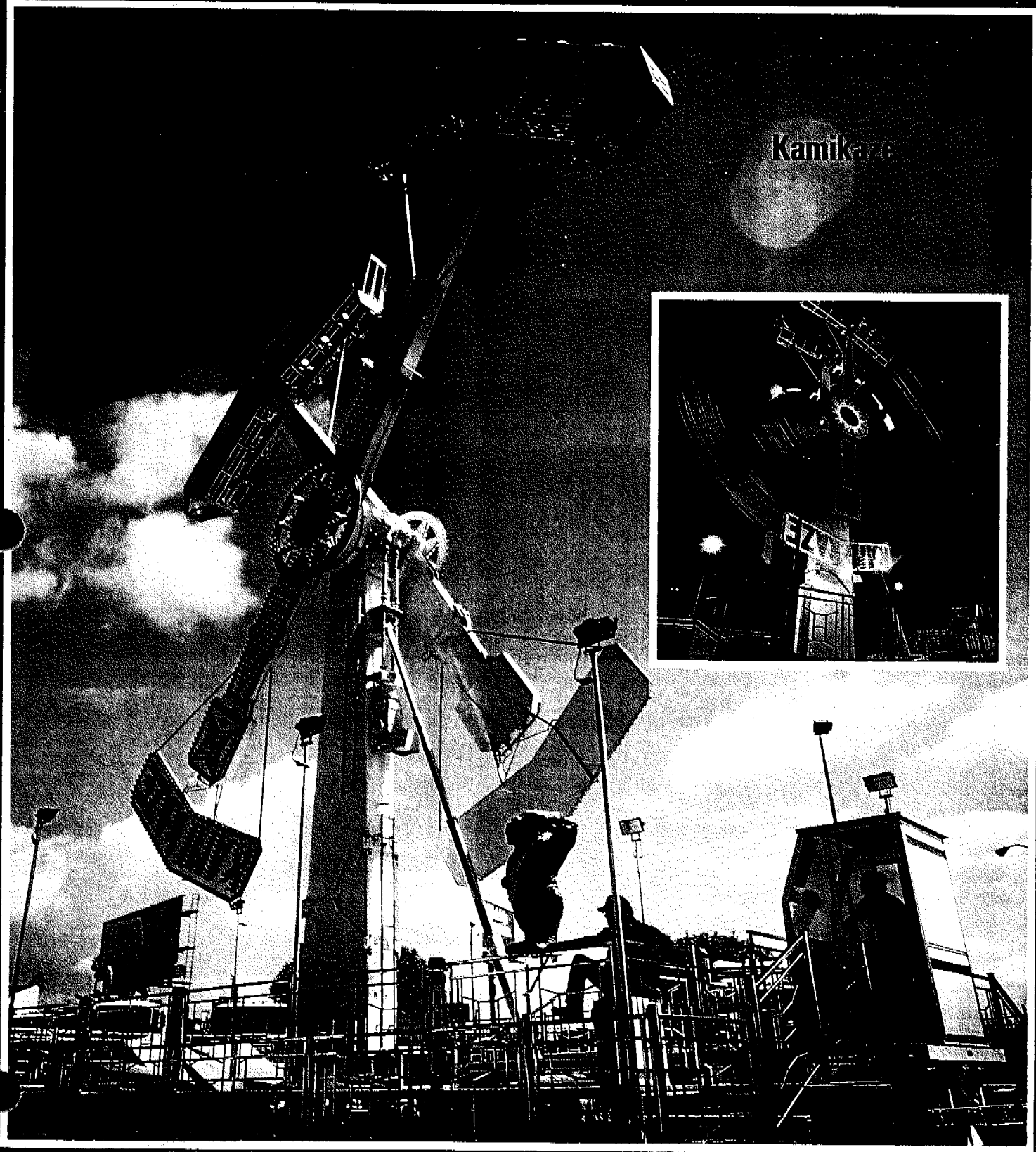
Exsaco Corporati

MFG: FABBRI, s.r.l.
NAME: KAMAKAZI/RANGER/HI FLYER
TYPE: NON-KIDDIE



Exsaco Corporation

"KAMIKAZE" SPECIFICATIONS (Ranger)

Capacity

Number of Cars 2
Max. Number Passengers Per Car 16
Max. Total Number of Passengers 32
Loading ..... All Cars Simultaneously
Capacity ..... 900 Per Hour

Performance

Direction of Travel ... Clockwise or Counterclockwise
Ride Speed ..... 10 RPM
Motion ..... Looping
Operation ..... Manual
Acceleration ..... 1.0 G

Motor and Drive

Motor Type ..... Direct Current
Horse Power 80
Service ..... Electronically Controlled DC

Lighting

Tower ..... 2000 Turbolites
Vehicle ..... 12 VDC Quartz
Platform ..... 8-1500W Quartz

Power Requirements

Total ..... 80 kw
Motor ..... 60 kw
Lighting ..... 20 kw
Voltage ..... 220V 60 cycle
Amperage ..... 250 Approx.

Trailer

Height ..... 13'2"
Width ..... 8'2"
Length ..... 40'0"
Total weight ..... 64,000 lbs.
Rear axle weight (Tri-axle) ..... 45,000 lbs.
Kingpin weight ..... 19,000 lbs.
Tire size 8.25.15

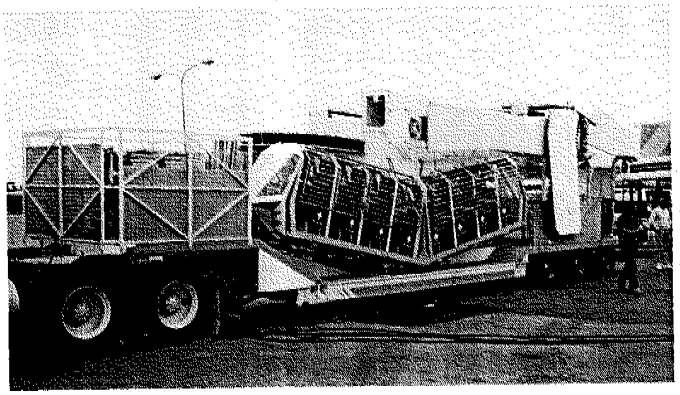
Operating Dimensions

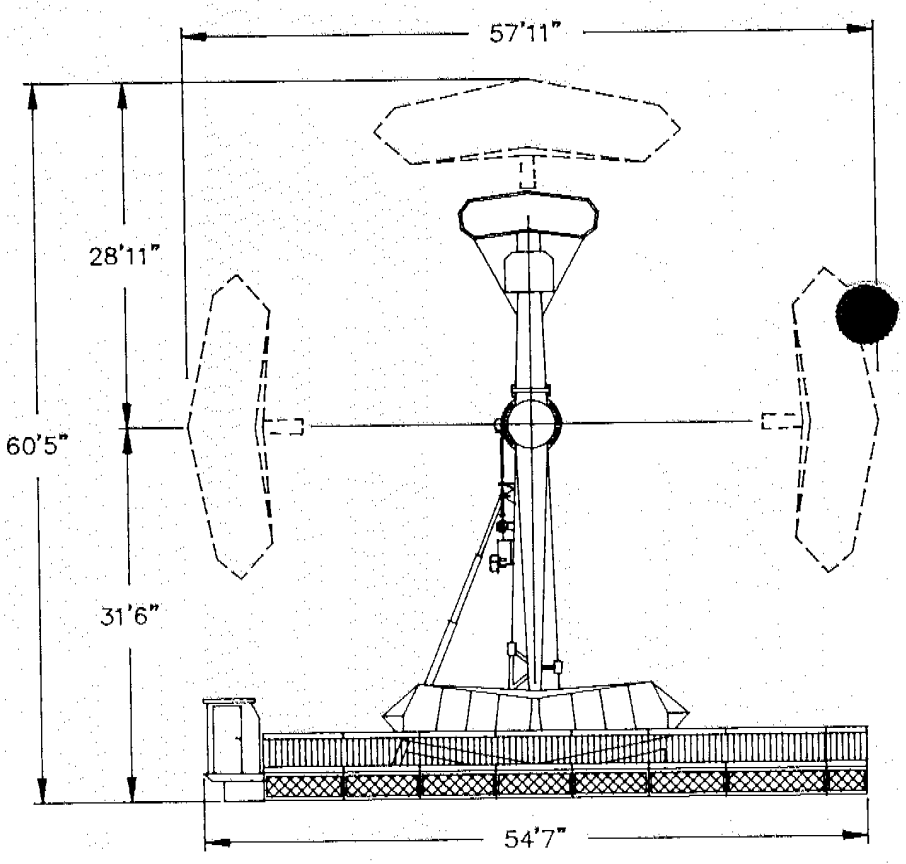
Width (No Clearance) ..... 60 ft.
Depth (No Clearance) ..... 26 ft.
Height (No Clearance) ..... 61 ft.

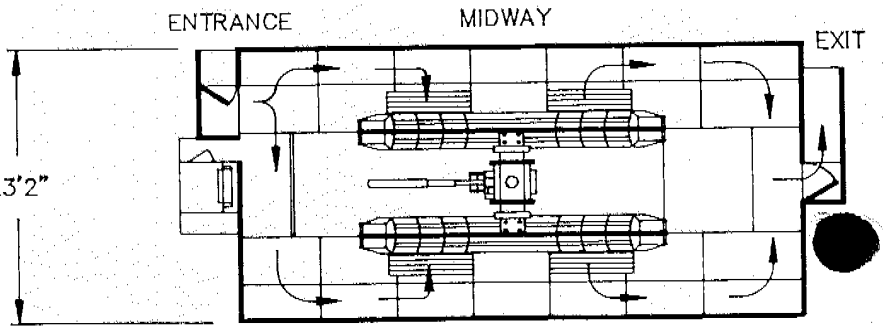
This ride is illuminated with **Turbolite,™ a durable and cost effective solution to incandescent lighting.** For more information contact Exsaco Corporation, P.O. Drawer 328, One North Santa Fe, Alvarado, TX 76009. FAX (817) 783-3358, Telex 730300.

MANUFACTURED BY **Fabbri**

These specifications subject to change without notice.







FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/7 i0794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 0072400 029 4
TELEX 434839 SPARCO I - TELEFAX 0425-878113

RANGER OPERATION DESCRIPTION

The Ranger Amusement Ride is composed of a central tower with two parallel arms on each side. Each arm has a 16 passenger vehicle at one end, with a counterweight on the other. An electronically controlled DC motor drives the two arms in opposite circular direction perpendicular with the ground at a maximum speed of 10 rpm. The drive motor operates the two arms via a double output gearbox connected to a right angle gearbox via drive shaft. On the output side of the right angle gearbox is a pinion gear which drives the ring gear attached to the arms. The ride is designed to use the force of gravity to assist in the rotation. Thus requiring the operator to rock the vehicle and arm in each direction until enough momentum has developed to allow complete revolution. It is not possible to make a complete rotation from the loading position. Slowing and breaking of the ride is done by applying reverse polarity of the DC motor. The ride is held in the loading position by a magnetic brake located at the end of the DC motor.

RANGER OPERATING PROCEDURES

The Ranger Amusement Ride is designed for maximum thrill and safety. All components are designed and tested for maximum dependability and life. As in any piece of sophisticated equipment, it is necessary that proper maintenance and operational procedures are followed. The following is an explanation and description of recommended operating and maintenance procedures.

1. Ride Control

The Ranger Amusement Ride is controlled by the operator via a control console located in the control booth. The following controls and indicators are located on the pavement:

A. Forward/Reverse Buttons - These buttons are used to drive vehicles in each direction. Holding the button down will cause the ride to move when the arms stop moving. The button should be released. Pressing the other button causes the motor to reverse rotation

causing a rocking motion until ride starts making complete rotations. After this, one button could be held down causing the ride to continuously rotate at 10 rpm.

Note: Ride will not operate if both buttons are pressed simultaneously.

B. Lap Bar Switch - This switch operates the over-the-shoulder lap bars. When switch is activated, solenoids release lap bar locks allowing lap bar to lift off patron. Actually, this switch also deactivates magnets holding gate.

C. Gate Release - This switch activates solenoid releasing latch so gate can be operated.

Note: It is wise to place this switch in the locked position, after unloading passengers, when loading process takes in excess of five (5) minutes.

D. Brake Switch - This switch activates electric brakes located at the end of DC motor. This is a holding brake only and is not intended to store a moving ride.

E. Loading Position Indicator Light - This light, when lit, indicates that the ride is in the correct loading position.

F. Volt Meter - Indicates incoming voltage supply should always read between 215 and 230 volts.

G. Platform Lights Switch - Each switch operates platform quartz lights. Use to illuminate platform when loading and unloading at night.

H. Emergency Stop - The switch severs power to the DC drive motor letting the vehicles come to a stop through gravitational forces.

2. Personnel Requirements

The Ranger Amusement Ride is a designed to operate with a minimum of two (2) persons. One person at the controls at all times during ride operation and one monitoring the gates and platforms. It may be necessary to have additional personnel during high traffic periods.

3. Passenger Restrictions

The following rules of conduct and restrictions are to ensure the safety of all patrons. A sign should be posted in full view of all potential riders listing a minimum, of the following information:

a) No riders under the age of seven (7) years are allowed unless occupied by an adult.
b) No riders under 48" tall allowed
c) No food or drink allowed on the platform or ride.
d) Remove all loose articles from person before entering ride.

e) Persons under medical care or with neck or back injuries are not allowed to ride.
f) No pregnant women allowed to ride.
g) If rider is too large for secondary restraint system to latch properly, they will not be allowed to ride.

4. **Passenger Capacity**

The Ranger Amusement Ride is designed for a maximum passenger load of 32 passengers, one (1) per seat. No passenger should be allowed to ride unless secondary latch is past the latch point. Each passenger seat is equipped with the following safety equipment:

a) head area padding
b) shoulder restraint with padded chest bar
c) self adjusting, spring operated solenoid released latching system (off set lever and gear system).
d) back-up mechanical shoulder bar lock - automatically spring locked manual release
e) gate is closing around seating compartment.

5. **Ride Cycle**

When operating the Ranger Amusement Ride for patrons, the operator must see the following steps are followed, before, during and after each ride cycle.

a) Allow maximum of 32 patrons to enter the ride.
b) Check to assure all shoulder bars are locked and secondary latch is below lock point.
c) Assure gates are closed and latched.
d) Check to make certain all entrance and exit gates, chairs are closed and all non-riding patrons are behind fence.
e) No patrons are allowed on platform during operation.
f) Assure all lap bar, gate, and brake switches are in proper position for operation.
g) Start forward and reverse movement until ride has completed two a full revolution.
h) Allow maximum three (3) revolutions in each direction.
i) Bring ride to a complete stop by pressing button of opposite direction (indicator light is on control panel should be illuminated, indicating ride is in proper loading position). Lock brake.
j) Activate lap bar and gate release.
k) Assist passengers in exiting ride. When passengers have exited, allow new patrons to enter ride.

6. **Operation of Seat Restraints**

a) Activation of Lap Bars - To release bars, it is necessary to activate switch on control panel. This switch energizes solenoids located between every two seats. Releasing the gear lever allowing the shoulder bars to lift with the aid of a gas cylinder. When the shoulder bar release switch is turned off, releasing solenoid, gear levers fall on large ring gear allowing shoulder bar to rotate in the down direction only. Upward pressure on lap bar will cause gear bar to lock tight on gear ring.

b) Mechanical Back-Up Shoulder Bar Lock - The Ranger amusement ride is equipped with a secondary lock system. This latch is designed to prevent shoulder bars from raising any higher than half-way, in the case of a failure of the automatic latch system. Under normal operation this latch is not an active lock for the shoulder bar. In the event that the primary latch has failed, the plunger rod in lock mechanism will drop in locking hole (with spring pressure). When lap bar raises to the half-way point, further travel of shoulder bar is prevented.

c) Shoulder Bar Release Safety System - The Ranger is equipped with an electrical safety system that prevents the operator from releasing shoulder bars unless vehicles are in loading position.

EMERGENCY OR POWER FAILURE PROCEDURES

In the case of an emergency, which requires bringing the ride to a complete stop in mid-ride cycle, the operator has two (2) choices depending on the particular situation:

A. Bring the ride to a quick stop by pressing reverse button at proper time and holding until the ride has come to an almost complete stop. Then allow gravity to reverse direction and pressing opposite button until ride has come down to loading position and apply brake. Note: This is the quickest way.

