

MFG: FALGAS
NAME: SAFARI TRAIN
Type: KIDIE



TREN SAFARI

REF.12511

FALGÁS®
K I D D I E R I D E S

FALGÁS 2402570001

CTRA. FIGUERES A ROSES Km.37
17486 CASTELLO D'EMPÚRIES
(GIRONA)
SPAIN

TEL. (34) 72 45 44 83
FAX (34) 72 45 44 04

A.- CARACTERÍSTICAS DE LA MÁQUINA

- 1.- Dimensiones generales
- 2.- Introducción
- 3.- Puntos a tener en cuenta
- 4.- Características generales
- 5.- Instalación de la máquina
- 6.- Puesta en marcha
- 7.- Memoria descriptiva

B.- PIEZAS QUE COMPONEN EL APARATO

- 1.- Mecanismo
 - 1.1.- Despiece del mecanismo
 - 1.2.- Códigos del mecanismo
- 2.- Figura
 - 2.1.- Despiece figura: máquina y vagones
 - 2.2.- Códigos de la figura
- 3.- Adhesivos

C.- ESQUEMAS ELÉCTRICOS

D.- GUÍA DE DIAGNÓSTICO Y REPARACIONES

E.- MANTENIMIENTO

A.- MACHINE'S CHARACTERISTICS

- 1.- Overall dimensions
- 2.- Introduction
- 3.- Points to take into account
- 4.- Machine characteristics
- 4.- Machine installation
- 6.- Start up
- 7.- Machine description

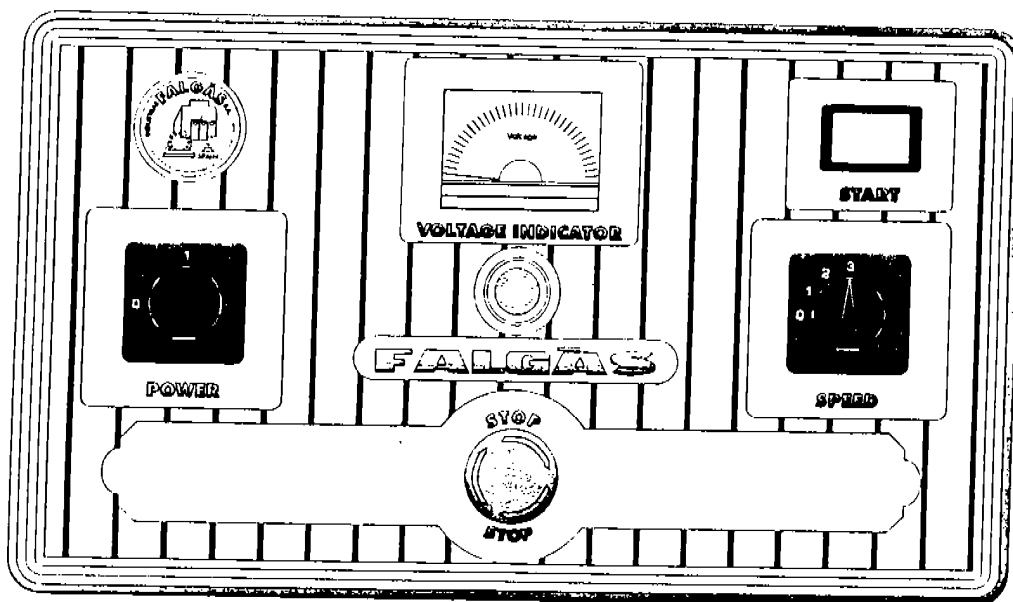
B.- PARTS FROM MACHINE

- 1.- Mechanism
 - 1.1.- Mechanism quartering
 - 1.2.- Mechanism codes
- 2.- Figure
 - 2.1.-Figure quartering:locomotive and coaches
 - 2.2.- Figure codes
- 3.- Adhesives

C.- ELECTRIC SCHEMES

D.- GUIDE OF DIAGNOSES AND REPAIRS

E.- MAINTENANCE



Seguidamente se accionan los térmicos de protección y se procederá de la siguiente manera:

- Seleccionar con el temporizador el tiempo deseado de funcionamiento
- Conmutar interruptor general
- Pulsar botón START
- Variar la velocidad con el selector de velocidades
- El tren se parará cuando finalice el tiempo anteriormente programado. En caso de emergencia podremos parar el tren a través del pulsador de paro de emergencia.

7.- MEMORIA DESCRIPTIVA

La máquina está equipada con un pupitre de control en el cual se encuentran ubicados los diferentes elementos para suministrar los 24Vcc a las vías.

A través de un transformador con distintos primarios se obtiene una tensión de salida que es rectificada a través de un puente de diodos.

Cuando el tren está parado el pupitre de control alimenta a las vías con una tensión negativa con lo cual las luces se encienden y los motores no funcionan. Una vez que se pone en funcionamiento la tensión vuelve a ser positiva con el funcionamiento de los motores.

El pupitre está equipado con diferentes elementos de protección:

- Un térmico de 16A en el primario del transformador
- Un térmico de 125A en el secundario del transformador
- Un diferencial de alta sensibilidad

Dentro del pupitre de control se encuentra una tarjeta microprocesada la cual es la encargada de generar el sonido en función de si el tren se encuentra en movimiento o está parado.

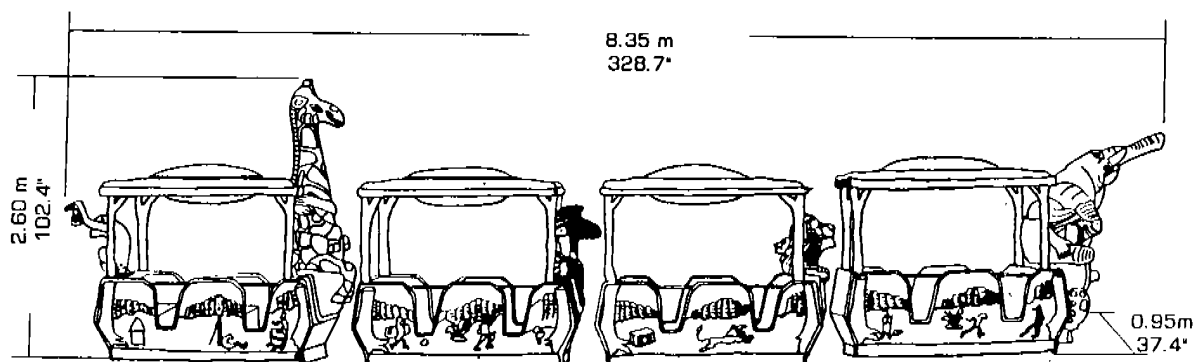
Además en la locomotora y en cada vagón se encuentra otra tarjeta electrónica la cual produce diferentes sonidos al accionarse los pulsadores que se encuentran en el tren.

