CHANCE RIDES MANUFACTURING, INC.
[redacted]
Phone: 1-316-942-7411 • FAX: 1-316-942-2012
[redacted]

Bulletin No:	B414CRM102-0
Release Date:	September 23, 2002
Effective Date:	September 23, 2002
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SERVICE BULLETIN

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: INVERTER (Portable Model)
INVERTER (Park Model)
DOUBLE INVERTER

Affected Serial Nos.: All units

Model No.: 414

Abstract of Issue:
Inspection of Secondary Restraint Bar (T-Bar) Locking Mechanisms

Reason For Release:
Chance Rides Manufacturing, Inc. has become aware that wear, damage or improper alignment of parts can result in the secondary restraint bar (T-bar) locking mechanism not locking securely. The *INVERTER Service Manual* requires weekly inspection of all secondary restraint bar locking mechanisms in addition to daily operational checks. This bulletin is being released to provide additional inspection information to ensure the proper operation of the locking mechanisms.

It is essential for the safety of the passengers that all passenger restraint system components are inspected and maintained according to the manufacturer's specifications.

Action to be Taken:
Chance Rides Manufacturing, Inc. requires all owner/operators of the above noted amusement rides to immediately perform the inspection described in the bulletin to verify the condition of all components of the secondary restraint bar locking mechanism. This inspection must be performed annually thereafter. Daily and weekly inspection requirements are also provided in this bulletin.

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

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

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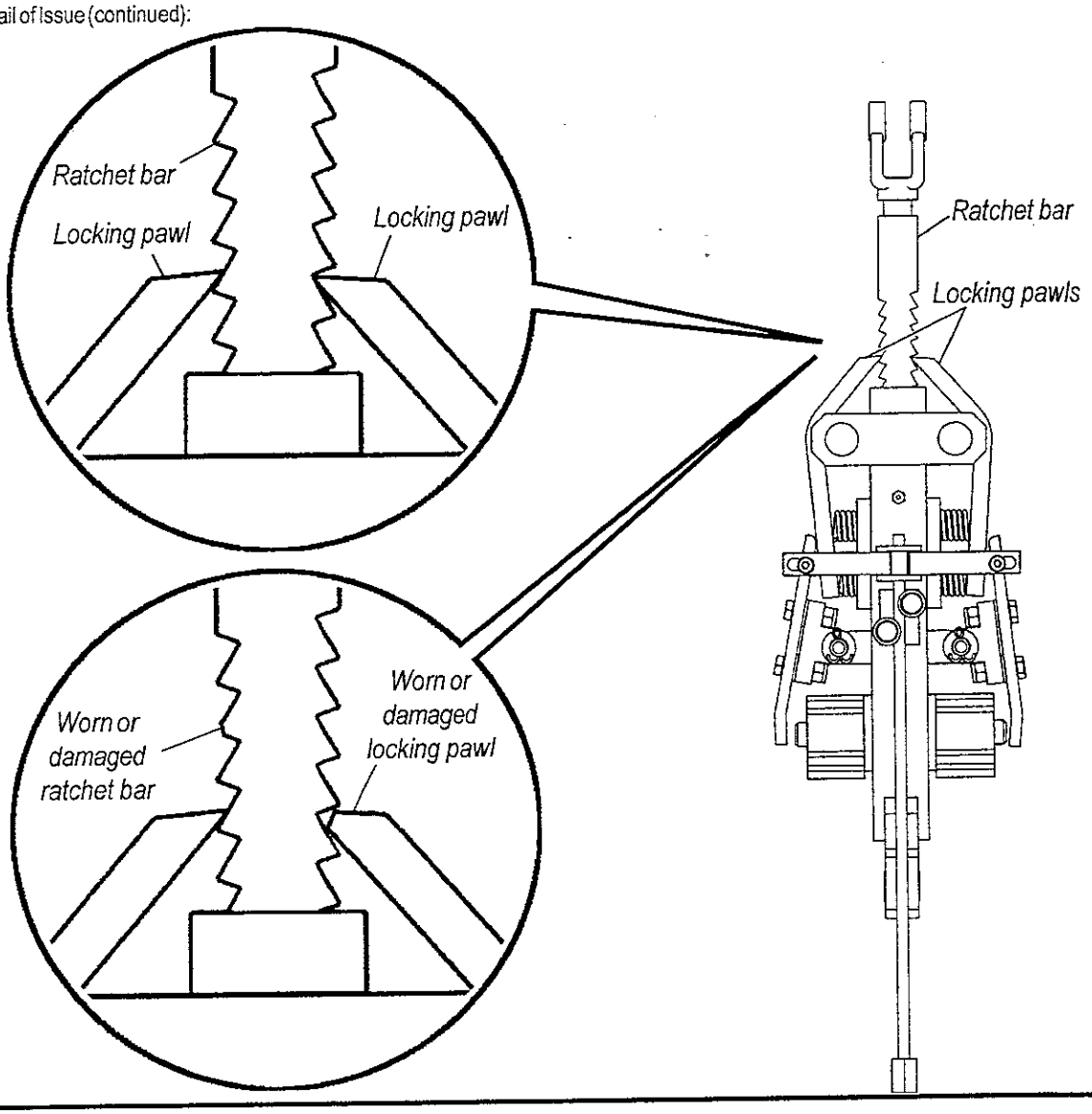
Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All