B. Press emergency button on top of control panel. This immediately shuts off power to drive system and allows ride to free wheel until gravity brings ride to loading position. Then apply brake. This system is used when there is an electrical emergency in the drive system.

When ride comes to a complete stop, unload passengers immediately and evacuate platform.

Report to proper authority anytime there is an emergency situation.

The ride should not be operated again until the condition causing the emergency situation is investigated.

OPERATIONAL SAFETY CHECKS & INSPECTIONS

This section deals with visual inspections and safety checks of the Ranger Amusement Ride. They are designed to assist the operator in the control of the operation of the ride. The inspections and checks should be accomplished by a qualified technician capable of understanding the functions of the components. This equipment has been designed and built to handle normal wear and tear of every day operation. It is always necessary to inspect all components and structures on a regular basis and to note or investigate any irregular conditions. It is also necessary to consult owners manual for additional maintenance and inspection procedures. In the event of any abnormal condition that is capable of causing a future failure of any component is found it should be reported to necessary personnel and if necessary the factory should be consulted.

A. Daily Inspection of Ranger Before Operating Ride

1. Inspect all blocking. If any blocking has come loose, reset and check level of ride.
2. Check all fencing - platforms, stars, and ramps for obstructions, properly keyed pins, and gate operations.
3. Inspect vehicle attachment bolts for tightness. Check sway bar pins for security. Key side of pin must face out.
4. Check operation of gate latch system.
5. Inspect operation of automatic shoulder bar system between seats. Make sure they are releasing and latching properly.
6. Check each manual secondary latch shoulder bar. Should stop half-way up and require manual activation of secondary latch to allow it to travel further.
7. Check all tower bolts for security. Tighten any loose bolts.
8. Check operation of all ground fault detectors.
9. Check all electrical wiring for looseness.
10. Check operations of shoulder bar electrical lock-out safety system.
11. Test emergency system.

B. **Bi-Weekly or Pre-opening Inspections**

1. All daily checks.
2. Check bolts on drive shaft connecting DC motor to gearboxes.
3. Check condition of U-joints in drive shaft.
4. Assume all oil levels are correct.
5. Inspect operation and conditions of electric holding brake.
6. Check and/or clean air filters on DC motor cooling fan.
7. Check for proper incoming current should be 220 V 3p 60 cycle. Neutral ground.
8. Check to see all proper maintenance procedures are followed as outlined in manual.

NON-DESTRUCTIVE TESTING AND SAFETY MODIFICATIONS POLICY FOR FARFABBRI, S.R.L.

All FarFabbri manufactured amusement rides are designed to the highest degree of safety and quality. Indepth engineering and design analysis has been incorporated into all equipment produced. FarFabbri, s.r.l., therefore, requires no scheduled testing by non-destructive means for the engineered life of the components, unless listed below and issued to customer in the form of a service or safety bulletin.

It should also be understood that this policy is based on the operator/owner exercising proper maintenance and care procedures of all components according to the manufacturers' specifications.

In the event that a fault or potential safety problem is discovered through our own testing or field experience requiring an annual test or modification, information concerning these tests or modifications will be made available immediately to the owner of the equipment.

Below are listed all current safety service bulletins or equipment modification bulletins.

BULLETIN NUMBER	RIDE	CONCERNING	EFFECTIVE DATE
FR020	RANGER	LATCH SPRINGS	
	RANGER	LENSE GUARD	APRIL 13, 1989

FarFabbri, s.r.l.

RIDE NAME: RANGER
OTHER NAMES: PHOENIX KAMIKAZE

Manufacturer:
FarFabbri, s.r.l.
Via Giovecca, 74
45032 Bergantino (Rovigo)
Italy

U.S. Representative:
Exsaco Corporation
One North Santa Fe Street
P.O. Drawer 328
Alvarado, Texas 76009 USA

Date of Inception and Completion of First Unit: 1986
Number of Rides Operating in USA: 10
Number of Rides Operating Worldwide: 33

OPERATING SPECIFICATIONS
DIMENSIONS (APPROXIMATELY)

Static: (No Clearance)		Dynamic:	
Height	52'	Height	60'5" (18.4m)
Width	54'7" (16.4m)	Width	57'11" (17.6m)
Depth	23'2" (7.0m)	Depth	23'2" (7.0m)

Total Weight Static: 68,000 Pounds
Ride Speed: 10 RPM counterwise/counter clockwise
Passenger Capacity: 32 Adults
Number of Vehicles: 2
Estimated Capacity/Hour: 900

OPERATING RESTRICTIONS

Passenger Height Restriction: 48"
Passenger Age Restriction Unless Accompanied by Adult: 7 Years
Recommended Ride Duration: 1.5 Minutes
Passenger Load Balancing Requirements: Yes
Maximum Wind Speed for Operation: 45 mph
Maximum/Minimum Temperature for Operation: Not recommended under 32° F unless gearbox is warmed

ELECTRICAL REQUIREMENTS

Voltage: 230 maximum 220 minimum
Type: 3 phase, 60 cycle, N.Grnd.
Maximum Power: 80 kw 225 amps
Maximum lighting Power: 20kw 80amps

TRAILER INFORMATION

Trailer Length:	42	ft. 0 in.
Height:	13	ft. 2 in.
Width:	8	ft. 6 in.

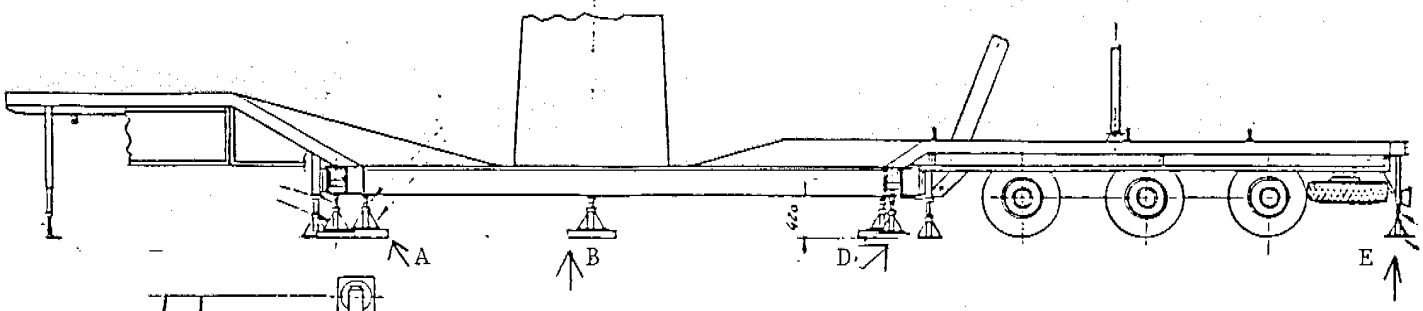
Total Weight (Approximately):	19,000	lbs. king pin
	45,000	lbs. on 3 axles

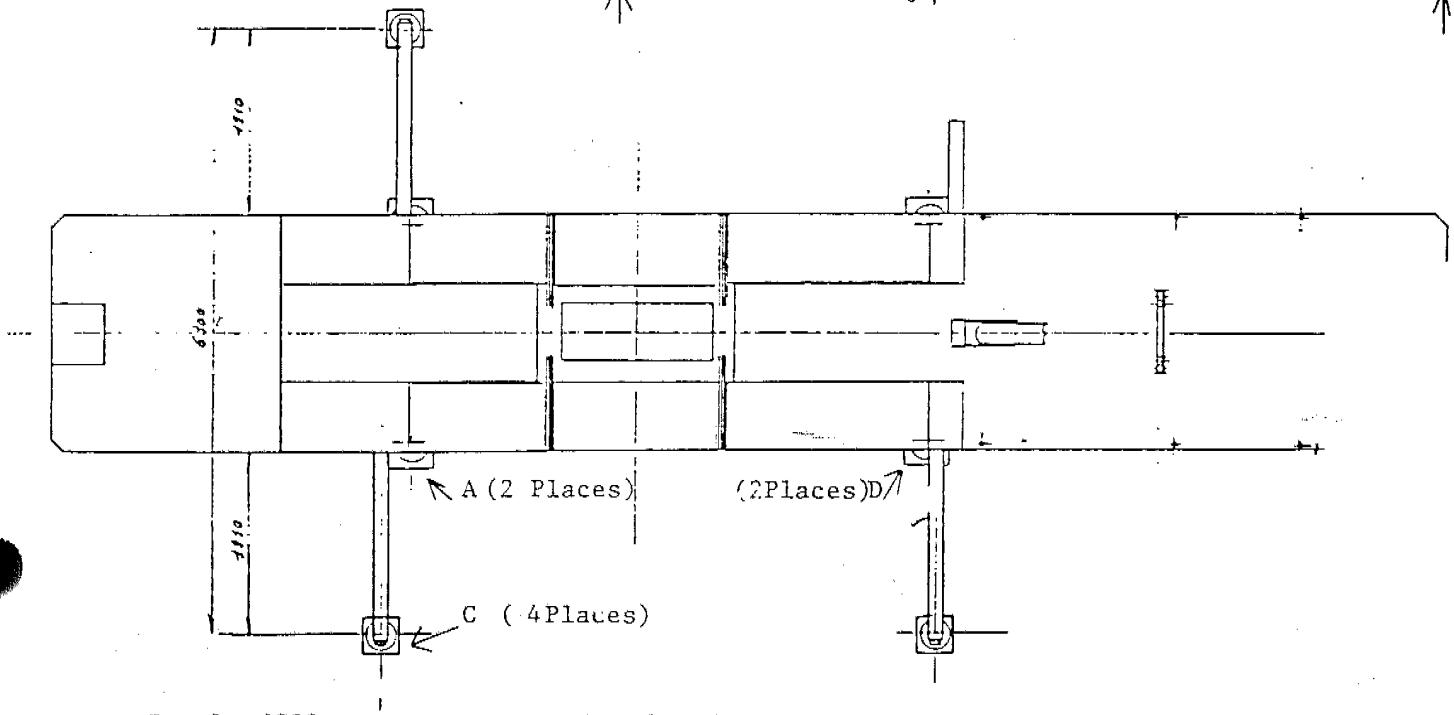
STATIC AND DYNAMIC LOADS

A = kg 6300
lbs 13889

B = kg 3000
lbs 6614

C = kg 4000
lbs 8818





D = kg 6800
lbs 14991

E = kg 1000
lbs 2205

SERVICE BULLETIN

FarFabbri, s.r.l.

Ride: Ranger (Kamikaze, Phoenix)

Bulletin Number: FR020

Subject: Latch Springs in Lap Bar Lock Assembly

Serial Numbers: All

It has been found through inspection of operating rides, that the springs used to activate lock bars and solenoids are too weak. It is therefore necessary to replace all springs immediately. These springs are available at no charge from Exsaco Corporation, One North Santa Fe St., P.O. Drawer 328, Alvarado, Texas 76009. This change must be completed within 20 days from receipt of this letter or before ride is operated for public use.

When springs are replaced, please complete the enclosed form and return to Exsaco Corporation, P.O. Drawer 328, Alvarado, Texas 76009.

NON-DESTRUCTIVE TESTING AND SAFETY MODIFICATIONS POLICY FOR FARFABBRI, S.R.L.

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BULLETIN NUMBER	RIDE	CONCERNING	EFFECTIVE DATE
FR020	RANGER	LATCH SPRINGS	
	RANGER	LENSE GUARD	APRIL 13, 1989

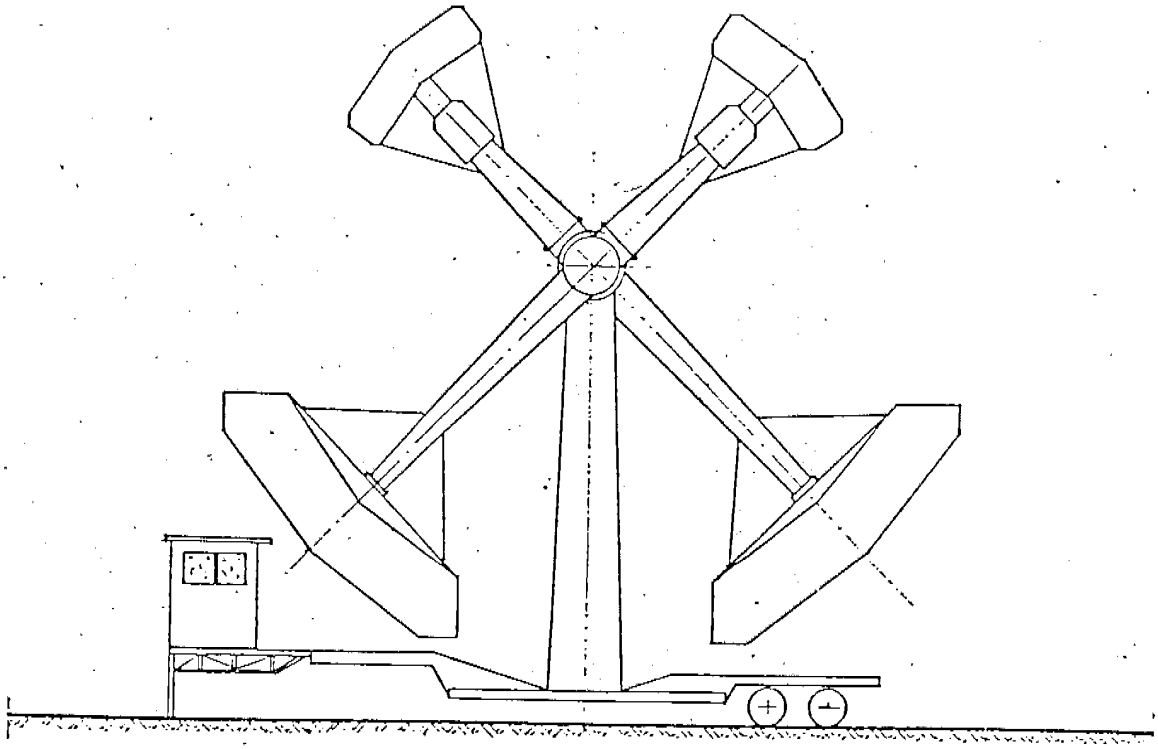
FarFabbri, s.r.l.

Copy to each inspector —

KAMIKAZI

Direz. tecnica	COLLAUDO DI AGIBILITA'	RANGER
Data 7/12/1987	TECHNICAL RELATION FOR OPERATION TEST	Dis. Foglio N° 2

FAR FABBRI srl
Via Giovecca n° 74
45032 BERGANTINO (RO) ITALIA
Tel. 0425/87142



Il presente documento é parte integrante della fornitura della giostra. Consta di tre copie: una viene fornita al cliente, una rimane agli atti presso la nostra sede ed una a disposizione degli organi che ne hanno competenza e titolo.
Il cliente é pregato di tenere la propria copia con la massima cura, in luogo ben custodito e di prendere visione completa di tutto quanto in esso contenuto.

This document is to complete the ride supply.
It is composed by three copies: one supplied to the customer, one in our records at the factory and the last to the disposal of organs having authority and being qualified.
The customer is requested to keep his own copy with care, in a well-preserved place and to look over completely the material.

FARFABBRI S.R.L.

MANUFACTURERS OF AMUSEMENT RIDE

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425/87420
~~TELEX 434839 SPARCO I~~ - MI710784
C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 0072400 029 4
TELEX 434839 SPARCO I

BERGANTINO

NS. RIF.:

VS. RIF.:

OGGETTO:

CERTIFICATO D'ORIGINE

We state that the ride ALTALENA
Si dichiara che la Giostra Altalena

Type
Tipo 11.000

Model
Modello RANGER

Mnufactured on
Anno di costruzione .....1988.....

Serial Number
Matricola N° .....13.....

It has been manufactured in our factory and it is brand new.
é stata costruita nelle nostre officine ed é nuova di fabbrica.

Certificate
Certificato N° .....

Bergantino, li ...../01/1988....

FAR FABBRI s.r.l.
Costruzione Spettacoli Viaggianti
Via Giovecca, 74 - Tel. 0425 / 87142
45032 BERGANTINO (RO)
C.Fisc. e P. IVA: 0072400 029 4

FAR Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 7/12/1987				Dis. N°4

RANGER DRAWING 11.002.oo

Object of this relation is a ride with rotating arms having at the extremity some gondolas for the public.
This ride has a rotating movement given by a special electromechanical device and is indicated in the ministerial list of the ride nomenclature with the name of RANGER.