La estructura mecánica de la máquina está realizada con perfil de acero laminado y pintada con pintura epoxi al horno. Las ruedas son de hierro fundido de calidad GG-22 y los demás materiales como correas, cadenas, etc. son del comercio de primera calidad.

Tener la precaución de verificar la tensión de la cadena y correa dentada así como el engrase de las partes móviles periódicamente (Ver apartado de mantenimiento)

FALGÁS

1.- OVERALL DIMENSIONS



2.- INTRODUCTION

We thank you to choosing our product. We are convinced that you will be satisfied with it and that it will satisfy all your needs.

This manual contains some interesting information about the train installation, its future maintenance or its repairing.

3.- POINTS TO TAKE INTO ACCOUNT

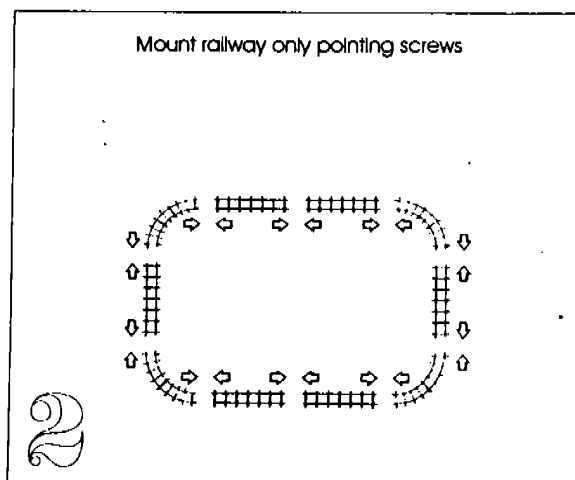
- Machine is designed to be directed by a person through a control board. This person must be able to see the whole railway.
- In case it rains we advise you not to use the train
- Control board must be plugged into an earthconnected socket

4.- MACHINE CHARACTERISTICS

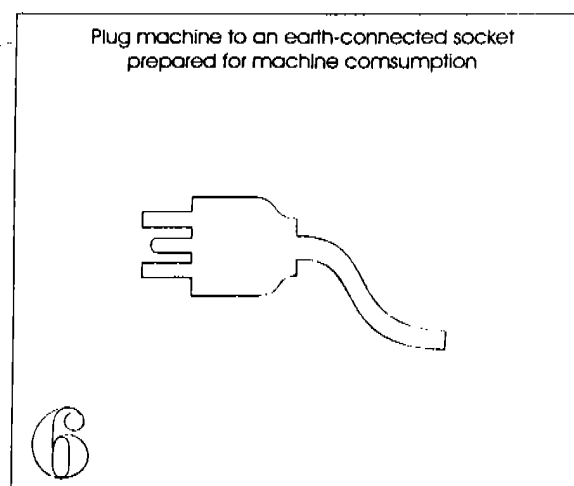
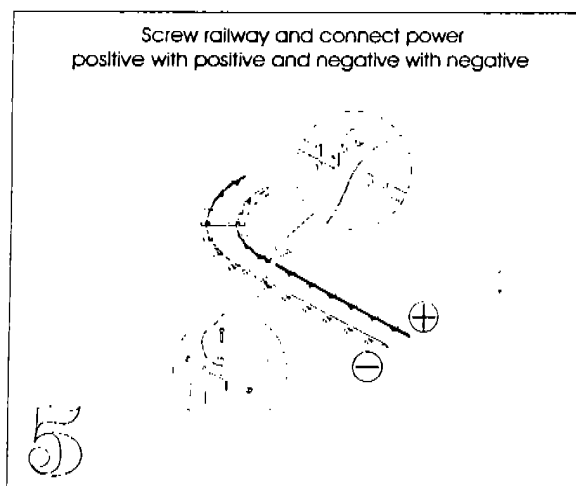
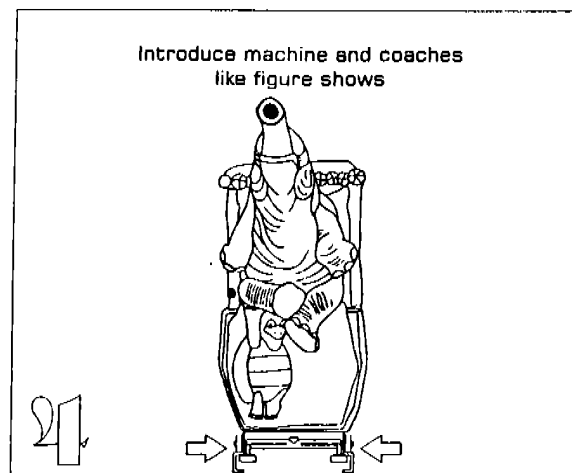
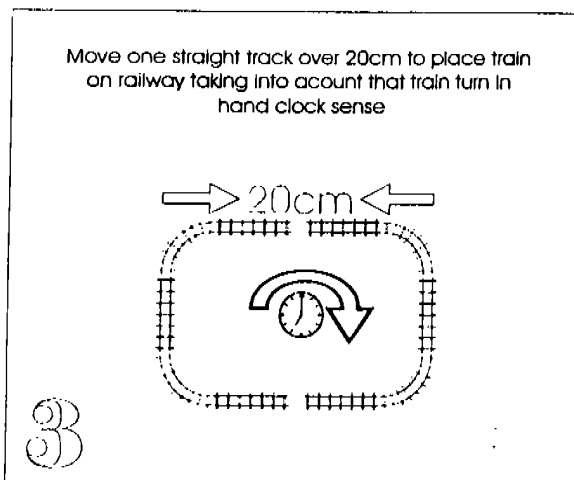
- Power: 3500W (when train runs with maximum speed)
- Power when train is resting position: 360W
- Timer adjustable between 2 and 12 minutes
- Machine's speed can be changed
- Railway power: 24Vcc
- Electromechanical train's control
- Maximum speed: at 3000 r.p.m. and 24V is 8Km/h

5.- INSTALLATION

You must take next points into account to make a correct installation:

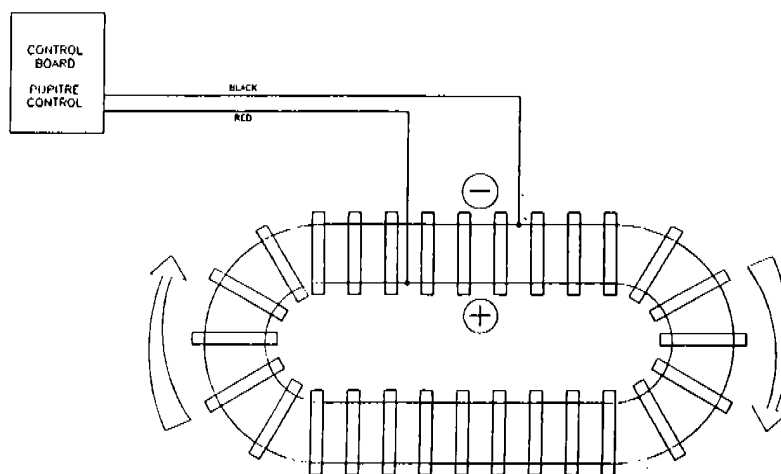


FALGAS



6.- START UP

First you must connect control board to an earthconnected socket prepared for machine's consumption. Before starting up the train you must check the tracks connection, they must respect polarity. Train always must turn in hourly sense (changes polarity sense when train stops).



