



**CHANCE RIDES MANUFACTURING, INC.**  
4200 Walker  
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Bulletin No:	B414CRM117-0
Release Date:	December 1, 2003
Effective Date:	See Text
Supersedes:	N / A
Completion Date:	See Text
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# SERVICE BULLETIN

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

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

Model No.: 414

Abstract of Issue:  
NDT Inspection Schedule

Reason For Release:  
Specific areas of the above noted INVERTER amusement rides must be inspected by qualified NDT inspection personnel at scheduled intervals. This bulletin is being released to clarify and revise the information provided in the "Maintenance Manual" for these rides.

Action to be Taken:  
All owner/operators of the above noted amusement rides are required to inspect the ride as specified in the following pages of this bulletin after the first four years of operation, then annually thereafter. The inspection must be performed by qualified NDT inspection personnel as specified.

**IMPORTANT:** *The inspection areas defined in this bulletin must be performed in addition to all other required daily, weekly, monthly, and annual inspections.*

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

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

Chance Rides Manufacturing, Inc. issues notifications for the benefit of owners of amusement rides manufactured by Chance Rides Manufacturing, Inc. As a service to the industry, and in the interest of employee and public safety, Chance Rides Manufacturing, Inc. also issues notifications for the benefit of owners of amusement ride equipment for which the manufacturer no longer exists, such as the Allan Herschell Company, Chance Manufacturing Co., Inc., Chance Rides, Inc., etc. In doing so, Chance Rides Manufacturing, Inc. does not assume liability for losses associated with amusement ride equipment built by manufacturers other than Chance Rides Manufacturing, Inc.



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

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

Model No.: 414

Detail of Issue (continued):

### NDT Inspection Schedule

**IMPORTANT:** Chance Rides Manufacturing, Inc. typically specifies "visual inspection" on areas where a competent owner/operator can perform the inspection. THE FOLLOWING AREAS MUST BE INSPECTED BY QUALIFIED NDT PERSONNEL, REGARDLESS OF THE INSPECTION METHOD SPECIFIED.

Inspect the ride in the following areas using the inspection method specified. Inspection must be performed after the first FOUR YEARS of operation, then ANNUALLY thereafter.

Magnetic Particle Testing (MT) is done in accordance with ASTM E709 using the enclosed procedure. All other inspections are done by Visual Inspection (VT).

COMPONENT	AREA (Refer to detail views on the following pages)	INSPECTION POINT (Location)	INSPECTION METHOD
Main Arm	1	Gusset ends adjacent to gear box	MT
	2	Vehicle arm to arm hub at corners of arm	VT
	3	Counterweight arm attaching flange	VT
	4	Vehicle arm gusset extension ends (applies only to portable model rides with gusset extensions installed)	MT
Counterweight Arm	5	Outboard root of gusset	MT
	6	Weld at outboard end of doubler plates (portable model rides only)	VT
	7	Vehicle arm attaching flange	VT
Tower Hinge (portable model rides only)	8	Hinge blocks, brackets, pivot ears and doubler plates	VT
Vehicle	9	4" x 12" lateral tube (Weld to back wall)	VT
	10	4" x 12" tube (Fillet welds and gusset welds)	VT
Vehicle Arm Adapter Box	11	Welds around vehicle mounting blocks (vehicle must be removed from main arm)	MT
	12	Outboard root of stiffeners welded to circular barrel	MT



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

Model No.: 414

Detail of Issue (continued):

#### **Magnetic Particle Inspection (MT) Procedure**

Use the following procedure where Magnetic Particle Inspection (MT) is specified.

1. Remove paint and contaminants from the area to be inspected.
2. Use dry powder and a magnetic yoke.
3. Position the yoke so that the longitudinal magnetic field cuts across the weld at a perpendicular angle.
4. After positioning the yoke, use the continuous method.
5. Inspect for discontinuities.
6. If any discontinuity is found, contact Chance Rides Manufacturing, Inc.



