



WISDOM INDUSTRIES, INC



## COASTER BULLETIN

DATE: AUGUST 1995  
RIDE: LARGE DRAGON  
SUBJECT: PIVOT AXLE FRAME

It has come to our attention that cracks have developed on one Orient Express pivot axle frame. Please use the enclosed drawing as a guideline for inspecting pivot axle frames for cracks. If cracks are noted, contact us immediately for instructions on replacement or repair.

We are currently requiring that all pivot axle frames be replaced with a new style. **Daily inspection of these pivot frames are required until they are replaced.**

### Inspection procedure

1. Roll train off trailer to where frame can be seen from underneath.
2. Inspect areas called out in drawing.
3. **If cracks are noted, remove axle for repair or replacement before operating ride.**

Advise us where we can send the replacement axles for your ride.

Thank you for your cooperation in this matter. If you have any questions about this bulletin, please feel free to contact us at 1-800-634-6097 or 1-970-522-7515.



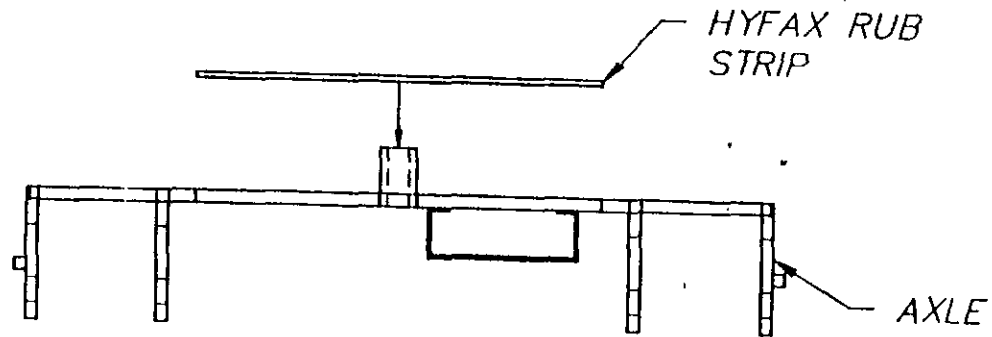
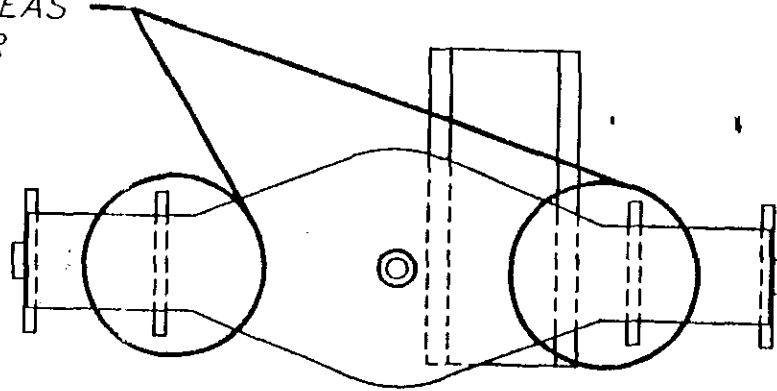
## PIVOT AXLE FRAME REPLACEMENT INSTRUCTIONS


RIDE:            **LARGE COASTER**

### INSTALLATION:

1. Turn all electrical power off (lock out).
  2. Block cars so they cannot move on the track.
  3. Remove cotter key from axle pivot bolt nut (under seat).
  4. Remove axle pivot bolt from under the seat liner.
  5. Lift seat frame clear of axle assembly and roll from under car.
  6. Remove bogie pivot bolts and nuts.
  7. Place new pivot axle frame over bogies.
  8. Install bogie pivot bolts and tighten lock nuts
- NOTE: MAKE SURE BOGIES CAN PIVOT ON THE BOLT.**
9. Roll axle assembly under car.
  10. Install pivot 3/4" X 4" bolt and flat washer.
  11. The bolt comes up from under the car axle assembly through the car frame.  
(Place flat spot on side of washer next to traction plate).
  12. Install plastic washer over bolt.
  13. Install fabricated washer over bolt (1/4" key stock facing up).
  14. Thread 3/4" castle nut onto bolt (Make sure nut seats into key stock).
  15. Tighten castle nut until snug, then loosen until slot lines up with hole in bolt.  
**Do not tighten.**
  16. Install 5/32" cotter pin.
  17. Repeat steps 3-15 for all cars.
  18. Remove blocks from cars.
  19. Apply power to system.
  20. Run unit without passengers.
  21. Recheck bolts to make sure they are not binding.
  22. Complete daily check of ride and if all is in order continue as normal.

