



Elevating and Amusement Devices Safety Division	Ref. No.: 506 / 98	Rev. No.: 1
Safety Alert Bulletin	Date: July 22, 1998	Date: March 25 /99

Subject: SAFETY ALERT FOR HIMALAYA MADE BY REVERCHON, S.A. INDUSTRIES

Sent to: ALL AMUSEMENT DEVICES LICENSEES AND CONSULTANTS

1. BACKGROUND

Following a serious accident in 1998 the “Himalaya” amusement ride manufacturer Reverchon, S.A. Industries, issued a safety alert that was attached to the first edition of this Bulletin. More recently the manufacturer has developed a new inspection and maintenance procedures.

Attached with this bulletin find:

- (a) the “Amusement Ride Safety Alert” dated July 8, 1998 issued by the U.S. Consumer Product Safety Commission (CPSC) related to the amusement device known as “Himalaya”, manufactured by Reverchon, S.A. Industries, France.
- (b) Memorandum by Reverchon Industries, dated February 22, 1999 and instructions on maintenance, inspection and modification.

2. ORDER TO LICENSEES

2.1 Remove from service all “Himalaya” amusement devices until the “Amusement Ride Safety Alert” dated July 8, 1998 issued by the U.S. Consumer Product Safety Commission (CPSC) is complied with.

2.2 In addition to the Order in Section 2.1, the licensee shall comply with the attached Memorandum and instruction in the following manner:

- (a) The new inspection and maintenance procedures shall be enforced immediately.
- (b) The use of the tolerance gauge to verify safety of the lap bar latch shall be implemented immediately.
- (c) The secondary restraints and speed control device shall be installed before April 30, 1999 to enhance riders safety.

2.3 The licences shall immediately confirm in writing the ownership of the amusement device impacted by this safety alert to the attention Marc Tevyaw, Acting Chief Inspector.

C. E. Vlahovic, Chief Engineer



MEMORANDUM

Voire Réf.:

FEB 22 1999

Notre Réf.:

To : U.S. Owners of Himalayas

From : REVERCHON INDUSTRIES SAMOIS, FRANCE

Subject : Repair of « HIMALAYA » amusement ride

99 FEB 22 1999

In cooperation with the United States Consumer Product Safety Commission, *REVERCHON INDUSTRIES* of Samois, France and *REVERCHON USA* of Wilsonville, Oregon are providing to all U.S. owners of the « Himalaya » amusement ride new inspection and maintenance procedures and a tolerance gauge. We will distribute the tolerance gauge within 30 days of this notice.

We are also offering secondary restraints and speed control device to enhance rider safety. Enclosed are the materials for the repair inspection, and maintenance of the « Himalaya » which you will need to follow.

Owners can contact *REVERCHON* in the United States at : 503-694-2803 or *REVERCHON* in France at 011-331-60749400.

The United States Consumer Product Safety Commission will notify all amusement ride state safety officials of this program. These state officials will assist the Commission in monitoring this program.

Société
Gaston REVERCHON
Industries

Siège Social :
18, avenue des Champs-Élysées
75008 PARIS FRANCE

Direction Générale :
123, route de Courbousson
B.P. 1
77920 SAMOIS CEDEX
FRANCE
Tél. : (33) 01.60.74.94.00





MAINTENANCE

MAINTENANCE

EVERY DAY
CAR INSPECTION
Cars must be in perfect condition
<ul style="list-style-type: none"> - Safety bars (hinge and locker) - Wing nuts T516 - Shaft and pins T512 and T513 - Shock absorber S651 - Hydraulic motor Y 504 - Locker (no wear admitted)
Sweep Inspection
<ul style="list-style-type: none"> - Pins T511 at the beginning of each sweep - Pins T522
Inspection of Hydraulic Unit
<ul style="list-style-type: none"> - Check the oil level - Watch for any oil leak - Watch for manometer pressure
All security pins
Must be in place and in good shape. If not, they must be replaced.

EVERY 50 HOURS
GENERAL INSPECTION OF BOLTS AND NUTS
All bolts must be in place and tightened. Vibrations might drive some bolts loose. They must be checked every 50 hours and tightened if necessary.



MAINTENANCE

MAINTENANCE

EVERY MONTH	ONCE A YEAR
<p data-bbox="678 716 997 772">GENERAL INSPECTION OF WELDINGS</p> <ul style="list-style-type: none"> - Lubrication of the slewing ring - Lubrication of the 6 lubricators - Lubrication of the 3 lubricators on the rotating joint with POCLAIN grease EP or TEXACO MOLYTEX NR. 2. - Wheels should be re-lubricated when they are mounted every month. - Re-lubrication of the pins T511 when they are settled or every month. - Watch for the oil level in the servo-motor. - Control of the rubber bushings on the chassis of the cars. 	<ul style="list-style-type: none"> - Re-lubrication of the electric engine - Complete inspection of bolts, welding, pipes, motors, seats. - Speed, vibrations, stresses, centrifugal force, alternate loads, induce fatigue. - Fatigue of metal may cause cracks specially in the dynamic parts of the ride such as : wheels, sweeps, center plates, rail track, track pins, other pins, car chassis, spread bars between sweeps or other components including the cars themselves. <p data-bbox="1027 1255 1373 1514">All these parts (specially the dynamic ones but not exclusively) must be completely dismounted and disassembled once a year. They must be carefully inspected. You must not operate your ride if one of these parts either shows the beginning of a crack in the metal or an excessive wear.</p> <p data-bbox="1027 1539 1373 1598">If such a case occurs, you must change the part.</p>



