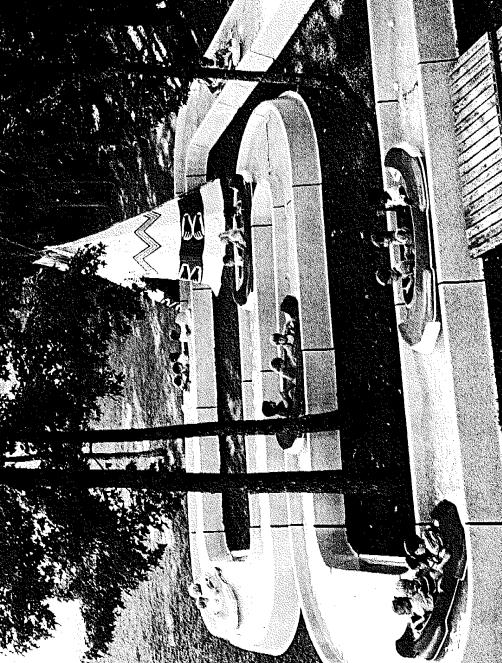
MFG: VENTURE RIDE MFG., INC. NAME: VENTURE RIVER TYPE: ATTRACTION



0.306.2

02052

Kids Love Water!

Now youngsters have a water ride of their own...a free-flowing trip through a maze of fiberglass troughs.



# OPTIONAL LOGS AVAILABLE

# DIMENSIONS AND WEIGHTS

Straight flume: Curved flume:

63" × 90", 150 lbs. 90°, 63" wide, 150 lbs. 45" center line radius 90" × 28", 40 lbs. 82" × 28", 40 lbs.

Log:

Canoe:

### **PUMP FLUMES**

2-one horsepower 220v/8 Amp single phase continuous duty pumps hidden in each pumping flume. One pump flume is required for every eight flumes.

### WATER

- Only 100 gallons per flume
  - Flows continuously
- Travels 100' per minute

ADVANTAGE RIDES MFG, INC. 1861 S. HWY 14 GREER, S.C. 29650

GREER, SC 29650 USA 1861 SOUTH HWY. 14

hone: 803-877-3328 Fax: 803-877-5698

MADE IN USA

# SIZED TO YOUR NEEDS:

Purchase as large or as small a ride as you need... at any time you can lengthen the ride, change its shape, and add canoes or logs.

### HIGH CAPACITY:

Each boat carries up to 4 children and holds over 200 fbs. 2 per boat: 720 passengers per hour

4 per boat: 1,440 passengers per hour

### FLEXIBLE:

Modular flume sections permit hundreds of layout combinations.

### SAFE

Free-floating logs and canoes won't turn over . . . water depth averages 8" - 10" so boats hit bottom first

### NO MESS:

Leaks are eliminated by simple gaskets which seal one section to the other through the use of hidden heavy-duty stainless steel hardware.

# OPTIONAL THEMEING EQUIPMENT Teepee: 15' high × 10' diameter

Funnel: 71/21 long Indian: 6' tall

## PORTABLE MODELS

- Optional Equipment

   Jack stands with rope fence
- Light towers Submersible pump for emptying
  - Canoe rack

Guidelines for Trailer or Van Sizing
Total of 1' per flume (example: 16 sections with leveling jacks, lights and six canoes occupy 16")

### TABLE OF CONTENTS

Serial Number

10 Year Overhaul

Special Caution

Cautions

Personal Conduct

Avoiding Law Suits

OABA Bulletin

ASTM - Physical Information - F698-88

ASTM - Operation Procedures - F770-88

ASTM - Owner/Operator's Responsibility - Operation - F770-88

ASTM - Maintenance Procedures - F853-86

ASTM - Owner/Operator's Responsibility - Maintenance/F853-86

ASTM - Owner/Operator's Responsibility - Inspection/F893-87

Sample Guide for Outside Amusement Ride Safety Officers

Operator Selection and Instruction

Operational Load Testing

Advantage Ride Safety Bulletins

Parts List

Electrical Schematic

Supplier Bulletins

This manual is for the Venture River Amusement Ride

Your	Seria	1 Nu	ımber	is					_
Your	Ride	was	Manut	fact	ure	d			

### 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 Advantage 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 Advantage 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 loose 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.
- 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 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:
  - 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.
- Leaving the ride unattended.
- 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.