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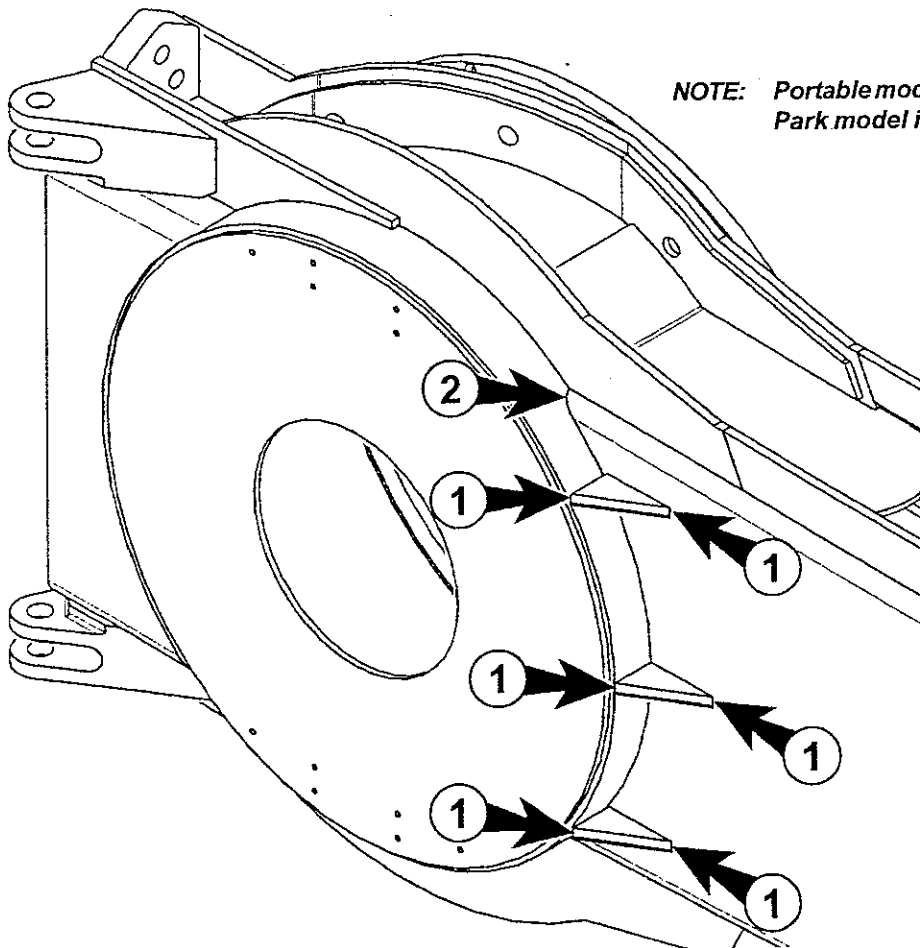
Ride Name: INVERTER (Portable Model)      Affected Serial Nos.: All units  
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Model No.: 414

Detail of Issue (continued):

**Area 1 (Main Arm) - Gusset ends adjacent to gearbox**

**Area 2 (Main Arm) - Vehicle arm to arm hub at corners of arm**



**NOTE:** Portable model shown.  
Park model is similar.



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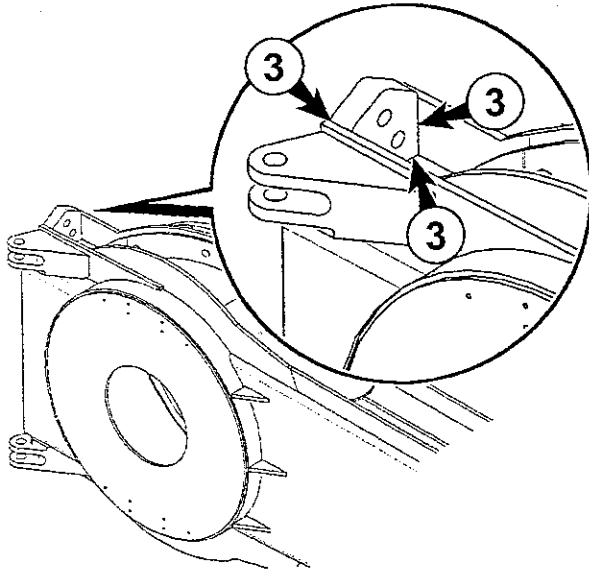
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DOUBLE INVERTER

