MFG: FABRICON

NAME: MERRY GO ROUND

TYPE: NON-KIDDIE

HOLD O DOWN

BUREAU OF FAIR RIDES INSPECTION

# OPERATION & MAINTENANCE

# **MANUAL**

Fabricon Carousel Company

Carousel Number 27-36/34-12/3

Installed May 1993 at Boomtown Hotel & Casino Verdi, Nevada

# TABLE OF CONTENTS

ı.	CAROUSEL OPERATING MANUAL	2
	A. Location and Operation of Electrical Switches	3
	B. Manufacturer's Required Safety Procedures	4
	C. Manufacturer's Required Safety Signage	6
	D. Recommended General Operating Procedures	7
	E. Handicapped Accessibility	10
II.	CAROUSEL MAINTENANCE MANUAL	11
	A. Maintenance Procedures for Non-Mechanical Equipment	12
	B. Recommended Check Lists for Non-Mechanical Maintenance	14
	C. Maintenance Procedures for Mechanical Equipment	16

I. CAROUSEL OPERATING MANUAL

- The carousel is equipped with the following electrical switches:
  - a.) Circuit Breaker Panel located in the center section. The panel contains the following circuit breakers:

MAIN DISCONNECT used to turn ALL power to the carousel on or off.

MOTOR DISCONNECT used to turn power to the drive motor on or off.

LIGHTING DISCONNECT used to turn on/off power to all lighting fixtures.

Also located on the Circuit Breaker Panel is a 110 volt/15 amp. outlet for the band organ/stereo.

- b.) Key-activated, Standard Start/Stop Switch, located outside of the carousel itself (its particular location is determined at the time of installation) for starting and stopping the carousel.
- c.) Key-activated, Remote Control Switch, located in the center section on the electrical starter box (below Circuit Breaker Panel) for activating or deactivating the Remote Control Start/Stop Unit. When this switch is in the ON position, the Remote Control Start/Stop Unit will override the Standard Start/Stop Switch.

The Remote Control Start/Stop Unit is used to allow starting and stopping of the carousel from any position within the carousel's perimeter.

Strict adherence to the following operating procedures (Items #1 through #13) are required of the carousel owner/operator by the carousel manufacturer. These items are a necessary obligation and responsibility of the owner/operator to insure the safe operation of the carousel.

- 1. All riders must enter and exit through designated locations only.
- 2. All riders under 42 inches tall must be accompanied by a responsible adult who must stand next to the child, supporting him/her and holding onto the animal pole at all times while the ride is in motion.
- 3. Any adult standing next to a child riding on the carousel's <u>outside</u> row must stand to the <u>inside</u> of the animal.
- 4. All riders must remain seated and any accompanying standing adults remain in place once the carousel has started in motion and until it has come to a complete stop.
- 5. All riders must mount the carousel with both hands unencumbered, i.e., carrying no umbrellas, balloons, beverages, food, etc., and must hold the brass pole with both hands while the ride is in motion.
- No smoking is to be allowed on the carousel.
- 7. Riders must mount the animals using the foot-mounts under the animal, <u>NEVER</u> BY STEPPING ON AN ANIMAL'S LEG OR ATTEMPTING TO JUMP ONTO THE ANIMAL.
- 8. No rider is to be permitted to ride side-saddle or in a backward position, or stand on any animal or the chariot.
- 9. Only one rider is to be allowed to ride on each animal.
- 10. There is to be no running to/from, or jumping on/off, the carousel platform at anytime.
- 11. No rider over 190 lbs. is to be allowed to ride a jumper.
- 12. Once the carousel is loaded, and before the ride starts, no one but the owner/operator's employees are to be allowed to remain within the fenced carousel area.
- 13. The carousel is equipped with a bell. This must be rung

prior to the start of the ride to alert riders that the ride is about to begin.

Adherence to the above required operating procedures will be enforced by the owner/operator through the use of applicable public signage and/or a training program given to all carousel workers.

### 1. TRAINING OF CAROUSEL OPERATING PERSONNEL

a.) All employees of the owner/operator involved in the operating of the carousel must be provided with an adequate training program that thoroughly familiarizes each of them with Section I. B. MANUFACTURER'S REQUIRED SAFETY PROCEDURES, Items 1 through 13.

### 2. PROCEDURES FOR LOADING/UNLOADING OF RIDERS

a.) The basic psychology of riders is invariably to take seats on the side of the carousel facing them as they enter. We recommend that the operator direct entering riders to the "other side" of the carousel first. In all cases this allows the most orderly loading of the carousel, and is especially important when the carousel is operating with <a href="Less than full capacity">Less than full capacity</a>.

