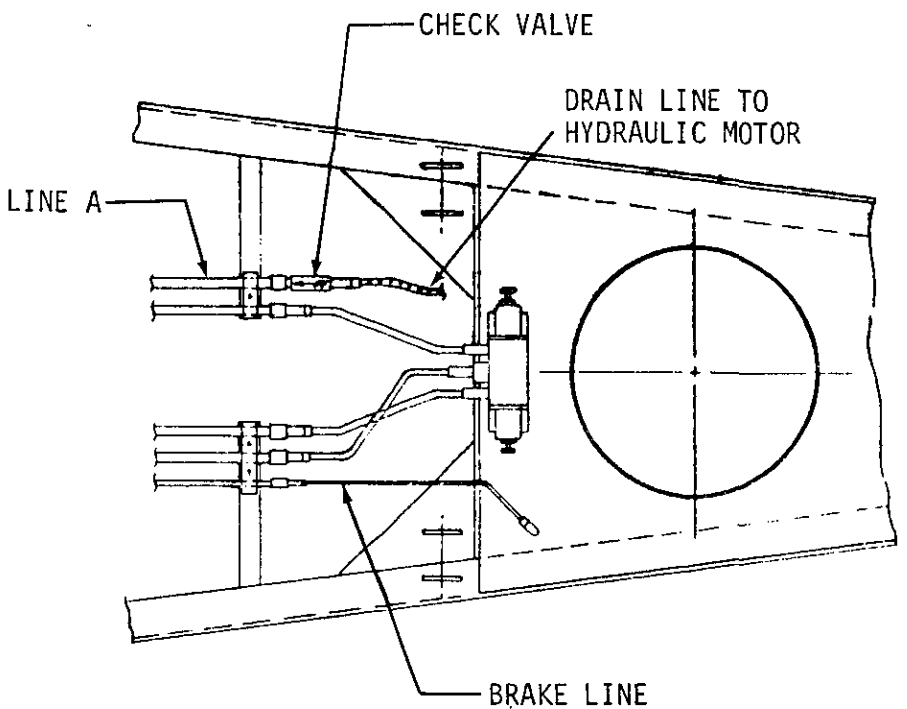


FIGURE A

Number: B05-204-001

Date: 4-23-80

CHANCE
MANUFACTURING CO., INC.

Supersedes:

America's Largest Manufacturer of Amusement Rides

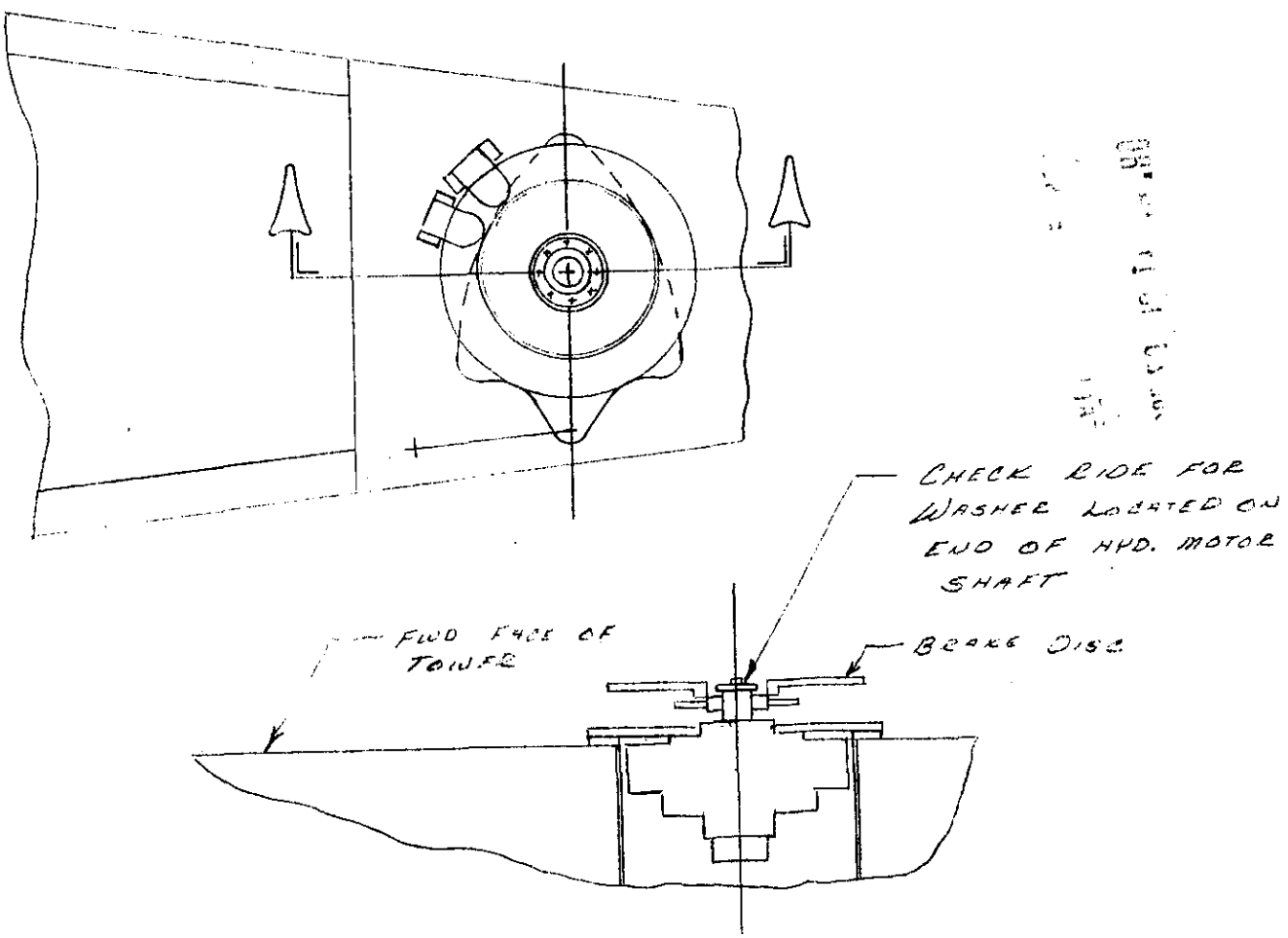
Service Bulletin

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: B05-0205-00

Date: 8-2-80

Supersedes:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Numbers: 68-1801 thru 79-1898