### VENTURE RIVER SPECIFICATIONS

Set Up Time

Varies with size of ride.

### Water Requirements

Approximately 105 gallons for each straight section, 85 gallons for each curved section 7"-8" depth.

### Capacity

Up to four small children per canoe or one adult and one child.

### Travel Speed

Approximately 100 rpm.

### Motion

Continuous motion provided by movement of the water; no need to shut down for loading and unloading.

### Dimensions

Varies with number and type of waterway sections.

### Lighting

Custom lighting per customer's requirements.

### Colors

Waterway is light blue, canoes are red, yellow, blue, green, and orange.

### Construction

Canoes are rotomolded polyethylene, waterway is fiberglass with steel reinforcing.

### Drive System

Canoes are propelled by movement of the water. This is done by a water pump located in the walls of the waterway. One pump section is required for every 8 sections of waterway.

### Power Required

 $2\mbox{KW}$  220 volt single phase required for each pump section, plus lights.

### VENTURE RIVER

The following is presented in accordance with ASTM F698-83, Standard Specification for Physical Information to be Provided for Amusement Rides and Devices.

### Information Requirements

3.2 Ride Serial Number

Located on the name plate.

3.2.1 Name Plate

Located on the circuit breaker box.

3.3 Model Number

The name Venture River is used in lieu of model number.

3.4 Date of Manufacture

Located on name plate.

3.5 Trailering Information

The trailer used to transport the Venture River is 22'22'X 8' and weighs 1.920 lbs. Advantage also supplies a trailer to transport two kiddie rides. It is 8' X'34' and weighs 2,400 lbs. Some trailers have an optional 13' 6" high electric hoist. The 16 section starter unit can be loaded on 16' of a truck or trailer.

3.6 Static Information

Excluding optional lighting the ride is 15" tall. The length and width of the ride may vary with each set up. See factory supplied scaled (1/2"=1') lay out cards. The ride weighs approximately 3000 lbs. (16 section starter ride) and holds 100 gallons (800 lbs.) of water per section.

3.7 Dynamic Information

Size and shape do not vary in motion.

3.8 Ride Speed

Approximately 100' per minute.

3.8.1 Approximately one revolution (16 section ride) over 80 seconds.

### 3.9 Direction of Travel

Either clockwise or counter clockwise depending on the direction the pump sections are located on set up.

### 3.10 Power Requirements

### 3.10.1 Electrical

220 volt single phase 2KW per pump section plus optional lights. Voltage +-10%.

### 3.10.2 Mechanical

2 one horsepower swimming pool pumps per section. Approximately one pump section for every 8 sections.

### 3.11 Load Distribution per Footing

- 3.11.1 Maximum static loading of each footing is 600 pounds.
- 3.11.2 Maximum dynamic loading of each footing is 600 pounds.

### 3.12 Passenger Capacity

- 3.12.1 Maximum total passenger weight is 300 lbs per vehicle.
- 3.12.2 Maximum number of passengers 4 per vehicle or 300 lbs. per vehicle.

### 3.13 Ride Duration

Recommended time is two minutes. Never more than four minutes.

### 3.14 Recommended Balance of Passenger Loading & Unloading

Does not effect operation of ride provided there are no more than 300 lbs. per vehicle. When an adult rides, place the adult at the back of the vehicle.

### 3.15 Recommended Passenger Restrictions

No one alone under two years of age. Maximum size is limited by physical size of seat compartment.

### 3.16 Environmental Restrictions

Vehicles may stall in high winds.

3.17 Fastener Schedule - N/A

.

.

.

### OPERATION PROCEDURES

The following is presented in accordance with ASTM F770-82, Standard Practice for Operation Procedures for Amusement Rides and Devices.