5/5

MAINTENANCE

EVERY TWO YEARS

The ride must be completely inspected by an authorized registered office such as VERITAS or TÜV or other, Level 1 qualified inspectors

Please call our service for an appointment :

Tel. number in the USA :

503 694 28 03

or write at the following address :

REVERCHON USA
7177 LAKE BLUFF COURT
PORTLAND
OREGON



Technical aspects corrective action plan

Security bar

Enclosed you'll find drawing 40-6804-42 - Insert - giving you a description of placing the security bar in the exact position, to maintain the bar, as well as the dimensions (54 mm) between the spacer and the upper part of the bottom of the car. This spacer doesn't move at all so that the feet of the passengers couldn't get stuck between the bar and the bottom of the car, when closing the fence of the HIMALAYA.

Also the positioning of the secondary lap bar latching device is shown (detail C) on above mentioned drawing

R-Keys

We propose you an alternative solution :

To replace the 2 inferior axles maintaining the bar (see photo hereafter) by one axle which is designed on drawing number 40-6191-42 A- Insert.

Once these axles correctly installed, we advise you to bring in one R-key whereabout you'll find the documentation here enclosed.

For more information please refer to drawing 40-6805-42 - Insert.

Please note that, for the moment the best solution a split-R-key with a washer is, provided that they are changed at each dismantling of the ride and a new one is used every next erection.

Speed control device

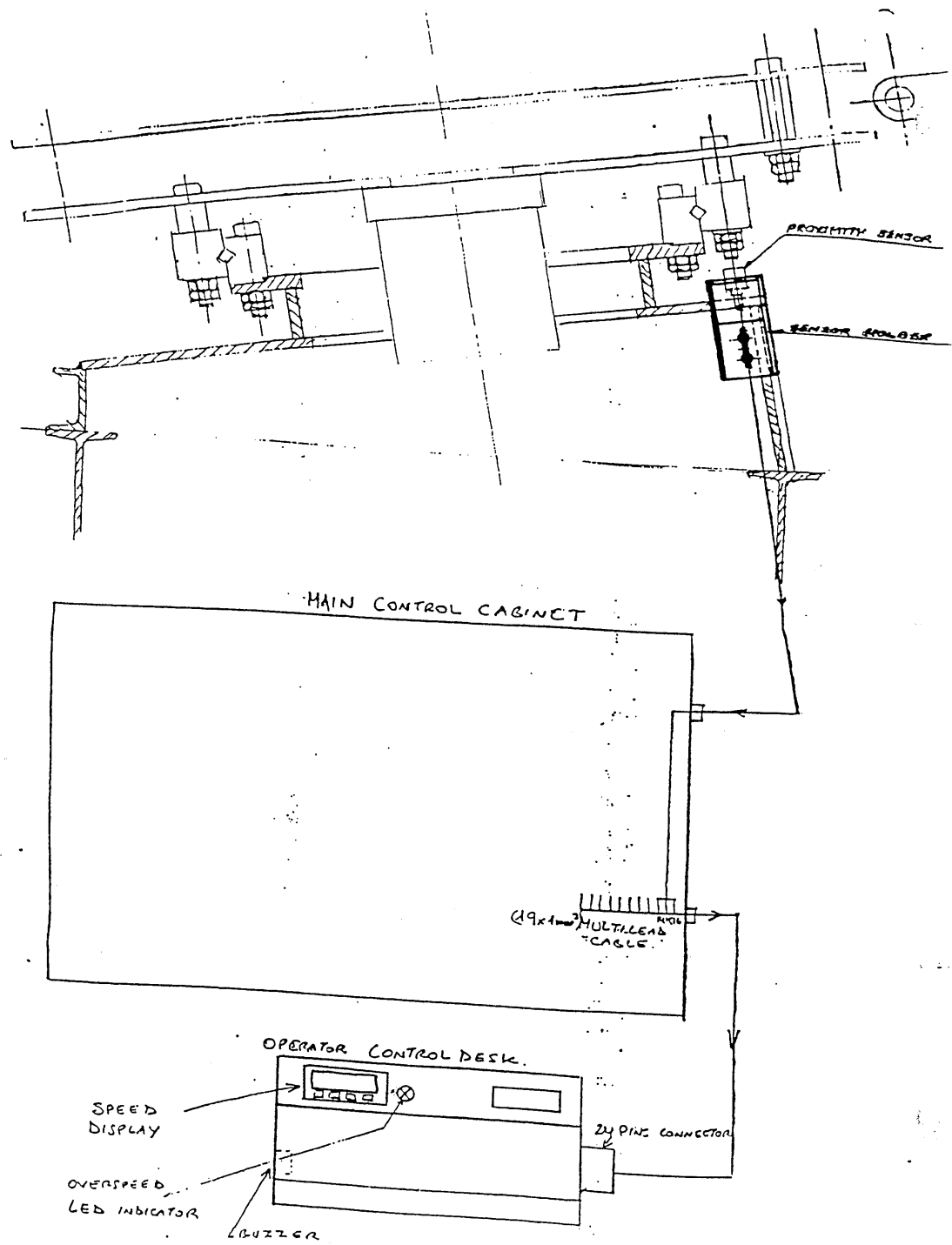
Regarding the speed control device, we propose you to find hereafter 2 detailed main drawings of the installation of a sensor to determine the frequency of the ride.

