

WIPEOUT

Service manual

Manual number 24329311



WIPEOUT

Introduction

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February, 1993)*

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Introduction

To the owner

This manual is your guide to safe, productive operation. Read it carefully. It will help reduce trial and error learning and minimize downtime caused by improper maintenance. For additional information, contact the CHANCE RIDES CUSTOMER SERVICE DEPARTMENT.

NOTE: Because we try to improve every CHANCE product, specifications and product design are subject to change without notice.

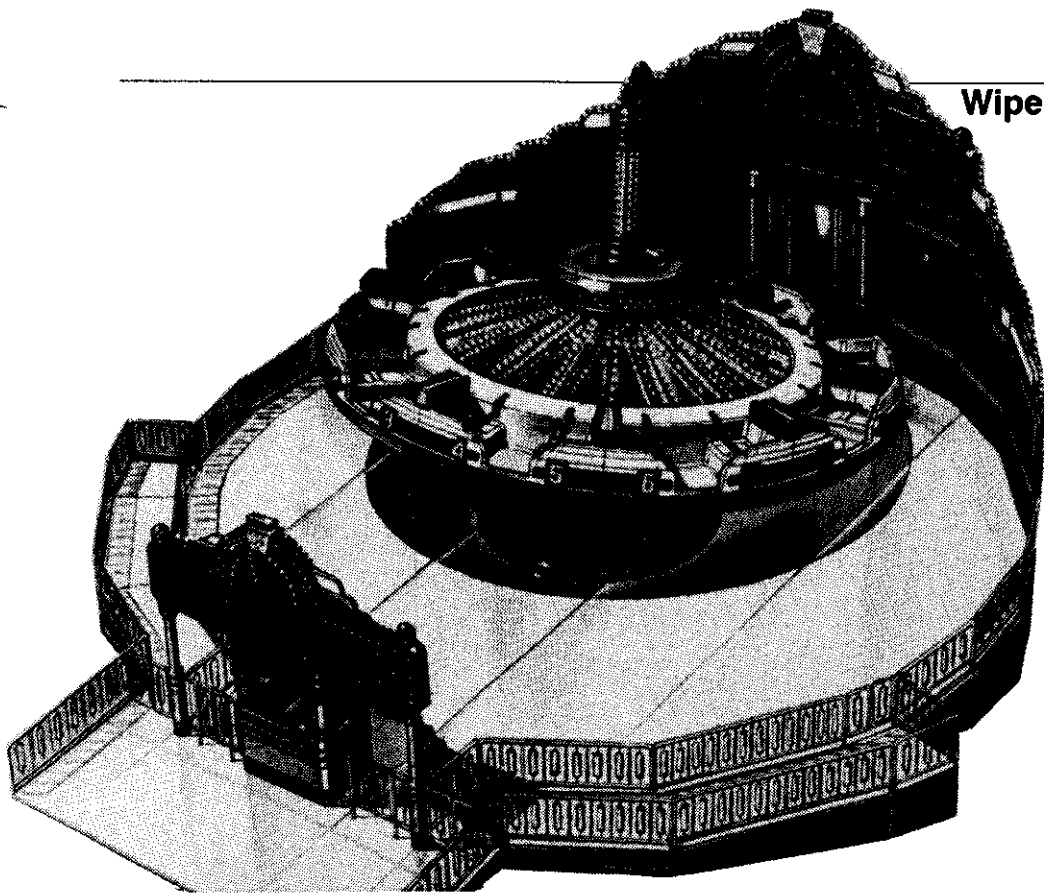
Intended uses

The equipment herein described is intended to be used by a commercial operator to provide a service to the buyer's customers. As a commercial operator, the buyer agrees to operate and maintain the equipment for its intended use in a professional and competent manner as per CHANCE RIDES' recommendation and instructions, ASTM standards on amusement rides and devices, applicable governmental standards, and good commercial practices using professional and competent mechanics and operators. If at any time, and for any reason, the equipment cannot be adequately and safely operated for its intended use, buyer agrees not to operate the equipment until proper repairs or corrections are made.

Ride information plaque

The ride information plaque is mounted to the boom support structure on the turret. The plaque lists ride specifications, operating dimensions, ground loads, as well as model and serial number and date of manufacture. When ordering parts or requesting information from the CHANCE RIDES CUSTOMER SERVICE DEPARTMENT, always specify the model and serial number of your ride. Record this information in the spaces on the plaque shown.

NOTE: The terms "right hand" (RH) and "left hand" (LH) as used in this manual are determined by standing in front of the ride and facing the ride. The terms "roadside" and "curbside" are determined by sitting in the tractor cab with the ride trailer attached, facing forward.



Wipeout Service Manual III Revised September, 1991



WIPEOUT

MODEL NO. 402

SERIAL NO.

MAXIMUM PASSENGER CAPACITY: 40 ADULTS OR 60 CHILDREN (7680 LB.)

MAXIMUM SEAT CAPACITY: 2 ADULTS OR 3 CHILDREN (384 LB.)

MINIMUM PASSENGER HEIGHT: NO ONE UNDER 42 INCHES CAN RIDE

MAXIMUM RIDE SPEED:

TOP RIM - 20 RPM CLOCKWISE OR COUNTERCLOCKWISE

BOTTOM TURRET - 10 RPM CLOCKWISE OR COUNTERCLOCKWISE

NEVER OPERATE RIM AND TURRET IN SAME DIRECTION

MAXIMUM BOOM ANGLE: 45° FROM GROUND (40° FROM DECK)

MAXIMUM UNBALANCE: 6 ADULTS (1152 LB.)

RIDE CYCLE: 2.0 MINUTES SHORT PROGRAM - 2.5 MINUTES LONG PROGRAM

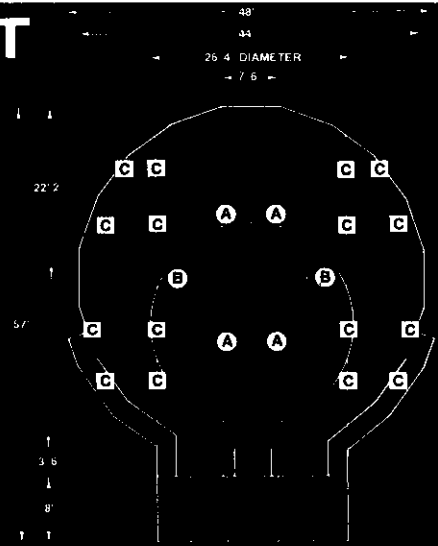
MAXIMUM WIND SPEED: 35 MPH OPERATING - 80 MPH STATIC

POWER REQUIREMENTS: DRIVE 25 KW, LIGHTS 35 KW, TOTAL 60 KW

VOLT. PHASE. HZ

RIDE CLEARANCE DIMENSIONS: HEIGHT - 26 FT., WIDTH (FRONTAGE) - 48 FT.
LENGTH (GROUND) - 57 FT

MAXIMUM RIDE WEIGHT EMPTY: 62,000 LBS.



MAXIMUM INDIVIDUAL GROUND LOADS (POUNDS)
REFER TO INSTALLATION DRAWINGS FOR SPECIFIC FOOTING LOCATIONS

SYMBOL	DESCRIPTION	OPERATING 15 MPH WIND 40 PASSENGERS	STATIC 80 MPH WIND NO PASSENGERS
A	TRAILER LIFTING JACKS	21,000	18,000
B	TRAILER OUTRIGGERS	16,000	12,000
C	FEET LIGHT BEAM JACKS	1,000	-

MANUFACTURED IN THE U.S.A. BY CHANCE RIDES, INC. WICHITA, KANSAS

IMPORTANT: The specifications shown are for reference only.
Always refer to the ride information plaque on your
ride for specific information.

IV Chance Rides, Inc.
Revised February, 1993

WIPEOUT

Set-up manual



SET-UP

General information

This manual provides detailed instructions for setting up and tearing down the portable ride. The general sequence is given for carrying out each procedure, and should be followed. If the size of the set-up crew permits, some steps can be performed simultaneously. Extra caution must be taken, however, to keep those workers clear of any potential hazards.



WARNING: When setting up or tearing down the ride, never allow bystanders and/or other workers in the area. Always know the whereabouts of all workers during the entire set-up or tear-down procedure.

All set-up and material handling devices are self-contained on the portable ride. Only an external electrical power supply is required.



CAUTION: Precautions for personal safety must be observed at all times when setting up or tearing down the ride. Be aware of elevated areas, pinch points, suspended loads, moving equipment, etc. Keep a safe distance from these hazards to avoid serious personal injury.

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Set-up Hydraulic system controls

Ride set-up is accomplished with the aid of a hydraulic system, powered by an electric motor. Electrically operated valves direct oil to the following hydraulic cylinders:

- Trailer leveling jacks
- Floor lift cylinders

NOTE: *The hydraulic system for set-up is independent of the main hydraulic system.*

Hand Control Box

The hand-held control box installs into one of two receptacles, labeled "Floors" and "Jacks". The receptacles are located on the curbside electrical box, just forward of the rear jack. The hand control box operates the hydraulic system for either leveling or floor erection, depending upon which receptacle is selected.

IMPORTANT: *Always turn off the main circuit breaker before connecting the hand control box to either receptacle.*

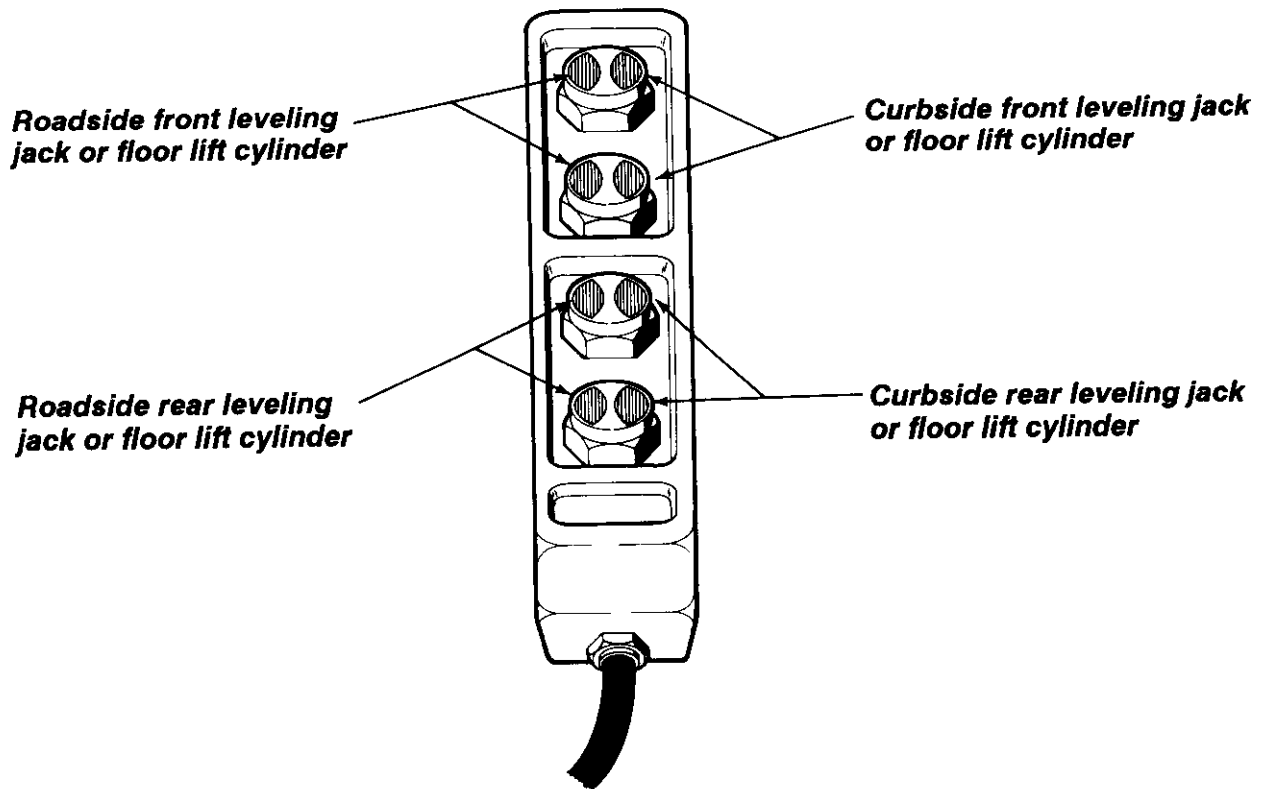
Trailer leveling ("Jacks" receptacle) - Extend or retract the four leveling jacks to level the trailer. Each leveling jack can be operated using the corresponding buttons on the hand control box.

Floor set-up ("Floors" receptacle) - Extend or retract the four cylinders to lower or raise the floors. Each cylinder can be operated individually using the corresponding buttons on the hand control box.

NOTE: *In addition to the hydraulic cylinders, mechanical winches are used to lift the front floor and backdrop into position as the ride is set up.*

Before starting to set up the ride, electrical power must be connected as follows:

1. Check the main circuit breaker located in the main control box. Make sure it is in the "OFF" position. The main control box is located between the axles on the curbside of the trailer.
2. Check the switch for the set-up hydraulic pump. Make sure it is in the "OFF" position. This switch is located just forward of the curbside rear leveling jack.



3. Ground the ride per local code.

IMPORTANT: Make sure the two small ground wires of the power cable are connected to an adequate ground per local code.

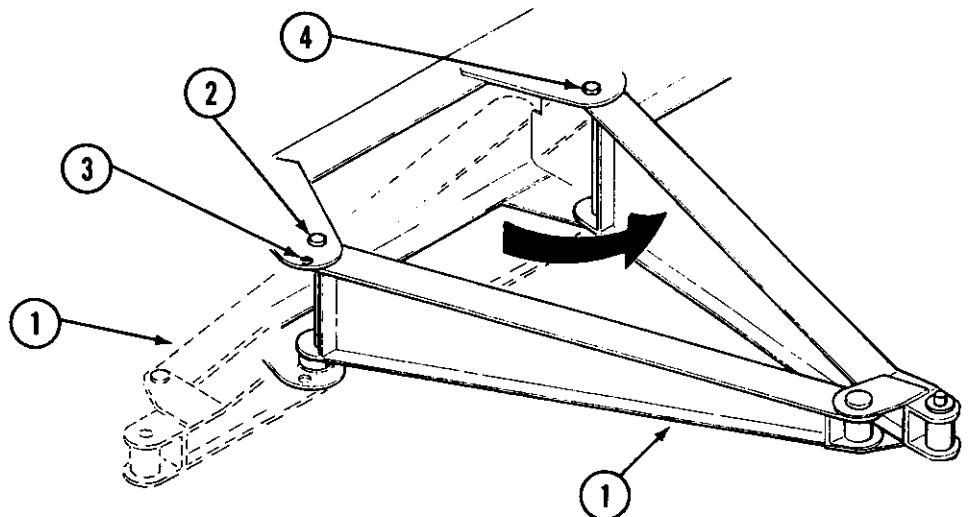
Set-up Set-up procedure

Trailers

Use the following procedure to set-up the trailers:

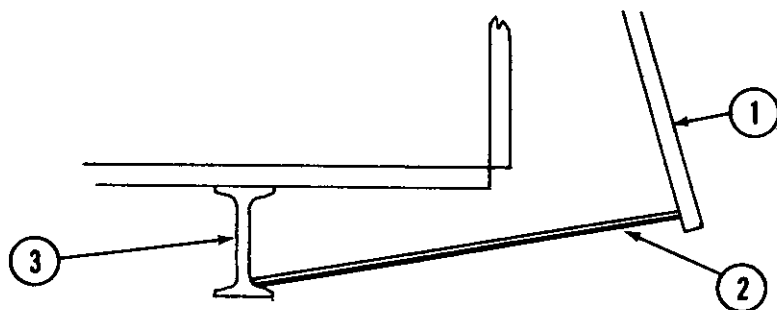
1. Refer to the operation dimensions on the ride information plaque. Locate the ride trailer in position.
2. Swing out the outriggers and pin as shown. Do not install the outrigger jacks at this time.

1. Outrigger
2. Pin (set-up position)
3. Pin (racked position)
4. Pivot pin (not removed)

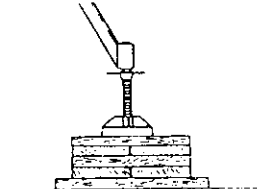
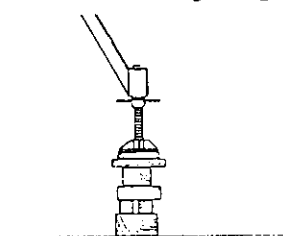


3. Install the floor set-up braces between the outer floor wing and the trailer I-beam, to hold the floor wings out slightly.

1. Floor wing
2. Set-up brace
3. Trailer I-beam

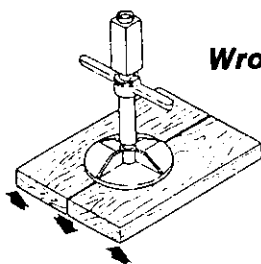


4. Place good solid blocking, preferably wooden 3 x 12's, in 24 and 36 inch lengths as required under each hydraulic jack and screw jack point. Detailed blocking instructions for individual jack points are given in the following text.

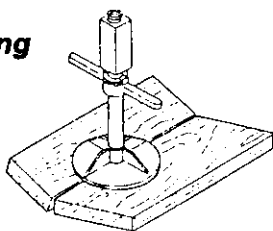


Always cross block
Cross blocking distributes weight evenly.

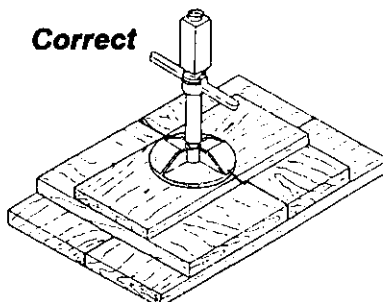
3 x 12" wooden blocking is preferred



Wrong

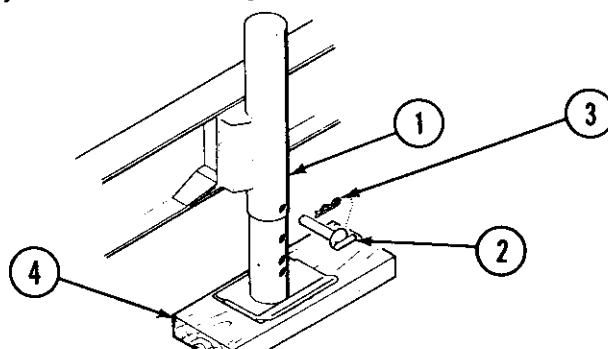


Correct



5. Raise the front of the trailer high enough to remove the tractor, using the hydraulic leveling jacks.

NOTE: Disconnect the roading chains from the front leveling jacks before lowering the jacks



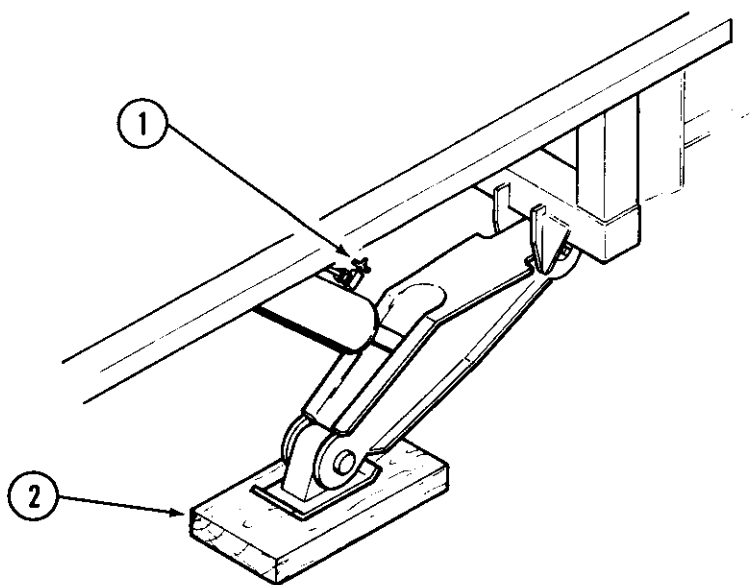
- 1. Support leg
- 2. Pin
- 3. Hairpin
- 4. One block 3" x 12" x 36" minimum

NOTE: The trailer is also equipped with two support legs which can be used to remove the tractor from the trailer. Lower the support legs as close to the ground as possible, onto blocking as shown. Install the pin and hair pin. Disconnect the air and electrical lines and uncouple the fifth wheel. Carefully drive the tractor forward and the trailer will drop down onto the lift legs. Support legs are to be used during normal roading operations, when hooking and unhooking the trailer.

6. Use the hydraulic leveling jacks to level the front of the trailer from side-to-side. Use a bubble level on the trailer frame above the gladhand connectors.

Front leveling jack

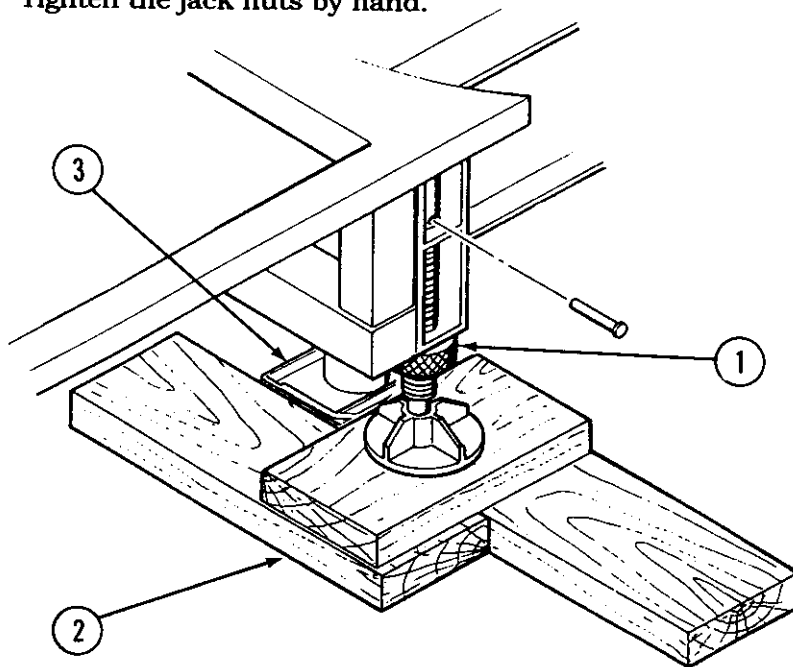
1. Shut-off valve
2. One block minimum (3 x 12 x 24")



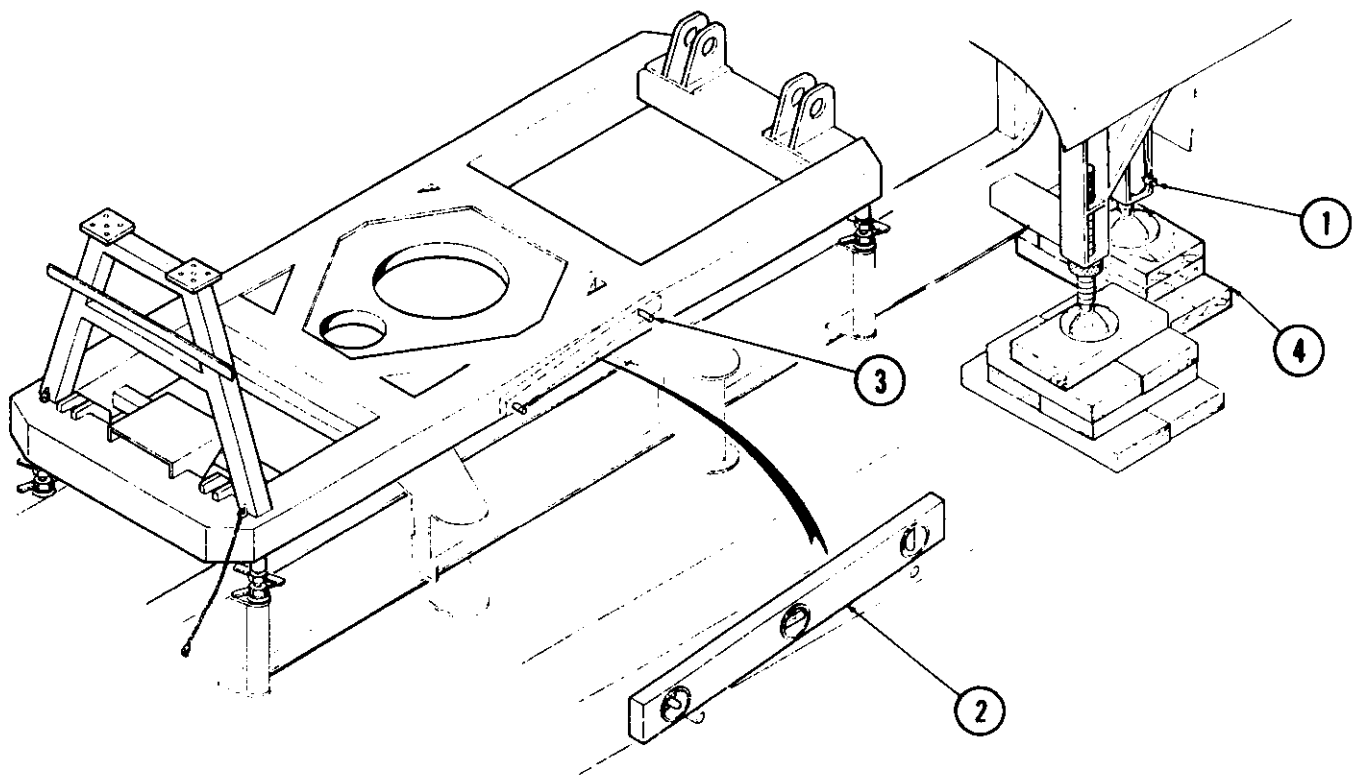
7. Lower the two front screw jacks onto blocking as shown. Tighten the jack nuts by hand.

Front screw jack

1. Lock nut
2. Minimum two blocks high (3 x 12 x 36" and 3 x 12 x 24"). Stagger blocks as shown to clear support leg.
3. Support leg



1. Rear leveling jack
2. Bubble level
3. Leveling pads
4. Minimum two blocks high (3 x 12 x 36" and 3 x 12 x 24"). Stack blocks to clear cross-blocking under rear screw jacks as shown.

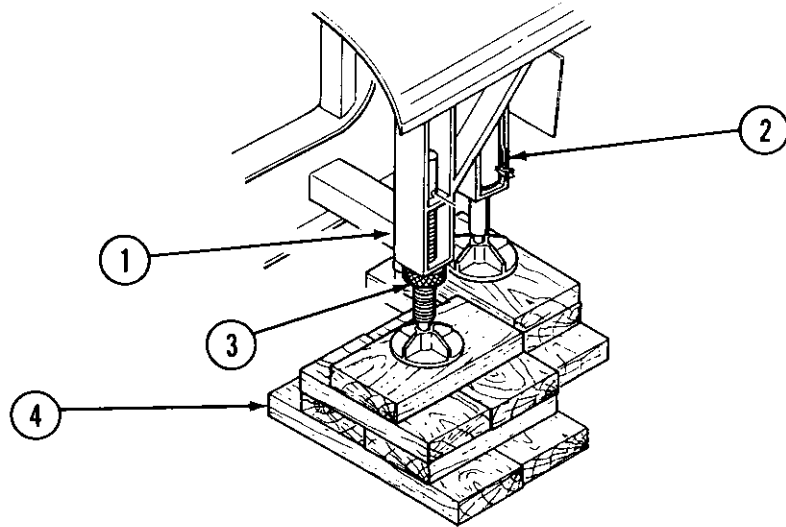


8. Use the rear leveling jacks to level the trailer end-to-end, using a five-foot bubble level.

NOTE: The main trailer rails are at a 5 degree incline when the trailer is correctly leveled. Leveling pads are provided on the curbside of the turret frame.

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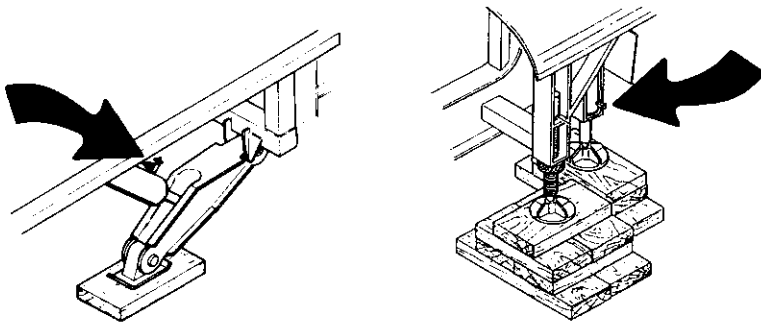
1. Rear screw jack
2. Rear leveling jack
3. Jack nut
4. Minimum four blocks high (3 x 12 x 36" and 3 x 12 x 24"). Cross block as shown



9. Lower the two rear screw jacks onto blocking as shown. Tighten the jack nuts by hand.
10. Retract the front and rear hydraulic leveling jacks completely. Check the trailer for proper leveling again.

IMPORTANT: The hydraulic leveling jacks are for leveling only, and cannot be expected to maintain their position during operation of the ride. Be sure that all four screw jacks are on solid blocking and the jack nuts are tightened. Retract the hydraulic leveling jacks completely and close the shut-off valves so the entire weight of the ride is on the screw jacks.

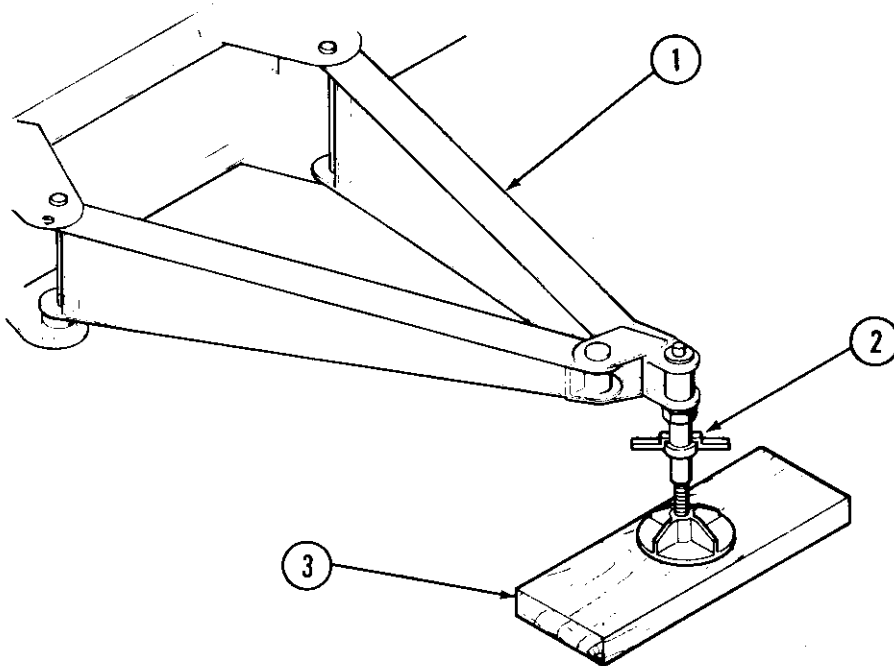
Shut-off valves are provided for each leveling jack, one on each hydraulic cylinder at the rear, and two on each cylinder at the front. These shut-off valves must be closed during roading and normal operation. The valves can be closed to help prevent leak-down of the leveling jacks if there is a delay during set-up. Always open the valves 1/4 turn after the ride is in position and ready for set-up.



Front and rear leveling jack shut-off valves

NOTE: During the tear-down procedure, extend the leveling jacks to take the load off the screw jacks, for loosening the jack nuts.

