

MFG: VENTURE RIDE MFG., INC  
NAME: COBRA  
TYPE: NON-KIDDIE

# *Cobra*

BY VENTURE

# COBRA SPECIFICATIONS

## SET-UP TIME:

Two men — 1½ hour

## SEATING:

12 seats — load in two stops, 6 seats per stop, self-loading. 24-36 passengers. Seats load from ground. Seats are constructed of tubular steel framework with pre-formed, high strength Kydex 100 in bright colors.

## CAPACITY:

600 passengers per hour.

## DRIVE MOTOR:

Four 3 H.P. 208-230 3 phase, 60 cycle electric motors with fluid couplings. Center Arm and Seats are rubber tire, rim driven. Optional RoTo-Converter for single phase operation

## MOTION:

Main arm forward or reverse 8 RPM. Seats forward or reverse at 18 RPM.

## BRAKING SYSTEM:

Automatic "Fail-Safe Brakes"

## CONTROL:

Push button operation

## POWER REQUIRED:

35 KW

## DIMENSIONS:

Operating diameter — 70' fence circle  
Operating height — 28'

## CONSTRUCTION:

All steel and aluminum

## TRAILER:

Ride is completely mounted on one single axle trailer.  
Length — 45' 0"  
Width — 8' 0"  
Height — 13' 5"  
Weight — approximately 30,000 lbs.

## LIGHTING:

Sixteen 8' fluorescent tubes  
Twelve 6' fluorescent tubes  
Thirty two lighted plastic "banjo" discs  
Twelve special spotlights  
800 incandescent bulbs.  
center section "running"

## SOUND:

Built-in stereo  
music system optional

## COLORS:

Lime green and bright yellow with white trim.





**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

### TEN-YEAR RECONDITIONING FOR COBRA

When your COBRA becomes ten years old, a complete safety reconditioning is required. If your ride, whether you purchased it new or used, has been properly maintained and safety bulletins, as they were issued, have been implemented, this ten year safety reconditioning program will be easier. This work may be performed by one of the following:

- by Venture Ride Mfg., Inc., in their factory
- in a factory which has the full capabilities of handling this work
- by the owner, provided the work is inspected by a Venture inspector or other outside inspector, fully competent to check that all work has been properly and completely performed.

#### TEN-YEAR RECONDITIONING MUST INCLUDE THE FOLLOWING:

1. The most important piece of equipment on the ride is the center, 37 inch diameter bearing.

To inspect the bearing:

- First remove the excess grease and scrape off the loose dirt and paint.
- Next, wash with a solvent to totally clean both the outside and inside of the bearing and bearing bolts.

All bolts must be a fine thread, Grade 8 bolt, which may be identified by 6 marks on the head of the bolt. Make sure that there are no missing bolts in either the top ring or lower ring of the bearing. All bolts should have a hardened steel, flat washer under both the head and the nut. The nut should be a Grade C, Stover Lock Nut, which may be identified by 4 marks on the nut. Torque ALL nuts (not bolt head) to 125 ft. lbs.

Very carefully inspect the inside and outside of both the top and bottom rings, including bolt flanges for any cracks. If a crack is observed, even a small one, the bearing MUST be replaced.

There is a plug on the inside of the bearing, in which balls are loaded when the bearing is manufactured. This plug is approximately 1 inch in diameter. Make certain that the plug is not loose! It is held in place by either roll pins or allen screws. DO NOT EVER TAMPER WITH THIS PLUG!

When your inspection is complete, lubricate the bearing. The same procedure should be followed on the end bearings. However, from a safety point-of-view, these are not as critical.

2. The addition of safety Entrance and Exit gates:

These gates may be purchased from Venture or you may make your own. The reason these gates are so important on this ride is: as the ride is running, there appears an empty area, which a small child may walk into if the openings are left unguarded. Even with a safety chain in place, a small child could walk under the chain into what appears to be an empty area, as the main arm is turning. Neither the Exit or Entrance gate should open into the fenced circle. The Exit gate should be spring-loaded closed.

3. There should be NO homemade modifications to the ride without written approval from Venture! There have been accidents caused by modifications to lap bars, seat hangers, and foot rests.

4. The two main trailer outriggers (approximately 10 feet long), which swing in against the trailer for transport, have one pin holding each outrigger in place. A secondary locking device is required. The reason for this is: we have had pins, which were either left out or fell out, allowing the outrigger to swing open while the semi-trailer was in transit.

5. Lap Bars:

The lap bars consist of a one inch, square tube frame, pivoting on two brass brake blocks. The brass brake blocks should be replaced when the gap, which is squeezed together by the bolt, touches. These gaps should not be cut to allow for more adjustment. The lap bar MUST have a locking device on the rear of the seat, which keeps the lap bar in the down position while the passengers are riding. The lap bar cannot extend more than four inches beyond the rear of the seat.

