



Number: 60

Date: 9-13-73

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: 68-15105 thru 73-15190

Ride: TRABANT

Subject: REPLACEMENT OF FLOOR CLEVIS  
FOR LIFT CYLINDERS

During recent inspections of rides returning to the factory, a condition was brought to our attention that is unsafe. The clevises attached to the floors for the lift cylinders are fatiguing where they are bent around the pin. This condition is probably a result of improper heat treating which has caused the metal to crystalize or become brittle in the bent area.

All clevises should be checked immediately for any visual signs of deterioration. These include cracking of exterior paint which could indicate a stretching action, and small cracks starting at edges. Rust and normal wear should also be taken into account.

If clevis shows any abnormal signs, it must be replaced immediately. Do not attempt to strengthen clevis by welding to it in any manner.

**INSPECT CLEVISES BEFORE EVERY SET-UP OR TEAR DOWN**

## WARNING

Should a clevis fail, the floors will drop very suddenly. Always use ropes to pull out on the outer floor sections during set-up or tear down procedures. This eliminates having any personnel in an area where they could be injured if a floor section fell.

## CLEVIS REPLACEMENT

Replacement of the clevis is not a simple task and will require the services of a competent welder equipped with an "Arc Air".

In addition, a pop rivet gun, electric drill and #9 drill bit and acetylene torch are required.

Remove the tread plate on each side of the clevis by drilling out the rivets. Use a #9 drill bit.

After removing the tread plate, the ends of the pin and the socket for the floor support stand will be visible.

Using the "Arc Air", blow the welds loose on the floor support socket and on the ends of the clevis pin.

Knock the pin loose and install new pin and clevis, securing pin with 1/8 x 1" long cotter pin on both ends.

### NOTE

In order to obtain enough clearance for the new clevis, it may be necessary to bend the plate which is welded to the support tubes. To accomplish this, heat the plate with an acetylene torch and strike it several blows with a hammer.

Relocate socket as shown in drawing.

Complete procedure by pop riveting tread plate to structure.

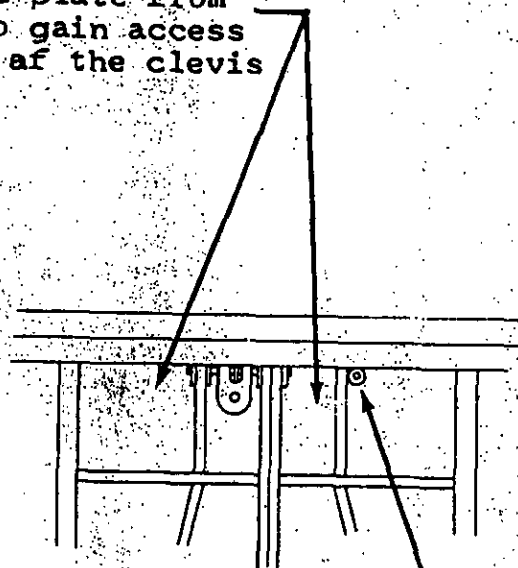
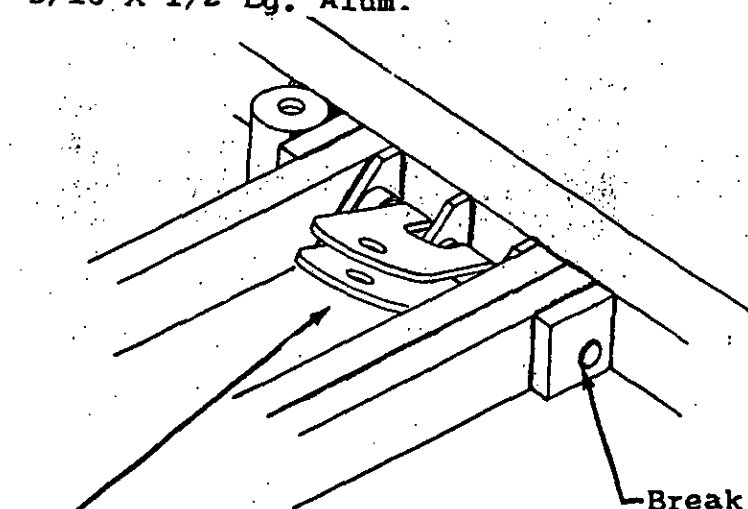
NEW CLEVIS P/N 1030200-42

NEW PIN P/N 1030200-43

COTTER PIN  
1/8 X 1" Lg.

POP RIVETS  
3/16 X 1/2 Lg. Alum.

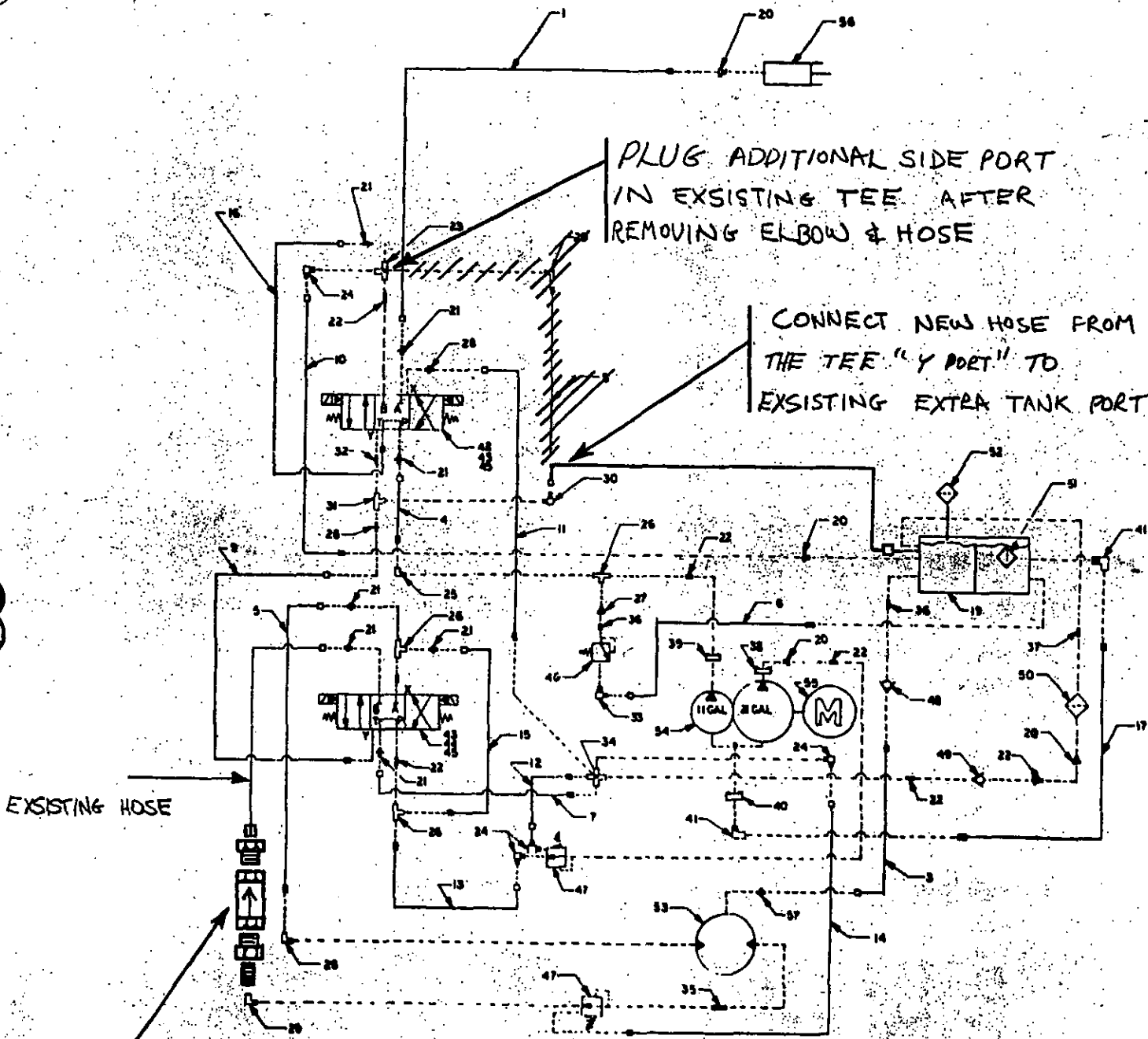
Remove tread plate from this area to gain access to the ends of the clevis pin



Heat plate and bend if necessary to gain clearance for new clevis

Break welds loose on both ends of pin

Relocate Floor Stand Support Socket to this location.



PLUG ADDITIONAL SIDE PORT  
IN EXISTING TEE AFTER  
REMOVING ELBOW & HOSE

CONNECT NEW HOSE FROM  
THE TEE "Y PORT" TO  
EXISTING EXTRA TANK PORT

EXISTING HOSE

ADD NEW CHECK  
VALVE, BUSHINGS &  
CLOSE NIPPLE BETWEEN  
HOSE & ST. ELBOW

## BARREL CREEPING

With some rides the barrel section tends to creep slightly during the loading sequences. The corrective action taken by this kit may eliminate the problem for some operators, since it will reduce the operating temperature of the Hydraulic Oil.

However, it may not be adequate for rides hauling a large number of passengers or if the Directional Control Valve happens to have a loose fitting spool.

To stop Barrel Creeping, a Check Valve can be added in the return line from the motor. This will equalize pressure on both sides of the motor.