11. Install the outrigger jacks and jack bases onto blocking as shown. Tighten the jacks until snug.



Outrigger blocking

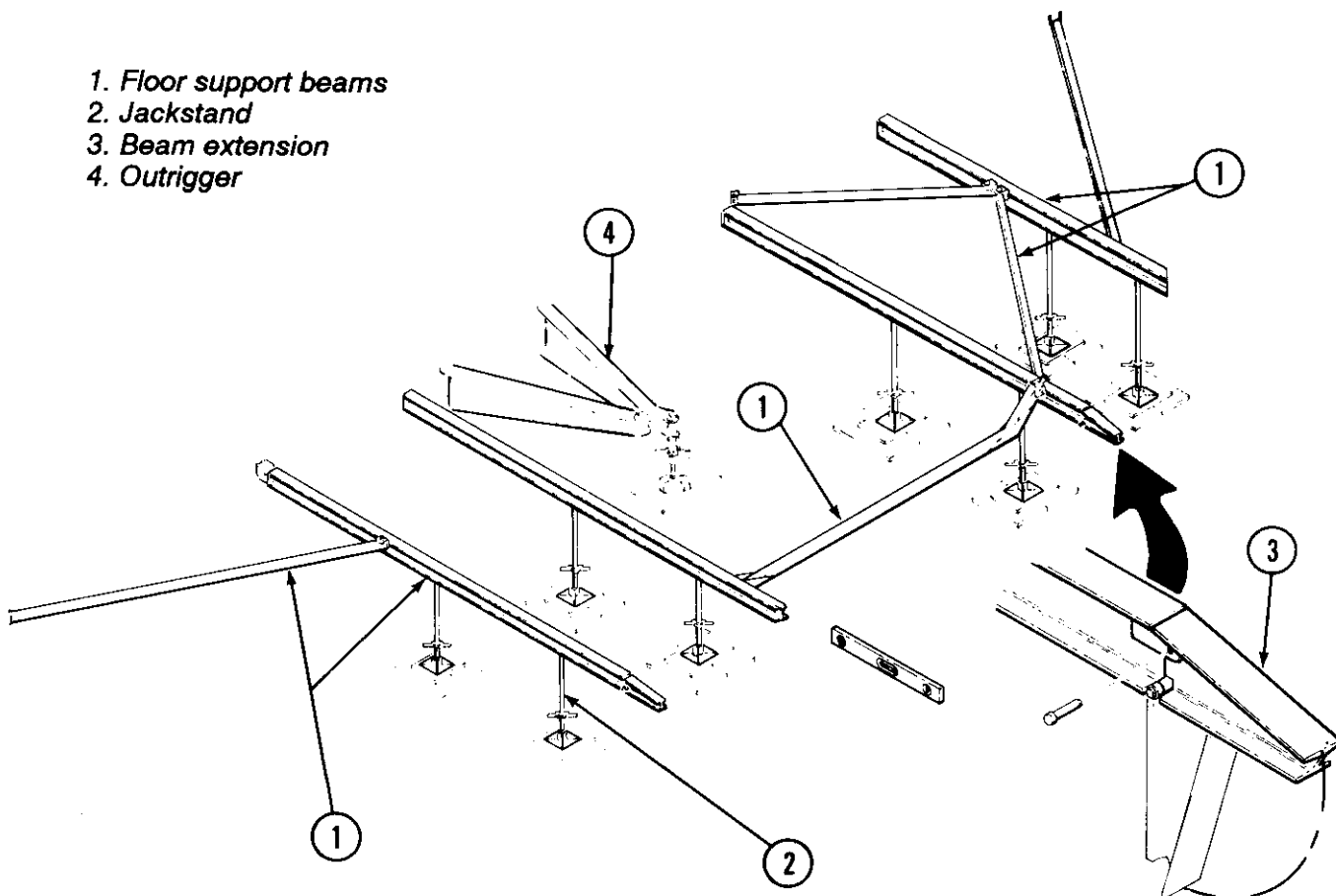
1. Outrigger
2. Screw jack
3. One block minimum (3 x 12 x 36")

Floors

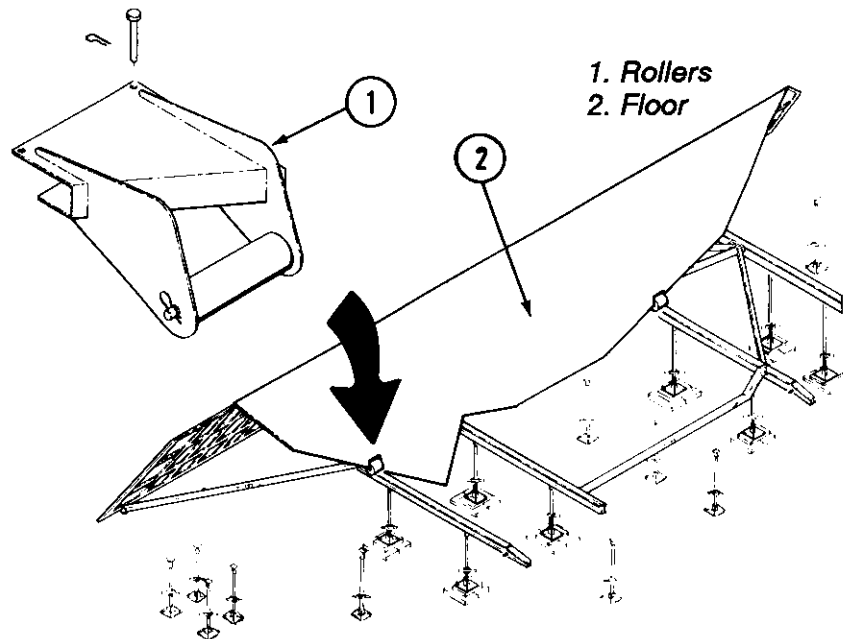
Use the following procedure to set-up the floors:

1. Set up the floor support beams and jackstands. Use the jackstands to level each beam lengthwise. Swing the beam extensions up and secure with pins and hairpins.

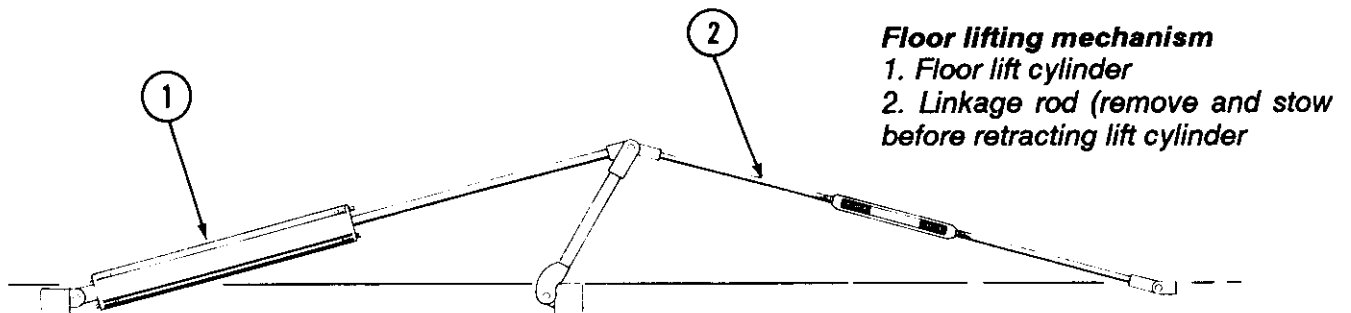
1. Floor support beams
2. Jackstand
3. Beam extension
4. Outrigger



2. Attach the rollers to the floors and secure with pins and hairpins.
3. Remove all chains, turnbuckles and the three brace structures which secure the floors in their racked position.
4. Remove the set-up braces.
5. Carefully lower the floor on one side of the ride, using the hand control box to operate the floor lift cylinders.

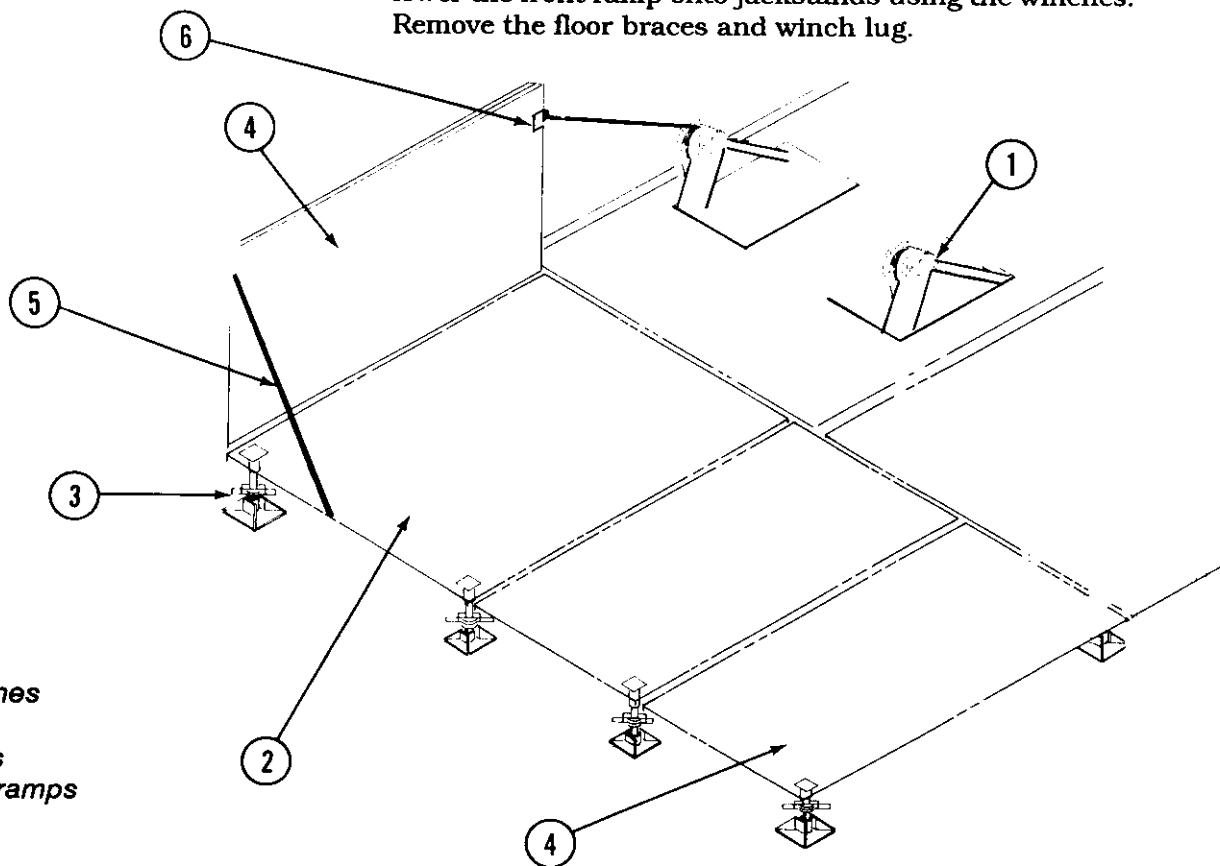


IMPORTANT: Both ends of the floor must be LOWERED EQUALLY. The weight of the racked vehicles will cause the front of the floor to lower faster (and raise slower) than the rear of the floor. Watch both ends of the floors as they are lowered.



CAUTION: Remain clear of the flooring while raising or lowering. Do not stand under or in the path of the floors as they are being raised or lowered. Keep hands and feet away from the floor hinges. Personal injury can result.

5. Lower the floor on the other side of the ride.
6. Remove the pins from the linkage rods and stow the rods under the ride. Retract the cylinders completely and install floor panels to cover the cylinders.
7. Remove the fence posts from their racked position on the front ramp and, if desired, install as described under "Fences".
8. Set up the winches to lower the front ramp. Carefully lower the front ramp onto jackstands using the winches. Remove the floor braces and winch lug.

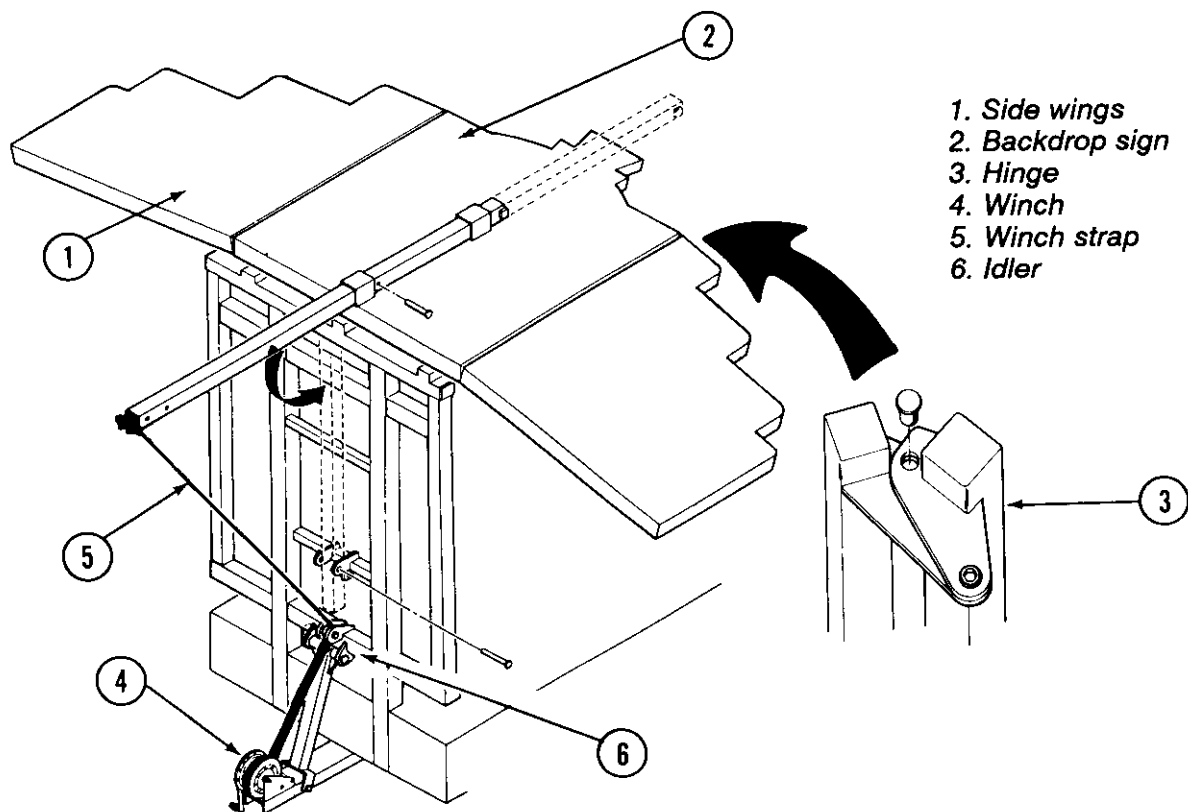


9. Unfold the front side ramps and position on jackstands.
10. Install the remaining floor jackstands and level floors.
11. Remove the pins from the beam extensions and let the extensions hang down during operation. Remove the rollers from the floors.

Backdrop and sign

Use the following procedure to set-up the backdrop and sign:

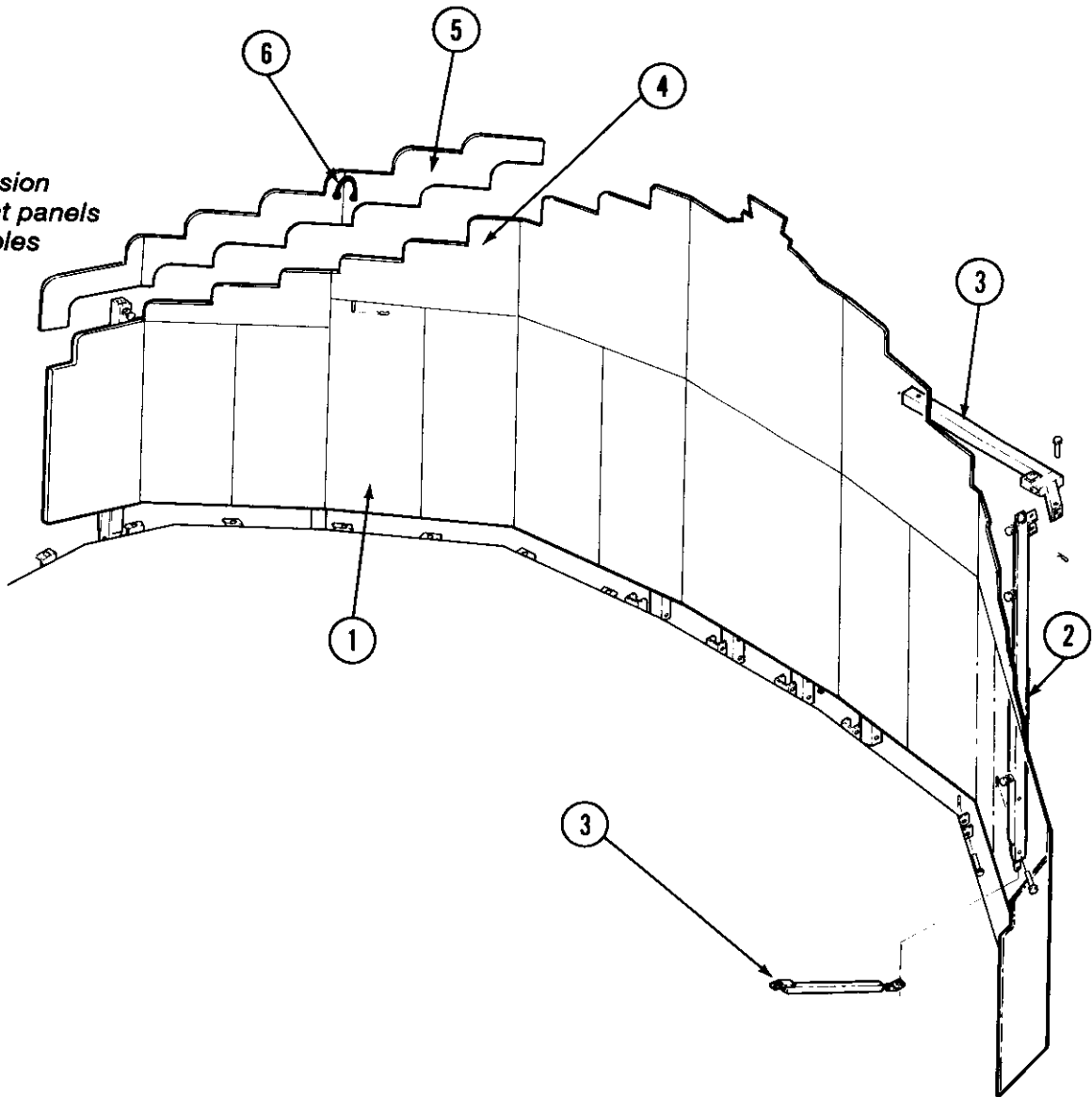
1. Swing out the side wings from the backdrop sign. Install pins in the hinges and secure with hairpins.



2. Set up the backdrop winch in its operating position, and secure with the pin and hairpin.
3. Remove the pin from the winch tube and slide the tube rearward.
4. Route the winch strap through the idler and attach it to the winch tube as shown.
5. Use the winch to carefully raise the sign. Install pins over the winch tube and secure with hairpins.
6. Remove all components from the rack under the sign. Disassemble the rack and stow it under the ride.

Back drop

- 1. Panels
- 2. Post
- 3. Brace
- 4. Wing extension
- 5. Scallop light panels
- 6. Jumper cables



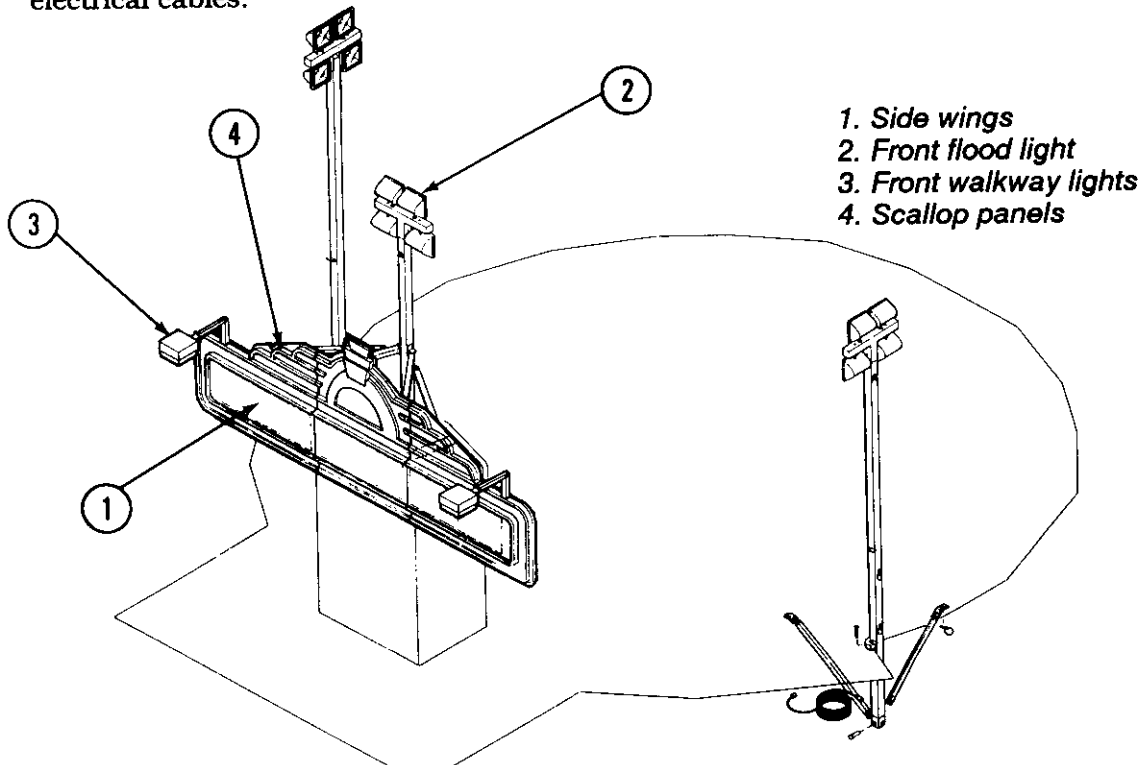
- 7. Unfold the backdrop panels and pin in place.
- 8. Install the backdrop posts and braces. Adjust the braces as required.
- 9. Install the backdrop wing extensions and secure with hairpins.
- 10. Install the scallop light panels and connect jumper cables.

NOTE: At this point, the outside fences can be set up. Refer to "Fences and panels."

Front sign

Use the following procedure to set-up the sign:

1. Remove the pins which hold the side wings in their racked position. Swing the wings out partially and install the pin to hold the side wings in this position.
2. Push the front sign up. Install the sign braces and pin in place.
3. Install the front flood light post and braces. Install the flood lights and connect all electrical cables.
4. Install the two front walkway lights and connect the electrical cables.



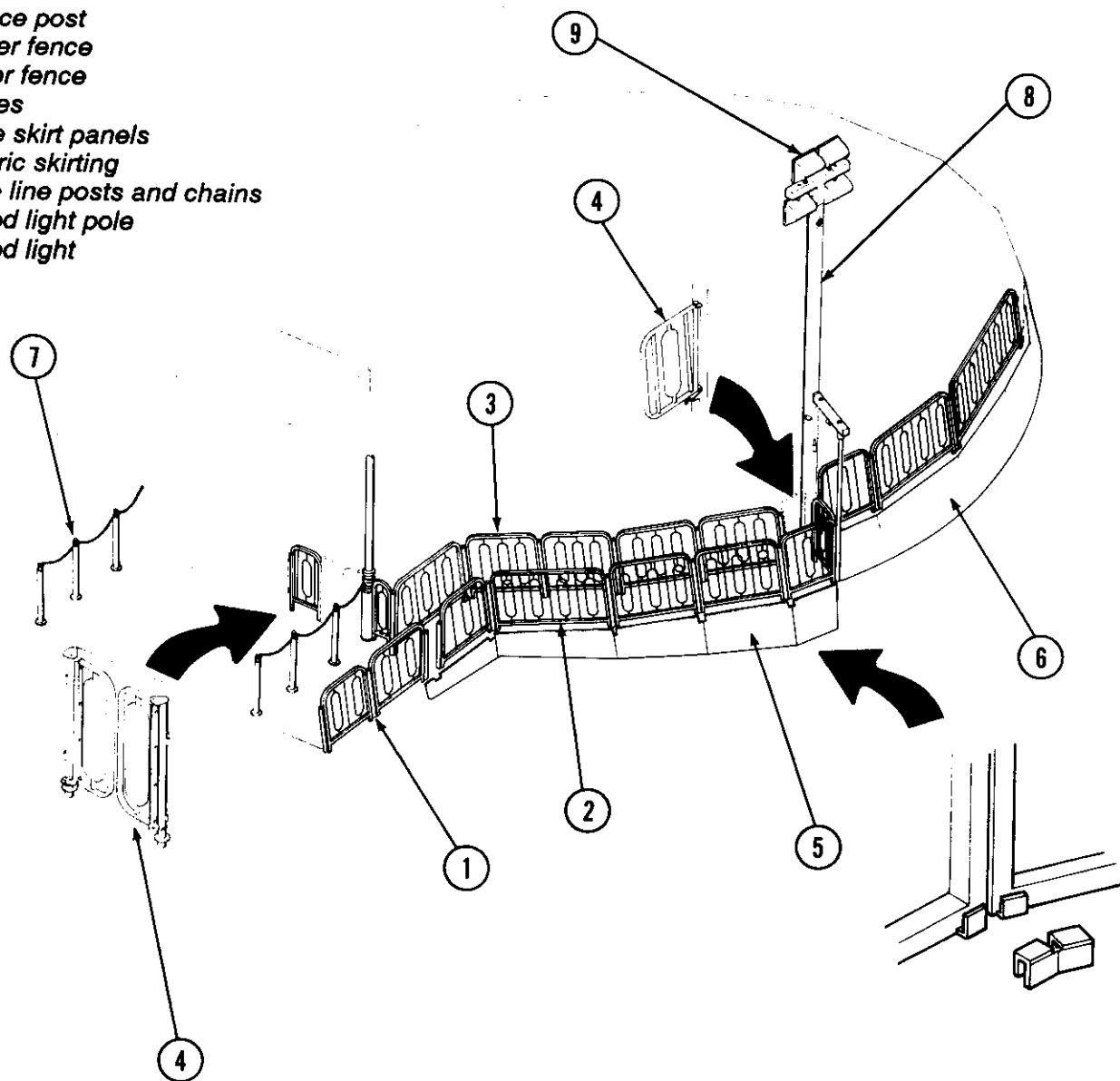
5. Swing the side wings into position. Install the side wing braces and pin in place.
6. Install the support columns under each wing. Extend the columns to support the weight of the sign.
7. Install the scallop panels to the front sign and connect the electrical cables.

Fences, gates and panels

Use the following procedure to set-up the fences, gates and panels:

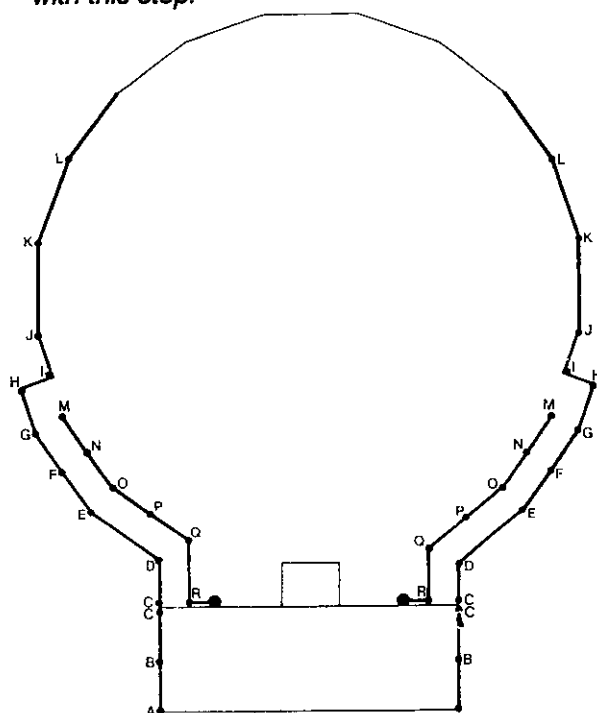
1. Install all remaining outer fence posts.
2. Install the flood lights on the flood light posts and connect the electrical cables.
3. Install the flood light posts and braces. Pin in place and adjust the braces as required.
4. Install the outer fences.

1. Fence post
2. Outer fence
3. Inner fence
4. Gates
5. Side skirt panels
6. Fabric skirting
7. Que line posts and chains
8. Flood light pole
9. Flood light



5. Install the inner fence posts and fences.

NOTE: The racked vehicles interfere with some inner fence posts. Coordinate the installation of the vehicles with this step.



Fence and post installation

NOTE: Fences and posts are marked with letters which correspond to their position on the platform as shown.

6. Install all gates.
7. Install the side skirting panels. Secure lower edges with clips.
8. Install the fabric skirting around the rear of the ride.
9. Install que line posts and chains.
10. Remove all fence racks from the floor. These racks are pinned in place. Remove the pins from under the floor.

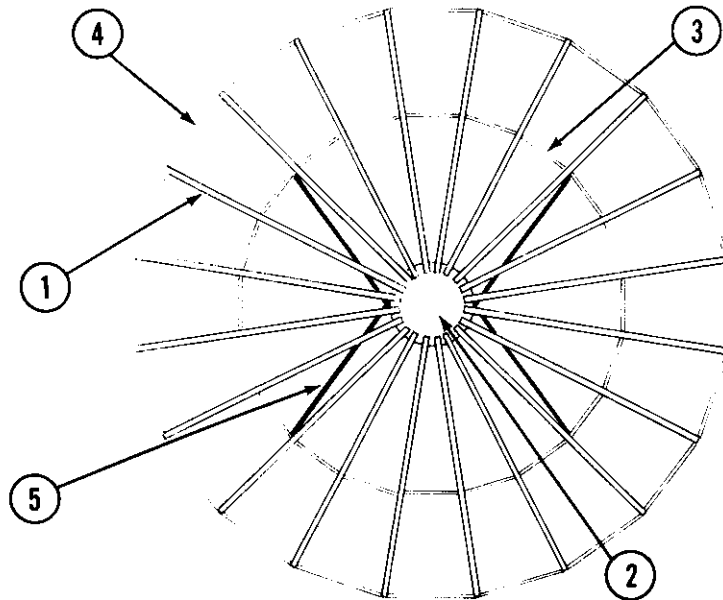
NOTE: While under the floor, remove the lynch pins which secure the vehicles in their racked position.

Sweeps and vehicles

Use the following procedure to set-up the sweeps and vehicles:

1. Remove the racking fixture from the front stack of sweeps.
2. Swing the front stack of sweeps out from the hub. Install the inner spreader bars and secure with pins and hairpins.
3. Remove the racking fixture and chains from the rear stack of sweeps. **HOLD THE STACK TOGETHER TO PREVENT THE SWEEPS FROM SWINGING FORWARD.**
4. Swing each sweep forward, one at a time. Install the inner spreader bar and secure with pins and hairpins.

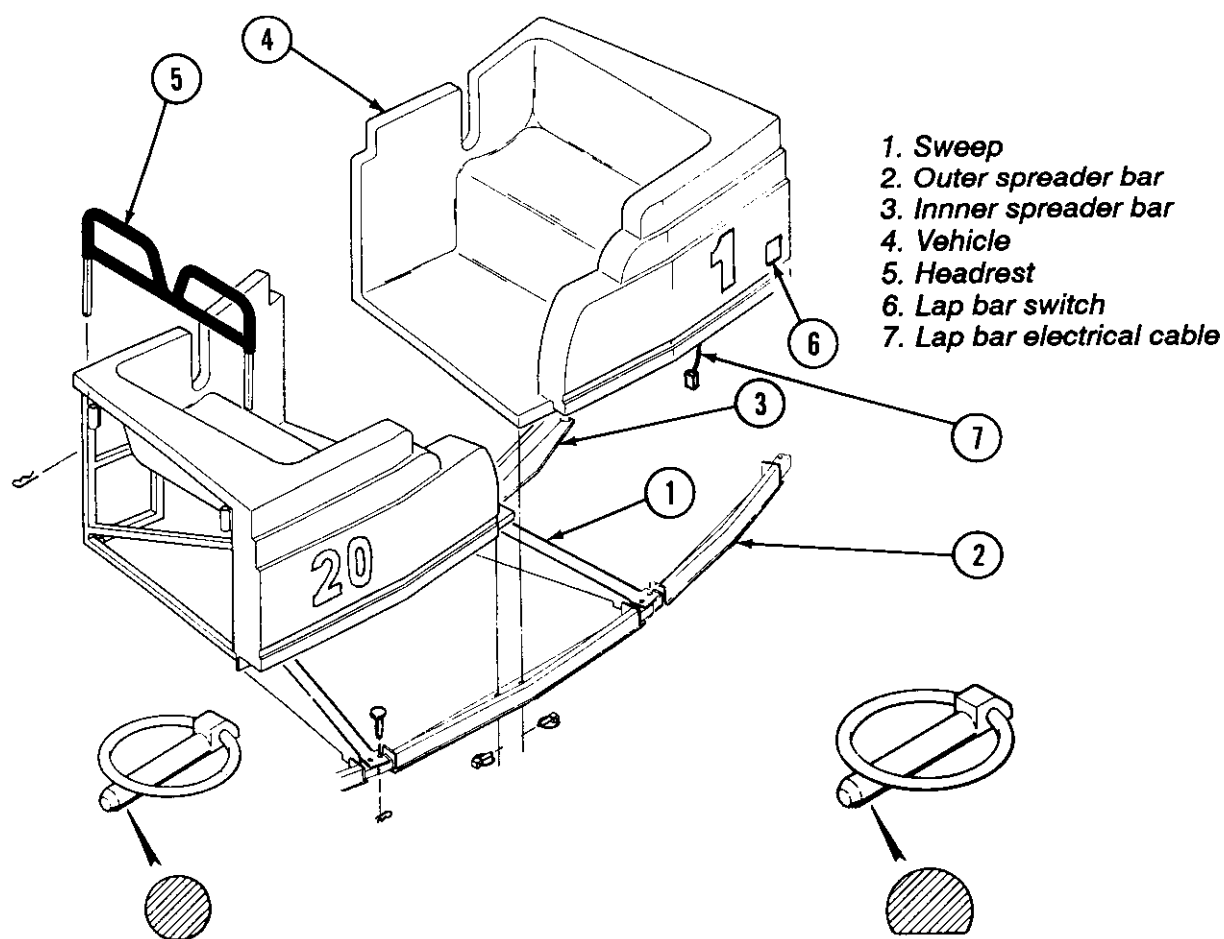
1. Sweep
2. Hub
3. Inner spreader bar
4. Outer spreader bar
5. Cross rod



5. After all sweeps are spread, install the outer spreader bars and secure with pins and hairpins.
6. Locate the position for vehicle #1, but do not install it at this time. Remove the "dummy" electrical plug from the lap bar control cable. Stow it until the ride is taken down.

NOTE: Vehicle number 1 has the lap bar switch.

7. Starting with vehicle #2, install all left hand (even numbered) vehicles and secure with the correct size of lynch pins.



Racking lynch pin 1/4" diameter

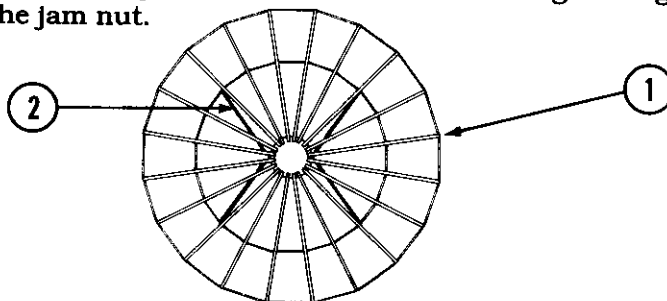
Vehicle mounting lynch pin 7/16" diameter

IMPORTANT: The lynch pins for mounting the vehicles are not the same as those used for racking the vehicles. The racking pins are 1/4 inch diameter and the mounting pins are 7/16 inch diameter. **DO NOT USE THE RACKING PINS FOR MOUNTING THE VEHICLES.** Make sure that all lynch pins are in good working condition.

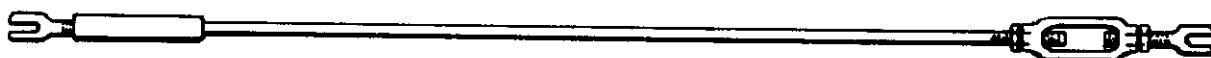
8. Install all right hand (odd numbered) vehicles and secure with the correct lynch pins.
9. Install the headrests between the vehicles and secure with hairpins.
10. On vehicle #1, connect the electrical cable for the lap bar switch.

11. Install two pairs of cross rods between the hub and the sweeps. Tighten the turnbuckle until snug and tighten the jam nut.

