Ruthapper

05348

MFG: MAJESTIC RIDES MFG.
NAME: CENTRAL PARK
TYPE: NON-KIDDIE

Type

Central Park

Majestic

TO THE OWNER AND OPERATOR

This manual contains information concerning the operation, maintenance and safety of your new Central Park Ride. It should be read carefully before attempting to operate your ride. You will find many helpful pointers which will assist you in obtaining the performance for which the ride was designed.

Make note of warranty or claims arising from the use of this manual and the owner-operator assumes complete responsibility for any decisions made or actions taken based on information obtained from using this manual.

BE CAREFUL

The notes appearing in boxes throughout this manual are used whenever personal safety is involved. Take time to be careful for you and the safety of your patrons.

IMPROVEMENTS

The company is continually striving to improve products and reserves the right to make improvements when it becomes practical and feasible to do so, without incurring any obligations or responsibility to make these improvements to rides sold previously.

TABLE OF CONTENTS

HOW TO ORDER
- PHONE -
1-330-457-2447 1-330-457-7280 1-201-983-1296
FAX 1-330-457-7490

KNOWLEDGEABLE STAFF
If you are unsure of your needs, call us. We are the Rides Experts!

SAME DAY SHIPMENT
We strive to ship orders we receive the same day, whenever possible.
This is another example of our commitment of service to you.

IN STOCK, ON THE SHELF
We make it a priority to maintain a high level of replacement ride parts for our customers.

FAST DELIVERY
We offer UPS, Federal Express, Commercial Carrier, etc.
If you have an address, we will get it to you!

- FOR FAST AND EFFICIENT SERVICE -
Having you Parts Book with you when you are placing your order is extremely helpful.
Call us at 330-457-2447 or 330-457-7280.
After business hours you can call your order on our answering service, or Fax us you order at 330-457-7490.

WHAT WE NEED TO KNOW WHEN YOU CALL:
* **Your company name**
* **Your name**
* **Your phone number**
* **Your complete ship-to address (not your P.O. Box)**
* **Your mailing address if different from above**
* **Your preferred method of shipment**
  (ex: UPS next day, UPS ground, Fed Ex, Commercial Carrier)
* **Your style of ride**

WARRANTY

DATE OF DELIVERY JUNE 11, 1997

DATE OF MANUFACTURE JUNE 10, 1997

RIDE SERIAL NUMBER 1M9LN28T7VW276010

MODEL NUMBER TM300

NUMBER OF CARS 5

TYPE OF CARS ANTIQUE CARS

COLOR OF CANVAS HOT PINK TURQ. YELLOW

1. All parts manufactured by seller, except tires, hydraulics, electrical, battery, etc. which come under each manufacturer's own warranty for a period of six months.

2. The purchaser will pay for any service charge for making service calls and/or transporting the equipment to the place where the warranty work is done.

3. This warranty does not cover depreciation or damage caused by normal wear, accident, improper maintenance, improper protection in storage or improper use. Normal maintenance and service replacement cost will be borne by the purchaser.

4. Seller shall not be liable for loss, damage or expenses directly or indirectly arising from improper use of the ride.

5. Under these conditions all such parts and materials will be invoiced to the customer upon shipment by us of required replacement parts. Full credit will be allowed on such parts subject to the following conditions:

   A. if they are returned to us, freight PREPAID within a period of fifteen (15) days after date of invoice

   B. after our examination of said parts they provide to our satisfaction that such defects did exist.
   This is our sole obligation under the warranty.

SAFETY INFORMATION

PLEASE TAKE TIME TO READ ALL SAFETY INFORMATION

Unsafe operating practices and improper use of this equipment on the part of the operator can result in injuries. Observe the following safety precautions.

1. Proper blocking for trailer and purlings is essential for safe operation. NOTE: when setting on soft or sandy ground always use a plywood base for blocking. We recommend a 2 1/4" x 1' 0" x 2' 0" plywood base for trailer and 3/4" x 1' 0" x 1' 0" for purling blocking. Always block purlings where the letter B is noted on purling.

2. When raising or lowering trailer, never have anyone stand near or under trailer.

3. When attaching or removing truck from trailer never fully extend hydraulic cylinders. Always use mechanical support stands for extended periods. After support stands are in place, retract hydraulic cylinder. Support pad approximately 1" above bottom of stand base.

4. Overheating 12 volt motors will affect the safe operation of the motors.
   A. Hydraulic 12 volt motor maximum recommended continuous use is 10 minutes.
   B. Winch 42 volt motor maximum recommended continuous use is 5 minutes.
   C. A fully charged battery will ensure proper amperage to 12 volt motors.

5. Proper size safety keys and pins are important, and must be installed in following before operating ride.
   A. Track
   B. Fence
   C. Platform
   D. Scenery
   E. Purlings
   F. Ramps
   G. Rocking
   H. Railings

6. Never permit customers to run to or from the ride.
   NOTE: aluminum decks are slippery when wet.

7. Always have on each car
   A. Side Safety Bar
   B. Two Seatbelts

8. Never operate cars without everyone wearing seatbelts.

9. A. Always operate cars at a safe speed.
   B. Rectifier speed setting of 3 F.P.S. is recommended

10. The trailer is 28' long, 12' 6" in height. NOTE: Extreme caution must be taken when negotiating corners and low overpasses.

11. The trailers currently being manufactured are equipped with electric trailer brakes but it is advisable to chock trailer wheels when unit is parked.

12. ⚠ CAUTION: DO NOT WALK ON TRACK WHILE RIDE IS IN OPERATION

13. After ride is erected, a visual inspection is required to insure there are no electrical shorts between track or other adjacent equipment.

14. To insure safety, the hydraulic switch located by hydraulic unit should be in the off position while ride is in operation. Quick disconnect electrical plug between battery and hydraulic pump, is to be connected at all times.

15. All gates must be closed while ride is in operation.

16. Never ride on back of cars while in operation.

17. Extreme caution is required in high wind when handling scenery or canvas.

18. Safety is an ongoing process. Every operator must use his own judgment for safety due to constant changes in conditions.

THANK YOU

PRECAUTIONARY MEASURES

DO'S

1. KEEP BATTERY FULLY CHARGED.
   NOTE: A 10 amp battery charger has a charging rate of 10 amps per hour.
   CAUTION! A low battery may damage the hydraulic pump motor or hoist motor.

2. When removing or attaching tractor to trailer, trailer must be resting on landing gear support stands, with hydraulic cylinders raised approximately 1" to prevent damage to cylinders.

3. Inspect each and every car prior to operation for safety.

4. Operate cars at a safe, recommended rectifier speed setting of 3 or 3 F.P.S.

5. Chock trailer wheels when unit is parked.

6. Have all customers wear their seatbelts.

7. Turn hydraulic pump switch to the off position before operating ride.

8. Close entrance and exit gates before operating ride.

9. Exercise extreme caution in high winds when handling scenery or canvas.

10. Use the Periodic Service Instruction Sheet on page of the manual to maintain your equipment.

11. Use the Daily Inspection Schedule Sheets provided on page of this manual.

DON'TS

1. Operate ride unless all necessary blocking is in place under trailer frame and purlings.

2. Remove tractor from trailer until trailer is resting on landing gear support stands.

3. Operate electric motors over their recommended maximum continuous usage time.

4. Operate ride until all proper support pins and safety keys have been installed.

5. Operate ride unless all safety features have been installed on cars.

6. Walk on track

7. Operate ride until a thorough visual inspection has been made to assure there are no electrical shorts between track or any adjacent equipment.

8. Operate ride unless the hydraulic pump switch is in the off position.

9. Operate ride until entrance and exit gates are closed.

10. Ride on back of cars.

SET-UP PROCEDURE

1. Chose a flat and level site. An over all interference area is 76' x 40' . See drawing No# Q-1804.

2. Lay-out all stainless track on ground and attach each section of track with corresponding number. ex: Track No# 1 attaches to track No# 2, etc.