In instances of less than full capacity, it is important that the carousel be as evenly loaded, and as balanced as possible, by spreading the riders around the platform. Operating the machine with too unbalanced a load places an unnecessary strain on all its mechanical parts.

b.) Be sure to instruct both exiting and entering riders not to run to, or jump on, the carousel. With happy and excited children there is always a tendency for such behavior and it greatly increases the opportunity for accidents.

In fact, the greatest number of reported accidents have occured during the mounting and dismounting of the carousel platform.

Similarly, to avoid confusion, do not admit riders for the next ride until the previous riders have exited the area.

c.) When the carousel is crowded, it is essential to load the carousel and start the ride within approximately 3 minutes even if it is not completely full, rather than to wait longer to fill all the vacant seats.

Everyone, and especially children, already mounted on the carousel become frustrated and impatient if the carousel sits idle for too long. In such The following information must be clearly displayed on signs within the carousel area for the public's view:

- Clear designations of the carousel's Entrance and Exit locations.
- No one is to be allowed to get on or off the carousel while it is in motion.
- 3. No smoking is to be allowed on the carousel.
- 4. No child under 42 inches is to be allowed to ride unless accompanied by an adult.
- 5. Only one rider is allowed per animal.
- 6. In New York State there is a law pertaining to amusement devices (N.Y.S. Labor Law Article 27 Sec. 870e) which contains the following:

..... "there are inherent risks in the participation in or on the amusement device. Since it is recognized that participation in or on the device may be hazardous regardless of all feasible safety measures that can be undertaken by the device owner or operator, there is a duty for the patrons to become apprised of the warnings and the risks inherent in participation in or on the amusement device if the warnings are not obeyed. Prior to participating in or on such amusement device, patrons shall familiarize themselves with the posted safety warnings so that they may make an informed decision of whether to participate in or on the device notwithstanding the risks."

Should a similar law exist in Nevada, it must be prominently displayed. If no such state law exists, the information, if not the identical language contained in the New York State law, must be so displayed.

situations there is an increased incidence of unruly/unsafe behavior.

### 2. PROCEDURES TO FOLLOW BEFORE STARTING THE RIDE

- a.) After the carousel is loaded, and before the ride begins, no one but the operator and platform workers should be allowed to remain inside the fenced carousel area.
- b.) Always before starting the ride, the operator/platform workers should make sure that everyone is seated and in their proper place. If the carousel is being run with just one operator and no platform workers, the operator should walk once around the carousel to check that all riders are properly situated before starting the ride.
- c.) The operator/platform workers should check to see if there are any troublesome or visibly frightened children. These situations should be resolved before starting the ride. Carousel workers should be trained to be especially friendly and reassuring to the smaller riders.
- d.) The carousel is equipped with a bell. Before starting the ride, the bell is to be rung to alert all riders that the ride is about to start.
- e.) While the carousel is equipped with two methods of starting and stopping the machine (Standard Start/Stop Switch located outside the carousel and a Remote Control Start/Stop Unit), we strongly recommend the use of the Remote. This method allows the operator to circle the carousel and start the machine from any point. Furthermore, the Remote allows the ride to be stopped at once should either a rider be in difficulty or behaving in an unsafe manner, or if there is any indication of a mechanical problem.

### 3. PROCEDURES TO FOLLOW DURING AND AFTER THE RIDE

a.) From our experience, we recommend that tickets be collected after the ride starts. Platform workers should be assigned to a given section of the carousel (e.g., from a particular horse to another particular one). From their assigned starting point, each can then move <u>counter-clockwise</u>, facing the riders to collect their tickets and insure proper riding behavior. Platform workers should continually move around the carousel to make sure that all riders are behaving in a safe manner.

In the case of an unruly rider who refuses to follow your worker's instructions, the ride should be stopped and the situation turned over to a manager for resolution.

b.) If any employee senses a mechanical problem, the ride should be stopped at once.

In such situation, it is important that your employees have been instructed to remain calm and in control. A carousel can be dangerous if the riders become frightened and attempt to jump on or off the platform while it is in motion.

- c.) When the ride is completed and the platform has come to a complete stop, platform workers should assist young children and the elderly to dismount their animal, especially those riding jumpers that have stopped at their peak height.
- d.) If multiple rides are permitted, the operator should check to see the approximate number of riders remaining on the carousel and admit only the number of new riders for which there are empty seats.

Any handicapped person wishing to ride the carousel must be Assisted on/off the carousel platform, on/off the animals or chariot by an accompanying responsible adult, not by the owner's or operator's employees.

Such adult must be willing and capable of providing the handicapped individual with any necessary assistance as may be required to insure his/her safe enjoyment and is to assume full responsibility for the rider's safety.

If any further information is required on the issue of handicapped accessibility, contact Fabricon Carousel Company.