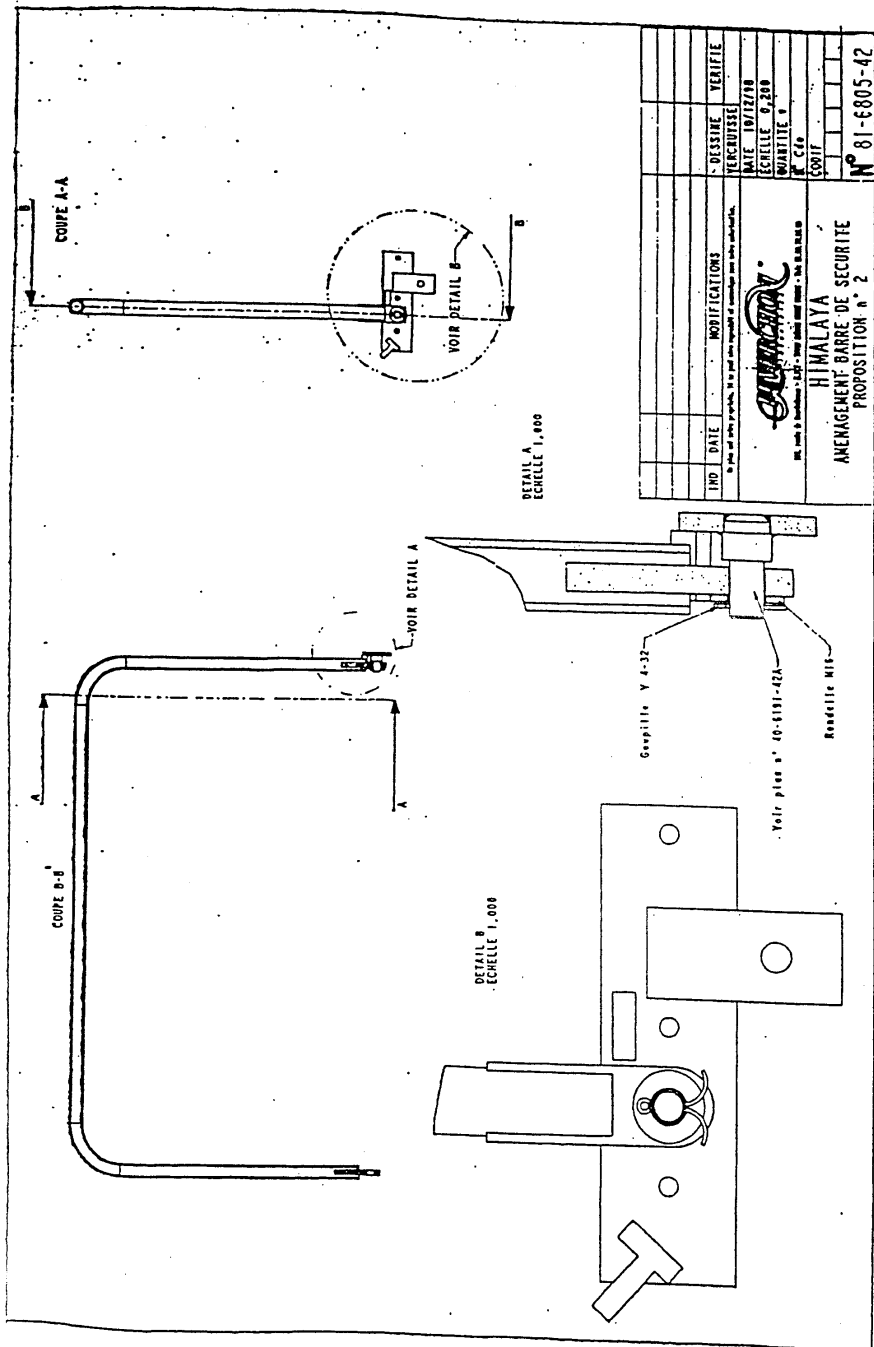
This sensor indicates the speed directly in RPM.

If the speed goes over the threshold corresponding to the maximum speed, a warning blister lights up and a buzzer sounds a warning in the station the if the ride rotates faster than its permitted speed.