INSPECT THESE AREAS  
ON ALL AXLES FOR  
CRACKING.



 <b>WISDOM INDUSTRIES</b> Merino, CO 80741	
SCALE: 1 1/2" = 1' - 0"	APPROVED BY:
DATE: 08-28-95	DRAWN BY: MFK
DESCRIPTION	
<b>AXLE INSPECTION</b>	
EQUIPMENT:	DRAWING NUMBER
<b>CHINA DRAGON</b>	<b>3CD-01</b>



WISDOM INDUSTRIES, INC



## COASTER BULLETIN

**DATE:** OCTOBER 1995  
**RIDE:** ADULT DRAGON/ORIENT CARS  
**SUBJECT:** FRONT PIVOT AXLE AND BALL

Due to the high wear on the front axle pivot ball, we are requiring that all ball type front pivot axles be replaced with a new style. Please use the enclosed drawing as a guideline for installing the new front pivot axle.

**Daily inspection of the pivot ball is required until it is replaced.**

### Inspection Procedure

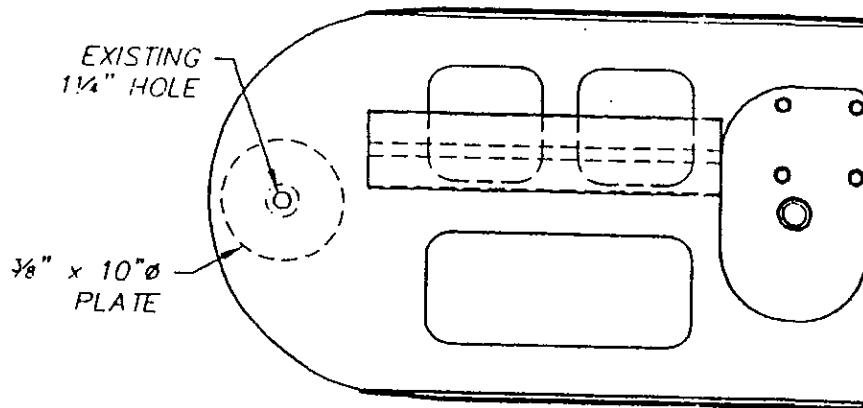
1. Roll train off trailer to where front axle & ball can be seen from underneath.
2. Inspect the area around the neck of the ball for wear.
3. If the neck of the ball is worn down to less than 3/4" across, replace the ball before operating the ride.
4. If the neck area is larger than 3/4", lubricate the retaining fingers with grease and return to service.

Advise us where we can send the new style axle frame & pivot assembly for your ride.

If you no longer own this ride, please let us know so we can update our records.

Thank you for your cooperation in this matter. If you have any questions about this bulletin, please feel free to contact us at 1-800-634-6097 or 1-970-522-7515.

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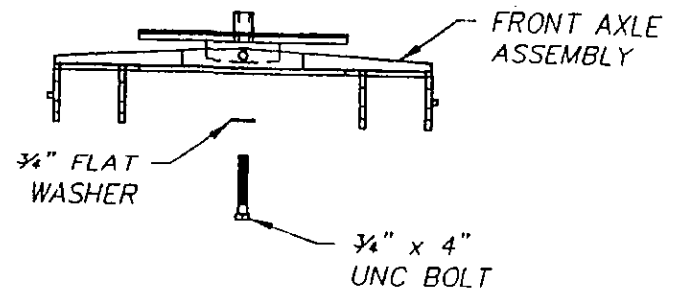
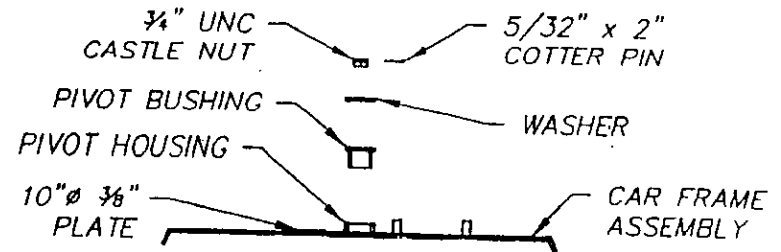
BOTTOM VIEW



SIDE VIEW

## INSTALLATION INSTRUCTIONS

1. REMOVE FIBERGLASS CAR BODY.
2. WELD 10"Ø(3/8" PLATE) TO TOP OF CAR FRAME.
3. TORCH THE EXISTING 1 1/4"Ø HOLE OUT TO 2 3/4"Ø HOLE.
4. WELD PIVOT HOUSING FLUSH WITH BOTTOM OF CAR FRAME.
5. LET AREA COOL.
6. PUT PIVOT BUSHING IN (ON TOP OF CAR FRAME).
7. TRIM FIBERGLASS CAR BODY TO FIT.
8. REINSTALL FIBERGLASS CAR BODY.
9. INSTALL FRONT AXLE (SAME PROCESS AS REAR AXLES).