### OPTIONAL PARTS REQUIRED

#### Quantity

2	1 1/4-3/4 NPT Bushing
1	3/4 NPT Close Nipple
1	290-84405 Check Valve

### Addition of Check Valve

Remove the Drive Tire to facilitate access to bottom side of Hydraulic Motor and Relief Valve.

Remove Hose going from the Relief Valve to B Port of the Directional Valve.

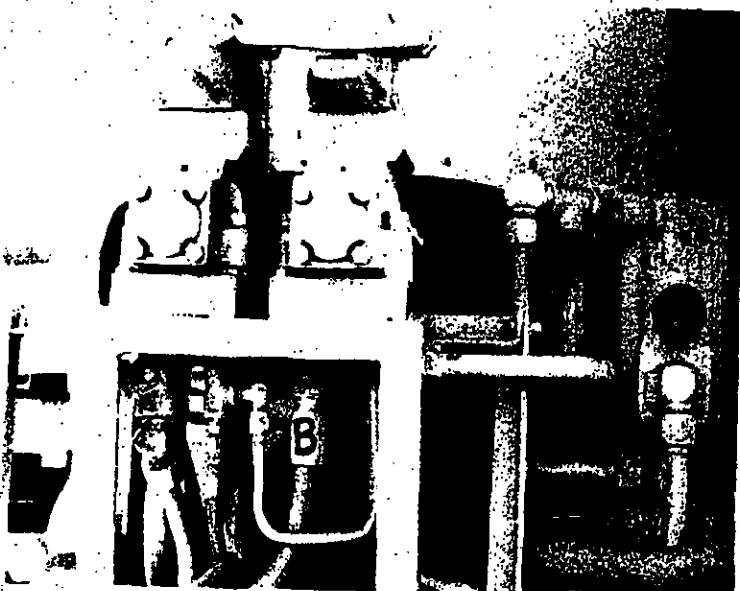
Screw the Check Valve with nipple and bushings into the St. Elbow on the bottom side of the Relief Valve.

### CAUTION

Be sure Check is installed with Arrow pointing away from Relief Valve.

Re-connect Hose from Check Valve to B Port of the Directional Control Valve.

Test run ride and observe for leaks.





Number: 73

Date: 6-3-74

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: 68-15105 thru 73-15192

Ride: TRABANT

Subject: CYLINDER EAR REPLACEMENT

We are now offering a kit to rebuild the ears on the boom where the main lift cylinder attaches. On some rides that have experienced heavy usage or lack of maintenance, these ears and the cylinder pin have become worn or galled to the point where they should be replaced.

All TRABANTS included in the above serial numbers should be inspected according to the following procedure.

## INSPECTION

Ride must be erected to a point where the underside of the boom is readily accessible.

With the boom resting on the stand and the hydraulic system running, tap the Up-Down switch for the boom and observe the cylinder rod end.

The cylinder rod end should not move in or out more than 1/8 inch before it moves the boom.

Any movement of the cylinder rod end without movement of the boom indicates some play or wear in the ears on the boom, or on the cylinder pin. Looseness under 1/8 inch can be considered tolerable, but the pin should be inspected weekly if any signs of wearing are found.

If pin or ears are worn beyond 1/8 inch limits or if marginal, replace the pin and ears per instructions.

## PARTS INCLUDED IN KIT #302-38760

Quantity	Item
1	1032405-3 Cutting Template
1	1032406-1 Pin
1	1/4 x 3 Cotter Pin
1	1032405-1 Hanger Weldment
1	1032405-2 Hanger Weldment
1	1032405-4 Bar

CAUTION

Disconnect electrical power coming to ride as the following procedure requires personnel to be close to electrical slip rings and brushes.

The following procedure can be performed with the boom resting on the stand. This is the safest and the recommended manner in which the following should be performed.

The boom, however, can be raised for easier access, at customer's option. If boom is raised, make sure it is braced adequately so it cannot fall down. This method is not recommended for safety reasons, and is at owner's risk.

Figure 1

1. Disconnect hydraulic lines from cylinder. Plug the ports in the cylinder and plug the hydraulic lines to prevent dirt from entering.
2. Remove pins from upper and lower end of cylinder and remove cylinder from ride.
3. Have a local machine shop bore out the hole in the rod end of the cylinder to 1.515 inch.
4. Clean the ears and general area so they are free of grease and dirt. If solvent is used, it should be non-flammable type.

Position cutting template so the small ear fits over the upper side of the channel.

Scribe or use a magic marker or soap stone, etc., to mark a line along each ear following the inside edge of the cutting template.

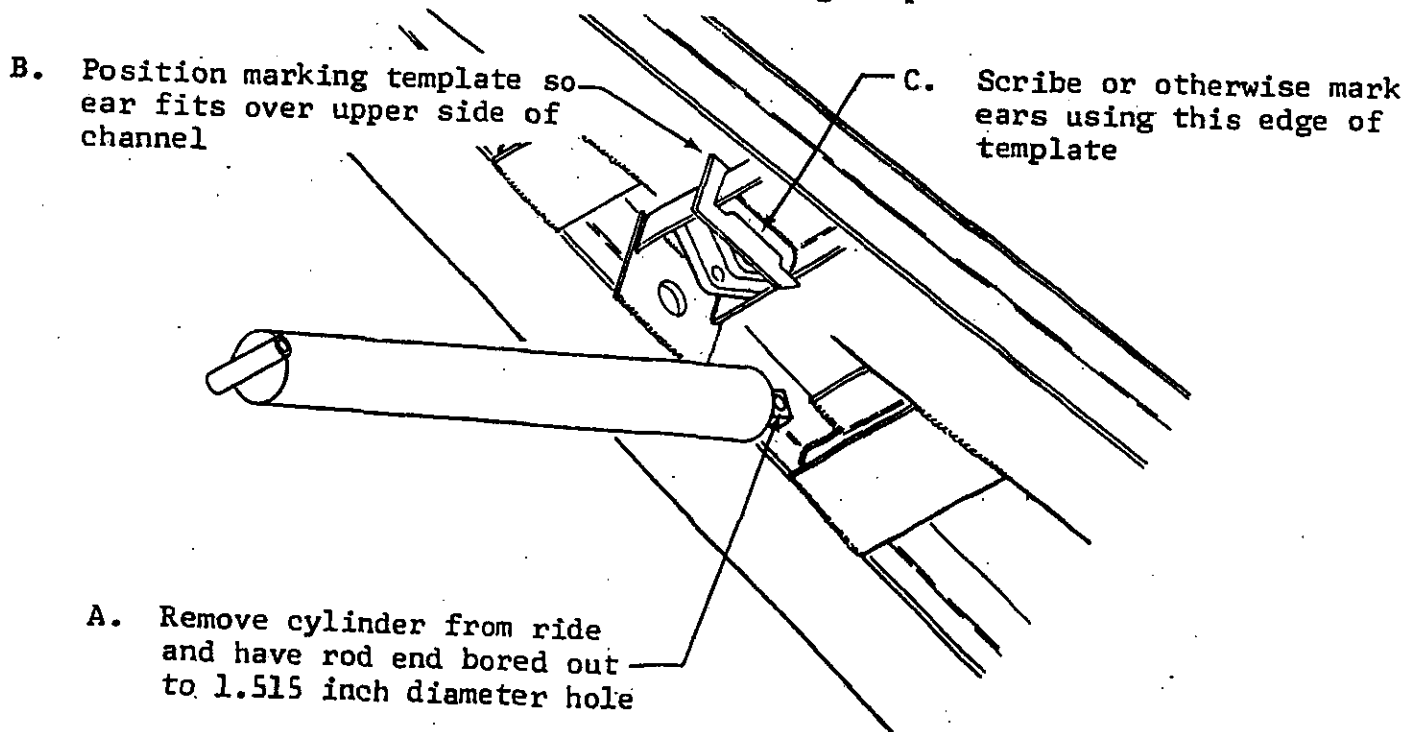
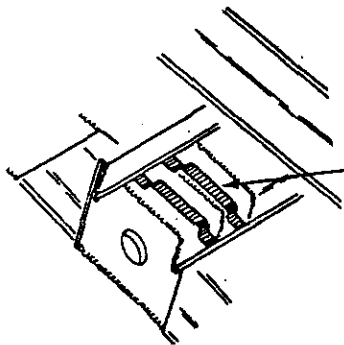