6. The upper and lower Niehart-Spring seat hangers act as shock absorbers. They must be replaced when they become loose and allow the seat to swing freely.
7. The two seat pins tolerance must not exceed .125 inch clearance.
8. Replace, as necessary, any worn seat safety cables and if your ride does not already have the "ring-and-snap" system, whereas the cables snaps to the 3 inch square tube at the top of the seat support arm, this needs to be added. Contact factory for blueprint (No Charge).
9. Inspect the seat frames for rust and cracks. Replace all 1 inch square tubing if rust-through is evident. Check seat bottoms and backs and replace if broken or cracked. Check seats and foot rests for any sharp edges and correct.
10. On the two pins, which hold the seat on, make certain that the ride is using the key-type rings instead of the R-safety pins.
11. Right on the front of the Owner's Manual, in big, red letters write: OPERATOR, NEVER GET CLOSE TO A MOVING SEAT! Make certain both maintenance personnel and operators are intimately familiar with the Owner's Manual.
12. The tolerance on the 1 1/4 inch hole for the sweep, hinge points must not exceed .125 inches.
13. Every other rim iron must have an adjustable turn buckle. The purpose of this is to stop, or at least greatly reduce, the wear in the 1 1/4 inch holes on the sweep hinge points.
14. Repair/replace ALL defected electrical wiring.
15. Inspect ALL steel on the ride for cracks.
16. Make sure that the decal is on the ride and located near the hydraulic valve lever, which states: STAY OUT FROM UNDER THE RIDE WHILE RAISING OR LOWERING.
17. Make sure your ride has the following decal on it:

```

*****
*                                     *
*          CAUTION                  *
*                                     *
*   Before removing pins           *
*   to lower ride, bleed air      *
*   from hydraulic cylinder.      *
*                                     *
*****

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18. Check carefully, the top and bottom of the main hydraulic cylinder's mounting points. Check that the main hydraulic cylinder's restrictor valve is in place, at the base of the cylinder. Check to make sure that there is no water in the oil, in the hydraulic tank.
19. Make certain that the bleed valve, at the top of the cylinder, is operating properly and that each time the ride is raised or lowered, that this valve is bled, so that there is NEVER any air in your hydraulic system, which could lead to dropping the ride!
20. Check the front and rear tie-downs for the main arm, while being transported down the highway. The rear tie-downs consist of two, four inch square tubes. These must be on the ride and the pins must be tight on both the front and rear tie-downs. Otherwise, damage is done to the center bearing by bouncing the main arm on the center bearing, while in transit.
21. Inspect the concrete safety counter weight in the gooseneck of the trailer. If any of this is broken or missing, it should be repaired or replaced. There is a total of 1 cubic yard, approximately 3,000 pounds of concrete, in the gooseneck.
22. Inspect the hand-held control to make sure it is operating properly, is undamaged and is grounded electrically.
23. Make certain the ride is operating in both forward and reverse. If the ride is only operating in one direction, the operators will often have to load and unload the ride when the main arm is not lined up with the trailer. (6 seats level with the ground)
24. Check the semi-trailer brakes. Check the suspension and make sure that all bolts are secure. Check the air lines for leaks and make sure that the brakes are working properly.
25. Check ALL clearance lights, tail lights, and brake lights. Make certain that they are operating on the semi-trailer. Make certain that ALL red and yellow reflectors are in place.
26. Check that all four leveling, screw jacks are in proper working condition.
27. Check the 12 center tower hinge pins for excessive wear.
28. Check to insure that the overhead light structures are secure and undamaged, and that there are no cracks in the aluminum.

29. Check that both steel drive wheels, on the center gear boxes, have the safety retainer device in the end of the gear box output shaft, which prevents the hub from falling off should the taper-lock bushings ever come loose.
30. Check that the safety retainer device is in the output shaft of the two end gear boxes to make certain that the wheel and tires stay on should the wheel bolts become loose or break.
31. Make certain that the end motor gear box combinations have bars under the unit. If the mounting ears were to break, the bar would keep them from falling to the ground.
32. Check to make certain that the four drive units are not leaking grease from the gear box or oil from the fluid coupling.
33. Remove the brake housing from each of the four drive units and inspect it for the following:
  - that there is not a grease leak from the gear box into the brake
  - that the brake disc is not worn, and
  - that the springs, and pins on which the springs ride, are not rusty and that they operate freely.
34. Check the ride for any electrical shorts, particularly any shorts in florescent ballasts.
35. Some early rides had fences with a high, approximately eight foot arch, which contained a yellow disc. These should have been removed, by cutting them off at the top of the fence. Otherwise, the wind can blow this fence over while the ride is in operation.
36. Inspect fence and safety gates for any sharp edges and correct.
37. Check your fence to make sure that it is stable. If not, modify the feet to make certain that you have a stable fence.
38. Make sure you have plenty of fence, so the fence can be set up with adequate clearance between the fence and the operating ride.
39. Replace any worn or battered pins on ride.

40. Make sure that all the safety bulletins that have been issued, are in your manual and have been adhered to.
41. Write in your manual a caution for the operators to be careful. That they do not fall while erecting the ride as it sometimes gets oil and grease on the steel and thus it becomes very slippery, particularly when it is raining.
42. Make sure that your maintenance people and operators read and understand the warnings about the additional dangers of working on a ride which has been grounded. This is explained in your new, (1986 - 1987 Owner's Manual).
43. Notify immediately in writing Venture Ride Mfg., Inc. of any additional maintenance or improvements which you know of which would make the COBRA a safe ride.
44. Last but not least, promise yourself that you will not allow the ride to be setup, dismantled, or operated by anyone who you know is not qualified to do the job!





**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

April, 1987

Dear COBRA Owner:

Please add the following information to your COBRA manual. All of you operators and maintenance personnel should be intimately familiar with this information.

The information supplied consists of the following:

- Serial Number and Ten Year Overhaul
- Special Safety Information
- Special Cautions, Personal Conduct, Avoiding Law Suits
- OABA Safety Suggestions
- ASTM Owner/Operator Responsibility: Operation  
Maintenance  
Inspection
- Inspector Guidelines
- Guidelines for Operator Selection and Instruction
- Operational Load Testing
- Associations
- Cobra Safety Bulletins

Please give us a call if you have questions about any of the attached information.

Wishing you a safe and successful season!

Jerry L. Barber  
President

April 1987

This manual is for the COBRA Amusement Ride manufactured by  
Venture Ride Mfg., Inc.

Your Serial Number is \_\_\_\_\_

Your ride was manufactured \_\_\_\_\_

#### 10 YEAR OVERHAUL

All rides manufactured by VENTURE RIDE MANUFACTURING, INC. are designed to operate for 16,000 hours\* or 10 years; whichever comes first, with proper maintenance. After which the ride must have a complete overhaul\*\* including non-destructive testing of all critical components. This service must be performed in a fully qualified factory, in our factory, or under our direct supervision. The cost of this complete overhaul varies with the condition and type of ride. Often it will be approximately 1/2 the cost of a new ride. Failure to perform this overhaul can produce unexpected catastrophic failures.

\* Hours are measured as time ride is open to the public