1. Sweep number 1
2. Cross rods

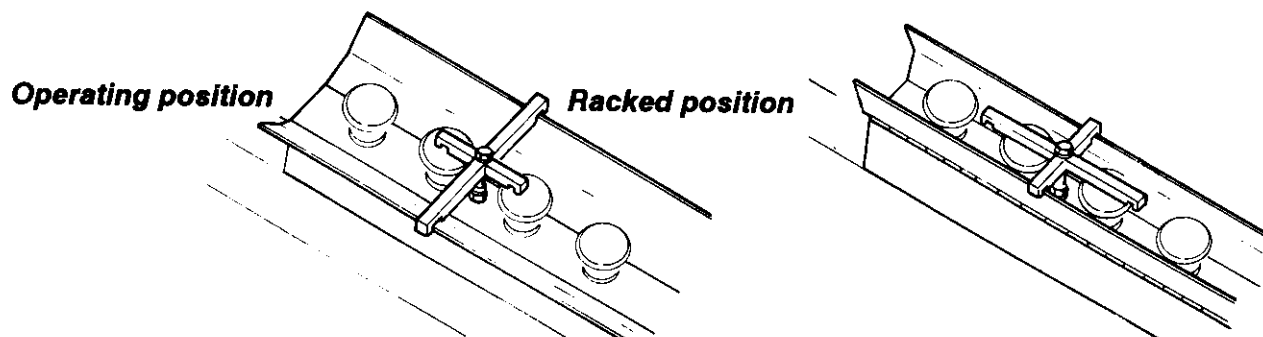


Shorten the cross rods to put them into tension



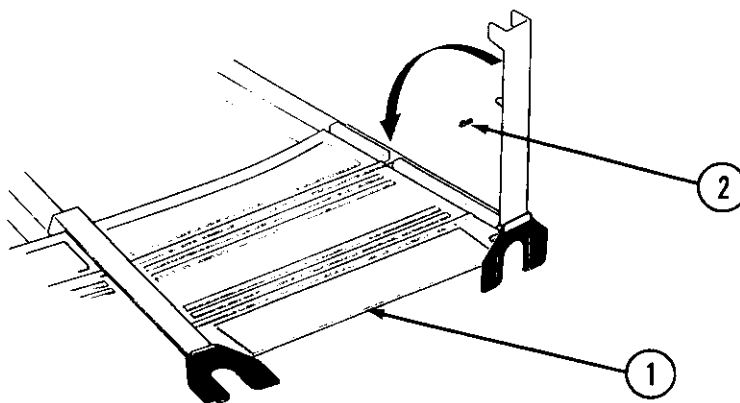
IMPORTANT: The cross rods must be in *TENSION*, not compression.

12. Unfold the sweep light reflectors. Rotate the reflector clip to hold the reflectors in their operating position.



13. Install the counter top panels between the sweeps. Install hairpins to secure the counter top panels.

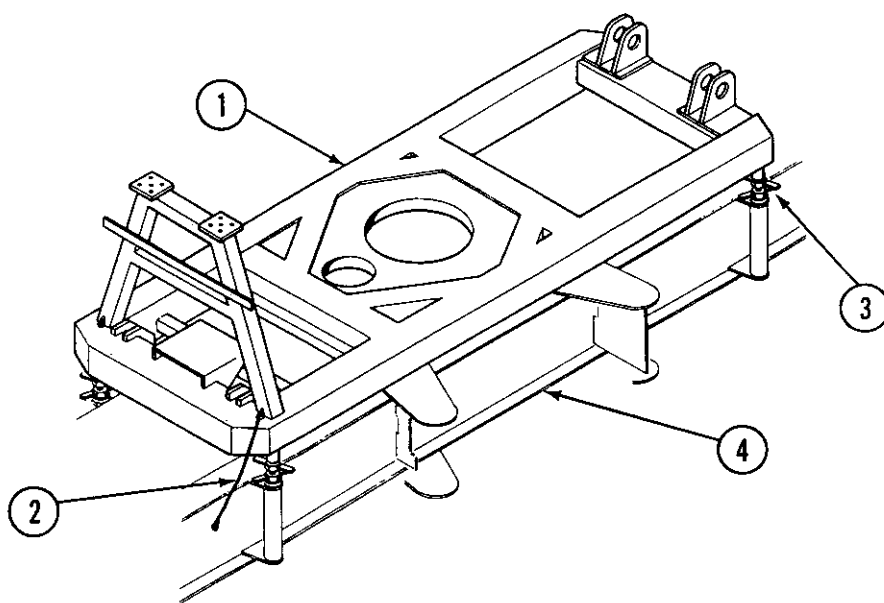
1. Counter top panel
2. Hairpin



Final

Use the following procedure for final set-up:

1. Inspect the entire floor for obstructions. Remove all racks, tools, components and other objects from the path of the ride.
2. Unhook the roading chain from between the turret and the trailer.
3. Make sure that there is adequate air pressure for the turret brake. Completely retract the four roading jacks to allow the turret to rotate.
4. Jog the turret 90 degrees, using the instructions in the "Operation" section of this manual.



1. Turret
2. Roading chain
3. Roading jacks
4. Trailer

5. Completely remove the four roading jacks from the trailer.
6. Test run the ride, using the instructions in the "Wipeout Operation Manual". Throughout the ride cycle, check for correct speed and boom angle, and proper brake operation.

Check the overall performance of the ride based on previous operating performances of the individual ride.

Set-up Tear-down procedure

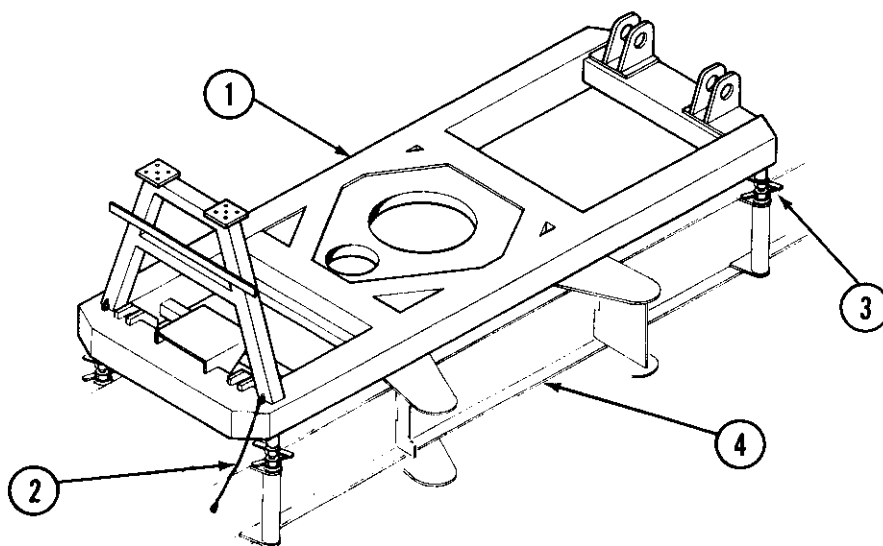
The tear-down procedure is basically a reverse of the set-up procedure. Pay particular attention to the following points:

Turret

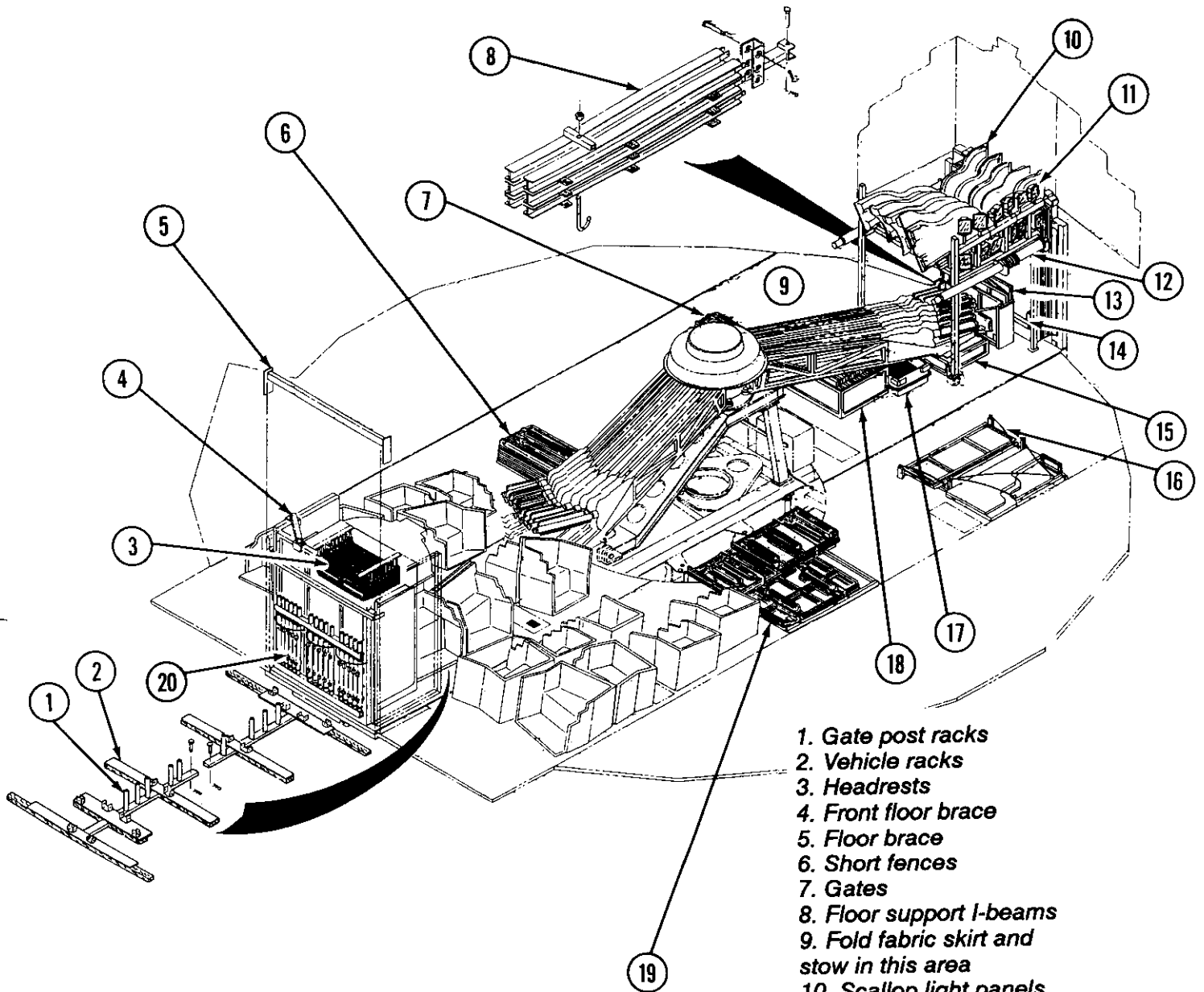
Install the roading jacks between the turret and the trailer using the following procedure:

1. With the turret rotated perpendicular to the trailer, install the four roading jacks. Retract all four jacks completely into the trailer.
2. Rotate the turret to align the sockets with the roading jacks as closely as possible.
3. Attach the chain between the turret and the trailer.

1. Turret
2. Roading chain
3. Roading jacks
4. Trailer



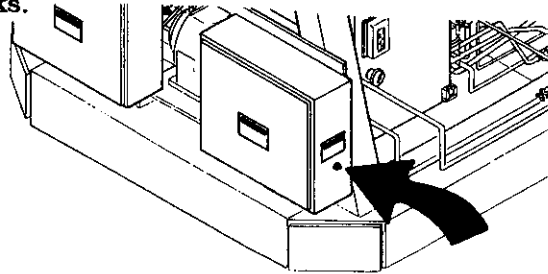
4. Check the alignment of the sockets with the roading jacks. If the roading jacks can be extended into the sockets, proceed to step 6.



CAUTION: To prevent injury, the turret must be chained to the trailer before operating the turret brake release switch.

1. Gate post racks
2. Vehicle racks
3. Headrests
4. Front floor brace
5. Floor brace
6. Short fences
7. Gates
8. Floor support I-beams
9. Fold fabric skirt and stow in this area
10. Scallop light panels
11. Flood lights
12. Support columns
13. Skirt panels
14. Tighten backdrop panel brace screw
15. Spreader bars
16. Skirt panels
17. Walkway lights
18. Counter top panels
19. Fences
20. Fence posts

5. With at least two helpers on the floor, push the turret brake release switch. This allows the turret to be manually rotated by the helpers to align the sockets with the roading jacks.

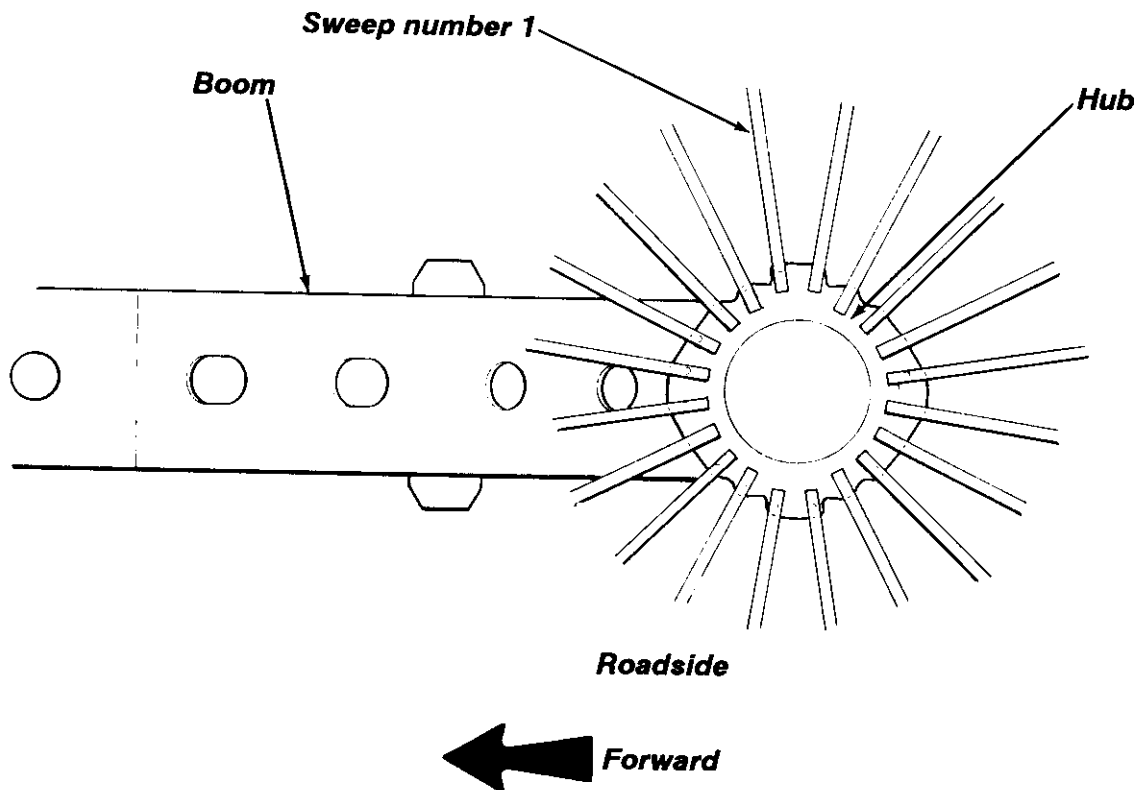


Turret brake release switch

6. Extend the four roading jacks into the turret sockets. Tighten until snug.

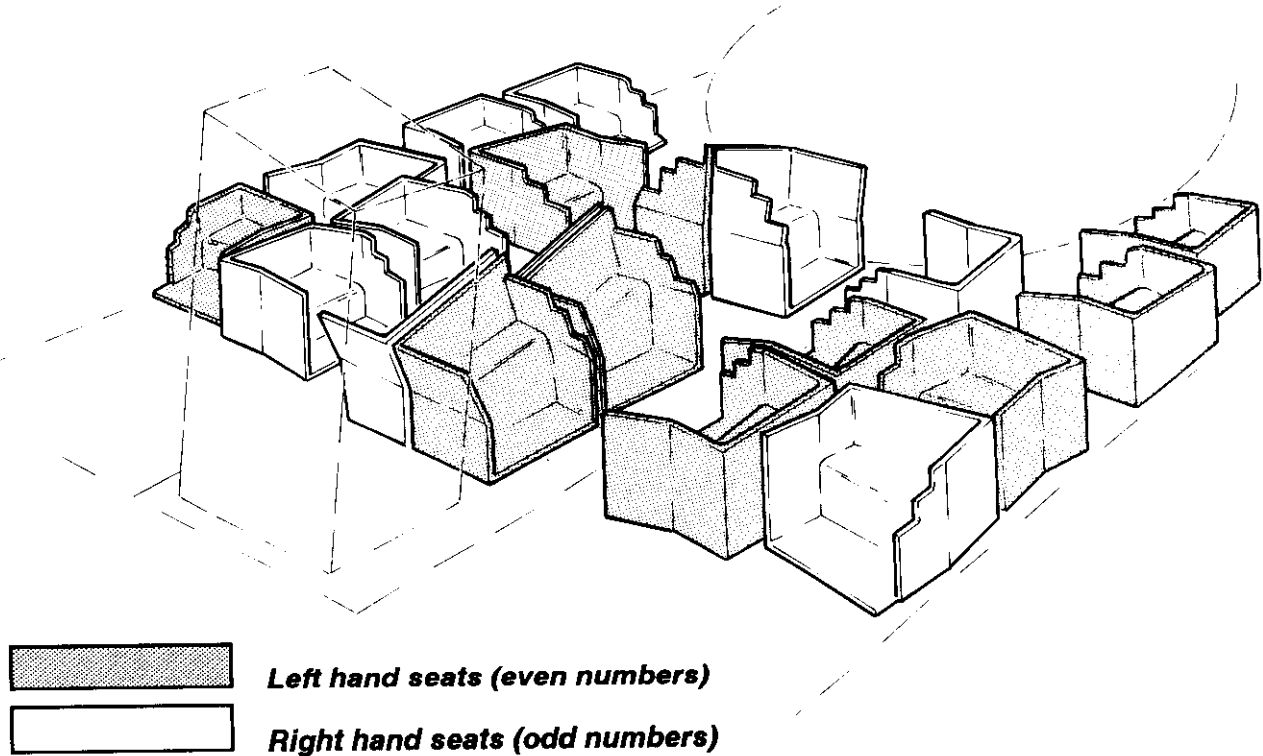
Sweeps and spreader bars

Before removing the spreader bars and stacking the sweeps, rotate the hub as shown to correctly align the sweeps with the boom. Sweep #1 is located on the curbside of the front sweep stack.

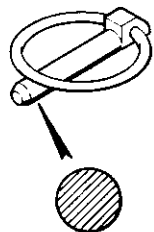


Vehicles

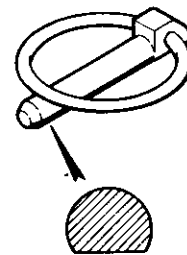
Secure the vehicles to the floors using the lynch pins before raising the floors. Note the positions of left hand (even numbers) and right hand (odd numbers) vehicles.



IMPORTANT: The lynch pins for mounting the vehicles are not the same as those used for racking the vehicles. The racking pins are 1/4 inch diameter and the mounting pins are 7/16 inch diameter. **DO NOT USE THE RACKING PINS FOR MOUNTING THE VEHICLES.**



Racking lynch pin 1/4" diameter



Vehicle mounting lynch pin 7/16" diameter

Lap bars and air system

The following points must be noted during tear-down:

1. After vehicle #1 is removed, install the "dummy" electrical plug in the lap bar control cable. This holds the lap bars in the upright position for racking.
2. After the main power is turned off, open the drain cocks on both air tanks to exhaust all air pressure to prevent the lap bars from lowering.
3. As the sweeps are stacked, manually release the lap bars so that every other lap bar is at approximately a 45 degree angle.

Trailer

The following points must be noted during tear-down:

1. Raise the leveling jacks slightly to take the load off the screw jacks. This allows the jack nuts to be loosened.
2. Install the safety chain under the front leveling jacks.
3. Make sure the trailer support legs are in their fully raised position, with pins and hair pins installed.



NUMBER: B090R1169-A

DATE: APRIL 21, 1995

SUPERSEDES: B090R1169-0

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: All Units - Chance Rides, Inc.
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY
LIABILITY for losses associated with rides
produced by Chance Manufacturing Company, Inc.

Ride: FALLING STAR, SKYDIVER, TRABANT Subject: Safe Rider Policy
WIPEOUT AND ZIPPER

This Chance Rides, Inc. Service Bulletin supersedes Service Bulletin number B090R1169-0. All copies of bulletin number B090R1169-0 should be destroyed.

Chance Rides, Inc. anticipates that it may be possible for a rider sitting in a seat on one of the above noted amusement rides to intentionally turn sideways in the seat, removing their legs from underneath the lap bar. If a rider does this, they are not properly secured and personal injury could result. In order to reduce the possibility of an unsafe condition from occurring, Chance Rides, Inc. highly recommends all owners/operators of the above noted amusement rides to adopt and enforce an operational policy that would inhibit such misuse of the ride.

One such policy which can be used to help inhibit the misuse of the amusement ride is a "no single rider" policy. Chance Rides, Inc., however, recognizes the fact that this type of policy may not be practical or suitable in all circumstances. It is therefore up to the individual owner/operator to develop their own operational policy which best meets their own needs while maintaining the safe operation of the ride.

All owner/operators must realize that horseplay or other behavior on the part of the rider, that leads to an unsafe condition must not be tolerated. All operators of amusement rides must follow the manufacturer's guidelines in giving their pre-operational instructions and warnings and then giving their undivided attention to the ride and its passengers at all times the ride is in motion. As stated in the operation/maintenance manuals, the operator must immediately stop the ride if anyone is in a dangerous or unsafe position on the ride.



*Sent to
Mick
4/3*

Wipe out

NUMBER: B090R1169-0

DATE: March 24, 1994

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: All Units - Chance Rides, Inc.
All Units - Chance Manufacturing Co., Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with rides produced by Chance Manufacturing Company, Inc.

Ride: FALLING STAR
SKYDIVER
TRABANT
WIPEOUT
ZIPPER

Subject: No Single Riders

Chance Rides, Inc. anticipates that it may be possible for a rider sitting alone in a seat on one of the above noted amusement rides to intentionally turn sideways in the seat, removing their legs from underneath the lap bar. If a rider were to do this, they would not be properly secured and personal injury could result.

Horseplay or other irresponsible behavior, on the part of the rider, which could lead to such circumstances must not be tolerated. All operators of amusement rides must follow the manufacturer's guidelines in giving their pre-operational instructions and warnings and then their undivided attention to the ride and its passengers at all times the ride is in motion. As stated in the operation/maintenance manuals, the operator must immediately stop the ride if anyone is in a dangerous or unsafe position on the ride.

In order to reduce the possibility of an unsafe condition from occurring, Chance Rides, Inc. requires all owners/operators of the above noted amusement rides to adopt an operational policy that prohibits persons from riding alone in a seat. This policy should be posted at the front of the ride and enforced by the ride operator.

WIPEOUT

Operation manual
Manual number 24329312



OPERATION

General information

Safe operation is a combined responsibility and effort of the ride manufacturer and the owner/operator. This manual provides detailed information on the operation of the ride and provides the operator with important safety information.

All operators must be thoroughly familiar with the contents of this section before attempting to operate the ride. This information must be immediately available to all operators of the ride.

Contents

<i>Operator selection and instruction</i>	<i>2</i>
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<i>Operating the ride</i>	<i>13</i>
<i>Emergency procedures</i>	<i>14</i>

Operation

**Operator selection
and instruction**

1. Select competent, mature operators, capable of understanding the function, use and control of amusement rides.
2. Instruct each operator fully in the proper use and function of the ride he is to supervise, including:
 - a. Controls and procedures for normal and emergency operation.
 - b. Manufacturer's recommended maximum speed and load.
 - c. Manufacturer's recommended length of ride time and frequency of repeat rides.
 - d. Any foreseeable misuse of the ride as determined by the manufacturer or owner, or by special conditions such as weather, location or crowds.
 - e. Each operator must have immediate availability of the manufacturer's operation manual for the ride he supervises.
3. Require the operator to inspect the ride he supervises before each day of operation.
 - a. Determine that no portion of the ride is damaged, missing or worn in such a manner that it is unsafe, or that can develop into an unsafe condition.
 - b. Report any irregularities to superintendent or owner.
 - c. If any irregularities are found, do not operate the ride until such condition is corrected.
4. Instruct operators to allow no passenger to ride who is visibly ill, pregnant, or under the influence of drugs or alcohol.
5. Instruct operators and attendants on the proper methods of securing passengers in the ride. Do not allow a passenger in the ride who cannot be properly secured due to passenger size or malfunction of the securing device. Stop the ride immediately if any passenger is observed tampering with any restraining device or behaving dangerously, such as standing up.

6. Advise the operator against starting the ride while any person (passenger, spectator or employee) is in an endangered or unsafe position on the ride, or within the ride area.
7. Insist that each operator remain in full control of the operating controls during operation of the ride. The operator's full attention must be given to the ride and its passengers.
8. Instruct the operator to allow no other person, except for another trained operator, to operate the controls of the ride (excepting portions of the ride that are designed to be controlled by the passenger).
9. Instruct the operator and attendants fully as to the proper method of assembly and disassembly of portable rides. Always supply adequate personnel and equipment to do it safely.
10. Instruct the operator to inspect and correct damaged, lost or worn parts that are unsafe or that can develop into unsafe parts, during assembly or disassembly.
11. Advise the operator that factory-installed safety devices must not be tampered with or removed.
12. Instruct operator of owner's or supervisor's procedure for assisting ill or injured passengers.
13. Instruct operators and attendants that patrons are required to secure all articles, such as keys, change, eye glasses, etc., which may become loose while riding.

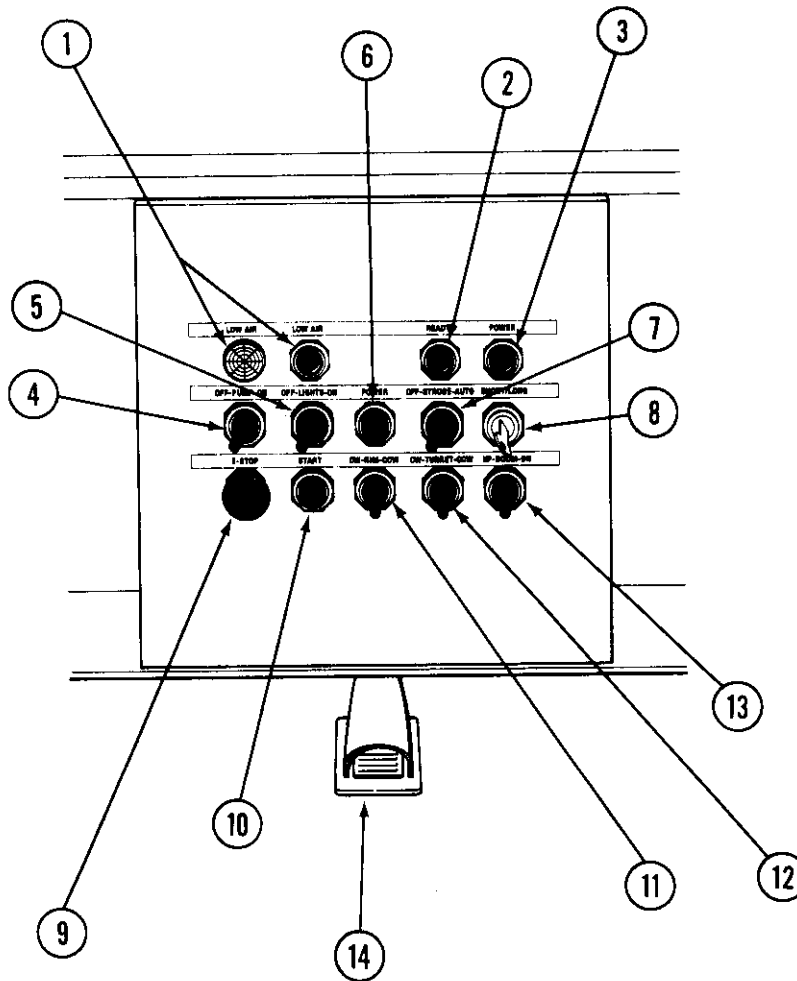
Operation Operator's console

1. **Low air pressure alarm and indicator light** - This alarm and red light are normally off. If the air pressure is not sufficient to operator the ride, the alarm and indicator light will come on.

IMPORTANT: *Do not attempt to operate the ride if the low air pressure alarm and indicator light are on.*

2. **Ready light** - This green light will come on when all lap bars are locked in the down position and the "Operator presence switch" is depressed. The ride cannot be started until this light is on.
3. **Power switch** - Use this switch to turn off the main power circuit breaker in the motor control cabinet. The "Main power indicator light" will go out when this switch is used.
4. **Pump switch** - Use this switch to turn the hydraulic pump either on or off. The pump must be on to run the ride.
5. **Light switch** - Use this switch to control all the decorative lighting on the ride.
6. **Main power indicator light** - This white light is on when the main power circuit breaker in the motor control cabinet is in the "On" position.
7. **Strobe light switch** - Use this switch to control the strobe lights on the sweeps. In the "Auto" position, the strobe lights flash with the main lighting program. In the "Off" position, the strobe lights do not flash.
8. **Short/long program switch** - Use this key-operated switch to select either the short or long programmed ride cycle.

NOTE: *Do not change the position of the program switch after the ride is started.*



Operator's console

1. Low air pressure alarm and indicator light
2. Ready light
3. Power switch
4. Pump switch
5. Light switch
6. Main power indicator light
7. Strobe light switch
8. Short/long program switch
9. E-stop switch
10. Start switch
11. Rim jog switch
12. Turret jog switch
13. Boom jog switch
14. Operator presence switch

9. **E-stop switch** - This switch interrupts the drive program. The ride will come to a normal, programmed stop.

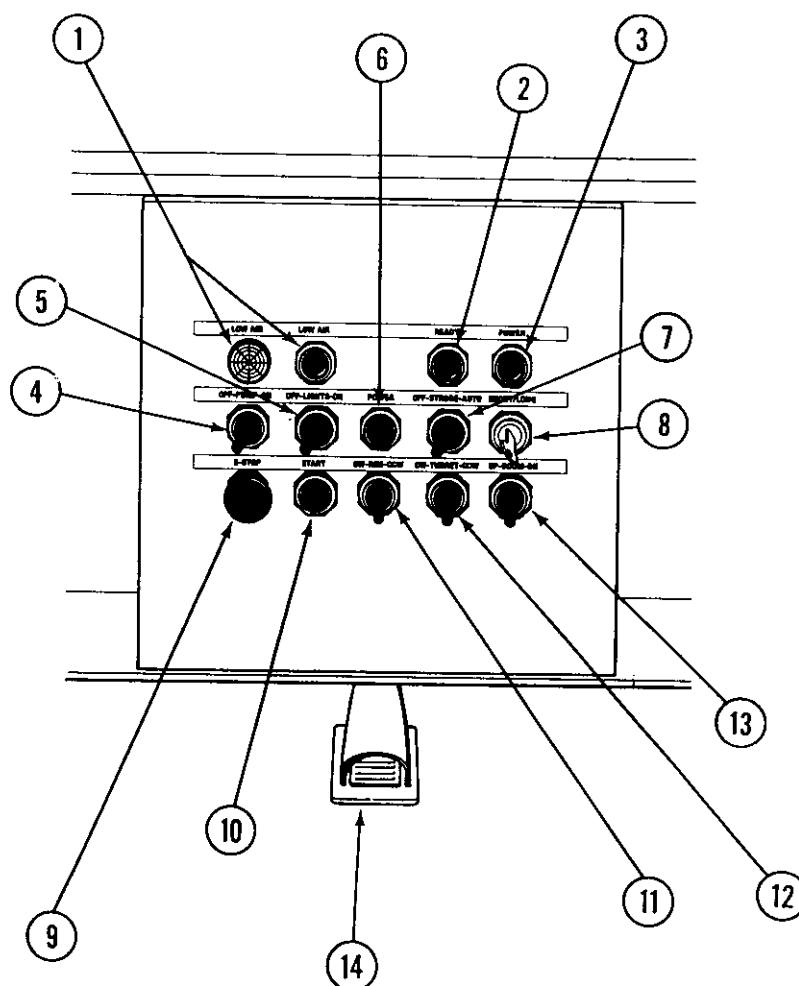
10. **Start switch** - Use this switch to start the programmed ride cycle. The following conditions must exist for the ride to operate:

- "Main power indicator light" must be on.
- "Operator presence switch" must be depressed.
- "Ready light" must be on (the "Ready light" will not come on unless all lap bars have been lowered and locked).

6 Chance Rides, Inc.

Operator's console

1. Low air pressure alarm and indicator light
2. Ready light
3. Power switch
4. Pump switch
5. Light switch
6. Main power indicator light
7. Strobe light switch
8. Short/long program switch
9. E-stop switch
10. Start switch
11. Rim jog switch
12. Turret jog switch
13. Boom jog switch
14. Operator presence switch



11. **Rim jog switch** - Use this switch to jog the rim either clockwise or counter-clockwise. The rim jog feature allows the operator to rotate the rim to any position. The following conditions must exist to operate the rim jog feature:
 - "Main power indicator light" must be on.
 - "Operator presence switch" must be depressed.
 - "Ready light" must be on (the "Ready light" will not come on unless all lap bars have been lowered and locked).

12. **Turret jog switch** - Use this switch to jog the turret either clockwise or counter-clockwise. The turret jog feature allows the operator to rotate the turret to any position. The jog feature operates only when the "Operator presence switch" is depressed. The following conditions must exist to operate the turret jog feature:

- "Main power indicator light" must be on.
- "Operator presence switch" must be depressed.
- "Ready light" must be on (the "Ready light" will not come on unless all lap bars have been lowered and locked).

13. **Boom jog switch** - Use this switch to manually raise or lower the boom. The boom jog feature allows the operator to raise the boom to any position. The following conditions must exist to operate the boom jog feature:

- "Main power indicator light" must be on.
- "Operator presence switch" must be depressed.

***NOTE:** The boom jog feature will operate if one or more of the lap bars is not down and locked.*

14. **Operator presence switch** - This foot switch must be depressed to operate the "Start" or "Jog" buttons. This switch interrupts the drive program when released. The ride will come to a normal, programmed stop.