WISDOM  
INDUSTRIES

Merino, CO 80741

SCALE: N.T.S.

APPROVED BY:

DRAWN BY: MFK

DATE: 10-31-95

REVISED

DESCRIPTION

FRONT AXLE INSTALLATION

EQUIPMENT:

CHINA DRAGON

DRAWING NUMBER

3CD-03



March 20, 1996

TO: LARGE DRAGON/ORIENT OWNERS  
RE: MANDATORY REPLACEMENT OR REINFORCEMENT  
OF FRONT AND BACK PIVOT AXLE FRAMES

Dear Dragon/Orient Owner:

We have not received confirmation that you have replaced or added the reinforcement to the axles on your adult DRAGON/ORIENT. Notify us if your axles have been replaced or an address of where to send the replacement axles. I have enclosed bulletins on the front and back axles. Also, a compliance notice to fax or mail to us for your convenience.

If you have any questions, please give me a call.

Sincerely,



Victor Wisdom  
Vice-President  
Wisdom Industries

(12)



## PIVOT AXLE FRAME REPLACEMENT INSTRUCTIONS

RIDE:           LARGE COASTER

### INSTALLATION:

1. Turn all electrical power off (lock out).
  2. Block cars so they cannot move on the track.
  3. Remove cotter key from axle pivot bolt nut (under seat).
  4. Remove axle pivot bolt from under the seat liner.
  5. Lift seat frame clear of axle assembly and roll from under car.
  6. Remove bogie pivot bolts and nuts.
  7. Place new pivot axle frame over bogies.
  8. Install bogie pivot bolts and tighten lock nuts
- NOTE: MAKE SURE BOGIES CAN PIVOT ON THE BOLT.**
9. Roll axle assembly under car.
  10. Install pivot 3/4" X 4" bolt and flat washer.
  11. The bolt comes up from under the car axle assembly through the car frame. (Place flat spot on side of washer next to traction plate).
  12. Install plastic washer over bolt.
  13. Install fabricated washer over bolt (1/4" key stock facing up).
  14. Thread 3/4" castle nut onto bolt (Make sure nut seats into key stock).
  15. Tighten castle nut until snug, then loosen until slot lines up with hole in bolt.  
**Do not tighten.**
  16. Install 5/32" cotter pin.
  17. Repeat steps 3-15 for all cars.
  18. Remove blocks from cars.
  19. Apply power to system.
  20. Run unit without passengers.
  21. Recheck bolts to make sure they are not binding.
  22. Complete daily check of ride and if all is in order continue as normal.

# TELEFAX COVER SHEET

TO: WISDOM INDUSTRIES, LTD.  
ATTN: VICTOR WISDOM  
P.O. Box 5000  
Sterling, CO 80751  
Fax #: 970-522-2902

MARCH 1996

FILL IN THE FOLLOWING INFORMATION AND FAX OR MAIL THIS COMPLIANCE NOTICE

RE: MANDATORY REPLACEMENT OF PIVOT AXLE FRAMES

FROM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ADULT/ORIENT DRAGON SERIAL NO: \_\_\_\_\_

CURRENT SHIPPING ADDRESS FOR ADULT/ORIENT DRAGON:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE: \_\_\_\_\_





**WISDOM  
INDUSTRIES, Ltd.**

# SAFETY BULLETIN

**DATE: DECEMBER 13, 2000**

**RIDE: ADULT DRAGON, ORIENT EXPRESS**

**SUBJECT: RODEND COUPLER ROLL PIN  
INSTALLATION**

**COMPLIANCE DATE: INSPECTION IMMEDIATE**

**COMPLETION DATE: 2 WEEKS**

1. Detach rodend eye from rear of car
2. Turn Jam nut until it is next to eye of rodend.
3. Screw rodend into front hitch threaded mount till threads bottom on jam nut.
4. Turn rodend out only enough to make the eye vertical and grease zerck is up.
5. Tighten jam nut.
6. Reattach rodend to rear of car with original 1" bolt. Use new lock nut.
7. Tighten 1" bolt and lock nut.
8. Run ride and check for clearance between cars in turns.
  - ◆ **NOTE: IF THERE IS NOT ADEQUATE CLEARANCE BETWEEN CARS CALL FOR AN EXTENDED FRONT HITCH MOUNT.**
9. Check for clearance between car rear bracket and shank of rodend. (See drawing)
10. If bracket is hitting rodend shank grind edge of rear bracket for clearance.