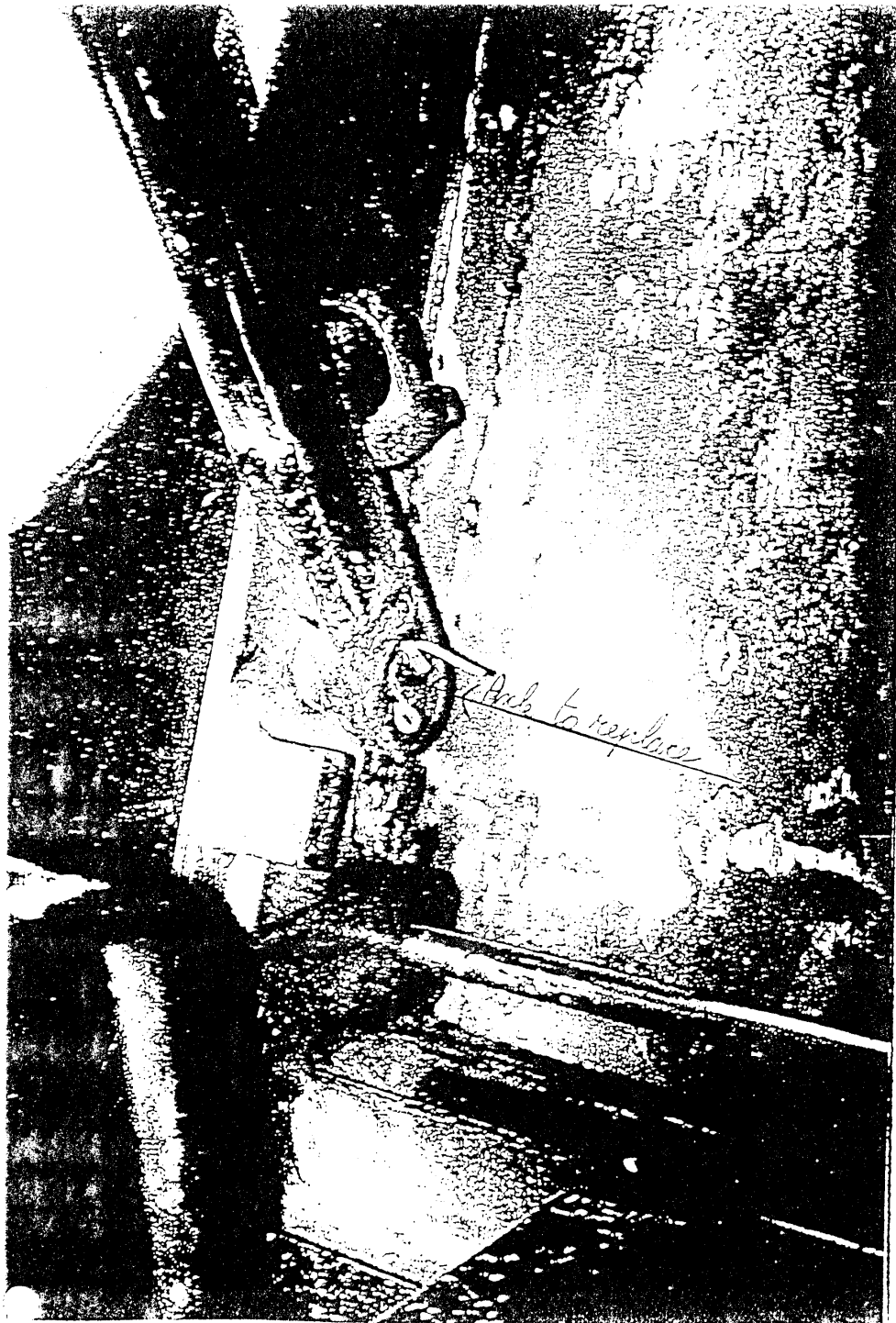
Tolerance Gauge Tool

We are providing to all U.S. owners of the « Himalaya » amusement ride a tolerance gauge.

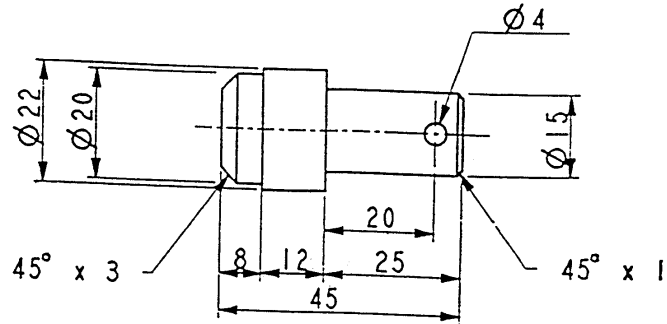





Further information may be obtained by contacting: Director - ED/AD Division, Technical Standards and Safety Authority,
 4th Floor – West Tower, 3300 Bloor St. West, Etobicoke ON., M8X 2X4 Ph:416 325 2000 Fx:416 326 8248



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4th Floor – West Tower, 3300 Bloor St. West, Etobicoke ON., M8X 2X4 Ph:416 325 2000 Fx:416 326 8248