3. All Park model sections bolt together. All portable model track sections use an adjustable tension clamp device. Adjust all clamps with just enough tension to secure sections together then safety key to prevent clamp from opening when ride is setup in operation.

4. Track lay-out must be fairly level for operation if blocking is necessary, follow appropriate guidelines for each state and local blocking codes.

5. Portable units incorporate a trailer that is attached and is part of the ride. Park models are separate. Once track is assembled and all necessary electric plugs, nuts, bolts, fasteners with safety keys are in place a visual inspection is required.

Prior to any patrons being allowed on the ride, all vehicles are to be inspected in accordance with the area's inspection requirements.

1. All seatbelts are in place and functional to factory standards.

2. Side safety bar should be secure and in place. This only permits entry or exit from vehicle from one side only.

3. Any and all sharp objects and/or edges should be removed that would cause injury , accident or incident to any and all patrons or riders.

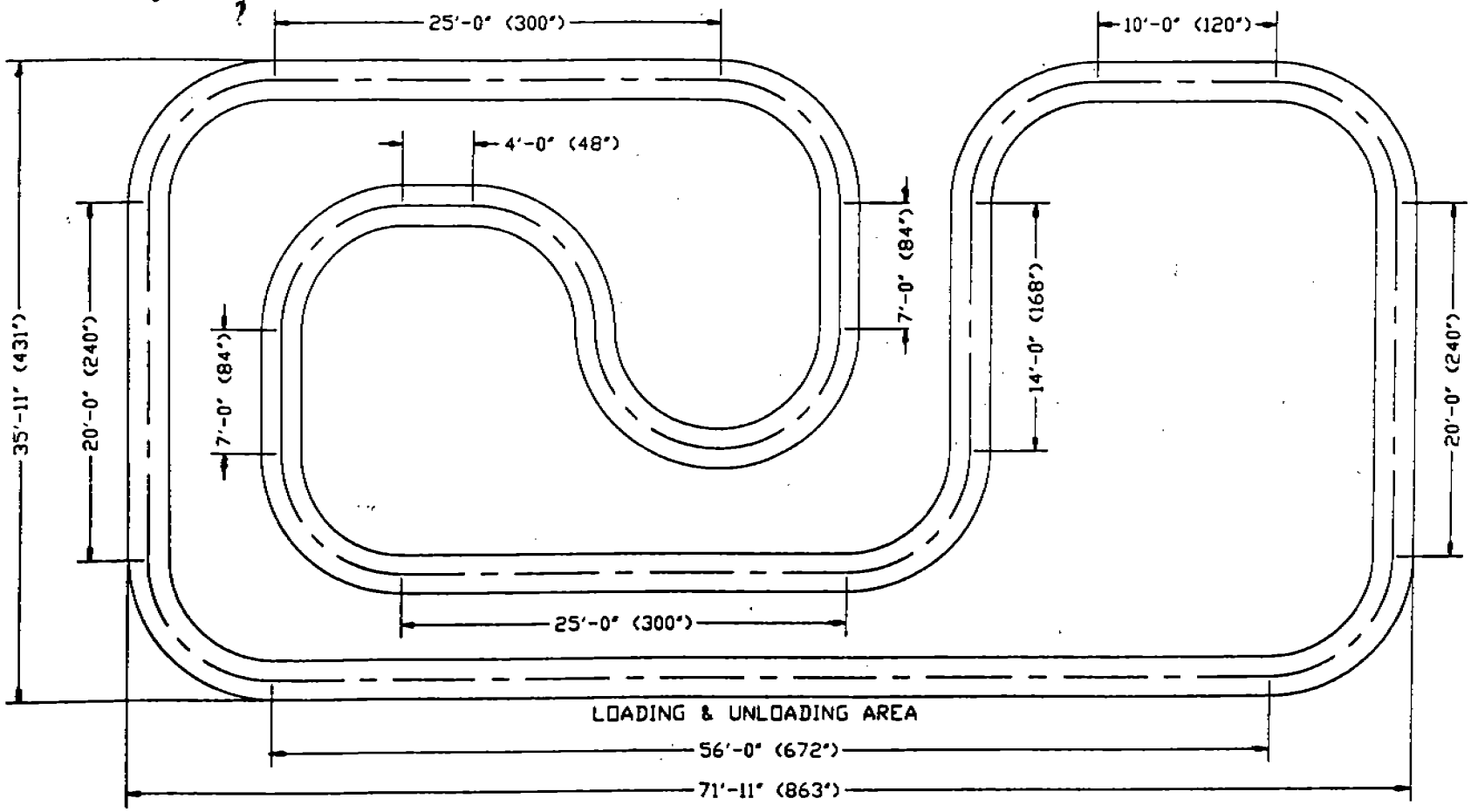
4. Under carriage area should be in proper working order with all rolling wheels functional and all side anti-lift rollers are in place and functional.

5. All electrical wiring is properly secure and fused with no bare wires or connections exposed.

6. Proper tension on main drive chain less than 1/4" slack between sprockets. Be sure to lubricate chain well.

7. Check for wear on main and secondary wheels, anti-lift wheels, pick-up brushes, etc.

8. Run each car two cycles prior to patron riders to verify safe and functional operation of each car. If there is any reason to question the safe operation of any phase of this unit CEASE OPERATION and contact the factory or factory representative for any and all operational and safety concerns.