\*\* Includes updating of all safety equipment, additions of safety improvements, replacement of modified or damaged structure, replacement of damaged electrical wiring and electrical components, replacement of worn or damaged passenger restraints and the additional repair or replacement of any part for the purpose of safety.

## SPECIAL SAFETY INFORMATION: COBRA

Caution over and over again that operators not get hit by the swinging seats.

Never let anyone drinking ride on the COBRA.

Never let anyone under five years old ride the COBRA.

Add our newly designed safety gates to the entrance/exit areas to prevent anyone from entering when the ride is operating and getting hit.

Make certain that the fence adequately clears the ride.

Make sure that both pins are in the seat arm and that the safety rings are in place before riding passengers. Do this each day.

Never work on the COBRA or be on top of the COBRA when the electricity is turned on.

The factory now has available rim irons with turnbuckles. If every other rim iron has a turnbuckle and it is kept tight, this virtually eliminates wear in the folding sweep knuckles. Repair loose pins in the sweep folding knuckles.

Daily inspect both the upper and lower Niehart springs which are pivot points above the seat. Replace when they become loose.

Daily inspect the safety cable which holds the seat to the sweep. Replace when any wear becomes apparent.

Replace or adjust the lap bar brake hinges per the safety bulletin dated March 11, 1987.

Should your center bearing make a noise or pop a bolt or do anything else that is unusual, cease operation immediately and contact the factory.

Make certain that the safety keeper bolts are in place on the output shafts on all four (4) gearboxes to keep a tire or steel wheel from dropping, should a taper lock bushing come loose.

Daily check the complete seat steel structure for cracks.

Never put oversized drive tires on the ride. This would cause excessive speed and create an extremely dangerous situation.

Make certain that the distance from the center of the four (4) rubber drive tires to the center of the gearbox output shaft is equal.

Make certain that the distance from the center of the four (4) center drive tires to the main steel drive ring is equal.

Properly torque (see bearing instructions) bolts on all three (3) main bearings. Make certain that you get the top and bottom ring of bolts on each bearing.

Make certain that the resistor valve is in the base of the main center hydraulic cylinder.

When you are doing any maintenance on the hydraulic system, expect to get some air in the main hydraulic cylinder which must be bled out.

Make absolutely certain that the main hydraulic cylinder has been bled and that no air is in the cylinder before removing pins to lower the ride. Failure to do this could cause the COBRA to fall, bending the semi trailer to the ground in the middle.

When operating the hydraulic lever to raise or lower the ride, never stand where, if the ride were to fall, you would be in the way.

Never let anyone stand under the COBRA or be in front of the ride when it is being raised or lowered.

Always properly ground the COBRA.

Always use large key ring type keepers on the two (2) pins which connect the seat to the ride. This prevents a passenger from removing the safety pins.

Caution maintenance and erection personnel that the ride is slippery, usually from some oil from the gearbox and from the fluid coupling.

Make certain that the sway braces are in place on both sides which go from the center of the outrigger to the top center of the tower.

Make absolutely certain that the outriggers are securely fastened while traveling down the highway. Should one unfold while going down the highway, a very serious accident could occur.

When the ride is torn down, make certain that the two (2) 4" square tube braces from the rear of the trailer to the bottom of the main arm are in place before moving the ride. Failure to do so will cause permanent damage to your center bearing.

Double check to make sure that the seats are properly secured to the main arm before traveling down the highway.

April 1987

This manual is for the BRONCO Amusement Ride manufactured by Venture Ride Mfg., Inc.

Your Serial Number is \_\_\_\_\_

Your ride was manufactured \_\_\_\_\_

#### 10 YEAR OVERHAUL

All rides manufactured by VENTURE RIDE MANUFACTURING, INC. are designed to operate for 16,000 hours\* or 10 years; whichever comes first, with proper maintenance. After which the ride must have a complete overhaul\*\* including non-destructive testing of all critical components. This service must be performed in a fully qualified factory, in our factory, or under our direct supervision. The cost of this complete overhaul varies with the condition and type of ride. Often it will be approximately 1/2 the cost of a new ride. Failure to perform this overhaul can produce unexpected catastrophic failures.

\* Hours are measured as time ride is open to the public

\*\* Includes updating of all safety equipment, additions of safety improvements, replacement of modified or damaged structure, replacement of damaged electrical wiring and electrical components, replacement of worn or damaged passenger restraints and the additional repair or replacement of any part for the purpose of safety.

## SPECIAL SAFETY INFORMATION: BRONCO

Caution over and over again that operators not get hit by the swinging seats.

Never let anyone drinking ride on the BRONCO.

Never let anyone under five years old ride the BRONCO.

Add our newly designed safety gates to the entrance/exit areas to prevent anyone from entering when the ride is operating and getting hit.

Make certain that the fence adequately clears the ride.

Make sure that both pins are in the seat arm and that the safety rings are in place before riding passengers. Do this each day.

Never work on the BRONCO or be on top of the BRONCO when the electricity is turned on.

Adjust the brakes on the seats, both fore and aft, and side to side. Adjustment should be tight enough to almost keep the seat from returning to the normal vertical hanging position. Replace brake bands and washer springs when brake adjustment is gone.

Replace shock absorbers when they lose any resistance.

Daily inspect the safety cable which holds the seat to the sweep. Replace when any wear becomes apparent.

Should your center bearing make a noise or pop a bolt or do anything else that is unusual, cease operation immediately and contact the factory.

Make certain that the safety keeper bolts are in place on the output shafts on all four (4) gearboxes to keep a tire or steel wheel from dropping, should a taper lock bushing come loose.

Daily check the complete seat steel structure for cracks.

Never put oversized drive tires on the ride. This would cause excessive speed and create an extremely dangerous situation.

Properly torque (see bearing instructions) bolts on all three (3) main bearings. Make certain that you get the top and bottom ring of bolts on each bearing.

Make certain that the resistor valve is in the base of the main center hydraulic cylinder.

## SPECIAL SAFETY INFORMATION (continued)

When you are doing any maintenance on the hydraulic system, expect to get some air in the main hydraulic cylinder which must be bled out.

Make absolutely certain that the main hydraulic cylinder has been bled and that no air is in the cylinder before removing pins to lower the ride. Failure to do this could cause the BRONCO to fall, bending the semi trailer to the ground in the middle.

When operating the hydraulic lever to raise or lower the ride, never stand where, if the ride were to fall, you would be in the way.

Never let anyone stand under the BRONCO or be in front of the ride when it is being raised or lowered.

Always properly ground the BRONCO.

Always use large key ring type keepers on the two (2) pins which connect the seat to the ride. This prevents a passenger from removing the safety pins.

Caution maintenance and erection personnel that the ride is slippery, usually from some oil from the gearbox.

Make certain that the sway braces are in place on both sides which go from the center of the outrigger to the top center of the tower.

Make absolutely certain that the outriggers are securely fastened while traveling down the highway. Should one unfold while going down the highway, a very serious accident could occur.