Operation
Safety
equipment

Lap bars

The ride is equipped with air-operated locking lap bars. An interlock system prevents the ride from being started if any lap bar is not down and locked. Inspect and test all lap bars and the lap bar interlock system before each day of operation. Any loose, broken or missing parts must be repaired or replaced immediately.



CAUTION: Never operate the ride unless ALL lap bars are in good working condition, and the lap bar interlock system is operating correctly.

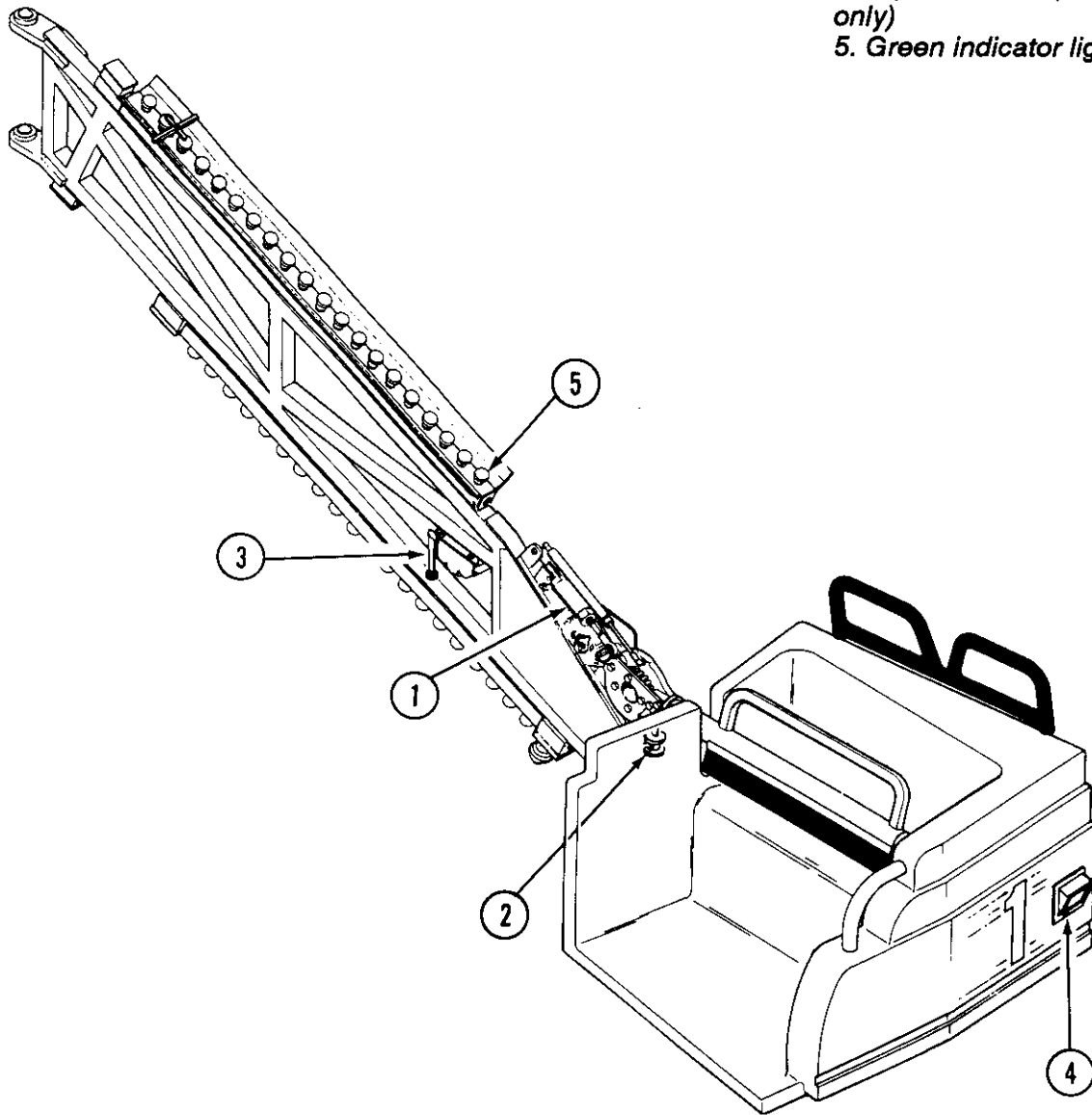
Do not tamper with or attempt to defeat the purpose of the lap bars or the lap bar interlock system. Serious injury to passengers can result.

A switch is provided on vehicle #1 to close and release the lap bars. A cover discourages unauthorized operation of the switch.

Move the switch to the "OPEN" position to release all lap bars. The green indicator light on each sweep should come on. The lap bars can now be manually raised.

After all passengers are seated, move the switch to the "CLOSED" position. The lap bars will automatically lower. This cycle takes approximately 5 seconds. After approximately 8 seconds, the lap bars lock and the green indicator lights go out. If any lap bar is not locked, the corresponding green indicator light will stay on. The ride will not start if any lap bar is not down and locked.

1. Lap bar lock cylinder
2. Ratchet cylinder
3. Emergency lap bar release (sweep number 1 only)
4. Lap bar switch (sweep number 1 only)
5. Green indicator light



Operation Loading



CAUTION: Do not operate the ride unless all parts of the vehicle are in good condition, including the lap bars and non-slip surfaces. All safety signs and placards must be legible.

Any broken or missing parts must be repaired or replaced immediately.



CAUTION: Do not allow a person less than 42 inches in height to ride.

Seat larger persons in the outside seat position.



CAUTION: Do not allow any passenger on the ride who cannot be properly seated because of passenger size or condition.

Never allow a pregnant woman or a passenger who is visibly ill or under the influence of drugs or alcohol on the ride.



CAUTION: Never allow the vehicle to become overloaded. Maximum capacity of each vehicle is 2 adults or 3 children, with a total weight of 384 pounds.

If the ride is being operated at less than its full capacity, direct passengers to vehicles on each side of the ride to balance the load.



WARNING: When loading passengers, make sure that the passengers are seated with the lap bar fully closed and locked.

Never operate the ride while anyone is standing on the ride platform inside the fence area.



WARNING: Instruct passengers that, for their own safety, they must keep their hands and feet inside and sit with their feet on the floor.

Before loading the ride, jog the turret and stop it in the lower, or "down hill" area of the platform.

The ride can be loaded either from the side ramps, or through the front gates by the operator's control house.

IMPORTANT: All gates open outward (away from the ride). All gates must be installed with gas springs so they close automatically. Do not operate the ride if the gates do not function properly. Repair or replace immediately.

When loading an empty ride, it is necessary to maintain a balanced load.

IMPORTANT: Never operate the ride with an imbalance of more than three vehicles (1,152 pounds).

Operation Operator positions



CAUTION: The operator must remain in full control of the operating controls at all times during the operation of the ride. The ride and its passengers must be given the full attention of the operator at all times.

Never leave the operating controls while the ride is in operation.

The operator at the control console is responsible for the safety of the passengers as they ride. He must know and fully understand operation and emergency procedures for this ride, and be at the control console at all times.

The ride must have the operator's complete attention at all times. The operator must give safety announcements including, but not limited to:

1. Sit with feet on floor.
2. Keep hands and feet inside vehicle at all times.
3. Lap bars close automatically. Keep hands clear while lowering the lap bars.

The attendants must be located where they can see the entrance and exit areas at all times, and must not allow persons to enter these areas while the ride is in motion. When the ride is in motion, all attendants must remain behind the gates and off the ride platform. Persons waiting in line must not be allowed to hang over the fences or sit on the fences. The attendants are responsible for the safety of the passengers while they wait in line and while they enter and exit the ride. Attendants must be sure that all safety requirements are met, including, but not limited to the following:

1. Lap bars must be fully down and properly locked.
2. Safety announcements must be given to all passengers.
3. Larger persons must be seated in the outside seating position.
4. No one under 42 inches in height is on the ride.

An attendant must use the switch on vehicle #1 to close the lap bars. All green indicator lights on the sweeps must be out before the ride can be started. When the ride has come to a complete stop at the end of the ride cycle, an attendant must release the lap bars so they can be raised.

Attendants must remind passengers to walk while entering and exiting the ride area.



WARNING: Before starting the ride, make sure there is no one around the ride structure, close to any exposed electrical components, or any other areas where there is a possibility of personal injury.

Operation

Operating the ride

1. Turn on the main power circuit breaker in the motor control cabinet.
2. Take your place behind the operator's console.
3. Check the operator's control panel for the "Main power indicator light".
4. Check to be sure the "Low air pressure alarm" and "Indicator light" are off.
5. Turn on the pump.
6. Use the switch on vehicle #1 to release all lap bars.

7. Load the passengers as described in the "Loading" procedure in this manual.
8. Use the switch on vehicle #1 to lower the lap bars until they lock in place. The green indicator light on each sweep should go out.
9. Depress the "Operator presence switch". At this time the green "Ready light" on the operator's control panel will come on.
10. Push the "Start switch" to start the ride.
11. The ride cycle is programmed and will stop automatically when the cycle is completed. Keep the "Operator presence switch" depressed until the ride is in the desired unload position.

NOTE: *The length of the ride is selected with the "program switch".*

12. Use the jog switches to bring the ride to the desired location for unloading.

Operation Emergency procedures

Use the following procedures in the event that the ride fails to operate normally:

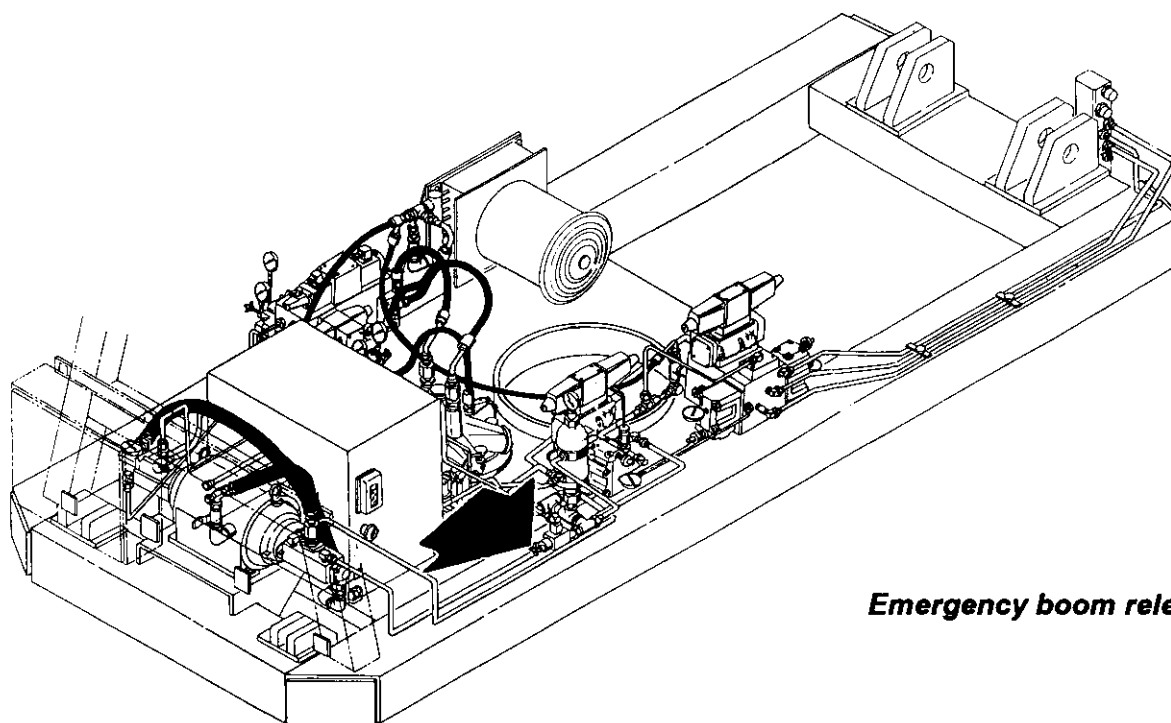
Loss of all electrical power to the ride during operation

The ride will coast to a stop. If power is not restored, passengers can be unloaded using the following procedure:

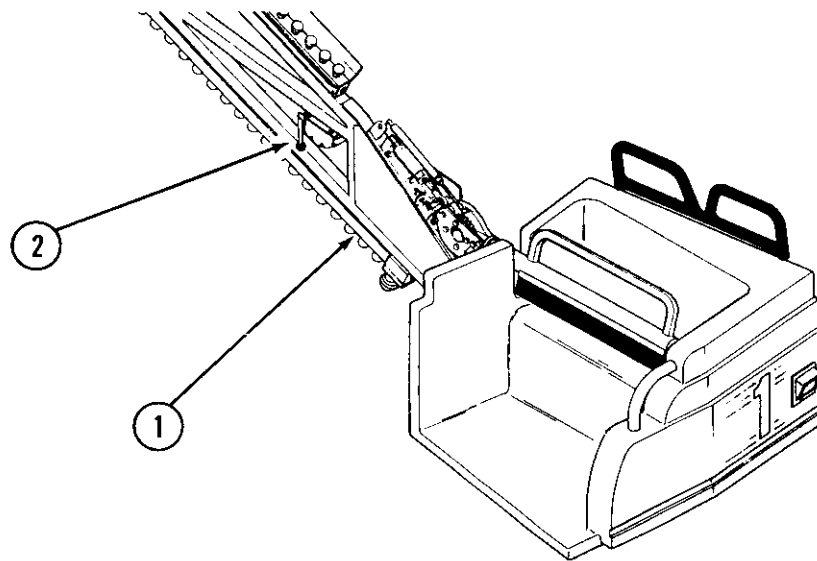
1. Turn pump off at the operator's control panel.
2. Carefully open the emergency relief valve, located under the ride platform on the turret.



WARNING: To avoid injury, stay clear of the boom as it lowers when opening the emergency release valve.



Emergency boom release valve



- 1. Sweep number 1
- 2. Air release lever

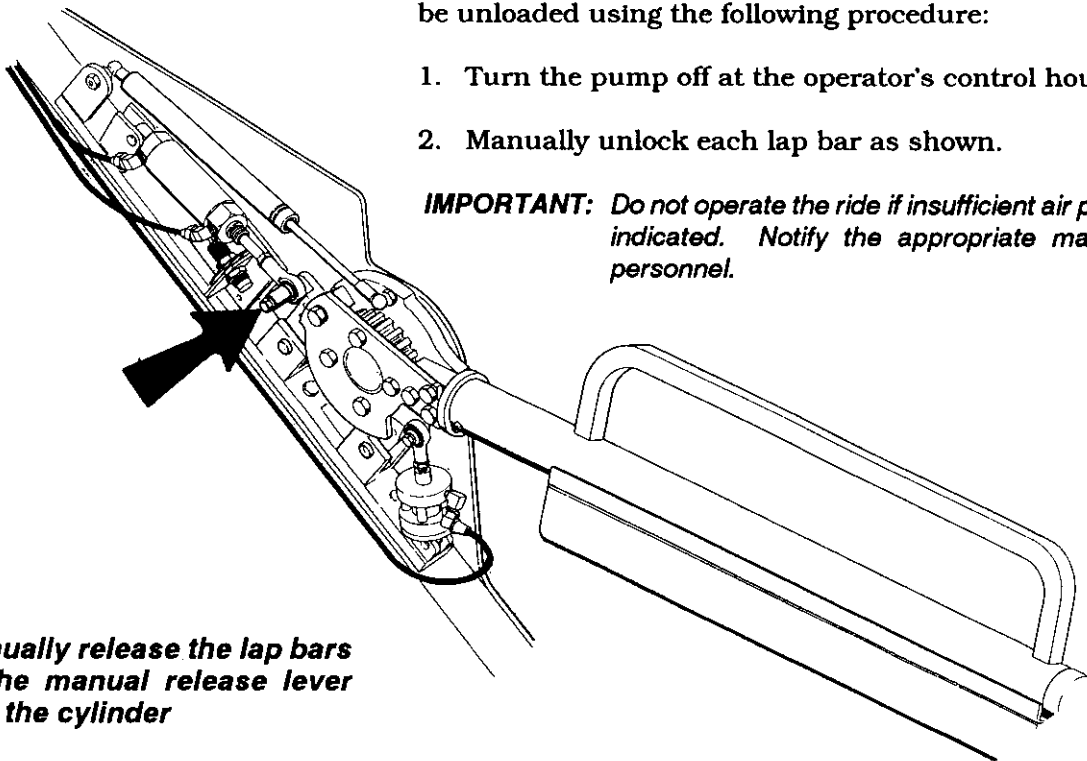
- 3. Lap bar locking device can be disengaged using the air release lever located on sweep #1. This lever is accessible from under the ride.

Loss of air pressure during operation

The "Low air pressure alarm" and "Indicator light" will come on. The ride will complete the programmed ride cycle, coming to a normal stop. The ride will coast to a stop. Passengers can be unloaded using the following procedure:

- 1. Turn the pump off at the operator's control house.
- 2. Manually unlock each lap bar as shown.

IMPORTANT: Do not operate the ride if insufficient air pressure is indicated. Notify the appropriate maintenance personnel.



To manually release the lap bars push the manual release lever toward the cylinder

WIPEOUT

Maintenance manual



Maintenance

Preventive maintenance

Preventive maintenance is the easiest and most economical means of assuring many satisfactory, productive hours of operation. Properly scheduled maintenance is the key to lower operating costs and longer service life.

Hourly intervals have been established for servicing the ride. These intervals are based on the number of hours the ride has run.

The items listed in this section are separated into maximum hourly intervals. These intervals are based on "average" operating conditions. Actual conditions under which your ride is operated are the determining factors when setting up a maintenance schedule. When operating under "severe" conditions, such as excessive heat, cold, dust, mud or water, more frequent servicing is necessary.

First week of operation

The ride has been completely serviced and tested before leaving the factory. However, during the first week of operation and after each set-up, the ride operator must be especially observant and watch for loose parts, leaks, etc. In addition to regular scheduled maintenance, check the following:

1. Check the torque of all functional load-carrying capscrews after the first week of operation and after each set-up. This allows for initial seating of components. Check the torque at monthly intervals thereafter.
2. Check for leaks in the hydraulic system and air system. During transport, vibrations can cause leaks at hoses and fittings.
3. Check for lubricant leaks from gearboxes and chain drive enclosures.

Maintenance

Fluids and lubricants

Timely lubrication and the use of high quality lubricants is necessary to obtain the maximum life of the ride and its components. Use only the fluids and lubricants specified in the following chart.

Fluids and lubricants chart		
Component	Capacity	Specification
Main hydraulic reservoir	50 gallons	Non-detergent motor oil API service classification MS SAE 10W (reference: SAE Technical Report J183a) Examples: D.T.E.-24 Mobil® 10-10W Universal® Hydraulic Fluid
Set-up hydraulic reservoir	10 gallons	Non-detergent motor oil API service classification MS SAE 10W (reference: SAE Technical Report J183a) Examples: D.T.E.-24 Mobil® 10-10W Universal® Hydraulic Fluid
Air compressor	As required	Naphthetic base air compressor oil, 500 SUS @ 100° F SAE 30 non-detergent oil DO NOT USE MULTI-VISCOSITY OILS
Air system oiler	As required	Non-detergent motor oil API service classification MS SAE 10W (reference: SAE Technical Report J183a) Examples: D.T.E.-24 Mobil® 10-10W Universal® Hydraulic Fluid
All zerks	As required	No. 2 lithium base grease
Hub and turret drive gears	As required	No. 2 lithium base grease

Maintenance Maintenance schedule

Daily			
Ref. #	Service point	Service required	See pg.
1	Lap bar interlock system	Thoroughly check operation	3-16
2	Main hydraulic reservoir	Check fluid level at sight glass, fill as required	3-22
3	Air compressor crankcase	Check oil level, add oil as required	3-26
4	Air compress intake filter	Check air intake filter, clean or replace as required	3-25
5	Air compressor drive belt	Check tension, adjust as required	3-25
6	Air system filter/regulator	Drain water. Check pressure, adjust as required	3-25
7	Air system oiler	Fill with oil, check delivery rate	3-25
8	Air tanks	Drain water	3-25
Weekly or at every set-up			
Ref. #	Service point	Service required	See pg.
9	Hub bearing (2 places)	Grease	3-3
10	Turret bearing (2 places)	Grease (accessible from top of turret through access opening)	3-3
11	Lap bar pivots (20 places)	One shot of grease per lap bar	3-5
12	Boom pivot bearings (2 places)	Grease	3-5
13	Hub pinion bearing	Grease	3-5
14	Turret pinion bearing	Grease (pinion accessible from under turret)	3-5
15	Hub drive gear	Apply grease to gear teeth by hand	3-3

Weekly or at every set-up (cont.)			
Ref. #	Service point	Service required	See pg.
16	Turret drive gear	Apply grease to gear teeth by hand	3-3
17	Set-up hydraulic reservoir	Check fluid level at sight glass, fill as required	3-22

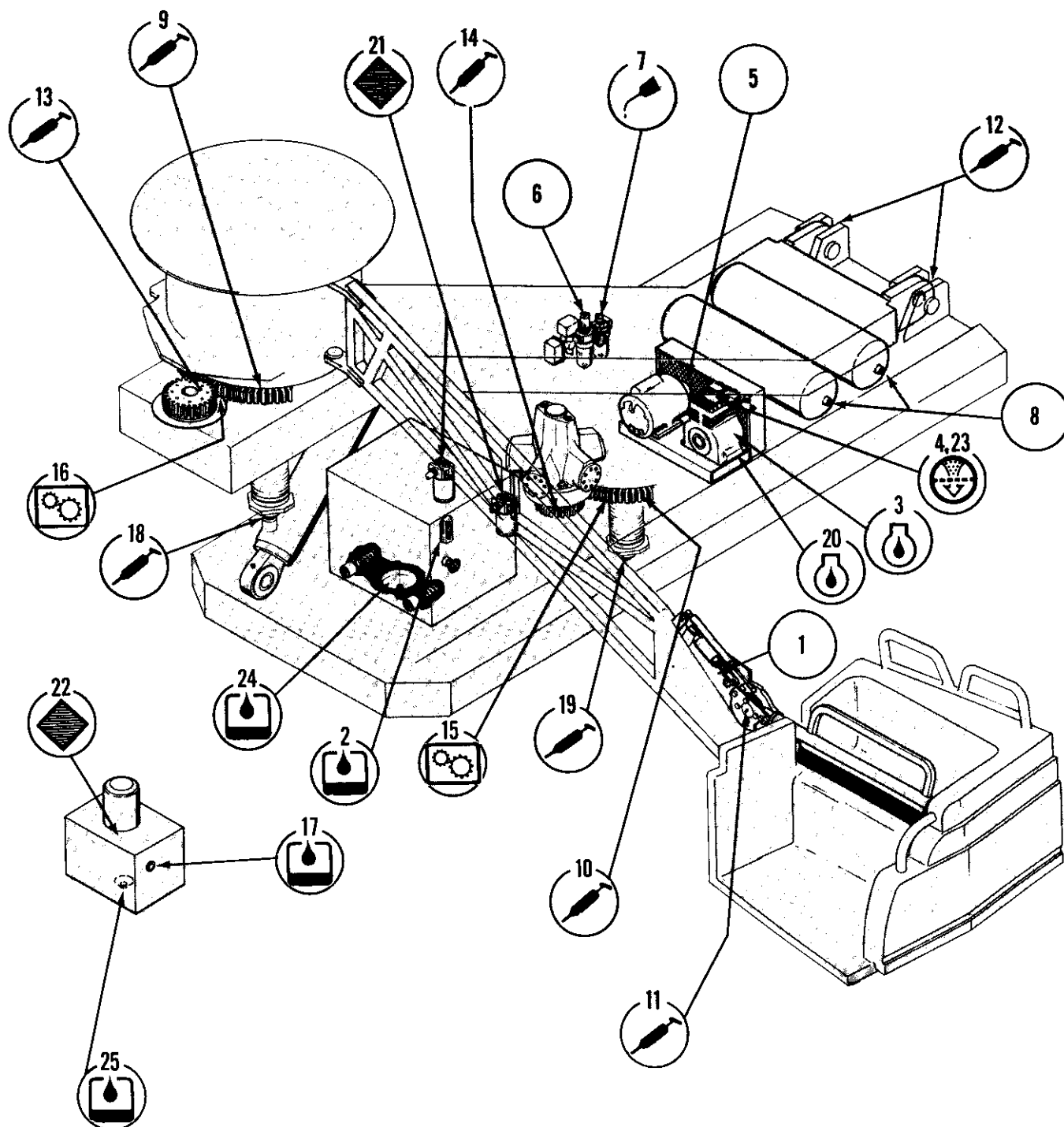
Monthly or at every set-up			
Ref. #	Service point	Service required	See pg.
18	Upper commutator ring bearing	Grease	3-5
19	Lower commutator ring bearing	Grease	3-5

Monthly			
Ref. #	Service point	Service required	See pg.
20	Air compressor	Drain oil and refill with new oil	3-25

Twice yearly			
Ref. #	Service point	Service required	See pg.
21	Main hydraulic system	Change filter cartridge	3-22
22	Set-up hydraulic system	Change filter cartridge	3-22
23	Air compressor	Replace intake air filter	3-25

Annually			
Ref. #	Service point	Service required	See pg.
24	Main hydraulic system	Drain and refill with new oil*	3-22
25	Set-up hydraulic system	Drain and refill with new oil*	3-22

*Drain and replace the oil in either hydraulic reservoir if it has a milky appearance, indicating contamination by water

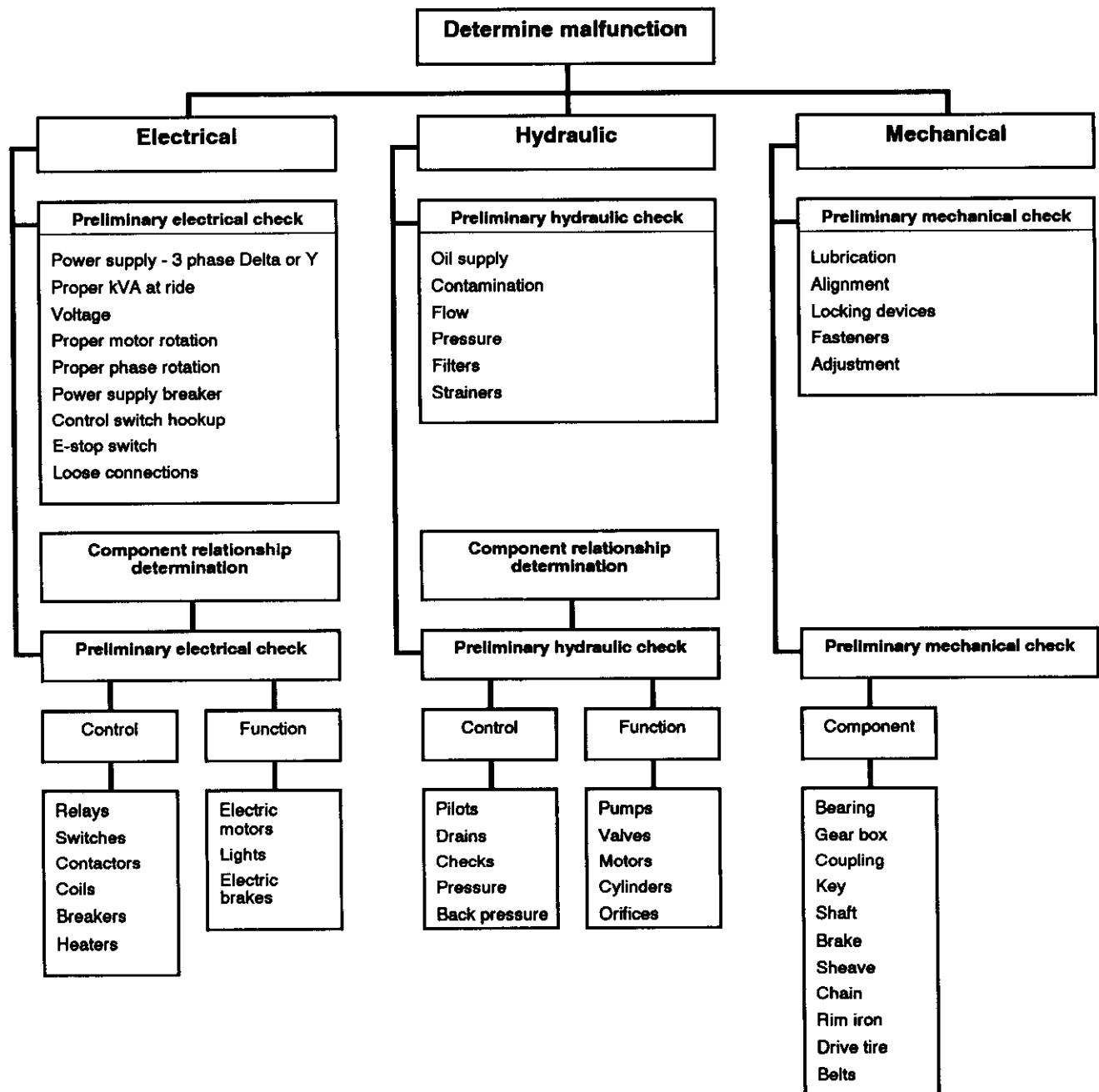


Maintenance Troubleshooting procedures

Before calling the CHANCE RIDES Customer Service Department for help, have the following information:

1. Have the ride serial number and name available.
2. Have the operation and maintenance manual ready to use as a reference.
3. If ride was previously owned, by whom? (Chance records often show changes made to a ride by its previous owner)
4. Have the same person make all calls. Be sure to get the name of the person to whom he is speaking at the factory. All calls should then be made to that person.
5. Have a phone number ready at which you can be reached.
6. Have shipping instructions ready (how, when, and where to ship parts).
7. Have a list of any alterations, modifications or kits that have been added to the ride.
8. The person calling the factory must be familiar with the problem and be able to describe symptoms of the ride problem (such as: was the problem gradual, did it suddenly quit; are any sounds occurring that are not normal; does the problem occur continuously or is it intermittent; does the ride run in one direction only; does the ride run but have no braking, etc.).
9. Many times the problem that completely stops a ride from working is one of many simple things that are forgotten or overlooked. Listed on the following chart are many of the items that can cause this, as well as all items that must be checked before any calls are made to the factory. Use this chart to try to determine the cause. It can save several expensive phone calls or a more expensive visit by factory representative, as well a valuable time.

Troubleshooting chart



Maintenance Fasteners

Capscrews

Capscrews used by CHANCE RIDES, INC. are classified as functional load-carrying capscrews if:

- They are used as tension members in the erection or operation of the ride

and/or

- They are required to resist shear through friction-type connections in the erection or operation of a ride.

Capscrews are selected with consideration to grade, size and quantity, using joint capacities based on tightness torques of 60% rated yield and group joint efficiencies of 62.5%

Torque requirements

Capscrews must be tightened to the torque values listed in the torque chart. These values were selected to produce a tightening torque range of 60% to 70% of proof load, when tightened with a hardened washer under the nut or capscrew head (whichever is accessible for tightening). When the capscrew is tightened from the head end, apply anti-seize lubricant to the shank end of the capscrew. When the threads are lubricated, use 10% less torque to tighten the capscrew.

DO NOT TIGHTEN CAPSCREWS OVER THE RECOMMENDED TORQUE. This can damage the capscrew, due to variances in coefficients of friction and torque wrench accuracy.

Always use a torque wrench. It is impossible to accurately measure the tightness of a capscrew by other methods. Torque wrenches must be checked for accuracy twice each operating season.

Capscrew grades

CHANCE RIDES, INC. uses only grade 5 or better capscrews

Size Diameter - Threads/inch	Foot pound torque range (see notes 1 and 2) with locknut and hardened washer	
	SAE J429 Grade 5 ASTM A325	SAE J429 Grade 8 ASTM A490
1/4 - 20	5-6	7-8
1/4 - 28	6-7	8-10
5/16 - 18	11-13	15-18
5/16 - 24	12-15	17-21
3/8 - 16	19-24	27-33
3/8 - 24	22-27	31-38
7/16 - 14	30-35	45-55
7/16 - 20	35-40	50-60
1/2 - 13	50-60	65-80
1/2 - 20	55-65	75-90
5/8 - 11	95-115	130-160
5/8 - 18	105-130	150-180
3/4 - 10	165-200	235-285
3/4 - 16	185-225	260-320
7/8 - 9	270-325	380-460
7/8 - 14	295-360	415-505
1 - 8	400-490	565-690
1 - 12	440-535	620-755
1 1/8 - 7	495-600	800-975
1 1/8 - 12	555-675	900-1095
1 1/4 - 7	700-850	1135-1380
1 1/4 - 12	775-940	1255-1525
1 1/2 - 6	1215-1480	1975-2395
1 1/2 - 12	1370-1660	2220-2700

Torque chart

Torques for functional load carrying cold finished hex head capscrews with dry rolled threads, used with locknuts (see note 3), and tightened with an ASTM A325 hardened washer under the capscrew head or locknut (whichever is accessible for tightening).

This torque range will develop 60% to 70% of proof load.

Refer to **Replacement of capscrews and locknuts** for conditions requiring replacement

NOTES

1. Use anti-seize lubricant on capscrew shank when tightened from head end.
2. Use 10% less torque when anti-seize or other lubricant is used on threads.
3. Use same torque range for holes tapped in steel.







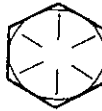




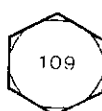
and grade 8 locknuts, with A325 hardened washers for functional loads. The *Grade markings chart* shows the capscrew markings to be found on CHANCE rides. The manufacturer's identification symbols must be present on all functional load carrying capscrews.