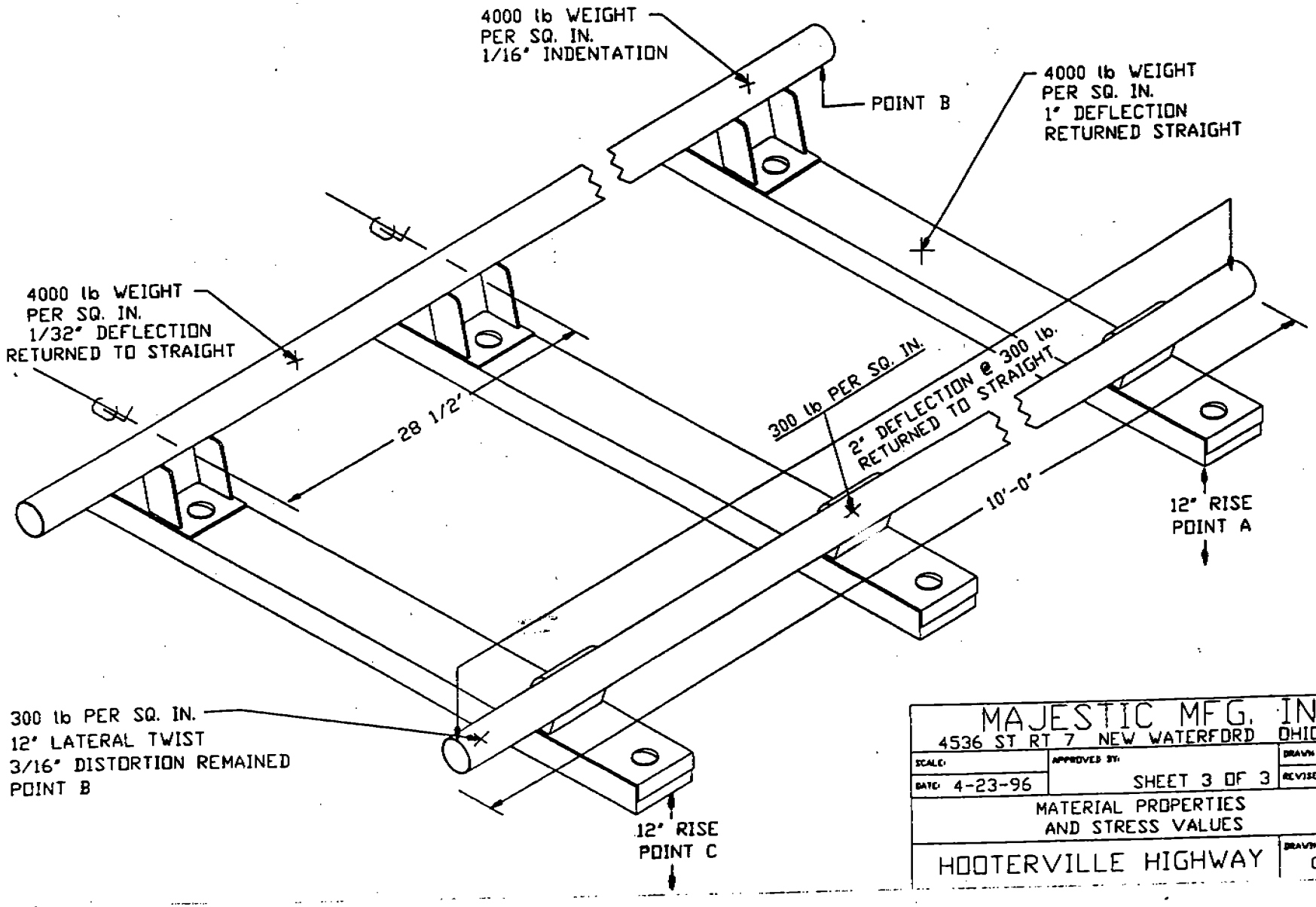


MAJESTIC MFG. INC.
4536 ST RT 7 NEW WATERFORD OHIO 44445

SCALE:	APPROVED BY: REF. X-XXXX	DRAWN BY: TJG
DATE: 11/9/95	SHEET 1 OF 1	REVISED 00-00-00

TRACK LAYOUT

HOOTERVILLE HIGHWAY — DRAWING NUMBER: Q-1804



MAJESTIC MFG. INC.
4536 ST RT 7 NEW WATERFORD OHIO 4444

SCALE:	APPROVED BY:	DRAWN BY: RAS
DATE: 4-23-96	SHEET 3 OF 3	REVISED 00-00

MATERIAL PROPERTIES
AND STRESS VALUES

HOOTERVILLE HIGHWAY | DRAWING NUMBER: 0-1806

DURAWOOD PLASTIC LUMBER

DENSITY - .025-.028
COMPRESSIVE STRENGTH @ 2" - 2540-2580
4" - 3040-3120
6" - 5130-5350

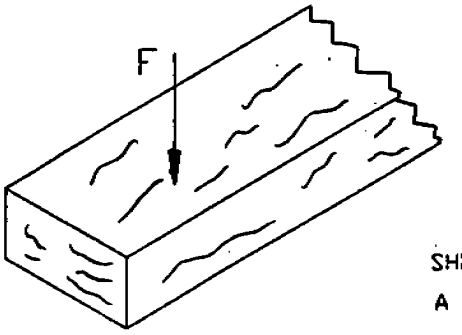
TENSILE STENGTH PSI - 2160-2630

FLEX MODULUS PSI - 97900-103300

SHEAR STRENGTH PSI - 1850-2050

THERMAL EXPANSION in/in/°F - .00007"

ACCELERATED WEATHERING 91% OF COLOR



NOMINAL 2"x4"

$$Ssm = \frac{F}{A}$$

SHEAR STRESS MEAN = 1950 PSI

A = 8 SQ. IN

F = 1950 x 8 = 15600 lbs

ALLOWABLE WEIGHT / PIECE

15600 > 1160

TEST CYCLE INCLUDED MATERIALS LISTED ABOVE APPROXIMATE WEIGHT OF CAR & SAND USED DURING TEST EQUALLED 1,160 lbs. AND DURATION TIME WAS ONE HOUR CONTINUOUS USE

WHEELS UHMW PLASTIC

YEILD 2900-3400 PSI

TENSILE 4600-6800 PSI

MAJESTIC MFG. INC. 4536 ST RT 7 NEW WATERFORD OHIO 444		
SCALE:	APPROVED BY: REF. X-XXXX	DRAWN BY: STR
DATE: 11-14-95	SHEET 2 OF 3	REVISED 00-0
MATERIAL PROPERTIES & STRESS VALUES		
HOOTERVILLE HIGHWAY		DRAWING NUMBER: D-1806

RAIL 1 3/4" DIA.x16 GA. WALL-304 STAINLESS STEEL TUBE

CHEM. COMP. - CHROMIUM - 17-19%
NICKEL - 8-10%
CARBON - .08%
MANGANESE - 2%
SILICON - 1%

MECH. PROPERTIES
(NOMINAL)

YEILD STRENGTH (KSI min.)	ULTIMATE STRENGTH (KSI min.)	ELONGATION % IN 2"
35	85	55

MOD OF ELAST. lb/in x 10	HARDNESS - BRINELL (MAX)	HARDNESS - ROCKWELL (MAX)
29	180	B90

PHYSICAL DATA - MELTING °F-2550
DENSITY lb/in - 0.29
BTU/ °F/lb (32-212°F) -0.12

CONDUCTIVITY BTU/ FT /HR/°F/FT } 212=9.4, 432=12.4

MEAN COEFICIENT OF EXPANSION - 9.2-11

HEAT RESIST - INTERMITTENT °F-1600
CONTIUOUS °F-1700

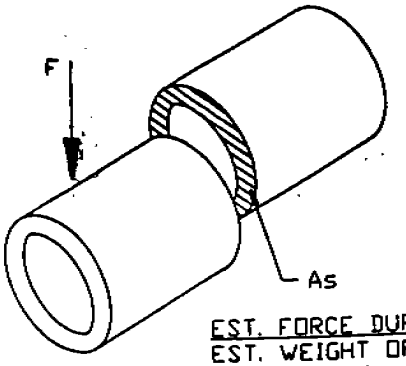
CALCULATED SHEAR STRESS (Ss) TUBE

$Ss = \frac{F}{As}$

F=FORCE (LB)
As=AREA (IN)

$Ss = \frac{1160}{.345 \text{ SQ. IN}}$ =3362 PSI

3.3 KSI < 35 KSI



EST. FORCE DURING OPERATION
EST. WEIGHT OF CAR = 660 lbs.
EST. WEIGHT 4 RIDERS = 500 lbs
TOTAL 1160 lbs.

CALC. SHEAR AREA OF TUBE
As= R (1 3/4" O.D.)- R (1.62 I.D.)
As=2.405 sq. in -2.06
As=.345 SQ. IN.

MOUNTING BRK'T — 11 GA. 304 STAINLESS STEEL PLATE
SAME AS ABOVE

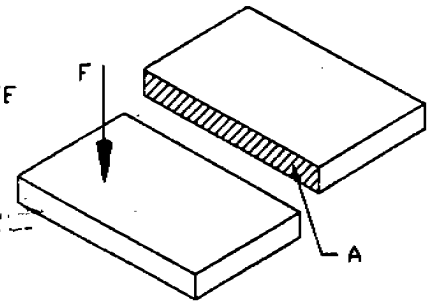
CALCULATED SHEAR STRESS BRK'T PLATE

$Ss = \frac{F}{A}$

$Ss = \frac{1160 \text{ lbs}}{.42 \text{ SQ. IN}}$ = 2762 PSI

2.7 KSI < 35 KSI

A=LxW
A=.120"x3 1/2"
A=.42 SQ. IN.



MAJESTIC MFG. INC.
4536 ST RT 7 NEW WATERFORD OHIO 44445

SCALE:	APPROVED BY:	DRAWN BY: STR
DATE: 11-14-95	SHEET 1 OF 3	REVISED: 00-00-00

MATERIAL PROPERTIES
AND STRESS VALUES

HOOTERVILLE HIGHWAY — DRAWING NUMBER: Q-1806

CARS

Each car is equipped with a 36 volt motor to drive each car.

To operate each car, four zones are incorporated in the staging area. Jog cars forward by depressing each zone button.

Never jog car with a patron standing, stepping or moving in car. Injury is possible. Always know what zone button corresponds to car affected.

Recommended speed setting is 3 F.P.S. (feet per second) this may vary depending on total weight per car. Operator discretion is recommended.

An emergency shut off switch is located on operators panel. If for any reason there is a safety concern, USE IT. It is recommended that the switch is tested on a regular basis to insure reliability.

Proper spacing is required when ride is in operation.