When the ride is torn down, make certain that the two (2) 4" square tube braces from the rear of the trailer to the bottom of the main arm are in place before moving the ride. Failure to do so will cause permanent damage to your center bearing.

Double check to make sure that the seats are properly secured to the main arm before traveling down the highway.



**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

## S A F E T Y   B U L L E T I N

Dear COBRA and BRONCO Owners:

Visually inspect daily the 37" - diameter center bearing.

Should you notice wear or steel shavings or, if a steel ball (approximately 5/8" - diameter) comes out of the bearing, cease operation immediately and contact the factory.

Also, should the bearing start making a noise (normally a "growl"), the bearing needs to be replaced immediately.

By far the most critical: Should a ball come out of the bearing, either through the fill plug or a break in the race, cease operation immediately.

Balls in the 37" - diameter bearing are what keep the bearing together.

If you have any questions on the above information, please contact the factory.

Sincerely,

Jerry L. Barber, President  
Venture Ride Mfg., Inc.  
June 8, 1987

JLB/mc

CERTIFIED MAIL/RETURN RECEIPT





**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres

May, 1987

Dear BRONCO Owner:

Please add the following information to your BRONCO manual. All of your operators and maintenance personnel should be intimately familiar with this information.

The information supplied consists of the following:

- Serial Number and Ten Year Overhaul
- Special Safety Information
- Special Cautions, Personal Conduct, Avoiding Law Suits
- OABA Safety Suggestions
- ASTM Owner/Operator Responsibility: Operation  
Maintenance  
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- Inspector Guidelines
- Guidelines for Operator Selection and Instruction
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- BRONCO Safety Bulletins

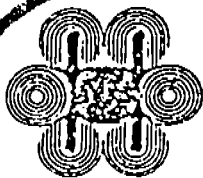
Please give us a call if you have questions about any of the attached information.

Wishing you a safe and successful season!

*Jerry L. Barber*

Jerry L. Barber  
President

UPS/RETURN RECEIPT



## S A F E T Y B U L L E T I N

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

**SAFETY REQUIREMENT: NEVER OPERATE YOUR COBRA WITH A LOOSE LAP BAR. IT SHOULD FIRMLY REMAIN IN WHATEVER POSITION IT IS PLACED.**

TO: COBRA Owners  
REF: Lap bar brass block bushing  
DATE: March 11, 1987

Before beginning your season, check your lap bar brass block bushing and do the following:

If the adjustment gap is closed, replace the block. CAUTION: NEVER CUT THE BRASS BLOCK TO ATTEMPT TO EXTEND THE LIFE OF THE BUSHING. THIS DISTORTS THE BUSHING HOLE AND WILL CAUSE RAPID WEAR.

For bushings that don't need replacing, do the following:

1. Remove the bushing and clean the steel rod with a green Scotchbrite scouring pad (the kind that you buy at the grocery store). Polish the surface with the pad until it is smooth and somewhat shiny. (This takes about 5 minutes of hard polishing)
2. Check to make sure that the steel rod is round and not egg-shaped.
3. Clean the inside of the bushing with the green Scotchbrite pad -- very little cleaning will be necessary.
4. Lubricate both the steel shaft and the inside of the brass bushing with graphite base padlock lubricant and reassemble.
5. We recommend that you replace the adjustment bolt and nylon locknut (1-1/2" x 1/4").
6. Lubrication of the brass bushing with the graphite base lock lubricant on a monthly basis will extend the life and time between adjustments on the bushing.

For new brass block bushing replacement, the procedure is the same.

If you have any questions about this information, please feel free to call our office.

Sincerely,

Jerry L. Barber  
President

JLB/mc

CERTIFIED MAIL/RETURN RECEIPT

ROUTE 8 • BOX 111-C • HIGHWAY 14 • GREER, SOUTH CAROLINA 29651 • (803) 877-3328 • TELEX 805 257



**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

### MAINTENANCE BULLETIN

Dear COBRA Owners:

To reduce maintenance problems with the center drive on your Cobra, check the following very carefully because THE LOCATION OF THE 4 PNEUMATIC DRIVE TIRES IS VERY CRITICAL.

- 1) The distance from the center of the drive tire axle to the 7-1/2' diameter drive ring must be the same on all four pneumatic tires.
- 2) The distance from the center of the drive tire axle to the center of the output shaft of the gearbox must be exactly the same on all four pneumatic tires.

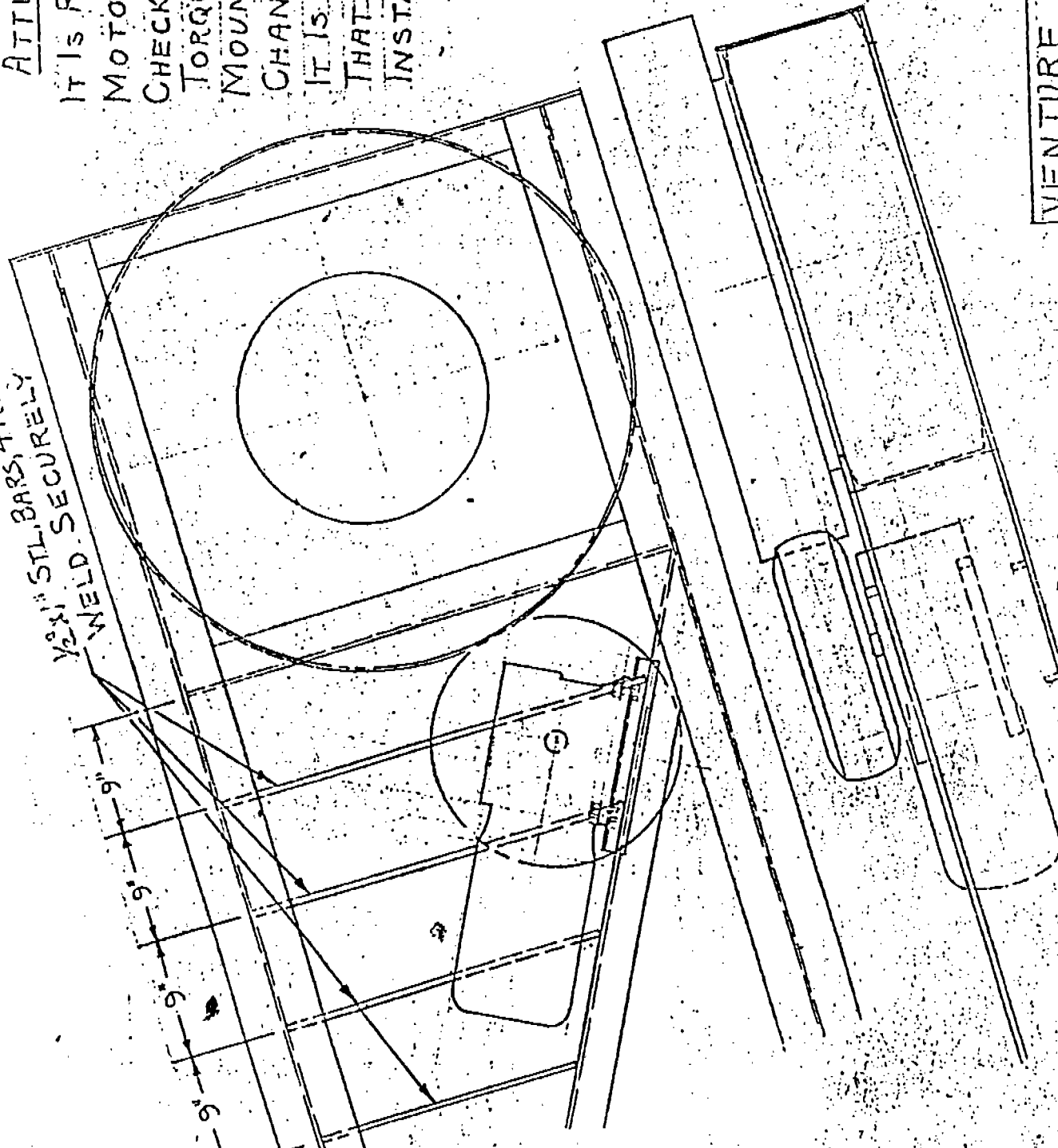
Failure to have the distances correct causes one tire to try to run faster or slower than the other tires which artificially overloads your drive units.

Sincerely,

Jerry L. Barber, President  
August 9, 1985

JLB/md

4 REQ'D.  
1/2" STL. BARS, SECURELY  
WELD.



ATTENTION COBRA OWNERS  
IT IS RECOMMENDED THAT  
MOTOR MOUNT BOLTS BE  
CHECKED WEEKLY FOR  
TORQUE. WITH MOTOR  
MOUNTED ON "UNISTRUT"  
CHANNEL, (SEE ILLUSTRATION)  
IT IS ALSO RECOMMENDED  
THAT THE STEEL BARS BE  
INSTALLED PER DRAWING.



"UNISTRUT" ILLUSTRATION

VENTURE RIDE MFG. GREENE, S.C.			
DRAWN	DATE	SCALE	REQ'D PART NUMBER
			URN 522



**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

S A F E T Y    B U L L E T I N

Dear COBRA Owner:

Before lowering the main arm of your COBRA, always check to make certain that the hydraulic cylinder is full of oil (not air) by checking for fluid coming out of the bleeder valve at the top of the cylinder while pressure is applied to the system. Also check that the restrictor valve at the base of the cylinder is in place and is in good condition.

Additionally, make certain that NO ONE ever stands under the COBRA when it is being lowered.

Should you attempt to lower the main arm with air in the cylinder, or if you break off a restrictor valve at the base of the cylinder, the main arm will drop, resulting in serious damage to the semi-trailer.

Sincerely,

Jerry L. Barber  
President

6/28/84

JLB/md



**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President  
WAYNE P. COMSTOCK, Vice-Pres.

April 2, 1984

Dear Cobra Owners:

Before your season starts, we suggest that you check out your Cobra thoroughly for safety.

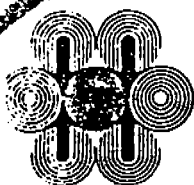
First, please refer to your Cobra Owner's Manual as it contains many required safety-maintenance recommendations.

Additionally, please thoroughly inspect your seat hangers. There are two urethane-filled pivot points called Niehart springs on each seat. If these are loose or the rubber is "worn out," they must be replaced before operation.

Also, inspect the safety steel cables that keep the seat on the ride in case of a total seat hanger failure.

We wish you a successful '84 season.

Jerry L. Barber  
President



**Venture**  
**Ride Mfg., Inc.**

JERRY L. BARBER, President

June 15, 1983

Dear COBRA Owners:

## S A F E T Y      B U L L E T I N

We have had a situation occur where a pin was left out of the COBRA trailer main outrigger during transit. The outrigger came open, hit a guard rail, and caused extensive damage to the trailer.

The accidental opening of one of the outriggers could result in serious injury to other persons.

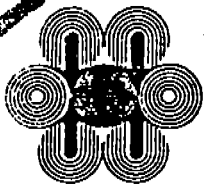
Please check carefully each time your ride is moved that both outriggers are properly secured. Additionally, we suggest that you add a secondary tie-down to the outrigger as a backup safety system.

Should you have any safety problem on the COBRA or on any other ride, please advise the manufacturer so that a solution can be found and other ride owners notified.

Sincerely,

*Jerry L. Barber*  
Jerry L. Barber  
President

JLB/md



**Venture**  
**Ride Mfg., Inc.**

ATTENTION ALL COBRA OWNERS

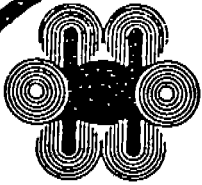
It has been discovered that a condition could exist that could cause severe damage to your Cobra and possible injury to a ride operator.

In performing any repair work on the control valve of the hydraulic system, BE SURE the ball check valve, located between the hydraulic hose and the control valve is complete and in good working order.

If this check valve does not seat properly or parts are missing due to improper maintenance, the hydraulic oil could drain from the cylinder while the ride is operating. This could allow the arm to fall during tear-down operation and possibly cause injury and damage to the ride.

1. Be sure all repairs are made by qualified and safety conscious personnel.
2. Before releasing locking pins, make sure the hydraulic pump is turned on and is lifting the arm off the locking pins.