RAILWAY POLARITY AND TURNING SENSE WHEN TRAIN IS RUNNING
(When train is stopped polarity have the opposite sense)

DESPIECE MECANISMO TIEN SAFARI

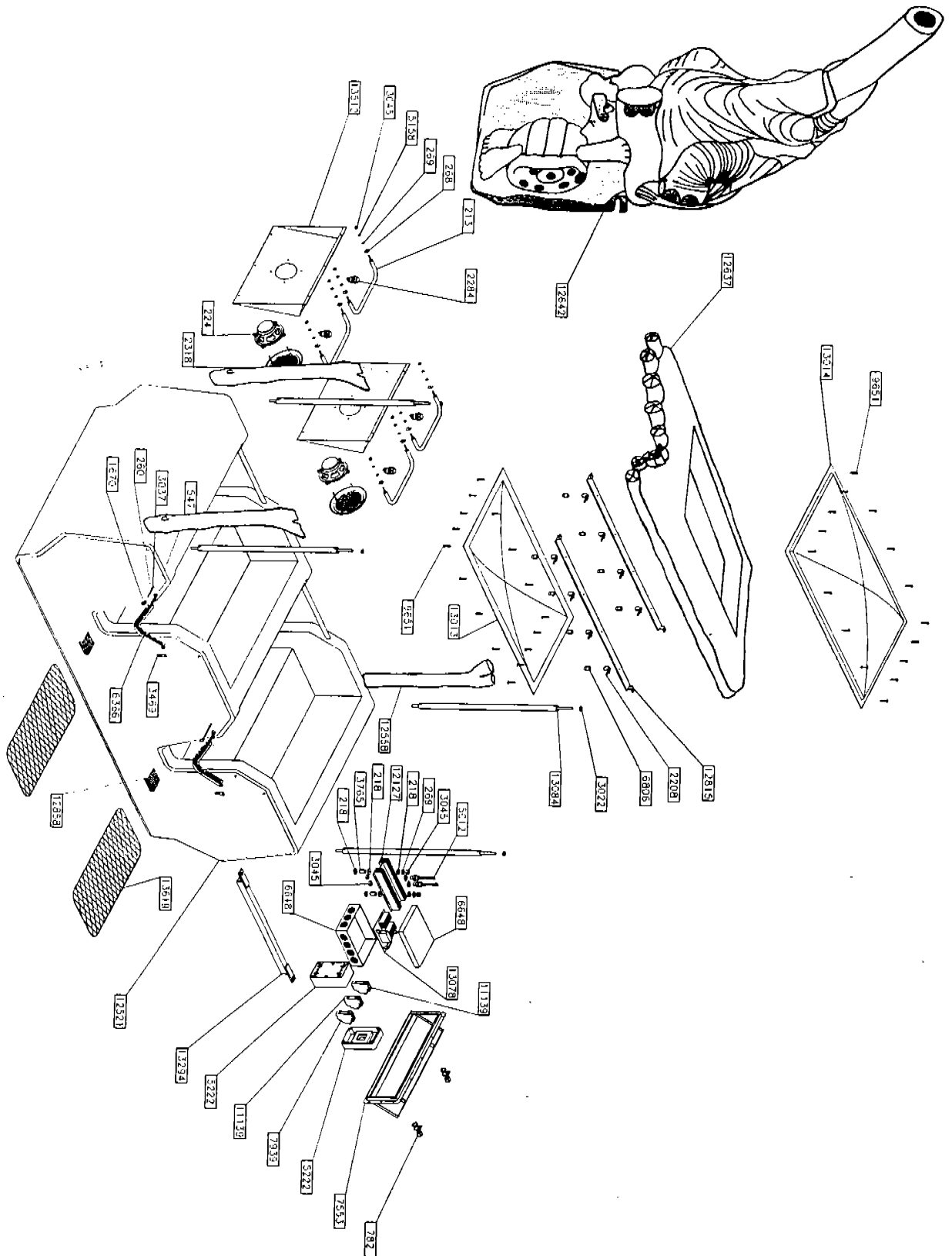


CÓDIGOS MECANISMO TREN SAFARI

218	Aislante motor macho	Male engine insulator
240	Arandela 10 ancha DIN-9021	Wide washer 10 DIN-9021
245	Arandela 12 ancha DIN-9021	Wide washer 12 DIN-9021
247	Arandela 12 DIN-125	Washer 10 DIN-125
264	Arandela 6 ancha DIN-9021	Wide washer 6 DIN-9021
269	Arandela 8 ancha DIN-9021	Wide washer 8 DIN-9021
270	Arandela 8 dentada DIN-6798A	Toothed washer 8 DIN-6798A
1147	Cojinete 30204	Balls bearing 30204
1151	Cojinete 6002-2RS	Balls bearing 6002-2RS
1152	Cojinete 6005-2RS	Balls bearing 6005-2RS
1156	Cojinete 6204-2RS	Balls bearing 6204-2RS
1206	Correa dentada 225L075	Toothed belt 225L075
1393	Espárrago allen M-10x16 DIN-914	Allen asparagus M-10x16 DIN-914
1803	Media malla simple cadena 1/2" doble	Double single chain half mesh 1/2"
1882	Motor 24Vcc 3000 r.p.m. 1000W	Engine 24Vcc 3000 r.p.m. 1000W
2738	Tornillo M-6x20 DIN-933	Screw M-6x20 DIN-933
2765	Tornillo M-8x45 DIN-931	Screw M-8x45 DIN-931
3022	Tuerca M-10 DIN-934	Nut M-10 DIN-934
3023	Tuerca freno M-10 DIN-985	Brake nut M-10 DIN-985
3026	Tuerca freno M-12 DIN-985	Brake nut M-12 DIN-985
3045	Tuerca M-8 DIN-934	Nut M-8 DIN-934
3191	Cadena 1/2" doble	Double chain 1/2"
3579	Tornillo M-10x15 DIN-933	Screw M-10x15 DIN-933
3750	Piñón Z-11 de 1/2" doble	Double pinion Z-11 of 1/2"
3765	Tubo ø16x1.5x25	Tube ø16x1.5x25
3957	Rueda máquina tractora	Tractor locomotive wheel
4147	Arandela 16x60x1.5 inox.	Rutless nut 16x60x1.5
4216	Piñón Z-30 de 1/2" doble	Double pinion Z-30 of 1/2"
4234	Polea dentada 15L075	Toothed washer 15L075
4528	Enganche cadena 1/2" doble	Double hook chain 1/2"
5012	Diodo 1200V 125A SKN100-12	Diode 1200V 125A SKN100-12
5024	Polea dentada 48L075	Toothed belt 48L075
5158	Arandela 8 glober DIN-127	Grower washer 8 DIN-127
5949	Chaveta 6x6x63 DIN-9021	Cotter 6x6x63 DIN-9021
6296	Casquillo nylon rueda máquina	Nylon sleeve from locomotive wheel
6297	Casquillo nylon guía máquina	Nylon sleeve to guide locomotive
6299	Rueda nylon guía vagón	Nylon guide from coach guide
6314	Tornillo M-8x20 DIN-7991	Screw M-8x20 DIN-7991
6365	Tuerca freno 5/8 SAE DIN-985	Brake nut 5/8 SAE DIN-985
6735	Rueda máquina	Locomotive wheel
6738	Rueda máquina aislada	Insulated machine wheel
	Conjunto compuesto por:	Set with following components:
	1393-6296-6735	1393-6296-6735
6740	Rueda máquina tractora	Tractor machine wheel
	Conjunto compuesto por:	Set with following components:
	270-2765-3957-4216	270-2765-3957-4216
6889	Eje rueda máquina	Locomotive wheel shaft
6996	Calibrado ø50x25	Calibrated ø50x25
7235	Grupo reenvío	Send back group
	Conjunto compuesto por:	Set with following components:
	264-2738-3750-4234-5024-5949-7296	264-2738-3750-4234-5024-5949-7296
7293	SopORTE motor máquina	Locomotive engine support
7294	Buje ruedas máquina delantero	Forward locomotive wheels axle box
7296	Eje grupo reenvío	Send back group shaft
7810	Radiador	Radiator
10640	Abrazadera 149-161 super	Bracket super 149-161