TOLERANCE D'USINAGE : $\pm 0.5\text{mm}$

A	9/12/98	Modif perçage et longueur		
IND	DATE	MODIFICATIONS	DESSINE	VERIFIE
Ce plan est notre propriété, il ne peut être reproduit ni communiqué sans notre autorisation.			VERDIER	
 123, route de Courbevoie - B.P. 1 - 77020 SANDIS CEDEX FRANCE - Tel: 01.69.74.94.00			DATE	9/2/73
			ECHELLE	1,000
			QUANTITE	48
			N° Cde	
			CODIF	
			A	
			N°	40-6191-42A

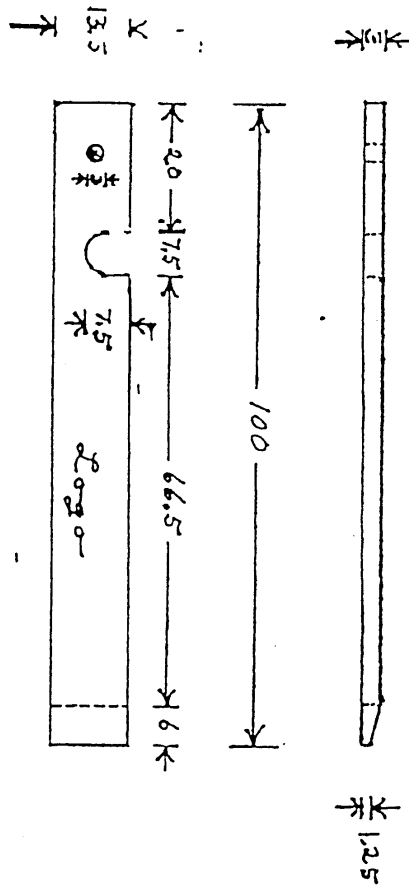
HIMALAYA
 AXE POUR BARRE DE PROTECTION




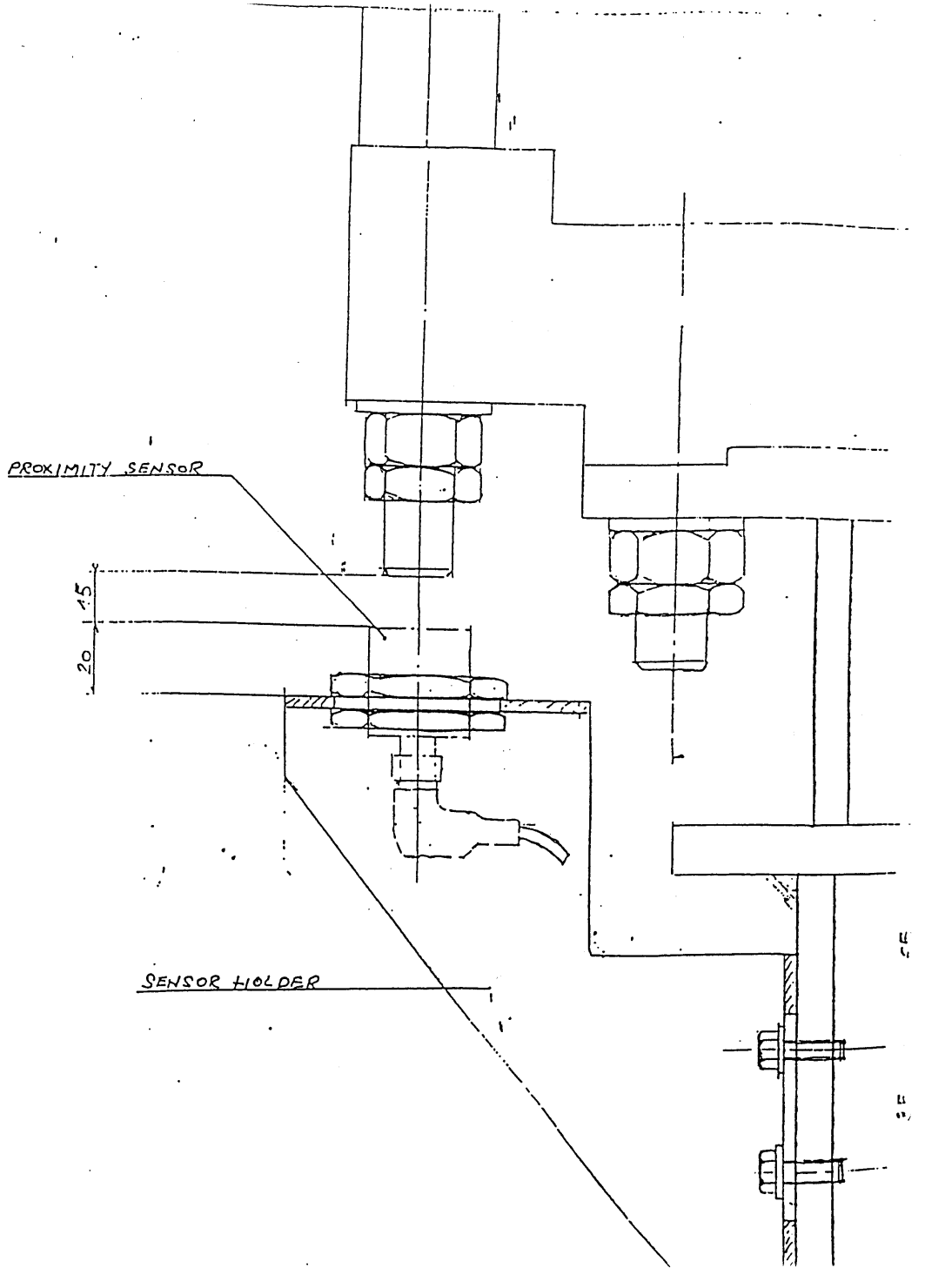
Use of Lap Bar Latch Tolerance Gauge for Reverchon HIMALAYA