Figure 1

Figure 2

5. With a cutting torch, cut off each ear as close as possible to the line that you have marked on them.



Torch old ears off along line, should look approximately like this when complete

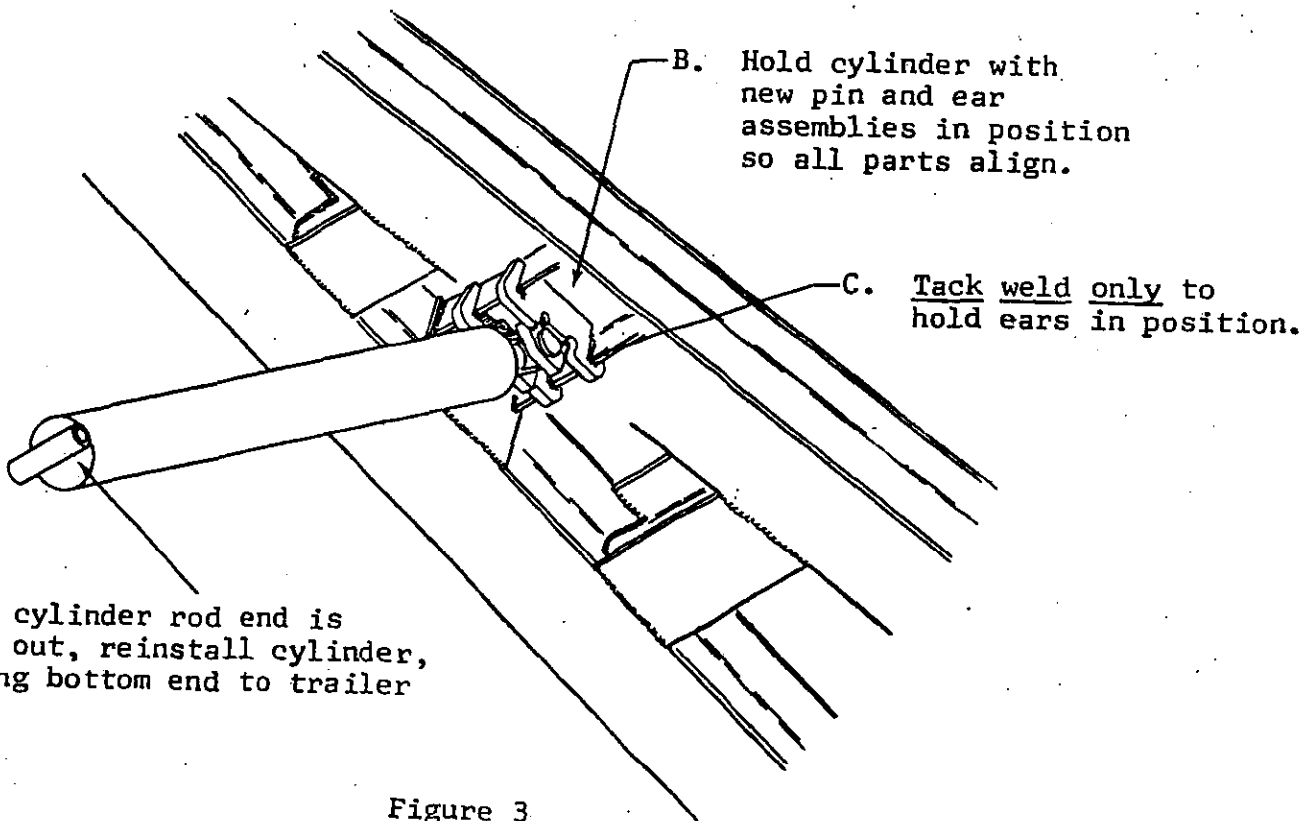
Figure 2

Figure 3

6. Place each new ear assembly up against the old ear and channel to see that each one fits flat against the inside of the channel and flat against remaining portion of old ear.

If new ear assemblies do not fit, torch or grind a small amount off the old ears.

7. Pin bottom end of lift cylinder.
8. Insert new pin through cylinder rod end and new ears.
9. Hold or block cylinder so new ears are in proper position and tack weld ears in place.



A. After cylinder rod end is bored out, reinstall cylinder, pinning bottom end to trailer

Figure 3

Figure 4

10. Remove pin and let cylinder drop down so it is not in the way.
11. Weld ear assemblies in place as shown in Figure 4.
12. Secure cylinder with new pin and cotter pin.

REMOVE CYLINDER AND PIN

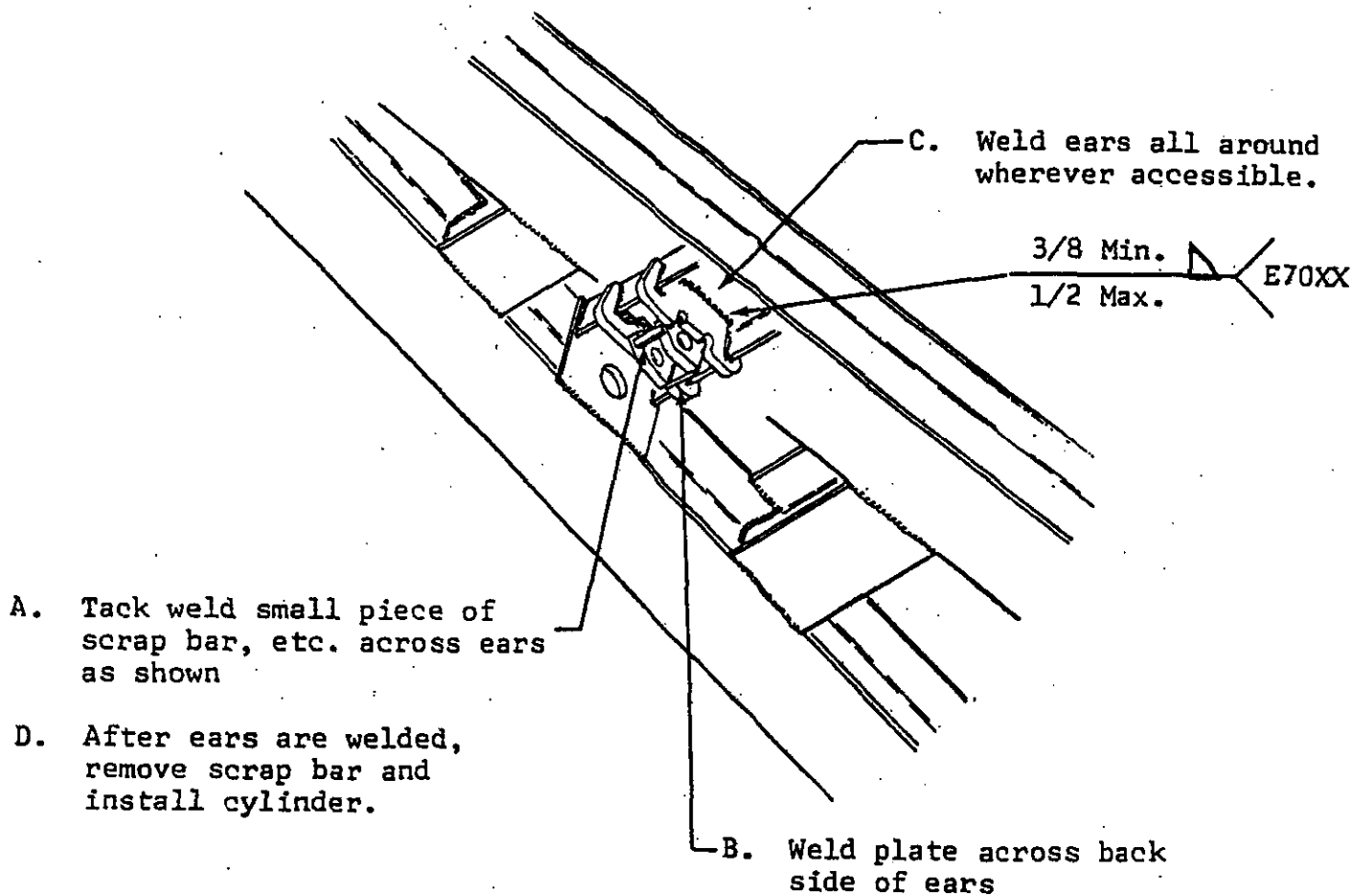


Figure 4





Number: 92

Date: 12-5-74

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers:

Ride: TRABANT

Subject: CHECKING BOOM FOR CRACKS

One of the early TRABANTS has reportedly developed a crack in the boom. This could be attributed to any one of several possible causes, and cannot be pinpointed without further field reports.

The problem is not expected to be a reoccurring one, nor will it occur on all rides. However, as a safety precaution, all rides should be checked immediately in the areas described.

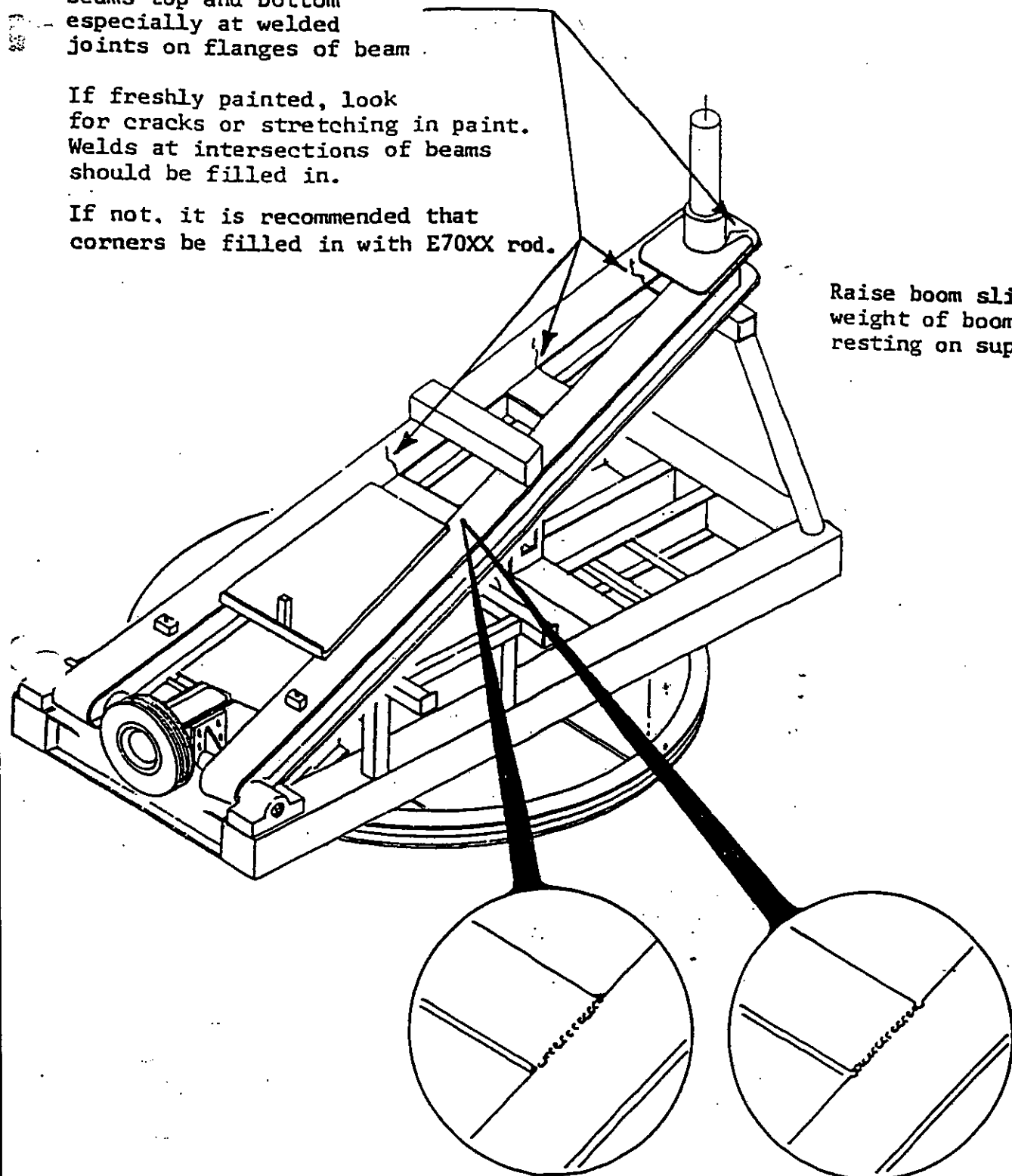
If any cracks are found or suspected, report such condition to Chance Manufacturing Company immediately. At that time we will advise corrective action.

