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

VENTURE RIVER

PASSENGER CAPACITY: 3 TO 4 CANOES, UP TO 4 SMALL CHILDREN PER CANOE
SPEED: 100 FEET PER MINUTE

DAILY PRE-OPENING INSPECTION

(This inspection shall include but not be limited to the following)

Check the following:

Condition of Canoes	Check seams for leaks
Clamp Bolts	Intake screens on pumps
Wiring & Breaker Box	Safety ropes & fencing
Water Level	Lighting

OPERATION OF RIDE

1. As canoe enters loading area, pull it over to the side and hold it steady.
2. Load and unload passengers.
3. After canoe is loaded and passenger is seated, gently push canoe away to make room for next canoe.
4. Allow passenger to ride for approximately two minutes or until they are tired of riding if sooner than 2 minutes.
5. Unload passengers in the same way they were loaded.

RIDE OPERATORS POSITION AND FUNCTION

1. Read the operational manual and be aware of proper operation, maintenance, and safety procedures.
2. Before operating ride, a safety check out should be adhered to.
3. Ride operator is to remain at the ride and observe riders at all times that the ride is in operation.
4. Occupants on the ride must remain seated at all times that the ride is in motion.
5. During the operation of the ride, the operator should observe passengers. Check for arms, legs or heads hanging out, for sick or uncomfortable passengers.
6. No food or drinks.
7. Regularly inspect and keep the entire area around the ride free of any obstacles.

GENERAL SAFETY PROCEDURES

1. Passenger restrictions: 58" or less in height to ride.
2. Turn off before working on moving parts.
3. Do not attempt to repair or replace any components that you are not experienced with. For safety, get help.
4. Ensure that the ride is erected by trained personnel.
5. Regularly inspect the ride and replace any parts found worn or defective.

EMERGENCY PROCEDURES

1. Bring the ride to a complete stop and evacuate passengers as quickly and safely as possible.
2. Notify your supervisor immediately.

PROCEDURE FOR AN INCIDENT

1. Call your supervisor and First Aid or other services if required.
2. DO NOT MOVE THE INJURED PERSON.
3. Assist in crowd control to make way for emergency vehicles.
4. Fill out an accident report while the incident is still fresh in your mind.

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 fpm.

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 water pumps located in the walls of the waterway. One pump section is required for every 8 sections of waterway.

Power Required:
2kw 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 a 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' x 8' and weighs 1,920 lbs. Venture 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 lbs.

3.11.2 Maximum dynamic loading of each footing is 600 lbs.

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 and 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 vehilce.

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 and unloading.

As the canoe enters 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 canoes.

If the ride appears to slow down after operating for a while, clean the dirt and debris from the intake screens of the 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 vehilce 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 operations, 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 in 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 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 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 ride 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. Venture 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 electrically 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 normal 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.

3.1.10 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 fiberglass mat and resin with activator. Be sure surface is clean and dry.

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

3.1.12 Restrictions and Special Procedures

N/A

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 Pracices 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.

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
Gibsonton, FL 33534 (813) 677-9377

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

SET UP PROCEDURE

The VENTURE RIVER ride 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.

Park models have bolt style clamps and should be tightened to compress the rubber gasket on one end of each section to 3/4". The portable models use toggle clamps and should not require adjustment.

Rough handling, grit, dirt or distortion of the gasket may cause small leaks to develop. Venture 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 on park models, tightening the clamp bolts slightly may eliminate the problem.

CAUTION: IMPORTANT! Be sure the pumps are electrically 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 normal and to jam.

OPERATION

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 and unloading.

As the canoe enters the loading area, pull it over to the side of the waterway and hold it steady while the passengers are unloading and loading. 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 canoes.

Space the canoes as much as possible to minimize collisions.

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

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 supervice, including:

   A. Controls and procedures for normal and emergency operation.
   B. Manufacturer's recommended maximum speed and load.
   C. Manufacturer's recommended length of ride time and frequency of repeat rides.
   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 of a manufacturer's operator's manual for the ride he supervises.

3. Require each operator to inspect the ride he supervises, 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 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 that cannot be properly secured due to passenger size or 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, excepting portions of the ride that are designed to be controlled by the passenger.