REF 125A0
SAFARI TRAIN LOCOMOTIVE QUARTERING

DESPICE MÁQUINA TREN SAFARI



SAFARI

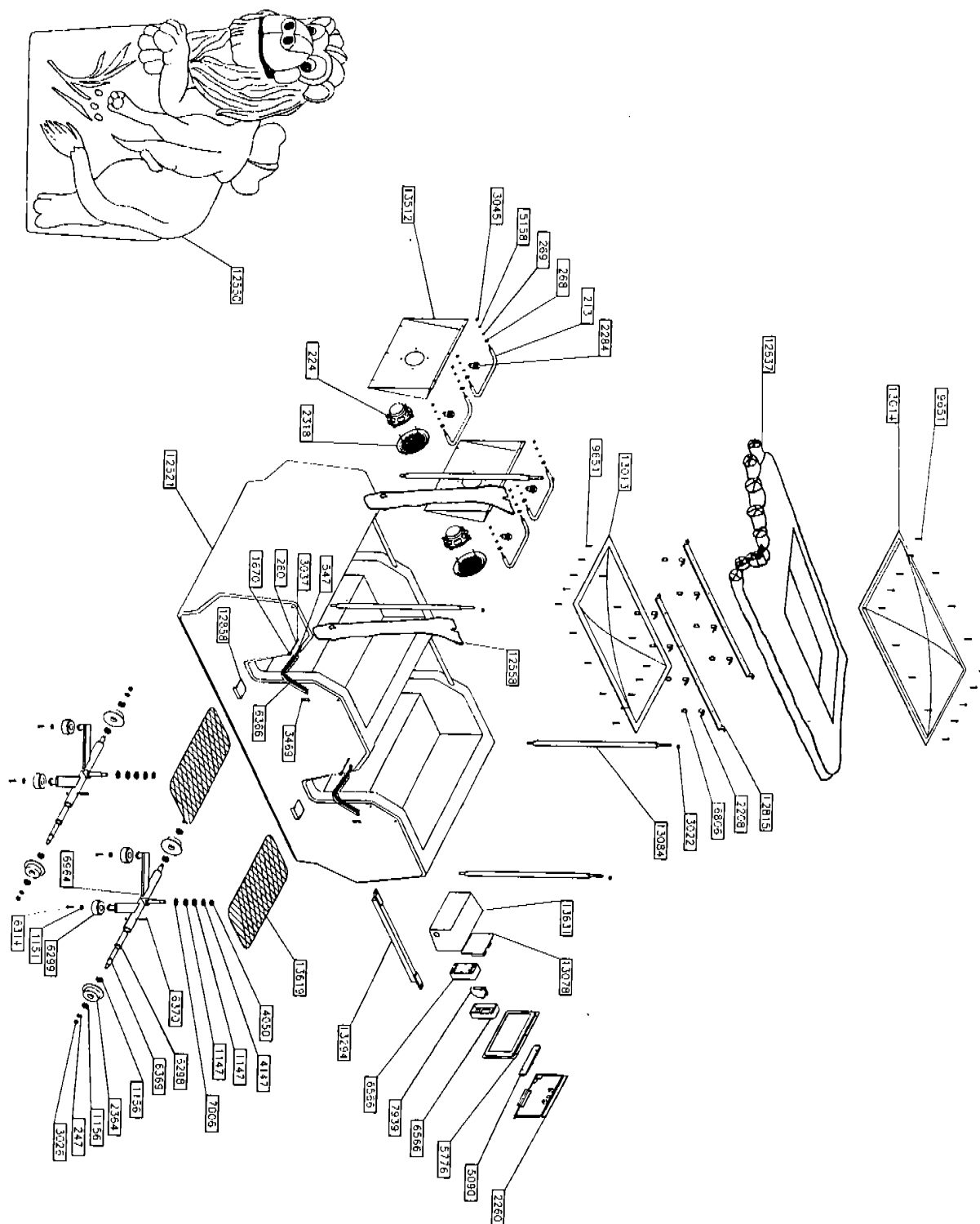
CÓDIGOS MÁQUINA TREN SAFARI

213	Agarradero	Handle
218	Aislante motor macho	Male engine insulator
224	Altavoz con orejas de 5"	5" loudspeaker with ears
260	Arandela ancha 5 DIN-9021	Wide washer 5 DIN-9021
268	Arandela inoxidable 8x30x1	Rustless washer 8x30x1
269	Arandela ancha 8 DIN-9021	Wide washer 8 DIN-9021
547	Cadena de 4	Chain of 4
782	Cerradura serie	Serial lock
1670	Hembrilla M-5x43	Eyebolt M-5x43
2208	Portalámpara 15mm bayoneta	Bayonet lampholder 15mm
2284	Pulsador sonidos	Sound push button
2318	Rejilla altavoz grande plástico	Big loudspeaker grid made of plastic
3022	Tuerca M-10 DIN-934	Nut M-10 DIN-934
3037	Tuerca freno M-5 DIN-985	Brake nut M-5 DIN-985
3045	Tuerca M-8 DIN-934	Nut M-8 DIN-934
3469	Lengüeta cadena	Chain tab
3765	Tubo separador	Separator tube
5012	Diodo 1200V 125A SKN100-12	Diode 1200V 125A SKN100-12
5158	Arandela grower 8 DIN-127	Grower washer 8 DIN-127
5222	Caja magneto térmico	Magneto thermic box Hager C304
6366	Tubo manguera transparente	Transparent hosepipe
6648	Caja ref.4023	Ref.4023 box
6806	Lámpara casquillo grande 6V 5W	Big tip lamp 6V 5W
7553	Puerta con marco	Door with frame
7939	Magneto térmico 6A 1 polo + neutro ML506	Magneto thermic 6A 1 pole + neutral ML506
9651	Tornillo cabeza especial M-4x10 ISO-7380	Special head screw M-4x10 ISO-7380
11139	Magneto térmico 50A 1 polo	Magneto thermic 50A 1 pole
12127	Radiador Sidevan de 245mm	Sidevan radiator of 245mm
12521	Figura máquina	Locomotive figure
12558	Figura tronco	Trunk figure
12637	Figura toldilla	Sunblind figure
12642	Figura elefante	Elephant figure
12815	Soporte luces	Lights support
12858	Reposapiés	Footrest
13013	Plafón techo	Ceiling plafo
13014	Cúpula	Dome
13078	Placa sonido	Sound board
13084	Soporte toldilla	Sunblind support
13294	Eganche vagón	Coach hooking
13512	Soporte altavoz	Loudspeaker support
13619	Reposapiés central	Central footrest