Inspect for cracks along beams top and bottom especially at welded joints on flanges of beam.

If freshly painted, look for cracks or stretching in paint. Welds at intersections of beams should be filled in.

If not, it is recommended that corners be filled in with E70XX rod.

Raise boom slightly so weight of boom is not resting on support.



Desired weld joint

Undesirable weld joint

Report any existing cracks immediately.

Follow up inspections should be performed at least monthly.

Casino/Trabant



Number: 802-0179-00

Date: 1-15-79

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: SEE TEXT

Ride: TRABANT

Subject: TURRET BEARING BASE  
PLATE INSPECTION

If you no longer own this ride please notify Chance Manufacturing Co. of new owners name and address.

Chance Manufacturing has been informed of a possible structural problem with the turret bearing seat assembly and connecting reinforcement gussets used on Trabants, serial nos. 4152007, 4152017, 4152027, 4152037, 70-15146, 70-15149, 70-15151 and on.

There is a possibility that cracks may form laterally on the bearing base plate in the positions indicated in VIEW A below or along seams where gussets are welded to the trailer frame or bottom of the bearing base plate as shown in VIEW B.

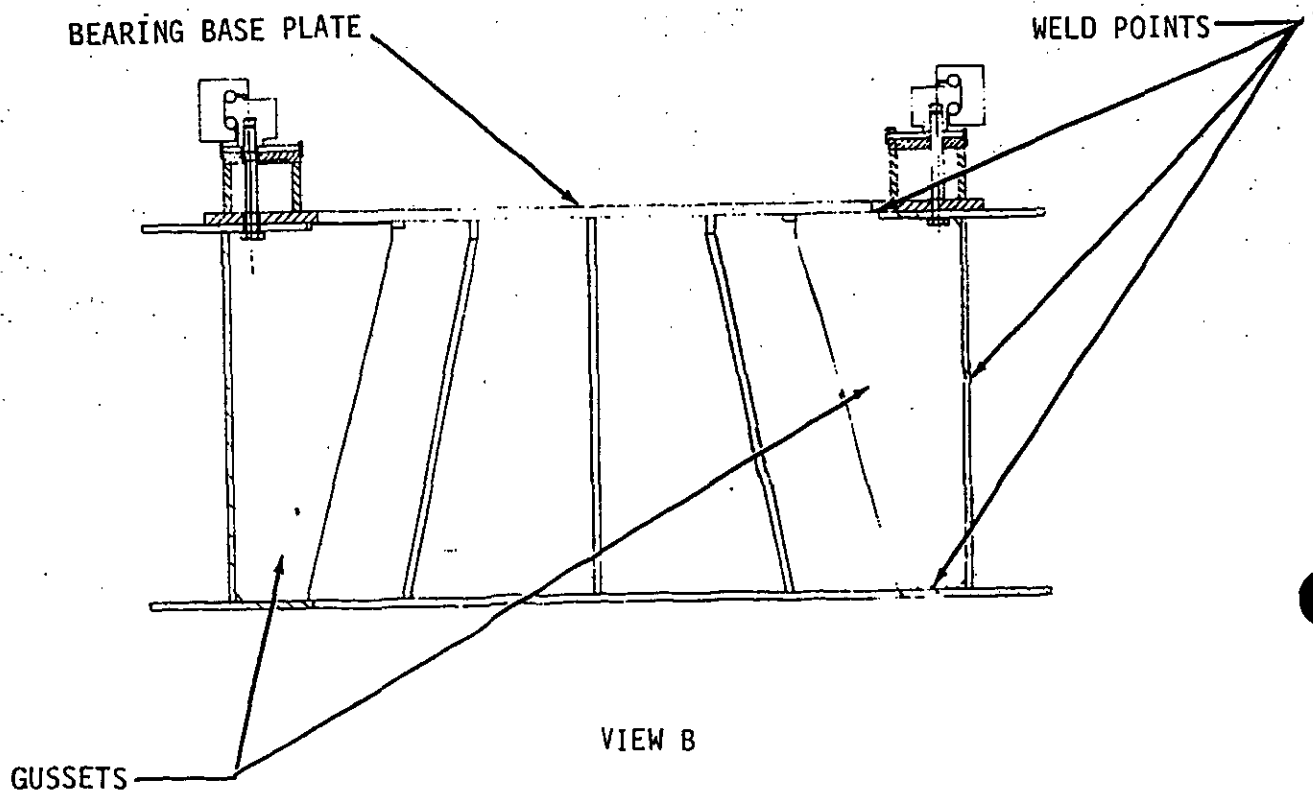
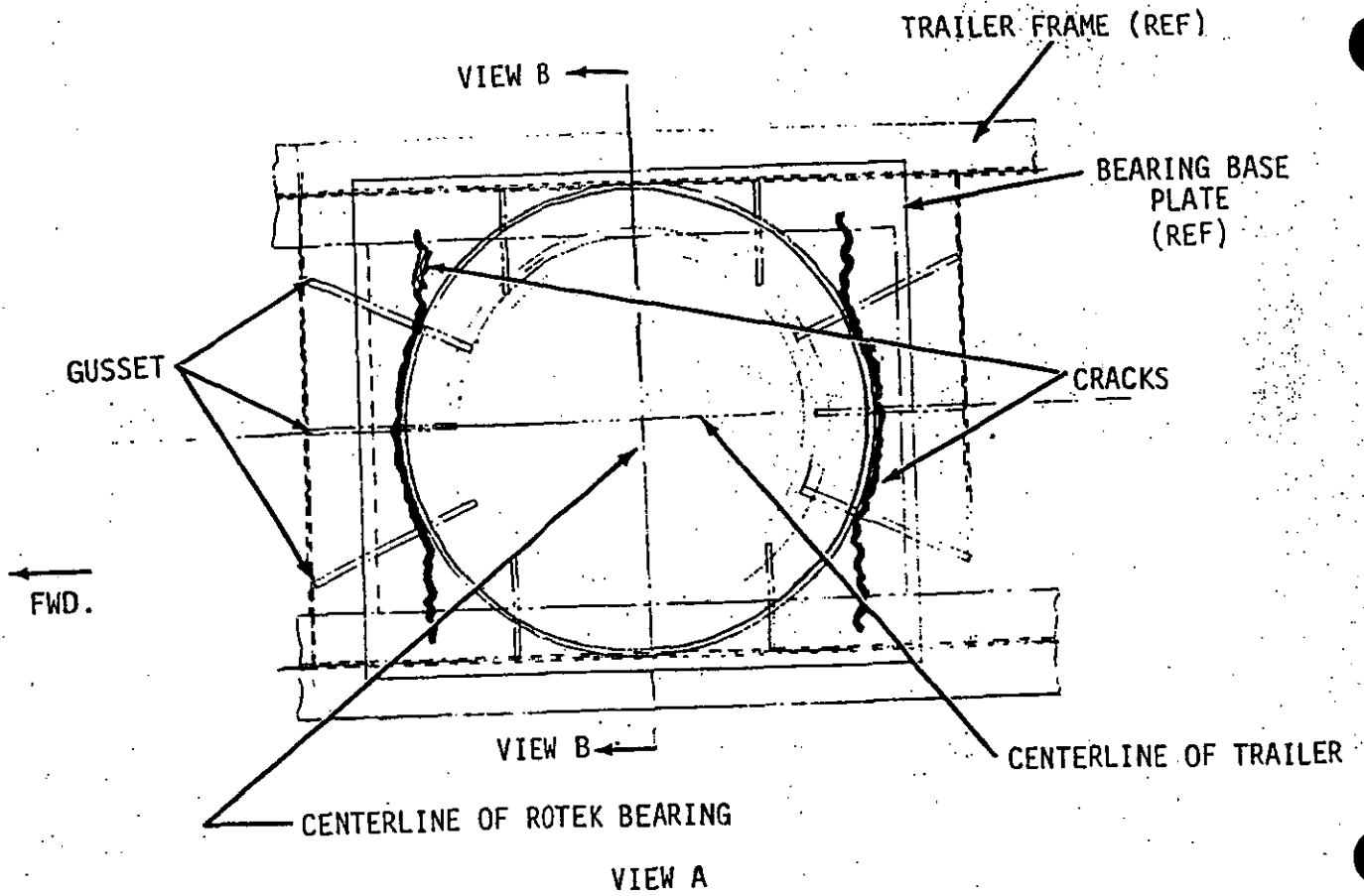
Please have your unit carefully inspected. Any inspection must be performed by a competent, qualified mechanic capable of understanding the function of items inspected.