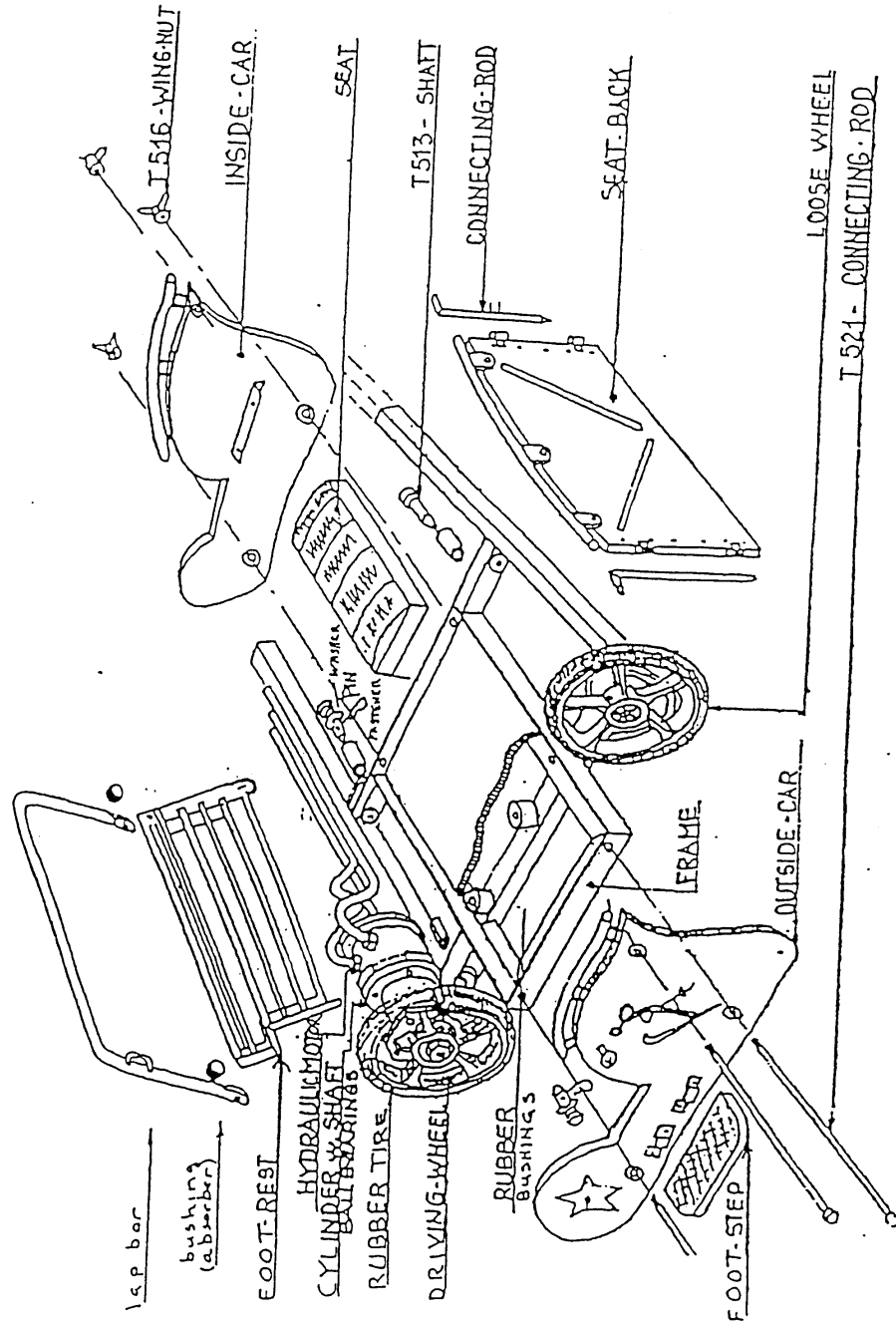
- (a) Thickness - 3 mm Length between latch and striker plate, if length is less than 3 mm, latch needs repair or replacement.
- (b) U-cut - 7,5 mm Minimum width of latch hook; if U-cut slides over hook, the hook will need repair or replacement (latch hook thickness latch hook - original thickness 10 mm)
- (c) Tapered End - 1.25 mm Tip is worn if latch tip is equal to or greater than tapered end thickness.
- (d) Length - 100 mm Straight-edge for flatness measure
- (e) Width - 13,5 mm Lock handle cam minimum thickness measure 13.5/14 mm from hold edge to cam outside; striker plate not less than 14 mm where welded to mounting surface plate.