It is drawn up, planned and manufactured as a ride for travelling parks and Luna Parks and therefore perfectly suitable to the assigned use.

For calculations and execution we have kept the following standards:

CNR - UNI	10011	steel constructions
CNR - UNI	10021	steel structures for lifting devices
I - DIN	4112	instructions for planning and construction of rides

The planning of all structures, either fixed or rotating, is made considering an high coefficient of safety so that it is possible to be plentifully within the limits of more strict rules for the constructions, used either in Italy or abroad.
Also the unstructural details, as ornament accessories, decorative panels, illumination frames, etc., are planned and manufactured with the same standards and using all devices necessary to grant the public safety.
The electrical plants are built up so as any part under tension comes into contact with the public and they are on supports highly insulated. All metallic parts of the ride, even if not directly to the public contact, are protected by eventual discharge of tension with special groundings, that the operator has to place before to give power to the plant and by differential push-buttons as per DPR n°547 of 27/04/1975.
The preservation in a good state of all materials, the continuos ordinary maintenance, the periodical overhaul of all devices, the replacement of used parts, have to be under the operator care that will provide to the general overhaul by authorized workshops. To major clearify the above and to easy the technicians work, encharged of the feasibility test, herewith there is a more detailed description regarding principal parts building the ride.

FAR Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 9/12/1987				Dis. N°5

BASE DRAWING 11.002.o1

TRAVELLING PARK:
It is formed by the trailer on which is fitted up the ride and all devices and special equipments of the hydraulic plants.
Its structure is dimensioned in order to support with a wide margin of safety all static and dynamic stress of the operating ride.
The placement on the ground is obtained by the wheel of the trailer as well as the hydraulic jacks for levelling and special stabilizers with jackscrews.

Main technical specifications:

- Longitudinal frames : Tube R 300x200x10 Fe 42
- Front and rear neck : Euronom 53 - 62 - HEA 200 - UNI 713 180x10
- Cross members for stabilizers: Tube R 300x200x10
- Stabilizers : Tube R 270x170x10
- Jackbolts : UNI 169 - 52 MA

PERMANENT PARK:
It is formed by an iron plate duly fixed to a concrete footstall and reinforced with a special internal steel structure.

RISING COLUMN DRAWING 11.002.o2

It is formed by a big truncated pyramid tube whose lower rectangular base is fixed to the cradle of the trailer and on whose upper base the head with the drive equipments for the arms are integrant.
A particular joint on the median part of the column permits to itself the loading for transportation using a suitable hydraulic plant.

Main technical specifications:

- Column tube : Plate Fe 422 UNI 5355 mm.8
- Knuckle pins joint : Rod C40
- Bead ribs : Elle Fe 37 - UNI 5784 50x30x6
- Closing screws : UNI 5737 8.8 - 39x200
- Flange header : Plate Fe 422 - UNI 5355 mm.25

POWER AND DRIVE DRAWING 11.002.o3

It is formed by the whole driving devices for the rotating control of the arms.
The direct current motor has an electronic control directly connected to a special connector by some cardan shafts. It drives in parallel two epicycloidal reducers that by proper pinions give the movement to the footsteps which the rotating arms are set on.

Gearings are placed in order to have counter directions of rotating arms and always in phase among them, so they can balance thrusts owing to moving weights. In such a way all the system is balanced, excluding the possibility of ununiform useful load.

ARMS DRAWING 11.002.o4

They are made by tapering tubes in steel plate and rectangular section with the central part fixed to the rotating part of the footstep.
At the longer aextremity of the arm is connected the gondola for the passengers and at the opposirte extremity there is a counter weight that balkances the dynamic thrusts of the rotating system.

A suitable joint permits the folding of the counterweighting part during transportation.

Main technical specifications:

- Body arms	: Plate Fe 42.2 UNI 5335 - mm.8
- Flanges for footstep	: Plate Fe 42.2 UNI 5335 - mm.25
- Fixing screws for footstep	: UNI 5931 - 8.8 - 22x120 n°36
- Plate for gondola	: Plate Fe 42.2 UNI 5335 - mm.20
- Connecting screws	: UNI 5737 - 8.8 - 39x200

Direz. tecnica	OPERATION TEST			RANGER
Data 7/12/1987				Dis. N°7

GONDOLA DRAWING 11.002.o5

It is a container with a particular shape whose compartments have some seats and are the place where the passengers go-in.

It is formed by a metallic structure with tubular elements and connected to the extremity of the arm by screws and tension bars; walls are closed with grates permitting to see and granting the safety for passengers.

Safety backboards awith authomatic closing keep the passenger on his own seat during rotation.
The passsenger compartment entrancy is given by authomatic closing doors that stay blocked while running.

Main technical specifications:

- Main structure : Tube Q Fe 37 70x70x3
- Elements : Tube R Fe 33
- Connecting plate : Plate Fe 42.2 mt.20
- Connecting screws : UNI 5737 - 8.8 - 39x200
- Connecting tension bars : Tube Q Fe 37 70x70x3

ELECTRICAL PLANT DRAWING 11.002.o6

It is formed by the whole distribution and use devices of the electrical power either coming from the ENEL network or produced with one's own power plant. All the material is supplied by the best factories in the field and is placed as per C.E.I. standards in force.

Main technical specifications:

- Supply voltage	: Volt	380
- Operating voltage f.e.m.	: Volt	380
- Light operating voltage	: Volt	220
- Supplementary operating voltage	: Volt	24
- Installed power per f.e.m.	: Kw	60
- Installed power per light	: Kw	8
- Installed power per supplementary	: Kw	3
- Input per f.e.m.	: Kw	50
- Input per light	: Kw	6
- Input per supplementary	: Kw	2

FOOTBOARD DRAWING 11.002.o7

It is build up with frontal balconies, walking side and ramp for entrance to the gondolas. It is basically formed by dismountable elements with tubular structure mounted on an undeformable base placed in more points on the ground.
The floor plate is with aluminium antiskid footboards reinforced with metallic frames.
Safety rails and protecting panels on walking side and stabilizers complete the footboard.
All structural elements are dimensioned in order to grant the safety of passengers also in case of full crowd.

Main technical specifications:

- Basical elements	: Tube R 150x 50x2 - Fe 35
- Main structures	: Tube Q 100x 50x2 - Fe 35
- Frontal beams	: Tube R 150x150x2 - Fe 35
- Medium loading	: Kg.300/sq.mt.

N.B.: On request or needing, it is possible to modify supply voltages of the electrical plant. This doesn't mean that safety of the plant will change.

Direz. tecnica	OPERATION TEST		RANGER
Data 7/12/1987			Dis. N°9

GENERAL TECHNICAL SPECIFICATIONS OF THE RIDE

- Max dimensions stallage	: mt. 16.50x7.80
- Max rotation radius of gondolas	: mt. 8
- Medium radius of the system barycenter	: mt. 2.400
- Medium rotation speed	: 7 rounds/minute'
- Angular acceleration to the start	: 6 m/sq.second
- Angular deceleration to the stop	: 5 m/sq.second
- Weight of rotation system	: Kg. 8.200
- Weight of the base with plants	: Kg. 17.200
- Total weight of the ride	: Kg. 25.400
- Total weight of the footboard	: Kg. 1.500
- Max useful load allowed (32 persons x Kg.75)	: Kg. 2.400

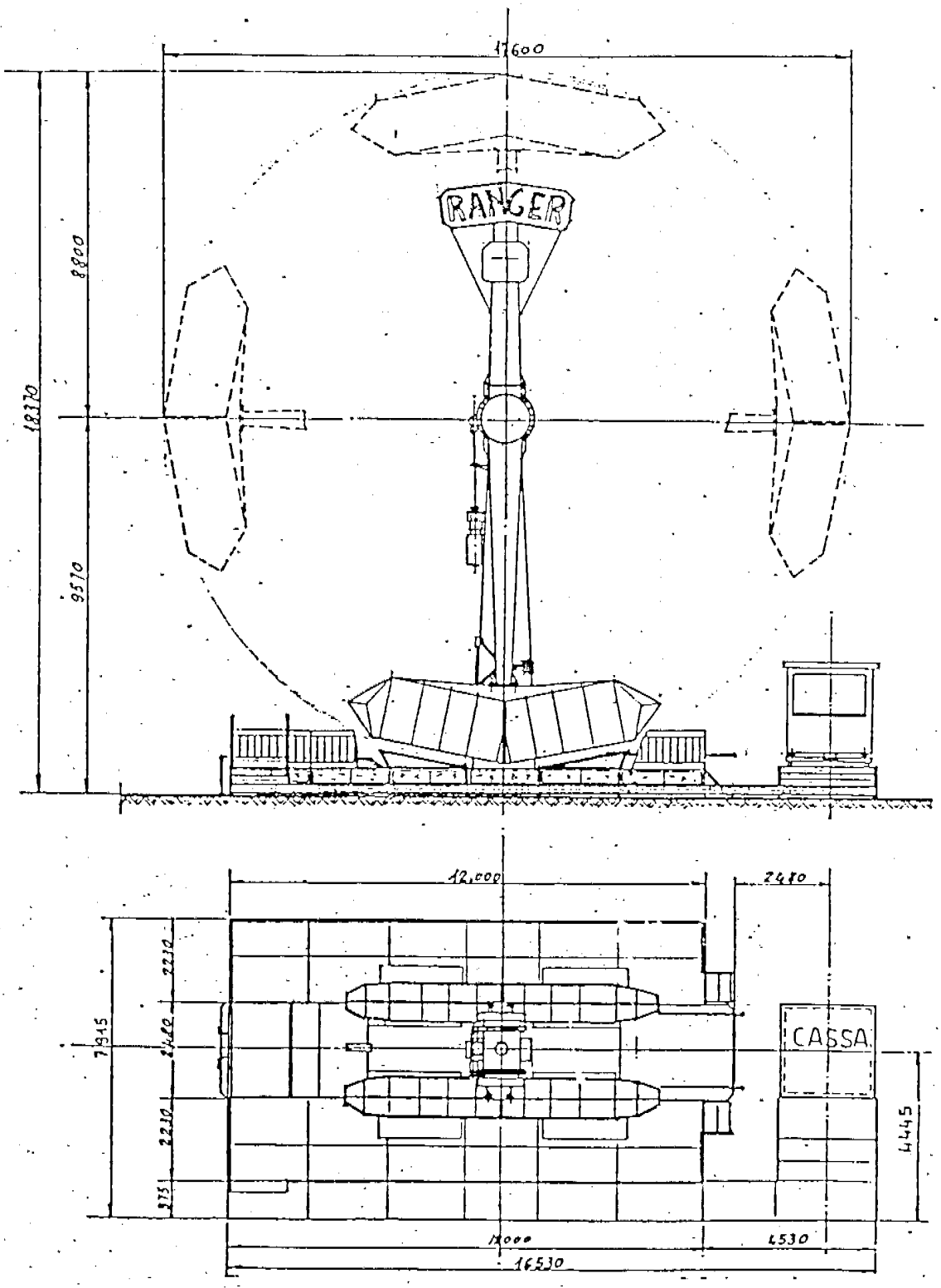
All remaining parts of the ride are regularly distributed; the result is a rotating system, excluded useful loads, perfectly equilibrated.

STATIC CALCULATION

All calculations of the project have been verified by our consultant Engineer Grigoli Carlo of the Ingenieri della Provincia di Mantova association, as it results by the final relation of calculation completing this relation.

- Max speed	: 10 rounds/minute'
- Max acceleration	: 0.9 g.

FAR Direz. tecnica	RANGER PROSPECT AND PLAN			Dis. 11.002.00
Data				Dis. N°14

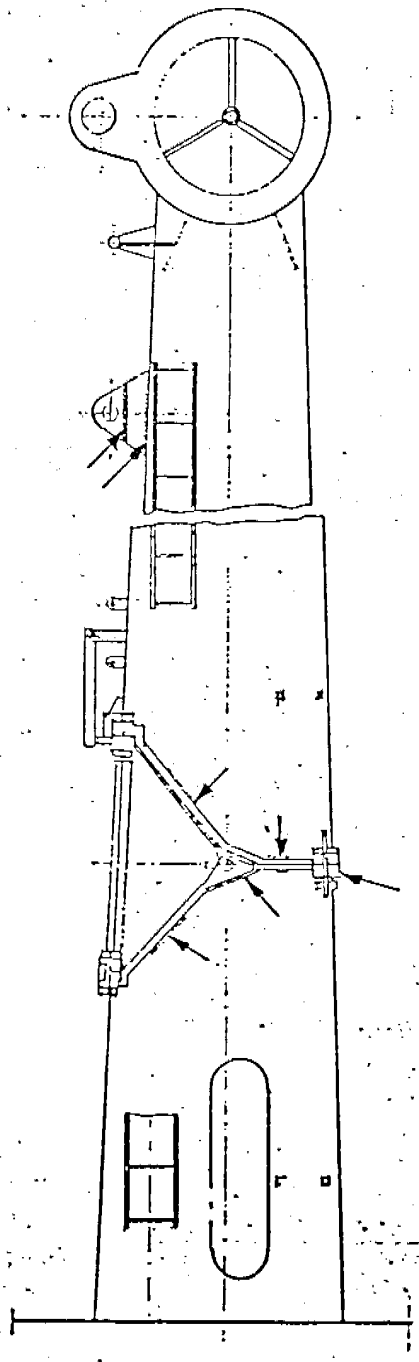


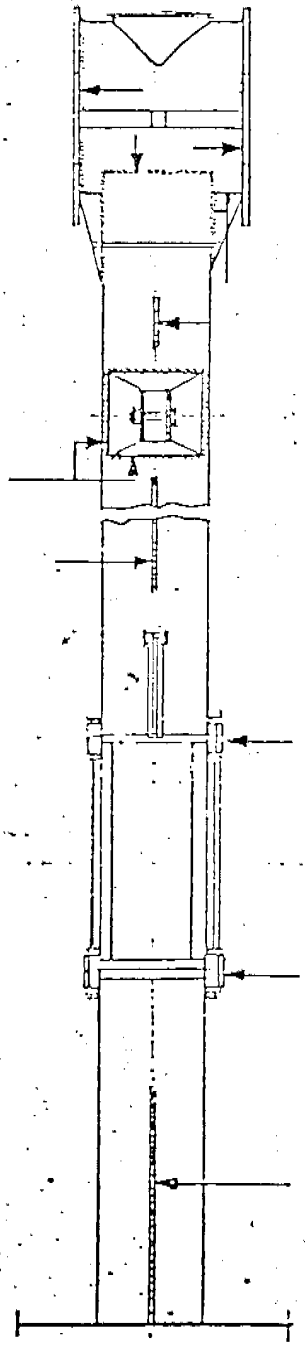
Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST	*RANGER*
Data 9/12/1987		Dis. N° 15

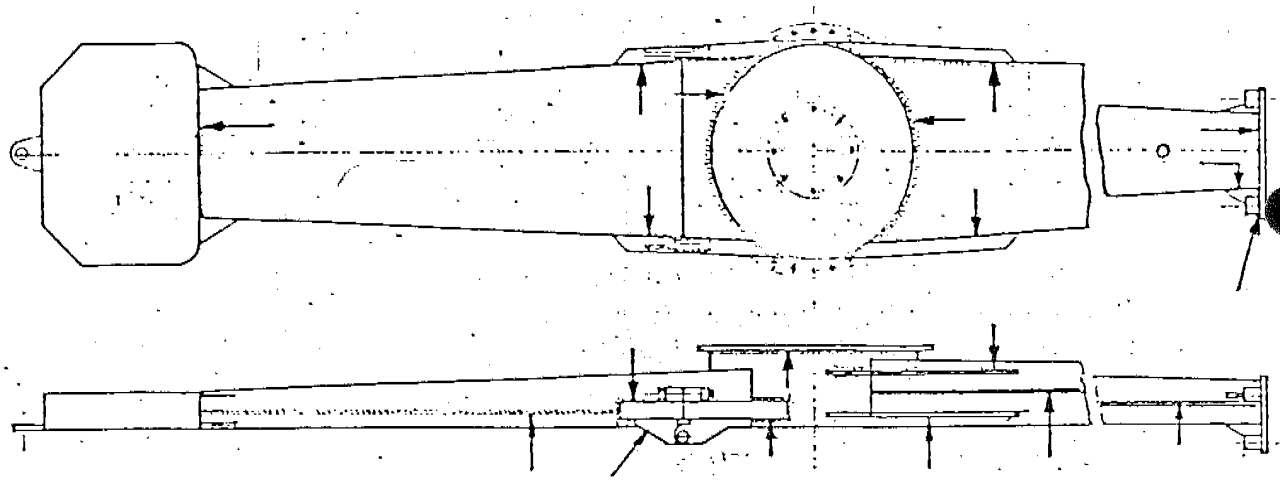
INSPECTION OF WELDING AND MATERIALS

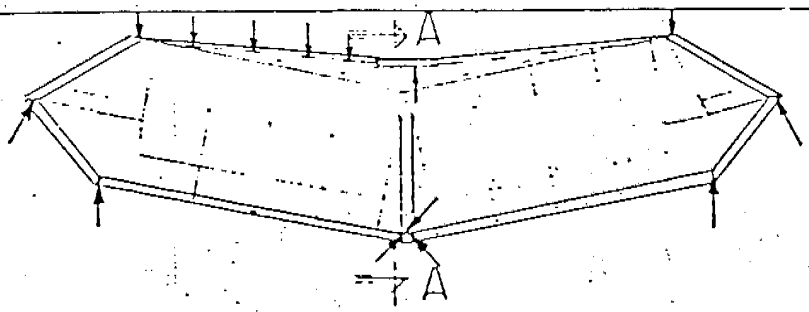
It has been checked that all materials used for the assembling follow drawings and static calculations; therefore all weldings have been inspected in oder to have them made with a quantity of welding material within the minimum limits of drawings and static calculations.