NOTE: To facilitate finding lateral cracks in the bearing base plate, rock the upper wheel assembly parallel to the center line of the trailer while observing the areas indicated in VIEWS A AND B. If cracks exist, they will be accentuated by the rocking motion.

Early units have six reinforcement gussets and later units have ten reinforcement gussets.

The attached Certification of Compliance must be completed and returned to Chance Manufacturing Co., Inc. within seven (7) days of receipt of this bulletin.

If you have any questions concerning this bulletin, please contact Chance Manufacturing for assistance.





Number: B02-0178-00

Date: 1-15-79

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

Effective Serial Numbers: 68-15105 thru 78-15221 Excluding Pit Models

Ride: TRABANT

Subject: FLOOR LIFT CYLINDERS ATTACHMENT

If you no longer own this ride please notify Chance Manufacturing Co. of new owners name and address.

Chance Manufacturing has designed a modification kit for the Trabant to help prevent possible misuse of the floor lift cylinders which could result in dropping of the floor during erection.

Trabant owners should order the kits from our parts department and install them on their rides immediately. Chance Manufacturing is offering these kits at the bare manufacturing cost.

All work must be performed 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. Remove and discard all parts replaced by this kit.

All welding must be performed by a welder that is certified under the American Welding Society Structural Welding Code D1.1-75 or the equivalent.

The attached Certification of Compliance must be completed and returned to Chance Manufacturing Co., Inc. within seven (7) days of receipt of this bulletin.

If you have any questions concerning this installation bulletin, please contact Chance Manufacturing for assistance.

QUANTITY	PART DESCRIPTION	PART NUMBER
-	COMPLETE KIT	K02-0178-00
1	SERVICE BULLETIN	B02-0178-00
1	UPPER PLATE	D02-0178-02
1	LOWER PLATE	D02-0178-05
2	END CAP	D02-0178-04
1	SWIVEL	302-76881
1	SWIVEL	302-76882
2	BOLT, GRADE 8, 5/8-11x4	686-09328
4	WASHER, WROUGHT, 5/8"	696-85324
2	LOCKNUT, ESNA, 5/8-11	691-47832
2	TAPER PIN	390-52305
2	HAIR PIN	694-51904
2	CYLINDER MOUNT	1030600-3
2	TAPER PIN	390-51975
2	HAIR PIN	694-51900
2	STOP	1030600-4
1	CERTIFICATION OF COMPLIANCE	

#### UPPER END

With the ride set up remove the floor lift cylinders from the clevises. Replace the bolts in the clevises and lay a square at each end of the crossmember, tight against the bolts. Measure the distance between the two squares to find the centerline as shown in FIGURE A. Clearly mark the centerline on the side of the crossmember. Remove and discard the clevises, nuts and bearings. Cut the crossmember as shown in FIGURE B and grind the cuts smooth. Do not remove the lower wall of the crossmember.

Use the centerline mark to center the D02-0178-05 lower plate in the crossmember. Mark the taper pin holes on the crossmember and remove the lower plate. Cut the crossmember and the I-beams for pin clearance as shown in FIGURE C. Grind cuts smooth.

Install the D02-0178-02 upper plate with reinforcing plates on top, D02-0178-05 lower plate, 302-76881 and 302-76882 swivels, 390-52305 taper pins, and D02-0178-04 end caps. Use the centerline on the crossmember to center the parts as shown in FIGURE D. Tack weld the upper plate, lower plate and end caps in place. Remove the taper pins and swivels and complete the welding as shown in FIGURE E. Install the swivels as shown in FIGURE D using the 390-52305 taper pins and 694-51900 hair pins. Install the floor lift cylinders in the swivels using the 686-09328 GRADE 8 bolts, 696-85324 wrought washers and 691-47832 locknuts.

#### LOWER END

Cut the old lower floor lift cylinder brackets off of the boom (See FIGURE F) and grind the area smooth. Retract the cylinder rods and secure the 1030600-3 cylinder mounts to the cylinders using the 390-51975 taper pins and 694-51900 hair pins. Position the cylinder mounts and the 1030600-4 stops as shown in FIGURE G and tack weld them to the boom. Remove the floor lift cylinders from the cylinder mounts and weld the clamp brackets and the stops to the boom as shown in FIGURE G. Secure the floor lift cylinders in the cylinder mounts using the bolts and nuts.