ALL DIMENSION 'mm'
 NOT TO SCALE
 K. HOLE FOR KEYCHAIN
 7.5 mm CUT OUT



IND.	DATE	MODIFICATIONS	DESSINE	VERIFIE
Ce plan est notre propriété, il ne peut être reproduit ni communiqué sans notre autorisation.				
 123, route de Courbuisson - B.P.1 - 77920 SAMOIS CEDEX FRANCE - Tél : 16 (1) 64.24.66.15			DATE	
			ECHELLE	
			QUANTITE	
			N° Cde	
HIMALAYA			CODIF.	





Note: Adapted from Revercho Manual drawing.



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

AMUSEMENT RIDE SAFETY ALERT

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

REVERCHON, S.A. INDUSTRIES, FRANCE
"HIMALAYA"
July 8, 1998
Revised

On April 22 and May 21, 1998, the U.S. Consumer Product Safety Commission (CPSC) issued a safety alert on the Reverchon "Himalaya" mobile amusement ride in an effort to prevent future ride incidents similar to the one which occurred at the Austin-Travis County Livestock Show & Rodeo in Austin, Texas on March 19, 1998. The incident involved the failure of a lap bar restraint in car #19, due to the failure of the cotter pins used to fasten the lap bar to the floor pins. The car's lap bar disconnected from the floor fasteners and was ejected with the car's three riders. One rider was killed and the two others were seriously injured.

CPSC's preliminary investigation into the cause of the failure recommended remedial inspection of critical areas. Since that time, the CPSC has further evaluated the ride and has the following recommendations which should be followed by state ride safety inspectors and owners/operators of the Himalaya rides in question.

1. Stainless steel cotter pins or R-keys, with hardened washers (with a hole diameter that closely fits the car's lower lap bar pin) are to be used as fasteners for car lap bars. These stainless steel fasteners are non-magnetic and can be checked with a magnet. The stronger stainless steel cotter pins have been used on amusement rides where there is a concern of removal by a patron. A 304, 316 or 18-8 stainless steel alloy cotter pin could be more difficult to dislodge than a wired R-Key. Alternately, "rue" pins and "circular cotter pins" are also appropriate fasteners. A hardened washer that closely fits the lower lap bar pin that is placed between the stronger fasteners and lower lap bar should reduce fastener shearing. The lower lap bar fasteners require inspection, maintenance, and replacement as necessary. [SEE ATTACHED DRAWING]

2. Ride speed should not exceed 12 rpm with all 4 hydraulic motors operable and 10 rpm with 3 hydraulic motors operable. Inoperable hydraulic motors can increase the ride's rpm.
3. It is recommended that the ride NOT run in reverse, since the Commission's injury data indicates a greater risk and propensity for rider ejection in conjunction with other ride component problems.
4. The prospect of unintentional unlatching shows that a back-up (secondary) latch may be needed as security against unintentional unlatching. From conversations with several state ride inspectors, CPSC technical staff has learned of several styles of secondary latching devices, for lap bars, being used on various Himalaya-type rides in this country. Some of these rides use a strap device over the lap bar and some use a mechanical device with the latch device; either is suitable.
5. If the ride has more than 2 inoperable cars, it may be an indication of more serious ride problems and therefore warrants a more in-depth ride inspection.
6. During the test running of the Austin, Texas ride, three latch components separated from their respective cars. These components were flung from the ride. The possibility of injury was present and would increase with spectators present. Because of these component separations, latches need to be checked as a daily inspection item.
7. Check center spindle bushings for wear. Worn bushings can cause possible skips and jumps of cars while in operation. The skips/jumps may contribute to chipping of the cars' wheels .
8. Inspect rubber bushings (absorbers), both on the lap bar latching system and under each car; for bulging, cracking, wear, and deterioration that affects the bushings purpose and effectiveness. Replace bushing if indicated. [SEE ATTACHED DRAWING]