Ride: ZIPPER

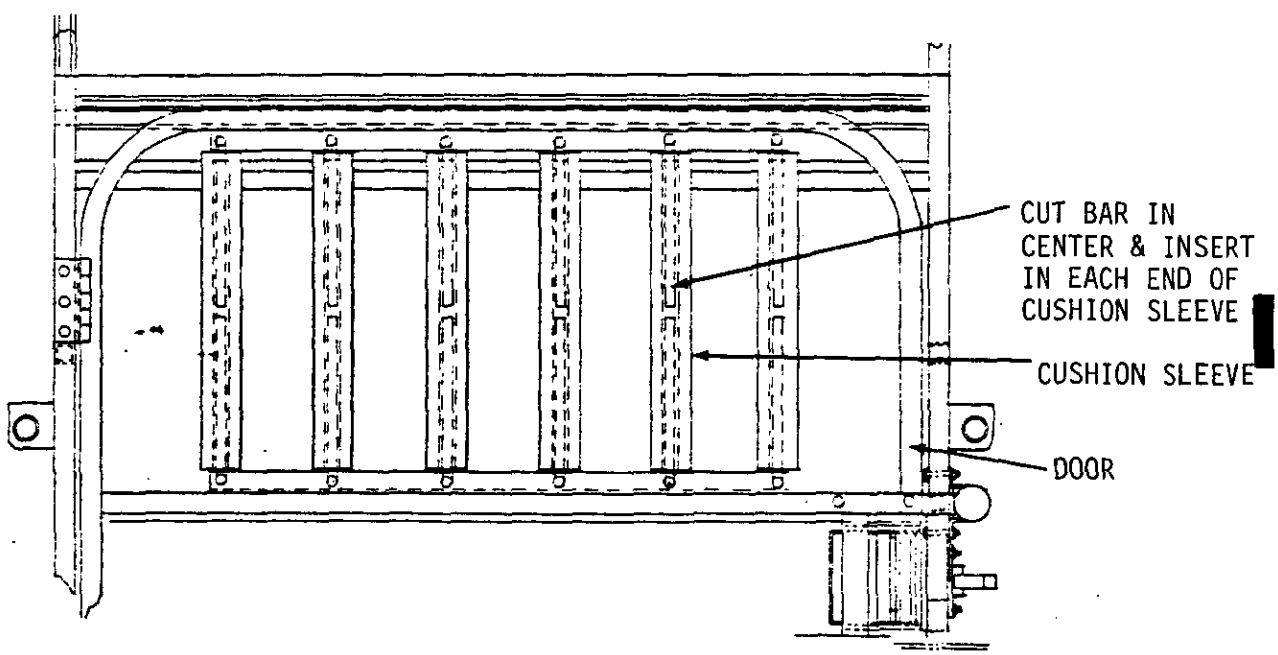
Subject: HAND GRIP ASSEMBLY

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

Form TP-0007-883

Number: B05-0210-00
Date: 8-12-80

CHANCE
MANUFACTURING CO., INC.

America's Largest Manufacturer of Amusement Rides

Service Information

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

Effective Serial Numbers:

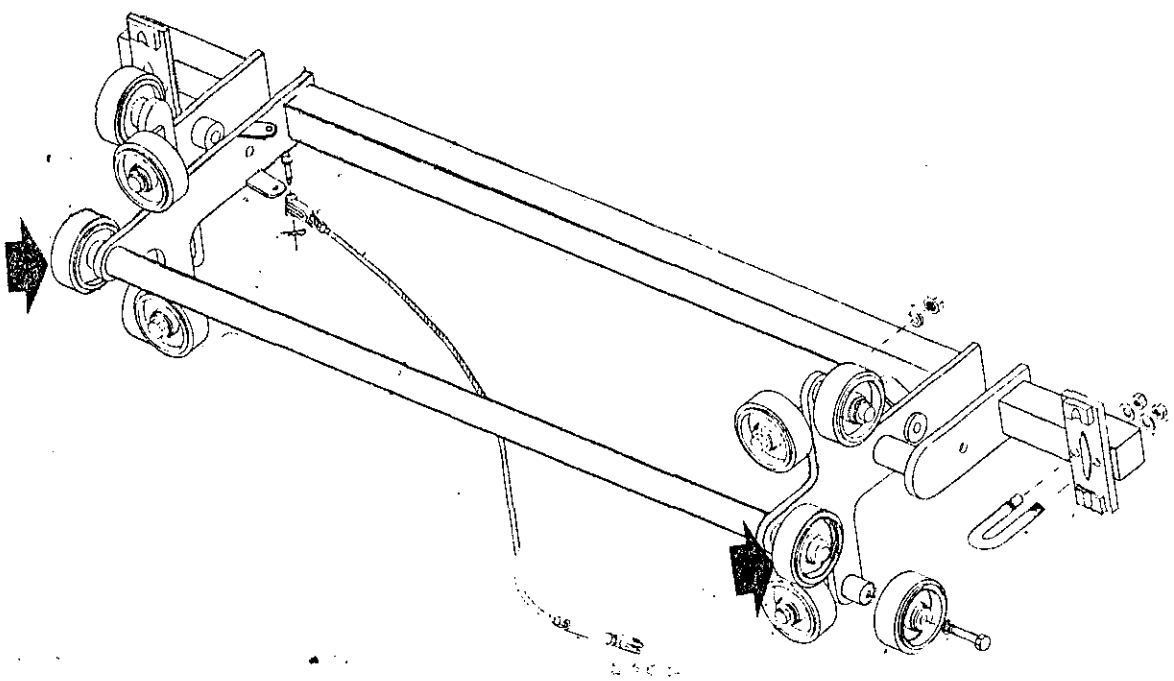
Ride: ZIPPER

Subject: SEAT SUPPORT AXLE WHEEL

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 Area Code (316) 942-7411

Sales Office: 1103 Ross Ave., Dallas, Texas 75202 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	2oz BOTTLE RED LOCTITE	290-01376

Number: B05-0215-00

Date: 1-7-81

Supersedes:

CHANCE
MANUFACTURING CO., INC.

America's Largest Manufacturer of Amusement Rides

Service Bulletin

Effective Serial Numbers: ALL UNITS

Ride: ZIPPER

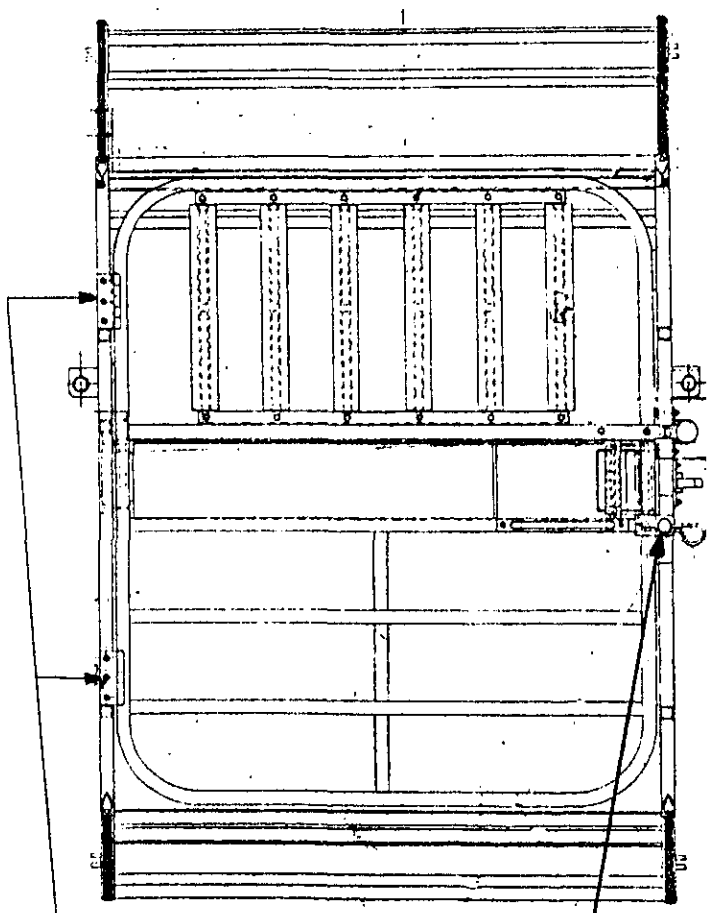
Subject: INSPECTION OF DOOR HINGES

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.