II. CAROUSEL MAINTENANCE MANUAL

### 1. PLATFORM FLOORING

The tongue and groove platform flooring is solid maple with a protective polyurethane finish. The floor should be swept on a daily basis with periodic washing as needed. We recommend using a damp mop with a mild soap (e.g, Murphys Oil Soap), followed by the application of any quality paste wax to restore its lustre.

### 2. BRASS WORK

All of the carousel's brass work has a baked finish and does not require polishing. NEVER use any abrasives or metal polishers to clean the brass. If any cleaning is required, use a soft, damp cloth and mild soap; then follow with a soft, dry cloth to buff.

3. ANIMALS, ROUNDING BOARDS AND SCENERY PANELS
To clean the animals, rounding boards or center
scenery panels, wipe with a soft, damp cloth and a
mild soap. Periodically, if desired, a <u>very light</u>
coating of a quality liquid spray wax (e.g., Pledge,
etc.) may be used to restore their lustre.

However, REMEMBER, if any touch up painting is later required, the wax must first be removed with a mild cleansing solution containing ammonia.

### 4. MIRRORS

The round convex mirrors on outside rounding board spacers and the inside scenery panels are glass and may be cleaned with any glass cleaner.

The other mirrors on the inside scenery panels are plexi-glass and should be cleaned only with a plastic cleaner.

### 5. LIGHTING

The bulbs used in the carousel's lighting are standard and readily available.

### 6. MOUNTING STEPS FOR ANIMALS

The foot mount steps under the animals are affixed with lock-nuts. Should any become displaced, they should be replaced with a similar lock-nut.

# II. B. RECOMMENDED CHECK LISTS FOR NON-MECHANICAL MAINTENANCE

On the following pages is a recommended format for checklists to be filled out by the carousel's operating personnel on a daily basis.

Please note that there is both an "Opening Shift" and a "Closing Shift" checklist.

## \*\*\*\*\* OPENING SHIFT \*\*\*\*\*

_	NAME: DAIL://	_	
RIDI ANY	E: IF AT ANY TIME DURING YOUR SHIFT YOU HAVE ANY QUESTION AS TE'S SAFE OPERATION, NOTIFY THE RIDE MANAGER AT ONCE. DO NOT A RIDERS ON THE MACHINE UNTIL IT'S CONTINUED OPERATION HAS BEEN ROVED BY THE RIDE MANAGER IN THE SPACE BELOW.  Approved by: @: am pm	LLOW	
1.	OPEN DOOR TO CENTER, TURN ON WORK LIGHT & CHECK INTERIOR	[	]
2.	SWITCH MAIN DISCONNECT, MOTOR DISCONNECT AND LIGHTING DISCONNECT CIRCUIT BREAKERS TO ON" POSITION.	[	]
.3.	SET KEY-ACTIVATED REMOTE CONTROL SWITCH TO "ON" POSITION	[	]
4.	TEST BAND ORGAN AND/OR STEREO.	[	]
5.	EXIT CENTER SECTION AND RELOCK DOOR.	[ .	. ]
6.	INSPECT CAROUSEL AND SURROUNDING AREA FOR ANY DEBRIS, TOOLS, SUPPLIES, ETC., AND REMOVE TO PROPER PLACE.	[	]
7.	INSPECT BRASS POLES, ANIMALS, CHARIOTS AND FLOOR FOR ANY REQUIRED CLEANING. FOLLOW RECOMMENDED CLEANING PROCEDURES.	[	]
8.	CHECK FOR UNLIT BULBS. INDICATE THE TOTAL NUMBER REPLACED: OR	[	]
	INDICATE THE NUMBER & LOCATION OF UNLIT BULBS:  # ON OUTSIDE ROUNDING BOARDS:  # ON SWEEPS:  # ON CENTER SECTION:		
9.	CHECK TO MAKE SURE THAT NO ONE IS WORKING ON, OR AROUND THE CAROUSEL.		]
10.	TEST CAROUSEL BY RUNNING IT THROUGH A COMPLETE RIDE CYCLE USING REMOTE CONTROL START/STOP UNIT.	[	3
11.	LISTEN CAREFULLY FOR ANY SQUEAKS OR OTHER UNUSUAL SOUNDS.	[	]
12.	VISUALLY CHECK FOR THE SMOOTH OPERATION OF ALL MOVING PARTS AND LOOK FOR ANY VISIBLE SIGNS OF WEAR.	[	]
	NOTE ANY MINOR PROBLEMS BELOW AND ANY ACTIONS TAKEN:		
IF THE ABOVE INSPECTION LEAVES YOU WITH ANY QUESTION AS TO THE RIDE'S SAFE OPERATION, NOTIFY THE RIDE MANAGER AT ONCE. DO NOT ALLOW ANY RIDERS ON THE MACHINE UNTIL IT'S OPERATION HAS BEEN APPROVED BY THE RIDE MANAGER IN THE SPACE BELOW.			
	Approved by: @;	am	pm