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

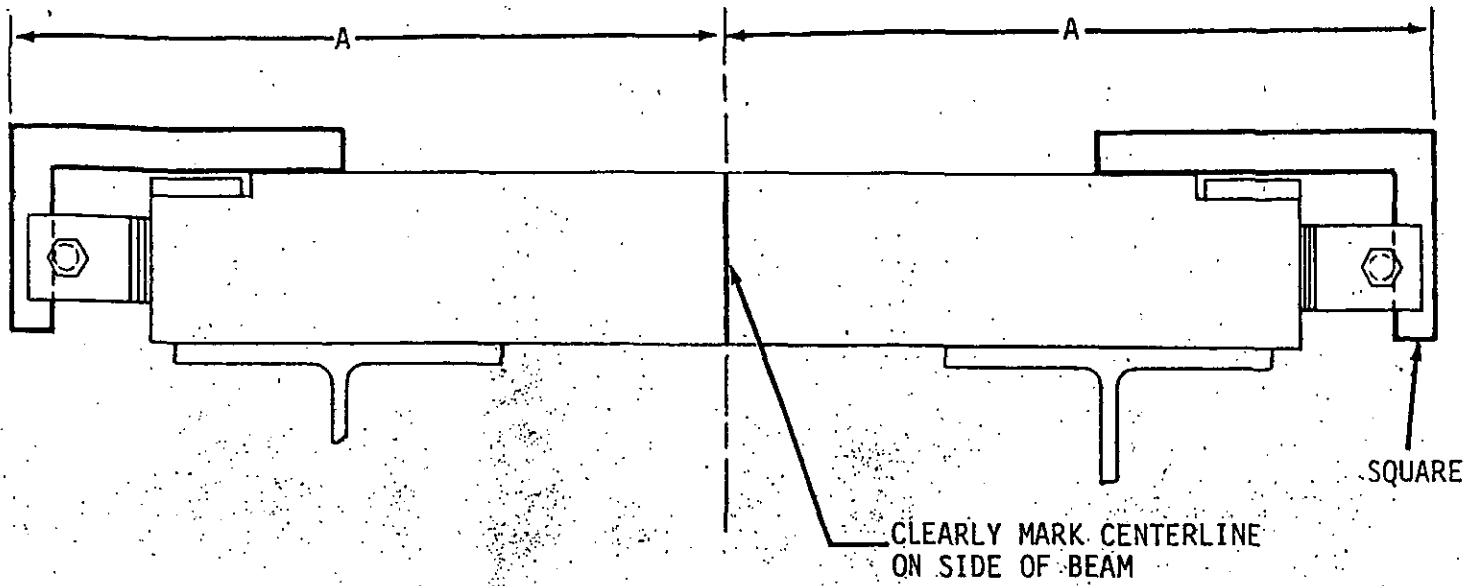


FIGURE A

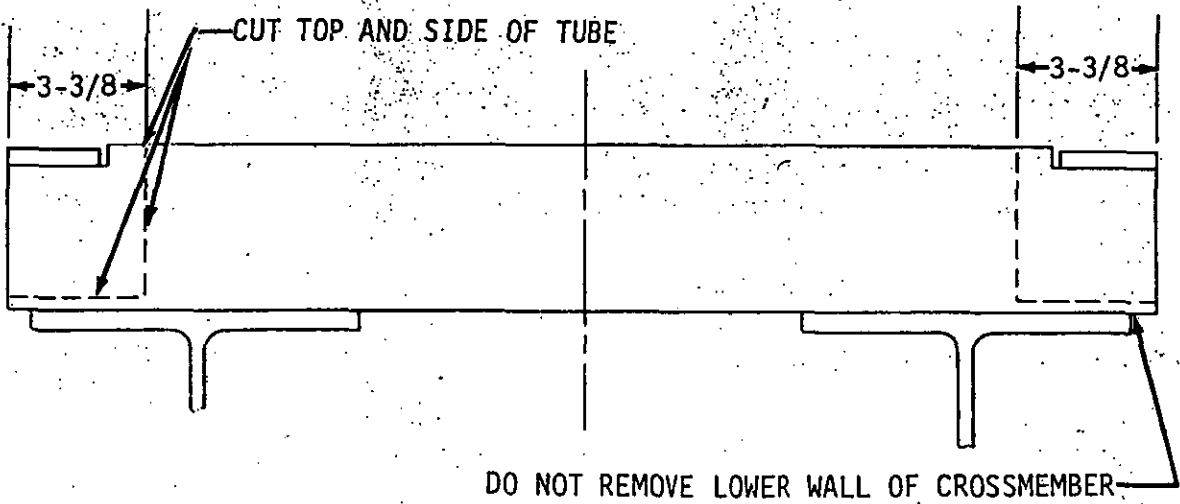
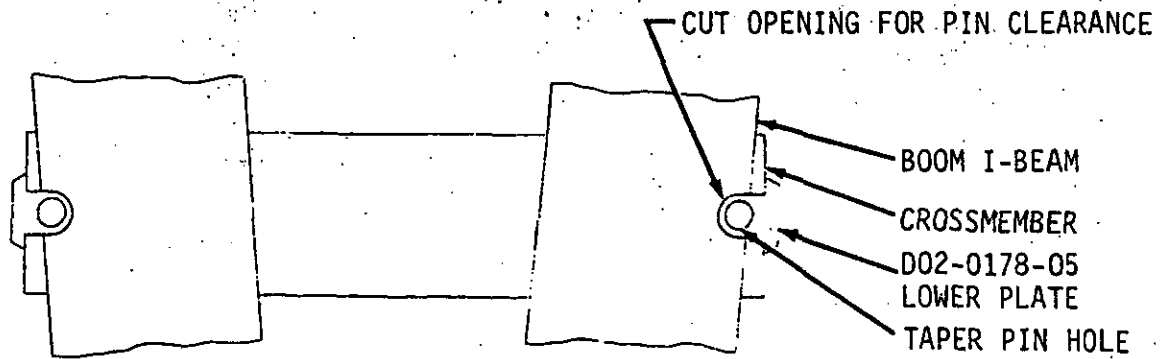


FIGURE B



VIEW FROM UNDER BOOM  
FIGURE C

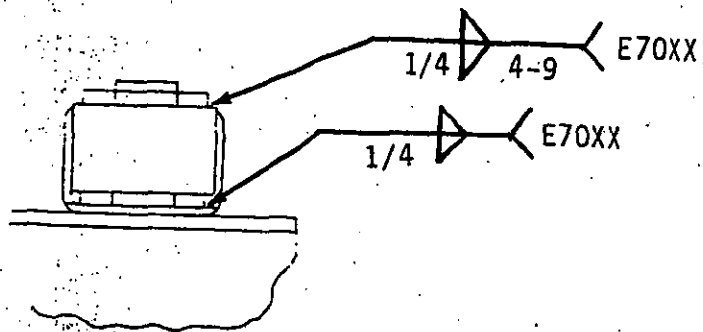
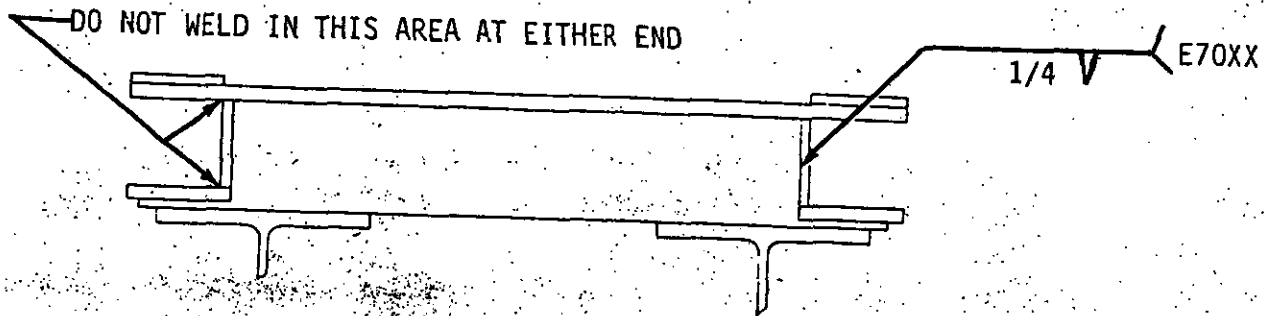
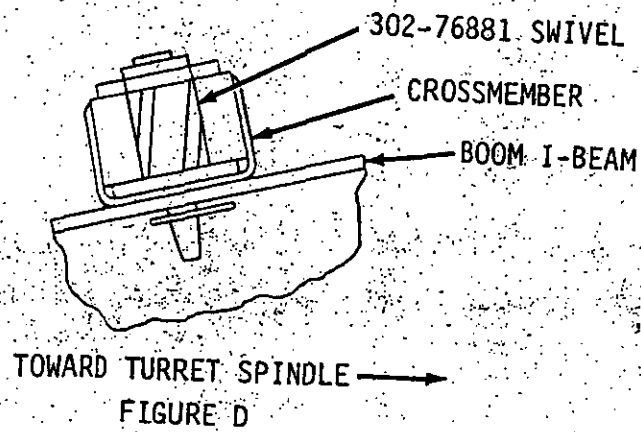
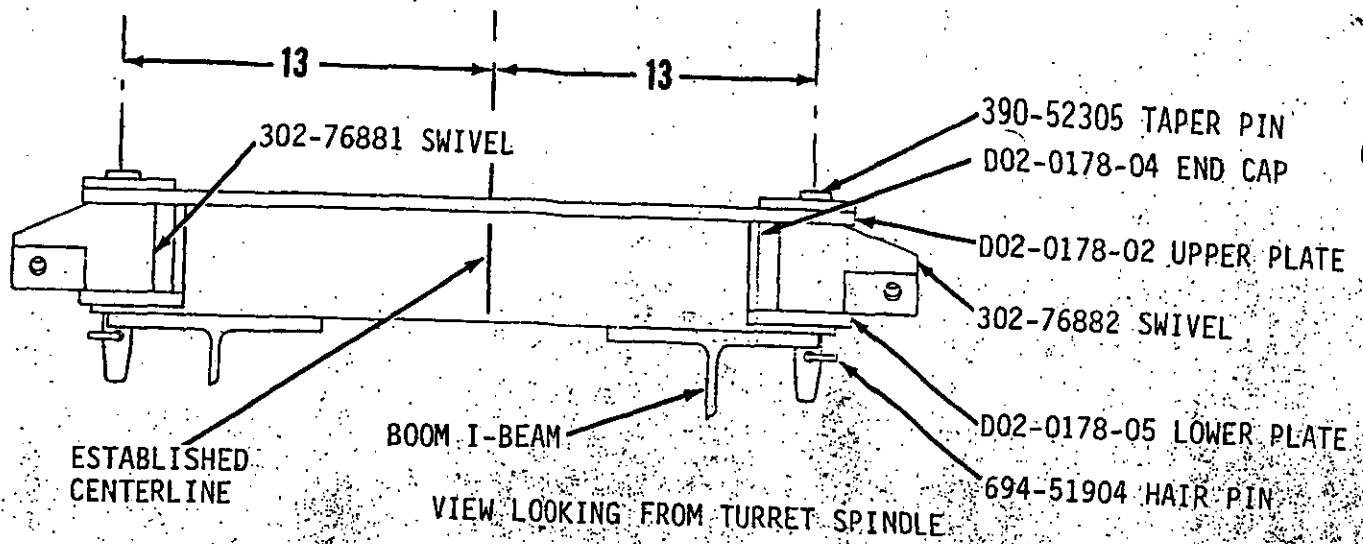