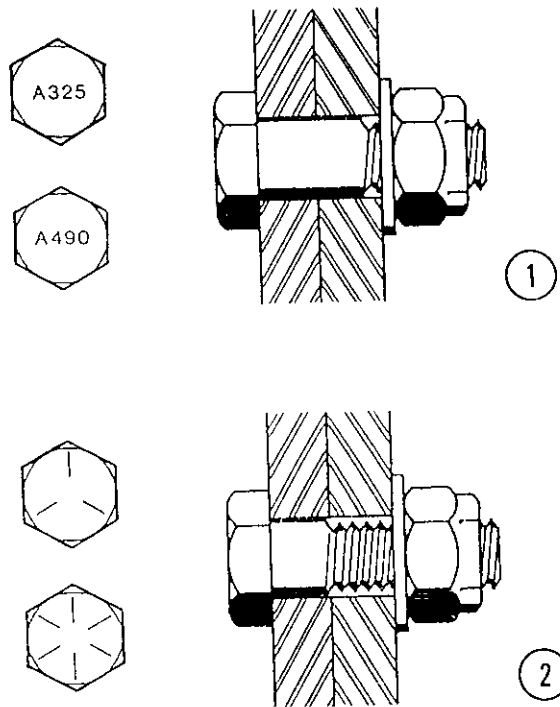
CHANCE RIDES, INC. requires the use of cold-formed hex head capscrews with rolled threads. Hex bolts and hot formed hex head capscrews are not recommended because they may

have machined threads and can have die seams along the shank.

NEVER REPLACE CAPSCREWS OR NUTS WITH PARTS OF A LESSER GRADE, OR DIFFERENT LENGTHS THAN THOSE SHOWN IN THE CHANCE PARTS CATALOG.

Grade markings for functional load carrying cap screws
 Manufacturer's identification symbols must be present on all cap screws

Correct markings	Examples of unacceptable markings	
<p>SAE J429 Grade 5 Medium carbon 81,000 yield</p> 	<p>Grade 5.1 Low carbon</p> 	<p>Grade 5.2 Low carbon martensitic</p> 
<p>ASTM A325 Type 1 Medium carbon Longer shank and shorter thread length than Grade 5 81,000 yield</p>  <p>ASTM A325 Type 3 Corrosion resisting Longer shank and shorter thread length than Grade 5 81,00 yield</p> 	<p>ASTM A325 Type 2 Low carbon martensitic</p> 	
<p>SAE J429 Grade 8 Medium carbon 130,00 yield</p> 	<p>ISO R898 Class 8.8 Medium carbon 92,000 yield</p> 	
<p>ASTM A490 Alloy steel Longer shank and shorter thread length than Grade 8 130,00 yield</p> 	<p>ISO R898 Class 10.9 Alloy steel 130,000 yield</p> 	

**Capscrew comparison**

1. ASTM A325 or ASTM A490
Capscrew

Longer shank shorter threads

2. Grade 5 or grade 8 capscrew
Shorter shank longer threads

Replacement of capscrews and locknuts

When permanently installed capscrews and locknuts are disassembled for repair or adjustment, they must be replaced if they have been in service over five (5) years, or corrosion, or other damage requires over-torquing for removal. If a torque wrench is not used to measure excessive removal torques, the capscrews and locknuts must be replaced.

Capscrews and locknuts which are frequently disassembled for portability must be replaced each operating season. If the capscrews and locknuts become damaged, corroded or require excessive torque for removal, they must be replaced. If a torque wrench is not used to measure excessive removal torques, the capscrews and locknuts must be replaced.

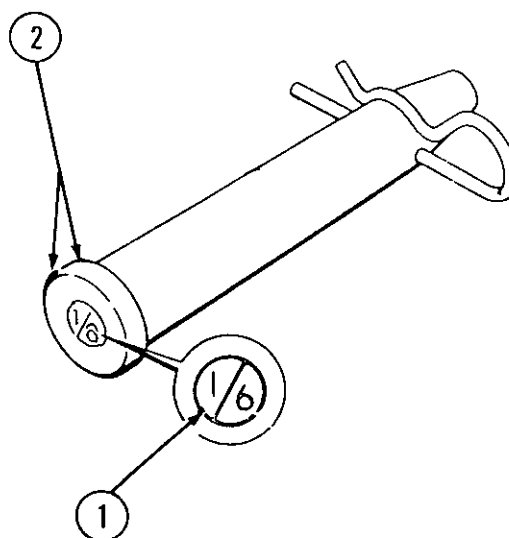
Pins

Tapered pins used on amusement rides are subject to deterioration due to improper use and wear. CHANCE RIDES, Inc. specifies certain pins for certain applications on amusement rides. These pins have been developed over a period of years, taking into account size, design, material and hardness characteristics.

Use only the pins specified by CHANCE RIDES, INC. These pins are identified as shown in the following illustration. Always use the correct hairpin.

Pin identification

1. Date of manufacture
2. Rounded edges

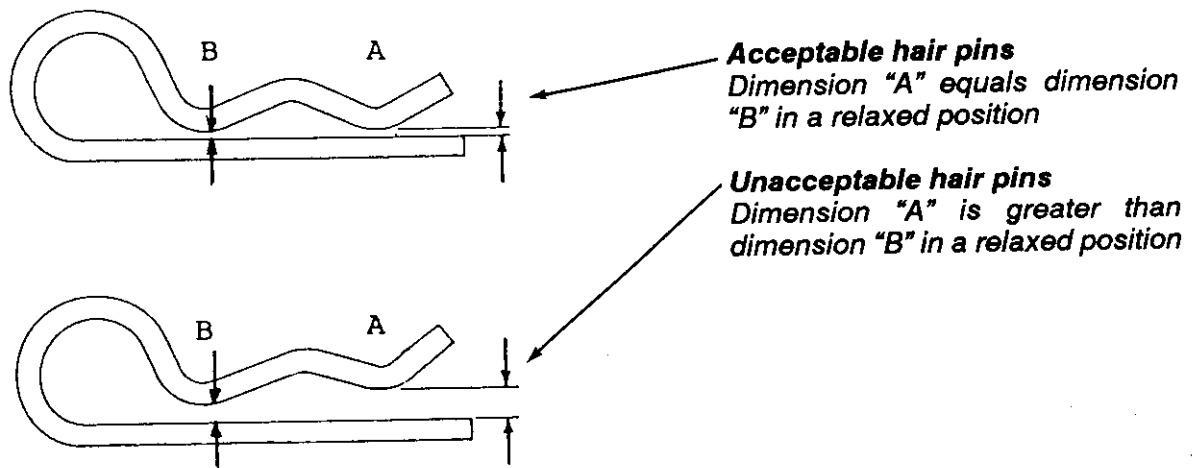


Use care when installing and removing tapered pins. Since these pins are hardened (as are hammers and punches) care must be taken to strike the pin straight on. Striking a pin at an angle can cause the pin to chip, resulting in personal injury. For this reason APPROVED SAFETY GLASSES OR GOGGLES MUST BE WORN AT ALL TIMES when tapered pins are being installed or removed. If a tapered pin is chipped, bent, or "mushroomed" on either end, discard it and replace it with a new pin.

Pin keepers

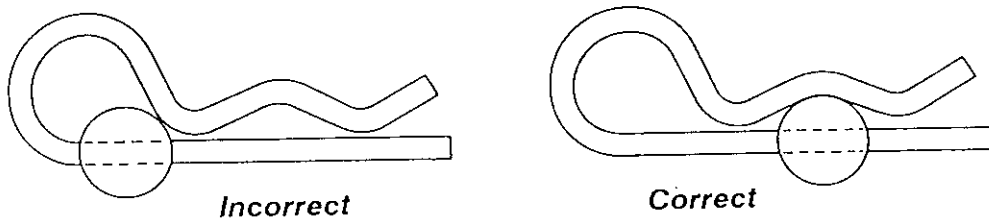
All keepers (R-keys, hair pins, lynch pins, etc.) must be inspected for wear. If a keeper is bent out of shape or "sprung", it must be replaced.

Hairpins are expendable parts. After repeated use, they become worn and "sprung" as shown.



NEVER ATTEMPT TO BEND A HAIR PIN BACK INTO SHAPE.
REPLACE IT WITH A NEW PART.

The correct installation of a hairpin is shown. Incorrectly installed hairpins are more likely to fail, and will distort after only a few uses.



CHANCE RIDES, INC. recognizes and recommends the safety procedures specified in *ASTM Standards F770 Operation Procedures for Amusement Rides and Devices* and *F853 Maintenance Procedures for Amusement Rides and Devices*.

Maintenance

**Lap bar
interlock system**

Lap bar interlock check

The following check must be made daily to ensure the proper operation of the lap bar interlock system.



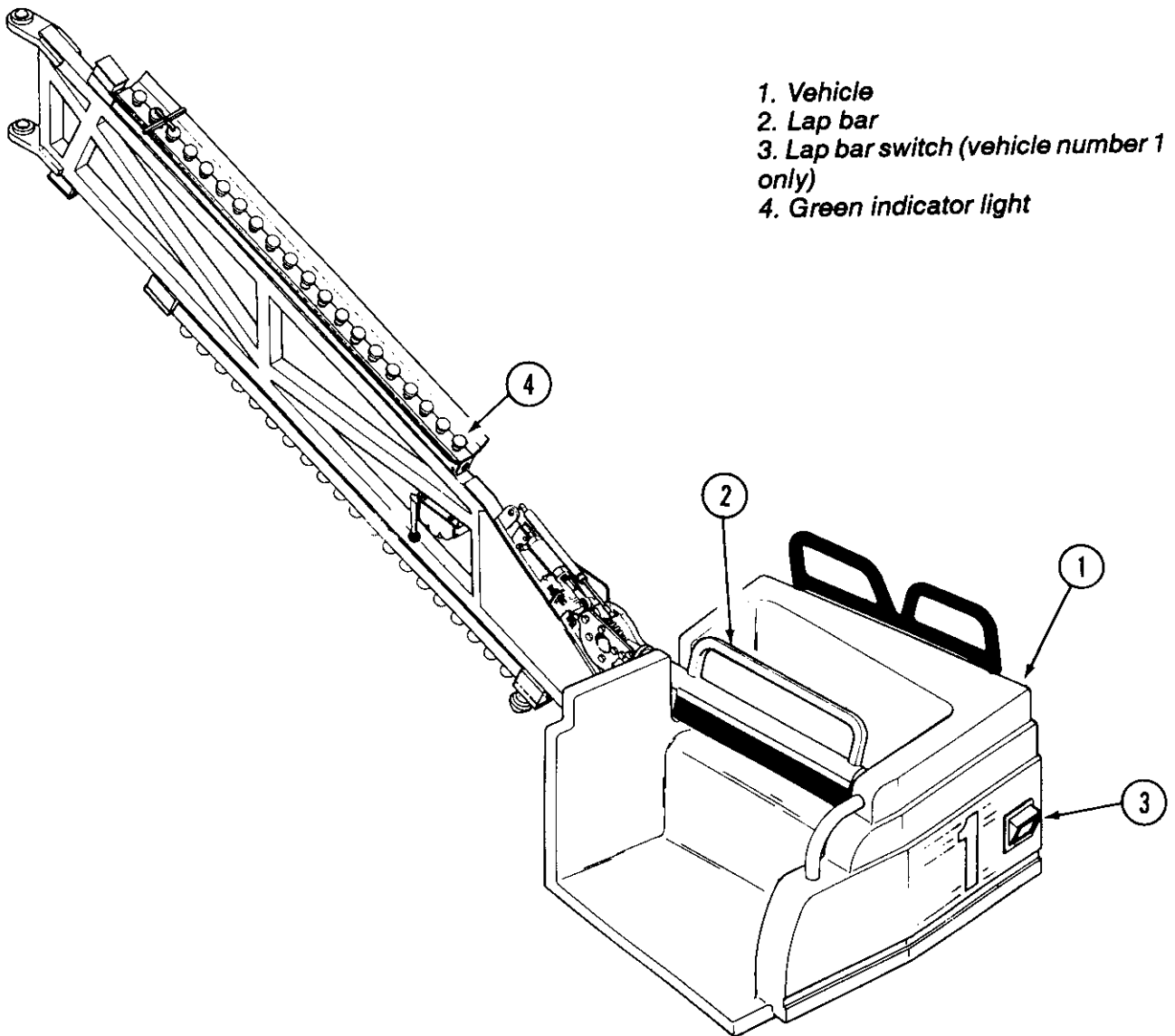
CAUTION: Never operate the ride unless ALL lap bars are in good working condition, and the lap bar interlock system is operating correctly.

Do not tamper with or attempt to defeat the purpose of the lap bars or the lap bar interlock system. Serious injury to passengers can result.



WARNING: Checking the lap bar interlock system requires two people. Extreme care must be taken during the procedure, in the event that the ride starts with the lap bar unlocked. Serious personal injury can result.

1. Lower and lock all lap bars. All green indicator lights on the sweeps must go out.
2. Start the ride. It should start and run normally.
3. Stop the ride and move the lap bar switch to "OPEN".
4. Have a helper sit in vehicle #1 and hold the lap bar just high enough that it will not lock.
5. Move the lap bar switch to the "CLOSED" position. The green indicator light should come on.



6. Depress the "Operator presence switch" and push the "Rim jog" button. The ride **MUST NOT START OR RUN** when the lap bar is not down and locked.



WARNING: When testing the lap bar interlock system, use only the RIM JOG button. If the ride starts with the lap bar up, **STOP THE RIDE IMMEDIATELY** to avoid serious injury to the passenger.

7. If the ride starts, adjustment or repair of the lap bar interlock system is necessary. Refer to "Lap bar interlock switch adjustment".

DO NOT OPERATE THE RIDE UNTIL REPAIRS ARE MADE.

If the ride does not start, the lap bar interlock for that lap bar is working properly. Lower and lock the lap bar after the helper exits the vehicle.

8. Proceed to the next vehicle and repeat Steps 4, 5, 6 and 7 until all lap bars have been tested, one at a time.

Lap bar interlock switch adjustment

If the lap bar interlock system falls on one or more lap bars, the following adjustment procedure must be followed.



CAUTION: Never operate the ride unless ALL lap bars are in good working condition, and the lap bar interlock system is operating correctly.

Do not tamper with or attempt to defeat the purpose of the lap bars or the lap bar interlock system. Serious injury to passengers can result.

1. Remove the counter top panel to gain access to the lap bar switch.
2. Inspect the entire lap bar mechanism. All moving components must be free of built-up grease or dirt. Check for free movement of components. Look for bent, loose, broken or missing parts.
3. Check the gap between the switch and the adjustable block. The gap must be 3/32".
4. If adjustment of the gap is necessary, bend up the locking tabs from the switch adjusting nuts and loosen the nuts. Adjust the position of the switch to obtain the correct gap. Tighten the adjusting nuts and bend the locking tabs down over the flats of each locking nut.

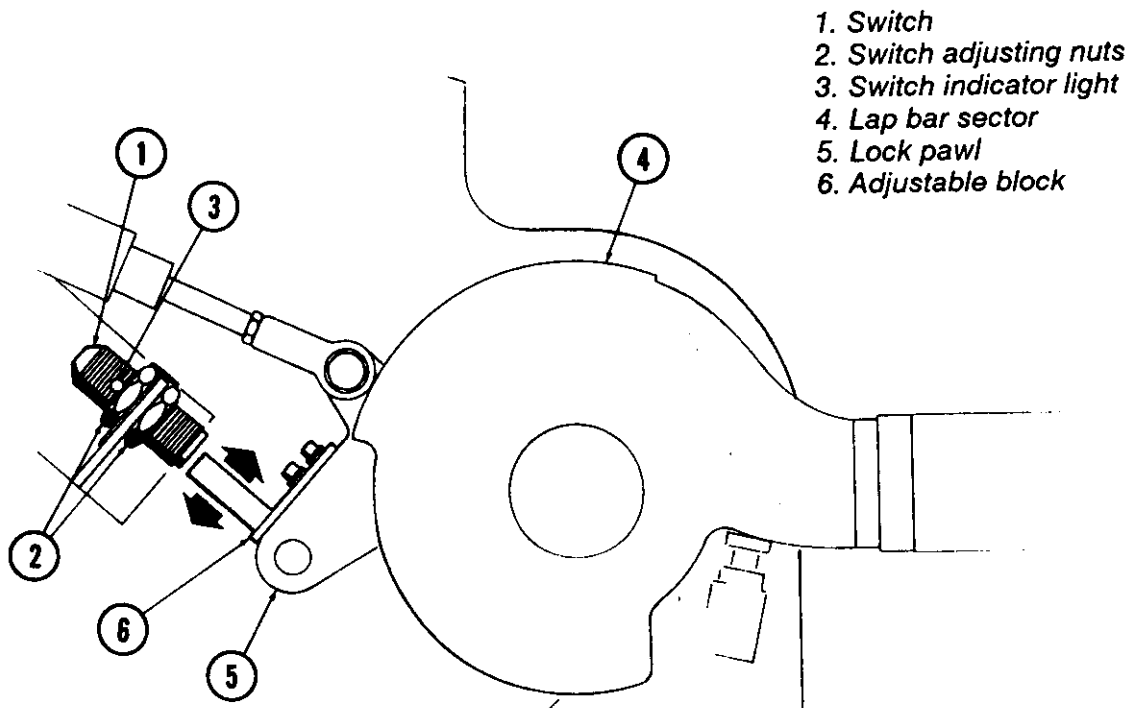
5. Check the position of the adjustable block. The block is correctly adjusted when:

- a. The indicator light on the switch is on when the lock pawl is fully engaged in the lap bar sector.
- b. The indicator light is off when the lock pawl is approximately halfway out, but still engaged.

NOTE: The green indicator light on the sweep comes on and off opposite of the indicator light on the switch.

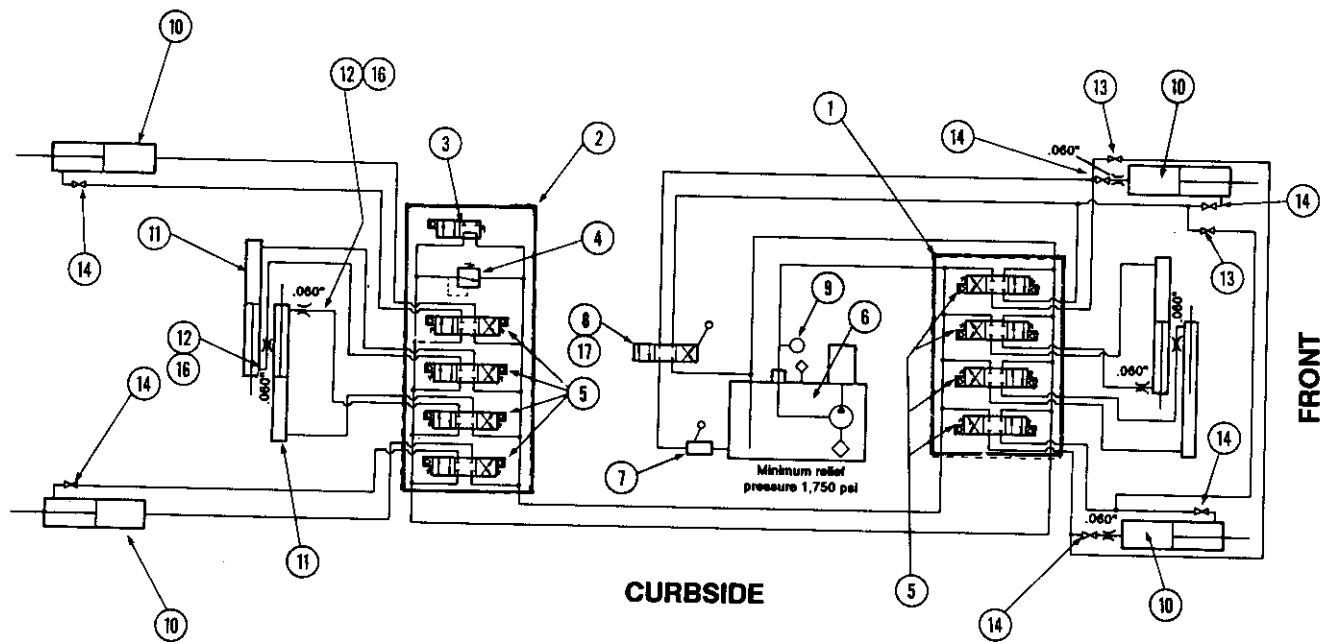
6. If adjustment is required, loosen the two screws on the adjustable block. The block has slotted mounting holes and can be moved up or down as required to obtain the correct adjustment.

7. Tighten the screws on the adjustable block.



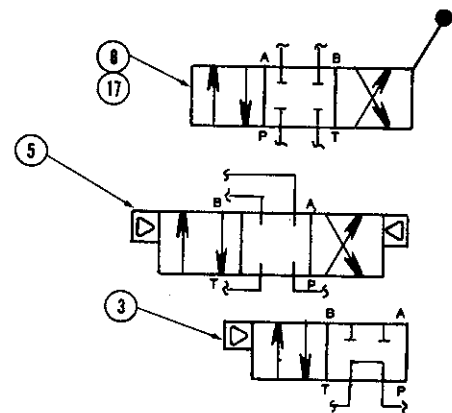
8. Check the operation of the lap bar interlock system as previously described. If the interlock system does not operate properly after adjustments are made, consult the CHANCE CUSTOMER SERVICE DEPARTMENT.

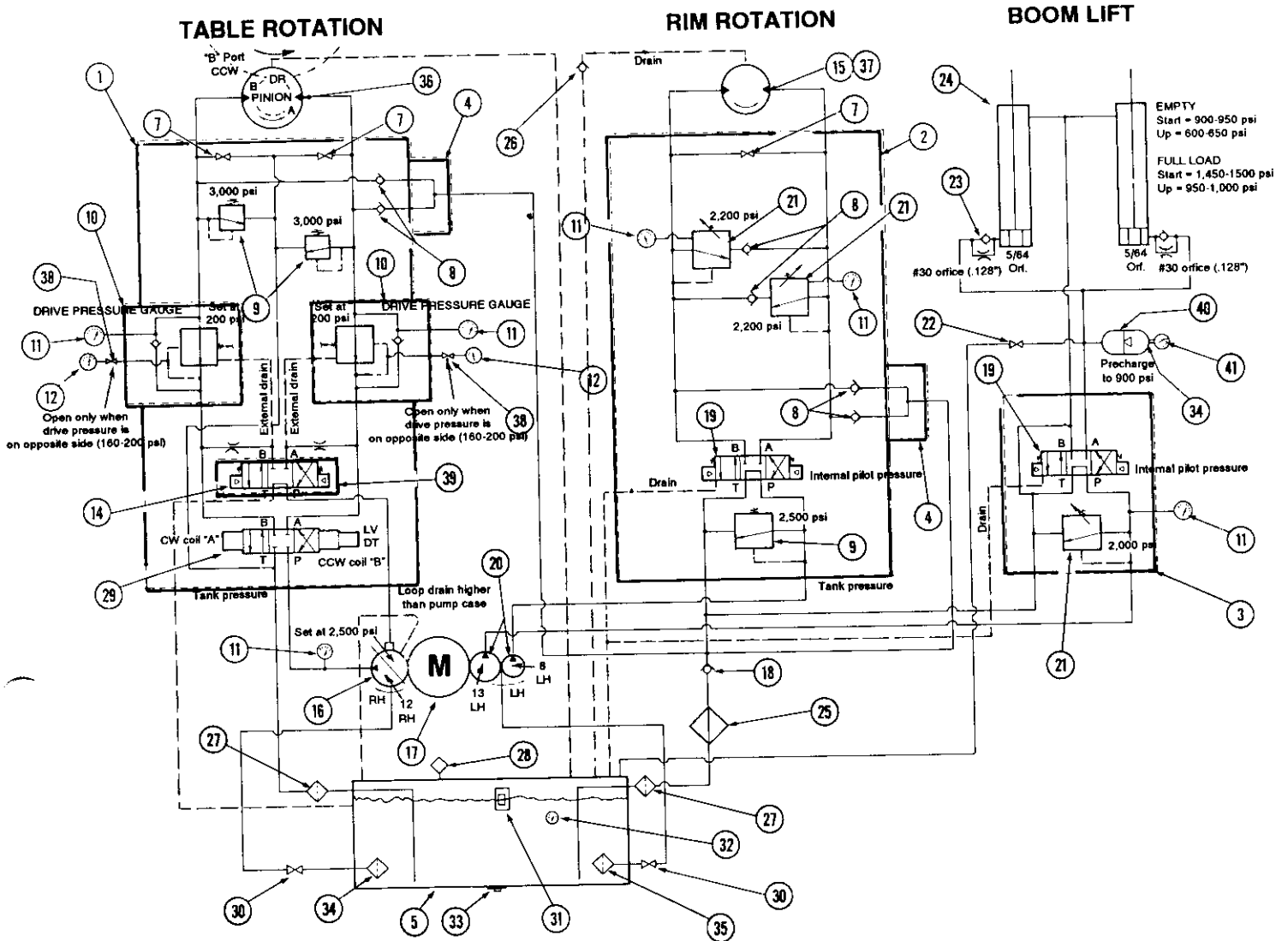
Maintenance Hydraulic system



Set-up hydraulic system schematic

- | | |
|----------------------------|-------------------------------------|
| 1. Manifold block assembly | 10. Trailer hydraulic lift cylinder |
| 2. Manifold block assembly | 11. Floor hydraulic cylinder |
| 3. Directional valve | 12. Fitting |
| 4. Relief valve | 13. Shut-off valve |
| 5. Directional valve | 14. Shut-off valve |
| 6. Hydraulic pump | 15. Bolt kit |
| 7. Hand pump | 16. Orifice (.060") |
| 8. Directional valve | 17. Sub plate |
| 9. Pressure gauge | |





Main hydraulic system schematic

- | | | |
|--------------------------------|------------------------------------|--------------------|
| 1. Manifold block | 20. Hydraulic pump | 39. Tapping plate |
| 2. Manifold block | 21. Relief valve | 40. Accumulator |
| 3. Manifold block | 22. Shut-off valve | 41. Pressure gauge |
| 4. Block | 23. Check valve-orifice | |
| 5. Hydraulic oil tank assembly | 24. Hydraulic cylinder | |
| 6. Hydraulic motor | 25. Cooler | |
| 7. Shut-off valve | 26. Check valve | |
| 8. Check valve | 27. Filter | |
| 9. Relief valve | 28. Filler-strainer | |
| 10. Pressure reducing valve | 29. Proportional directional valve | |
| 11. Pressure gauge | 30. Shut-off valve | |
| 12. Pressure gauge | 31. Sight gauge | |
| 13. Orifice plug .040" | 32. Temperature gauge | |
| 14. Directional valve | 33. Magnetic drain plug | |
| 15. Hydraulic motor | 34. Gauging adapter | |
| 16. Hydraulic pump | 35. Strainer | |
| 17. Electric motor | 36. Fitting kit | |
| 18. Check valve | 37. Fitting kit | |
| 19. Directional valve | 38. Shut-off valve | |



DANGER:
The pressure retard valve is pre-set at the factory. Do not tamper with or attempt to adjust it. Structural damage and/or personal injury can result.

Hydraulic system maintenance

Main hydraulic reservoir oil level check

The oil level in the main hydraulic reservoir must be checked at the sight glass daily. The oil must be visible within the limits of the sight glass. Add oil as required in accordance with the "Fluids and lubricants chart".

Set-up hydraulic reservoir oil level check

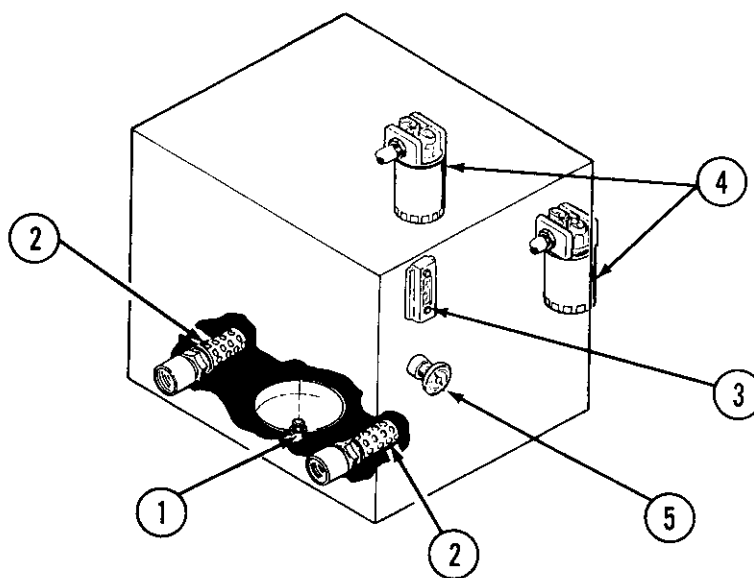
The oil level in the set-up hydraulic reservoir must be checked at the sight glass weekly, or at every set-up. The oil must be visible within the limits of the sight glass. Add oil as required in accordance with the "Fluids and lubricants chart".

Main hydraulic reservoir oil change

The oil in the main hydraulic reservoir must be changed once a year, or any time the oil has a milky appearance, indicating contamination by water.

Main hydraulic reservoir

1. Drain plug
2. Oil strainer screens
3. Sight glass
4. Filters
5. Temperature gauge



Remove the drain plug on the bottom of the reservoir and allow the oil to drain completely. Remove the oil strainer screens and wash in solvent. Thoroughly flush the reservoir to remove any deposits of dirt, sludge, etc.

Replace the drain plug and the strainer screens. Fill with new oil in accordance with the "Fluids and lubricants chart".

Set-up hydraulic reservoir oil change

The oil in the set-up hydraulic reservoir must be changed once a year, or any time the oil has a milky appearance, indicating contamination by water.

Remove the drain plug on the bottom of the reservoir and allow the oil to drain completely. Remove the oil strainer screen and wash in solvent. Thoroughly flush the reservoir to remove any deposits of dirt, sludge, etc.

Replace the drain plug and the strainer screen. Fill with new oil in accordance with the "Fluids and lubricants chart".

Main hydraulic system oil filter change

Two spin on hydraulic oil filters are located at the main hydraulic reservoir. These filters are among the most important components in the system. All of the oil in the main hydraulic system passes through these filters, and is cleansed of foreign particles. The removal of these particles greatly increases the service life of other components in the system. The filter must be replaced at least twice a year, or if the system becomes contaminated between changes.

Set-up hydraulic system oil filter change

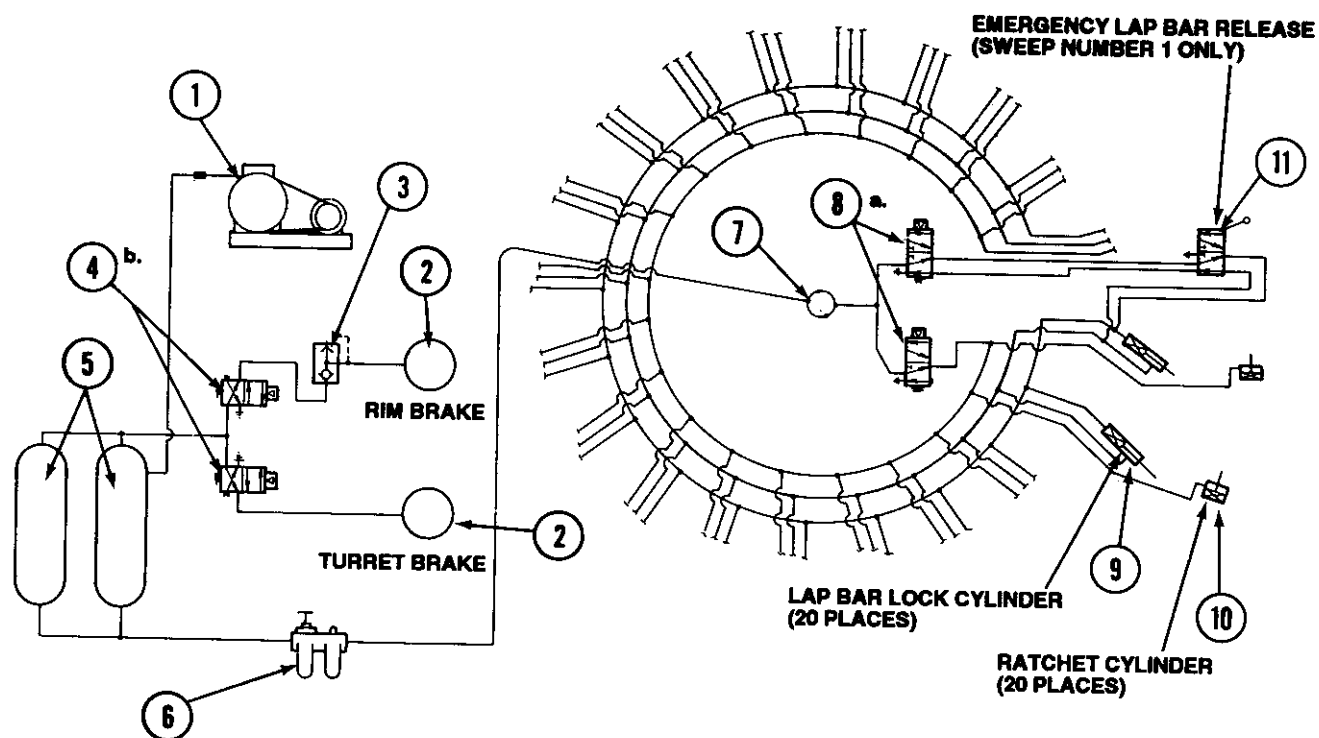
An internal filter is provided on the set-up hydraulic reservoir. This filter is one of the most important components in the system. All of the oil in the set-up hydraulic system passes through this filter, and is cleansed of foreign particles. The removal of these particles greatly increases the service life of other components in the system. The filter must be replaced at least twice a year, or if the system becomes contaminated between changes.

Hydraulic oil cooler maintenance

Keep the hydraulic oil cooler clean. Dirt on the cooling fins reduces air flow and cooling efficiency. Dirt on the fan blades can cause imbalance and overload of the motor. Dirt on the electric motor reduces motor ventilation and cooling, causing overheating and shortened service life of the motor.

Lubricate the electric motor in the hydraulic oil cooler according to the instructions furnished with the motor.

Maintenance Air system



Air system schematic

1. Air compressor assembly
2. Brake element
3. Quick exhaust valve
4. Directional valve
5. Air tank
6. Regulator-filter-lubricator
7. Rotating union
8. Directional valve
9. Lap bar lock air cylinder
10. Ratchet air cylinder
11. Directional valve

NOTES: a. Both valves are normally open when the ride is running and the lap bars are closed. Lap bars have approximately a 10 second delay. Both valves are normally closed when the lap bars are open.

b. Valves are normally open when brakes are applied.
Valves are normally closed when the ride is running.