9. Instruct operator and attendants fully as to the proper method of assembly and disassembly of portable rides and supply adequate personnel and equipment to do it safely.

A. Restrict spectators from the area.

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 dissassembly.

11. Advise operator that factory-installed safety devices are not to be tampered with or removed.

12. Advise operator of owner/supervisor procedure for assisting ill or injured passengers.

13. Instruct operators and attendants that patrons are required to secure all articles, such as keys, change, eye glasses, etc., which may become loose while riding.

MAINTENANCE

Fiberglass

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 fiberglass mat and resin with activator. Be sure surface is clean and dry.

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

Pumps

Pumps are furnished by an outside supplier. Their literature is on the following pages.

WARRANTY

Venture Ride Manufacturing, Inc., hereby guarantees the VENTURE RIVER Amusement Ride for a period of ninety (90) days from date of delivery against defective parts and workmanship, except for parts that were furnished by outside suppliers. Those parts will carry their own guarantee as stated by supplying company.

Credit will be issued on any parts claimed to be defective only when returned and found to be defective by our inspectors.

If in-field service for mechanical work is necessary after the 90-day warranty, it is available by a factory man at a daily rate plus his travel and living expenses.

Your VENTURE RIVER serial number is 13039.

CENTRIFUGAL PUMP

MODELS 1P996, 1P997 & 1P998

FORM 5S2197
1615

DAYTON ELECTRIC MANUFACTURING CO. CHICAGO 60648

0480/218/35C

ATTENTION: READ CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE, OR SERVICE YOUR TEEL PUMP. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION AND ADDITIONAL INSTRUCTIONS INCLUDED WITH THIS EQUIPMENT. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN FOR FUTURE REFERENCE.

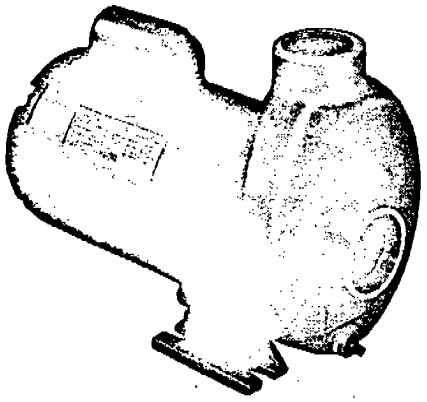

Figure 1

Description

Your Teel self-priming bronze centrifugal pump is designed for applications where moderate pressure and high liquid volumes are required. Units are equipped with a dripproof motor with a shielded ball bearing at the pump end and a sleeve bearing on the switch end. Motors have automatic thermal protection. Pump body and impeller are bronze. The mechanical seal is comprised of a Buna N rubber ports, a stainless steel spring and carbon/ceramic mating surfaces. The "O" ring used in the pump is also Buna N. Pumps are designed for use with non flammable liquids compatible with pump materials.

Pump, No. 1P996 is factory wired for 115V. Pump Nos. 1P997 & 1P998 are factory wired for 230V. However, the motor can be rewired to meet individual needs.

CHECK MOTOR WIRING BEFORE PUTTING UNIT INTO OPERATION. (See motor nameplate for 115V & 230V wiring diagram.) For further information pertaining to your particular motor, see Specifications & Performance on this page.

Performance

Model	GPM @ Total Head in Feet					
	10	20	30	40	50	Shut-Off
1P996	48	39	28	15	—	49 ft.
1P997	67	58	46	31	14	55 ft.
1P998	82	72	61	47	29	58 ft.

Specifications

Suction Inlet	1-1/2"
Discharge Outlet	1-1/2"
Motor	(1P996) 1/2 HP (1P997) 3/4 HP (1P998) 1 HP
Power Supply	115/208-230V, 60 Hz
RPM	3450
Weight (Approximate)	(1P996) 27½ lbs. (1P997) 28½ lbs. (1P998) 31½ lbs.

Unpacking

When unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose parts, missing parts or damaged parts. (Check parts list)

General Safety Information

1. Know the pump application, limitations, and potential hazards.

WARNING: Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, or kerosene, etc. Do not use in explosive atmospheres. Pump should only be used with liquids compatible with pump component materials. Failure to follow this warning can result in personal injury and/or property damage.