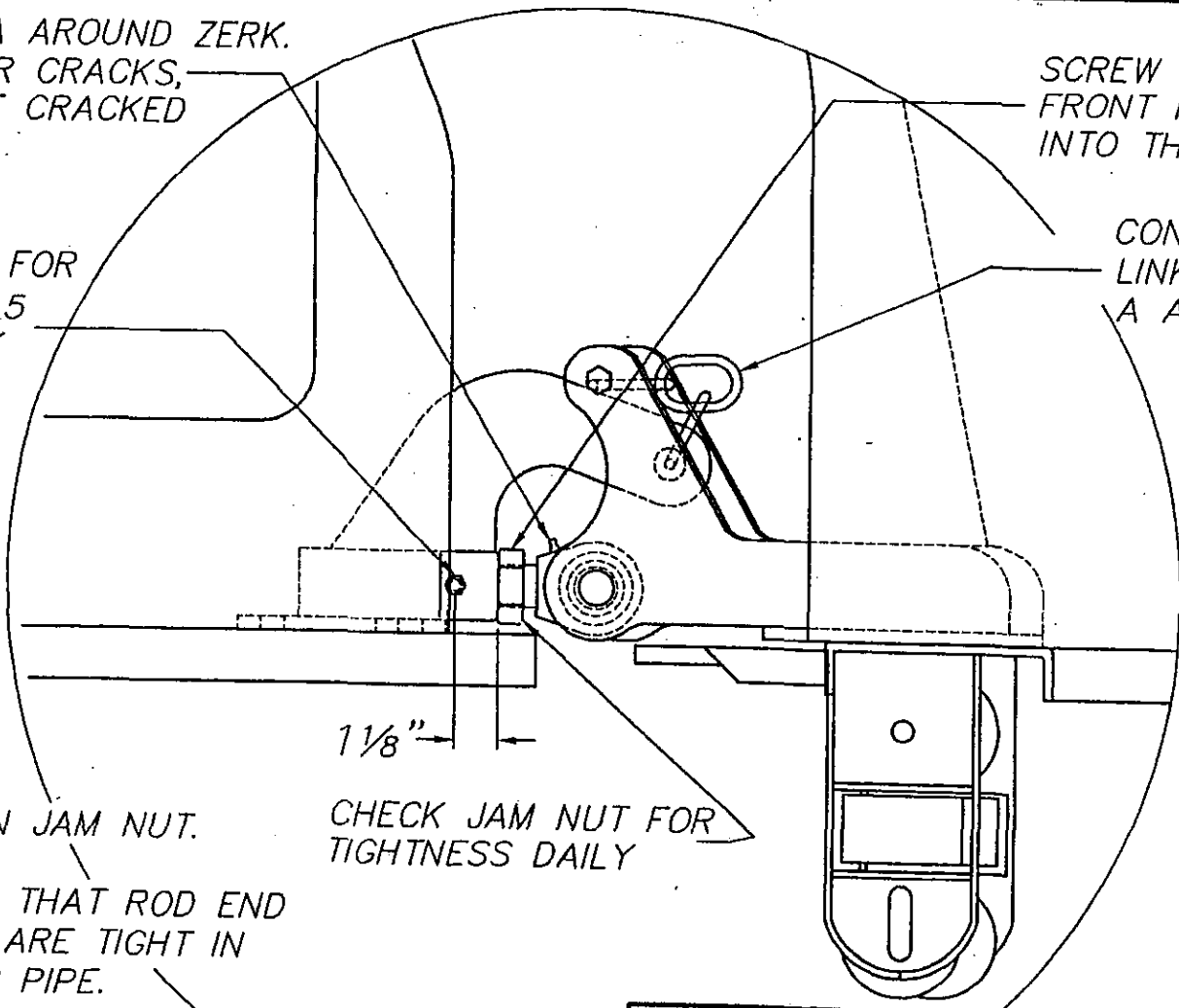
11. Measure  $1 \frac{1}{8}$ " from where jam nut touches front hitch threaded mount. (See Drawing)
12. Cross drill threaded coupler mount for a  $\frac{5}{16}$ " bolt.
13. Install a  $\frac{5}{16}$  X 3" grade 5 bolt and lock nut and tighten.
14. Repeat for other rodends.

CLEAN AREA AROUND ZERK.  
INSPECT FOR CRACKS,  
REPLACE OF CRACKED

SCREW ROD END INTO  
FRONT HITCH COMPLETELY  
INTO THREADED HOUSING.