Ride Name: INVERTER (Portable Model)
INVERTER (Park Model)
DOUBLE INVERTER

Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):



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Ride Name: INVERTER (Portable Model)
INVERTER (Park Model)
DOUBLE INVERTER
Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):

Inspection of Secondary Restraint Bar (T-Bar) Locking Mechanisms

The locking mechanisms for the secondary restraint bars (T-bars) must be kept in good working condition at all times. In addition to daily and weekly checks, perform the following inspection immediately. Perform the same inspection annually thereafter.

Replace any part which is worn, damaged or not working properly. An illustrated parts breakdown is provided on the following pages of this bulletin.

1. Push the secondary restraint bar (T-bar) completely down. This will fully extend the ratchet bar for inspection of all teeth.

2. Visually inspect the teeth on the ratchet bar for wear or damage. Look for the following:
   - Wear or damage on the points of the teeth.
   - Chipped corners on the teeth.
   - The profile of all teeth must be consistent. Note that the teeth on the ratchet bar are offset from one side to another, allowing the locking pawls to engage on one side at a time.

3. Visually inspect the locking pawls for the following:
   - Wear or damage on the chamfered end of the locking pawls.
   - Blunt, uneven or chipped edges on the chamfered end.
   - The locking pawl must engage the ratchet bar as shown, making contact across the full width of the teeth.