DESPIECE VAGON CENTRAL TREN SAFARI

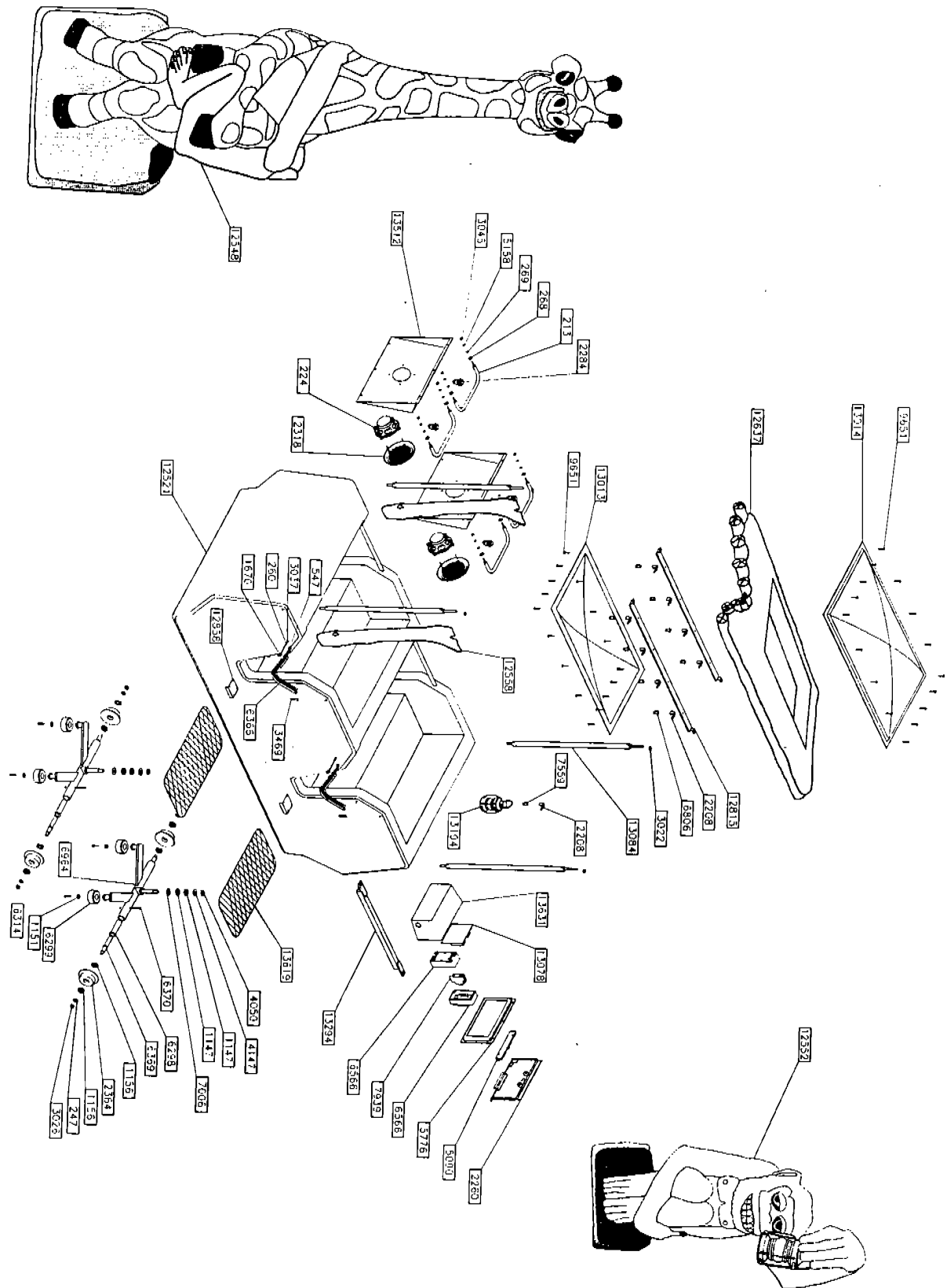


DESPIECE VAGON CENTRAL TREN SAFARI



FALGÅS

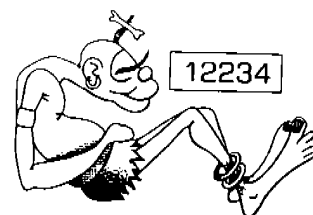
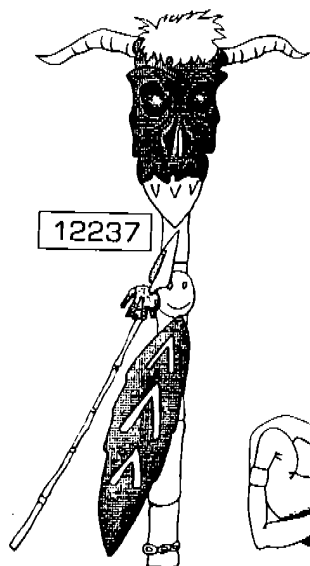
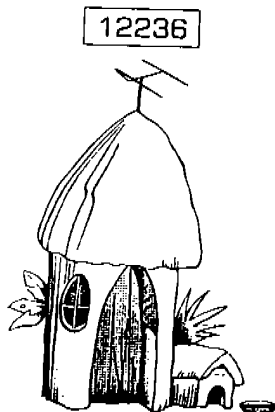
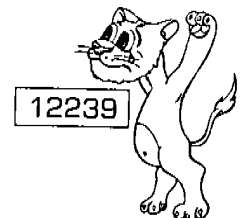
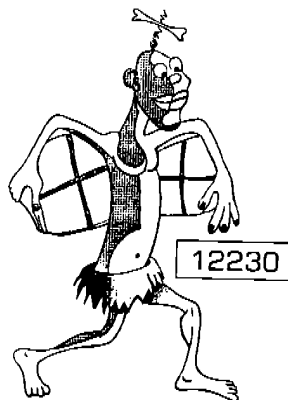
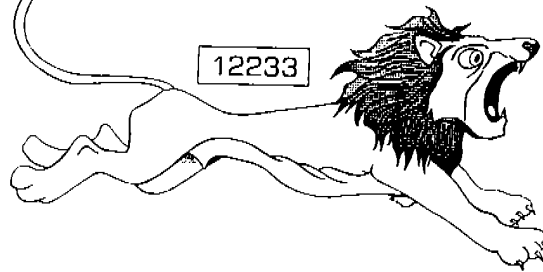
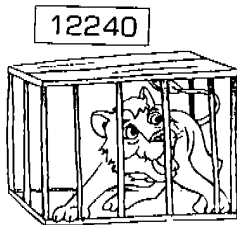
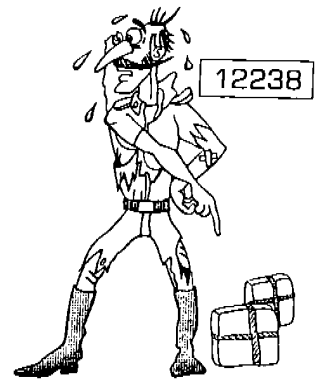
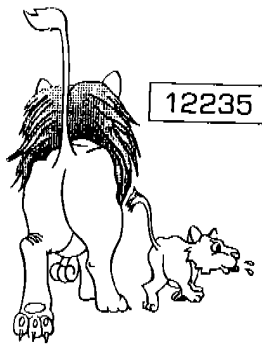
DESPIECE VAGON FINAL TREN SAFARI