FIGURE E



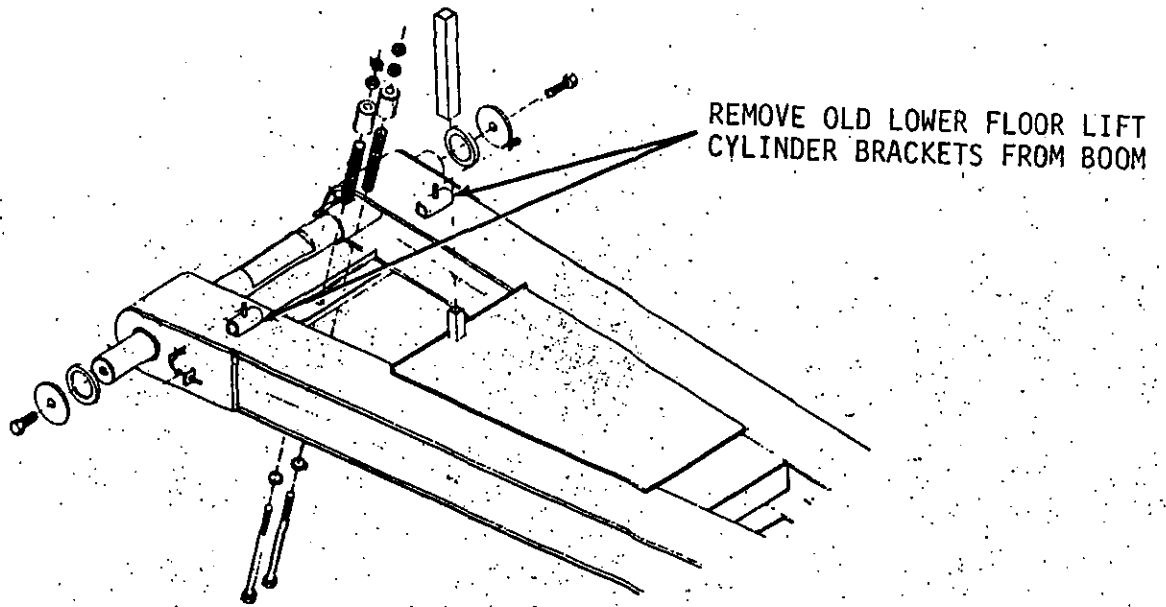


FIGURE F

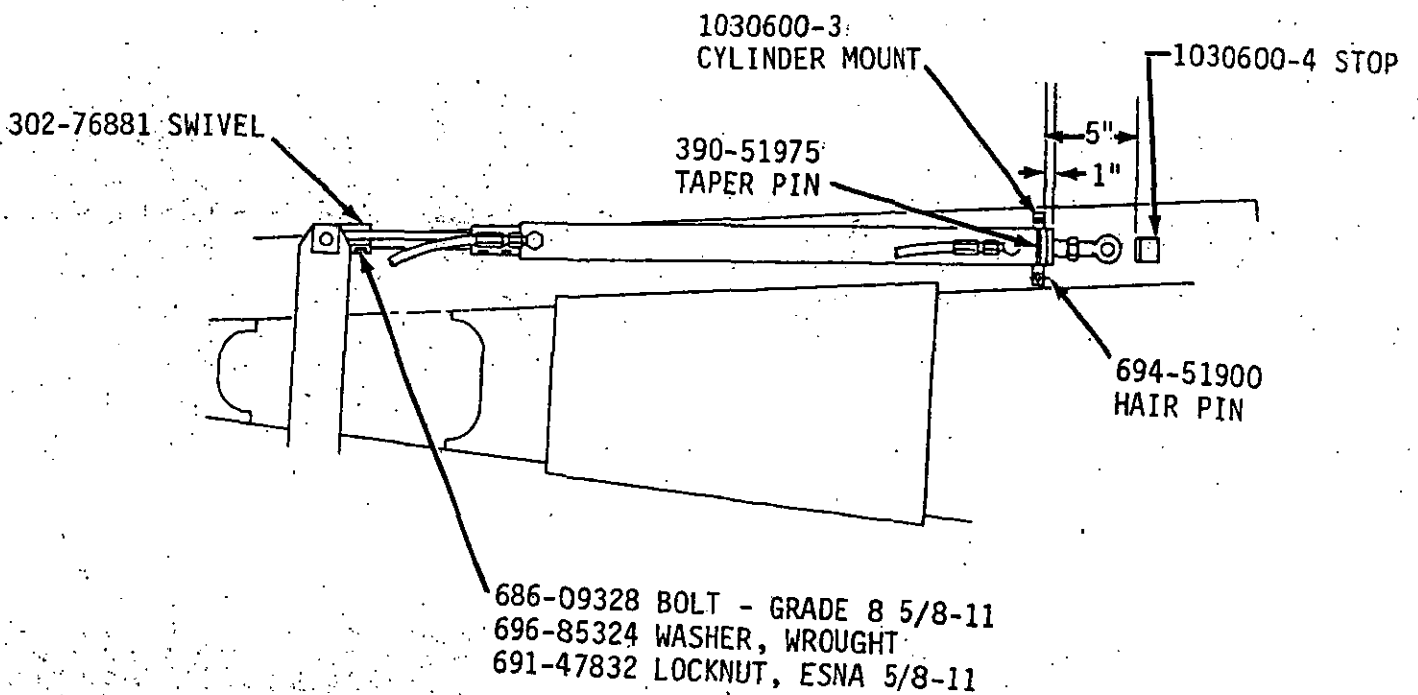


FIGURE G



Number: B02-0256-00  
Date: June 20, 1984

Supersedes:

*America's Largest Manufacturer of Amusement Rides*

# SERVICE BULLETIN

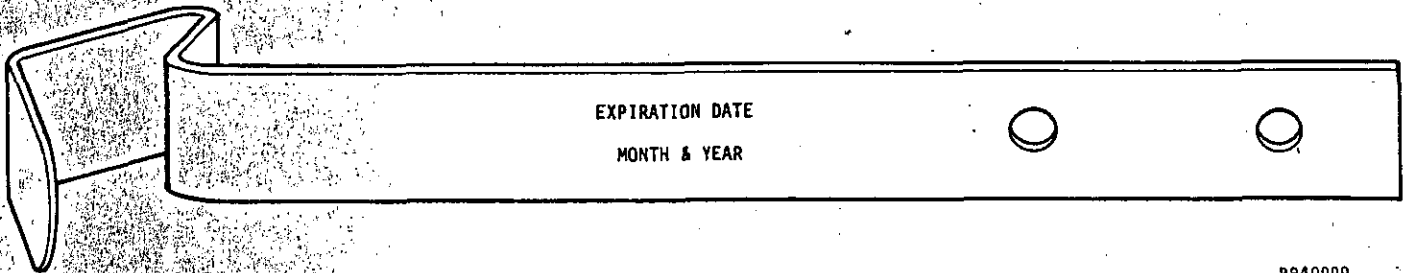
Effective Serial Numbers: All Units

Ride: TRABANT

Subject: Replacement of Spring Latches

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

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. Destroy 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 Reqd. Per Ride</u>	<u>D.P. Number</u>	<u>Description</u>
20	390-39649	Spring Latch (CSN-25C17-2)



NUMBER: B103R1093-0

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: TRABANT/CASINO Subject: Lap Bar/Safety Decals

Chance Rides, Inc. has become aware that it is possible for a person to get their hand pinched between the lap bar and the edge of the seat on the TRABANT/CASINO amusement ride. This may occur if the lap bar closes suddenly or if the patron tries to close and lock or unlock the lap bars themselves. When this occurs, it may result in injury to the passenger. ALL OPERATORS MUST VERBALLY CAUTION PERSONS TO WAIT FOR THE OPERATOR TO CLOSE, LOCK AND/OR UNLOCK THE LAP BARS AND TO WARN THEM OF THE POSSIBLE PINCH POINT.

Chance Rides, Inc. has developed four items to help guard against possible injury to persons who are in the seat compartments.

1. A safety decal to be positioned along the inside edge of each seat to warn passengers of the potential pinch point at the lap bars.
2. A safety decal to be positioned on the inside wall of each seat to warn persons to keep their hands and feet inside at all times.
3. A safety decal to be positioned on the back of each seat to inform of proper passenger seating position.
4. A spring to be added to the bottom of the lap bar, at the pivot point, to help counterbalance the weight of the lap bar.

Chance Rides, Inc. requires all owner/operators of TRABANT/CASINO rides to order and install the following items. Return the attached Certificate Of Compliance within fifteen (15) days from receipt of parts. Installation of the items must be done in accordance with the instructions supplied with this bulletin.

PARTS LIST

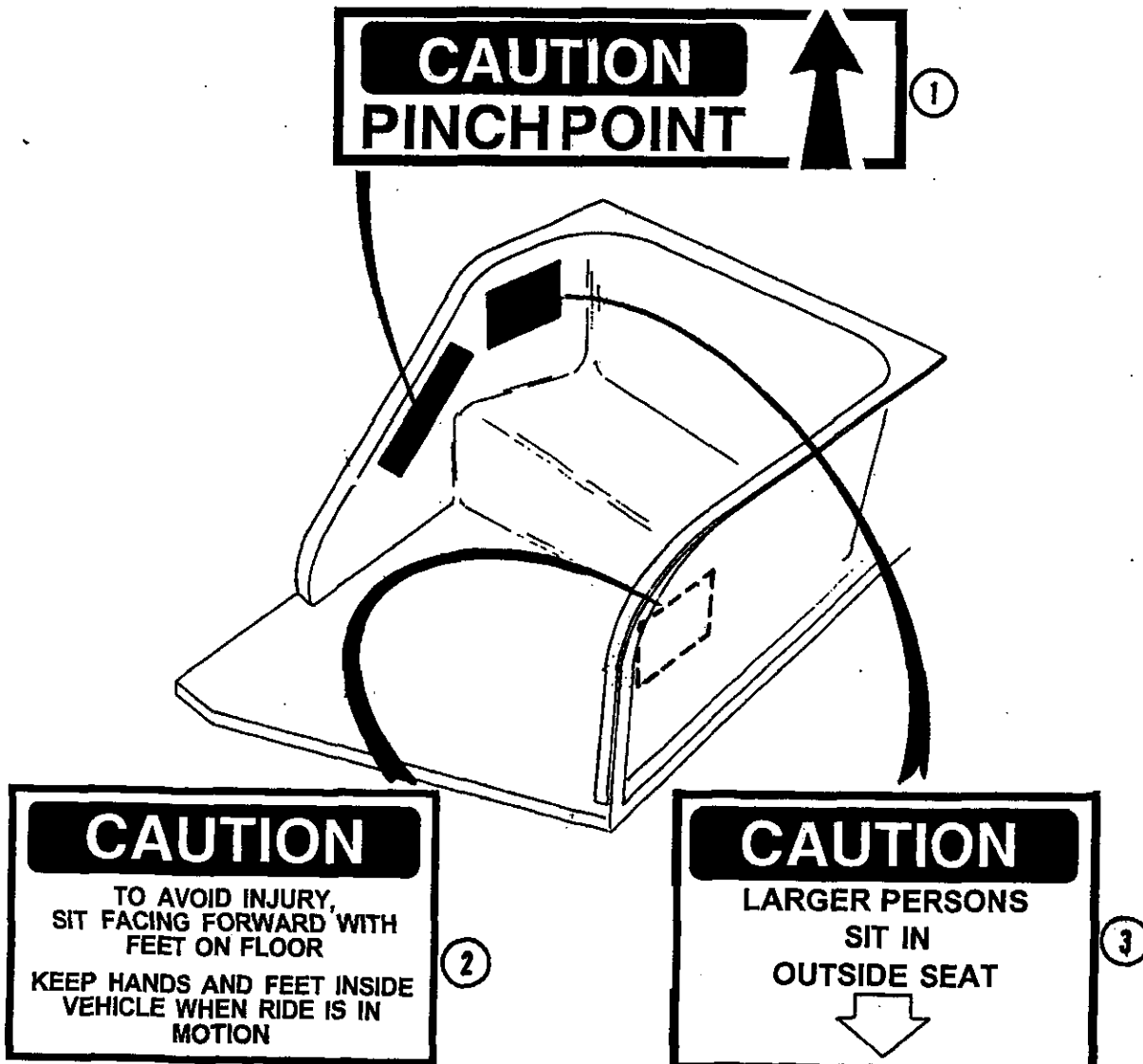
<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	22198516	Decal-PINCH POINT	20
2	22198502	Decal-KEEP HANDS AND FEET INSIDE	20
3	22198504	Decal-LARGER PERSONS SIT IN OUTSIDE SEAT	20
4	27222600	Spring	20
5	61218700	Stripper Bolt	20
6	37025800	Spacer	40