Air system maintenance

Air system filter/regulator

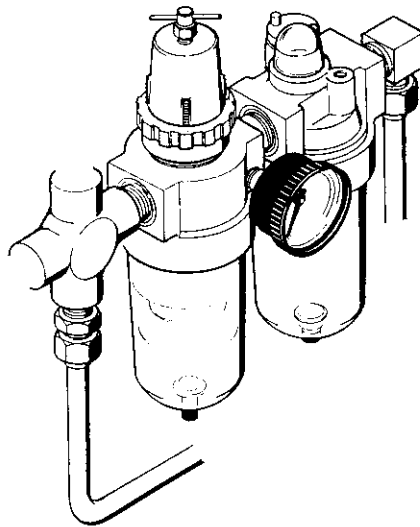
Drain the water from the filter/regulator daily, or more often if necessary. Check the air system for correct air pressures as follows:

- 100 psi at the reservoir
- 40 psi at the regulator

Air system oiler

Check the air system oiler daily and fill with clean oil in accordance with the "Fluids and lubricants chart".

Check the oil delivery rate and adjust as required. The oiler should be adjusted to deliver one drop of oil every 4 cycles of lap bar operation.



Air tanks

Drain water from the air tanks daily, or more often if necessary. Open the drain cock on the bottom of each tank until no water comes out.

Visually inspect the air tanks and all tubes, hoses and fittings for leaks. Repair or replace any loose, broken or missing parts immediately.

Air compressor oil level check

The oil level in the air compressor must be checked daily. Remove the fill plug near the base of the compressor. The oil must be level with the plug opening. Add oil as required in accordance with the "Fluids and lubricants chart".

Air compressor oil change

The oil in the air compressor must be changed every month. Remove the drain plug at the compressor base and allow the oil to drain completely. Replace the plug and remove the fill plug near the base of the compressor. Fill with new oil in accordance with the "Fluids and lubricants chart". The oil must be level with the plug opening.

Air compressor drive belt

Visually inspect the air compressor drive belt daily. Look for signs of wear or damage. The belt must be clean and free of grease. Replace the belt if worn, glazed, cut, oil-soaked or otherwise damaged.

Check for slippage and adjust tension as required.

Air compressor intake filter

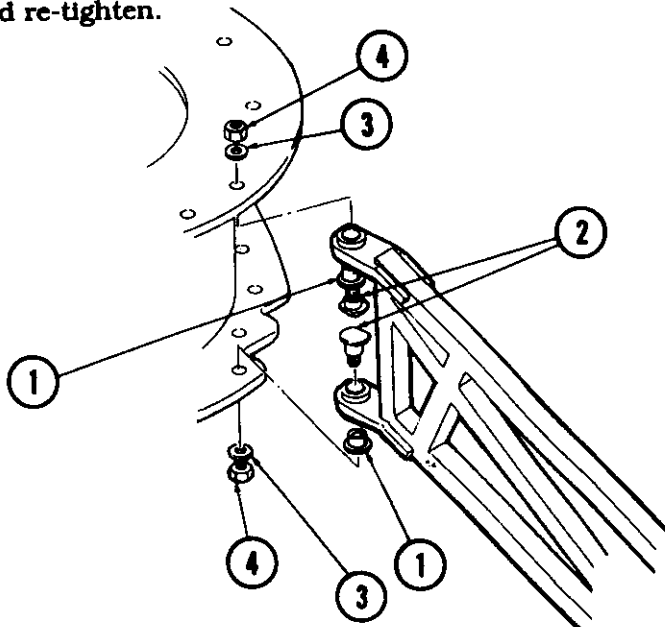
Check the intake filter daily and replace as required. Change the filter at least twice a year.

Maintenance

Sweep
Shoulder Bolts

The following procedure must be followed any time the sweep shoulder bolts are checked or installed:

1. Use only those parts specified in the "Parts Catalog" section of this manual.
2. Check the condition of the bushings. Both bushings must be installed from the bottom, as shown.
3. The threads of the shoulder bolt and lock nut must be clean.
4. Before installing the shoulder bolt, lubricate the full length of the threads with Loctite® anti-seize compound. Brush it thoroughly into the root of the threads.
5. Install the shoulder bolt, hardened flat washer and lock nut as shown.
6. Using an accurate torque wrench, tighten the lock nut to 350 ft-lbs. Be sure the final torque is reached while the nut is moving. If using a "clicker-type" wrench and the click occurs before the nut turns, loosen the nut and re-tighten. When using a pointer-type wrench, if the desired torque is exceeded before the nut starts to turn, loosen the nut and re-tighten.



1. Bushing
2. Shoulder bolt
3. Hardened flat washer
4. Lock nut

WIPEOUT

Parts catalog



PARTS CATALOG

Introduction

This catalog contains parts information for the Wipeout amusement ride. Information in this catalog pertains to standard and commonly used special equipment.

This catalog is divided into sections listed in the Section Index. The first page of each section contains a Table of Contents, which lists each parts group and the pages where that component can be found. Following each illustration* is a parts list which identifies each part by index number, part number**, drawing number, description and quantity needed per assembly.

Ordering parts

To order from this catalog, use the following procedure:

1. Select section in which the part is used.
2. Use the Table of Contents to find the applicable illustration.
3. Find the index number of the part on the illustration.
4. Locate the index number in the parts listing.
5. Make note of all information that follows the index number and page number. Along with this information, it is helpful to have the ride serial number at hand.
6. Contact the CHANCE RIDES Customer Service Department.

* Illustrations have titles which correspond to the following parts list(s).

** Part numbers with a "+" have a separate parts listing provided. These listings can be located through the Tables of Contents. Parts listed with no index numbers and with indented descriptions are components of the part above, and are not illustrated.

Section index

Vehicle	A
Sweeps	B
Axle and Hub	C
Electric and lighting	D
Trailer and base	E
Drives, hydraulic and air	F
Tower legs and structure	G
Platforms fences and ramps	H
Racking and material handling	I

CHANCE RIDES, INC.

4219 Irving
P.O. Box 12328
Wichita, KS 67277-2328

Phone (316) 942-7411
Fax (316) 942-7416

VEHICLE

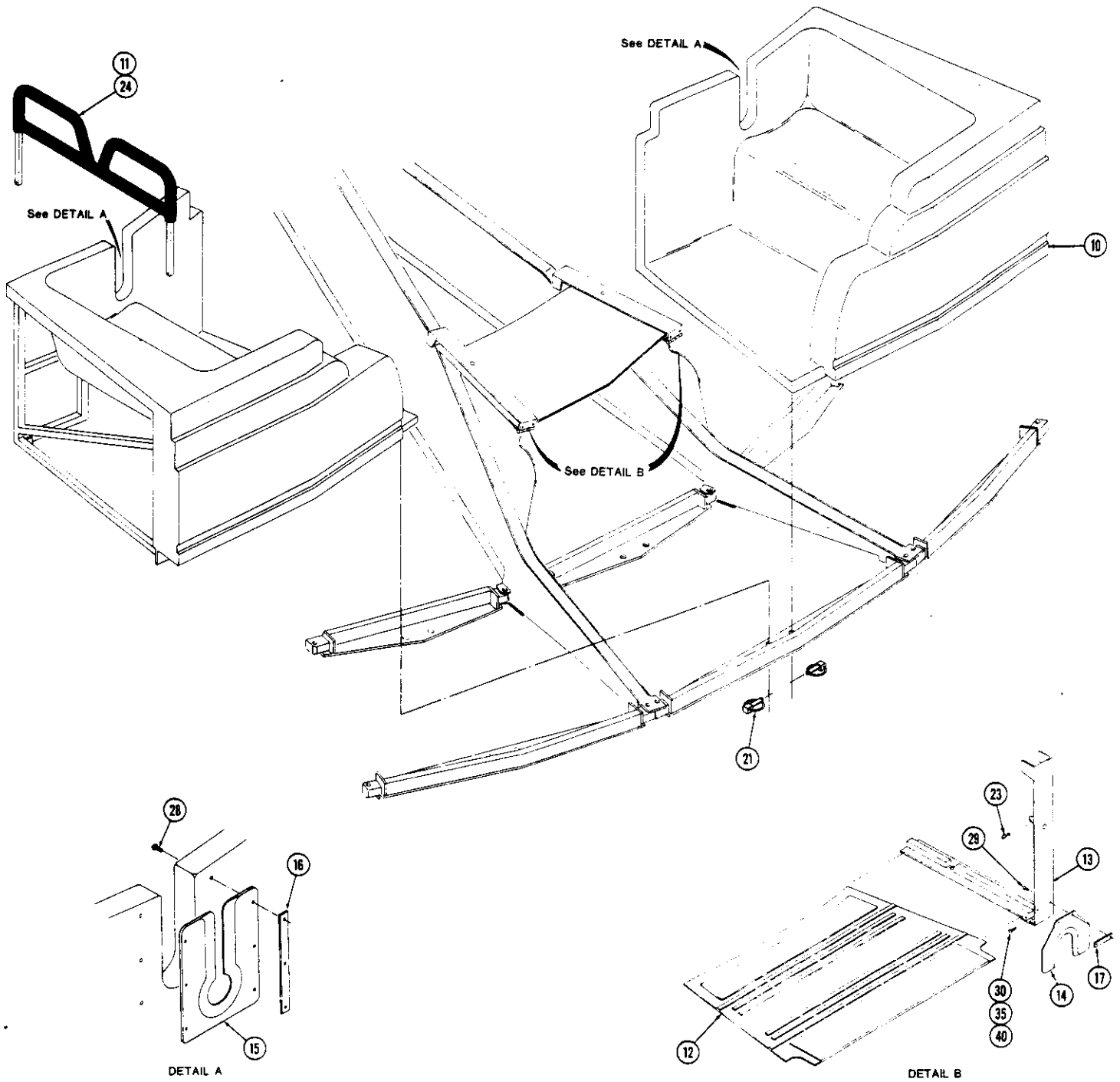
Contents

Vehicle installation	A-2
Vehicle assembly	A-4
Vehicle assembly (even number vehicles)	A-6
Vehicle assembly (odd number vehicles)	A-8
Vehicle assembly (vehicle number 1)	A-10
Vehicle safety decals	A-12

CHANCE RIDES, INC.

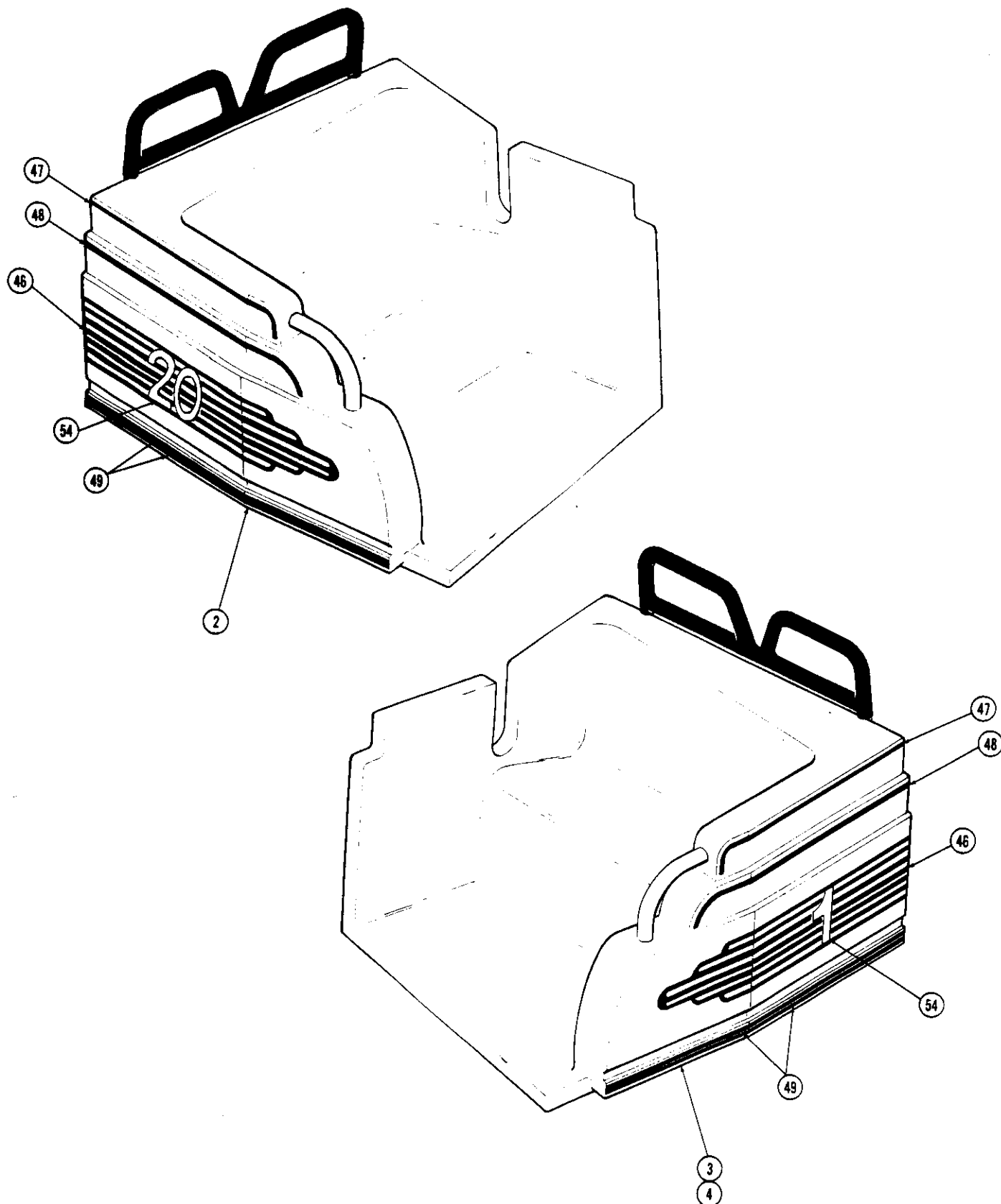
4219 Irving
P.O. Box 12328
Wichita, KS 67277-2328

Phone (316) 942-7411
Fax (316) 942-7416



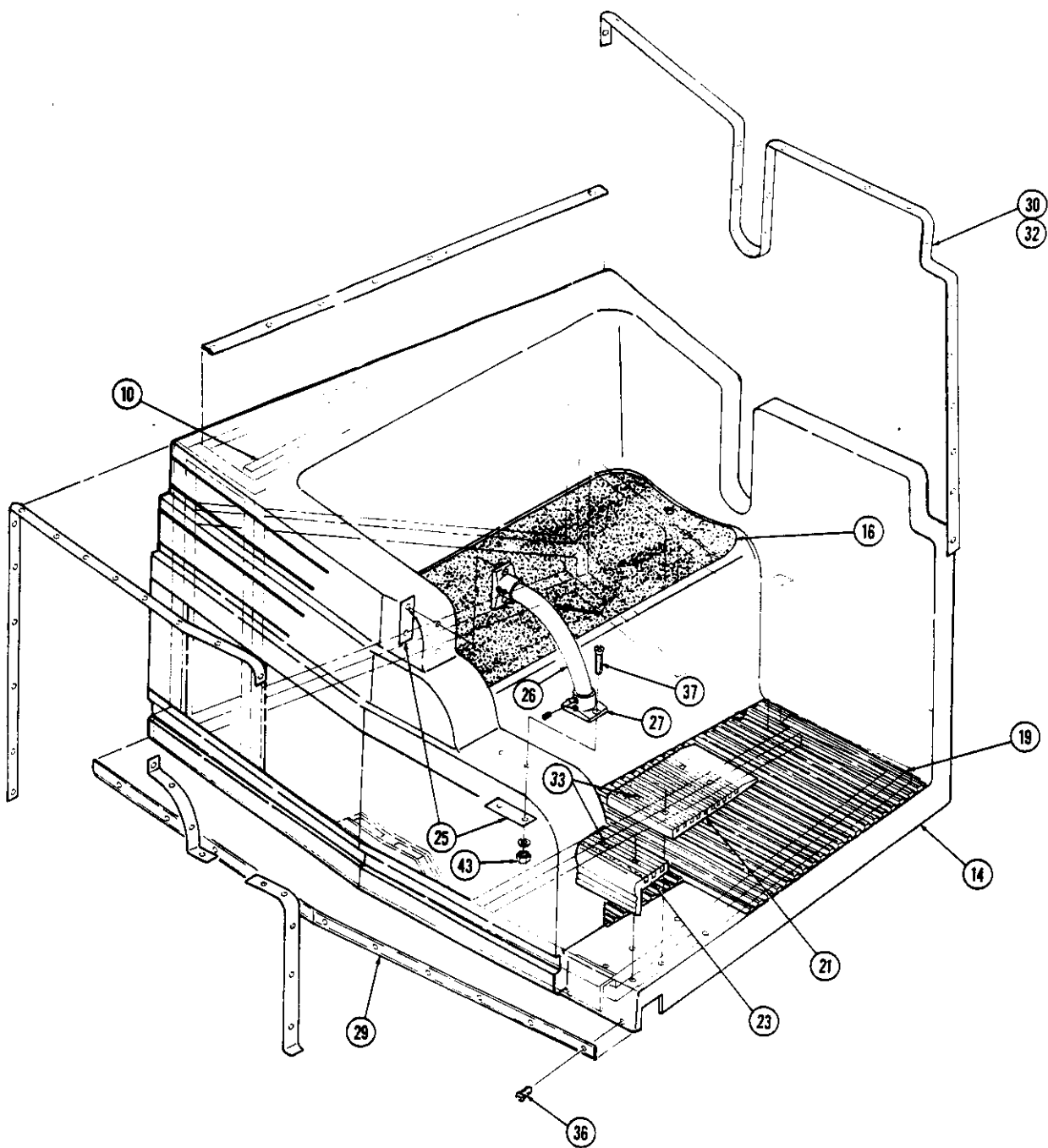
Index number	Part number	Drawing number	Description	Quantity per assembly
10	36463300 +	402-110-001	SEAT ASSY-SET 402-110-001	1.0
11	33313400	402-123-001	HEAD REST 402-123-001	10.0
12	31999100	402-230-001	COUNTERTOP ASSY 402-230-001	20.0
	22198508		DECAL "WIPEOUT" 3" X 29 1/2"	1.0
	31999000	402-232-001	COUNTERTOP 402-232-001	1.0
	32889200	402-234-001	FRAME WELDT-COUNTERTOP 402-234	1.0
	66154900		RIVET 1/8 1601-0410	8.0
13	37489600 +	402-233A001	SUPPORT ASSY 402-233A001	20.0
14	31687700	402-136-001	CLOSEOUT-SWEEP 402-136-001	20.0
15	31687800	402-136-002	CLOSEOUT-SEAT 402-136-002	20.0
16	30378527	402-136-005	BAR-ALUM 402-136-005	40.0
17	30378528	402-136-006	BAR-ALUM 402-136-006	20.0
21	25238500		PIN KLIK	80.0
23	65190000		HAIRPIN 1/8	20.0
24	65190400		HAIRPIN 3/16	20.0
28	61118400		SCREW MS 10-32 X3/4 RHP	120.0
29	61165900		SCREW MS 10-32 X1/2 FHP	40.0
30	60700400		BOLT HHCS 1/4-20 X1 GR5	60.0
35	68530200		WASHER SAE 1/4	60.0
40	64780800		NUT HEX 1/4-20 N/I	60.0

+ Separate parts listing provided



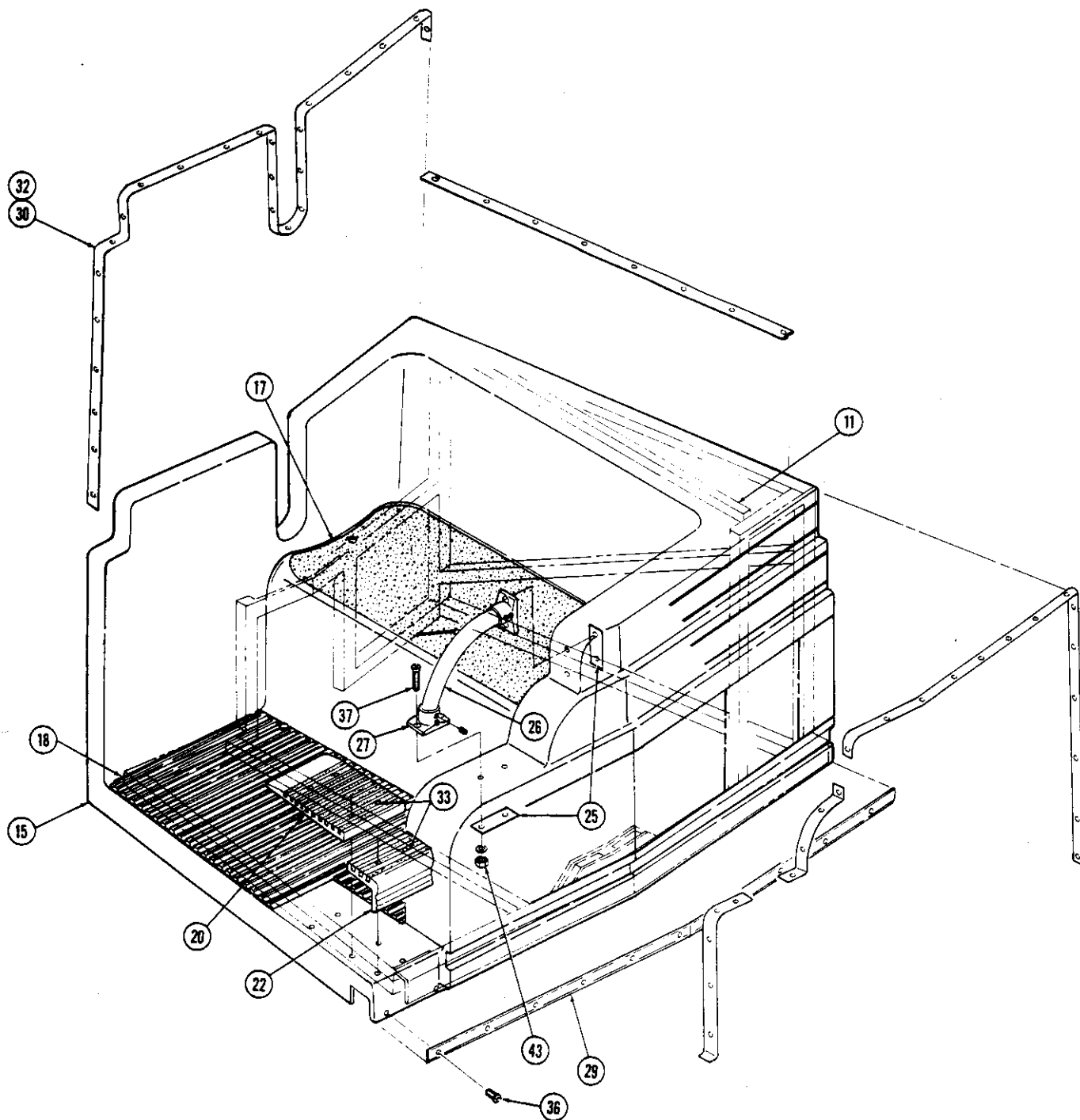
Index number	Part number	Drawing number	Description	Quantity per assembly
2	70321400	+ 402-110-002	SEAT ASSY 402-110-002	10.0
3	70321500	+ 402-110-003	SEAT ASSY 402-110-003	9.0
4	70321600	+ 402-110-004	SEAT ASSY 402-110-004	1.0
46	22185404		DECAL SEAT SIDE	20.0
47	22185405		DECAL SEAT TOP	20.0
48	22185406		DECAL SEAT MIDDLE	20.0
49	22185407		DECAL SEAT BOTTOM	20.0
54	22191302		DECAL SET-NUMBERS 1-20 (WIPEOUT)	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
10	32889300	402-122-001	FRAME WELDT-SEAT 402-122-001*	1.0
14	36463100	402-125-001	SEAT-LEFT HAND 402-125-001*	1.0
16	70321200	402-117-001	SEAT PAD-LH 402-117-001	1.0
19	70320800	402-118-002	LH RIBBED FLOORING 402-118-002	1.0
21	27384901		STEP STAIRTREAD 6 3/8" BLACK *	1.0
23	27384903		STEP STAIRTREAD 6 5/8" BLACK *	1.0
25	35358573	402-121-001	PLATE-BACKING,G/RAIL402-121-001	2.0
26	38259039	402-130-001	TUBE-GRAB RAIL 402-130-001	1.0
27	22727600		FITTING RAIL	2.0
29	42202000		EXTRU TRIM ALUM 20A1*	4.0
30	42219100		TRIM COUNTER EDGING POL N/HOLE	15.0
32	66142100		RIVET 5/32 AD58BS	56.0
33	66150000		RIVET 3/16 AD612BS	6.0
36	66424000		SCREW #8X3/4 S/T OV HD PH	9.0
37	61167500		SCREW MS 1/4-20X1 1/2 FHP	4.0
43	64804200		NUT FLEXLOC 1/4-20 FULL	4.0

+ Separate parts listing provided

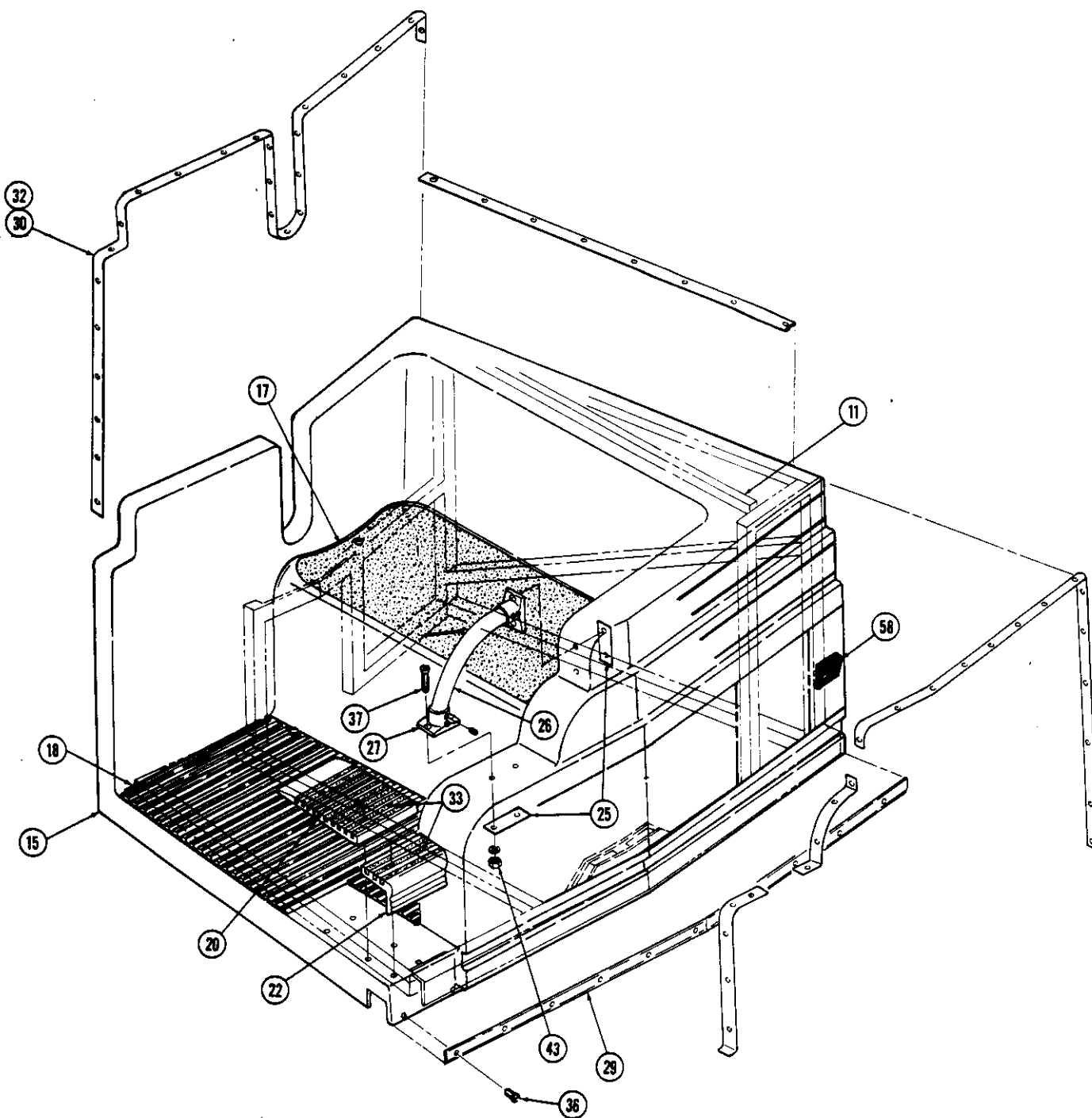


Index number	Part number	Drawing number	Description	Quantity per assembly
11	32889400	402-122-002	FRAME WELDT-SEAT 402-122-002*	1.0
15	36463200	402-125-002	SEAT-RIGHT HAND 402-125-002*	1.0
17	70321300	402-117-002	SEAT PAD-RH 402-117-002	1.0
18	70320600	402-118-001	RH RIBBED FLOORING 402-118-001	1.0
20	27384900		STEP STAIRTREAD 6 3/8" BLACK *	1.0
22	27384902		STEP STAIRTREAD 6 5/8" BLACK *	1.0
25	35358573	402-121-001	PLATE-BACKING, G/RAIL 402-121-001	2.0
26	38259039	402-130-001	TUBE-GRAB RAIL 402-130-001	1.0
27	22727600		FITTING RAIL	2.0
29	42202000		EXTRU TRIM ALUM 20A1*	4.0
30	42219100		TRIM COUNTER EDGING POL N/HOLE	15.0
32	66142100		RIVET 5/32 AD58BS	56.0
33	66150000		RIVET 3/16 AD612BS	6.0
36	66424000		SCREW #8X3/4 S/T OV HD PH	9.0
37	61167500		SCREW MS 1/4-20X1 1/2 FHP	4.0
43	64804200		NUT FLEXLOC 1/4-20 FULL	4.0

+ Separate parts listing provided

402-110-003

VEHICLE ASSEMBLY (odd number vehicles)

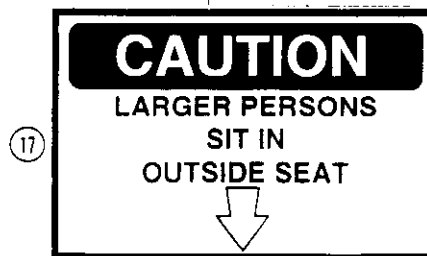
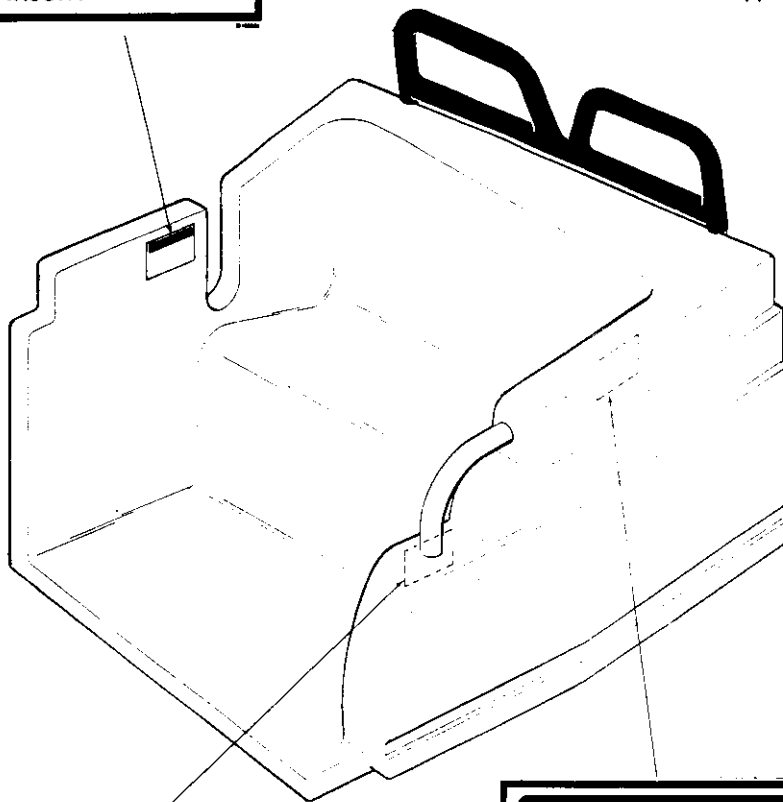


Index number	Part number	Drawing number	Description	Quantity per assembly
11	32889400	402-122-002	FRAME WELDT-SEAT 402-122-002*	1.0
15	36463200	402-125-002	SEAT-RIGHT HAND 402-125-002*	1.0
17	70321300	402-117-002	SEAT PAD-RH 402-117-002	1.0
18	70320600	402-118-001	RH RIBBED FLOORING 402-118-001	1.0
20	27384900		STEP STAIRTREAD 6 3/8" BLACK *	1.0
22	27384902		STEP STAIRTREAD 6 5/8" BLACK *	1.0
25	35358573	402-121-001	PLATE-BACKING,G/RAIL402-121-001	2.0
26	38259039	402-130-001	TUBE-GRAB RAIL 402-130-001	1.0
27	22727600		FITTING RAIL	2.0
29	42202000		EXTRU TRIM ALUM 20A1*	4.0
30	42219100		TRIM COUNTER EDGING POL N/HOLE	15.0
32	66142100		RIVET 5/32 AD58BS	56.0
33	66150000		RIVET 3/16 AD612BS	6.0
36	66424000		SCREW #8X3/4 S/T OV HD PH	9.0
37	61167500		SCREW MS 1/4-20X1 1/2 FHP	4.0
43	64804200		NUT FLEXLOC 1/4-20 FULL	4.0
58	71547700	402-436-001	SWITCH INSTL-LAP BAR 402-436-001	1.0

+ Separate parts listing provided



Right hand seat shown
Left hand seat opposite



SWEEPS



Contents

Sweep installation	B-2
Spreader bar installation	B-4
Lap bar component installation	B-6
Lap bar mount assembly	B-8
Counter top support assembly	B-10