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: B05-0228-00

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 facillitate 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

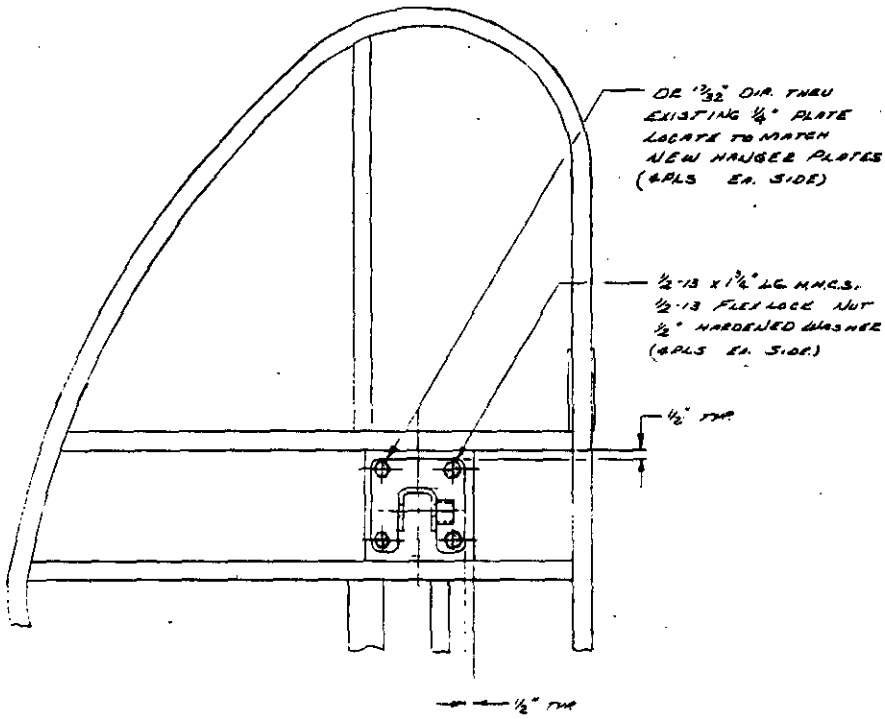
QUANTITY LISTED ABOVE IS FOR ONE ZIPPER SEAT. 12 KITS REQUIRED FOR COMPLETE RIDE.

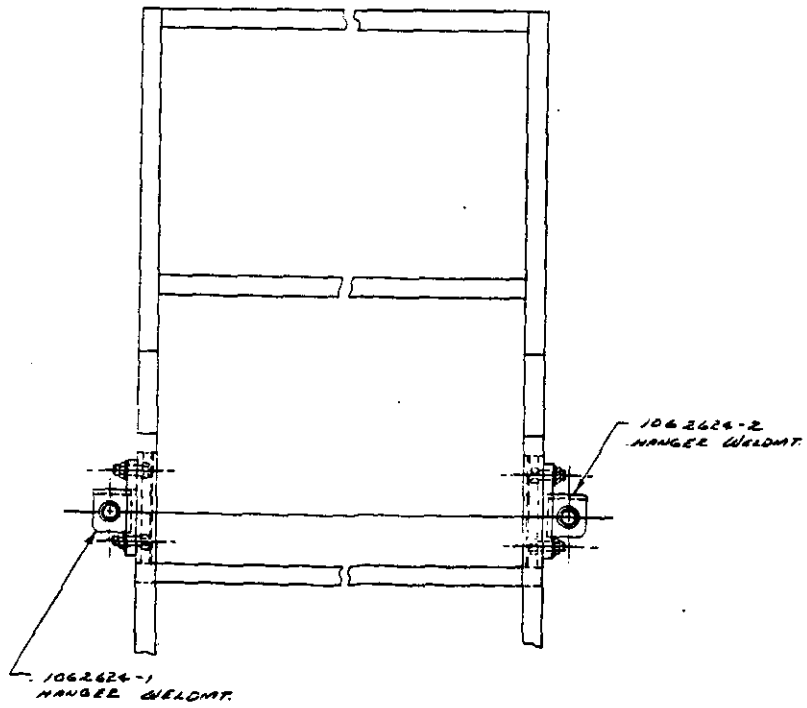
INSTALLATION INSTRUCTIONS

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" diminsion from all edges. New welds to expanded metal should be added before removal of material extending past 3/8" limit.

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

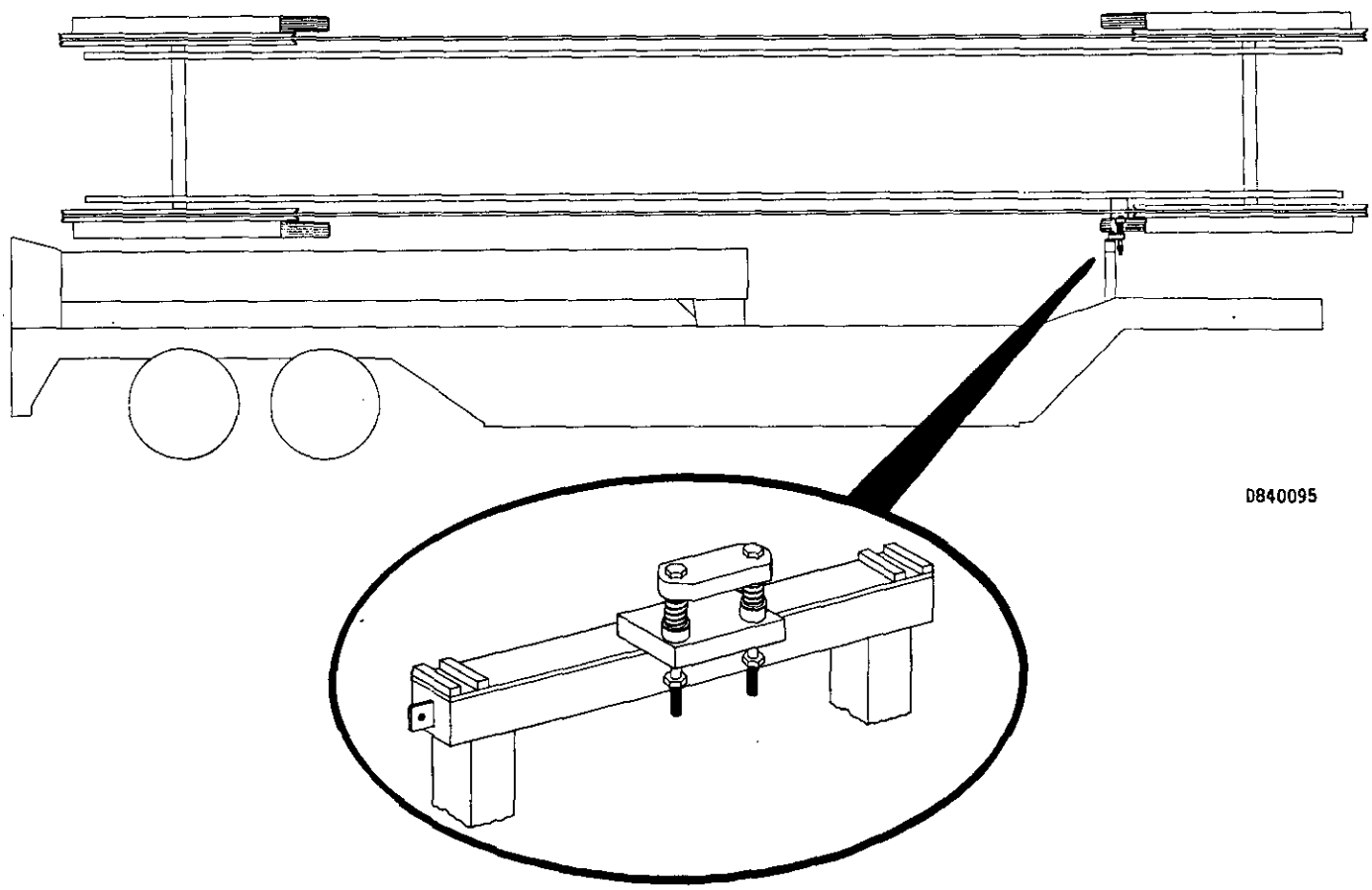
SERVICE BULLETIN

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

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

Qty. Req. Per Ride	D.P. Number	Description
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