3. Be sure the cylinder is full of hydraulic oil.





**Venture**  
Ride Mfg., Inc.

JERRY L. BARBER, President

March 6, 1978

TO: ALL COBRA OWNERS

Please inspect all Niehart Spring seat hangers on your Cobra.

DO NOT OPERATE COBRA WITH DEFECTIVE NIEHART SEAT SPRINGS.

Should you find a worn spring, replace it immediately.

Sincerely,

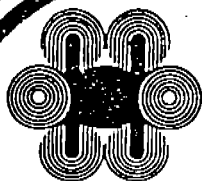
VENTURE RIDE MFG., INC.

*Jerry L. Barber*

Jerry L. Barber  
President

JLB/rw

4/14/77



**Venture**  
Ride Mfg., Inc.

JERRY L. BARBER, President

## S A F E T Y   B U L L E T I N

Dear Cobra Owners:

Your Cobra seats hang on a bracket that is suspended on a rubber torsion spring. This spring allows the seat to move forward and back under pressure, with little side to side movement.

These rubber torsion springs are subject to wear. In extreme cases, you will observe that the bracket appears loose and swings freely from side to side with little resistance. If you do notice that excessive free play is evident you should replace the brackets immediately.

Venture has a bolt-on replacement for this seat bracket which includes a new rubber torsion spring.

Please check these brackets weekly during your operating season. If you need replacement seat brackets, we have them in stock.

The below picture shows a seat arm with the bolt-on replacement.

VENTURE RIDE MFG., INC.





**Venture**  
Ride Mfg., Inc.

JERRY L. BARBER, President

### S A F E T Y   B U L L E T I N

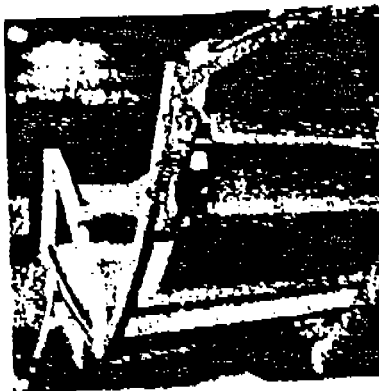
Dear Customer:

We have designed a new seat lock for the Cobra which mounts on the back of the seat and cannot be operated by ride passengers. This is a self locking device and available in a bolt on kit for existing rides. The installation is relatively simple, fitting as shown in the below picture.

We have a supply of these in stock with installation prints and all hardware at a cost of \$19.00 each. Total cost for all seats is \$228.00.

We recommend these new seat locks for added safety.

VENTURE RIDE MFG., INC.



3/4" round bar (middle)

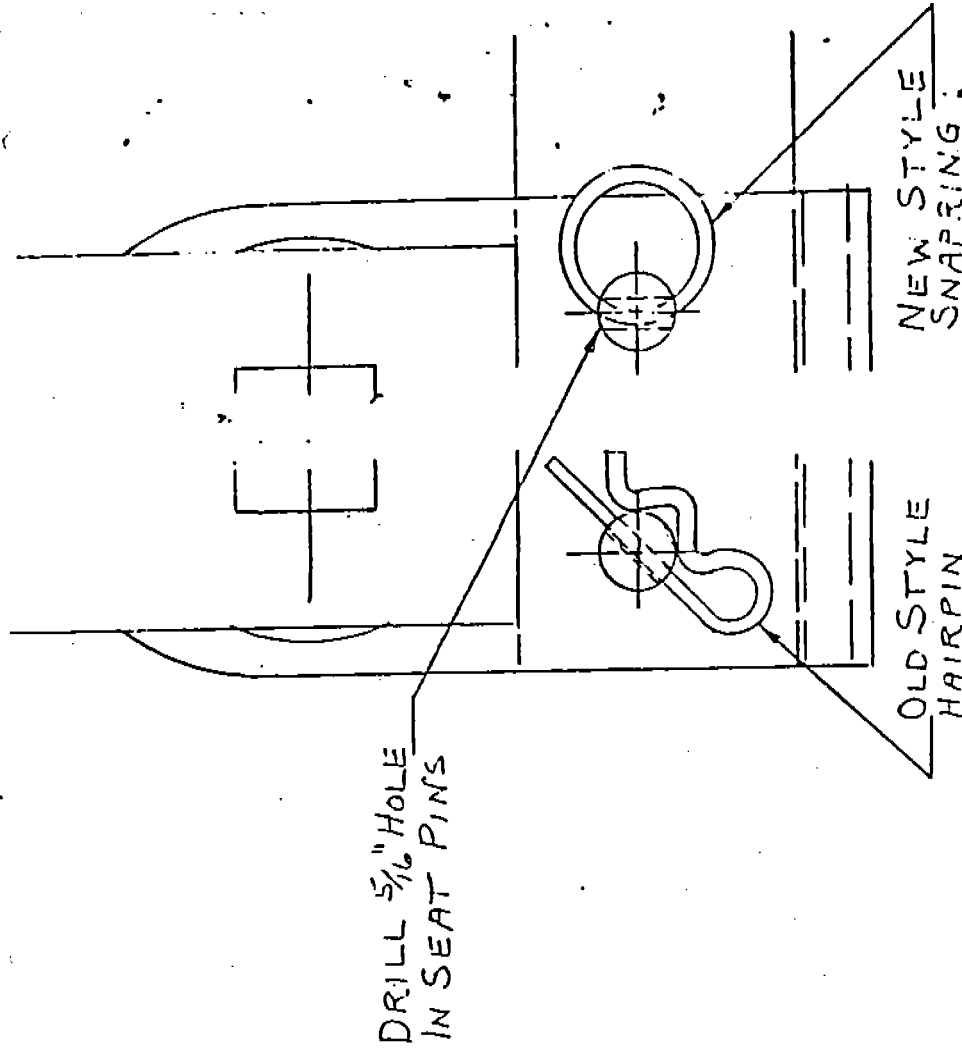
1/2" tubing (top)

ATTENTION COBRA OWNERS  
SUBJECT: COBRA SEAT PINS

A CONDITION EXISTS WHERE IT IS POSSIBLE FOR A RIDE PASSENGER TO REMOVE THE HAIRPIN LOCKS IN THE SEAT PINS. THIS COULD CAUSE THE SEAT PINS TO COME OUT AND THE SEAT TO COME OFF.

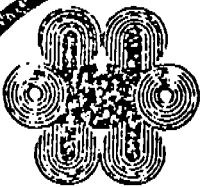
TO PREVENT THIS WE RECOMMEND DRILLING A  $\frac{5}{16}$ " HOLE IN THE SEAT PIN IN PLACE OF THE  $\frac{3}{16}$ " HOLE AND USING A SNAPPING AS SHOWN ON THE RIGHT HAND SIDE OF THE ILLUSTRATION.

A  $\frac{5}{16}$ " DRILL BIT AND 24 SNAPPING RINGS ARE FURNISHED BY VENTURE RIDE MFG., NO CHARGE.



VENTURE RIDE MFG, GREER, S.C.

DRAWN	DATE	SCALE	REQ'D	PART NUMBER
BHW	3-9-77			VRM 1116



JERRY L. BARBER, President

S E R V I C E   B U L L E T I N

TO:        All Cobra Owners                      DATE:    Nov. 29. 1976  
FROM:    Venture Ride Mfg., Inc.

RE:    Cobra Gear Boxes  
       and Tire Wear

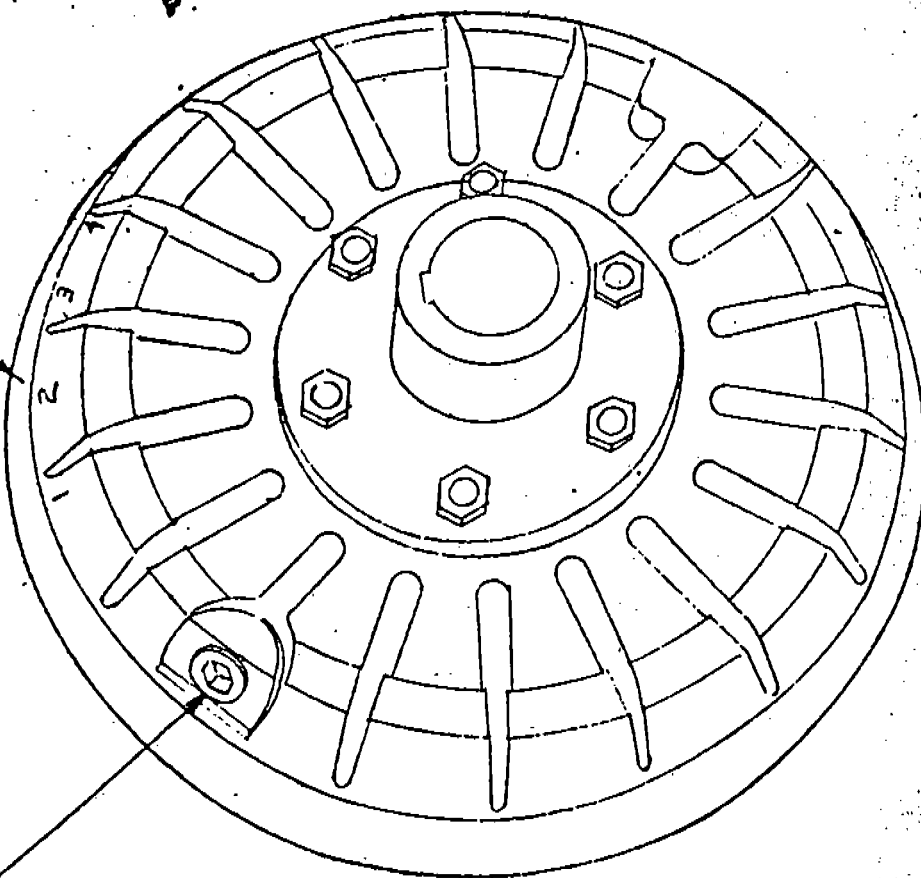
We have traced Cobra Gear Box problems down and found that the cause of the problem is over voltage. When power going to the motor exceeds 230 volts the motors develop excessive torque and when reversed in this condition can fracture the gears. This excess torque also causes the tires to slip on start and reverse causing excessive tire wear.

To eliminate this problem, drain the fluid coupling to the #2 level. (That is #2 straight up) This will slow up the ride or change the ride characteristics but will allow it to absorb the excess torque.

Please see the attached drawing which shows the fluid coupling. This should help you in making the service change.

REMOVE PLUG TO GET  
PROPER FLUID LEVEL.  
REPLACE PLUG  
BEFORE USING.

BE SURE NUMBER  
2 IS ON TOP



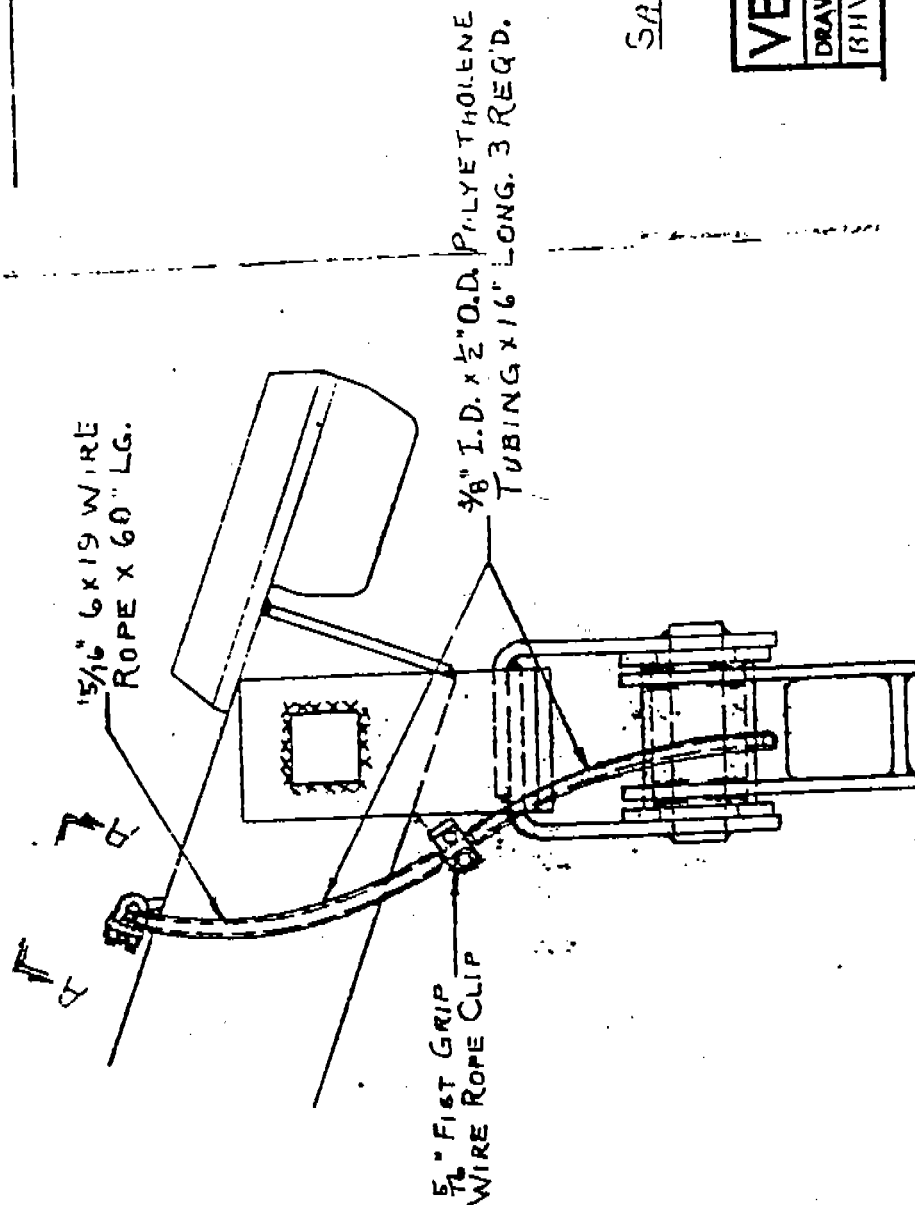
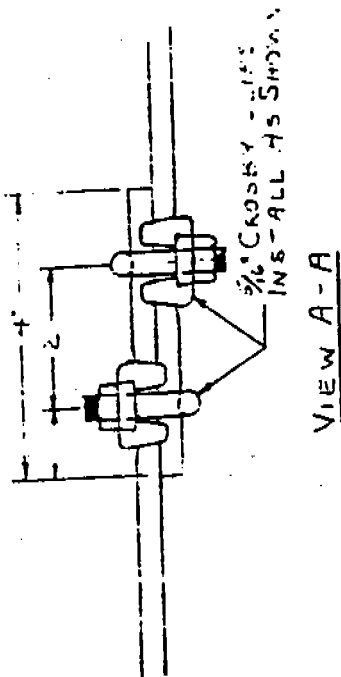
NOTE! FLUID COUPLING IS  
LOCATED BETWEEN THE  
MOTOR AND THE GEARBOX.  
REMOVE THE UPPER INSPECTION  
PLATE ON THE MOTOR.

BE SURE THE COOLING  
FAN ON THE MOTOR IS  
RUNNING CONTINUOUSLY.

CAUTION! BE SURE FLUID LEVEL  
IN THE COUPLINGS ON THE CENTER  
DRIVE MOTORS ARE EQUAL!

VENTURE RIDE MFG, GREER, S.C.

DRAWN	DATE	SCALE	REQ'D	PART NUMBER
BHW	11-29-76			VRM 100



SAFETY CABLE INSTALLATION

FOR COBRA SEATS

**VENTURE RIDE MFG, GREER, S.C.**

DRAWN	DATE	SCALE	REQ'D	PART NUMBER
RHW	6-18-76			VRM-4058

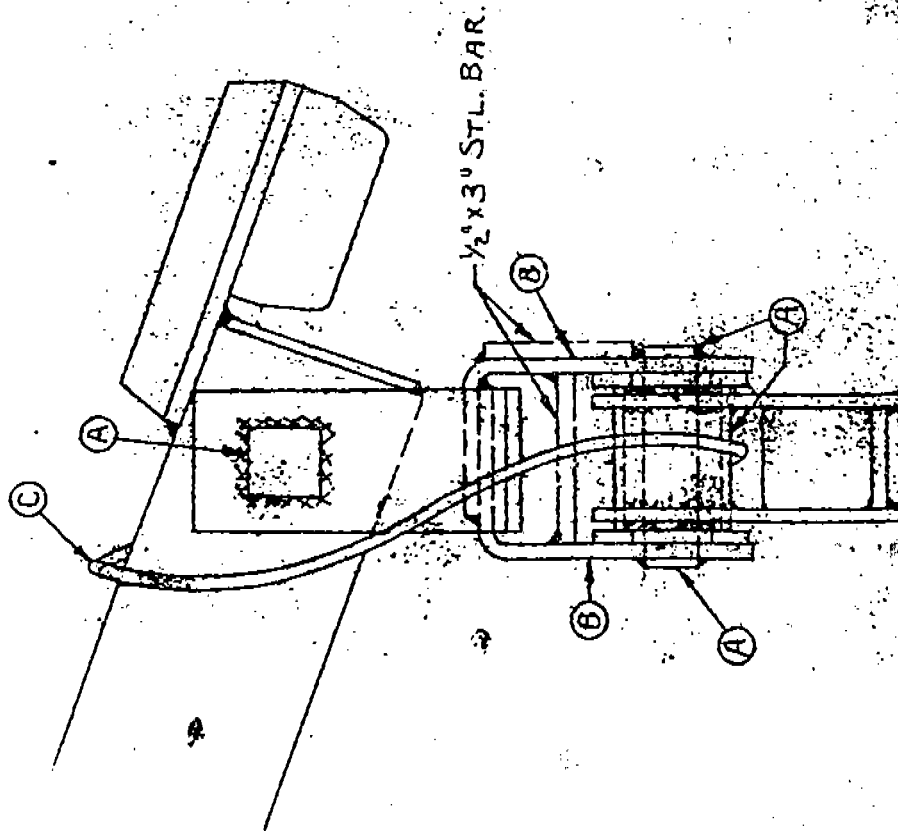
## ATTENTION COBRA OWNERS

IT IS RECOMMENDED THAT A WEEKLY INSPECTION OF THE FOLLOWING BE PERFORMED.

(A) TORSION SPRINGS (2 PER SEAT) CHECK FOR CONDITION OF SPRINGS IN GENERAL. ALSO CHECK FOR CRACKED WELDS. IF WELDS ARE CRACKED, GRIND AWAY CRACKED AREA AND REWELD WITH 7018 ELECTRODE. DO NOT ALLOW RUBBER CORDS TO BECOME OVERHEATED.

(B) SEAT BRACKET. CHECK FOR BENT BRACKET OR OVERSTRESSED AREA. IF THIS OCCURS, ADD  $\frac{1}{2}$ " x 3" STL. BAR AS SHOWN.

(C) SAFETY CABLE. REPLACE IF WORN.





**VENTURE RIDE MFG., INC.  
COBRA MANUAL  
1990**

**RECEIVED**

**SEP 27 1995**

**BUREAU OF  
FAIR RIDES INSPECTION**

May, 1990

This manual is for the COBRA Amusement Ride.

Your Serial Number is \_\_\_\_\_

Your ride was manufactured \_\_\_\_\_

#### 10 YEAR OVERHAUL

When your ride becomes ten years old, a complete safety reconditioning is recommended. If your ride, whether you purchased it new or used, has been properly maintained and safety bulletins have been implemented as they were issued, this reconditioning program will be easier. This work may be performed by one of the following:

1. By Venture Ride Mfg., Inc., in its factory.
2. In a factory which has the full capabilities of handling this work.
3. By the owner, provided the work is inspected by a Venture inspector or other outside inspector, fully competent to check that all work has been properly and completely performed.

## SPECIAL CAUTION

The most important safety requirement on this ride is a well trained, alert operator. You must always remember this ride is not a product designed for use by an untrained person. Failure to do so could result in a severe personal accident. Many hours of direct training on the operation of this ride are mandatory before any individual can be allowed to take full responsibility. It is mandatory for the operator to be intimately familiar with this manual.

It is our philosophy that accidents are not acceptable as they represent human suffering and property damage which are preventable through proper management.

## CAUTIONS

1. Be intimately familiar with this manual and properly trained before attempting to operate this ride. Do not lose this manual. Its 1987 replacement cost is \$25.00.
2. This ride is electrically grounded. This helps prevent a person from being shocked should a short develop in the ride. This also produces a very dangerous condition. Should you touch a live wire and grounded ride, you may be killed even though it is only 110v and you are young and healthy. Therefore, ALWAYS, ALWAYS DISCONNECT the main power source before doing anything which might bring you in contact with anything electrical.
3. This ride is heavy moving machinery. Should you or anyone else be hit or become tangled in its machinery, the results will be worse than you expect.
4. Anything happening on or near this ride is your responsibility. Your not seeing anything is no excuse. Be extra alert at all times.
5. Always listen for any unusual noise from your ride. Should you hear or notice anything unusual, stop the ride and immediately contact your supervisor before attempting further operation.
6. Be polite and cautious even when customers are not. Your attitude has a major effect on safety on this ride.
7. Always allow plenty of time to complete all pre-opening and closing procedures. Keep your ride area clean and orderly.
8. In case of an accident, even a very small one:

- a. stop the ride
  - b. get help (office or supervisor)
  - c. aid the injured as best you can
  - d. stay calm
  - e. control crowds
  - f. when help arrives, assist them
  - g. remember the facts---don't gossip---you will have plenty of time to tell the real story at a later time
9. Always make absolutely certain everyone is properly seated and strapped in before starting the ride.
  10. Check carefully that everyone is clear of the ride and outside the fence before starting the ride.
  11. Do not let anyone climb on, play on, or lean over the fence.
  12. Keep the fence a safe distance from the ride.
  13. Use common sense.