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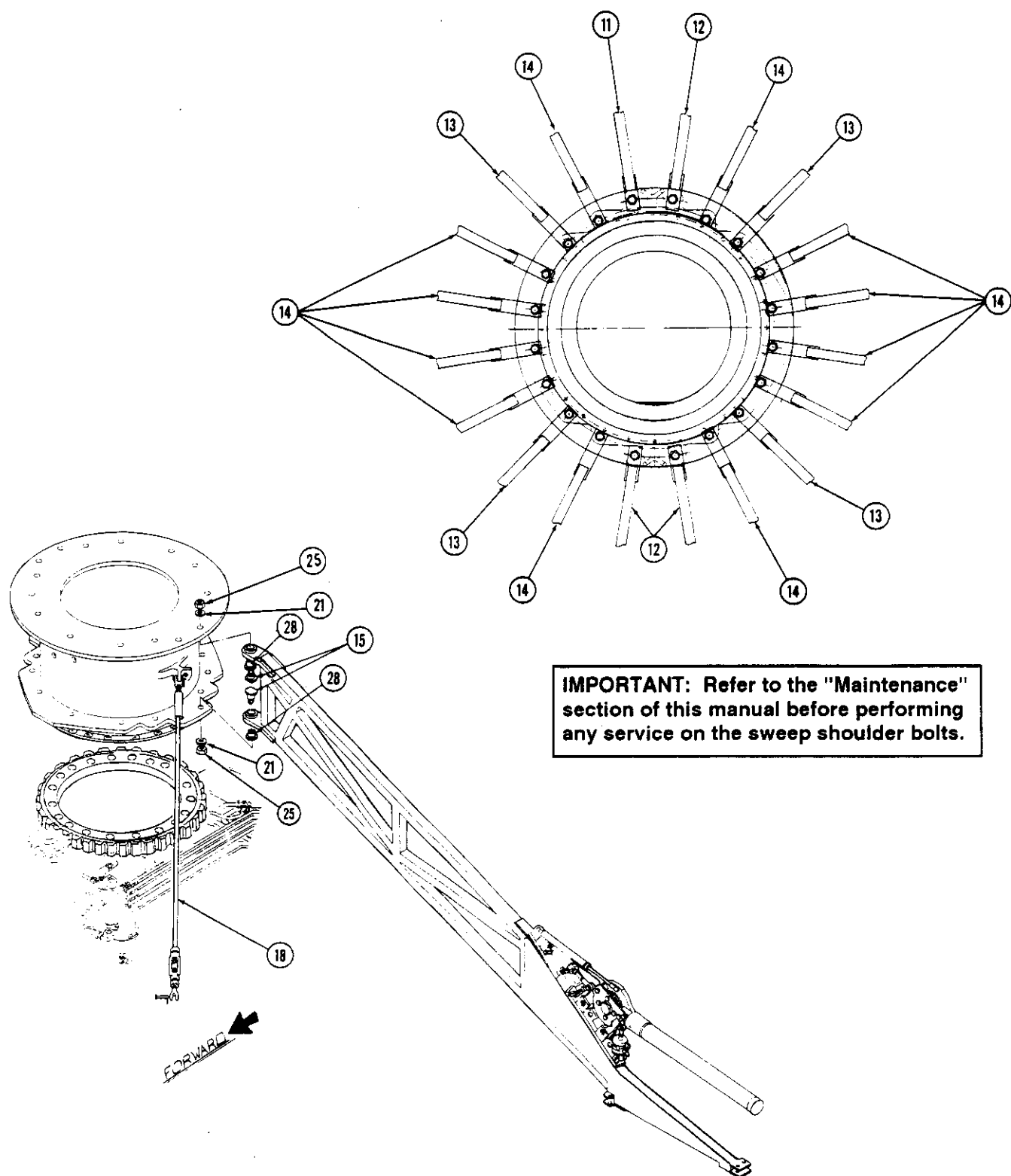
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Wipeout Parts Catalog B-3

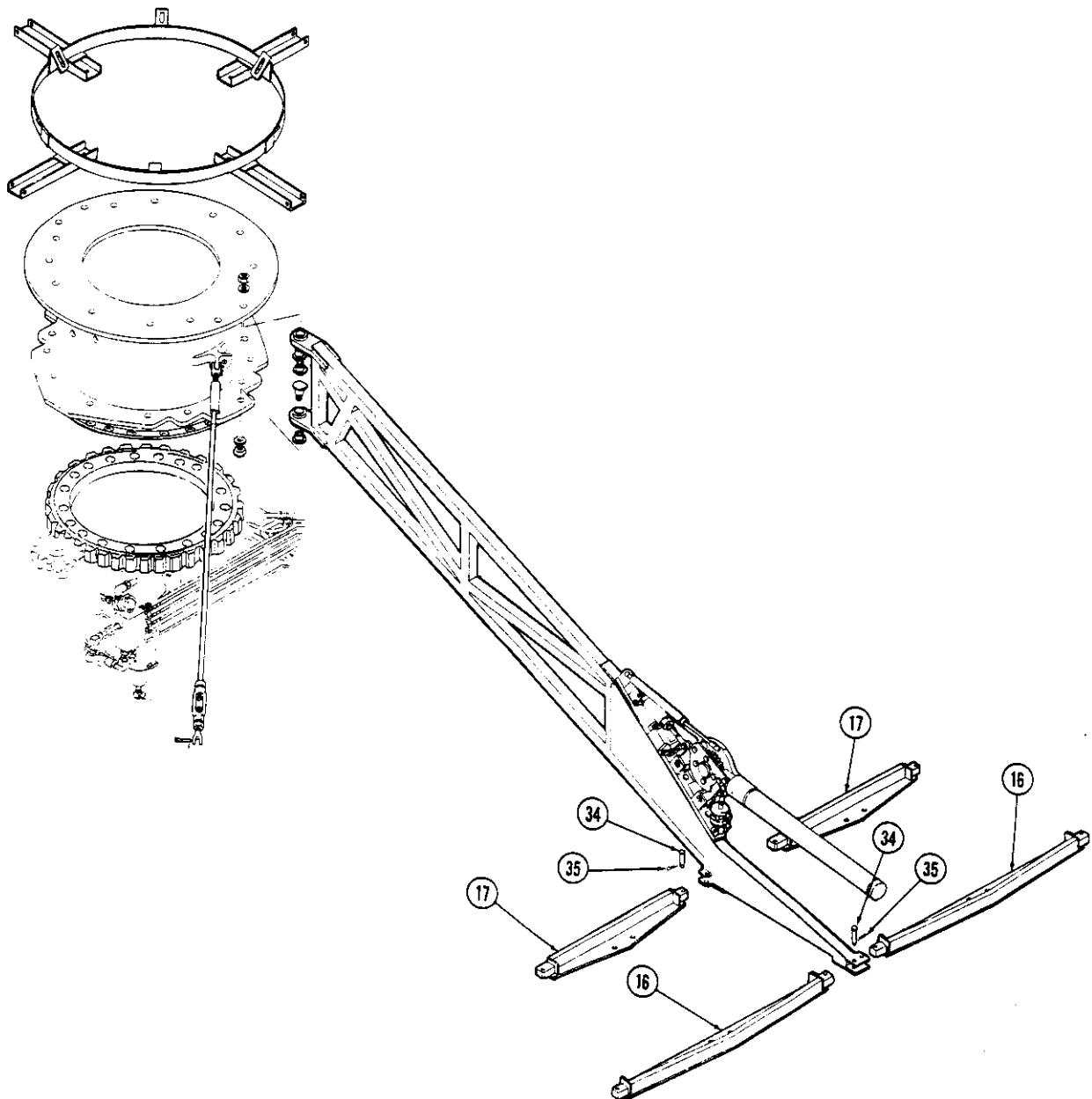
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
11	37668000	402-225-004	SWEEP ARM WELDT 402-225-004*	1.0
12	37667700	402-225-001	SWEEP ARM WELDT 402-225-001*	3.0
13	37667800	402-225-002	SWEEP ARM WELDT 402-225-002*	4.0
14	37667900	402-225-003	SWEEP ARM WELDT 402-225-003*	12.0
15	30738200	402-241-001	BOLT-SHOULDER, SWEEP 402-241-001	40.0
18	37923300	402-253-001	TIE ROD ASSY 402-253-001	4.0
	28294601		TURNBUCKLE 5/8 X 12 JAW-JAW	1.0
	41801000		BAR .625 RD CR 1018	5.5
	42478900		TUBE 1.0 RD X.125W 1026CDMS	.5
	64762000		NUT HEX 5/8-11 JAM	1.0
	64762001		NUT HEX 5/8-11 JAM LH	1.0
21	68553500		WASHER FLAT 1 HRD A325 BLK	40.0
25	64806001		NUT FLEXLOC 1-12 FULL	40.0
28	21048300		BUSHING FLANGED 1.750D X 1.75 LG	40.0

+ Separate parts listing provided

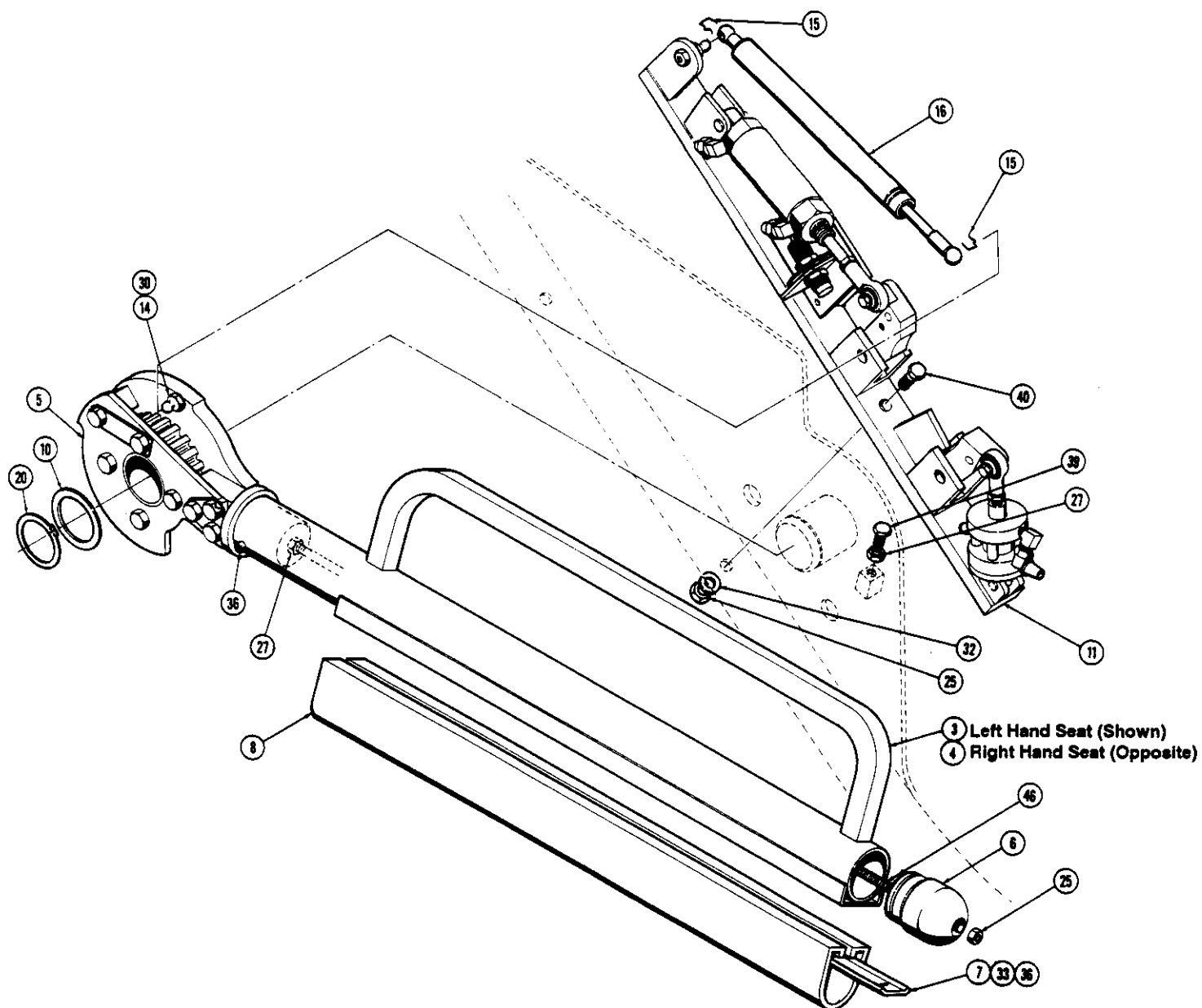
402-205-001

SWEEP INSTALLATION



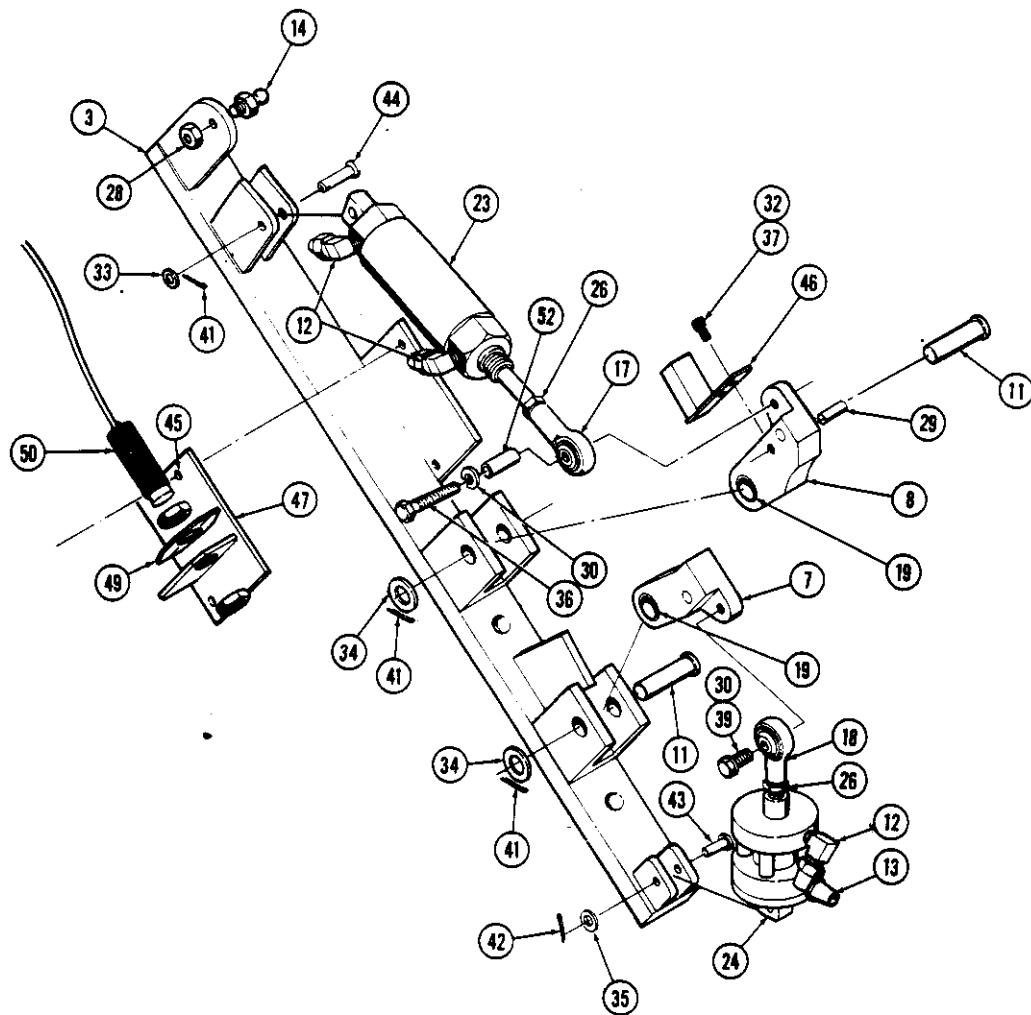
Index number	Part number	Drawing number	Description	Quantity per assembly
16	37185300	402-250-001	SPREADER WELDT-OUTER 402-250-1*	20.0
17	37185400	402-250-002	SPREADER WELDT-INNER 402-250-2*	20.0
34	35240200	CSN10A03-10	PIN-TPR 1/2X3-1/8 2 1/8 G/L*	80.0
35	65190000		HAIRPIN 1/8	80.0

+ Separate parts listing provided



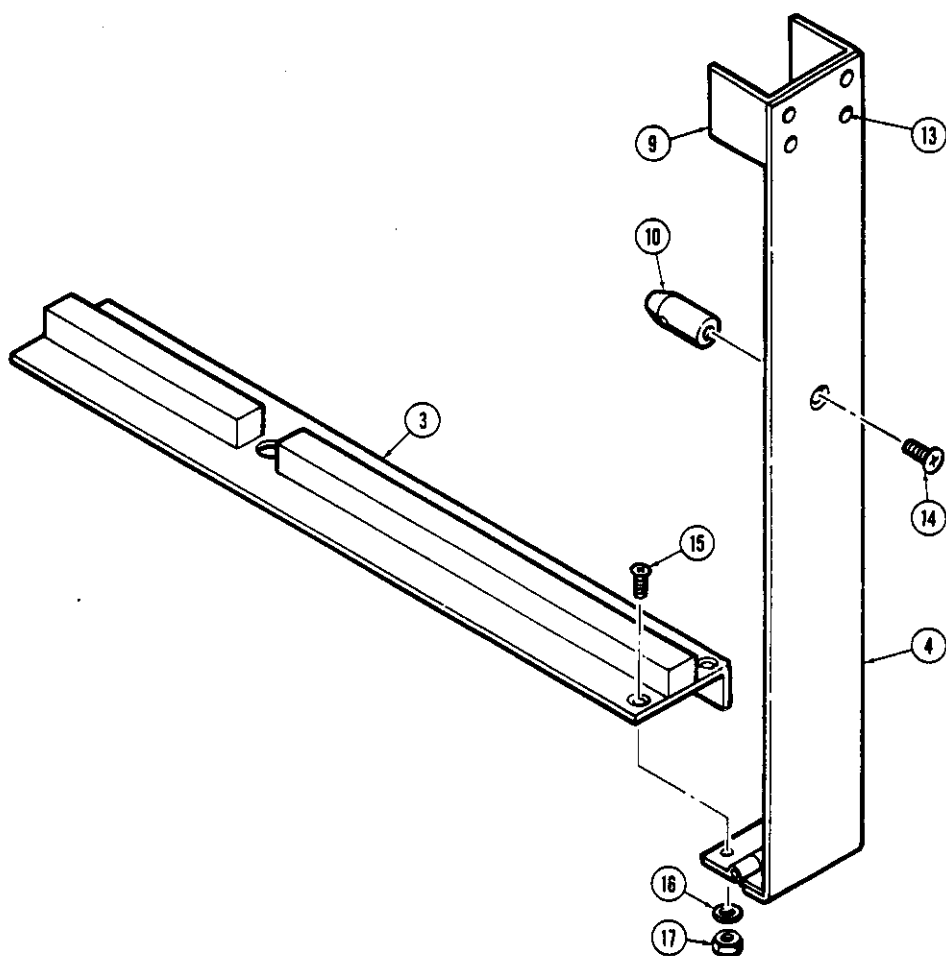
Index number	Part number	Drawing number	Description	Quantity per assembly
3	33952201	402-246-001	LAP BAR WELDT L.H. (Even Numbers)	10.0
4	33952202	402-246-002	LAP BAR WELDT R.H. (Odd Numbers)	10.0
5	33009100	402-235-001	GEAR ASSY-LAP BAR 402-235-001	20.0
	21048301		BUSHING BRONZE	1.0
	30629600	402-244-009	BLOCK-STOP,LAP BAR 402-244-009	1.0
	32054634	402-214-001	COVER-LAP BAR 402-214-001	1.0
	32054635	402-214-002	COVER-LAP BAR 402-214-002	1.0
	33043500	402-244-005	GEAR-SPUR,RATCHET 402-244-005*	1.0
	35358582	402-244-010	PLATE-LAP BAR 402-244-010*	1.0
	35358583	402-244-011	PLATE-LAP BAR 402-244-011*	1.0
	36562300	402-244-001	SHAFT WELDT-LAP BAR 402-244-00	1.0
	60767200		BOLT HHCS 3/8-16 X1 3/4 GR5	8.0
	68553100		WASHER FLAT 3/8 H.T.	3.0
6	35509998	402-247-001	PLUG-END,LAP BAR 402-247-001	20.0
7	30378522	402-243-001	BAR-CLAMP 402-243-001*	20.0
8	34500400	402-245-001	MOULDING-LAP BAR 402-245-001	20.0
10	37010700	402-244-012	SPACER-LAP BAR 402-244-012	20.0
11	34517017	402-212-001	MOUNT ASSY-LAP BAR 402-212-001	20.0
14	27536300		STUD BALL 10MM*	20.0
15	21679000		CLIP RETAINER-GAS SPRING	40.0
16	27222300		SPRING GAS F/S	20.0
20	26109601		SNAP RING EXTR.	20.0
25	64804600		NUT FLEXLOC 3/8-16 FULL	80.0
27	64760400		NUT HEX 3/8-16 JAM	40.0
30	68537200		WASHER LOCK 5/16 SPRING MED	20.0
32	68530800		WASHER WROT 3/8 STANDARD	60.0
33	68537000		WASHER LOCK 1/4 SPRING MED	100.0
38	61113500		SCREW MS 6-32 X1/4 RHP	40.0
39	60766600		BOLT HHCS 3/8-16 X1 GR5	20.0
40	60766800		BOLT HHCS 3/8-16 X1 1/4 GR5	60.0
46	30172500	402-244-013	ALL THREAD-LAP BAR 402-244-013	20.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
3	34510200	402-248-001	MOUNT WELDT 402-248-001*	1.0
7	35836000	402-244-007	RATCHET BAR 402-244-007	1.0
8	37420900	402-244-008	STOP BAR 402-244-008	1.0
11	35259500	402-238-001	PIN-PIVOT,LAP BAR 402-238-001	2.0
12	60161400		ADAPTER 90D 1/8MP:1/4 TUBE	3.0
13	26765000		SILENCER/MUFFLER 1/8"	1.0
14	27536300		STUD BALL 10MM*	1.0
17	20499400		BRG FRE 5/16 X 5/16-24TH RH	1.0
18	36187400	402-242-001	ROD END-MT,LAP BAR 402-242-001	1.0
19	20492201		BUSHING	2.0
23	22158900		CYL AIR 1 1/8" B X 1" STROKE *	1.0
	22158901		KIT SEAL-AIR CYL. (AURORA)	1.0
24	22158400		CYL AIR (BIMBA) *	1.0
	22158401		KIT SEAL-AIR CYL. (BIMBA)	1.0
26	64760200		NUT HEX 5/16-24 JAM RH	2.0
28	64804400		NUT FLEXLOC 5/16-18 FULL	2.0
29	65173400		PIN DOWEL 3/8 X 1 1/4 %	1.0
30	68537200		WASHER LOCK 5/16 SPRING MED	2.0
32	68529100		WASHER SAE #6	2.0
32	68536600		WASHER LOCK #6 SPRING MED	2.0
33	68530400		WASHER WROT 5/16 STANDARD	1.0
34	68531600		WASHER WROT 1/2 STANDARD	2.0
35	68529700		WASHER WROT 3/16 STANDARD	1.0
36	60750800		BOLT HHCS 5/16-18X2 3/4 GR5	1.0
37	61228701		BOLT SHCS #6-32 X3/8	2.0
39	60749400		BOLT HHCS 5/16-18X1 GR5	1.0
41	65163000		PIN COTTER 1/8 X 1	3.0
42	65160000		PIN COTTER 1/16 X 1/2	1.0
43	25234501		PIN CLEVIS 3/16X1	1.0
44	25234700		PIN CLEVIS 5/16 X 1 1/2	1.0
45	61115600		SCREW MS 10-24 X3/8 RHP	2.0
45	68541500		WASHER LOCK #10 EXTERNAL	2.0
46	30637501	402-214-003	BLOCK WELDT-LAP BAR 402-214-003*	1.0
47	34517021	402-214-006	MOUNT WELDT-LAP BAR 402-214-006*	1.0
49	37710200	402-214-009	TAB-LAP BAR 402-214-009	1.0
50	26522201		SENSOR PROXIMITY 18MM	1.0
52	36991800	402-239-001	SPACER-L/BAR MT,1 3/8" 402-239-1	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
3	37489500	402-233A003	SUPPORT WELD'T 402-233A003	1.0
4	35358572	402-233A004	PLATE WELD'T 402-233A004	1.0
9	32411100	402-233A009	EAR-FORMED 402-233A009	1.0
10	35259300	402-233A010	PIN 402-233A010	1.0
13	66140000		RIVET 1/8 AD48ABS	4.0
14	61166900		SCREW MS 1/4-20X1/2 FHP	1.0
15	61164500		SCREW MS 10-24 X3/4 FHP	2.0
16	68529800		WASHER SAE 3/16	2.0
17	64780500		NUT HEX 10-24 N/I	2.0

+ Separate parts listing provided

402-233A001

COUNTER TOP SUPPORT ASSEMBLY

TURRET, BOOM AND HUB

Contents

Turret installation	C-2
Boom installation	C-4
Hub installation	C-6
Hub bearing housing installation	C-8
Turret bearing housing installation	C-10

CHANCE RIDES, INC.

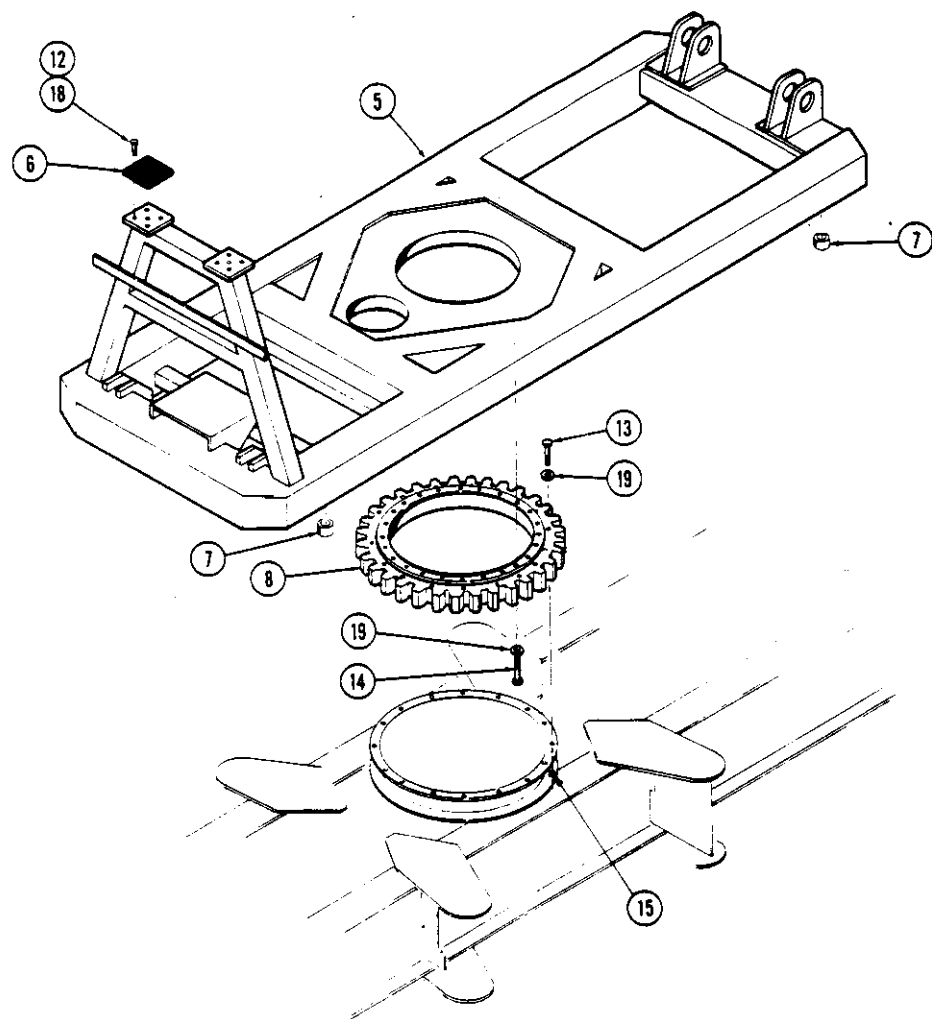
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P.O. Box 12328

Wichita, KS 67277-2328

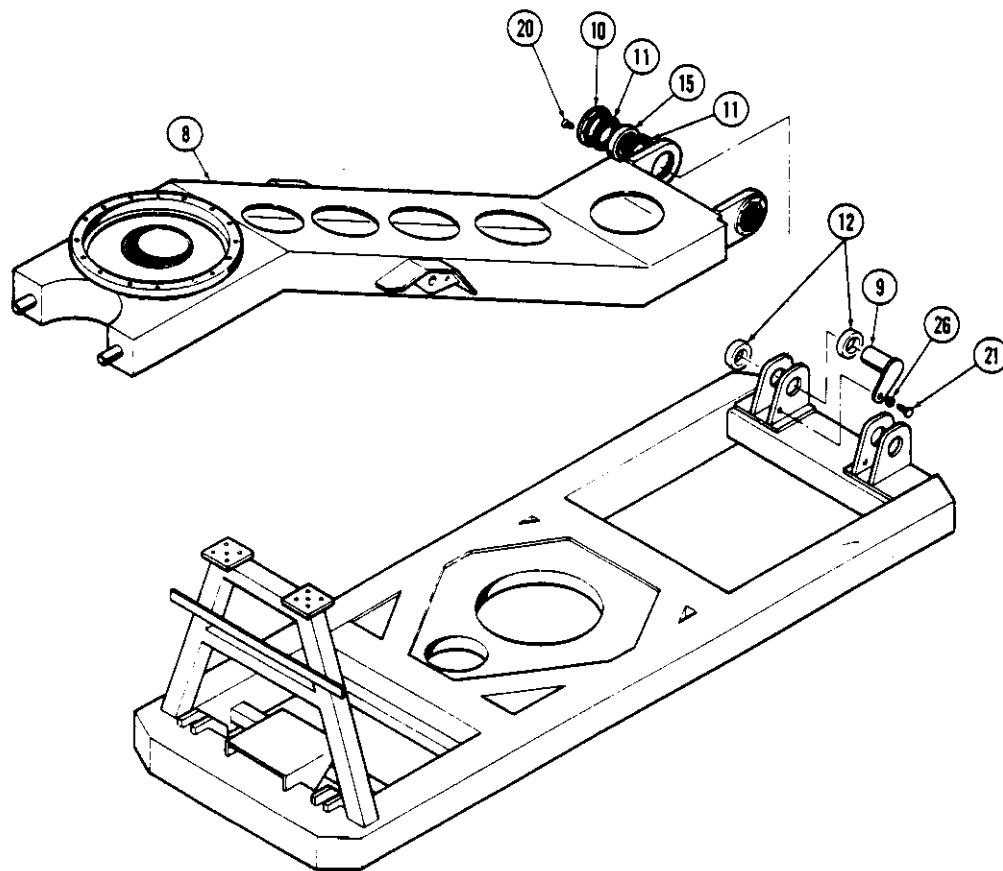
Phone (316) 942-7411

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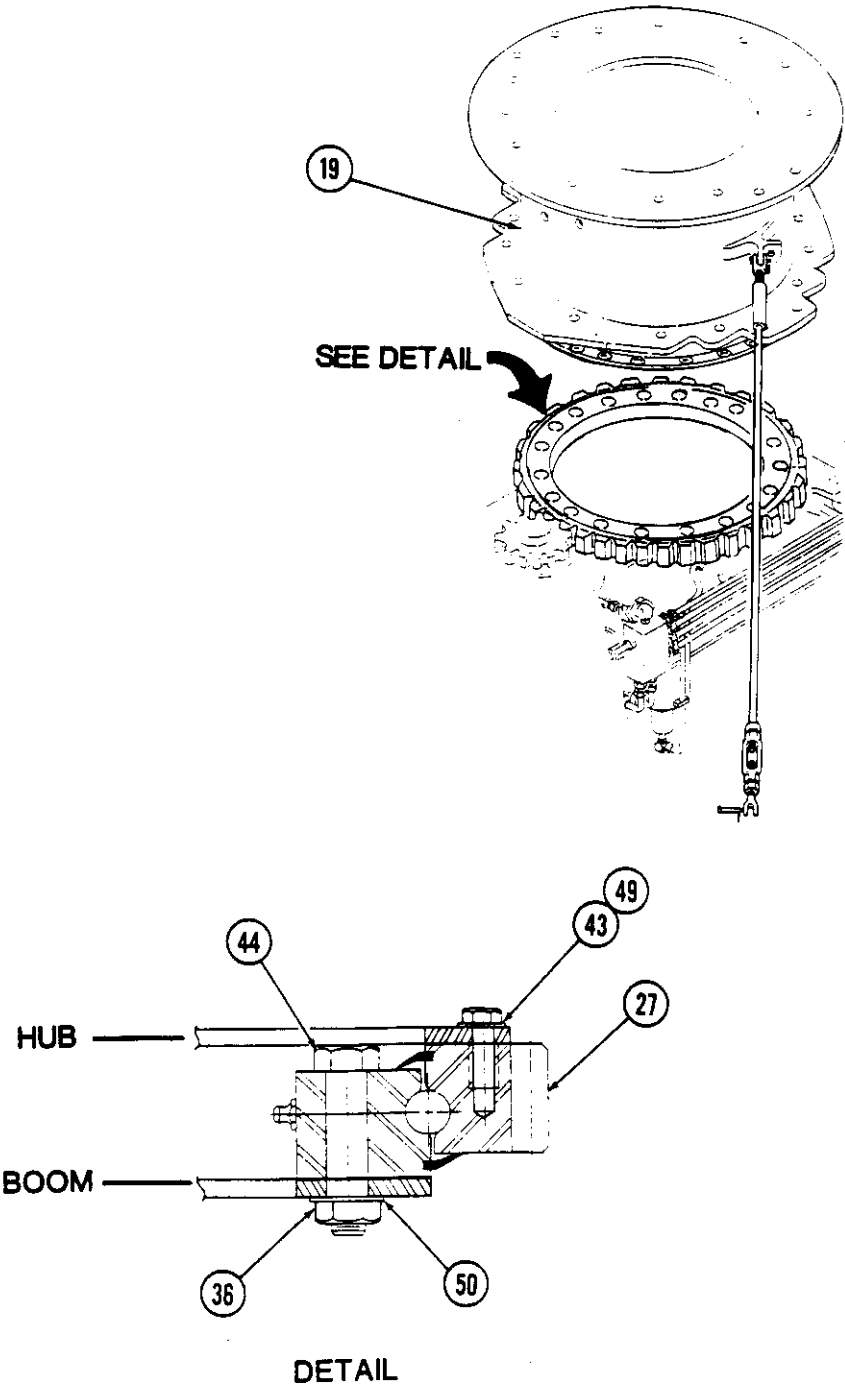
Index number	Part number	Drawing number	Description	Quantity per assembly
5	38300300	402-730-001	TURRET WELD'T 402-730-001	1.0
6	34942101	402-727-001	PAD-BOOM REST 402-727-001	2.0
7	41600300		PIPE 1.5 SCH 80 P/E	.3
8	20495201		BEARING TURRET	1.0
12	60749400		BOLT HHCS 5/16-18X1 GR5	10.0
13	60955200		BOLT HHCS 3/4-10 X6 1/2 GR8	32.0
14	60974200		BOLT HHCS 3/4-10 X4 3/4 GR8	36.0
15	64783601		NUT HEX 3/4-10 N/I GR8	32.0
18	68530600		WASHER SAE 5/16	10.0
19	68552800		WASHER FLAT 3/4 HRD A325	68.0