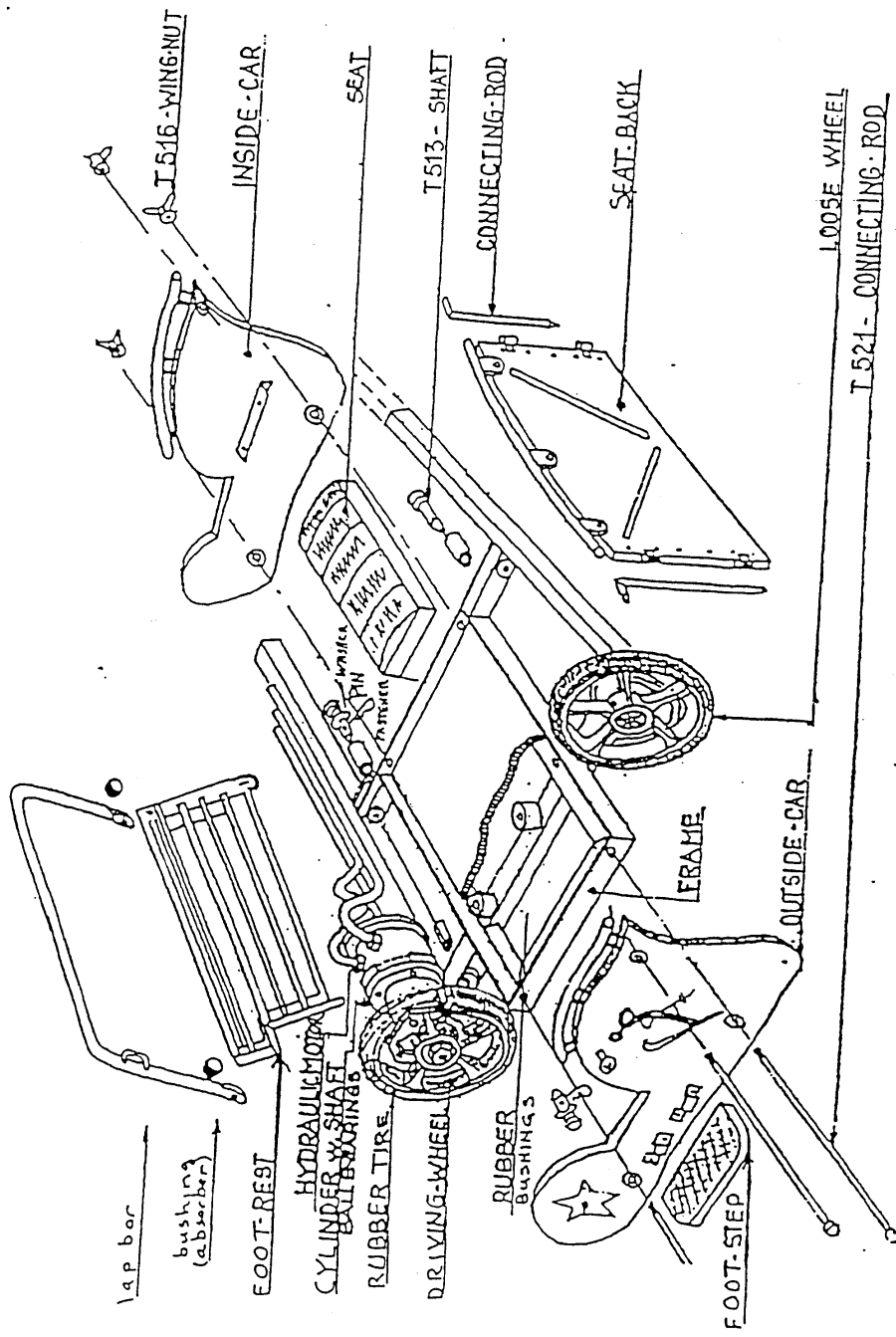
For further information or clarification on this Safety Bulletin you may contact one of the following:

U.S. Consumer Product Safety Commission
Office of Compliance & Recalls
Jay DeMarco at (301) 504-0608 ext 1353

Division of Mechanical Engineering
Tom Caton at (301) 504-0494 ext 1305

Reverchon Industries, USA, Wilsonville, OR
at (503) 694-2803

NOTE: This safety bulletin supersedes the previous bulletins issued on 4/22/98 and 5/21/98.



Note: Adapted from Reverchon 75 Manual drawing.

Further information may be obtained by contacting: Director - ED/AD Division, Technical Standards and Safety Authority,

4th Floor - West Tower, 3300 Bloor St. West, Etobicoke ON., M8X 2X4 Ph:416 325 2000 Fx:416 326 8248

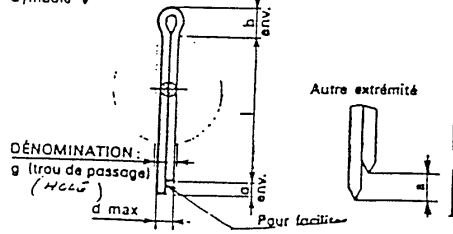
3.1.1 Goupilles cylindriques fendues
fendues *SPLIT PIN*

g	0,6	0,8	1	1,2	1,6	2	2,5
d	0,5	0,7	0,9	1	1,4	1,8	2,3
a	1,6	1,8	1,8	2,5	2,5	2,5	2,5
b	2	2,4	3	3	3,2	4	5
l mm	4	5	6	8	8	12	18
	5	6	8	10	10	14	20
	6	8	10	12	12	16	22
	8	10	12	14	16	18	25
g	3,2	4	5	6,3	8	10	13
d	2,9	3,7	4,6	5,9	7,5	9,5	12,4
a	3,2	4	4	4	4	6,3	6,3
b	4,4	8	10	12,6	16	20	26
l mm	16	20	28	36	56	71	71
	18	22	32	40	63	80	80
	20	25	36	45	71	90	90
	22	28	40	50	80	100	100
	25	32	45	56	90	112	112
	28	36	50	63	100	125	125
	32	40	56	71	112	140	140
ATTENTION	La longueur l n'est pas la longueur hors tout.						

EMPI

GOUPILLE CYLINDRIQUE FENDUE NF E 27-487
Symbole V

36



Du fait de
vis et ces
ou dilatait
qu'il n'y a



WASHER M16

Split R-Key 4-32