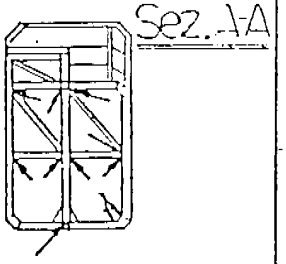
Particularly all points, shown in hereunder drawings, have been inspected as they are important for the general safety of the ride.

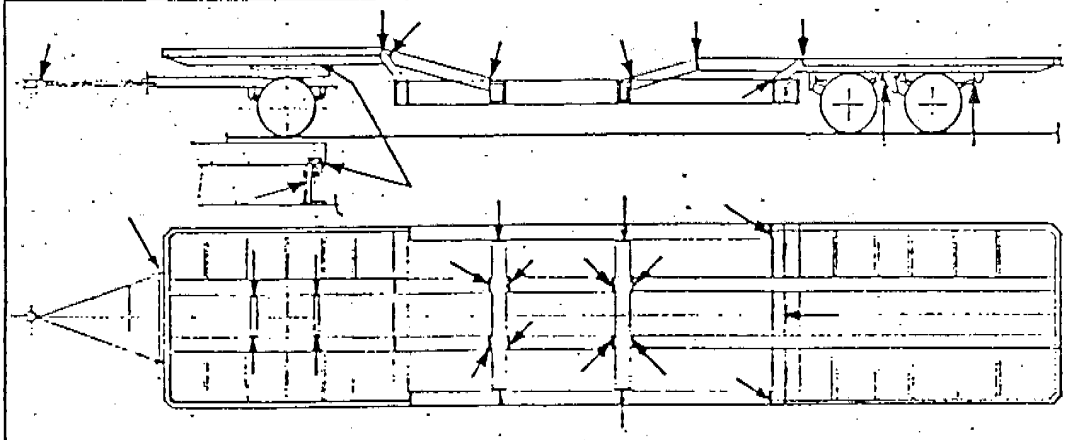


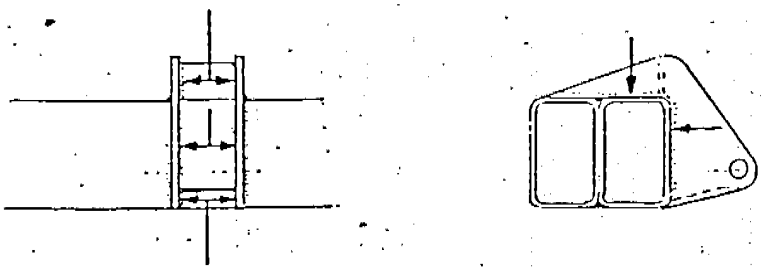












Test of a manufacturer's technician that all weldings are safe and more than requested by drawings and static calculation.

On _____ _____

FAR Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 9/12/1987				Dis. N°16

INDICATIONS AND INSTRUCTIONS FOR THE RIDE ERECTION

TRAVELLING PARK:
For the erection of the travelling park ride it is necessary to follow these instructions:

1) Lift the trailer with its special hydraulic jacks in order to put it on level and there are no more carrying wheels.
2) Take off stabilizers.
3) Prepare under points of support its own supports complete with regulation screws and regulate them till the complete support.
   Keep clean and oiled regulations screws.
   At the end of the operation lift hydraulic jacks and control again the trailer level.
4) In case of bad tightness of the ground it is necessary to put under screw supports some wooden planks to avoid, during operation, the hollow of the supports and consequential disleveling of the trailer.
5) Open counter weights and duly tighten bolts.
6) Laterally take off gondolas and raise up column.
   During all time while the column is lifting the owner is obliged to keep out all persons eventually in danger so any breakage can cause a damage.
   When column is erected, duly tighten bolts.
7) Assembly gondolas and duly tighten bolts, assembly tension bars making sure that pins have inserted suitable safety pins to put with force.
8) Assembly remaining parts (ticket booth, footboard, illumination, etc.).
9) Particular attention has to have the grounding, which has a specific reference in the part concerning the electrical test; It is specifically forbidden to give power to the ride before grounding.
10) Daily control the ride level.

With this document we give general indications for the correct erection of the ride. Particular indications concerning the assembly of all details are not included as it is considered that they are a part of the professional operator's working.
Even if a technician of ours, before the ride come out, will expound to the customer all important phases of the assemblage; with the underwriting of the above document the customer attests to be completely instructed.

Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 9/12/1987				Dis. N°17

Indications and instructions for the ride erection (follows)

PERMANENT PARK:
For the erection of the ride for permanent park it is obbligatory that foundation bases are made following static calculations where are indicated concrete percentage, iron quantity and lift force of the ground.
Put perfectly levelled the plank of anchoring screws and wait necessary time the concrete is setting.
Proceed to the erection of the column to which are already assembled the arms and all transmission and operation devices, making sure that it is perfectly vertical and tighten the basement bolts with a dynamometric wrench calibrated on Kgm 100.
Assembly gondolas tightening bolts with a dynamometric wrench calibrated on Kgm 200; fit connecting tension bars gondola-arm inserting suitable pins complete with safety pins.
All above mentioned operations have to be made in presence of persons having authority and qualification and able to deliver a guarantee of a regular and valid certificate attesting good execution works.

It is obbligatory for the operator erect the special tension bar of safety when particulars are to be assembled and make cleaning with gondolas suspended to the top.

Direz. tecnica	OPERATION TEST			RANGER
Data 9/12/1987	...	...	...	Dis. N°18

SAFETY TEST

In order to have maximum safety for people in the gondolas, following safety orders have been made:

1) Safety lap bar with authomatic coupling and uncoupling by a solenoid operated from the drive cabin. (1)
2) Shafts blocking authomatically the lap bar in safety position and with manual uncoupling by the passenger. (2)
3) Side safety door with opening and closing by actuators operated from the cabin and safety stop with electromagnetic latch, operated from the cabin, too. (3-4)
4) Solenoid valves with closing power of Kg.40, working with closing door and allowing in the meantime the closing. They are operated by the cabin. (5)

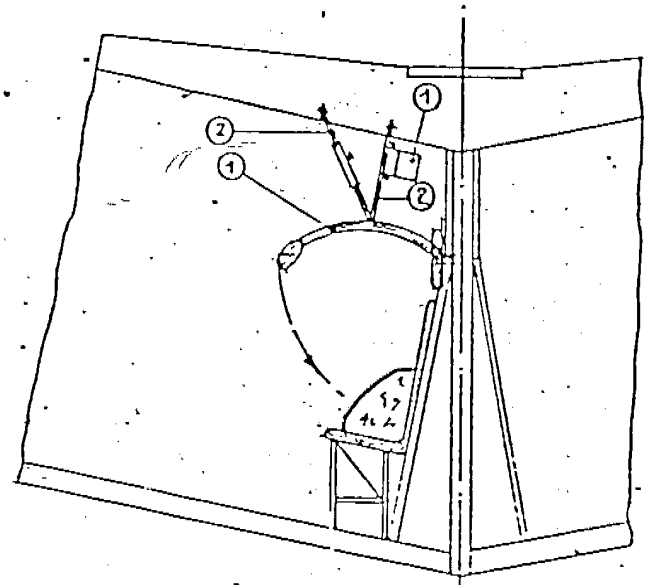
If the operator has not operated by the drive cabin all above mentioned safeties, the ride is stopped. The operator is obliged not to permit the use of one seat in case of outage of safety indicated with n°1 or n° 2. The operator is obliged not to permit the use of the whole gondola in case in the same time he has an outage of safeties indicated with n°3 and n°4.
The operator has the responsability to control daily the above safeties and promptly recondition them in case of fault.
To be certain that nobody goes in the working area, i.e. where gondolas rotate, it has been provide following safety orders:

1) Entrance fences, must be closed by the authorized personnel with a suitable latch; it must be closed for all ride operation time.
2) Special panels showing the forbidden entrance, as specified in limits and prescriptions, during all operation.

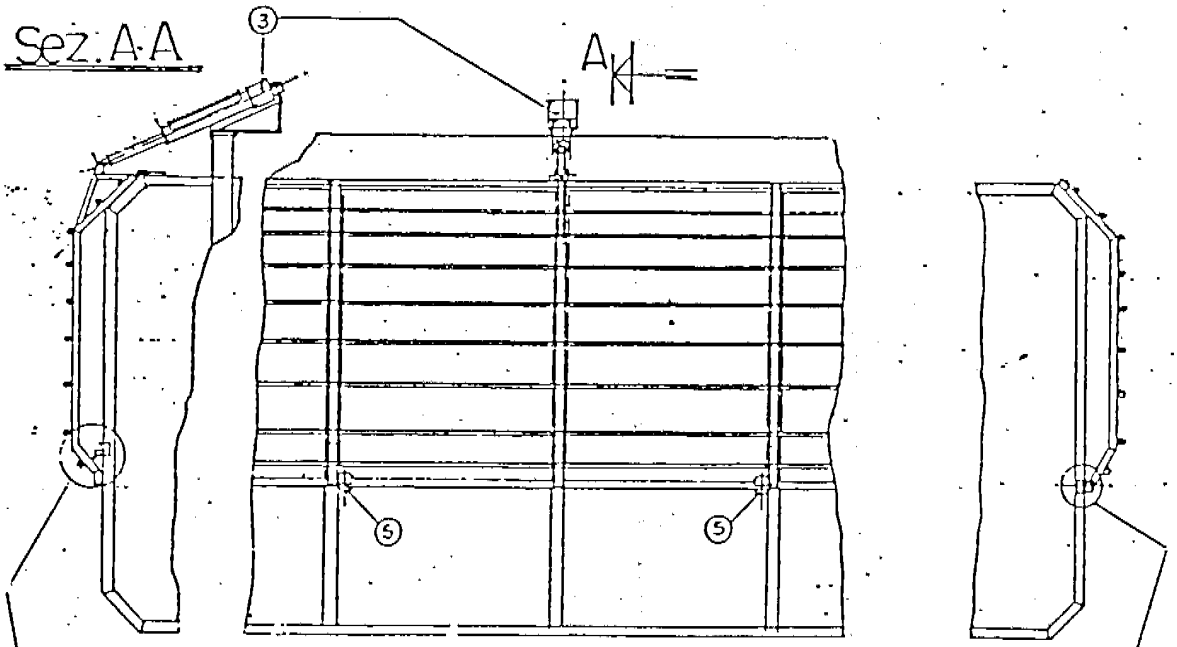
The owner is obliged to have personnel indicating to the operator when all people is out of the working area in order to start working operations of the ride.
Even, this personnel with the operator, during the ride operation, should always control that nobody goes over safety fences and barriers in the working area. If this happens the operator shall immediately stop the ride and start the evacuation.

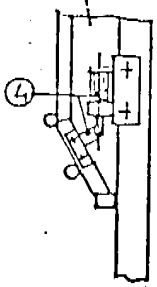
Manufacturer's technician test of the perfect safeties operation:

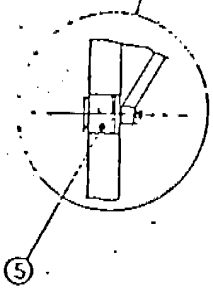
on _____ _____



Sez. A-A







Direz. tecnica	OPERATION TEST		RANGER
Data 9/12/1987			Dis. N°19

YEARLY TEST

This ride is supplied with static calculations, available at our factory, to the disposal of technicians encharged of the inspection, in case of any control. When sold, the ride is supplied with the certificate of the first test, making an integrant part with this documentation. The "Testo Unico della Pubblica Sicurezza Italiana" to the article n°80 provides that all rides are to be yearly tested by qualified technicians and the pneumatic plants are to be verified by the I.S.P.E.S.L. (ex A.N.C.C.).

IMPORTANT:

1) Eventual lacks of initial construction or the ones coming out in the time or during following tests, should be immediately notified by the tester technician to the manufacturer whom, after having controlled and analyzed, will chose to make necessary improvements and modifications, by his own personnel or will show the tester technician to make them accomplished by local reliable workshops.
   These modifications made, the ride should be submitted to a new test by the technician that found out defects or lacks; after he also should send to the manufacturer, on his own charge, a relation on operations made and a copy of it will be permanently attached to this documentation.

2) Rides operating out of the Italian territory, either if they are owned by Italian or foreign customers, must be subjected, before the operation and then each year, to a test by a local technician that should keep to the laws in force. Any modification or improvement required should follow the procedure indicated in the point 1).

Some operators of travelling parks had the use to seek tester technicans in good faith or for complaisance and without having seen the ride. Our customers are demanded to avoid these technicians, even if they make approvals to a minimum price, because in case of accident they can be involved in case of complicity. The consciensious technician goes on place, controls the static calculations, looks over weldings, materials, safeties, etc. and only after a precise examination put the approval sign. OUR FACTORY ANYWAY DOES MISTRUST ALL CUSTOMER TO UTILIZE RIDES IF THEY HAVE NOT YEARLY TESTS AND INSPECTIONS MADE.

N.B.: The trailer is considered an integrant part of the ride; that's why it must be subjected to an yearly inspection together with the ride.

PERIODICAL INSPECTIONS AND MAINTENANCE

In order to have always a perfect operation of the ride in its parts and safety, we precise following continuos inspections and maintenance:

1) Monthly inspection and cleaning of the air propellers filter of the motor in C.C. In environments particularly dusty it will be necessary a more often inspection. The lack of this maintenance, will cause a motor heating, brushes wear and outage to the collector.

2) Monthly inspection of the wear degree for brushes and collector. The collector has not to have furrows, burnings and residues of carbon. Every 2.500 hours working, brushes must be replaced. The collector, if it has some anomalies, must be replaced; this operation has to be followed by skilled technicians.

3) Monthly inspection of collectors for electrical distribution and degree wear of brushes.

4) Monthly inspection of oil level in the reducers and in the hydraulic one of the lifting cilynder of the column.

5) Every 100 hours working greasing of the base bearing, tooth of it and central hinge of the column.

6) Monthly inspection of clearance on cardan shafts, couplings, reducers, pinions and base bearing.

7) Monthly inspection of bolts tightening of the base bearing, reducers, pinions and supports.

8) Monthly inspection of all weldings of the trailer, columns of the arms and gondolas in order to avoid that some defects in the construction or fatigue worsen, causing danger. For this inspection see reference at page n°15, where are marked the most important points.

9) Daily inspection of safeties stated in page n°18.

10) Before every travel inspection of the axles, shaft, forecarriage, perfect tightening of the steering footstep screws and inflating of the wheels that must be to the pressure demanded.

Direz. tecnica	OPERATION TEST		RANGER
Data 11/12/1987			Dis. N°21

RIDE ON ROAD

A) Inspected the tightening of pins hooking the shaft to the forecarriage.

B) Inspected the tightening of footstep bolts, either by the side bolted to the trailer and the one bolted to the forecarriage. In case of semitrailer, inspected the tightening of fastening bolts of the kingpin.

C) Inspected the tightening of all bolts coupling axles to the trailer.

D) Inspected main weldings of the trailer and particularly of the forecarriage and shaft.

E) Inspected the perfect operation of the braking and light system.