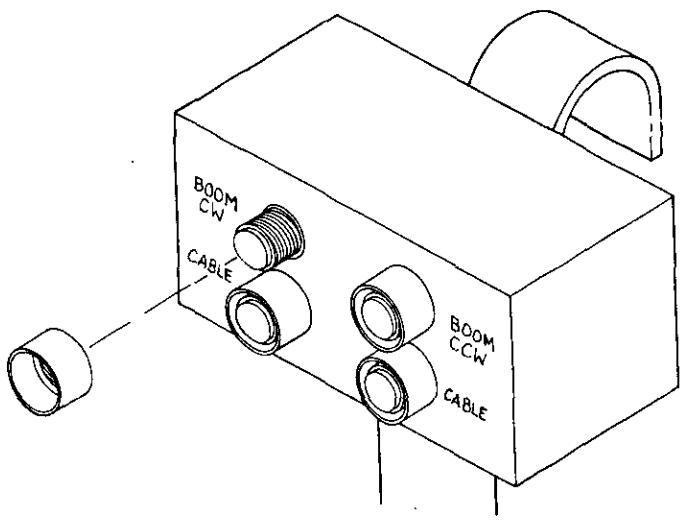
Effective Serial Numbers: All Units

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.

Number: B05-0257-00

Date: June 6, 1984

Supersedes:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

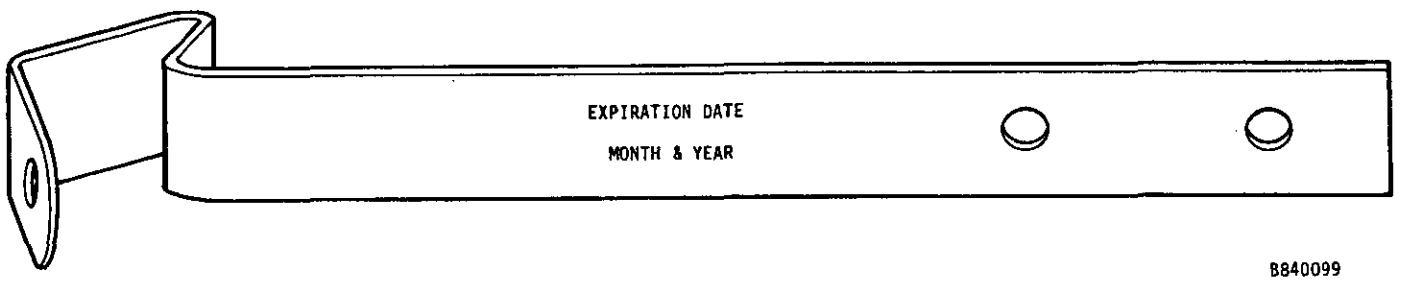
Effective Serial Numbers: All Units

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.



B840099

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:

Quantity Reqd. Per Ride	D.P. Number	Description
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.

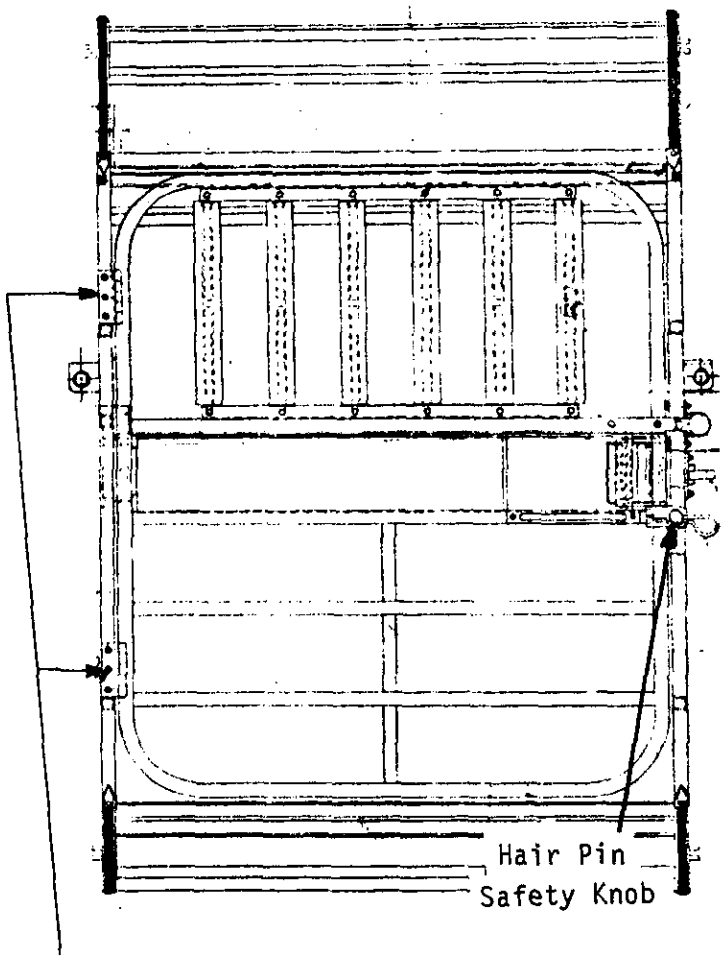
Check the hinge for wear by opening and closing the door. If the door binds on the inside of the seat frame, or will not close over the hair pin safety knob without forcing, the hinge must be replaced.

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

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

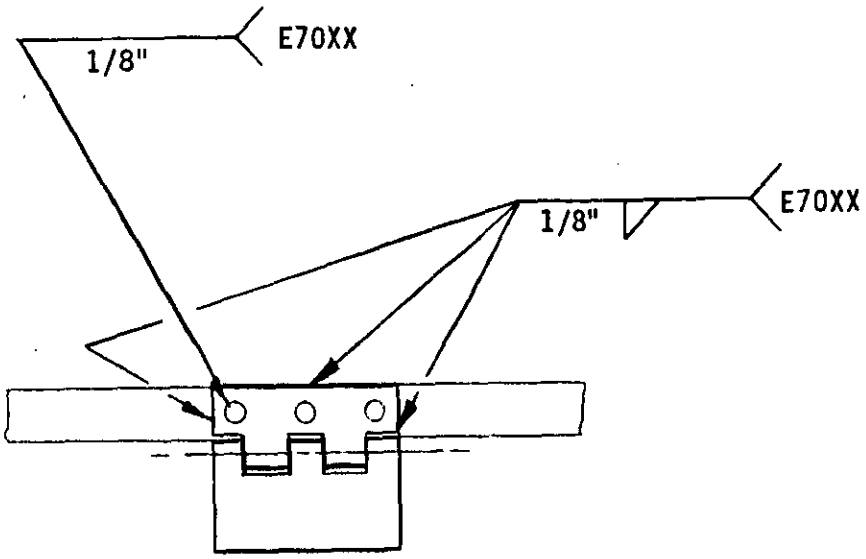
NOTE: Attach each hinge to the seat frame with the hardware noted in the illustration.