### Manufacturer's Responsibility

### 3.1.1 Description of Ride

The Venture River is a fiberglass flume through which approximately 8" of water are pumped continuously forming a river. The flume sections may be set up in a wide variety of shapes. The vehicles be they canoes, logs or rafts, simply float with the current flow.

### 3.1.1.1 Description of Motion

The vehicles float with the current flow.

### 3.1.1.2 Description of Passenger Loading

The motion of the Venture River ride is accomplished by moving the water through the waterway with a series of pumps. Plug the pumps into a 220 volt single phase power supply and allow about one minute for the pumps to get the water flowing. Do not shut the pumps off for loading & unloading.

As the canoe inters the loading area, pull it over to the side of the waterway and hold it steady while the passengers are loading and unloading. After the canoe is loaded and the passengers are seated, gently push it away to make room for the next canoe. Do not allow passengers to stand up in the canoe.

If the ride appears to slow down after operating for a while, clean the dirt and debris from the intake screens of pumps. This should be done periodically as routine procedure depending upon conditions.

### 3.1.2 Recommended Safety Procedures

Since water can make conditions slippery, keep the loading area and vehicles as dry as possible. Dry towels should always be available for the operator. The operator should hold the vehicle stable and help passengers in and out to avoid the chance of someone falling.

The operator should always be alert for small children either falling out of a vehicle or falling into the flume. The electrical grounds on all motors should be checked daily before opening the ride.

### 3.1.2.1 Maximum Passenger Number and Weight

300 lbs. per vehicle - up to four small passengers per vehicle.

### 3.1.2.2 Passenger Restraint - N/A

### 3.1.2.3 Ride Operator Safety Check

Always hold the vehicle securely. Always help everyone in and out of the vehicle. Always make sure the ride is properly grounded. Always watch small children in the vicinity of the ride continuously. Never allow riders to stand up. Gently push the canoe away from the loading area. Never push it hard.

### 3.1.2.4 Instructions to Patrons

No horseplay.

### 3.1.3 Manufacturer's Operating Procedure

The control stand should be at the entrance to the ride.

### 3.1.3.1 Daily Pre-Opening Inspection

Remove any trash including sharks from the water. Clean the flume sections and vehicles. Police the ride area. Check all motor electrical grounds. Dry off loading area and vehicles. Check water level. Check that each water inlet is free from trash. Check that each water outlet is pumping. Make certain all wiring is free of frays. Close circuit breaker box. For permanent operation, make certain water is filtered or changed weekly.

### 3.1.3.2 Ride Operator's Functions

Described on 3.1.2.3 and 3.1.3.

### 3.1.3.3 Operation of Ride

Described on 3.1.2.3.

### 3.1.4 Emergency Procedures

Stop the ride, turn off all circuit breakers in the control box.

- 3.1.4.1 Evacuation Procedures

  Keep everyone as orderly as possible.
- 3.1.4.2 Emergency Power Equipment ~ N/A
- 3.1.4.3 Description of Emergency Equipment N/A
- 3.1.4.4 Power Interruption Emergency Procedure None.

### Owner/Operator's Responsibility - Operation Procedure

- 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 rideto-ride basis) shall include but not be limited to the following:
  - 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.

### MAINTENANCE PROCEDURES

The following is presented in accordance with ASTM F853-83, Standard Practice for Maintenance Procedures for Amusement Rides and Devices.

### Manufacturer's Responsibility

### 3.1.1 Description of Ride

The Venture River is a fiberglass flume through which approximately 8" of water is pumped continuously, forming a river. The flume sections may be set up in a wide variety of shapes. The vehicles, be they canoes, logs or rafts, simply float with the current flow.

### 3.1.1.1 Description of Motion

The vehicles float with the current flow.

### 3.1.2 Installation Procedure

The Venture River must be level for good operation. Use blocking, optional leveling jacks or grade site to 1/2" in 20'. Start assembling the waterway at the loading area and work around the course in one direction. Be sure to level each section while assembling to be sure the clamps fit properly. Tighten the clamps as each section is put in place.

The bolt style clamps should be tightened to compress the rubber gasket on one end of each section to 3/4".