  14. Understand that everything inside the fence is your personal responsibility.
  15. Should there be an accident and you even had beer on your breath, had been drinking, or were taking any type of illicit drugs, you could be charged with a felony and sentenced to prison.
  16. When erecting or dismantling a ride, most injuries occur because:
    - a. something falls on someone
    - b. someone slips and falls
    - c. something touches a high voltage line

Remember, the wires on the regular wooden poles often carry 7200 volts.

17. Preventing a child from being injured is by far your most important job.
18. Periodic factory safety bulletins---put these into effect immediately and add them to this book.
19. When you leave the ride turn power off.
20. Be cautious and ready for the unexpected when dealing with children.

NEVER ALLOW A CHILD TO GET IN FRONT OF A MOVING AMUSEMENT RIDE VEHICLE. IT COULD RESULT IN A SERIOUS INJURY OR DEATH.

- CAUTION: Never ride anyone without the proper seat restraint.
- CAUTION: Never let anyone lean over or sit on the fence while the ride is in motion.
- CAUTION: Never operate the ride without watching the ride while in motion.
- CAUTION: Never operate the ride while anyone not on the ride is inside the fence.

#### PERSONAL CONDUCT

The following should not be permitted while operating a ride:

1. Any use of alcohol or illicit drugs.
2. Eating, smoking, or drinking beverages at the ride.
3. Failure to follow the instructions of your supervisor.
4. Failure to follow standard operating procedures and safety rules.
5. Arguing or using profanity in front of customers.
6. Leaving the ride unattended.
7. Listening to radios or tape players.
8. Visiting or having long conversations with others.

#### AVOIDING LAW SUITS

In addition to providing a safe operation, a little PR can go a long way in preventing a minor injury from becoming a major law suit. We recommend you train your employees in the art of being courteous, helpful and considerate to anyone with even the slightest injury. Employees should immediately notify their supervisors so that they may show additional extraordinary consideration to make absolutely certain that the injured party and friends know that you are concerned and have done everything possible to keep the injury from spoiling a day of fun.

## SPECIAL SAFETY INFORMATION: COBRA

Caution over and over again that operators not get hit by the swinging seats.

Never let anyone drinking ride on the COBRA.

Never let anyone under five years old ride the COBRA.

Add our newly designed safety gates to the entrance/exit areas to prevent anyone from entering when the ride is operating and getting hit.

Make certain that the fence adequately clears the ride.

Make sure that both pins are in the seat arm and that the safety rings are in place before riding passengers. Do this each day.

Never work on the COBRA or be on top of the COBRA when the electricity is turned on.

The factory now has available rim irons with turnbuckles. If every other rim iron has a turnbuckle and it is kept tight, this virtually eliminates wear in the folding sweep knuckles. Repair loose pins in the sweep folding knuckles.

Daily inspect both the upper and lower Niehart springs which are pivot points above the seat. Replace when they become loose.

Daily inspect the safety cable which holds the seat to the sweep. Replace when any wear becomes apparent.

Replace or adjust the lap bar brake hinges per the safety bulletin dated March 11, 1987.

Should your center bearing make a noise or pop a bolt or do anything else that is unusual, cease operation immediately and contact the factory.

Make certain that the safety keeper bolts are in place on the output shafts on all four (4) gearboxes to keep a tire or steel wheel from dropping, should a taper lock bushing come loose.

Daily check the complete seat steel structure for cracks.

Never put oversized drive tires on the ride. This would cause excessive speed and create an extremely dangerous situation.

Make certain that the distance from the center of the four (4) rubber drive tires to the center of the gearbox output shaft is equal.

Make certain that the distance from the center of the four (4) center drive tires to the main steel drive ring is equal.

Properly torque (see bearing instructions) bolts on all three (3) main bearings. Make certain that you get the top and bottom ring of bolts on each bearing.

Make certain that the resistor valve is in the base of the main center hydraulic cylinder.

When you are doing any maintenance on the hydraulic system, expect to get some air in the main hydraulic cylinder which must be bled out.

Make absolutely certain that the main hydraulic cylinder has been bled and that no air is in the cylinder before removing pins to lower the ride. Failure to do this could cause the COBRA to fall, bending the semi trailer to the ground in the middle.

When operating the hydraulic lever to raise or lower the ride, never stand where, if the ride were to fall, you would be in the way.

Never let anyone stand under the COBRA or be in front of the ride when it is being raised or lowered.

Always properly ground the COBRA.

Always use large key ring type keepers on the two (2) pins which connect the seat to the ride. This prevents a passenger from removing the safety pins.

Caution maintenance and erection personnel that the ride is slippery, usually from some oil from the gearbox and from the fluid coupling.

Make certain that the sway braces are in place on both sides which go from the center of the outrigger to the top center of the tower.

Make absolutely certain that the outriggers are securely fastened while traveling down the highway. Should one unfold while going down the highway, a very serious accident could occur.

When the ride is torn down, make certain that the two (2) 4" square tube braces from the rear of the trailer to the bottom of the main arm are in place before moving the ride. Failure to do so will cause permanent damage to your center bearing.

Double check to make sure that the seats are properly secured to the main arm before traveling down the highway.

## OWNER/OPERATOR'S RESPONSIBILITY - OPERATION PROCEDURES

4.1 Each owner/operator of an amusement ride or device shall read and become familiar with the contents of the manufacturer's recommended operating instructions and specifications, when received as provided in 3.1. Each owner/operator shall prepare an operating fact sheet. This fact sheet shall be made available to each ride or device operator and attendant of the amusement ride or device. The owner's/operator's fact sheet (on a ride-to-ride basis) shall include but not be limited to:

4.1.1 Specific ride or device operation policies and procedures with pertinent information from the manufacturer's instructions.

4.1.1.1 Description of the ride or device operation.

4.1.1.2 Duties of the specific assigned position of the ride or device operator or attendant.

4.1.1.3 General safety procedures.

4.1.1.4 Additional recommendations of the owner/operator.

4.1.2 Specific emergency procedures in the event of an abnormal condition or an interruption of service.

4.1.3 The owner/operator shall provide training for each ride or device operator and attendant of an amusement ride or device. This training shall include but not be limited to the following, where applicable:

4.1.3.1 Instructions on ride or device operating procedures.

4.1.3.2 Instructions on specific duties of the assigned position.

4.1.3.3 Instructions on general safety procedures.

4.1.3.4 Instructions on emergency procedures.

4.1.3.5 Demonstration of the physical ride or device operation.

4.1.3.6 Supervised observations of the ride or device operator's physical operation of the ride or device.



4.1.3.7 Additional instructions deemed necessary by the owner/operator.

4.1.4 The ride or device operator of each amusement ride or device shall conduct a daily pre-opening inspection of each ride or device prior to carrying passengers. This inspection shall include but not be limited to the following:

4.1.4.1 Visual check of all passenger-carrying devices, including restraint devices and latches.

4.1.4.2 Visual inspection of entrances, exits, stairways, and ramps.

4.1.4.3 Test of all communications equipment necessary for the operation of the ride or device.

4.1.4.4 Prior to carrying passengers, the ride or device shall be operated for a minimum of one complete operating cycle.