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)

VIEW TYPICAL FOR BOTH HINGES



Number: B05-0258-00

Date: June 8, 1984

Supersedes:

America's Largest Manufacturer of Amusement Rides

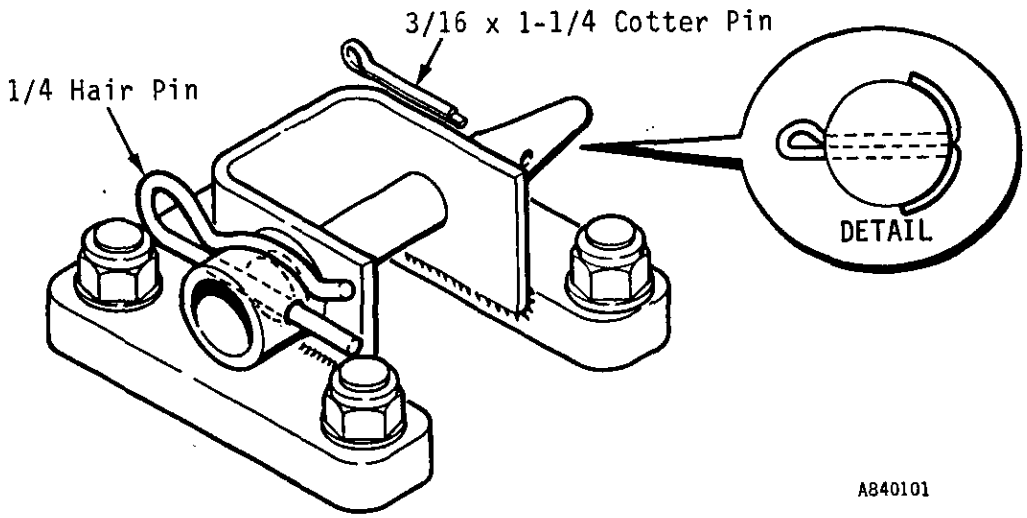
SERVICE BULLETIN

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.



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 Reqd. Per Ride	D.P. Number	Description
24 (2 per seat)	694-51905	Hair Pin (1/4")
24 (2 per seat)	699-51652	Cotter Pin (3/16 x 1-1/4")

CHANCE MANUFACTURING CO., Inc.

America's Largest Manufacturer of Amusement Rides

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)

SERVICE BULLETIN

Effective Serial Numbers: 68-1801 AND ON

Ride: ZIPPER

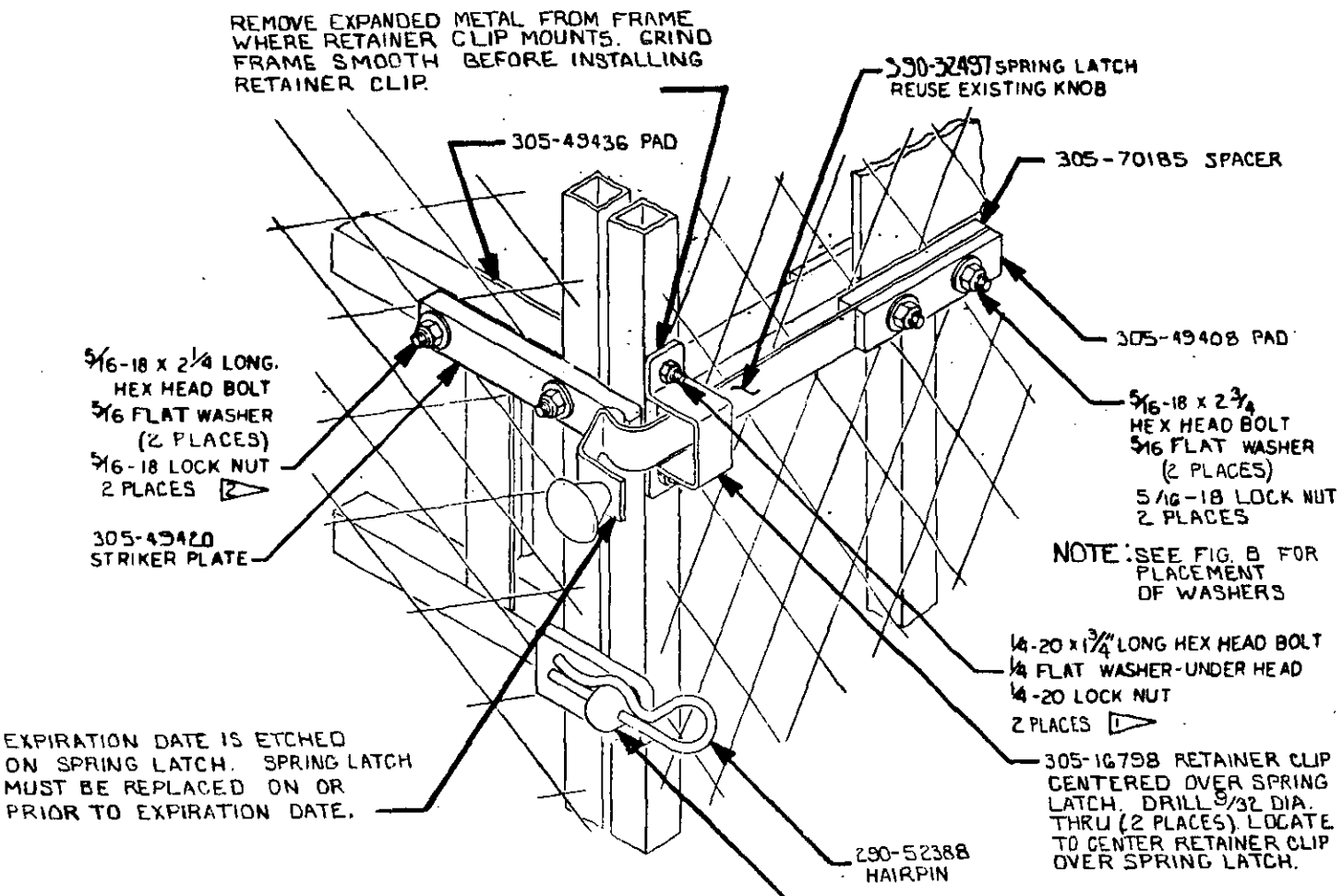
Subject: SEAT DOOR LATCH

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.