Rough handling, grit, dirt or distortion of the gasket may cause small leaks to develop. Advantage recommends that a thin bead of silicone caulk be applied at the two points the gasket touches the fiberglass. It should be finger wiped carefully and all excess completely removed before filling. This is primarily a precaution. If your ride is new it may not require this treatment. If a leak does develop, the silicone can be applied under water.

After the waterway is assembled and leveled, attach the clamp covers. Fill with water to a depth of 7" to 8". A small amount of chlorine should be added to water when it is not changed often to prevent algae growth.

Check all the seams for leaks. If a leak should develop tightening the clamp bolts slightly may eliminate the problem.

CAUTION: IMPORTANT: Be sure the pumps are electri-

cally grounded before operating

the ride.

CAUTION: Wet slippery conditions.

CAUTION: The canoe is a floating boat and caution

should be used to hold canoe stable and help passengers in and out to prevent

falls.

While assembling the large model waterways, be sure to put a straight section between the discharge jets of the pumps and a curve section. This improves water movement.

Direction of movement is from right to left. Place the canoes in the water with hinge of the flap on the bottom of the canoe toward the front with the flap trailing. Venture River is now ready for operation.

CAUTION: Do not overfill the waterway. This will cause the canoes to ride higher than nor-

mal and to jam.

### 3.1.3 Lubrication Procedure

Monthly wax the flumes. This protects the fiberglass and helps prevent "log jams" by lubricating the inside flume wall.

### 3.1.4 Pre-Opening Inspection

Same as 3.1.3.1 Operating Procedures.

### 3.1.5 Frequency of Maintenance

Should a vehicle stall in a pump section, adjust the four output water jets in the flume sidewalls. The flow of the water jet should be horizontal to the flume bottom and face downstream at a 45 degree angle. Clean ride as necessary. Disassemble and clean out pump whenever flow is reduced by built up debris. Drain pump and lines before freezing weather. On fiberglass canoes and logs, replace nose cones as needed. Weekly, inspect flap under canoe and replace as needed. Replace flume gaskets as needed - normally every three years. Fiberglass may be repaired and repainted using normal fiberglass boat materials and procedures. Replacement canoes are now rotomolded polyethylene. They are durable, less expensive and do not require nose cones.

- 3.1.5.1 Wear Tolerance N/A
- 3.1.5.2 Operational Testing

Same as 3.1.5.

- 3.1.6 Fastener Specifications N/A
- 3.1.7 Schematics of Electrical Power

See separate pump motor brochures.

3.1.8 Non-Operational Procedure

Minor scratches in fiberglass can be buffed out by using a fine grit auto rubbing compound and following up with a coat of wax. Deep scratches (deeper than the gel coat) - call the factory for a repair kit; state color required.

Cracks due to mishandling or abuse can be repaired from the underside using a fiberglass mat and resin with activator. Be sure surface is clean and dry.

Clean fiberglass with a soft cloth and a mile liquid detergent. Do not use scouring powder, steel wool or an abrasive cleaner as this will dull the

3.1.9 Restrictions and Special Procedures - N/A

### Owner/Operator's Responsibility - Maintenance

- 4.1 Each owner/operator of an amusement ride or device shall read an 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 the following:
  - 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 persons 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 of cessation of operation has been corrected and does not create an operational problem.

### Owner/Operator's Responsibility - 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

- 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.

- 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?
- 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 the 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 some 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 times a day. Teach him the first four points of your inspection.
- 9. For carnivals:
  - a. New DOT laws.
  - b. 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.
  - Apply your efforts to those areas most likely to prevent accidents.
  - 2. Help, don't hinder, the profitability of the ride operation is invariably a safer operation.

### GENERAL GUIDELINES

### OPERATOR SELECTION AND INSTRUCTION

- 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 operations.
  - 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 <u>IMMEDIATE AVAILABILITY</u> and a complete working knowledge of the manufacturer's operator's manual for the ride he supervises.
- 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 is any irregularities are found until such condition is corrected.
- 4. Instruct the operator to allow no passenger to ride who is visibly 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 injured 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 and 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 was 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.