Affected Serial Nos.: All units

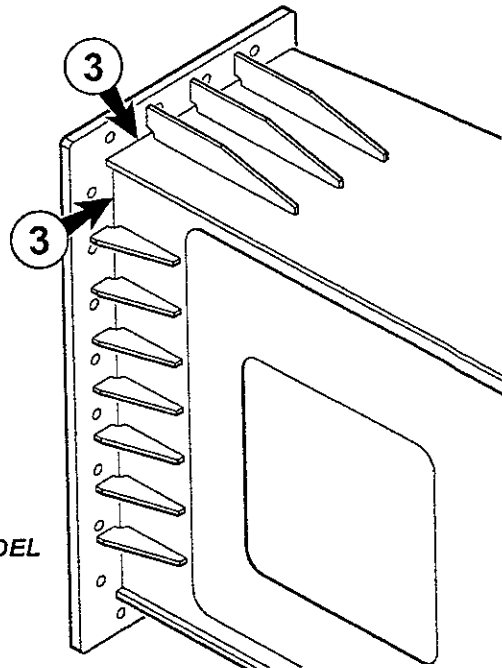
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Detail of Issue (continued):

**Area 3 (Main Arm) - Counterweight arm attaching flange**



**PORTABLE MODEL**



**PARK MODEL**



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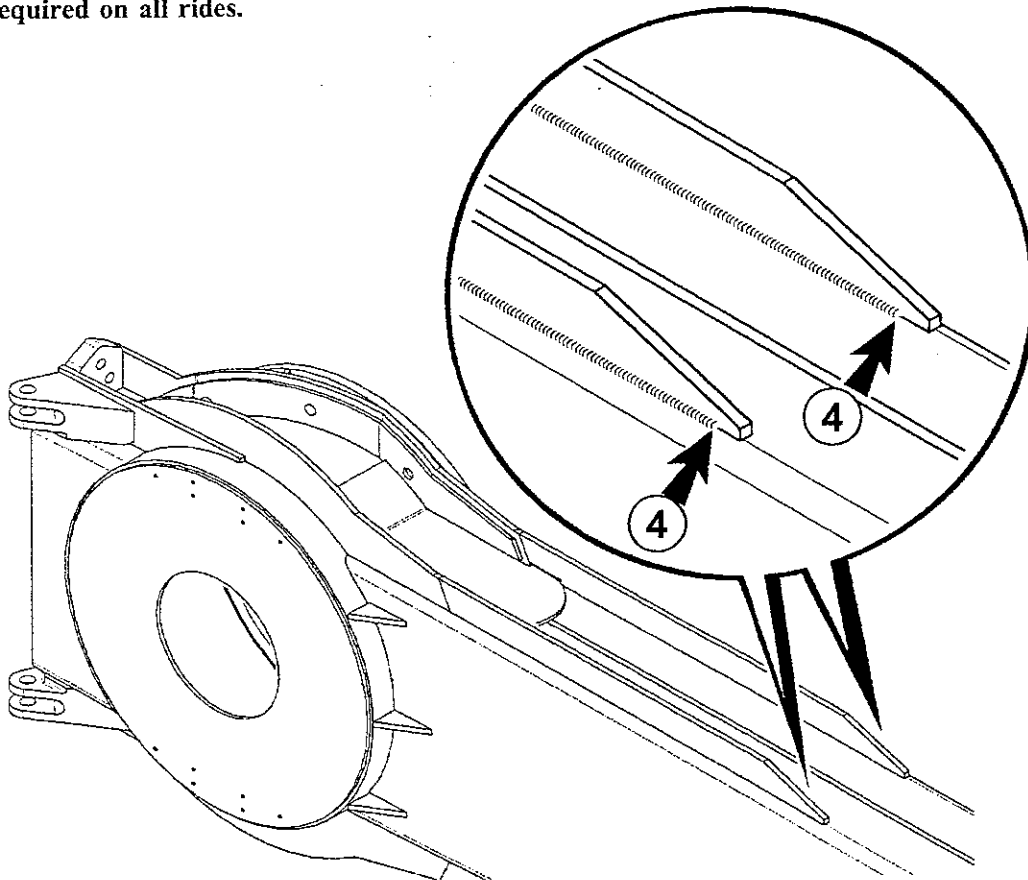
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Detail of Issue (continued):

**Area 4 (Main Arm) - Vehicle arm gussets extension ends. This inspection point applies only to portable model rides equipped with the gusset extensions shown. These gusset extensions are not required on all rides.**