F) Inflated tyres to atmosphere 9 and tightened all rim bolts and given the wrench to the customer.

G) Inspected the perfect fastening of the spare wheel support and given spare wheel to the customer.

H) The customer has been informed that, being rims nex and needing of bedding, it is necessary to stop continuosly and duly tighten rim bolts, following the table:
1° - after 20 Km.
2° - after 60 Km.
3° - after 150 Km.
consecutively must be done normal controls at each departure.

I) Various materials have been loaded on the trailer (or semitrailer), under the personal control of the customer, whom, signing this document, declares he is satisfied and that the load has been made as he requested. Therefore from the departure the factory refuses any responsability for eventual damages coming out by moving or falling materials during the travel and in the successive ones.

L) Often trailers of the rides can be submitted to unexpected stress or tears, such as to get over a step to go into a square. It is a customer's duty, for a major safety, to inspect periodically main weldings of the trailer.

FAR Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 12/12/1987				Dis. N°22

INSPECTION OF GROUNDING AND TEST FOR DIFFERENTIALS OPERATION

On....., has been carried out the inspection of the electric system, particularly testing the correct placement of grounding and electric differentials operation, in order to avoid dangers of electric discharges on people.
Therefore it has been made following tests:

a) All metallic parts are prearranged for the grounding by lugs welded to the structure.
b) The ride is supplied with cables for lugs connection to the pile shoe of ground.
c) The plant is supplied of following differentials:
   .....
   .....
   .....
   and it has been tested that the whole ride is safeguarded by above mentioned differentials. The owner of the ride must periodically control the good operation of the differentials.
d) We point out that all repairs, controls, inspections, etc. must be performed by skilled staff. It is a special prohibition not to make open electrical control panels if it is unauthorized personnel and works on the ride when hot.
e) We make some photographs attesting all above mentioned and kept in our records.

Tester technician ..... The owner .....

REMARKS: .....
.....
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.....
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.....

FAR Direz. tecnica	TECHNICAL RELATION FOR OPERATION TEST			RANGER
Data 9/12/1987				Dis. N°23

LIMITS ANS INSTRUCTIONS

Our factory provides, for the good operation of the ride, following limits and instructions:

1) Must be, well shown and in a well readable writing and lighting in the night, the safety rules that persons going on the ride must follow:
   a) FORBIDDEN THE ENTRANCE WHEN RIDE IS WORKING.
      (This sign must be exposed to the entrance fences for the loading area that shall be open by the staff only when the ride is completely stopped).

   b) FORBBIDDEN THE ENTRANCE.
      (This sign must be exposed in front of each exit fence).

   c) THE PEOPLE BEING IN THE GONDOLAS MUST FOLLOW THESE INSTRUCTIONS:
      - No smoke inside gondolas.
      - Deposit to the ticket booth metallicware and all what can fall and cause a damage to peoples and things.
      - Close lap bars making sure that they are well pressed against people and in the meantime blocked.
      - Cling to special lap bars during operation of the ride.
      - No entry for children less than 10 years old, also if together with their parents.

      (These signs must be not less than 2 and placed in order to make them well evident).

   d) THE RIDE OPERATOR MUST PUT FOLLWING SIGNS INSIDE GONDOLAS:
      - No smoke.
      - Deposit to the ticket booth objects that falling could cause a danger.
      - Close the lap bars.
      - Grasp during ride operation to the special lap bars.

      (These small signs, showing obbligations, must be exposed to the internal gondola, well evident to the people.).

2) It is absolutely forbidden to speed up the gondolas with one improper speed, i.e. major then the ones permitted. To this purpose the operation devices are controlled by electronic cards avoiding it. In case of outages or if devices are not well adjusted, the operator is obliged to drive the push buttons in order that the speed is not more high than the one stated.
   For stated speed we intend the one reached when gondolas are up, that sould not to be more than 2 m./second, a little more than the speed "0", otherwise in the discent they can reach a

too high speed.

3) The operator can't modify the electronic cards controlling the speed and the power and also can't break any safety lock (if any).

4 - The owner should indicate people designed of ride control; they must be of full age, know the operation, be experienced and trained and know all technical and safety regulations here enclosed.
DESIGNED: _____
_____
_____
_____

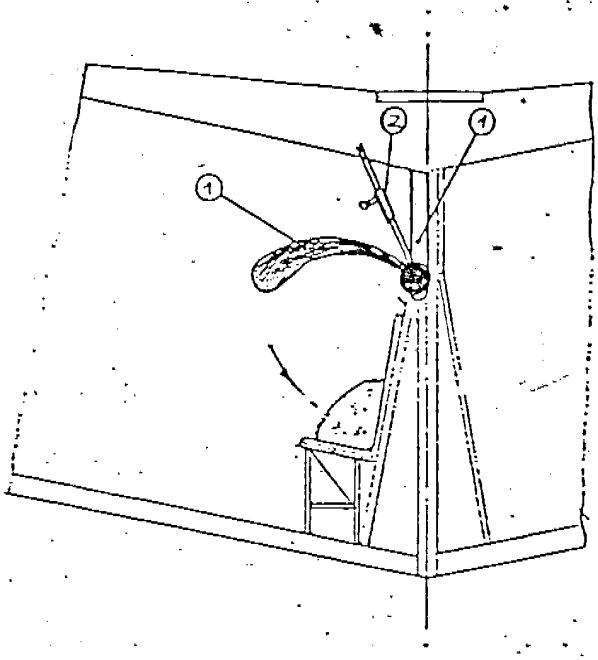
5) The operator, before to start up the ride, must check that all safety devices are operative and no passengers are into the rotation area of the gondolas. Skilled staff shall accomplish above controls and give the OK to start.

6) In any case the operator can leave the cabin when the ride is working or when it is going to work. He shall be replaced by skilled personnel. Eventual electric or mechanic or anyother failures can be promptly recovered if the operator is taking care of his work.
The passengers utilize the ride in order to enjoy and to have strong emotions but in any case these feelings must exceed the phisyc possibilities of the persons. Therefore it is always necessary to have attention because some persons particularly sensible could have dangerous movements for himself and the other; now it is the operator's professionality to intervent and safeguarde the passenger.
The operator must load the gondolas in order to have a balance weight.

7) The owner must have available and ready for the use at least n°2 estinguishers (eachone 10 Kg.) of C 02 and control their operation periodically as law in force states. In addition he must have also a battery torch, always working, for any necessity.

Direz. tecnica	COLLAUDO DI AGIBILITA'		RANGER
Data 9/12/1987			Dis. Foglio N° 26 25

OSSERVAZIONI E RETTIFICHE



In data 12/12/1987 si esegue una modifica all'impianto di chiusura dei maniglioni di sicurezza. Il comando di chiusura e di sgancio é eseguito tramite elettrocalamita. In riferimento alla pagina n° 18 i particolari 1 e 2 rimangono nominativamente gli stessi. In figura il nuovo disegno che il metodo adottato.

REMARKS AND CORRECTIONS

On 12.12.87 the lock system for lap bars has been modified. The closing and uncoupling operation is now working with solenoid valve.
The details 1 and 2 on page 18 are the same.
The drawing shows the new system.

48

AMUSEMENT RIDE SAFETY BULLETIN

ATTENTION! STATE AMUSEMENT RIDE SAFETY INSPECTORS, OFFICIALS, RIDE OWNERS/OPERATORS & INSURERS

98.20

FAR FABBRI, S.R.L. (Rovigo) ITALY
"RANGER/KAMIKAZE/HI-FLYER"
August 11, 1998

In cooperation with the U.S. Consumer Product Safety Commission (CPSC), FarFabbri, S.R.L. of Rovigo, ITALY is announcing an urgent inspection of the "Ranger"/"Kamikaze/Hi-Flyer" amusement ride shoulder restraint bars. In July 1998, California Ride Safety Officials inspected several rides which had severe corrosion on the upper most portion (nearest the attachment bolts) of the shoulder restraints, under the foam padding. In all cases the corrosion was discovered during inspection of the ride. To date there have been no incidents of injury.

The "Ranger/Kamikaze/Hi-Flyer" rides involved were manufactured from January 1, 1988 to December 31, 1992, by FarFabbri, S.R.L. (Rovigo) ITALY. The U.S. distributors of the rides is Preston Amusements, Alvarado, Texas. There are approximately thirty-six (36) FarFabbri "Ranger/Kamikaze/Hi-Flyer" rides operating in the United States; both mobile and fixed-site units.

FarFabbri is requiring a visual inspection of all over-shoulder, padded restraints on all rides manufactured from 1/1/88 to 12/31/92. This inspection is targeting the original factory installed, over-shoulder, padded restraints. It appears that moisture may collect beneath the upper five to eight inches of the padding (See Attachment A), which can cause corrosion of the metal tube beneath the padding. Inspection can be done by cutting the padding with a sharp instrument e.g. box cutter or Exacto® knife to expose the tube. If the metal tubing shows any evidence of deterioration (rust/corrosion), it must be replaced. Contact Preston Amusements at the number below for replacement bars. The padding should be cut so it may be replaced if there is no indication of metal deterioration or rusting. Re-attachment of the padding may be done with suitable adhesive tape, e.g. duct tape. Failure to reattach padding properly may result in injury to the riders. The replacement shoulder restraint bars are made of stainless steel, and are not subject to this bulletin.

Some owners of these rides may have replaced the over-shoulder, padded restraints in recent years. The new restraints are fitted with a cross member located at approximately the chest level of the rider. This type of restraint, as well as, rides manufactured after January 1, 1993, are made of stainless steel and are not subject to this notice.

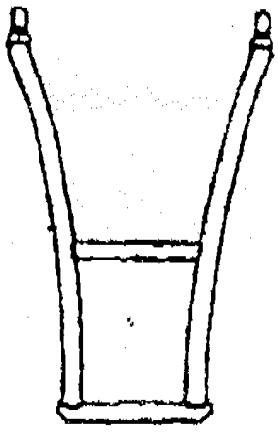
Please conduct this inspection immediately and repeat it every 3 months thereafter.

For further information or clarification on this Safety Bulletin you may contact one of the following:

PRESTON AMUSMENTS
(817) 783-2265
or
US Consumer Product Safety Commission
Office of Compliance & Recalls
Jay DeMarco at (301) 504-0608 ext 1353

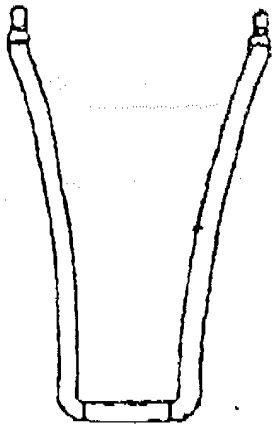
ATTACHMENT A

[FarFabbri - Ranger/Kamikaze/Hi-Flyer Restraint Bar Inspection]



Post 1992
(1993 and later)

Inspection Area



Pre 1993
(Restraint Requiring Inspection)

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/110794 - C.C.I.A.A. RO N. 90581 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000 029 4
TELEX 434839 SPARCO I - TELEFAX 0425-878113

SERVICE BULLETIN

RIDE: Ranger (aka Kamikaze, Hi-Flyer, Phoenix) DATE: April 12, 1994

SUBJECT: VEHICLE, COLUMN,TOWER BOLTS BULLETIN #: FR034

****

FarFabbri, s.r.l. has determined that it is necessary to conduct an annual test on these bolts. Some have been found to have cracks near the head of the bolt, mainly due to improper tightening techniques. You are now required to test these bolts by X-ray or ultrasound, and replace any that show signs of cracks or fatigue.

A copy of the test certificate must be mailed to our office before June 1st of each year. This certificate will also become part of any inspection that may be performed on your ride by any Local, State, or Federal inspection agency. This bulletin is being sent to all inspection agencies on our mailing list.

Replacement bolts can be purchased from local suppliers or from Preston Amusements. If you have any questions, contact Preston Amusements at P.O. Box 328, Alvarado, Texas 76009 or by phone at 800-545-0667 or by fax at 817-783-3358.

CHART OF BOLT SIZES AND TYPES

USE	SIZE (METRIC)	PRE 1991	LATER
VEHICLE	39 X 180 MM	Hex Head	Socket Head
TOWER	39 X 200 MM	Hex Head	Socket Head
COUNTERWEIGHT	39 x 200 MM	Hex Head	Socket Head

* All bolts must be Grade 8.8. Thread pitch is 4 mm.

FAR FABBRI s.r.l.
Costruzioni Spettacoli Viaggianti
45032 BERGANTINO (RO) Via Giovecca

FARFABBRI S.r.l. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) - Italy
via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805110
M/712734 - C.C.I.A.A. RO N. 80691 - TRIB. RO REG. SOC. N. 4023
Cod. Fisc. e P. IVA 00722400 029 4

SERVICE BULLETIN

RIDE: Ranger (aka Kamikaze, Hi-Flyer)
SUBJECT: Lap Bar Attachment to Pipe

DATE: January 28, 1993
BULLETIN #: FR033

****

Refer to Drawing 1. This shows the pipe to which the lap bar is bolted. On occasion, a crack has been detected in the areas marked A and B.

To prevent this from occurring, FarFabbri, s.r.l. suggests the installation of supports having the dimensions shown in Drawing 2. In addition, these locations should be visually inspected each week for possible cracks by qualified personnel.

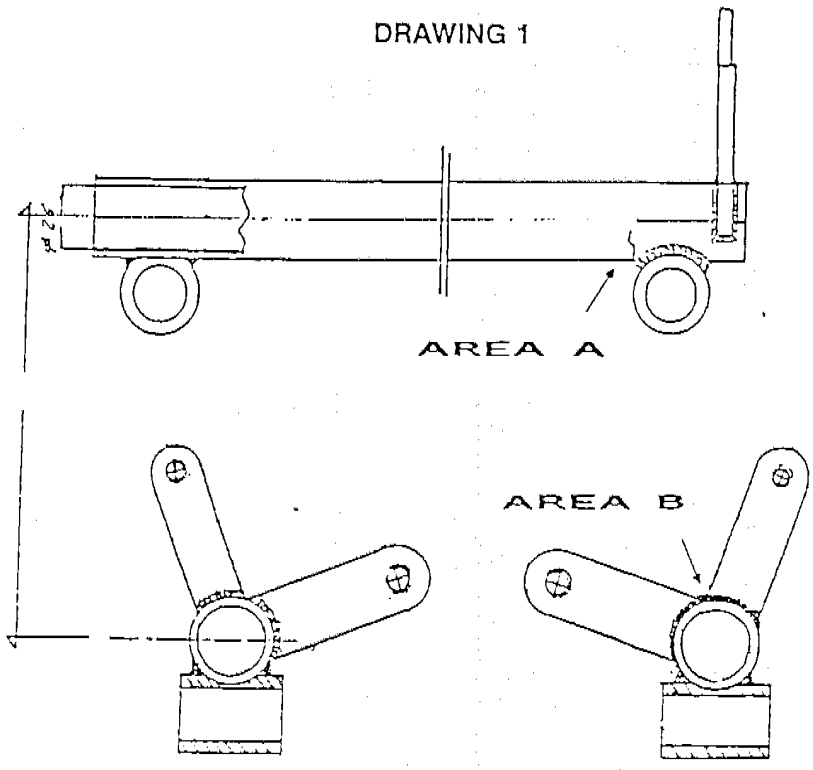
Installation notes: Refer to Drawing 3:

1. Remove lap bar assemblies from car.
2. Remove lap bar mounting shaft (item D).
3. Tap out nylon bushings (item C), replace if necessary.
4. Remove nylon locking nuts from padded lap bar so they do not melt. You can remove padded headrest or use a wet towel on the shaft to keep it from melting.
5. Weld modification pieces into place.
6. Let shaft cool and reassemble into car.