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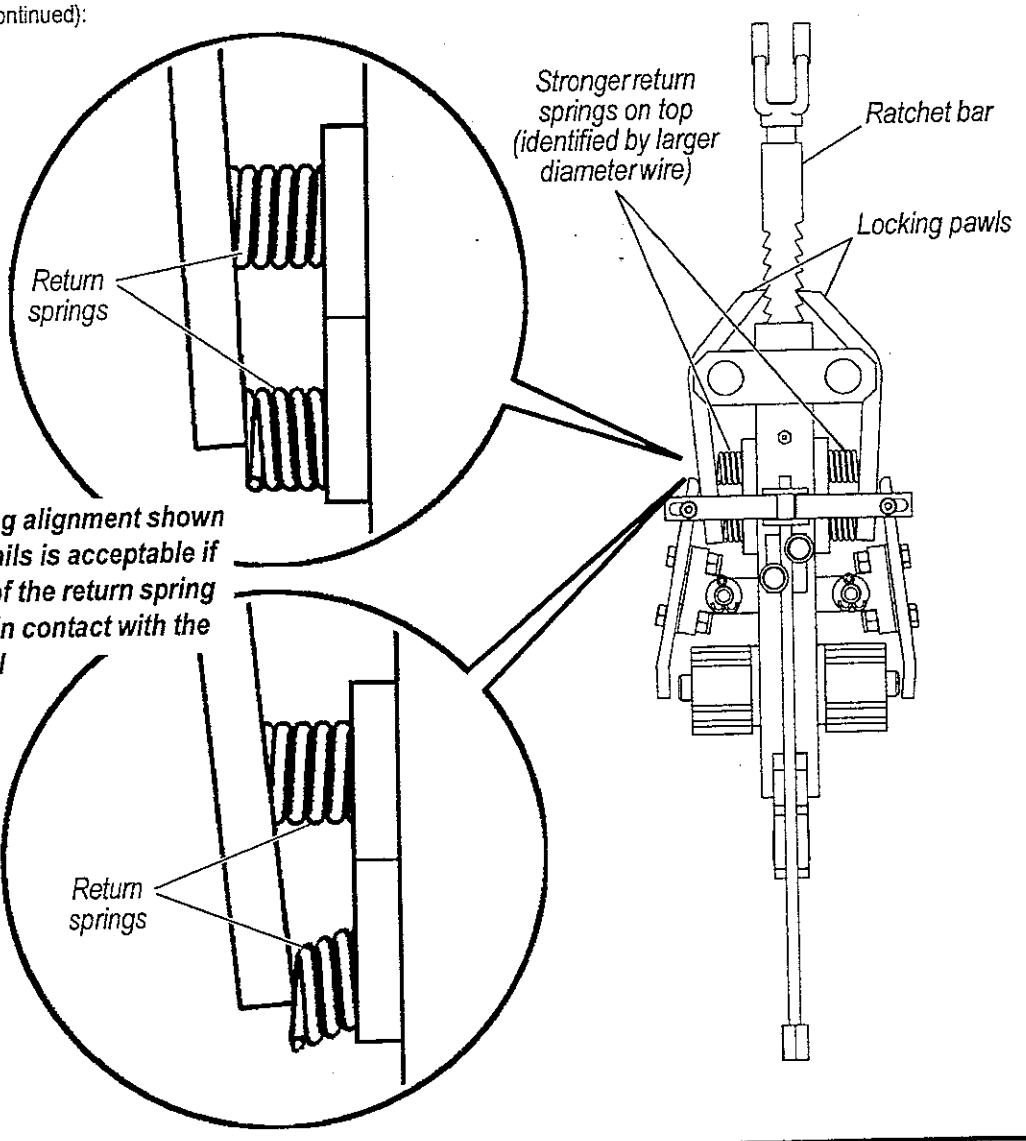
INVERTER (Park Model)
DOUBLE INVERTER

Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):



Return spring alignment shown in these details is acceptable if at least 1/2 of the return spring diameter is in contact with the locking pawl

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Detail of Issue (continued):

4. Check for broken or loose return springs. Note that there are two different springs installed on each side. The stronger springs, identified by larger wire diameter, must be is installed at the top of the assembly, as shown in the illustration on page 4 of this bulletin.

5. Check the return springs for proper alignment between the locking pawl and the spring pocket as shown. Alignment is acceptable only if at least 1/2 of the diameter of the bottom return spring is in contact with the locking pawl.

6. Check the operation of each secondary restraint bar latch using the following procedure:
   - With air pressure removed from the ratchet release cylinders, have an assistant push the secondary restraint bar down slowly. KEEP FINGERS AND HANDS AWAY FROM ALL MOVING PARTS AS THE BAR IS LOWERED.
   - As the ratchet bar extends, observe the locking pawls as they alternately engage the ratchet bar teeth on one side, then the other. The locking pawls must engage completely with the teeth in the ratchet bar.
   - With air pressure applied, the pawls must retract fully and clear the teeth on the ratchet bar.

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DOUBLE INVERTER
Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):

WEEKLY INSPECTION of Secondary Restraint Bar (T-Bar) Locking Mechanisms

Perform the following inspection weekly.