Never operate cars too close. 15' - 20' of spacing is necessary between each car.

Never operate cars with any part of the rider's body out of the car, ex: head, arms, legs. The rider/patron should be completely seated in the designed seat.

Never operate cars unless a daily inspection has been performed

INSPECTION

I. Cars - see section 4 for total inspection of cars.

II. Track - see section 4 for total inspection of track.

III. Trailer

1. Trailer must be firmly blocked prior to operation.
2. All fencing and one way gates must be in place prior to operation.
3. All ramps must have anti-skid strips installed and secure.
4. All safety keys and pins are in place.
5. Safety rules visible and in tact.

C E N T R A L P A R K

Inspection Schedule
Operational

1. All wiring is in accordance with state, local and manufacturers' guidelines.

2. Trailer is secure and blocked properly.

3. Track is attached together and blocking is such that as car travels around corners, car will not tip over.

4. When loading cars with customers, some very important factors:

   a) Distribute load evenly. Eg: Never have car unbalanced. Car can tip over around corners if not properly distributed.

   b) Never exceed 500 lbs. total weight

   c) Have all customers conform to safety rules posted on front of ride

   d) Always walk the track before operating for the day.

   e) Always inspect interior of car before operating for the day. Eg: Sharp objects, loose or non-functional seat belt.

   f) Inspect all hook rollers for proper distance from rail.

   g) Inspect above trailer for any loose objects that may fall on a patron or person.

   h) Is one way gate system functional and operating properly?

<u>Any questions concerning the safety of this unit,</u> call MAJESTIC MANUFACTURING, INC. Monday thru Friday, 8:00 AM - 4:30 PM at 330-457-2447.

5. Preventive maintenance is very important.

   a) Oil chain every 10 hours of use.

   b) Check tension - 1/4" of play from sprocket to sprocket is normal.

   c) Hook rollers last longer with a small amount of oil on the shaft every week.

   d) Hard hitting of cars in the staging area will do damage and and excessive wear on cars.

ELECTRICAL SERVICE

Trailer model - 5 cars Total/320 feet of Stainless Steel Track

A. Total power requirements
amps 100 amp service
volts 220 volt 1 phase

B. Power requirement per car average
amps 8 amps
volts 42 volts

Park Model - 5 car Total/320 feet of Stainless Steel Track

Total power requirements
amps 55 amp service
volts 220 volt 1 phase

RECTIFIER

OPERATION:

1. Never operate the unit with any panel removed when under load.
2. Turn the voltage control counterclockwise (to the left) so that the dial indicator is on he "1" position of the dial plate. This is the setting for the lowest possible output voltage available.
3. After the power supply os installed as above, apply the line voltage to it.
4. Energize the "Timer".
5. Turn the voltage control knob clockwise (to the right) to increase the output voltage.
6. The ammeter and voltmeter will monitor the D.C. out put. The ammeter will only read when the load is supplied.

CAUTION: DO NOT EXCEED A D.C. OUTPUT VOLTAGE GREATER THAN THE NAMEPLATE RATING. ADDITIONAL VOLTAGE IS AVAILABLE TO COMPENSATE FOR POSSIBLE LOW INCOMING LINE VOLTAGES. DO NOT CHANGE SPEED WHILE UNDER LOAD.

7. Do not load the unit in excess of the nameplate rating. In the event of an overload, ground or short the load, the D.C. ampere output and/or clear the ground before restarting the power supply.
8. The RED pilot light will indicate POWER ON.
9. REMOTE KILL SWITCH: TB-3 makes provisions for wiring up a remote "KILL SWITCH" at the work area. Opening this remote switch prevents the Power Supply from allowing its output.

MAINTENANCE:

1. Rectifier elements MUST be kept clean to insure proper ventilation. Diet accumulations will result in improper cooling, causing excessive overheating, which will eventually damage the rectifier elements and other components. We urge cleaning of the power supply every six months, using compressed air or a vacuum cleaner. Do not place objects on top, as they will restrict the air flow and damage components. Fan motors (of 1/4 and 1/3 HP) are packed with sufficient grease for approximately five years of operation under normal conditions. After five years, the bearing and housings should be cleaned thoroughly and repacked. Smaller fan motors should be oiled carefully every six months.
2. Inspect all cables, wires and connections for loose connection or overheating. If hot looking spots are found, repair them before they open up, causing serious trouble.
3. Check the calibration of the meters. They should be kept within 2% accuracy of the

full scale readings. Watch for sticking of the pointer. See that the pointers are zeroed.

4. In case of blown diodes, the following steps should be taken:

A. Before replacing the blown diode, the reason or cause of failure should be determined. The diode or diodes in the affected circuit should be isolated (disconnect the pig-tail end)

B. Each diode should then be checked for forward and reverse resistance.

NOTE: IF THE DIODE IS GOOD, THE LOW RESISTANCE READING SHOULD BE VERY LOW, APPROXIMATELY 10 TO 20 OHMS. THE HIGH RESISTANCE WOULD BE IN THE RANGE OF 1,000 OHMS TO 50,000 OHMS. THIS IS VARIABLE IN DIODES. IF BOTH READINGS ARE HIGH, THEN THE DIODE SHOULD BE CONSIDERED BAD AND REPLACED. IF NO CONTINUITY IS FOUND, THE DIODE IS OPEN AND SHOULD BE REPLACED.

CAUTION: NEVER OPERATE THE UNIT WITHOUT THE FAN OR WITH ANY PANEL REMOVED WHEN UNDERLOAD. AFTER UNIT HAS BEEN CLEANED, BE SURE PANELS ARE PUT BACK.

ORDINARY MAINTENANCE

A. Drive Chain

1) The drive chain's tension of the cars has to be controlled monthly. The admitted oscillation is about 2-3 mm. If this oscillation is higher, the chain has to be taken in tension, then unfasten the nuts and move the reduction gear until you reach the desired result. Inspect the correct centering between the reduction gear's pinion and the engine crown. Then block all with the nuts.

2) Lubricate the chain weekly with automatic transmission fluid.

B. Electric System

1) Motor brushes - Verify every two months the brushes' wearing of the car's engine. To inspect brushes it is necessary to remove the crankcase.

2) Track brushes - Inspect monthly the condition of the feeding brush and replace it if it is necessary.

3) Grounding - Carry out a proper grounding of the attraction while installing and inspect its conditions daily. N.B. This connection and the control has to be carried out by competent staff.

4) Controls - Check daily the press button's functions state, stop and emergency.

C. Guide Roller

1) Check weekly the car hold down rollers and replace it if it is necessary.

D) Trolley Wheels

1) Inspect the wearing of the eight cast nylon wheels of the car and replace them it is necessary.

E. Drive Wheels

1) Inspect the center rubber section of the drive wheel and replace them if necessary.

DAILY INSPECTION SCHEDULE

	INITIAL APPROPRIATE BLOCK AFTER INSPECTION. DATE: WEEK ENDING ____ MO ____ DAY ____ YR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	COMMENTS
RIDE UNIT	RECTIFIER SPEED SETTING #								
	ALL FENCE INSTALLED								
	GATES OPERABLE								
	RAMPS AND HINGE PINS INSTALLED								
	RAMP ANTI-SKID								
	RAMP RAILING & SPRING PINS INSTALLED								
	Track Secure Bolt Clamps & R Keys								
	HYDRAULIC SWITCH OFF								
	FENCE GUARDS INSTALLED (IF APPLICABLE)								
	CONTINUITY								
	Blocking (If Applicable)								
	SAFETY RULES LEDGEABLE								
	SAFETY KEYS								
	EXITS NOT BLOCKED								
	All Electrical Connections								
CAR	SEAT BELTS								
	Safety Side Bar								
	Motor, Gear Box, Chain								
	Bumpers								
	Running Gear								
	Electrical Speed Setting								
	CAR INTERIOR CLEAN								
	Car Interior Defects								
	Sharp Objects Interior & Exterior								

CENTRAL PARK TRACK RACKING

1. ALL CURVE SECTIONS OF TRACK ARE TO BE RACKED FIRST. THE TIES OF THE FIRST CURVED SECTION RACK AGAINST TRAILER FRAME. REMAINING CURVES ALTERNATE THEREAFTER.