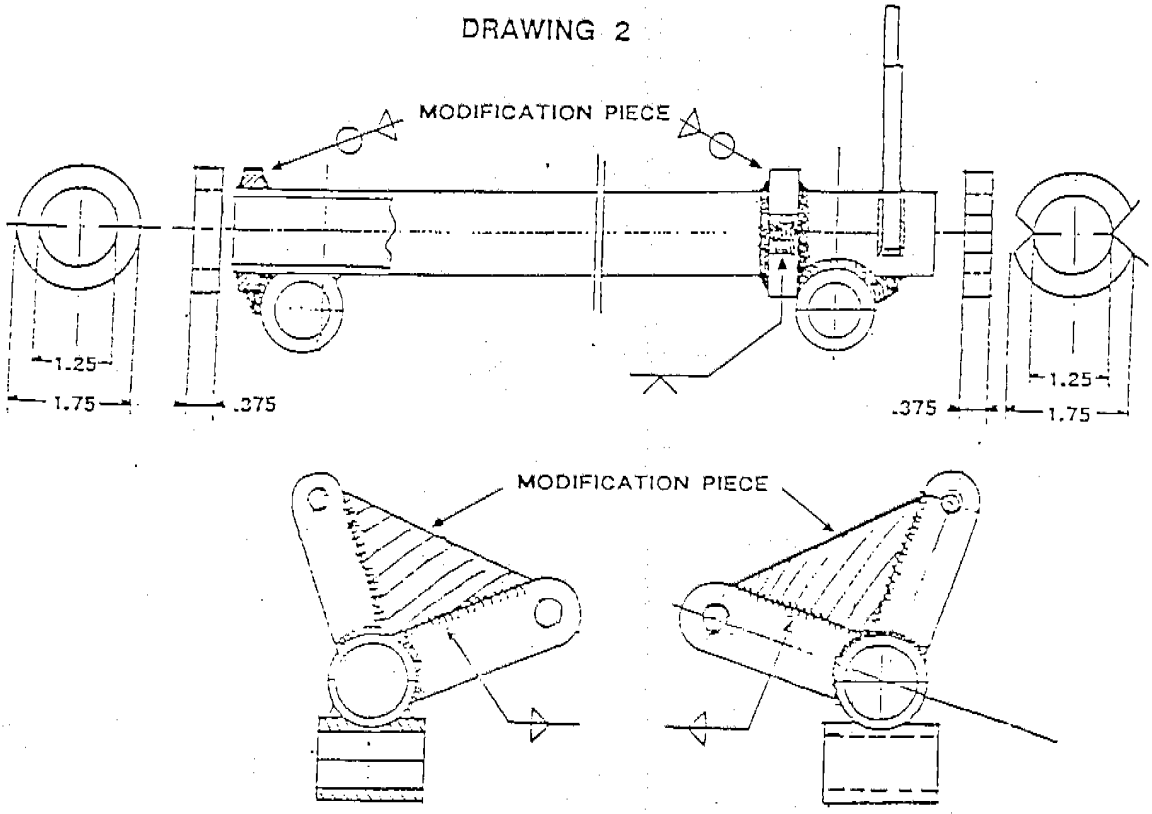
Materials can be ordered through Exsaco Corporation, One North Santa Fe St., Alvarado, Texas 76009, 1-800-545-0667. Please refer to this bulletin number when ordering materials.

FAR FABBRI s.r.l.
Via Giovecca, 74 - Tel. 0425/87142-87420
45032 BERGANTINO (RO)
C.F. e P.IVA 00722400 029

DRAWING 1



DRAWING 2



FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/710794 - C.C.I.A.A. RO N. 30591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000294
TELEX 434839 SPARCO I - TELEFAX 0425-878113

SAFETY BULLETIN

RIDE: KAMIKAZE (AKA, HI-FLYER, RANGER) DATE: DECEMBER 15, 1993

SUBJECT: OPERATOR SAFETY PRECAUTIONS BULLETIN NUMBER: FRSA01

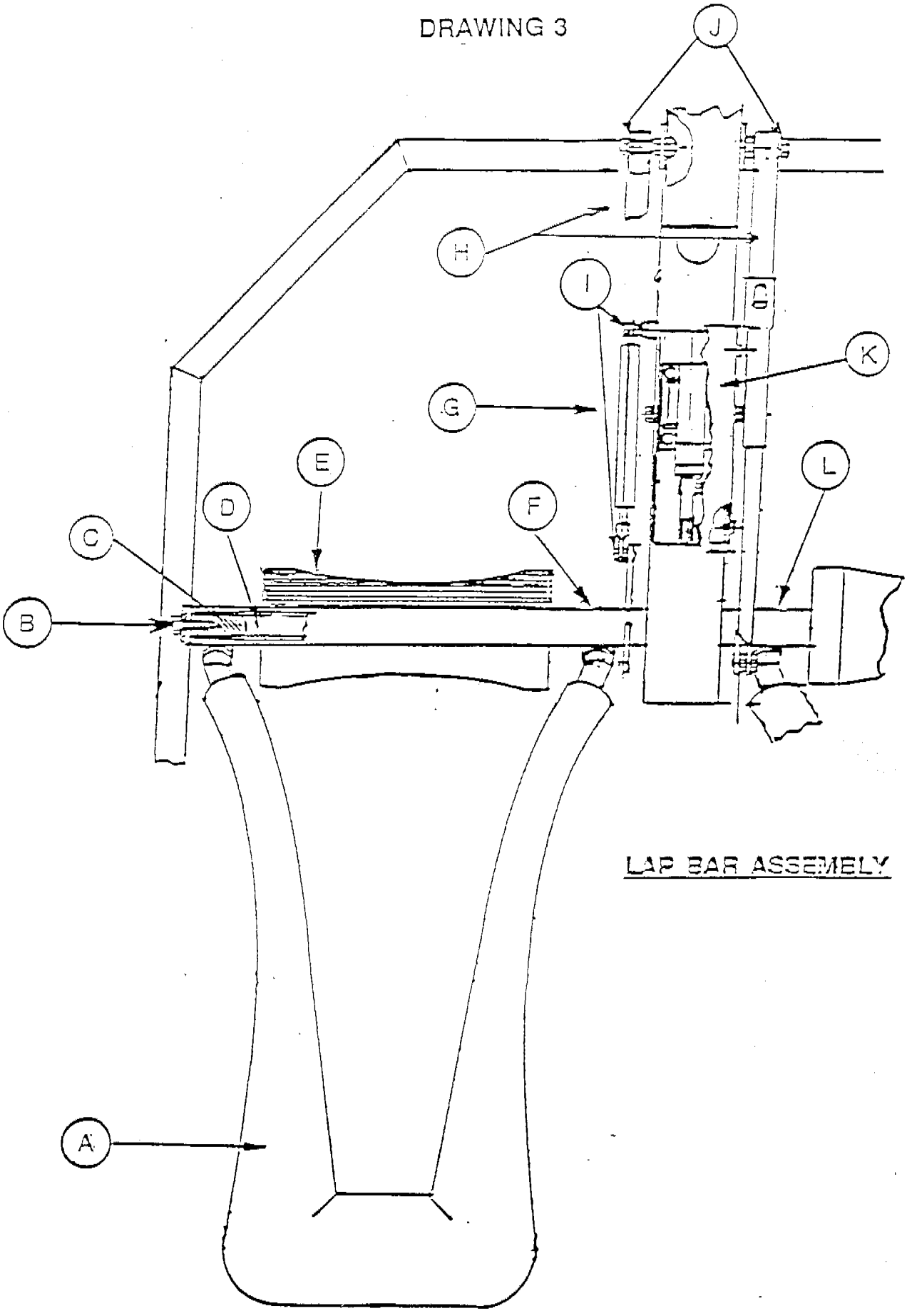
****

It has been brought to our attention that some operators are carelessly ignoring the obvious danger of approaching and entering into the path of the Kamikaze vehicle during it's swinging motion. This action is strictly forbidden. FarFabbri or it's representatives cannot be on your location to monitor your employees and therefore, it is your responsibility as the operator to strictly prohibit this action.

Although a safety zone was painted on the platform, an operator reached for a toy that fell on the deck and was struck by the moving car. It is STRICTLY FORBIDDEN that anyone be on the platform or fences while the ride is in operation. After loading the cars, all operators must remove themselves from the platform and all gates must be closed and latched. It is the responsibility of the operator at the control panel to observe this procedure at all times.

FAR FABBRI s.r.l.
Costruzioni Scuotipoli Viaggianti
45032 BERGANTINO (RO) via Giovecca 74
0425-805435; Telex 0425-805113
Codice Fiscale e Partita IVA 00724000294

DRAWING 3



LAP BAR ASSEMELY

FARFABBRI s.r.l.

MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) - Italy
[illegible] Tel. 0425/87420 - 87142 - Fax 0425/805110
[illegible]
Cod. Fisc. e P. IVA 00072400 029 4

SERVICE BULLETIN

RIDE: Ranger (aka: Phoenix, Kamikaze, Hi-Flyer) DATE: January 28, 1993
SUBJECT: Secondary Latch Bolt Support BULLETIN #: FRC32

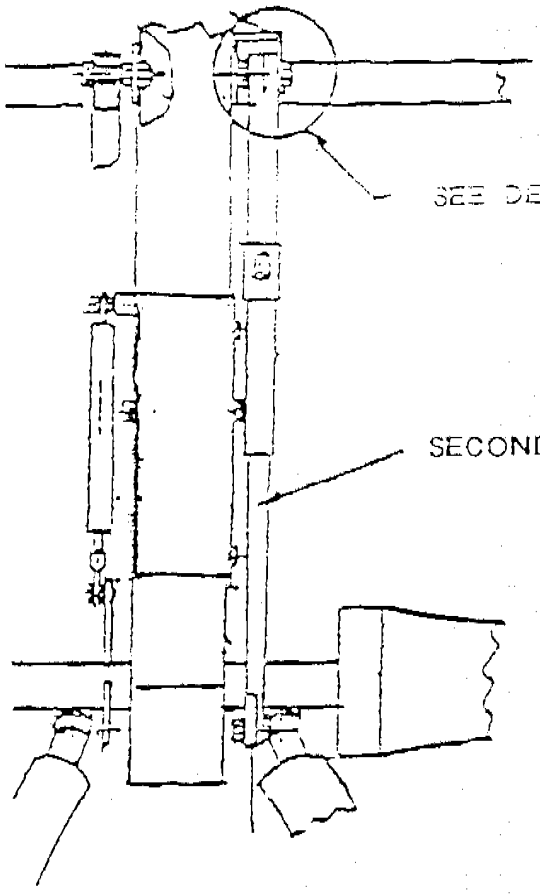
****

It has been brought to the attention of FarFabbri, s.r.l., that when the lap bar solenoid releases and the patron slams the bar against the secondary latch, the top bolt of the secondary latch will eventually break off.

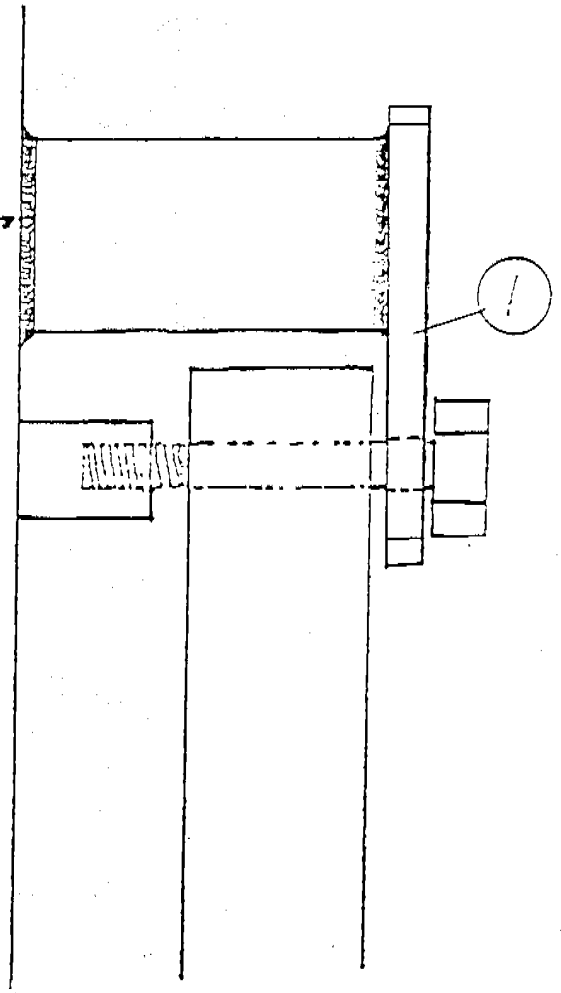
This can be prevented by installing a bolt support as shown in the following drawings.

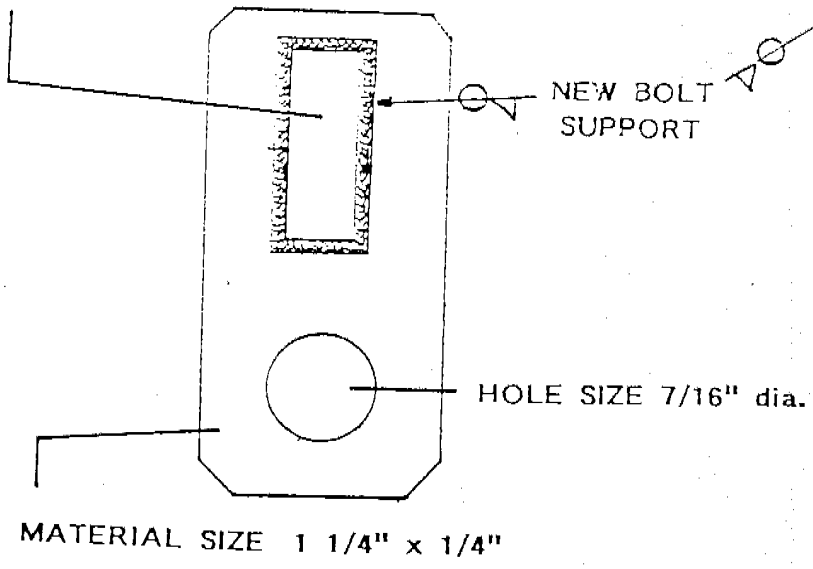
If you need further information, contact Exsaco Corporation at One North Santa Fe St., P.O. Box 328, Alvarado, Texas 76009, 800-545-0667.

FAR FABBRI s.r.l.
[illegible] 74 - Tel. 0425/87142-87420
45032 BERGANTINO (RO)
[illegible] 00072400 029 4


SEE DETAIL A
SECONDARY LATCH

DETAIL A




MATERIAL SIZE 1" x 3/8"
NEW BOLT SUPPORT
HOLE SIZE 7/16" dia.
MATERIAL SIZE 1 1/4" x 1/4"

FARFABBRI s.r.l.

MANUFACTURERS OF AMUSEMENT RIDES

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Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805110
M/710794 - C.C.I.A.A. RO N. 30591 - TRIB. RO REG. SOC. N. 4023
Cod. Fisc. e P. IVA 00724000 029 4

SERVICE BULLETIN

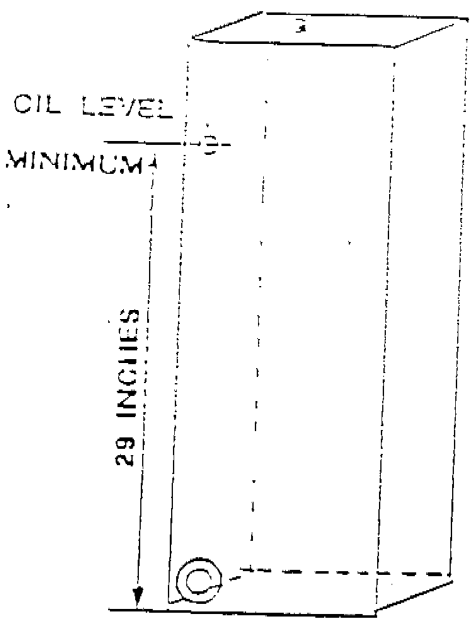
RIDE: Ranger (aka: Phoenix, Kamikaze, Hi-Fiver) DATE: January 28, 1993
SUBJECT: Hydraulic Oil Level BULLETIN #: FRO31

****

The hydraulic pump on the Ranger is supplied by gravity flow. Therefore, the oil level should always be kept at or above the minimum level indicated on the drawing below. Note: This level is measured when all trailer levelling jacks are retracted and the tower is down. A sight glass can be installed at this level.

Affix the enclosed label to the tower above the handle that operates the tower cylinder.

For further information, contact Exsaco Corporation, One North Santa Fe St., P.O. Box 328, Alvarado, Texas 76009, at 800-545-0667.



Check hydraulic oil level BEFORE starting pump. Refer to manual for further details.

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Via Giovecca, 74 - Tel. 0425/87142-87420
45032 BERGANTINO (RO)
00724000 029 4

FARFABBRI s.r.l.