FALGAS

122230

ADHESIVOS TREN SAFARI

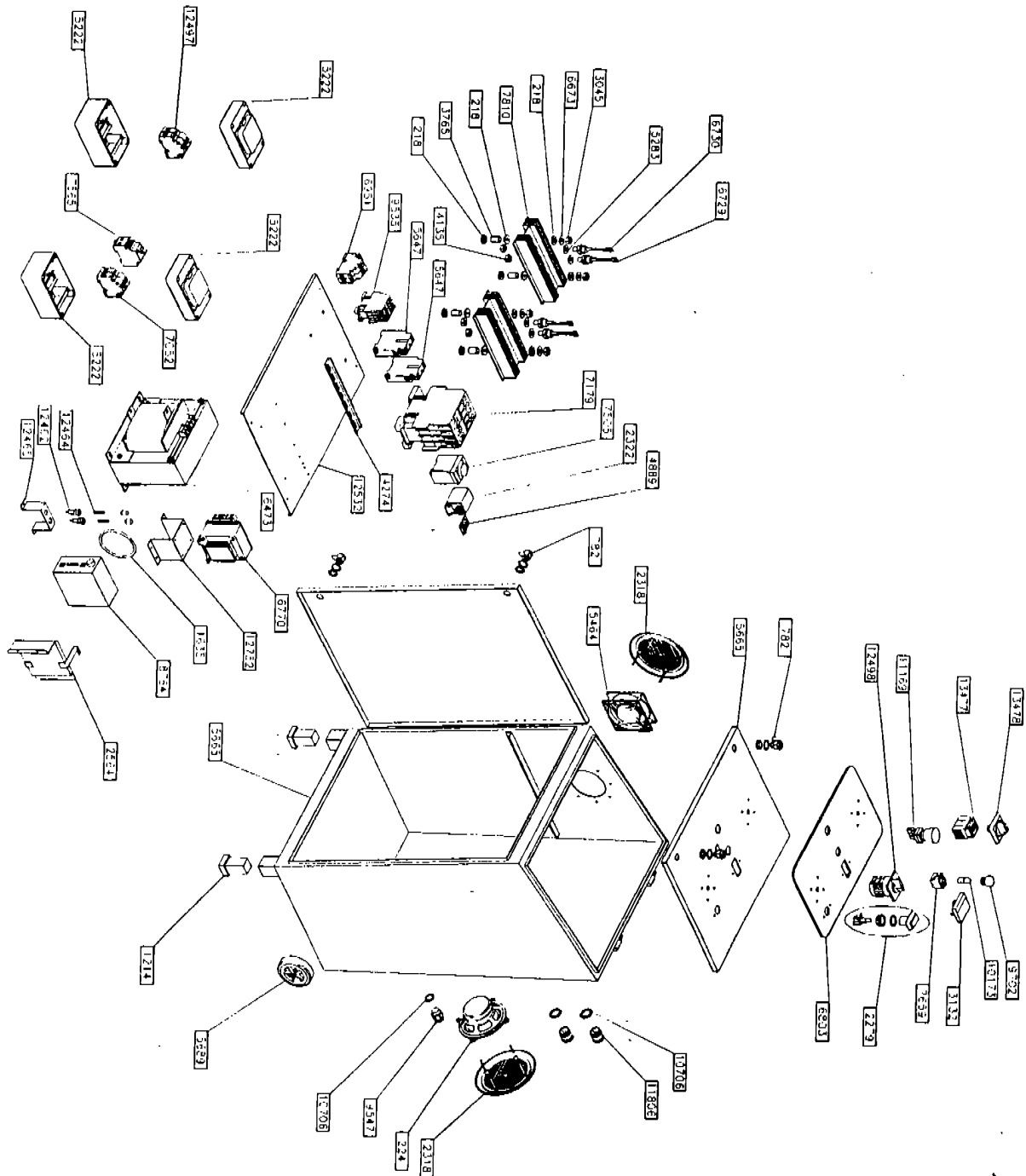


FALGÁS

PER7727

CHASSIS 7201 TYPE 70 AND 7000

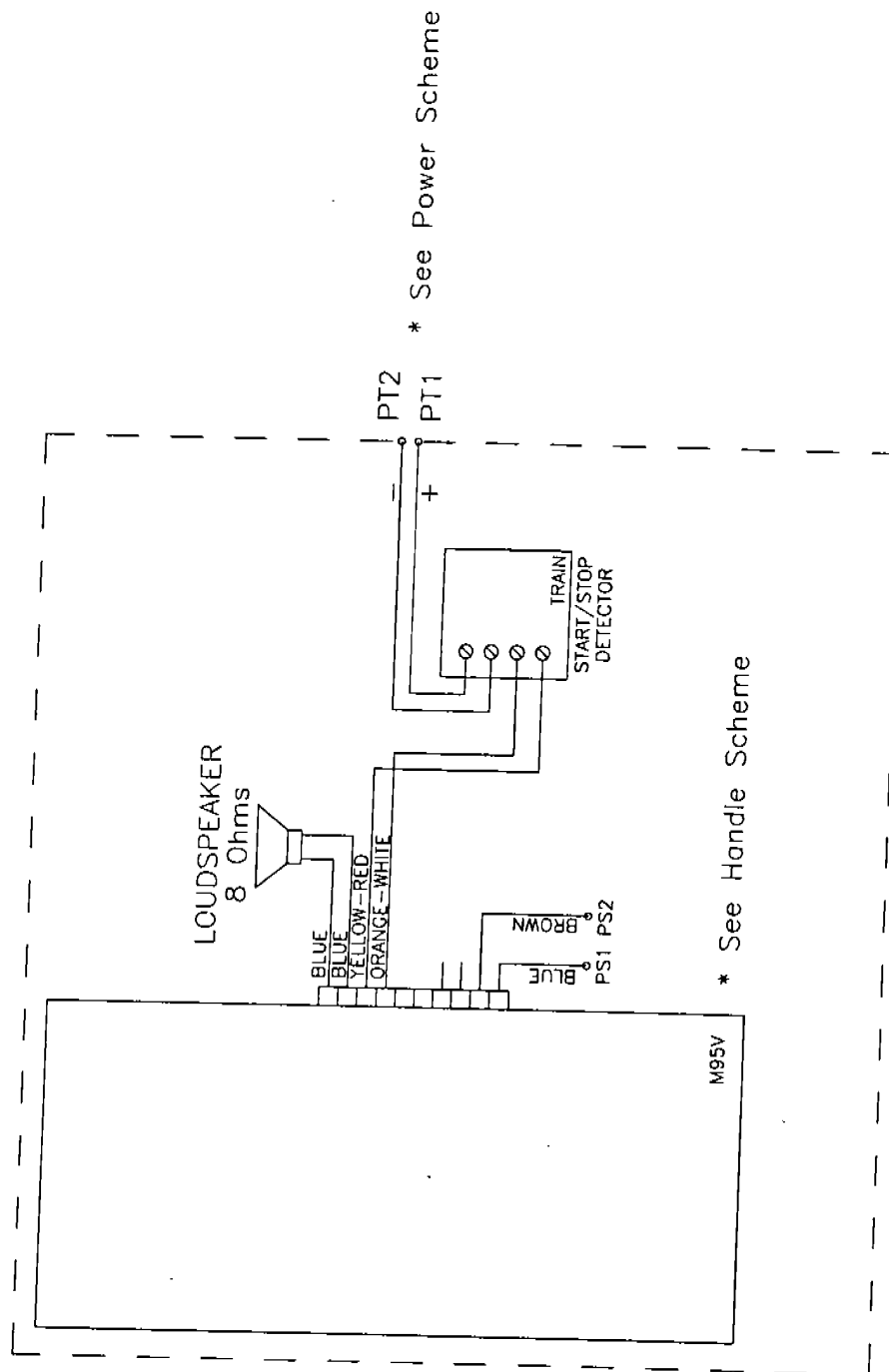
DESPIECE PUMPE THER SAFARI



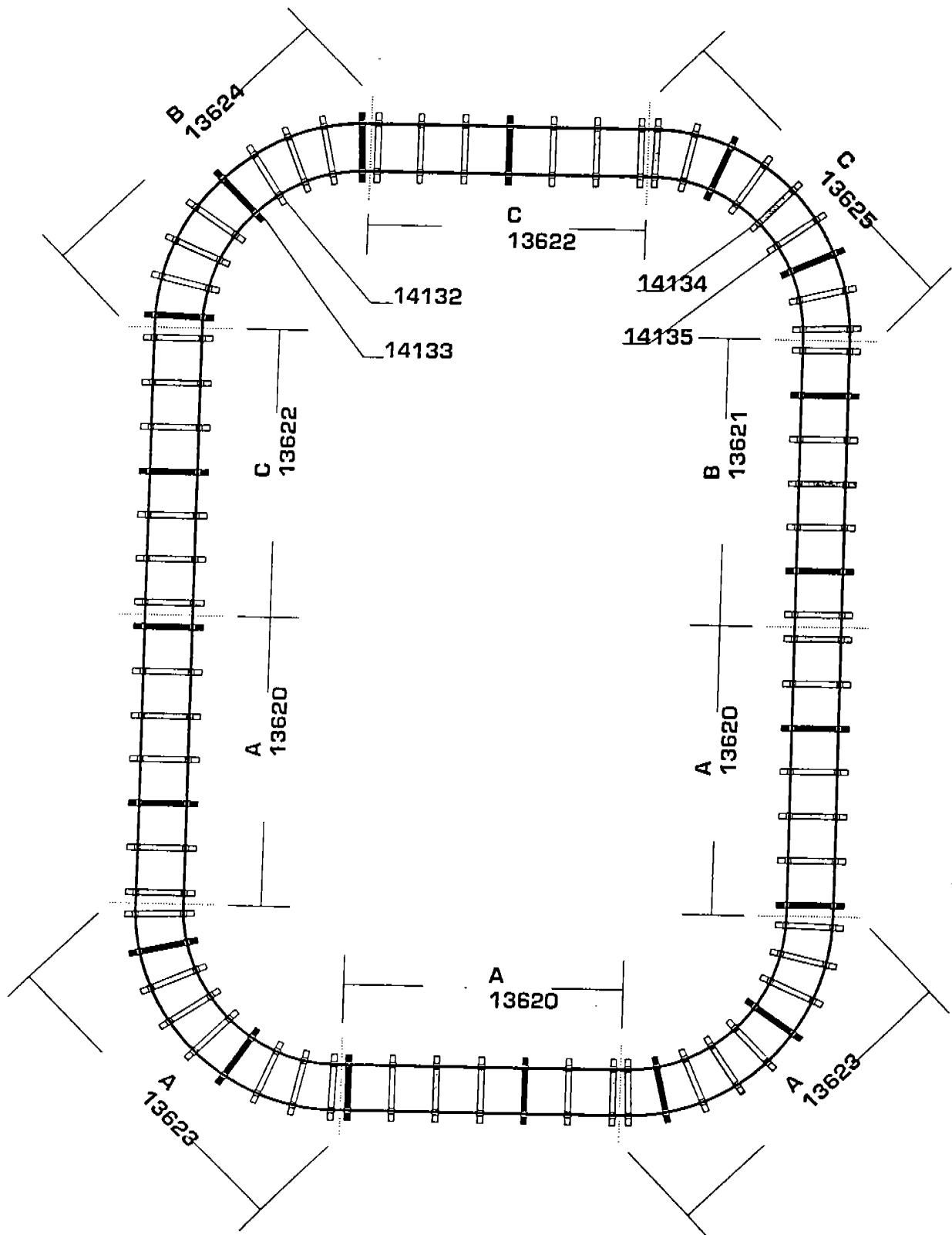
FALGAS

SUBWAY TRAIN CONTROL BOARD BOUND SCHEME

RELAY AND INDICATOR PLANT OF CONTROL SYSTEM



FALGAS



DESPIECE MÁQUINA TREN SAFARI

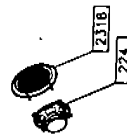
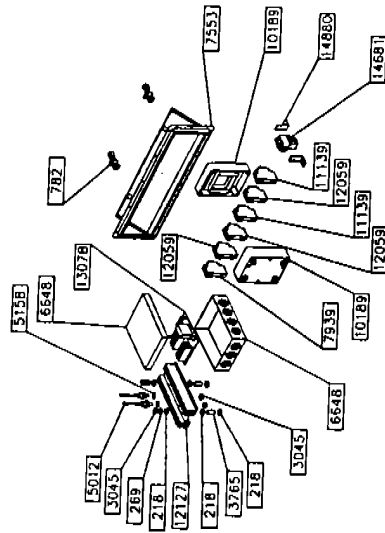