2. RACK THE FOUR 6' SECTIONS OF TRACK NEXT.

3. RACK THE SECTIONS OF TRACK WITH THE CAR GUIDERAIL MOUNTED TO THE TRACK.

4. RACK ONE 4' SECTION OF TRACK AND THEN ONE 10' SECTION OF TRACK AND THEN RACK THE OTHER 4' SECTION AND THEN THE OTHER 10' SECTION.

5. RACK REMAINING STRAIGHT PIECES OF TRACK.

C A U T I O N

Tighten Wheel Lugs

Tighten cone type nuts to 175 to 225 Lb. - Ft.
Tighten flange type nuts to 275 to 325 Lb - Ft.

On first road use, re-tighten lugs at the first 50 miles and 100 miles. Check lugs regularly thereafter.

CERTIFICATE OF FLAME RESISTANCE

Registered Application Concern No.
F-306.1

ISSUED BY
WATERLOO TENT & TARP CO., INC.
1029 COMMERCIAL ST.
WATERLOO, IA 50702
319-234-4679 800-5371193

Date Work Performed
February, 1997

This is to certify that the material described have been flame retardant treated (or are inherently nonflammable).

Majestic Mfg.
P. O. Box 128 New Waterford OH 44445

Certification is hereby made that:

[ ] The articles described below on this Certificate have been treated with a flame retardant chemical approved and registered by the State Fire Marshal and that the application of said chemical was done in conformance with the laws of the State of California and the roles and regulations of the State Fire Marshal.

Name of chemical used Chem. Reg. No.

Method of Application

[X] The articles described below on the Certificate are made from a flame-resistant fabric or material registered and approved by the State Fire Marshal for such use.

Trade name of flame resistant fabric or material used Sunburst Reg. No. F-306.1

The flame Retardant Process used **WILL NOT** Be Removed By Washing

Meridian Mfg.
Production Company

Jimmie Robertson
Quality Control Supervisor

We hereby certify this to be a true copy of the original **"CERTIFICATE OF FLAME RESISTANCE"** issued to us, "original copy" of which has been filed with the California State Fire Marshall.

WATERLOO TENT & TARP CO. INC.

BY

Customer Number maj44445

Order # 8220 P.O. Number

Items (1) Hooterville Awning Description

Hot Pink-Turq-Yellow Stripe Width 15"

Color

Type & Weight of Material 14 oz. vinyl

IMPORTANT!!!

DO NOT LOSE

THIS IS PROOF THAT YOUR TOP IS FLAME RETARDENT FIRE MARSHALLS WILL ASK TO SEE THIS CERTIFICATE

MANUFACTURER'S STATEMENT OF ORIGIN TO A TRAILER

The undersigned corporation hereby certifies that the new trailer described below, the property of said corporation, has been transferred

this TENTH day of

JUNE, 19 97, on Invoice No. H010

to REITHOFFER EQUIPMENT INC.
(Distributor, Dealer, Etc.)

whose address is 500 DUAL HIGHWAY SEAFORD, DE 19973
(Street, City and State)

Trade Name CENTRAL PARK Year 1997 Model TM 300

Type FLATBED Serial 1M9LN28T7VW276010 Weight 14,500 LBS

The corporation further certifies that this was the first transfer of such new trailer in ordinary trade and commerce.

MAJESTIC MANUFACTURING, INC.

By Jeff Kuhlen PRES
Sign Name Title or Position

Rt. 7, New Waterford, Ohio 44445

FIRST ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby transfers this Statement of Origin and the trailer described therein to REITHOFFER EQUIPMENT CO. INC.

Address 500 DUAL HIGHWAY SEAFORD, DE.

and certifies that the trailer is new and has not been registered in this or any other state: he also warrants the title of said trailer at time of delivery, subject to the liens and encumbrances, if any, as set out below:

Amt. of Lien	Date	To Whom Due	Address

Dated JUNE 10, 1997, at NEW WATERFORD, OH

MAJESTIC MANUFACTURING, INC. By: Jeff Ludlow PRES.

Transferor (Firm Name) Sign Here Position

Before me personally appeared _____

who by me being duly sworn upon oath says that the statements set forth above are true and correct.

Subscribed and sworn to before me this 10th day of June, 1997

_____ Notary Public for Columbiana County,

State of OHIO

CANDICE L. HAWKINS
Notary Public, State of Ohio
My Commission Expires 9-19-01

Candice Hawkins

SECOND ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby transfers this Statement of Origin and the trailer described therein to _____

Address _____

and certifies that the trailer is new and has not been registered in this or any other state: he also warrants the title of said trailer at time of delivery, subject to the liens and encumbrances, if any, as set out below:

Amt. of Lien	Date	To Whom Due	Address

Dated _____, at _____

_____ By: _____

Transferor (Firm Name) Sign Here Position

Before me personally appeared _____

who by me being duly sworn upon oath says that the statements set forth above are true and correct.

Subscribed and sworn to before me this _____ day of _____, 19____

_____ Notary Public for _____ County,

Notary Seal

State of _____

THIRD ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby transfers this Statement of Origin and the trailer described therein to _____

Address _____

and certifies that the trailer is new and has not been registered in this or any other state: he also warrants the title of said trailer at time of delivery, subject to the liens and encumbrances, if any, as set out below:

Amt. of Lien	Date	To Whom Due	Address

Dated _____, at _____

_____ By: _____

Transferor (Firm Name) Sign Here Position

Before me personally appeared _____

who by me being duly sworn upon oath says that the statements set forth above are true and correct.

Subscribed and sworn to before me this _____ day of _____, 19____

_____ Notary Public for _____ County,

Notary Seal

State of _____

Midway Engineering

June 18, 1996

Ms. Ann Millben
Michigan Dept. of Commerce
Carnival-Amusement Safety Unit
P.O. Box 30018
Lansing, MI 48909-7518

Dear Ms. Millben:

Ref: Central Park Series Ride by Majestic Manufacturing Inc.

In accordance with a request by Mr. Jeff Kudler of Majestic Manufacturing, my services as a professional engineer were utilized with regard to the Central Park Series Ride. This ride will be manufactured in a number of themes (i.e. Central Park, Hooterville Highway, etc.) with similar components. This certification will be applicable to all themes in the series.

Enclosed are copies of the Engineering Drawings, Specifications, Engineering Analysis, and Operation and Maintenance Manual. The Drawings and Analysis have been reviewed in accordance with the requirements of the Michigan Carnival Amusement Safety Act. The results of the review of the Analysis are as follows:

1) The assumptions and theory utilized are based upon sound engineering practice.
2) The references utilized are applicable to the type of analysis being performed.
3) The loads which were utilized are the maximums to be expected during the life of the amusement device.
4) The stresses calculated do not exceed 50% of the material yield strengths.

My conclusion based upon the above results is that the Engineering Analysis indicates that the Central Park Series Ride can safely sustain the imposed loads when operated in accordance with the manufacturers instructions.

Based upon the above conclusion, I do hereby certify the Engineering Drawings and Analysis for the Central Park Series Ride manufactured by Majestic Manufacturing Inc. of New Waterford, Ohio.

Should you have any questions regarding the above, please contact me at my office. Thank you for your help in this matter.

Sincerely,

Timothy A. Horn, P.E.
Professional Engineer

STATE OF OHIO
TIMOTHY A. HORN
E-52554
REGISTERED PROFESSIONAL ENGINEER

c: Mr. Allen Chester
Mr. Jeff Kudler✓
Mr. Len Soled
Enclosures

• 2695 Springmill Rd. • Mansfield, OH 44903 • (419) 747-4708 • Fax(419) 747-4715 •

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1.0) SCOPE

THE FOLLOWING ENGINEERING ANALYSIS IS INTENDED TO DEMONSTRATE THAT THE CENTRAL PARK SERIES RIDE MANUFACTURED BY MAJESTIC MANUFACTURING OF NEW WATERFORD, OH CAN SAFELY SUSTAIN THE LOADS IMPOSED WHEN OPERATED IN ACCORDANCE WITH THE OPERATORS MANUAL. THIS RIDE WILL BE THEMED UNDER SEVERAL NAMES INCLUDING CENTRAL PARK, HOOTERVILLE HIGHWAY, ETC THIS ANALYSIS IS APPLICABLE TO ALL THEMES IN THE SERIES WHICH UTILIZE THE SAME MECHANICAL COMPONENTS.