MANUFACTURERS OF AMUSEMENT RIDES

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Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805110
... 3734 - C.C.I.A.A. RO n. 30591 - TRIB. RO REG. SOC. n. 4023
Cod. Fisc. e P. IVA 00724000 284

SERVICE BULLETIN

RIDE: Ranger (aka: Phoenix, Kamikaze, Hi-Fiver)
SUBJECT: Lap Bar Solenoid

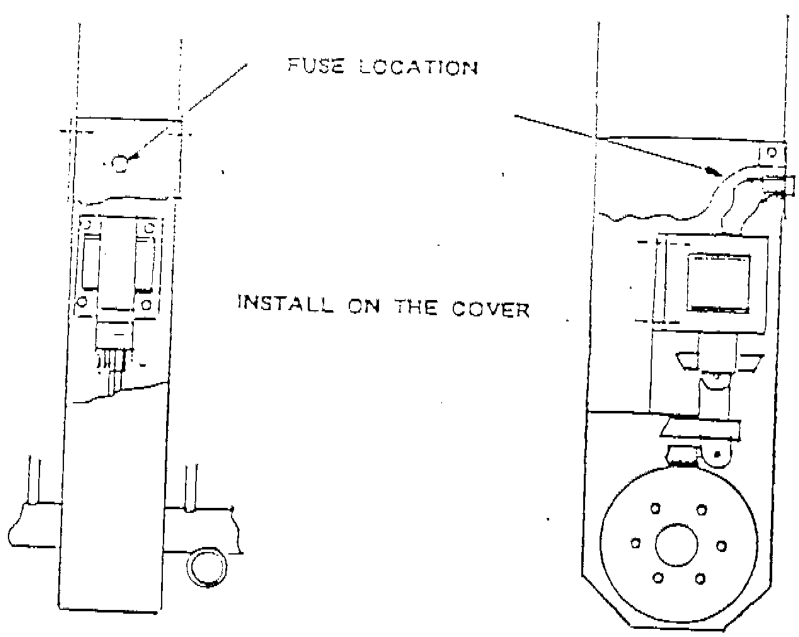
DATE: January 28, 1993
BULLETIN #: FRO30

****

In instances of a solenoid burn-out, the fuse, located in the car electrical box will blow. Consequently, one-half of the car seats are not usable until the fuse can be replaced.

To avoid this, FarFabbri, s.r.l., suggests to install a panel mount, 3 amp fuse on the face of each cover plate (refer to attached drawing). With this installed, the 3 amp fuse will protect the solenoid; therefore, if a fuse blows, only one (1) seat is out of commission until the fuse can be replaced. Please keep in mind that the cars should be balanced within two (2) passengers at all times.

Fuses and fuse holders are available from Exsaco Corporation, One North Santa Fe St., P.O. Box 328, Alvarado, Texas 76009, 800-545-0667, or from your local supplier.



FAR FABBRI s.r.l.
Via Giovecca, 74 - Tel. 0425/87142-8742
45032 BERGANTINO (RO)
00724000284

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RID

45032 BERGANTINO (Rovigo) - Italy
Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805113
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
Cod. Fisc. e P. IVA 0072400 029 4

PRODUCT IMPROVEMENT BULLETIN

RIDE: Kamikaze DATE: June 17, 1992

SUBJECT: Safety Device BULLETIN NUMBER: FRO30

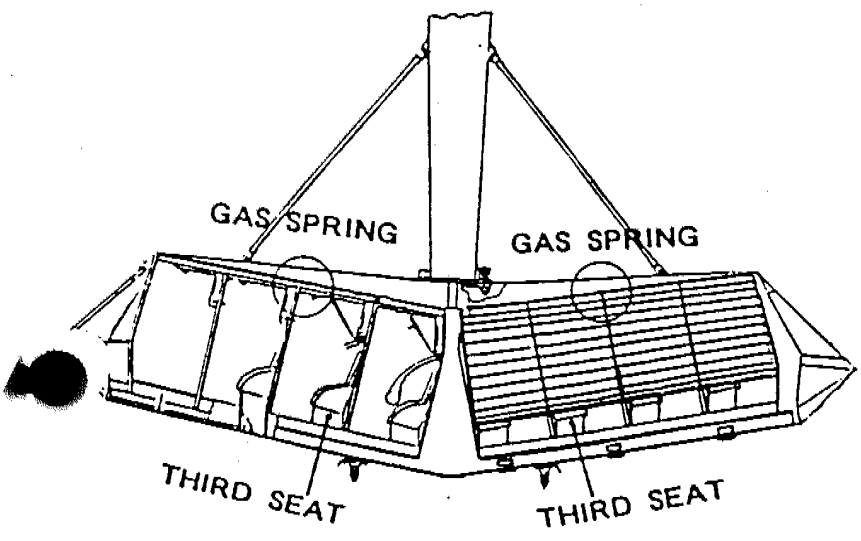
****

It has come to the attention of FarFabbri that a passenger sitting in the third seat of each four-seat car (See drawing A) can place his/her hand between the longer gas springs (See drawing B) and the car frame. This can occur at the time the operator opens the gate to unload the passenger from the ride.

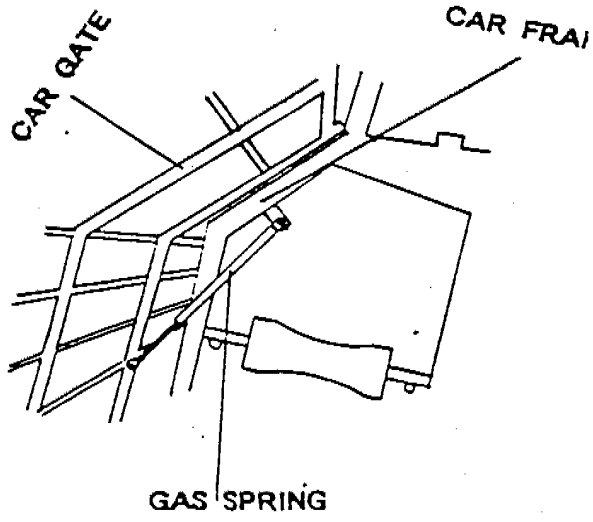
FarFabbri recommends that each owner/operator instruct his ride operators to check for the condition prior to unloading the ride every time or that the optional safety device developed by the manufacturer be purchased and installed.

The safety device can be purchased from Exsaco Corporation, P.O. Drawer 328, Alvarado, TX 76009, at the cost of $48.00 per set of four.

DRAWING A



DRAWING B



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MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) - Italy
Via Giavecca, 74 - Tel. 0425/87400 - 87142 - Fax 0425/805110
C.C.I.A.A. RO N. 30591 - TRIB. RO REG. SOC. N. 4023
Cod. Fisc. e P. IVA 00724000294

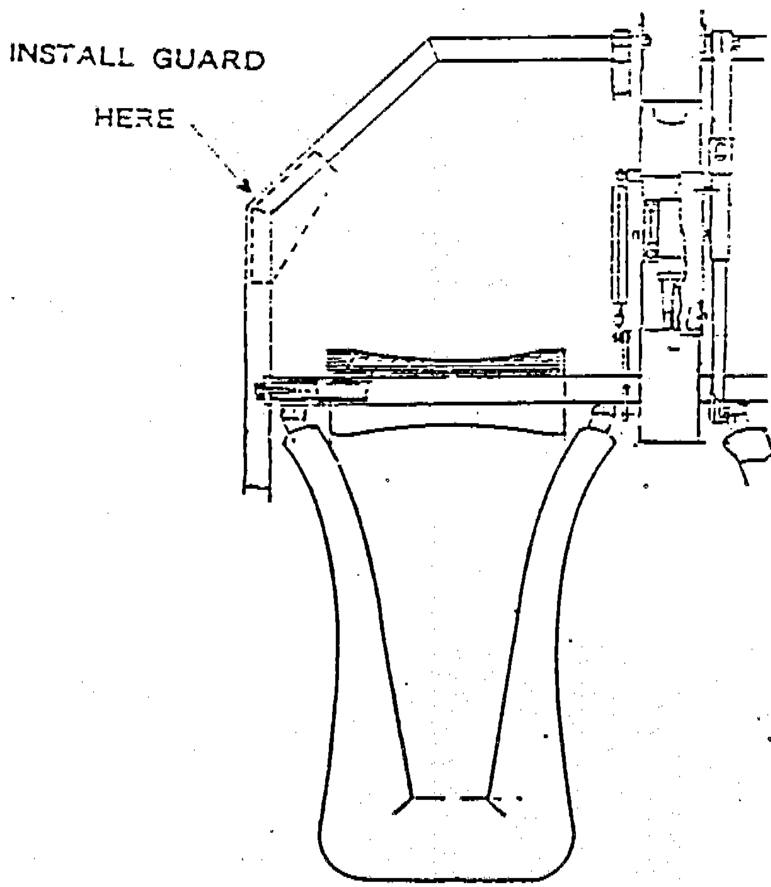
SERVICE BULLETIN

RIDE: Ranger (aka: Phoenix, Kamikaze, Hi-Fiver) DATE: January 28, 1993
SUBJECT: Vehicle Gate Gas Cylinder Guard BULLETIN #: FRO29

****

It has been brought to the attention of FarFabbri, s.r.l. that a patron was using the gas cylinder, which raises the vehicle gate, as a handle to pull himself out of the seat. The operator inadvertently opened the gate and pinched the patron's finger between the cylinder and car frame.

FarFabbri, s.r.l. is offering a guard which prevents patrons from grabbing the cylinder. It is available through Exsaco Corporation, One North Santa Fe St., P.O. Box 328, Alvarado, Texas 76009, 800-545-0667, by ordering four (4) of part number 908-0500.



FAR FABBRI s.r.l.
Via Giavecca, 74 - Tel. 0425/87142-87
45032 BERGANTINO
00724000294

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

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M/710794 - C.C.I.A.A. RO N. 90681 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000294
TELEX 434839 SPARCO I - TELEFAX 0425-878113

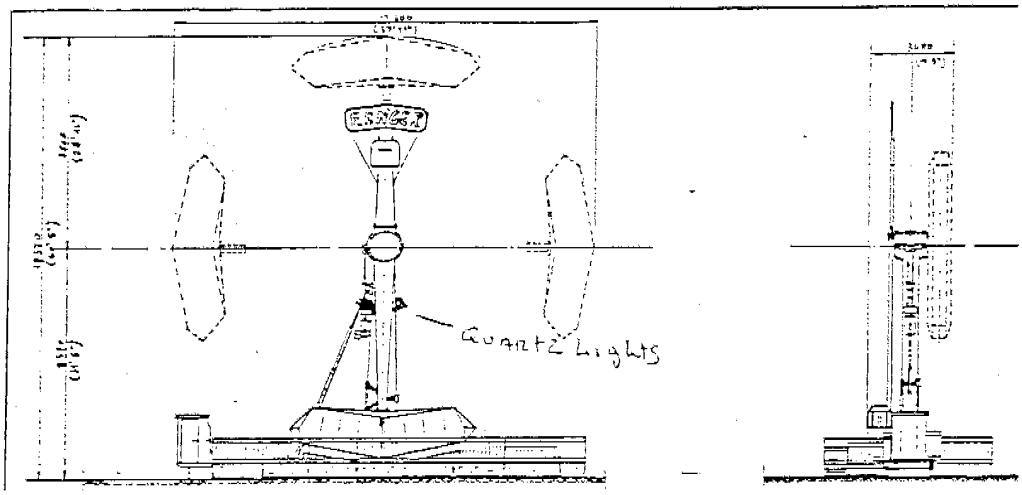
APRIL 13, 1989

SERVICE BULLETIN

RIDE RANGER (KAMIKAZE) SERIAL NUMBER ALL

SUBJECT LENSE GUARD FOR QUARTZ LIGHTS ON VEHICLE ARMS

IT HAS COME TO THE ATTENTION OF FABBRI THAT LOOSE OBJECTS IN THE POCKETS OF PATRONS RIDING THE RANGER (KAMIKAZE) CAN FALL OUT WHEN THE PASSENGERS ARE IN THE INVERTED POSITION. THEREFORE, ALLOWING THE POSSIBILITY OF SHATTERING THE QUARTZ LIGHTS LENSE ON THE ARM.



FABBRI REQUIRES THAT A GUARD BE INSTALLED TO PROTECT THE GLASS LENSE FROM SHATTERING. THIS GUARD CAN BE ORDERED THROUGH EXSACO CORPORATION BY THE FOLLOWING PART NUMBER:

FFR1320 - 4 COMPLETE KITS REQUIRED PER RIDE

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 0072400 029 4
TELEX 434839 SPARCO I - TELEFAX 0425-878113

SERVICE BULLETIN

RIDE: Ranger (Kamikaze, Phoenix) PRE-1990 MODELS **DATE:** 11-15-89

SUBJECT: Latch Springs in Lap bar Assembly **BULLETIN NUMBER:** FR020

****

It has been found through inspection of operating rides, that the springs used to activate lock bars and solenoids are too weak. It is therefore necessary to replace all springs immediately. These springs are available at no charge from Exsaco Corporation, One North Santa Fe St., P.O. Drawer 328, Alvarado, Texas 76009. This change must be completed within 20 days from receipt to this letter or before ride is operated for public use.

When springs are replaced, please complete the enclosed form and return to Exsaco Corporation, P.O. Drawer 328, Alvarado, Texas 76009.

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

45032 BERGANTINO (Rovigo) Italy
Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000294
TELEX 434839 SPARCO I - TELEFAX 0425-878113

SERVICE BULLETIN

RIDE: Ranger **DATE:** 4-02-90

SUBJECT: Delay time installation **BULLETIN NUMBER:** FR025

****

Installation of on delay time and proximity switch on Ranger lap bar safety system.

1) Remove existing micro switch located on inside center hub.

2) Install new proximity switch and adapter plate, note adapter plate must be enter welded or bolted so that head or proximity switch is within 3/8 of an inch from metal indicator plate.

3) When proximity switch is fixed in place wire into the normal opened position with existing wires.

4) Mount and locate circuit braker and "on delay" timer on din rail near control contactors.

5) Located at bottom terminal block in electrical box mounted on center column are (2) terminal block with wire markers FC. Disconnect top two wires and connect them to N O contacts on delay timer. (8 & 6)

6) Install power wire from bottom of control circuit braker to 10 amp circuit braker supplied. Install another wire from bottom of 10 amp circuit braker to one FC terminal.

7) Install another wire from second "FC" terminal to terminal 2 of timer relay.

8) Install neutral wire from camlock (white) to terminal 7 on time relay.

9) Install indicator lamp in operator control panel next to meter.

10) Install two wires from lamp to terminals 10 and 11 on plug which connects to electic box on column.

11) Locate wires 10 and 11 in electrical panel or column and connect to terminal 2 and 7 or the relay.

12) Set time for aproximately 3 seconds.

Lamp or control panel will indicate that ride is in correct loading position. The delay time will prevent the lap bar and gate relay from closing unless the ride has been in the loading position for at least 3 seconds. This is to prevent accidents releasing from momentary swing by in the loading position.

If any questions, please ask Exsaco Corporation at One North Santa Fe Street, Alavarado, Texas 76009. (817) 783-2265.

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

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M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000294
TELEX 434839 SPARCO I - TELEFAX 0425-878113

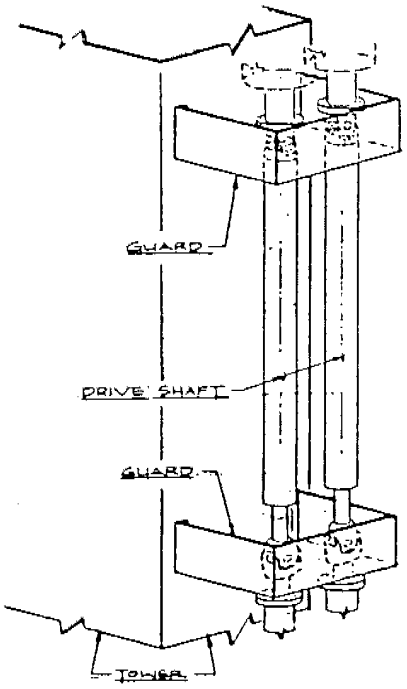
SERVICE BULLETIN

RIDE: Ranger (Kamikase, Phoenix) **DATE:** 05-03-90

SUBJECT: Drive Shaft Guard **BULLETIN NUMBER:** FR023

****

Due to requests by costumers, Fabbri is offering a Drive Shaft/U Joint Guards to prevent damage to ride, should a U Joint fall. This Guard kit as illustraded below can be purchased through Exsaco Corporation by ordering 2 of part No. 564-0900.