# \*\*\*\*\* CLOSING SHIFT \*\*\*\*\*

	NAME: DATE:/		
RID ANY	E: IF AT ANY TIME DURING YOUR SHIFT YOU HAVE ANY QUESTION AS DE'S SAFE OPERATION, NOTIFY THE RIDE MANAGER AT ONCE. DO NOT RIDERS ON THE MACHINE UNTIL IT'S CONTINUED OPERATION HAS BEEN PROVED BY THE RIDE MANAGER IN THE SPACE BELOW.  Approved by: @:	ALLOV EN	W
1.	CHECK THAT ALL PATRONS HAVE LEFT THE CAROUSEL AREA.	ſ	3
2.	TURN OFF BAND ORGAN AND/OR STEREO.	[	)
3.	SWITCH MOTOR DISCONNECT, LIGHTING DISCONNECT AND MAIN DISCONNECT CIRCUIT BREAKERS TO "OFF" POSITION.	[	]
4.	SET KEY-ACTIVATED REMOTE CONTROL SWITCH TO "OFF" POSITION.	ξ	]
5.	TURN WORK LIGHT OFF, LOCK DOOR OF CENTER SECTION.	[	]
6.	LIST BELOW ANY POSSIBLE PROBLEMS/MALFUNCTIONS, ETC., YOU NOTICED DURING YOUR SHIFT:		
7.	TURN IN CENTER SECTION KEY, STANDARD START/STOP UNIT KEY, RECONTROL SWITCH KEY, AND REMOTE CONTROL START/STOP UNIT, TOGS WITH THIS CHECK LIST, TO THE RIDE MANAGER.  Received by:  @ : am pm	EMOTE ETHER	
	Received by: @: am pm		

On the following pages are schematic drawings of the carousel and the center section A-Frame. These indicate the names and location of various parts of the carousel that are referenced later in this section.

# SCHEMATIC DRAWING # 1

### SCHEMATIC DRAWING # 2

### 2. LUBRICATION OF CAROUSEL'S MOVING PARTS

It is important to remember that over-lubrication of any of the carousels moving parts is counterproductive. It creates not only bad housekeeping, but can also be unsafe.

a.) Following is a list of grease fittings on the carousel. Refer to the Schematic Drawings # 1 and #2 where these fittings are indicated by the notation "G/F # \_\_\_". For further ease in locating these fittings, they are painted yellow on the carousel.

These grease fittings should be lubricated with Moly grease and any excess wiped off. Replacement of grease in these fittings will be at approximately 6 week intervals.

LOCATION	SCHEMATIC NOTATION	DRAWING #
Top Bearing	G/F # 1	#1 & #2
Roller Bearing A-Frame	G/F # 2 G/F # 3, # 4, # 5, #	6

b.) Following is a list of oil fittings on the carousel.

Refer to Schematic Drawing # 1 where these oil

fittings are indicated by the notation "O/F # \_\_\_".

These fittings should be lubricated with only three

(3) drops of 100 weight oil, approximately two week intervals.

LOCATION SCHEMATIC NOTATION DR	AWING #	
Crank Bearings O/F # 1, # 2 *	ш	
Crank Bearings O/F # 1, # 2 * Horse Pole Bearing O/F # 3, # 4 **	# .L	

- \* Note: Each sweep spreader has 1 Crank Bearing, for a total of 20.
- \*\* Note: Each Jumper has a Horse Pole Bearing, for a total of 20.
- c.) All the carousel's gears should be lubricated by brushing a thin coat of Moly grease on the points of gear-to-gear contact. Any excess should then be removed. This lubrication should be done at intervals of approximately every six weeks.

### 3. DRIVE MECHANISM MAINTENANCE

Following is a list of components of the Drive Mechanism and their recommended maintenance:

- a.) MOTOR no required maintenance
- b.) GEAR BOX Check oil level every six months.
- c.) FLEXADYNE SOFTSTART no required maintenance. Do not remove or replace "SHOT". For any questions regarding this instruction, contact Fabricon Carousel Company at (718) 326-7999.
- d.) CHAIN Lubricate <u>sparingly</u> every six weeks with a spray silicon lubricant or equivalent chain lubricant.
- e.) V-BELT Check for wear at two week intervals.

  Replace at the first sign of wear.

### 4. ELECTRICAL SYSTEM

- a.) Commutator rings should be checked for cleanliness good electrical contact on a daily basis for the first week and on a less frequent as-required schedule thereafter.
- b.) Look for wear on the brass commutator fingers. If wearing occurs, contact Fabricon Carousel Company for replacements.