QUANTITY	PART DESCRIPTION	PART NUMBER
-	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	---



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

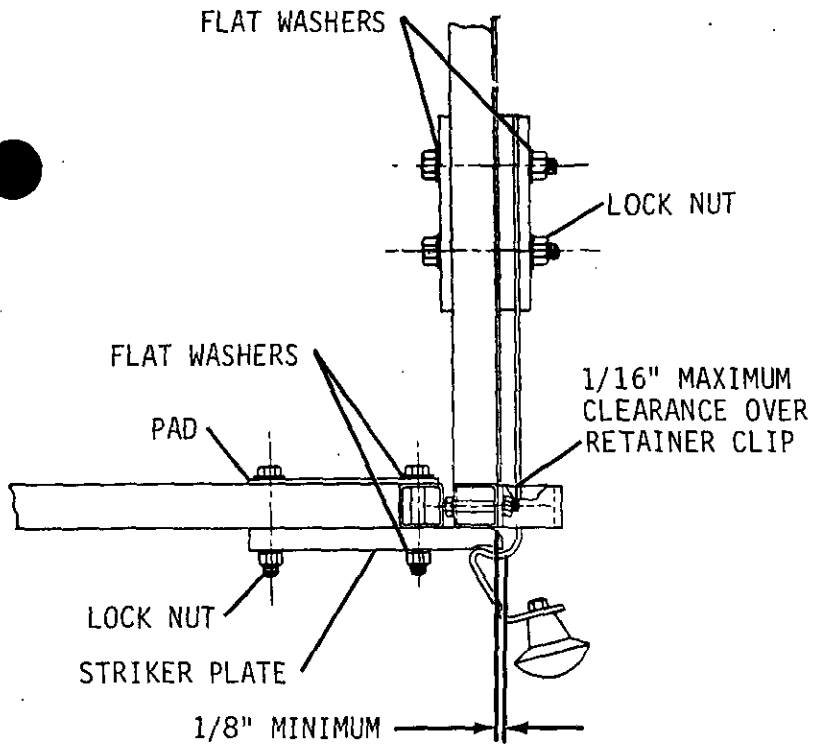
Remove the expanded metal (screening) from the frame where the 305-16798 Retainer Clip mounts. Grind frame smooth before Retainer Clip is installed. Install two bolts with flat washers under heads, through the frame. Install the 305-70185 (3/8" thick) Spacer on bolts. Slide the Retainer Clip over the 390-32497 Spring Latch and position the Spring Latch on the two bolts. Place the 305-49408 (¼" 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

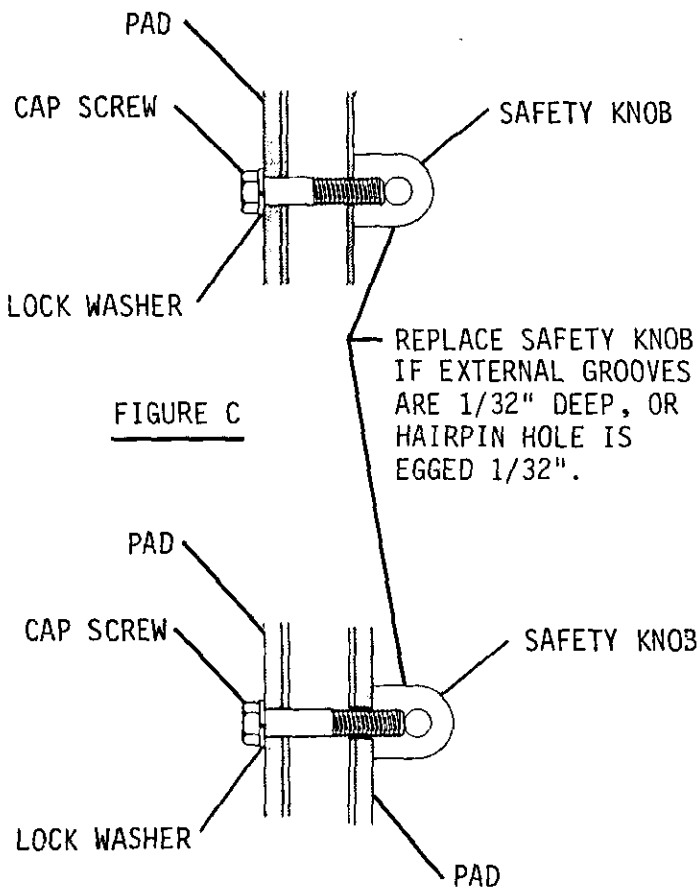


FIGURE C

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.

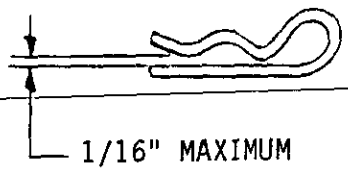


FIGURE E

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 neccessary 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: B05-0205-0A

Date: 12-31-86

Supersedes: B05-0205-00 (8-2-80)

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Numbers: 68-1801 thru 79-1898

Ride: ZIPPER

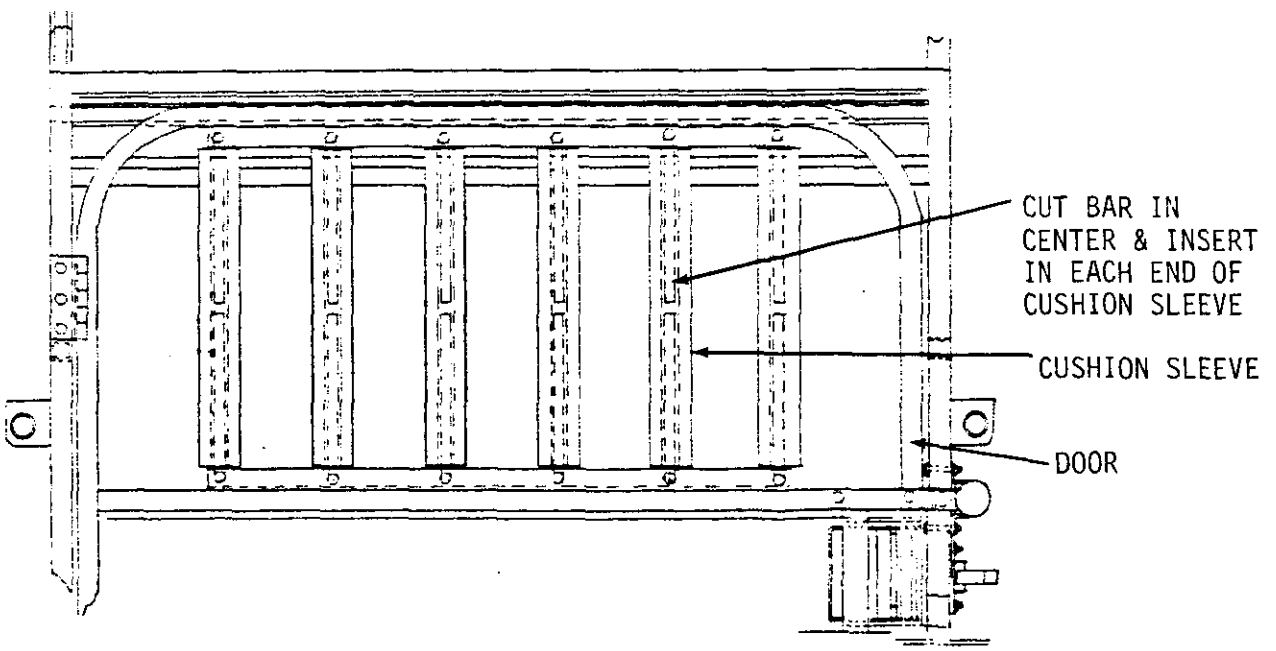
Subject: HAND GRIP ASSEMBLY

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.

All owners of ZIPPER amusement rides are required to add this padding to the hand grip bars immediately. Order a total of 72 cushions (6 per seat) under part number 305-21503.

To install the cushions, cut the existing grip bars in half, then insert one half into each end of the cushion. Re-install the hand grip.



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

CHANCE MANUFACTURING CO., Inc.

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.