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

NOTICE

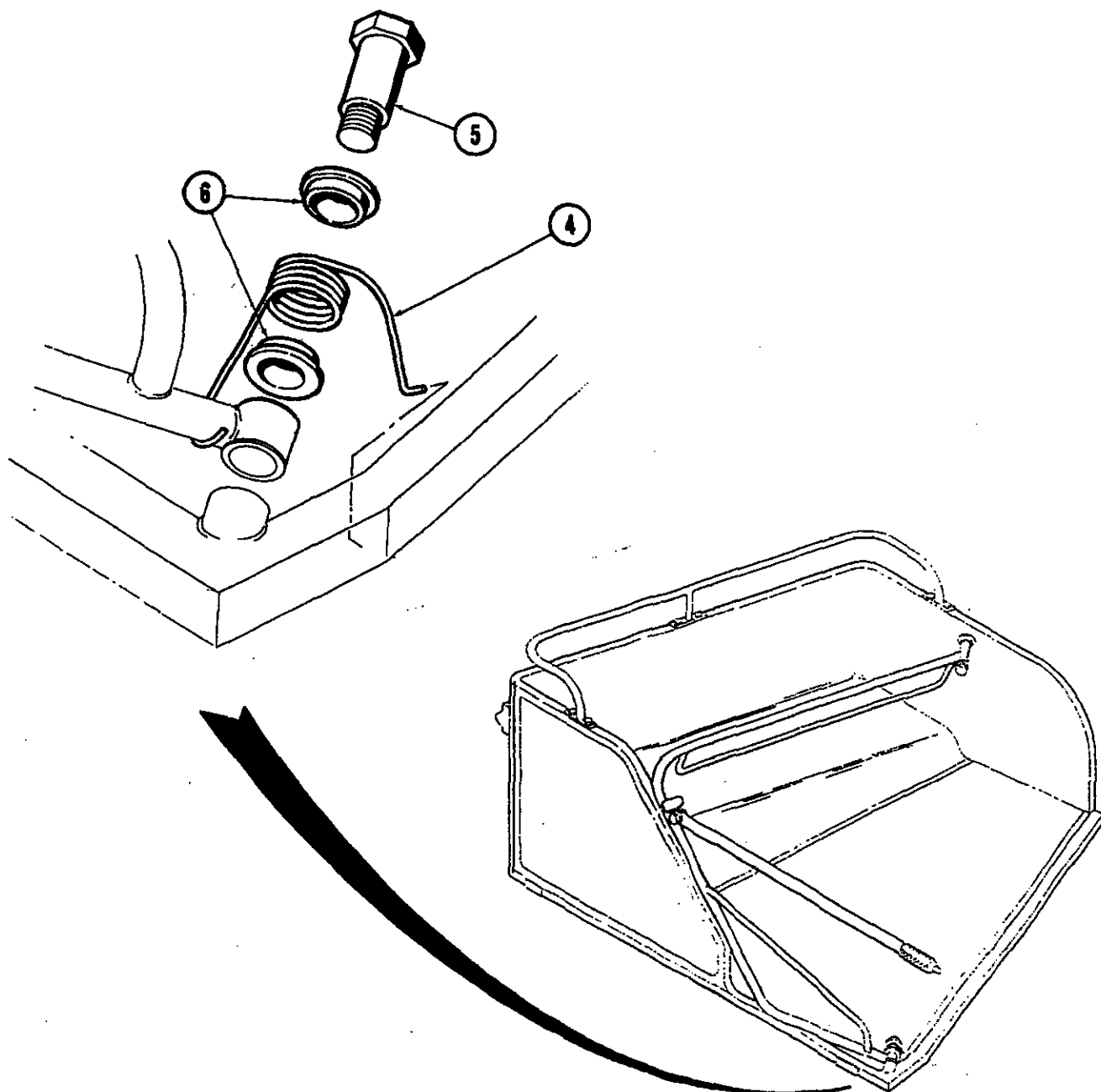
Use only those components authorized, specified or provided by Chance Rides, Inc.

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



## INSTALLATION OF SPRING

1. Remove old stripper bolt and discard.
2. Place a spacer (item 6) into each end of the spring (item 4).
3. Slip spring and spacers onto new stripper bolt (item 5). Apply anti-seize material to the threads of the bolt.
4. Slip stripper bolt back through lap bar and attach spring to lap bar and to bottom of seat frame.
5. Secure stripper bolt to seat frame with 45 to 54 foot pounds of torque. The spring must not be in a bind when the bolt has been secured.





NUMBER: B103R1152-0

DATE: JULY 1, 1994

SUPERSEDES: B02-0256-00

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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: TRABANT/CASINO

Subject: Replacement of Spring Latches

Chance Manufacturing Co. Inc., Service Bulletin Number B02-0256-00 has been superseded by this Service Bulletin and is no longer in effect. All copies of Service Bulletin B02-0256-00 should be destroyed.

Chance Rides, Inc., through testing and design change, has developed a new spring latch assembly for the lap bar on the seat of the above noted TRABANT/CASINO 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.

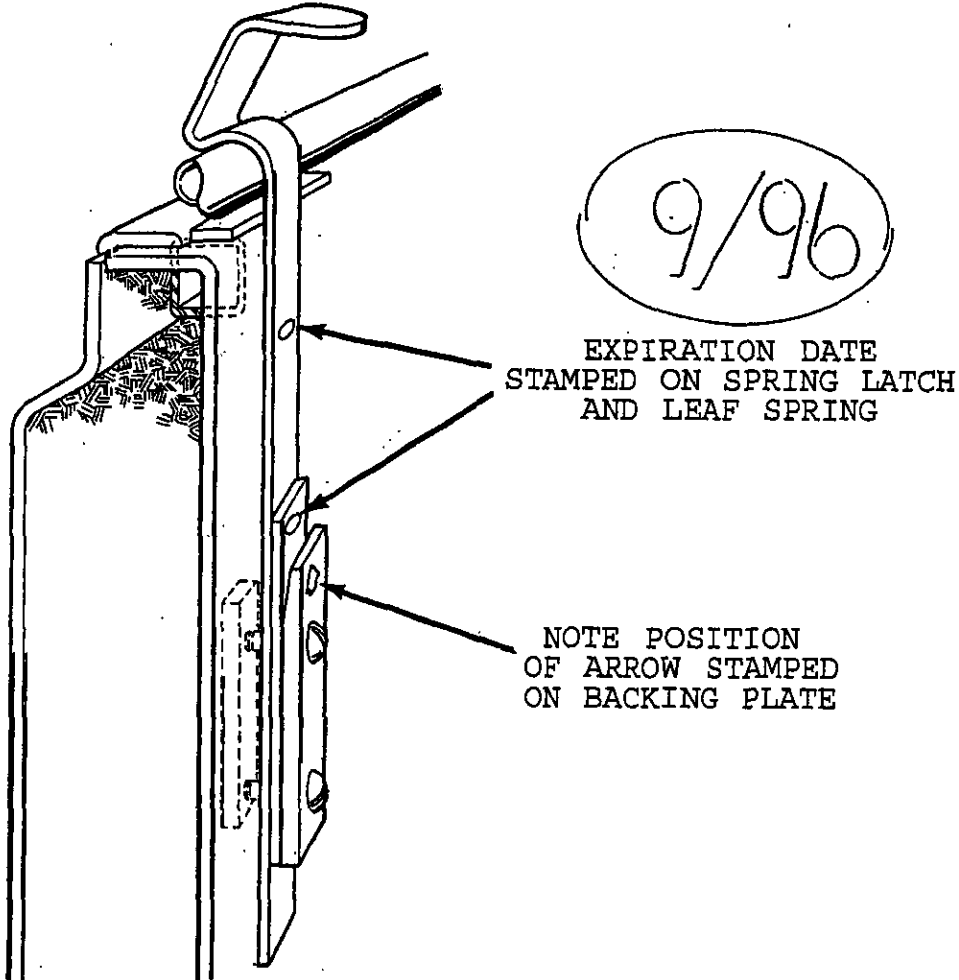
Both the spring latch and leaf spring are dated items. They are stamped with an expiration date and must be replaced on or before that date. The spring latch and the leaf spring are good for up to a maximum of a two (2) year period, and are dated for the last month of the preceding quarter in which they 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>
33964900	Spring Latch	20
37204000	Leaf Spring	20
34940800	Backing Plate	20

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.