2. Make certain that the power source conforms to the requirements of your equipment.
3. Provide adequate protection and guarding around moving parts.
4. Disconnect power before servicing.
5. Release all pressure within the system before servicing any component.
6. Drain all liquids from the system before servicing.
7. Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury and/or property damage.
8. Check hoses for weak or worn condition before each use, making certain that all connections are secure.

General Safety Information (cont'd)

WARNING: Do not handle a pump or pump motor with wet hands or when standing on a wet or damp surface, or in water.

WARNING: The pump motor is equipped with an automatic resetting thermal protector and may restart unexpectedly.

Protector tripping is an indication of motor overloading as a result of operating the pump at low heads (low discharge restriction), excessively high or low voltage, inadequate wiring, incorrect motor connections, or a defective motor or pump.

Installation

1. Locate pump close to and below the liquid level supply so that there will always be a positive supply of fluid at the pump inlet. If the pump is located above the liquid level, a positive sealing foot valve or check valve must be installed at the end of the suction line or in the piping just before the pump. If the unit is used with optional strainer basket (1P999) the foot valve or check valve will only be required when the suction lift or distance the pump is from the water level is greater than 10 ft.

   If the 1P999 strainger basket is not used it is recommended that another suitable means of straining foreign material out of the suction line be used.

   NOTE: The unit should be placed where the motor and electrical components are protected from the weather and extremes of heat, cold and humidity.
2. Mount unit on a solid foundation and secure with appropriate fasteners.
3. Attach piping suction line to suction inlet and piping discharge line to discharge outlet. The suction piping line should be positioned such that there is a continual upward slope from the fluid source to the pump. Avoid using loops or other sections of pipe or fittings which might permit air to become trapped.

   IMPORTANT: If plastic or fabric hose is used for the suction piping, it should be of a reinforced type so as not to collapse under suction. The suction piping should be the same size or one size larger than the discharge piping.
4. Discharge piping (plumbing parts mentioned below not furnished) see Figure No. 2.
   a. Install short nipple (3" to 12" long).
   b. Install pipe tee on end of nipple.
   c. Insert pipe plug into vertical leg of tee.
   d. Install short nipple (3"), gate valve, short nipple (3") and union.
   e. The remaining system components may be connected to this arrangement as required.

   The purpose of the above piping configuration is for priming (remove tee plug and fill with water), gate valve for regulating water demand, and union for servicing.

   NOTE: Do not use a globe or other restricting type of valve at the discharge. Globe valves seriously restrict the capacity of the pump; however, restricting the discharge of a centrifugal pump will not overload the drive motor.
5. Wiring:
   a. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
   b. Motor must be securely and adequately grounded. This can be accomplished by wiring with a grounded, metal-clad raceway system, by using a separate ground wire connected to the bare metal of the motor frame, or other suitable means.
   c. Connections should be made with flexible conduit to minimize vibration transmission.
   d. Use wire of adequate size to minimize voltage drop at the motor. DOUBLE CHECK ALL CONNECTIONS. (Refer to wiring diagram on motor nameplate.)

   WARNING: MOTOR IS DESIGNED FOR 60 Hz., SINGLE PHASE POWER ONLY!
6. Inspect impeller for proper rotation. When viewing the rear of the motor (opposite the pump end), the motor shaft should rotate clockwise.

   NOTE: Motor supplied with these pumps is one rotation only, the motor cannot be reversed.
7. Install auxiliary components (e.g. — pressure switch, timer, etc.).