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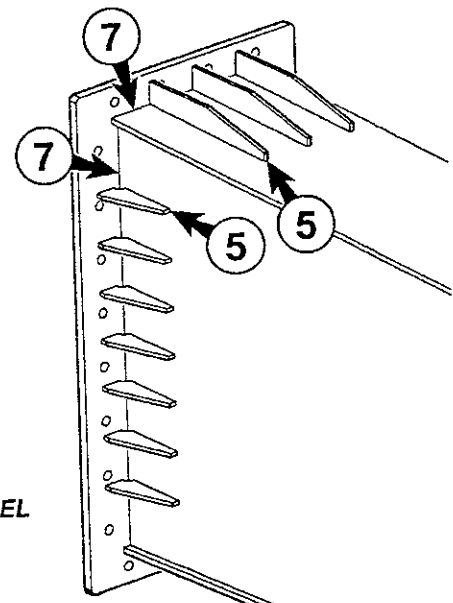
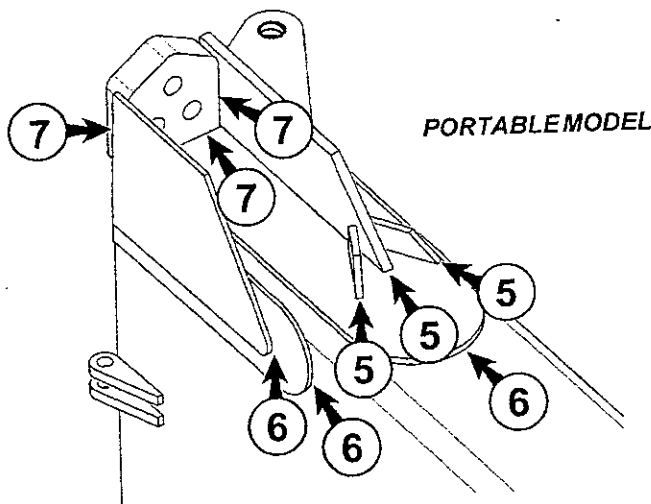
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Detail of Issue (continued):

- Area 5 (Counterweight Arm) - Outboard root of gussets
- Area 6 (Counterweight Arm) - Weld at outboard end of doubler plates (portable model rides only)
- Area 7 (Counterweight Arm) - Vehicle arm attaching flange



PARK MODEL



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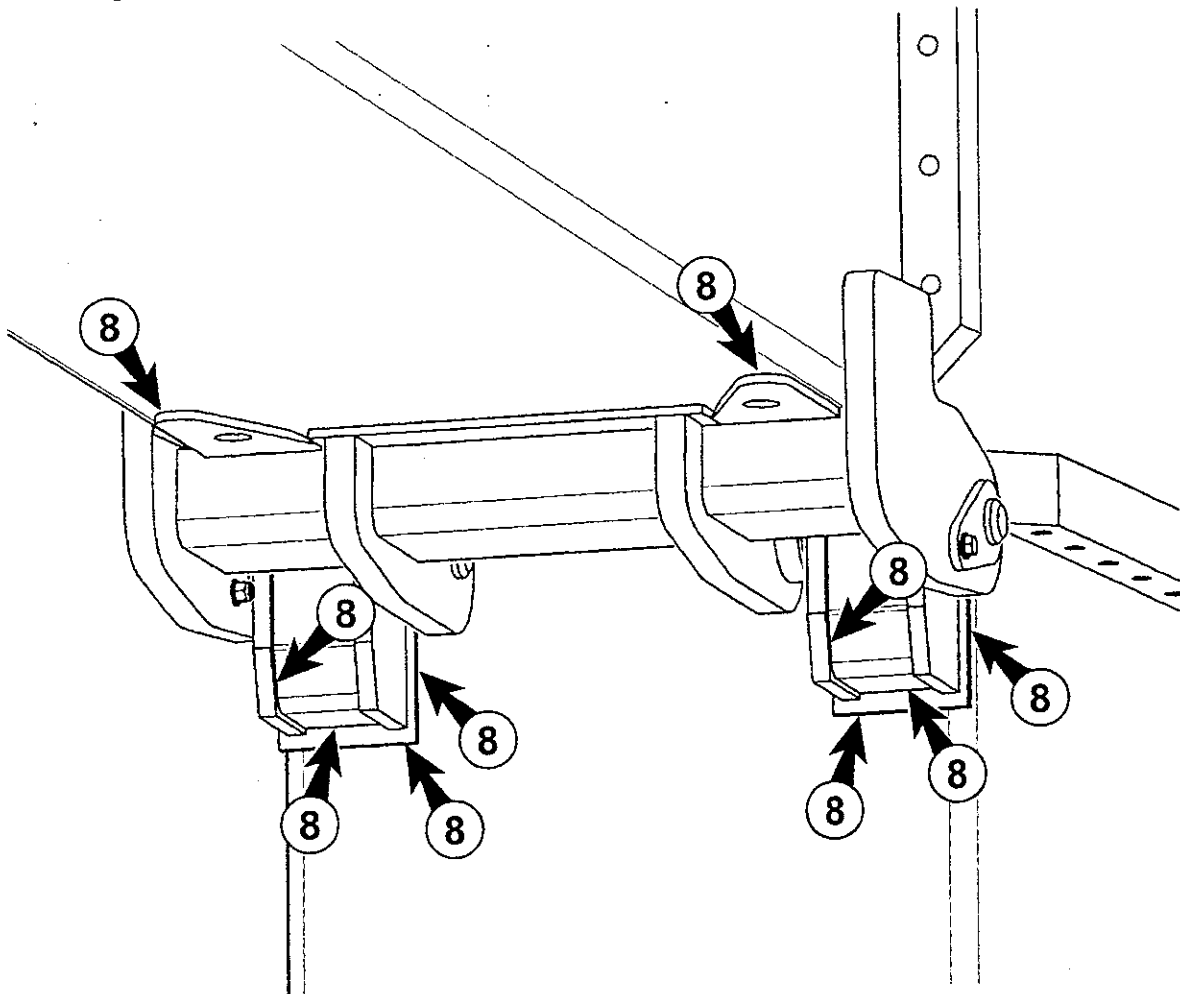
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Detail of Issue (continued):