CROSS DRILL FOR  
5/16 GRADE 5  
BOLT & LOCK  
NUT.


CONNECTED WITH 2  
LINKS OF CHAIN AND  
A ANCHOR SHACKLE

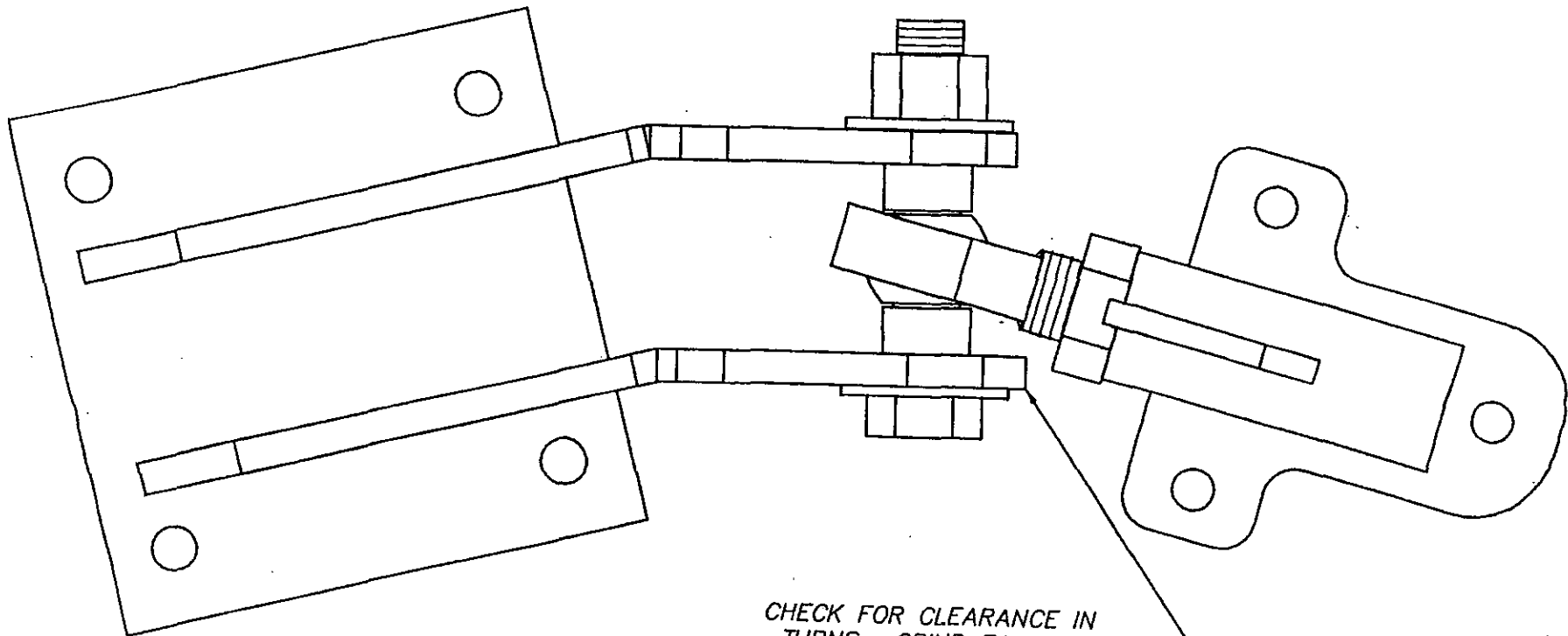


1 1/8"



1. LOOSEN JAM NUT.
2. CHECK THAT ROD END  
THREADS ARE TIGHT IN  
MOUNTING PIPE.
3. TIGHTEN JAM NUT.

CHECK JAM NUT FOR  
TIGHTNESS DAILY

 <b>WISDOM INDUSTRIES</b> Merino, CO 80741		
SCALE: NTS	APPROVED BY: <i>mtg/mtw</i>	DRAWN BY: JJR
DATE: 12-14-00		REVISED
DESCRIPTION CAR HITCH MODIFICATION		
EQUIPMENT: COASTERS	DRAWING NUMBER HITCH MOD	



CHECK FOR CLEARANCE IN  
 TURNS. GRIND EAR AT AN  
 ANGLE TO CLEAR ROD END  
 SHANK.

 <b>WISDOM INDUSTRIES</b> Merino, CO 80741		
SCALE: NTS	APPROVED BY: 	DRAWN BY: JJR
DATE: 12-14-00		REVISED
DESCRIPTION		
CAR HITCH		
EQUIPMENT:		DRAWING NUMBER
COASTERS		HITCH MOD 1