2.0) MAXIMUM LOADED WEIGHT

VEHICLE STATIC WEIGHT — 700 LBS.
MAX. CAPACITY — 800 LBS.

TOTAL LOADED WT. 1500 LBS.

WEIGHT DISTRIBUTION FROM WEIGHING VEHICLES. 60% REAR
40% FRONT

@ FRONT AXLE LOAD. = 600 LBS.
REAR AXLE LOAD = 900 LBS.

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3.0) REFERENCES

A) CENTRAL PARK OPERATION MANUAL

B) CENTRAL PARK DRAWINGS & SPECIFICATIONS

C) MACHINERY'S HANDBOOK
21ST. EDITION INDUSTRIAL PRESS

D) MECHANICAL ENGINEERS HANDBOOK
EIGHTH EDITION MARKS

4.0) ALLOWABLE STRESSES

A) STEEL SHEET, TUBE, & BAR ASTM A-36 — YIELD 36,000 psi
ALLOWABLE (50% YIELD) 18,000 psi

B) STAINLESS STEEL ASTM A 304 — YIELD 35,000 psi
ALLOWABLE (50% YIELD) 17,500 psi

C) STEEL TUBE DIN 17100 EQUAL TO ASTM A-572 (FRAME OF CAR) — YIELD 50,000 psi
ALLOWABLE (50% YIELD) 25,000 psi

D) UHMW PLASTIC — YIELD 3,000 psi
ALLOWABLE (50% YIELD) 1,500 psi

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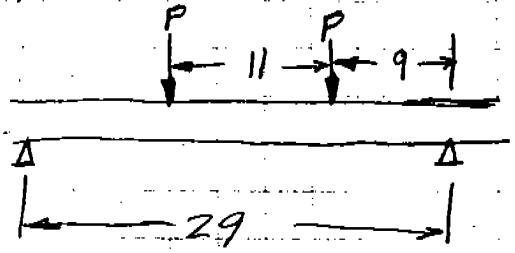
E) SAE GRADE 5 BOLTS — YIELD 150,000 psi
ASTM A 354
ALLOWABLE (50% YIELD) 75,000 psi

F) SAE GRADE 2 BOLTS — YIELD 69,000 psi
ALLOWABLE (50% YIELD) 34,500 psi

5.0) TRACK TUBING

MAXIMUM LOAD IS BY REAR AXLE = 900 LBS. OVER (4) WHEELS $P = \frac{900}{4} = 225$ LBS.

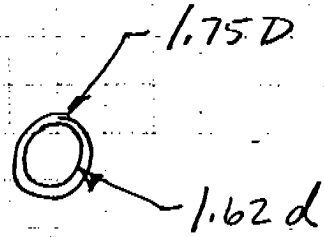
TRACK TIE SPACING MAX. = 29 IN.



REF. D, Pg. 5-35

$M_{max} = \frac{P}{2l}\left(l - \frac{a}{2}\right)^2$

$= 2,142$ LB. IN.



FROM REF. C, Pg. 372

$I = .049(D^4 - d^4)$

$= .122$ IN.^{4}

$\sigma = \frac{Mc}{I} = \frac{(2,142)(.875)}{.122} = 15,365$ psi.

FACTOR OF SAFETY

$C = \frac{18,000}{15,365} = 1.17$ OKAY

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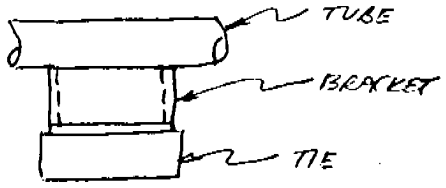
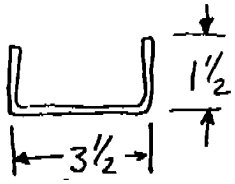
6.0) TRACK MOUNTING BRACKET





$t = .120$
TYPE 304 S.S.
$A = .78 in^2$

LOADING IS FROM (2) WHEELS OR 450 LBS.

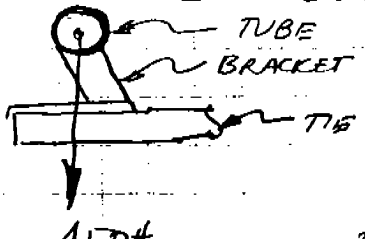
$$\delta = \frac{P}{A} = \frac{450 \text{ LBS.}}{.78 in^2} = 577 \text{ psi.}$$

FACTOR OF SAFETY

$$f = \frac{17,500}{577} = \underline{30.3 \text{ OKAY}}$$

7.0) TRACK CROSS TIES

SEE ITEM 6.0 ABOVE.



2x4 DURAWOOD.
$A = 8 in^2$

$$\delta = \frac{P}{A} = \frac{450 \text{ LBS.}}{8 in^2} = 56 \text{ psi.}$$

FACTOR OF SAFETY

$$f = \frac{1,300}{56} = \underline{23.1 \text{ OKAY}}$$

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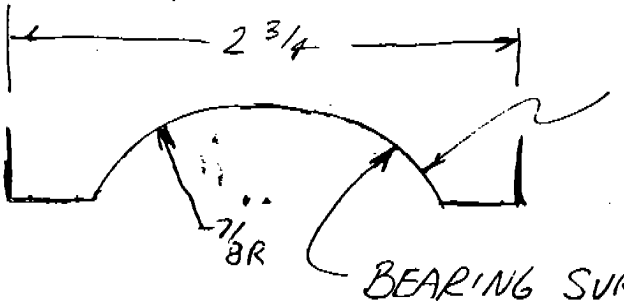
8.0) INSULATOR ROAD WHEELS

5 1/4" DIA. x 2 3/4" WIDE
UHMW PLASTIC.

MAXIMUM LOAD PER WHEEL = 225 LBS.



BEARING SURFACE AREA = 1/8" W x 2 1/4" L.
A = .28 IN²

$$\sigma = \frac{225 \text{ LBS}}{.28 \text{ IN}^2} = 800 \text{ psi}$$

FACTOR OF SAFETY

$$C = \frac{1,500}{800} = 1.88 \quad \text{OKAY}$$

9.0) ROAD WHEEL BEARINGS

MAXIMUM LOAD PER WHEEL = 225 LBS.

EACH WHEEL HAS (2) BEARINGS RATED AT 843 LBS.
TOTAL CAPACITY = 843(2) = 1686 LBS.

FACTOR OF SAFETY

$$C = \frac{1686}{225} = 7.49 \quad \text{OKAY}$$

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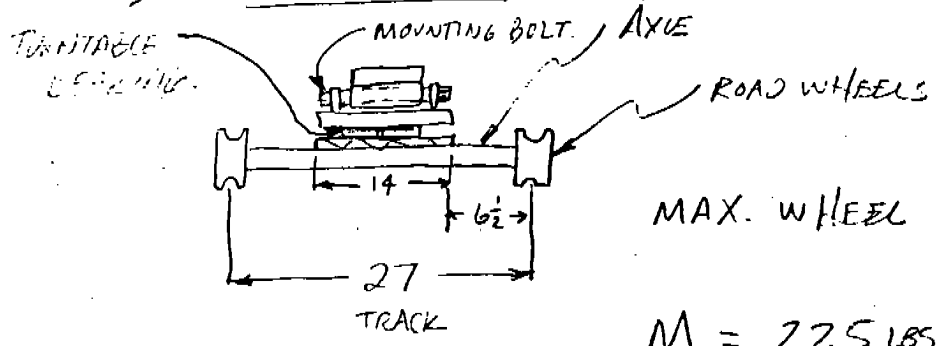
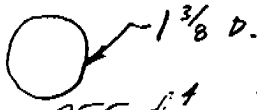
ENGINEERING ANALYSIS		
CENTRAL PARK SERIES RIDE		
pg. 6 of 12	06-07-96	TWL

REF. C, pg. 372

10.0) REAR AXLES (A-36 STEEL)





$I = .055 d^4$
$= .197 \text{ in}^4$

MAX. WHEEL LOAD = 225 LBS.