**Area 8 (Tower Hinge) - Welds and parent metal around hinge blocks, brackets, pivot ears and doubler plates. This inspection point applies only to portable model rides.**







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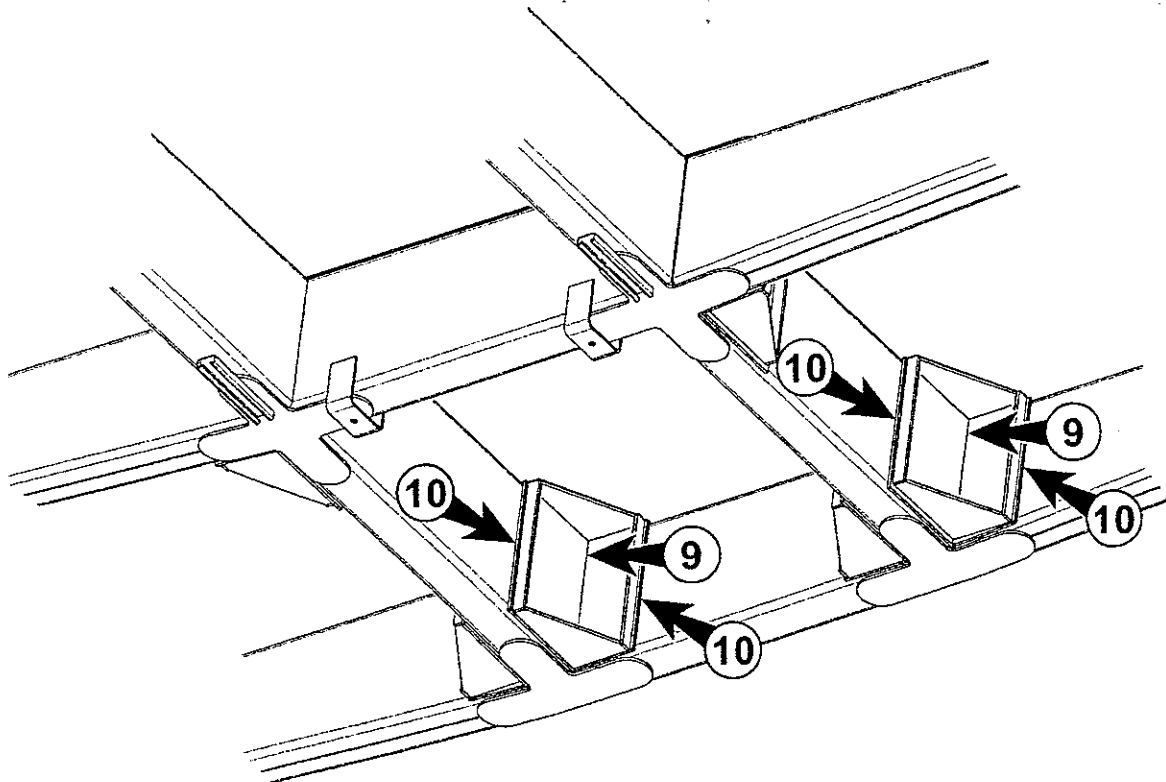
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Detail of Issue (continued):