TABLE OF TROUBLE SHOOTING

CONDITION	SYMPTOM	CAUSE	REPAIR
When control board is connected the train starts running with out giving ride	Train runs without giving ride and stops when ride is given	Wrong connection of wires between command board and railway	Change direction of polarity of connections in railway
Doesn't stop	Ride time finished and train doesn't stop	Timer faulty	A technician must replace by one as same characteristics
	Train doesn't stop when STOP is pushed	Push button faulty or connections disconnected	A technician must replace or check installation
Train doesn't start	Nothing occurs when START is pushed	START push button faulty or disconnected	Check button and connections
		Timer faulty	Replace
		Belt motor broken	Replace
		Chain of transmission broken	Replace
	Relay doesn't work when START is pushed	K1 relay faulty	A technician must replace
	K1 relay and K2 contactor start when START is pushed but train doesn't run	General contact faulty	A technician must replace
		T1 timer faulty	A technician must replace
It works stumbles with noise	Upon pressing START works wrong	Teeth of the pinions are wasted	Replace
		Shaft of reshipment wasted	Replace
There are no lights	There are no lights when train stops	K3 Lights contact faulty	A technician must replace
		T2 timer faulty	Replace
	Lights in one the coaches doesn't light up	Thermic disconnected	Connect lights thermic
		There is a short-circuited in the installation	Check connections and bulbs
Thermics of the train are disconnected	Thermic F4 or F5 are disconnected	Too much consumption of the engine	A technician must check engines
	Thermic F6, F7 ,F8, F9 or F10 are disconnected	Too much consumption in the lights or short circuit in any lampholder	A technician must check installation and lights
There is no sound in control board	TIMER-SOUND led in the music box lights up	Potentiometer set to minimum	Set potentiometer to + position
		Speaker short-circuited or disconnected	Replace or connect correctly
		Micro processed board faulty	Consult technical service
	TIMER-SOUND led doesn't light up	Check fuse	Replace by other with same value
		Micro processed board faulty	Consult technical service

There is no sound in train's commands	Train's command faulty	Commands disconnected or faulty	Connect or replace
		Sound board faulty or fuse burned out	Replace by fuse with the same value or consult technical service
		Speakers faulty or disconnected	Replace or connect

MFG: FALGAS
NAME: SAFARI TRAIN
Type: Kiddie

FALGAS SAFARI TRAIN

PASSENGER CAPACITY: 4 CARS, 4 PERSONS PER CAR

MAX SPEED: 8 KM/HOUR

DAILY PRE-OPENING INSPECTION

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

Check the following:

Blocking, Supports

Track

Chains & Belts

Condition of Cars

Operating Controls

All pins & keys

Wheels

Safety Belts

Gates & Fences

OPERATION OF RIDE

1. Open entrance gate and load children assisting them as needed.
2. Secure seat belts.
3. Make sure entrance and exit gates are closed and no one is inside the ride except seated passengers.
4. Depress the operator presence switch, push start button.
5. Ride will stop at the end of timed period.
6. Unlatch seat belts, assist children out of cars and through the exit gate.
7. Close exit gate and proceed to reload the ride.

RIDE OPERATORS POSITION AND FUNCTION

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

GENERAL SAFETY PROCEDURES

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

EMERGENCY PROCEDURES

1. Bring the ride to a complete stop and evacuate passengers as quickly and safely

SAFARI TRAIN - SAFETY PROCEDURES
REF. #12511

"WARNING"

CAUTION:

1. RIDE MAY START WITH A "JOLT"
2. CHILDREN MUST BE SUPERVISED BY AN ADULT AT ALL TIMES DURING THE ENTIRE RIDE.
3. RIDER(s) MUST BE ATTENDED BY A RESPONSIBLE EQUIPMENT OPERATOR.
4. RIDER(s) MUST REMAIN SEATED AT ALL TIMES WHILE RIDE IS IN MOTION.
5. RIDER(s) MUST KEEP THEIR HANDS/HEAD INSIDE TRAIN WAGON AT ALL TIMES.
6. RIDER(s) MUST NOT ATTEMPT TO GET ON OR OFF RIDE WHILE IT IS IN MOTION.
7. SAFETY DEVICES IN GENERAL (FENCES, SIGNS, ETC.) AND SEATBELTS ARE STRONGLY RECOMMENDED.
8. ONLY 4 RIDERS MAXIMUM/4 PER WAGON.

INDUSTRIAS FALGAS, S.A.
CTRA. FIGUERES A ROSES KM.37
17486 CASTELLO D'EMPURIES
GIRONA
SPAIN

TEL. (34) 72 45 44 83
FAX. (34) 72 45 46 04

MANTENIMIENTO

Se indican seguidamente unas normas sencillas con que aumentar el rendimiento y la vida de la máquina proponiendo unos periodos de revisión orientativos y dependientes de las condiciones de trabajo así como de las zonas donde se instale (ambientes húmedos, polvorientos, etc.)

Verificar la tensión de la cadena y el estado del grupo motor	120 h.
Verificar la tensión de la correa dentada y el estado del grupo motor	120 h.
Engrasar las partes móviles usando grasa industrial del tipo KRAFF grasa cálcica KCS, en la cadena mediante espátula y el buje de giro de las ruedas por el engrasador	240 h.
Comprobar el estado de las ruedas tanto de los vagones como de la máquina	120 h.
Comprobar el estado de los dientes de los piñones del grupo motor	120 h.

Las horas de trabajo se han calculado sobre 4 horas diarias de funcionamiento.

MAINTENANCE

Some simple norms to increase the output and life of the machine will be indicated subsequently, proposing some guiding periods of revision, depending on the working conditions, as well as depending on the areas where the machine is installed (humid, dusty atmosphere, etc.)

Verify the tension of the chain and the state of the engine group	120 h.
Verify the tension of the toothed belt and the state of the engine group	120 h.
To grease the movable parts, use industrial grease of the KRAFF type calcic grease KCS and put it with a palette knife on the chain	240 h.
Check the state of the wheels of the wagons as well as the ones of the locomotive	120 h.
Check the state of the teeth of the pinions of the engine group	120 h.

The working hours have been calculated on 4 hours daily.