$M = 225 \text{ LBS.} (6\frac{1}{2} \text{ IN.})$
$= 1,462 \text{ LB IN.}$

$$\sigma = \frac{Mc}{I} = \frac{(1,462)(.687)}{.197}$$
$$= 5,098 \text{ psi.}$$

FACTOR OF SAFETY

$$S = \frac{18,000}{5,098} = 3.53 \quad \text{OKAY}$$

11.0) REAR TURNTABLE BEARING

5" DIA. RATED @ 4,950 LBS.

TOTAL REAR AXLE LOAD = 900 LBS.

FACTOR OF SAFETY

$$S = \frac{4,950 \text{ LBS.}}{900} = 5.5 \quad \text{OKAY.}$$

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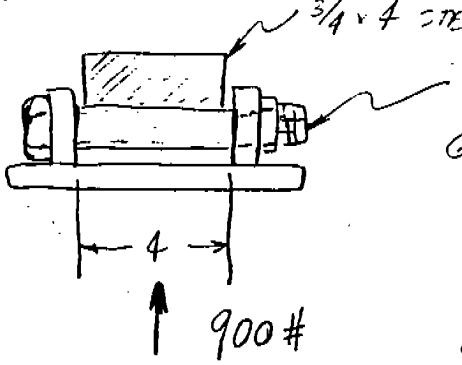
12.0) TURNTABLE MOUNTING BOLT - REAR



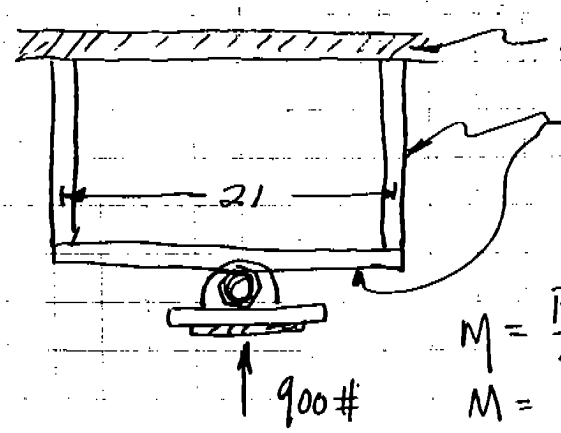
$A = .44\ in^2$

$$\sigma = \frac{P}{A} = \frac{900}{2(.44)} = 1,022\ psi.$$

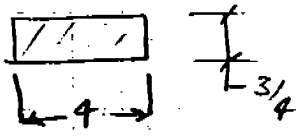
FACTOR OF SAFETY

$$C = \frac{75,000}{1,022} = 73.3 \quad \text{OKAY}$$

13.0) TURNTABLE MOUNTING FRAME - REAR



REF. C, pg. 371



$$M = \frac{Pl}{4} \qquad M = \frac{900(21)}{4} = 4,725\ \text{IN.LB.}$$

$$I = \frac{bd^3}{12} = \frac{(4)(.75)^3}{12} = .14\ \text{IN.}$$

$$\sigma = \frac{Mc}{I} = \frac{(4,725)(.375)}{.14} = 12,656\ psi.$$

FACTOR OF SAFETY

$$C = \frac{18,000}{} = 1.42 \quad \text{OKAY}$$

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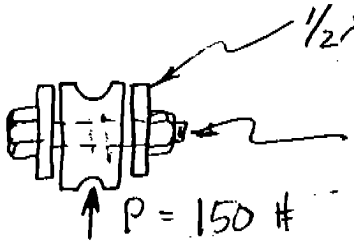
14.0) FRONT WHEEL BOLTS

FRONT AXLE LOAD = 600 LBS.

OVER (4) WHEELS $P = \frac{600}{4} = 150$ LBS.



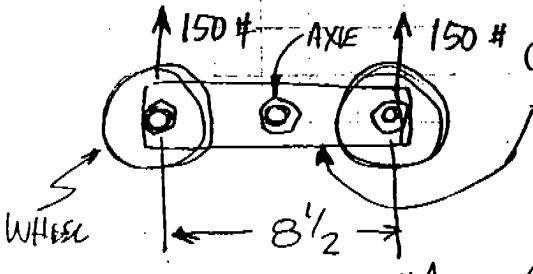
$A = .78\ in^2$

$\delta = \frac{150\ lbs}{(2)(.78)} = 96\ psi.$

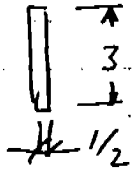
FACTOR OF SAFETY

$S = \frac{75,000}{96} = 785$ OKAY

15.0) FRONT AXLE TRUNNION



REF. C, pg. 371



$I = \frac{bd^3}{12} = \frac{.5(3)^3}{12} = 1.12$

$\delta = \frac{M_c}{I} = \frac{(2)(150)(4.25)(1.5)}{1.12} = 1,707\ psi.$

FACTOR OF SAFETY

18,000 IN. LB OKAY

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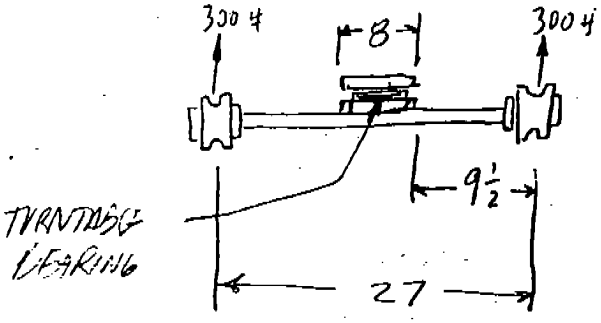
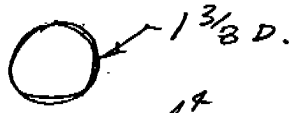
16.0) FRONT AXLE (A-36 STEEL) REF. C, Pg. 372





$I = .055 d^4$
$= .197 \text{ IN.}^4$

$M = 300 \text{ LBS.} (9\frac{1}{2}) \text{ IN.}$
$= 2{,}850 \text{ LB.-IN.}$

$$\sigma = \frac{Mc}{I} = \frac{(2{,}850)(.687)}{.197}$$
$$= 9{,}938 \text{ psi.}$$

FACTOR OF SAFETY

$$S = \frac{18{,}000}{9{,}938} = 1.81 \quad \text{OKAY}$$

17.0) FRONT TURNTABLE BEARING

5" DIA. RATED @ 4,950 LBS.

TOTAL FRONT AXLE LOAD = 600 LBS.