**Area 9 (Vehicle Frame) - 4" x 12" lateral tube (weld to back wall)**

**Area 10 (Vehicle Frame) - 4" x 12" lateral tube (fillet welds and gusset welds)**





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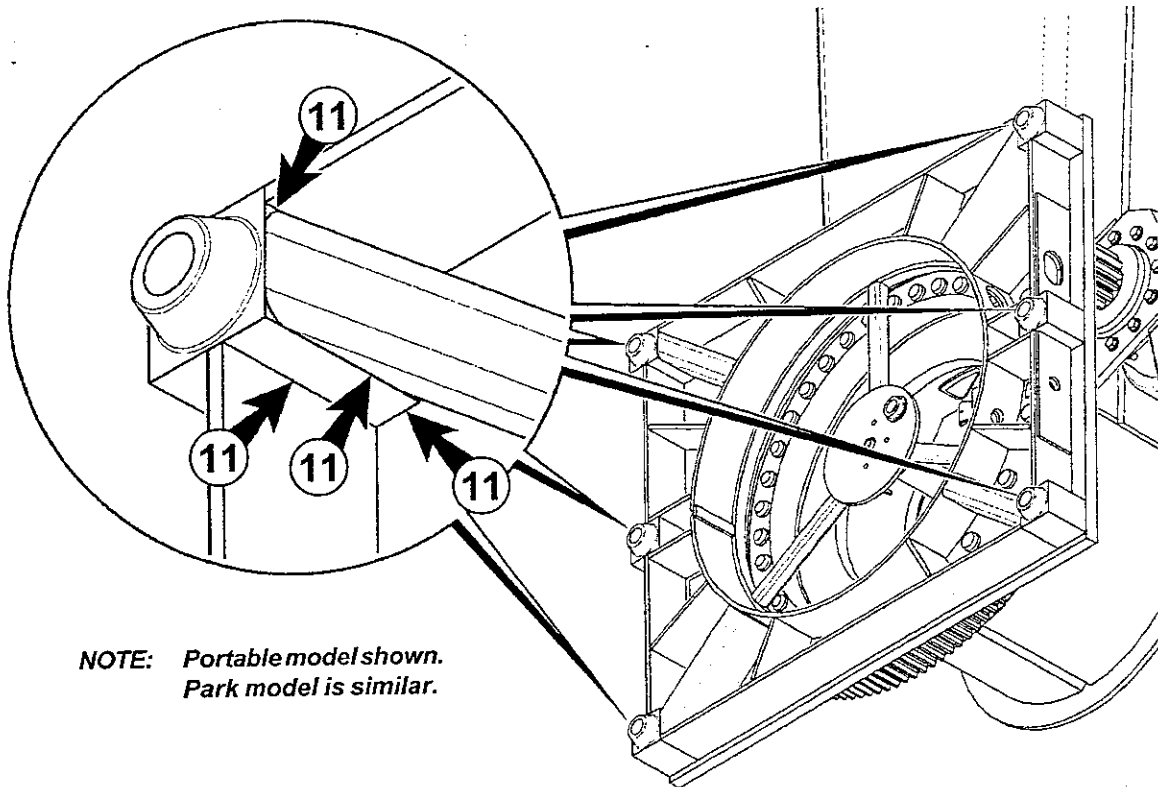
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Detail of Issue (continued):

**Area 11 (Vehicle Arm Adapter Box) - Welds around vehicle mounting blocks**





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Detail of Issue (continued):

**Area 12 (Vehicle Arm Adapter Box) - Outboard root of stiffeners welded to circular barrel**

**NOTE: Portable model shown.  
Park model is similar.**