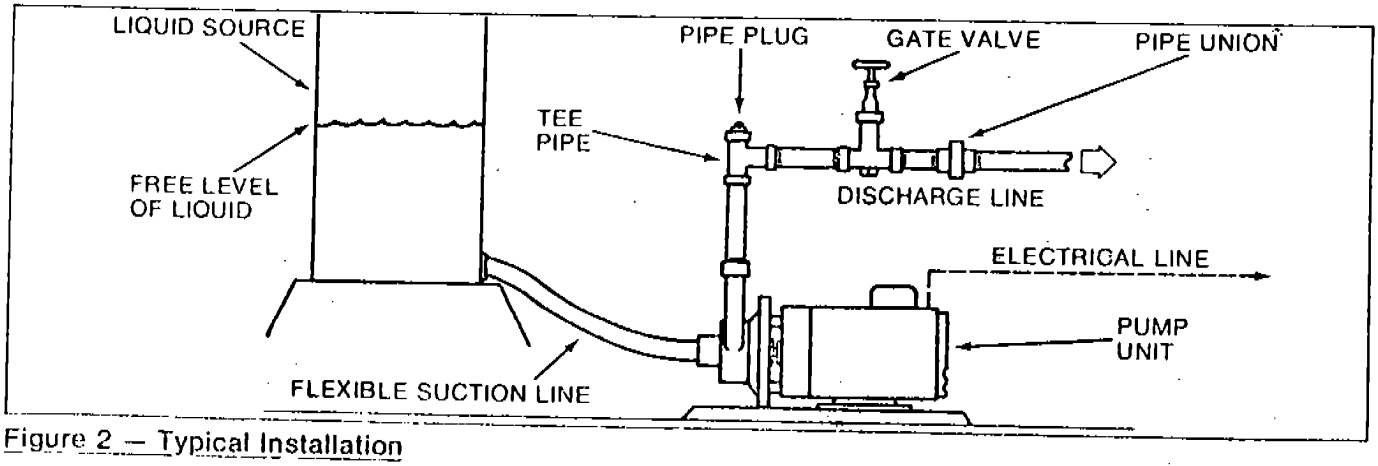

Figure 2 — Typical Installation

Trouble Shooting Chart

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Little or no discharge	1. Casing not initially filled with water. 2. Total head too high. 3. Suction lift too high. 4. Impeller plugged. 5. Hole or air leak in suction line. 6. Foot-valve too small. 7. Impeller damaged. 8. Foot valve or suction line not submerged deep enough in water. 9. Insufficient inlet pressure or suction head. 10. Suction piping too small. 11. Motor wired incorrectly. 12. Casing gasket leaking. 13. Suction or discharge line valves closed.	1. Fill pump casing. 2. Shorten suction lift and/or discharge head. 3. Lower suction lift, install foot-valve and prime. 4. Clean. 5. Repair or replace. 6. Match foot-valve to piping or install one size larger foot-valve 7. Replace. 8. Submerge lower in water. 9. Increase inlet pressure by adding more water to tank or increasing back pressure. 10. Increase to pump inlet size or one size larger. 11. Check wiring diagram. 12. Replace. 13. Open.
Pump will not prime	1. No priming water in casing. 2. Mechanical seal is leaking. 3. Leak in suction line. 4. Discharge line is closed and priming air has nowhere to go. 5. Suction line (or valve) is closed. 6. Pipe union was used on suction side instead of discharge. 7. Pump is worn.	1. Fill pump casing. 2. Replace (see Mechanical Seal Replacement) 3. Repair or replace. 4. Open 5. Open. 6. Remove union from suction side. Replace with single section of pipe. 7. Replace worn parts.
Loss of suction.	1. Air leak in suction line. 2. Suction lift too high. 3. Insufficient inlet pressure or suction head. 4. Clogged foot-valve or strainer.	1. Repair or replace. 2. Lower suction lift, install foot-valve and prime. 3. Increase inlet pressure by adding more water to tank or increasing back pressure. 4. Clean.
Pump vibrates and/or makes excessive noise.	1. Mounting plate or foundation not rigid enough. 2. Foreign material in pump. 3. Impeller damaged. 4. Worn motor bearings. 5. Suction lift too high.	1. Reinforce. 2. Disassemble pump and clean. 3. Replace. 4. Replace. 5. Decrease suction lift or increase suction line size.
Pump will not start or run.	1. Improperly wired. 2. Blown fuse or open circuit breaker. 3. Loose or broken wiring. 4. Stone or foreign object lodged in impeller. 5. Motor shorted out. 6. Thermal overload has opened circuit.	1. Check wiring diagram on motor. 2. Replace fuse or close circuit breaker. 3. Tighten connections replace broken wiring. 4. Disassemble pump and remove foreign object. 5. Replace. 6. Allow unit to cool; restart after reason for overload has been determined.
Pump leaks at shaft.	1. Worn mechanical seal.	1. Replace (see Mechanical Seal Replacement).