FACTOR OF SAFETY

$$S = \frac{4{,}950}{600} = 8.25 \quad \text{OKAY}$$

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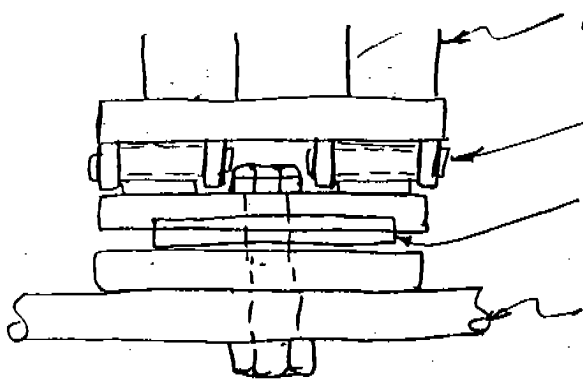
18.0) TURNTABLE MOUNTING PINS — FRONT



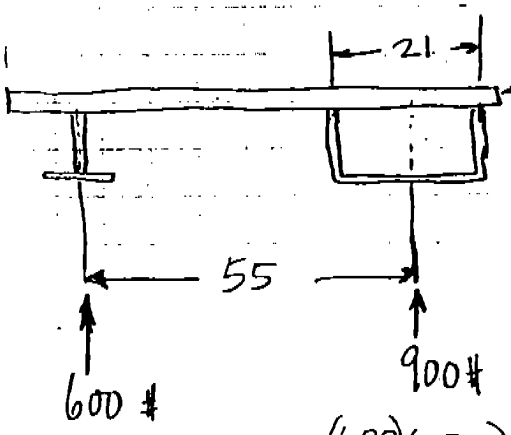
$A = .196$ IN

$$\sigma = \frac{P}{A} = \frac{600}{(4)(.196)} = 764 \text{ psi.}$$

FACTOR OF SAFETY

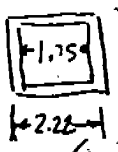
$$\sigma = \frac{17,500}{764} = 22.9 \quad \text{OKAY}$$

19.0) FRAME RAILS



50 X 50 STEEL TUBES
ASTM - A-572

REF C, PG. 370



$$M = \left(\frac{600}{2}\right)(27.5) + \frac{900}{2}(27.5) = 20,625 \text{ IN. LB.}$$

$$I = \frac{(2.22)(2.22)^3 - (1.75)(1.75)^3}{12} = 1.24 \text{ IN}^4$$

$$\sigma = \frac{Mc}{I} = \frac{(20,625)(1.11)}{1.24} = 18,425 \text{ psi.}$$

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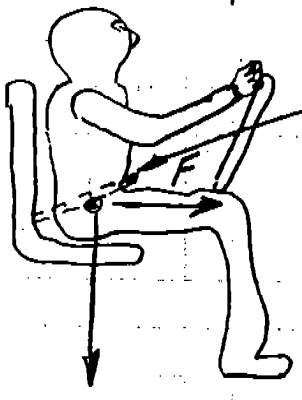
FACTOR OF SAFETY

$$C = \frac{25,000}{18,425} = 1.36 \quad \text{OKAY}$$

20.0) SEAT BELTS

ASSUME A 150# PASSENGER OR 1/4 OF THE VEHICLE WEIGHT CAPACITY.



SEAT BELT TEST STRENGTH = 375 LBS.

ASSUME F = 50 LBS. OR 1/3 OF PASSENGER WEIGHT.

ASSUME MAX. DECELERATION FORCE OF 2 g's FROM ACCIDENT IMPACT BECAUSE OF LOW SPEEDS AND BUMPER CONSTRUC.

∴ F = (2)(50) = 100 LBS.

FACTOR OF SAFETY

$$C = \frac{375}{100} = 3.75 \quad \text{OKAY}$$

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21.0) SEAT BELT ANCHORAGE

SEAT BELT IS MOUNTED WITH (2) 5/16 DIA. GRADE 2 BOLTS. ASSUME EQUAL LOAD DISTRIBUTION.

$$F = \frac{100 \text{ lbs.}}{2} = 50 \text{ lbs.}$$

FOR A 5/16" DIA. BOLT.

$$A = .052 \text{ in}^2$$

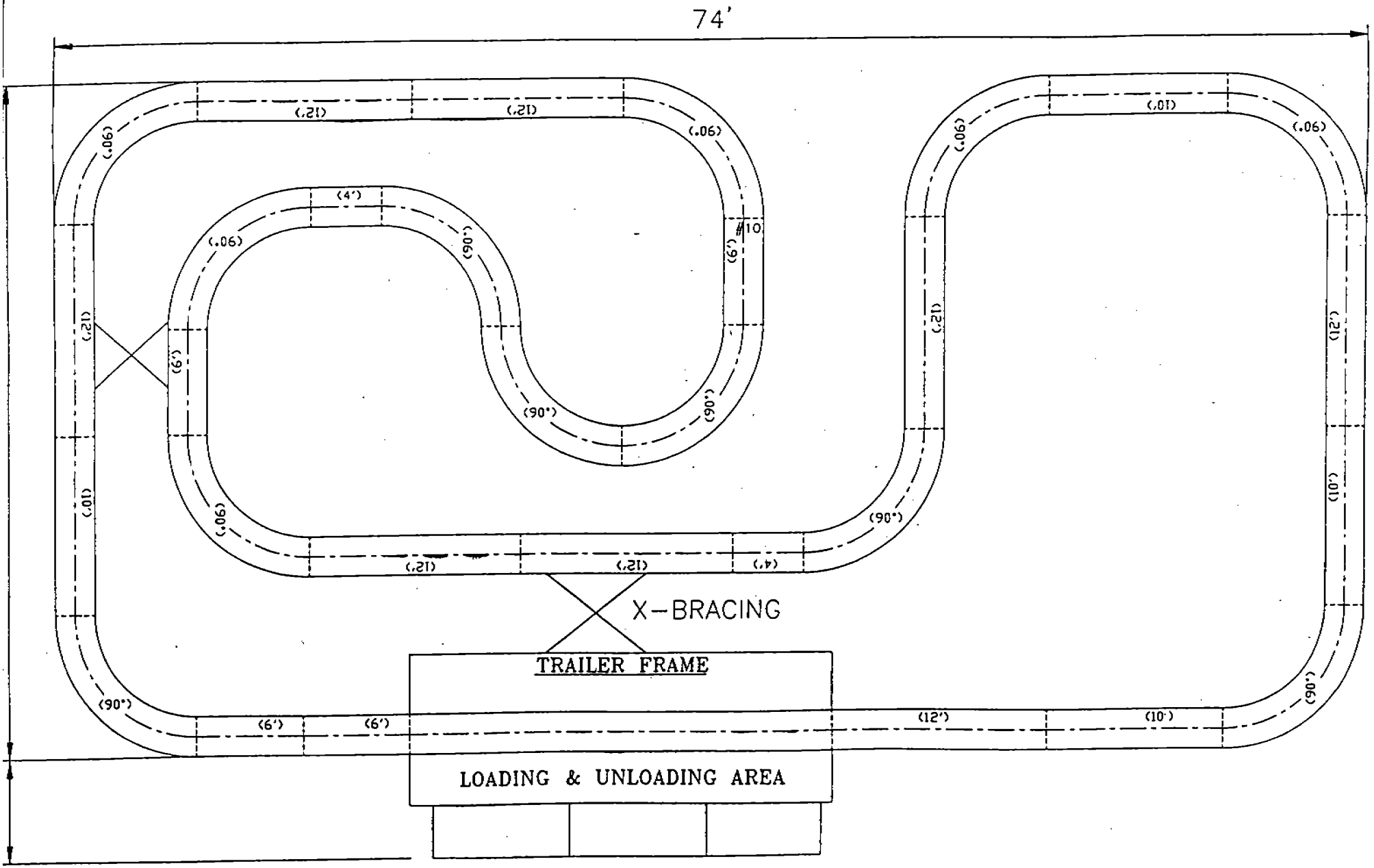
$$\delta = \frac{50}{.052} = 961 \text{ psi.}$$

FACTOR OF SAFETY

$$\delta = \frac{34,500}{961} = 35.8 \quad \text{OKAY}$$

22.0) RESULTS

THE ANALYSIS DEMONSTRATES THAT THE CENTRAL PARK SERIES RIDE CAN SAFELY SUSTAIN THE LOADS IMPOSED WHEN OPERATED IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. THIS APPLIES TO ALL THEMES OF THE RIDE UTILIZING THE SAME COMPONENTS.


74'
(.21)
(.21)
(.06)
(.06)
(4')
(.06)
(.06)
#10
(.9')
(.12')
(6')
(90°)
(.06)
(.06)
(.10')
(.21)
(.21)
(.4')
(90°)
(.12')
(.10')
X-BRACING
TRAILER FRAME
(90°)
(6')
(6')
(12')
(10')
(.06)
(.06)
(.01)
(.06)
(.06)
(90°)
LOADING & UNLOADING AREA