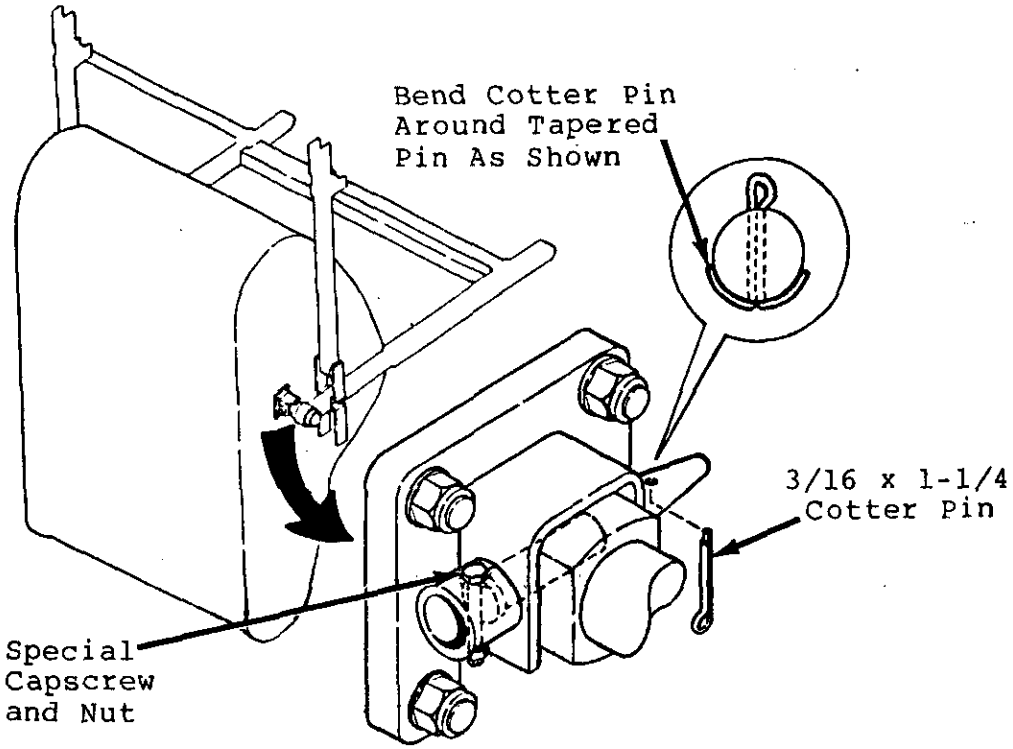
All work must be done by competent qualified mechanics, capable of understanding the function of the parts and their proper installation. If you have any questions regarding these instructions, contact the CHANCE CUSTOMER SERVICE DEPARTMENT.

Order the following parts as required:

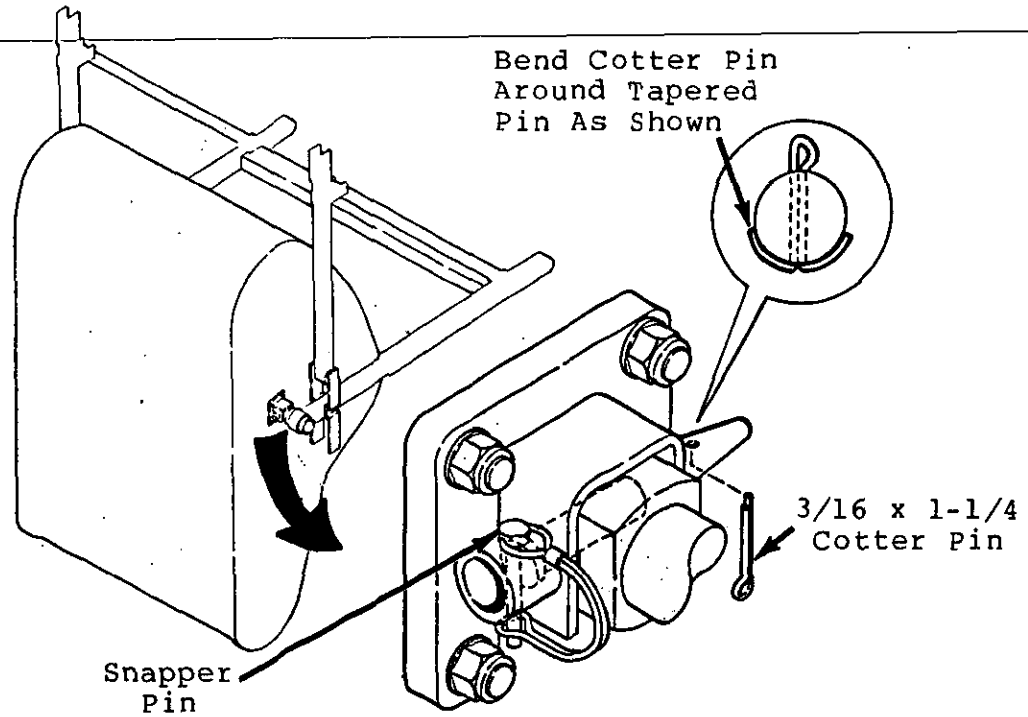
Quantity Reqd. Per Ride	Part Number	Description
20	690-12270	Capscrew - Special
20	691-48043	Nut - Flexlock (1/4-28)
4	290-52321	Snapper Pin (1/4)
24	699-51652	Cotter Pin (3/16 x 1-1/4)

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.



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.

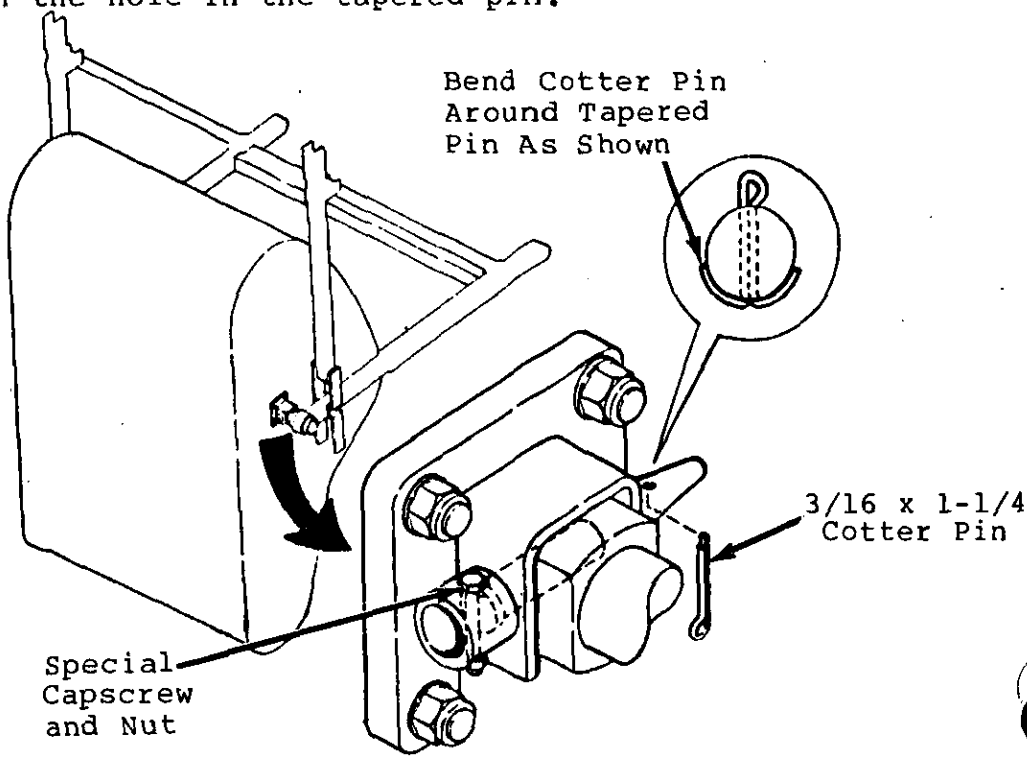
Order the following parts as required:

Quantity Reqd. 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)

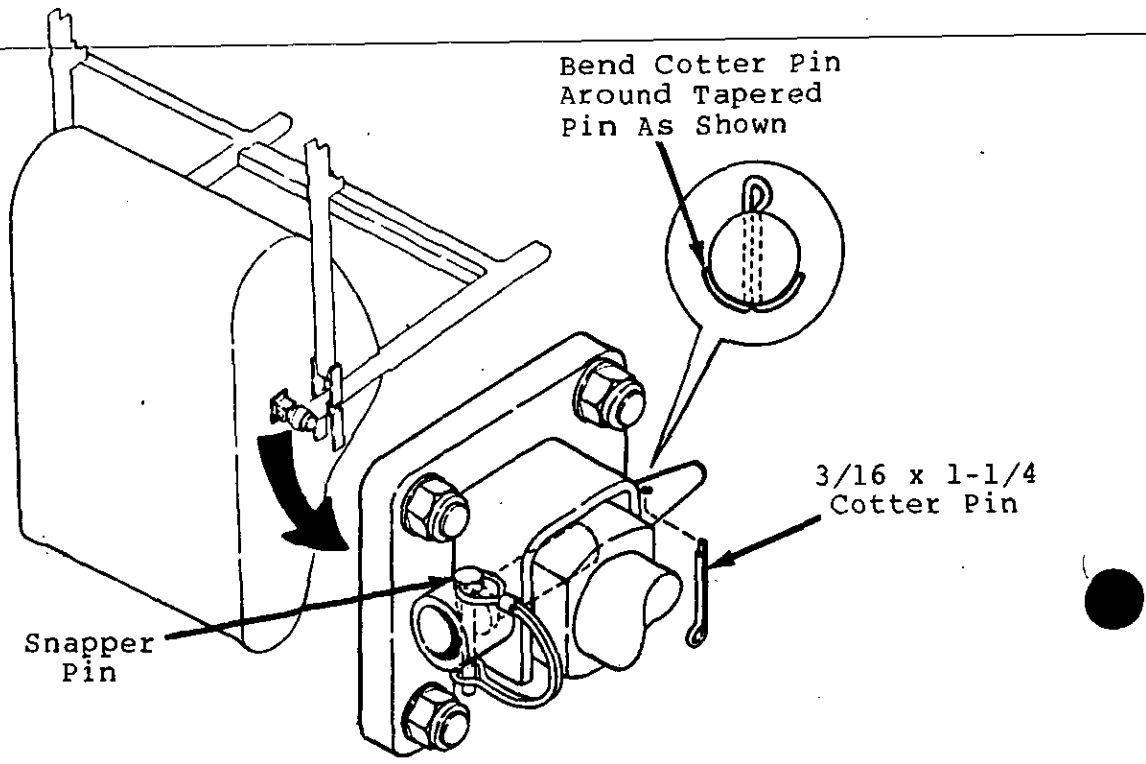
* Snapper pin is used only on rides which rack two seats on the trailer deck. When used, reduce the quantity of special capscrews and nuts to 20.

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.



2 If your ride has two (2) seats which rack on the trailer deck, install the snappper 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: B106R1080-0

DATE: JULY 6, 1990

SUPERSEDES:

SERVICE BULLETIN

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

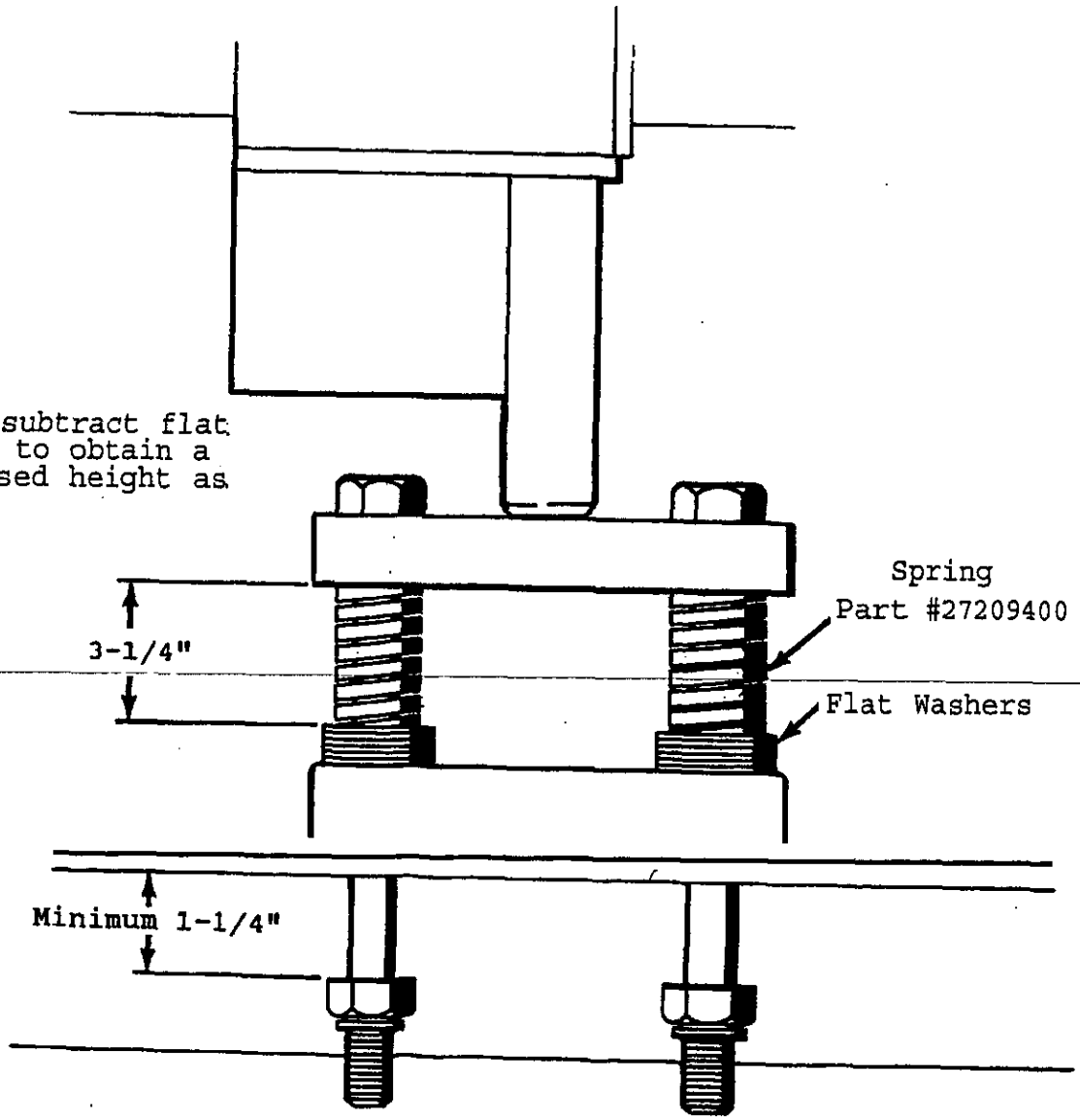
Use only those components authorized, specified or provided by Chance Rides, Inc.

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: B090R1169-A

DATE: APRIL 21, 1995

SUPERSEDES: B090R1169-0

SERVICE BULLETIN

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 WIPEOUT AND ZIPPER

Subject: Safe Rider Policy

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.