Replace any part which is worn, damaged or not working properly. An illustrated parts breakdown is provided on the following pages of this bulletin.

1. Visually inspect the locking pawls and the teeth on the ratchet bar for wear or damage. The chamfered end on each locking pawl must engage completely with the teeth in the ratchet bar.

2. Check the return springs for condition and correct operation.
   - Look for broken or loose return springs.
   - Make sure each return spring is properly aligned and seated securely between the locking pawl and the spring pocket.

3. All pins and fasteners must be in good condition and properly installed.

4. Inspect the mounting lugs and clevises for damage. All fasteners must be correctly installed.

5. Check the air pressure settings for the ratchet locks as described in the INVERTER Service Manual.

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Affected Production Dates: All

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INVERTER (Park Model)
DOUBLE INVERTER
Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):

DAILY INSPECTION of Secondary Restraint Bar (T-Bar) Locking Mechanisms

The following points must be included as part of the daily pre-operational inspection.

Replace any part which is worn, damaged or not working properly. An illustrated parts breakdown is provided on the following pages of this bulletin.

1. Visually inspect the secondary restraint bars (T-bars) for loose, damaged or missing parts.

2. Test the operation of each secondary restraint bar (T-bar). Pull up on each bar to check that the locking mechanisms are engaged.

3. Check the operation of the passenger restraint interlock system using the procedure described in the *INVERTER Service Manual* ("Passenger Restraint System Operational Check") and in Chance Rides, Inc. Service Bulletin B414R1225-0.

4. Check the operation of the secondary restraint bar (T-bar) interlock with the step. Make sure that all six slide bars work smoothly both directions and the springs return them completely to the out position.

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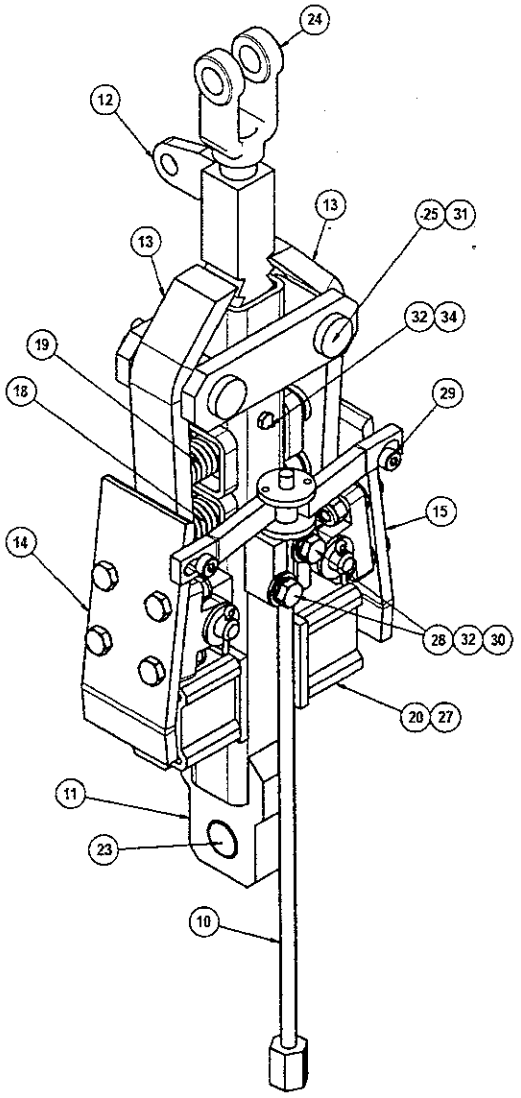
Ride Name: INVERTER (Portable Model)
INVERTER (Park Model)
DOUBLE INVERTER

Affected Serial Nos.: All units

Model No.: 414

Detail of Issue (continued):



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Detail of Issue (continued):

Replacement Part List - Secondary Restraint Bar (T-Bar) Locking Mechanisms

Index No.	Part No.	Description	Qty. per Assembly
[illegible]			