#### OWNER/OPERATOR'S RESPONSIBILITY - MAINTENANCE

- 4.1 Each owner/operator of an amusement ride or device shall read and become familiar with the contents of the manufacturer's maintenance instructions and specifications when received, as provided in 3.1. Based on the manufacturer's recommendations, each owner/operator shall implement a program of maintenance, testing, and inspections providing for the duties and responsibilities necessary in the care of each amusement ride or device. This program of maintenance shall include a checklist to be made available to each person performing the regularly scheduled maintenance on each ride or device. The owner/operator's checklist (on a ride-to-ride basis) shall include but not be limited to:
  - 4.1.1 Description of preventive maintenance assignments to be performed.
  - 4.1.2 Description of inspections to be performed.
  - 4.1.3 Special safety instructions, where applicable.
  - 4.1.4 Any additional recommendations of the owner/operator.
- 4.2 The owner/operator of the amusement ride or device shall provide training for each person performing the regularly scheduled maintenance on the ride or device, pertaining to their duties. This training shall include, but not be limited to the following:
  - 4.2.1 Instruction on inspection and preventive maintenance procedures.
  - 4.2.2 Instruction on the specific duties of the assigned position.
  - 4.2.3 Instruction on general safety procedures.
  - 4.2.4 Demonstration of the physical performance of the assigned regularly scheduled duties and inspections.
  - 4.2.5 Supervised observation of the maintenance person's physical performance of their assigned regularly scheduled duties and inspections.
  - 4.2.6 Additional instructions deemed necessary by the owner/operator.
- 4.3 Prior to carrying passengers, the owner/operator shall conduct or cause to be conducted a daily documented and signed pre-opening inspection, based on provided instructions, to insure the proper operation of the ride or device. The inspection program shall include, but not be limited to the following:

- 4.3.1 Inspection of all passenger-carrying devices, including restraint devices and latches.
- 4.3.2 Visual inspection of entrances, exits, stairways, and ramps.
- 4.3.3 Functional test of all communication equipment necessary for the operation of the ride.
- 4.3.4 Inspection or test of all automatic and manual safety devices.
- 4.3.5 Inspection or test of all brakes, including service brakes, emergency brakes, parking brakes, and back stops.
- 4.3.6 Visual inspection of all fencing, guarding, and barricades.
- 4.3.7 Visual inspection of the ride structure.
- 4.3.8 The ride or device shall be operated for a minimum of one complete operating cycle.
- 4.4 Following an unscheduled cessation of operation, and the unloading of an amusement ride or device, necessitated by malfunction, adjustment, environmental conditions, mechanical, electrical, or operational modification, that affected the operation, the ride or device, or the specifically affected element, shall be appropriately inspected, and operated, without passengers, to determine that the cause for cessation of operation has been corrected and does not create an operational problem.

#### OWNER/OPERATOR'S RESPONSIBILITIES - INSPECTION

- 4.2.1 Owner/operators of amusement rides or devices shall have an inspection program consistent with the inspections outlined in Practices F770 and F853.
- 4.2.2 Inspection documents deemed appropriate by the owner/operator to be maintained in the ride file shall be filed according to the procedures outlined in Practices F770 and F853.
- 4.2.3 The owner/operator of an amusement ride or device shall promptly notify the manufacturer of an incident, failure or malfunction which, in his judgment, seriously affects the continued proper operation of the ride or device and is information of which the manufacturer should be aware.

## SAMPLE GUIDE FOR OUTSIDE AMUSEMENT RIDE SAFETY OFFICERS (INSPECTORS)

### A. INVOLVE MANAGEMENT

1. Require the owner, manager or whoever is in the real position to control safety to accompany the inspector during the complete inspection at least once per season.
2. Require the ride foreman to be there during the inspection.
3. Make certain the ride foreman has access to the ride manual and understands everything in the manual.

### B. THE INSPECTION

1. Check all passenger restraints for operation and mechanical condition.
2. Make certain the seat will stay on the ride. Check:
  - a. pins and safety pins
  - b. bolts and nuts
  - c. bearings and shafts
  - d. wheels
  - e. cracks in sweeps
  - f. anything repaired or homemade
3. Check guards, fence and other devices to protect the public and the operator from the machinery.
4. Go over your prepared list to see if there is anything that this particular ride needs checked.
5. Interview the foreman with three goals in mind:
  - a. to teach safety to the foreman
  - b. to learn more yourself
  - c. to improve safety attitude and knowledge in the management.

NOTE: The interview should be friendly, cooperative and informal. The following items should be covered

1. What could be done to make this ride safer mechanically?
2. Does he understand that all safety inside the fence is his personal responsibility?
3. What could be done to make this ride safer from an operational point of view?

4. Ask him how he knows if the ride has problems ... does he listen for sounds? What if it jerks or jumps? To whom would he report anything unusual?
5. What would he do if someone got hurt on his ride? What if he got a drunk customer? What if he had some customers get in a fight?
6. Is he aware that his ride is electrically grounded? This makes the ride less likely to shock him or his customers. Warn him that a grounded ride is much more dangerous if anyone touches a live wire and the ride at the same time. It is just like holding a bathroom faucet and touching a live wire. It really can kill you... Because the ride is grounded so well, 110 volts can be much more dangerous than much higher voltage under different circumstances.
7. Explain that should there be an accident and even if he had beer on his breath or taken any illicit (non-prescription) drugs, he could be charged with a felony. That is very serious.
8. Ask how often he inspects the ride. Suggest a couple of times a day. Teach him the first four points of your inspection.
9. For carnivals:
  - a. new DOT laws
  7. sleeping under trucks
  - c. cranes and high voltage
  - d. falling while erecting or fixing rides

C. OWNER/MANAGER MEETING AFTER INSPECTIONS

Try to encourage them to become a couch-counselor, emphasizing the following:

1. Give your workers a chance to do their job with pride.
2. Make certain they know their job.
3. Make your workers feel important and contributing.
4. Take steps to reduce employee turnover.
5. Listen and learn from your workers.
6. Most accidents are the result of a chain of relatively unimportant situations.

D. As a safety inspector, your job is accident prevention in its broadest concept.

1. Apply your efforts to those areas most likely to prevent accidents.
2. Help, don't hinder, the profitability of the ride operation. A profitable ride operation is invariably a safer operation.

## GENERAL GUIDELINES

### OPERATOR SELECTION AND INSTRUCTION

1. Select competent, mature operators capable of understanding the function and use of amusement rides and their control.
2. Instruct each operator fully in the proper use and function of the ride he is to supervise, including:
  - A. Controls and procedures for normal and emergency operation.
  - B. Manufacturer's recommended maximum load.
  - C. Manufacturer's recommended length of ride time.
  - D. Any foreseeable misuse of the ride as determined by the manufacturer or owner, or by special conditions such as weather, location or crowds.
  - E. Each operator must have IMMEDIATE AVAILABILITY and a complete working knowledge of the manufacturer's operator's manual for the ride he supervises.
3. Require each operator to inspect the ride he supervises on each day of operation.
  - A. Determine that no portion of the ride is damaged, omitted or worn in such a manner that it is unsafe or that may develop into an unsafe condition.
  - B. Report any irregularities to superintendent or owner.
  - C. Do not operate the ride if any irregularities are found until such condition is corrected.
4. Instruct the operator to allow no passenger to ride who is visably ill or under the influence of drugs or alcohol.