If you have any further questions, please feel free to contact Exsaco Corporation, One North Santa Fe Street, Alvarado, Texas 76009 at (817) 783-2265.

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDES

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M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
C. F. e P. IVA 00724000294
TELEX 434839 SPARCO I - TELEFAX 0425-878113

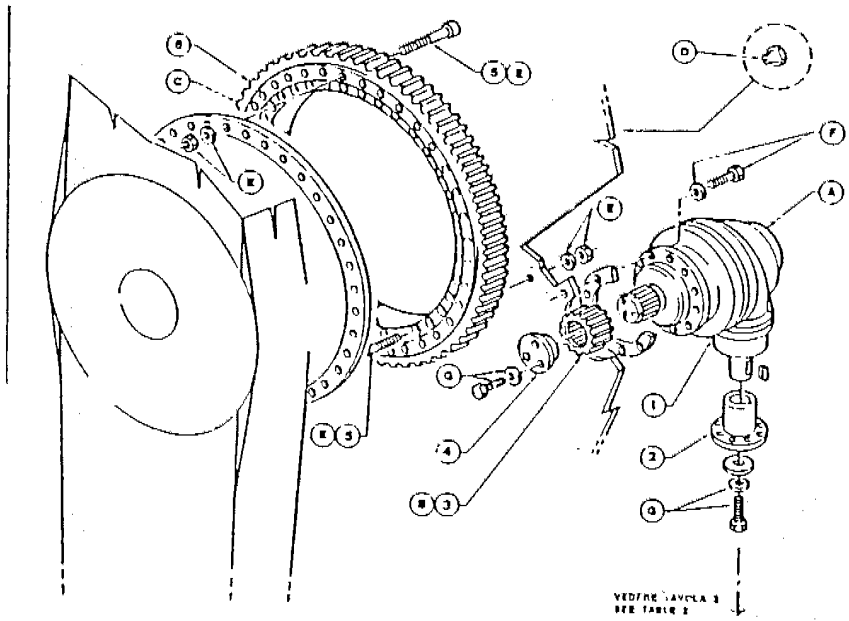
SERVICE BULLETIN

RIDE: Ranger (Kamikaze, Phoenix) **DATE:** 05-03-90

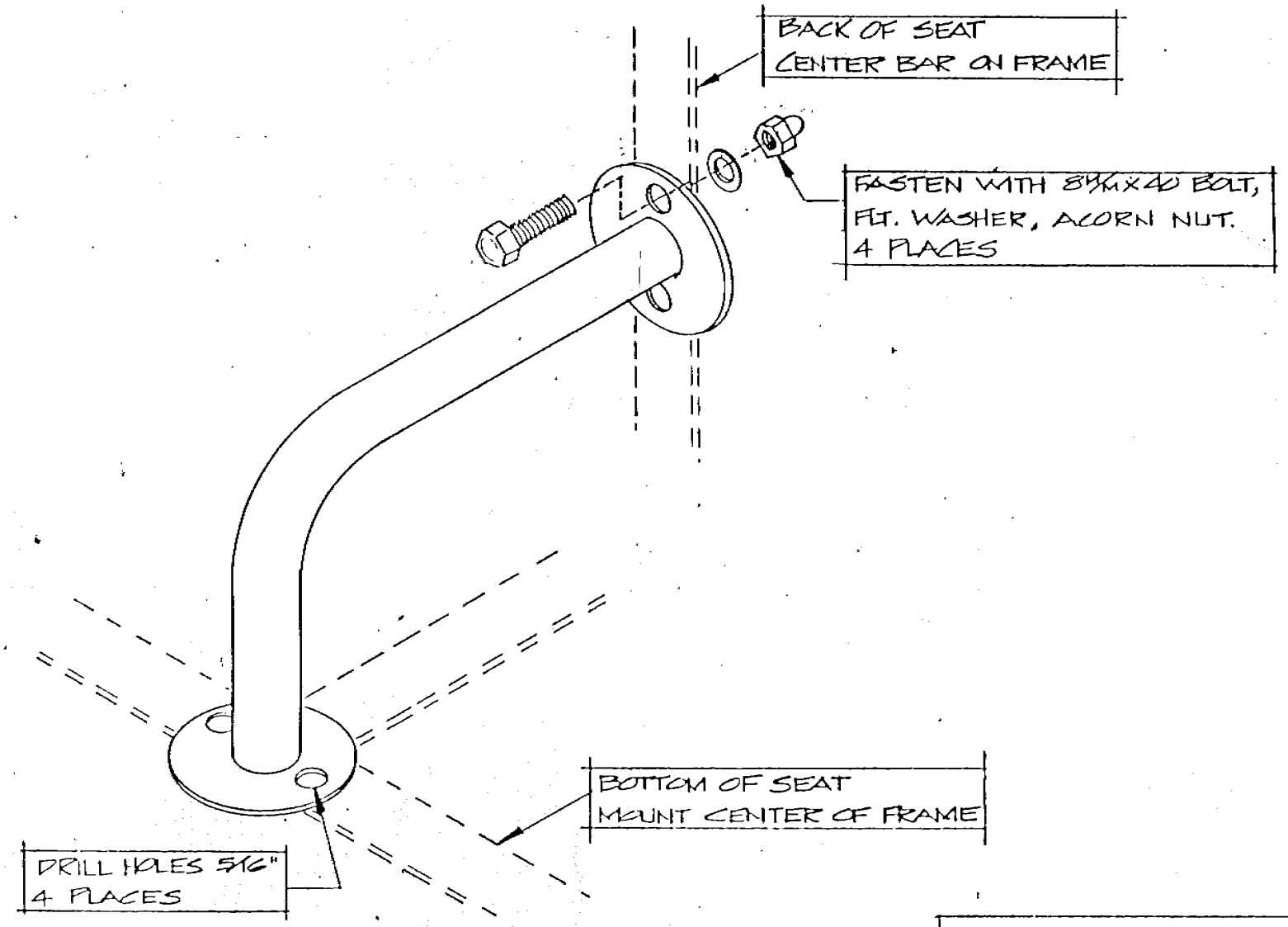
SUBJECT: Pinion Gear Cap Bolts **BULLETIN NUMBER:** FR022

****

It has come to the attention of Fabbri of instances where the three bolts (G) used to secure the pinion gear (B) have loosened or have fallen out completely causing the ride to vibrate while operating. Fabbri requires that the bolts be checked weekly and tightened to 65 ft. lb. torque. This check should be done for both drive pinion gears.



If you need any further assistance, please contact Exsaco Corporation, One North Santa Fe Street, Alvarado, Texas 76009 at (817) 783-2265.



EXSACO CORPORATION

10/22/91	B/H

SAFETY DIVIDER BAR

P/N 620-0450

FARFABBRI S.R.L.

MANUFACTURERS OF AMUSEMENT RIDES

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Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805113
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
Cod. Fisc. e P. IVA 0072400 029 4

SERVICE BULLETIN

Bulletin Number FR026

TO: All Owners of Ranger (aka - Kamikaze, Typhoon, Hi-Flyer) Amusement Rides

RE: Front Seat Dividers

DATE: October 9, 1991

****

It has come to the attention of FarFabbri, s.r.l., that when a patron is in the front seat by themselves and the lap bar adjacent to them is in the incorrect position (up position), it is possible for the patron to come out of the shoulder safety bar. This is prevented by the installation of a bar in the middle of the seat (see drawing). Bar must be installed immediately and confirmation of installation should be mailed to: Exsaco Corporation, P.O. Drawer 328, Alvarado, TX 76009. All materials required for installation are available, free of charge, from Exsaco Corporation. These materials may be ordered by calling 1-800-545-0667 and ordering part number 6200450.

If you should have any questions, please contact Exsaco Corporation.

FarFabbri, s.r.l.

FARFABBRI S.R.L. MANUFACTURERS OF AMUSEMENT RIDE

45032 BERGANTINO (Rovigo) - Italy
Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805113
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028

SERVICE BULLETIN

Bulletin Number FR028

To: **All Owners of Ranger (aka - Kamikaze, Typhoon, Hi-Flyer) Amusement Rides (Pre 1992 Models)**

Re: **Seat Dividers for Intermediate Seats**

Date: **April 17, 1992**

****

FarFabbri, s.r.l. is mandating that the following adjustment be made on each Ranger Amusement ride as soon as possible. When a passenger is in a seat by himself and the lap bar adjacent to him is in the upright position, it is possible for the passenger to slip from under the shoulder safety bar. This is prevented by the installation of a bar in the middle of every seat (refer to attached drawing). All the seat dividers required for the installation are available free of charge from Exsaco Corporation, P.O. Drawer 328, Alvarado, TX 76009 by ordering three (3) sets of part number 6200450. These materials may be ordered by calling 1-800-545-0667. Once the order has been placed, please send confirmation of installment to Exsaco Corporation.

If you should have any questions, please contact Exsaco Corporation.

FarFabbri, s.r.l.

FARFABBRI S.R.L.
MANUFACTURERS OF AMUSEMENT RIDES

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Via Giovecca, 74 - Tel. 0425/87420 - 87142 - Fax 0425/805113
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4028
Cod. Fisc. e P. IVA 0072400 029 4

SERVICE BULLETIN

Bulletin Number FR026

TO: All Owners of Ranger (aka - Kamikaze, Typhoon, Hi-Flyer) Amusement Rides

RE: Front Seat Dividers

DATE: October 9, 1991

****

It has come to the attention of FarFabbri, s.r.l., that when a patron is in the front seat by themselves and the lap bar adjacent to them is in the incorrect position (up position), it is possible for the patron to come out of the shoulder safety bar. This is prevented by the installation of a bar in the middle of the seat (see drawing). Bar must be installed immediately and confirmation of installation should be mailed to: Exsaco Corporation, P.O. Drawer 328, Alvarado, TX 76009. All materials required for installation are available, free of charge, from Exsaco Corporation. These materials may be ordered by calling 1-800-545-0667 and ordering part number 6200450.

If you should have any questions, please contact Exsaco Corporation.

FarFabbri, s.r.l.

FARFABBRI S.R.L.

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Via Giovecca, 74 - Tel. 0425 / 87420 - 87142
M/710794 - C.C.I.A.A. RO N. 90591 - TRIB. RO REG. SOC. N. 4023
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TELEX 434839 SPARCO I - TELEFAX 0425-878113

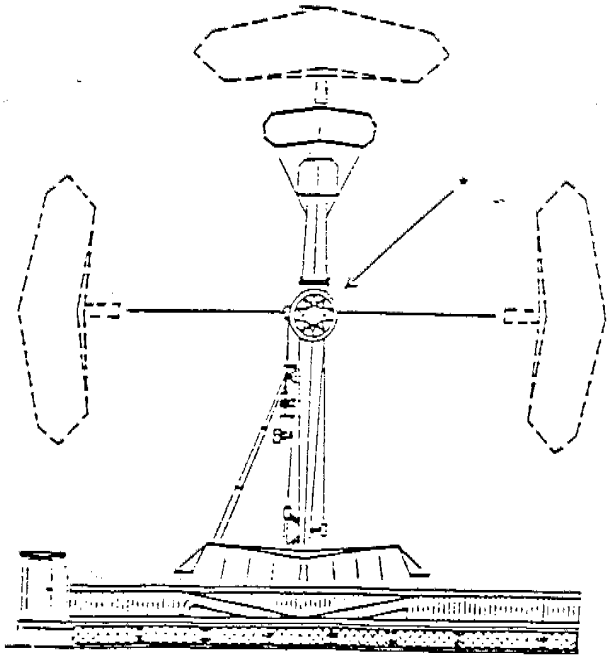
SAFETY BULLETIN

RIDE: RANGER (KAMIKAZI, PHOENIX) DATE: SEPTEMBER 07, 1990

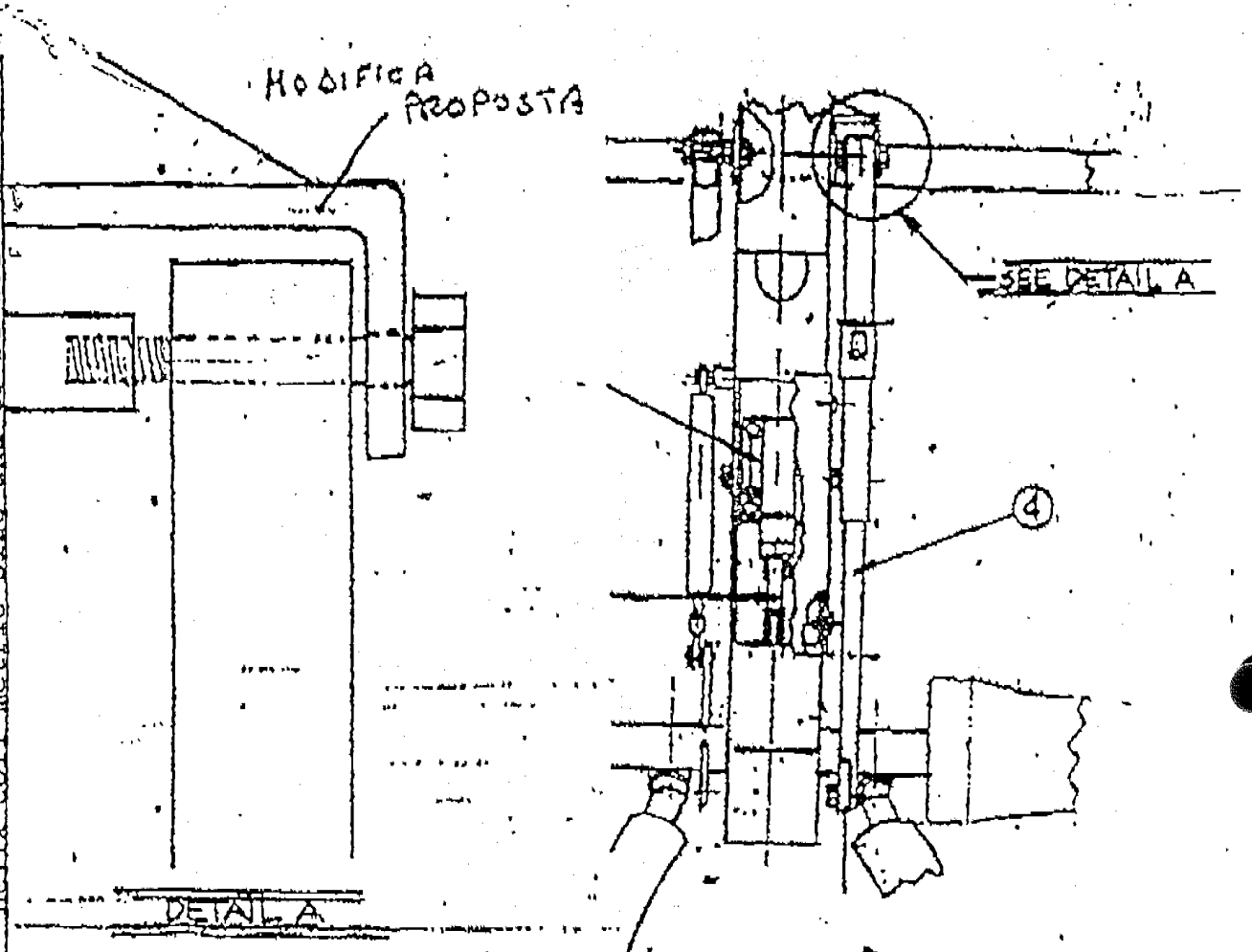
SUBJECT: STAR LIGHT FIXTURE BULLETIN NUMBER: F014

****

It has come to the attention of **FarFabbri, s.r.l.**, of instances when the starlight fixture (*) has separated from the metal frame, resulting in the fixture falling on the platform when the ride is operating. It is extremely important that these stars be immediately inspected to assure that they are attached firmly to the framework. If found that the fixture is becoming loose, please contact Exsaco Corporation, One North Santa Fe Street, Alvarado, Texas 76009, 817-783-2265, immediately for instructions as to the repair.



A.H. WEHRMER Jr. KAMIKAZE (1)



NOTE: Other information - this is a helix coil inside base metal that is welded on surface. When drilled to replace broken stud, new helix coil metric size and to be welded to surface.

APPROVATO MODIFICA. NEI PROSSIMI ESEGUIREMO ANCHE NOI MODIFICA

SALUTI.

Licinio

KY DEPT OF AGRICULTURE
Division of Weights & Measures
Amusement Ride & Attraction Inspection
108 W Second Street
Frankfort Kentucky 40601

FAR FABB. s.r.l.