5. Instruct operators and attendants on the proper methods of securing passengers in the ride. Do not allow a passenger in the ride who cannot be properly secured due to passenger size or because of malfunction of the securing device.
  - A. Stop the ride immediately if any passenger is observed tampering with any restraining device or behaving dangerously, such as standing up.
6. Advise the operator against starting or operating the ride while any person (passenger, spectator, or employee) is in an endangered or unsafe position on the ride or within the ride area.

7. Insist that each operator remain in full control of the operating controls during operation of the ride, and give his full attention to the ride and its passengers.
8. Instruct operator to allow no other person, other than another trained operator, to operate the controls of the ride.
9. Instruct operator and attendants fully as to the proper method of assembly and disassembly of portable rides. Supply adequate personnel and equipment to do this safely.
10. Instruct operator to inspect and correct or replace damaged, lost or worn parts that are unsafe or that may develop into unsafe parts simultaneously with assembly or disassembly.
11. Advise operator of owner/supervisor procedure for assisting ill or injury passengers.
12. Advise operator that factory-installed safety devices are not to be tampered with or removed.
13. Instruct operators and attendants that patrons are required to secure all loose articles such as keys, change, eye glasses, etc.
14. We recommend that every operator take a first aid course after their first season.

## OPERATIONAL LOAD TESTING

Any operational test including load testing performed on a ride shall be completely nondestructive in nature. Overload testing exceeding the rated limits listed on the information plate, operation manual, field inspection guide or specifications sheet shall be deemed inappropriate. Where maximum total passenger weight is not readily available passenger capacity multiplied by 170 pounds per adult and/or 90 pounds per child may be used.

Nondestructive testing with inert loads can be accomplished only with special care as to placement of the load so that it is centered both vertically and horizontally as would be the load of the passenger it replaces. Extra seat reinforcement must be used to offset any load concentration created. Such tests shall be documented and certified as nondestructive by the person making the test and the agency requiring it. Results of all load tests shall be communicated to the factory upon completion by the Certifying Agency.

Conducting a nondestructive operational load test assures the testing agency only that it will carry a given load in a given way at a given moment and in no way assures future safety of the ride.

Conducting a destructive load or overload test also assures the testing agency that it will carry a given load in a given way at a given moment and in no way assures future safety of the ride. However, it also introduces the probability of inflicting serious irreparable damage to the ride that may or may not be apparent at the time of the test.

We consider inert load testing of any nature appropriate only for situations requiring experimental development of stress-strain testing during prototype development. A certificate of load test on the prototype and certification that each production ride met the design criteria when it was manufactured is available from the factory upon request.



## ASSOCIATIONS

ASTM, American Society for Testing and Materials, is a non-profit organization which, through the use of industry volunteer committees, sets the standards that manufacturers, operators and inspectors are urged to follow. Venture Ride Mfg., Inc., is a member of ASTM. If you as a ride owner are interested in working with the industry to set the standards, contact ASTM.

Venture has been very active in the American Recreational Equipment Association (AREA) since 1972.

Each January at a U.S. ride manufacturer's facility, AREA hosts its annual Maintenance and Safety Seminar. Participants include employees of traveling shows, amusement parks and state and federal officials responsible for ride inspection and safety. The seminar includes five days of classes designed for every level of employee. Classes include electrical, hydraulics and pneumatics, welding, non-destructive testing, inspection techniques, the psychology of safety, truck driving, developing a safety program, developing a maintenance program, and training and evaluation of ride personnel. Venture is an active participant and strongly recommends that all ride owners, operators, and maintenance personnel attend the seminar annually. Contact AREA for exact dates, times and tuition.

For your convenience, below is a list of amusement-related associations, including addresses and phone numbers.

American Recreational Equipment Association  
P. O. Box 557  
Delaware, Ohio 43015 (614) 363-9715

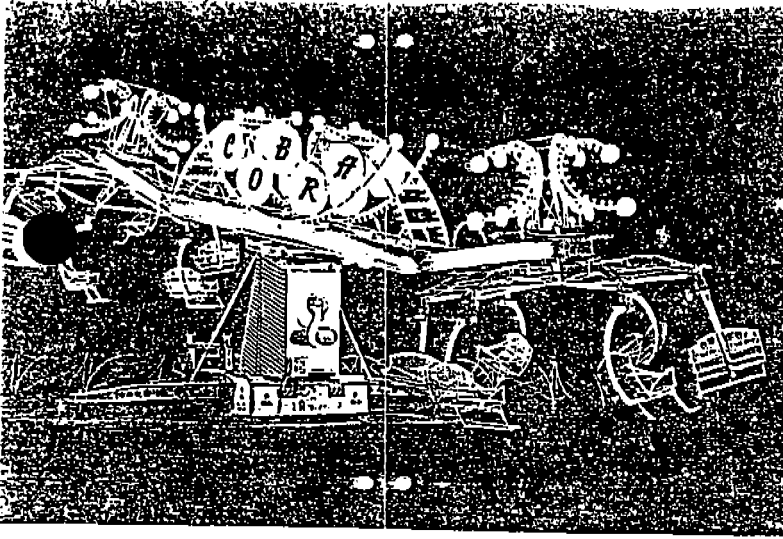
American Society for Testing and Materials  
1916 Race Street  
Philadelphia, PA 19103 (215) 299-5585

International Association of Amusement Parks and Attractions  
4230 King Street  
Alexandria, VA 22302 (703) 671-5800

International Independent Showmen's Foundation  
P. O. Box 188  
Gibson, FL 33534 (813) 677-9377

Outdoor Amusement Business Association  
4600 W. 77th St.  
Minneapolis, MN 55435 (612) 831-4643

--COBRA--



General Specifications:

MANUFACTURER: Venture Mfg. Co., Greer, SC

SPACE REQUIRED: 70' Circle

RISE SPEED: Center- 8 RPMs  
Arms - 18 RPMs

CAPACITY: 36 Passengers

PASSENGER BALANCE: Recommended, but not critical.

POWER REQUIREMENTS: 35 KW; 4 3hp Motors  
with fluid couplings

WEIGHT: Approximately 28,000 lbs.

--PRIORITY INSPECTION ITEMS--

GENERAL/OPERATIONS/MAINTENANCE:

1. Passenger restriction required; short ride cycle recommended.
2. Check that ride comes to a complete stop before changing directions.
3. Main arm must always be cross-way (right angle) to the center trailer during the raising and lowering of the tower.
4. Check the tightness of the three main bearing mounting bolts (upper and lower rings). Bolts must be grade #8, torqued to 125 ft/lbs.
5. Check the tightness of the air vent (bleeder check valve) on the four gear boxes. Over tightening will cause increased pressure in the gear box.

STRUCTURE/ERECTION:

6. Check that ride is centered in the fence area; and check the seat to fence clearance.
7. Check level of the ride side to side. (gooseneck of the trailer should not be higher than level.)
8. Check condition of the outriggers, screw jacks, pads and stabilizers.
9. Check the blocking under outriggers.
10. Check the condition of the two (2) tower pins.
11. Check the condition of the tower braces and outriggers.
12. Check the booms and seat sweeps for cracks and bad welds.
13. Check that all assembly pins, bolts and safety keys are in good condition and of proper grade.

ELECTRICAL/WIRING/CONTROLS:

14. Check condition of electrical wiring. (Breaks, poor splices, proper size)
15. Check that electrical connectors are of proper size and in good condition.
16. Check that light fixtures are properly installed. (No open sockets, and safety covers, connectors and sleeves in place)
17. Check that control panels and switches are labeled as to function.

PASSENGER VEHICLE/SEATS:

18. Check the clevis and dampening device where the seat hanger attaches to the sweep.
19. Check the seat for side to side action. Check torsion springs on seat hanger bracket. (Extreme side to side action will indicate worn springs, requiring factory replacement.)
20. Check condition of steel safety cable.
21. Check that the seat hanger pin is equipped with a 5/16 snap ring; NOT a 3/16 R-key. (Manufacturers recommended change).
22. Check condition and tightness of lap bars. (brass friction brakes may be adjusted at the hinge point of the lap bar.)
23. Check the seat hangers and seat frames for cracks and bad welds.
24. Check the condition of the foot rest.
25. Check the entire seat area for sharp, rough, or splintered surfaces.

DRIVE SYSTEM:

26. Check the tightness of the four (4) lug bolts on each drive tire.
27. Check the four (4) mounting bolts on each drive unit.
28. Check the condition of the drive tires and the air pressure:  
Center Drive: A78-13 @ 32 lbs.  
Arm Drive: 4.80-400 X 12 @ 55 lbs.
29. Check drive rims for cracks and bad welds.
30. Check main bearing and boom bearings for wear. (rock booms)