+ Separate parts listing provided



8	30762500	402-780-001	BOOM WELD'T 402-780-001	1.0
9	35259700	402-792-001	PIN WELDT-BOOM PIVOT 402-792-001	2.0
10	30504100	402-781-001	BEARING KEEPER 402-781-001	2.0
11	36447500	402-782-001	SEAL-GREASE,BOOM PIVOT 402-782-1	2.0
12	36991600	402-787-004	SPACER-9/16"LG 402-787-004	4.0
15	20516800		BRG SPHERICAL	2.0
20	61170700		SCREW MS 3/8-16X1 1/4 FHP	12.0
21	60841800		BOLT HHCS 1/2-13 X1 1/4 GR5	2.0
26	68537800		WASHER LOCK 1/2 SPRING MED	2.0

+ Separate parts listing provided



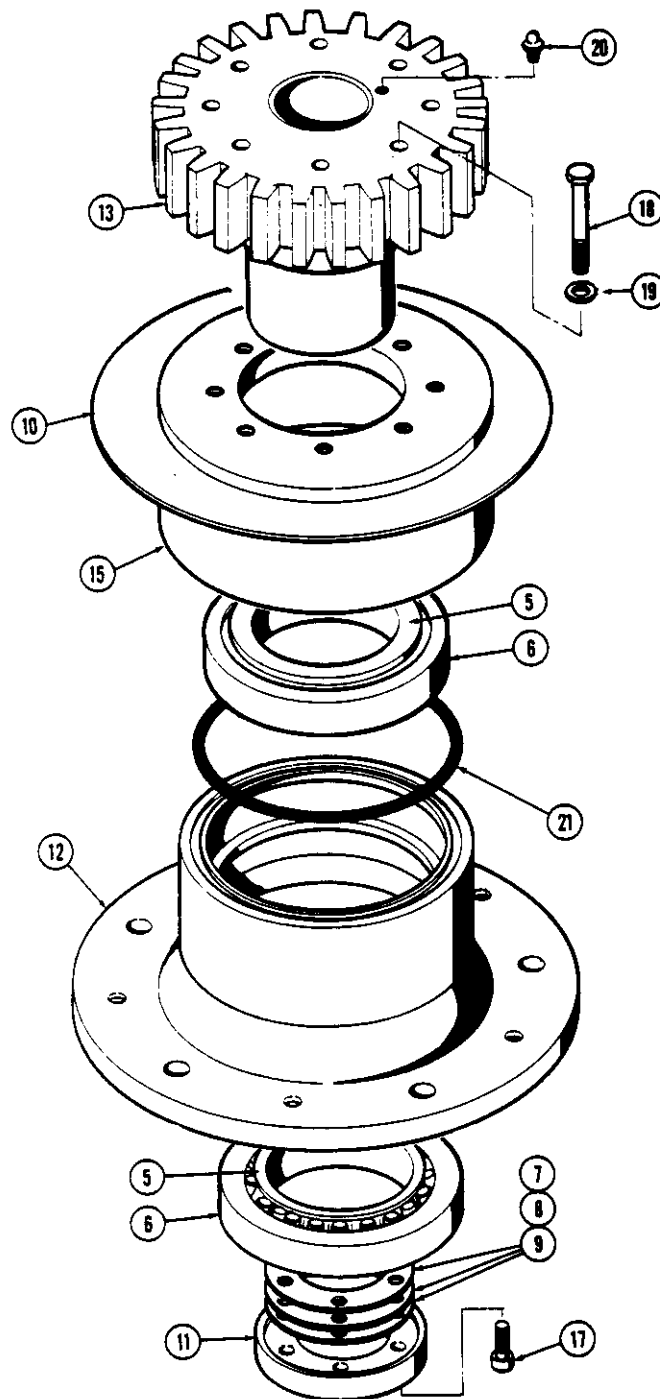
Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
19	33532600	402-315-001	HUB WELDT-MACHINED 402-315-001	1.0
27	20495200		BEARING TURNTABLE 37.2 X 28.3	1.0
36	64783201		LOCKNUT N/I 5/8-11 GR8 ZP	20.0
43	60849200		BOLT HHCS 1/2-13 X1 1/2 GR8	28.0
44	60933400		BOLT HHCS 5/8-11 X4 3/4 GR8 %	20.0
49	68553000		WASHER FLAT 1/2 HRD A325 PLAIN	28.0
50	68552900		WASHER FLAT 5/8 HRD A325 PLAIN	20.0

+ Separate parts listing provided

402-307-001

HUB INSTALLATION

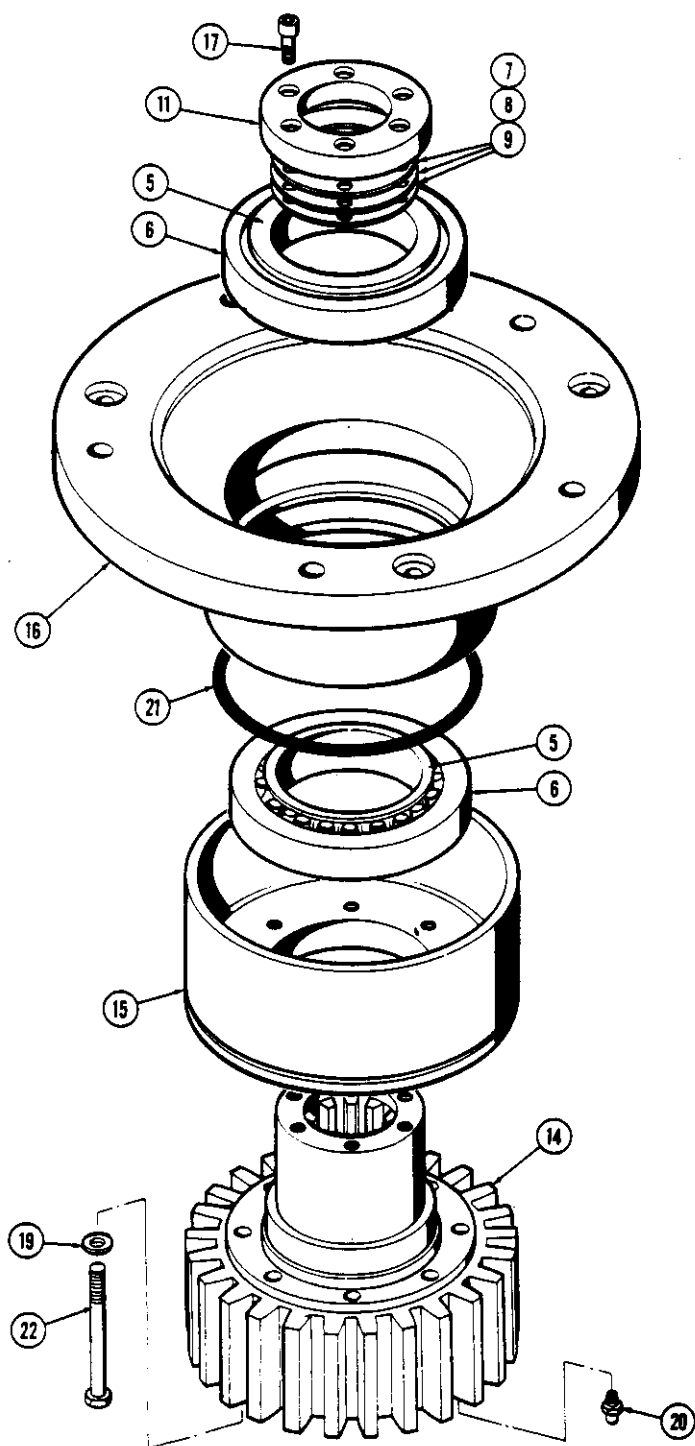


Index number	Part number	Drawing number	Description	Quantity per assembly
5	20493500		BRG CUP 5.8437 OD	2.0
6	20493501		BRG CONE 3.750ID	2.0
7	22998101		GASKET 3.750D .003	3.0
8	22998102		GASKET 3.750D .007	3.0
9	22998103		GASKET 3.750D .015	3.0
10	36447600	402-364-001	SEAL-FLINGER 402-364-001	1.0
11	30457000	402-365-001	BEARING KEEPER 402-365-001	1.0
12	34513016	402-366-001	MOUNT-BRG HOUSING 402-366-001	1.0
13	35242100	402-367-001	PINION-BOOM 402-367-001	1.0
15	30907600	402-369-001	BRAKE DRUM 402-369-001	1.0
17	61089200		BOLT SHCS 3/8-16 X1	6.0
18	60787600		BOLT HHCS 3/8-16 X2 3/4 GR8	6.0
19	68553100		WASHER FLAT 3/8 H.T.	6.0
20	68981000		ZERK GREASE 1/4-28 STRAIGHT	1.0
21	26124600		O-RING	1.0

+ Separate parts listing provided

402-360-001

HUB BEARING HOUSING ASSEMBLY



TURRET BEARING HOUSING ASSEMBLY

402-360-002

Index number	Part number	Drawing number	Description	Quantity per assembly
5	20493500		BRG CUP 5.8437 OD	2.0
6	20493501		BRG CONE 3.750ID	2.0
7	22998101		GASKET 3.750D .003	3.0
8	22998102		GASKET 3.750D .007	3.0
9	22998103		GASKET 3.750D .015	3.0
11	30457000	402-365-001	BEARING KEEPER 402-365-001	1.0
14	35242200	402-368-001	PINION-TURRET 402-368-001	1.0
15	30907600	402-369-001	BRAKE DRUM 402-369-001	1.0
16	33502000	402-370-001	HOUSING-BEARING 402-370-001	1.0
17	61089200		BOLT SHCS 3/8-16 X1	6.0
19	68553100		WASHER FLAT 3/8 H.T.	6.0
20	68981000		ZERK GREASE 1/4-28 STRAIGHT	1.0
21	26124600		O-RING	1.0
22	60788400		BOLT HHCS 3/8-16 X3 3/4 GR8	6.0

+ Separate parts listing provided

ELECTRICAL AND LIGHTING

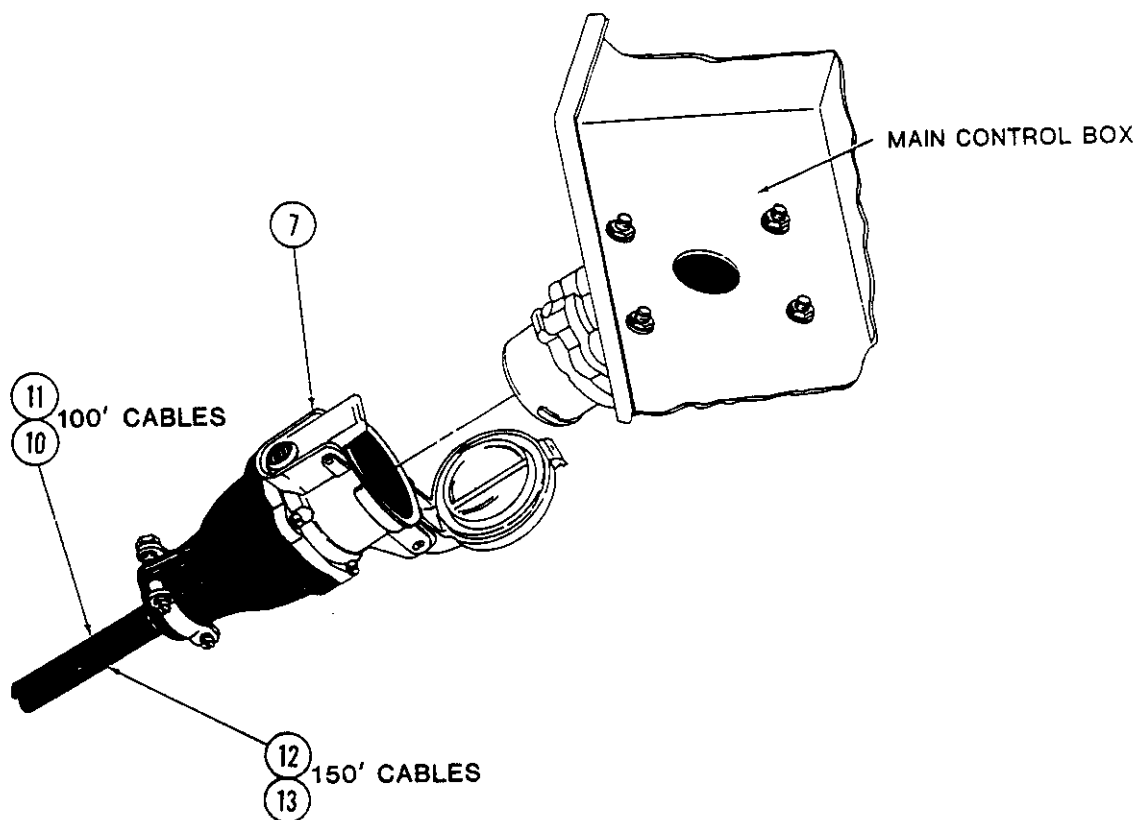
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Speaker installation	D-8
Main electrical control box assembly	D-10
Main power receptacle installation	D-12
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Backdrop sign assembly	D-24
Backdrop electrical installation	D-34
Front sign electrical installation	D-36
Hub and sweep electrical installation	D-38
Control box assemblies	D-40
Control house electrical installation	D-44
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Flood light assembly	D-84
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Electrical safety decal installation	D-94

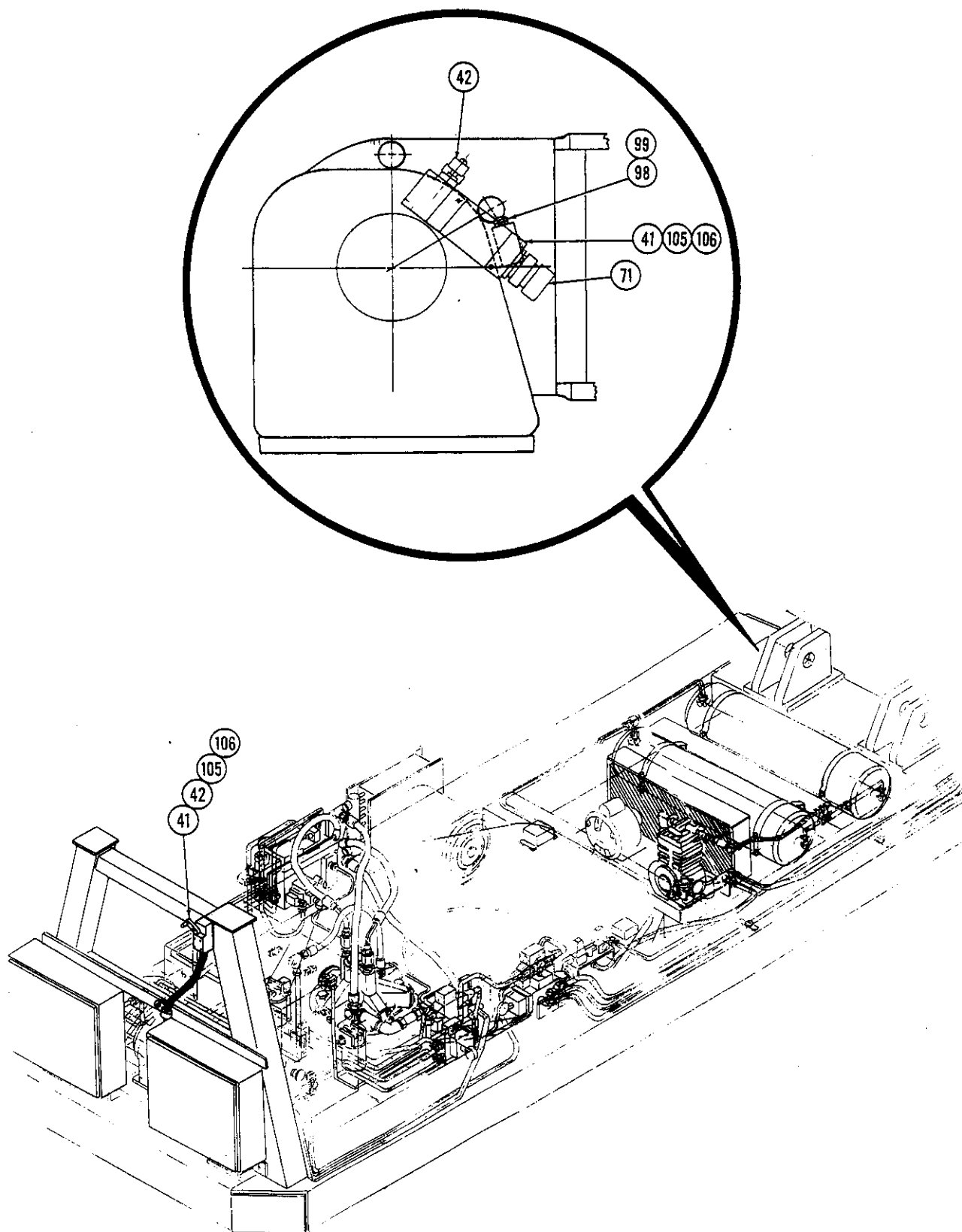
CHANCE RIDES, INC.

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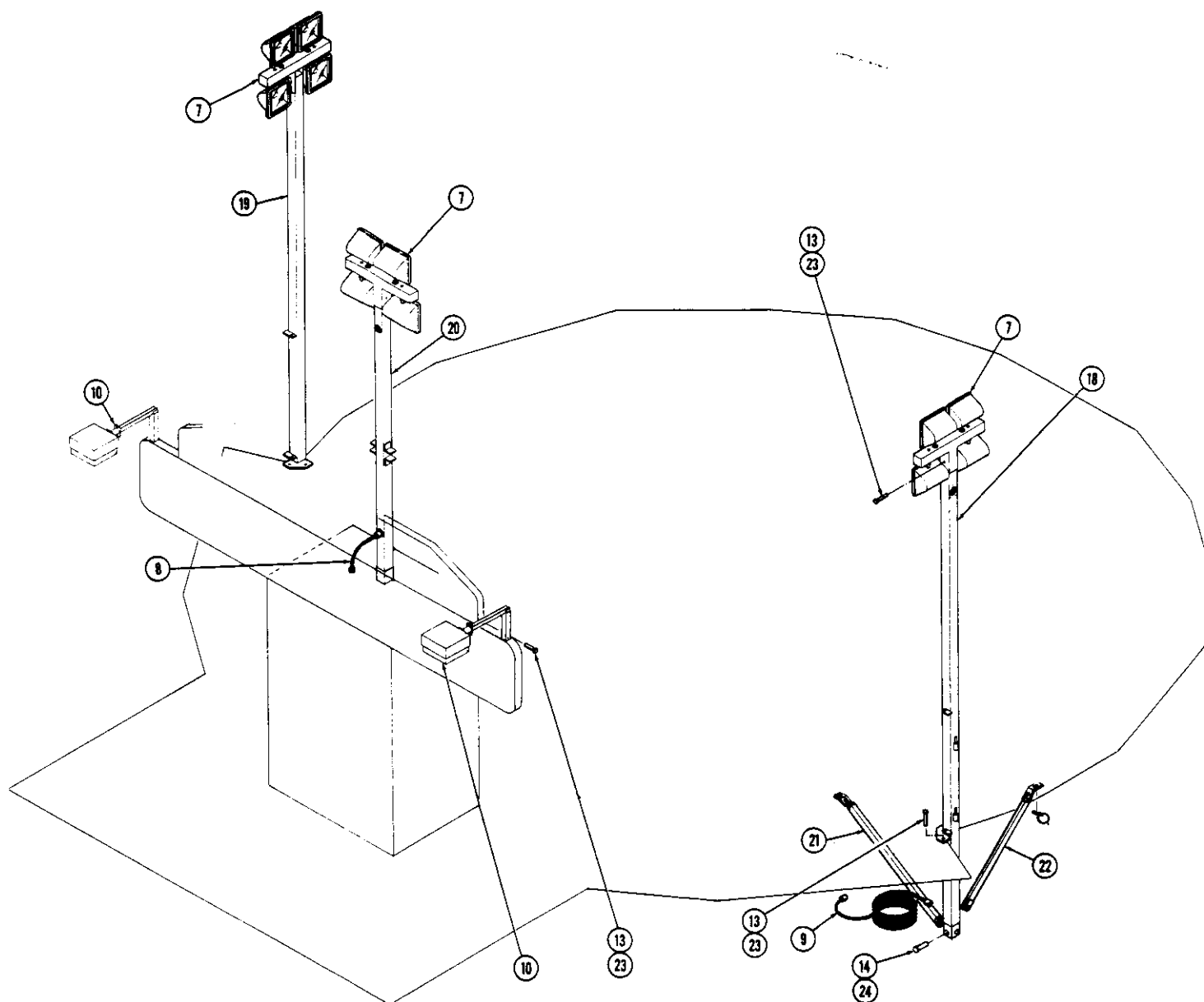


+ Separate parts listing provided



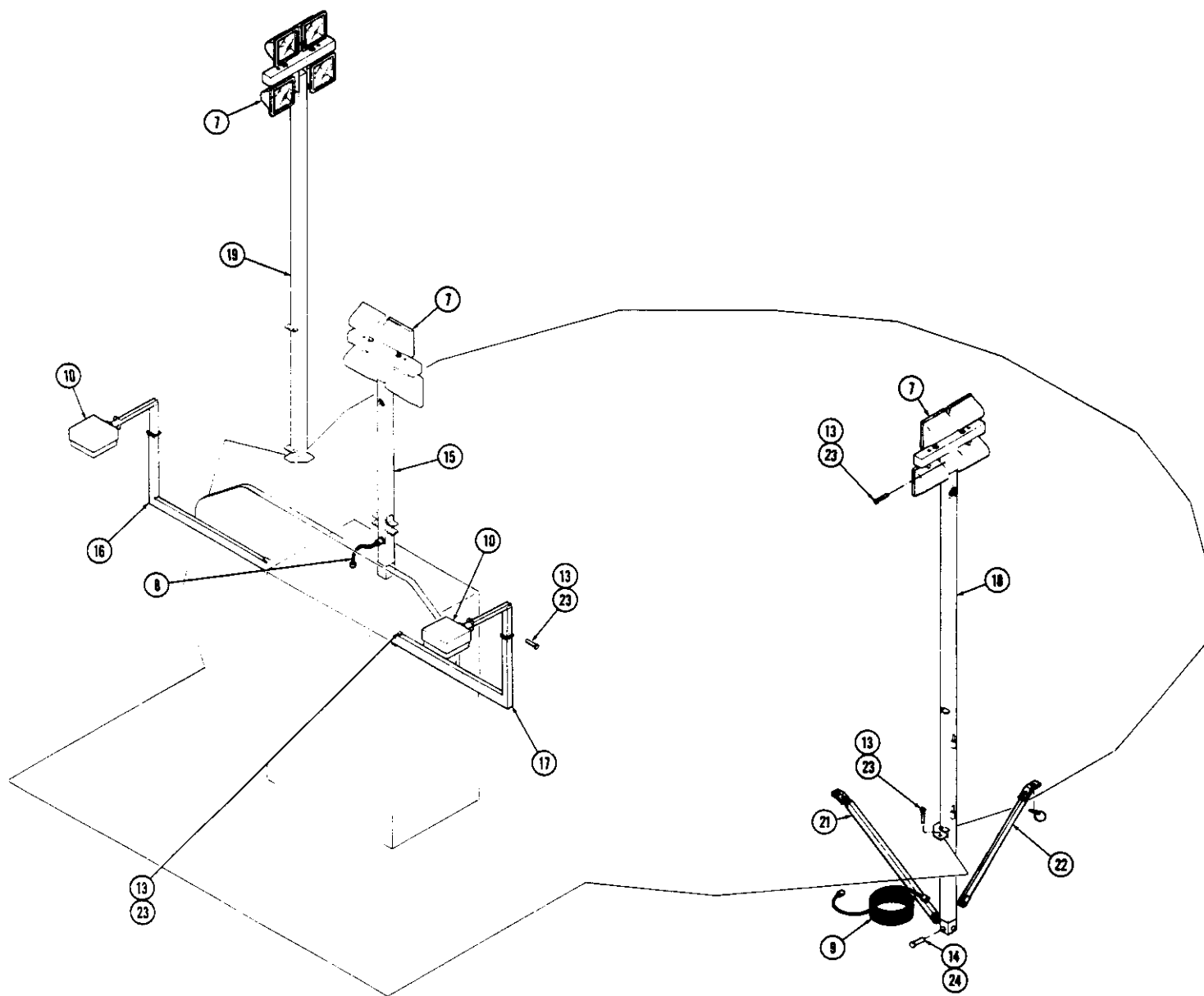
Revised September, 1991

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
7	34092800 +	402-490-001	LIGHT ASSY-FLOOD 402-490-001	3.0
8	31097100	402-429-002	CABLE ASSY-CONTR HSE 402-429-002	1.0
	21902100		PLUG FEM 4P4W 20A/208V	1.0
	21902700		PLUG MALE 4P4W 20A/208V	1.0
	48501900		CABLE 14/4 SO	5.0
9	31097000	402-429-001	CABLE ASSY-FLOOD 402-429-001	2.0
	21902100		PLUG FEM 4P4W 20A/208V	1.0
	21902700		PLUG MALE 4P4W 20A/208V	1.0
	48501900		CABLE 14/4 SO	45.0
10	35511020 +	402-496-001	POLE ASSY-WALKWAY LIGHT, STD	2.0
13	35229100	CSN10A03-06	PIN-TPR 1/2X4-3/8GL CSN10A03-06*	12.0
14	35228500	CSN10A02-02	PIN-TPR 3/8X3"G/L CSN10A02-02*	4.0
18	35511022	402-494-001	POLE ASSY-LIGHT, R/S 402-494-001	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	25457400		PLUG PHONE JACK (SWITCHCRAFT)	2.0
	32037584	4021450-001	COVER-PHONE JACK 4021450-001	2.0
	38259055	402-491-001	TUBE WELDT-FLOODLIGHT 402-491-	1.0
19	35511023	402-494-002	POLE ASSY-LIGHT, C/S 402-494-002	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	25457400		PLUG PHONE JACK (SWITCHCRAFT)	2.0
	32037584	4021450-001	COVER-PHONE JACK 4021450-001	2.0
	38259056	402-491-002	TUBE WELDT-FLOODLIGHT 402-491-	1.0
20	35511024	402-494-003	POLE ASSY-LIGHT, C/H 402-494-003	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	38259057	402-493-001	TUBE WELDT-LIGHT POLE 402-493-	1.0
21	70107400	4021434-001	SUPPORT ASSY-F/LGHT 4021434-001	2.0
	32411800	402-834-013	EAR WELDT-WINDBRACE 402-834-01	1.0
	37491600	4021434-005	SUPPORT-TUBE WELDT 4021434-005	1.0
22	70107500	4021434-002	SUPPORT ASSY-F/LGHT 4021434-002	2.0
	32411800	402-834-013	EAR WELDT-WINDBRACE 402-834-01	1.0
	37491700	4021434-006	SUPPORT-TUBE WELDT 4021434-006	1.0
23	65190000		HAIRPIN 1/8	12.0
24	65189700		HAIRPIN 3/32	4.0

+ Separate parts listing provided

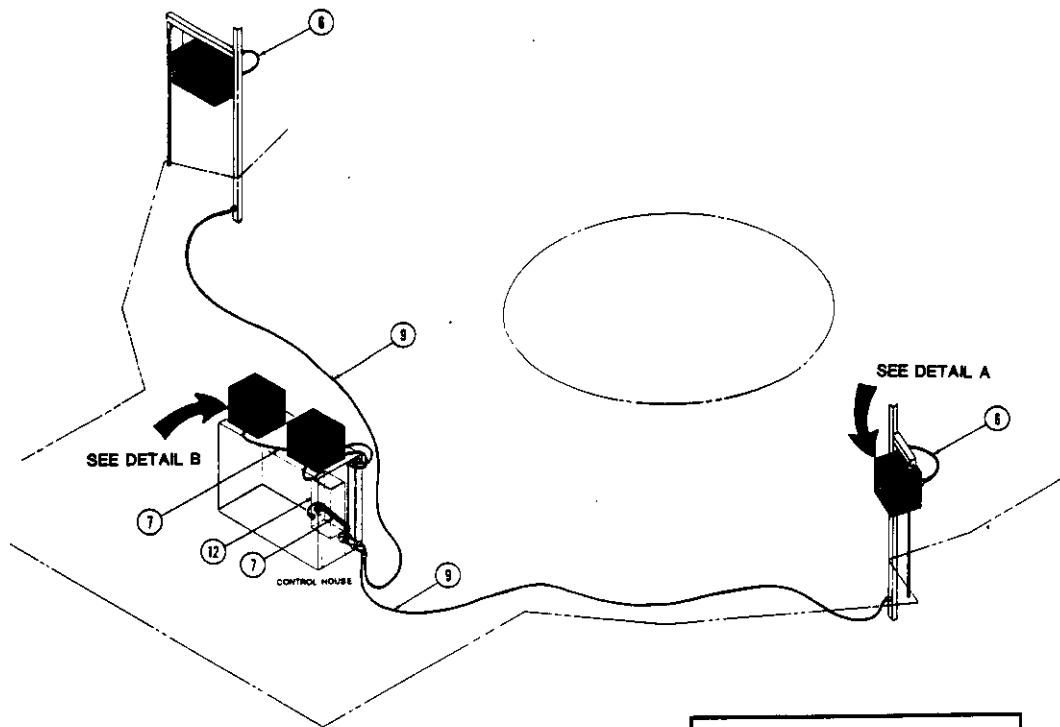


Wipeout Parts Catalog D-7B

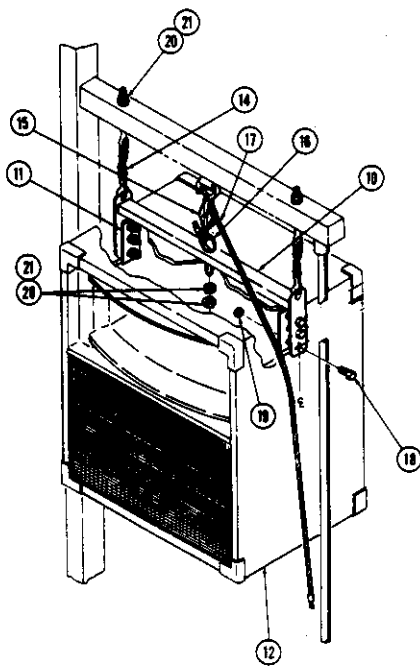
Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
7	34092800 +	402-490-001	LIGHT ASSY-FLOOD 402-490-001	3.0
8	31097100	402-429-002	CABLE ASSY-CONTR HSE 402-429-002	1.0
	21902100		PLUG FEM 4P4W 20A/208V	1.0
	21902700		PLUG MALE 4P4W 20A/208V	1.0
	48501900		CABLE 14/4 SO	5.0
9	31097000	402-429-001	CABLE ASSY-FLOOD 402-429-001	2.0
	21902100		PLUG FEM 4P4W 20A/208V	1.0
	21902700		PLUG MALE 4P4W 20A/208V	1.0
	48501900		CABLE 14/4 SO	45.0
10	35511020 +	402-496-001	POLE ASSY-WALKWAY LIGHT, STD	2.0
13	35229100	CSN10A03-06	PIN-TPR 1/2X4-3/8GL CSN10A03-06*	12.0
14	35228500	CSN10A02-02	PIN-TPR 3/8X3"G/L CSN10A02-02*	4.0
15	35511028	402-494-004	POLE ASSY-LIGHT, CNTR/HSE MARQUEE	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	38259107	402-493-002	TUBE WELDT-LIGHT POLE	1.0
16	37498000	4021470-001	SUPPORT ASSY-FLOOD LIGHT, C/S	1.0
	21903400		BASE FEM 2P3W 15A/125V	1.0
	21907200		BASE MALE 2P3W 15A/125V	1.0
	37497700	4021865-001	SUPPORT WELDT-C/S 4021865-001	1.0
	61115800		SCREW MS 10-24 X1/2 RHP	4.0
17	37498100	4021470-002	SUPPORT ASSY-FLOOD LIGHT, R/S	1.0
	21903400		BASE FEM 2P3W 15A/125V	1.0
	21907200		BASE MALE 2P3W 15A/125V	1.0
	37497800	4021865-002	SUPPORT WELDT-R/S 4021865-002	1.0
	61115800		SCREW MS 10-24 X1/2 RHP	4.0
18	35511022	402-494-001	POLE ASSY-LIGHT, R/S 402-494-001	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	25457400		PLUG PHONE JACK (SWITCHCRAFT)	2.0
	32037584	4021450-001	COVER-PHONE JACK 4021450-001	2.0
	38259055	402-491-001	TUBE WELDT-FLOODLIGHT 402-491-	1.0
19	35511023	402-494-002	POLE ASSY-LIGHT, C/S 402-494-002	1.0
	21902600		BASE MALE 4P4W 20A/208V	1.0
	21903800		BASE FEM 4P4W 20A/208V	1.0
	25457400		PLUG PHONE JACK (SWITCHCRAFT)	2.0
	32037584	4021450-001	COVER-PHONE JACK 4021450-001	2.0
	38259056	402-491-002	TUBE WELDT-FLOODLIGHT 402-491-	1.0
21	70107400	4021434-001	SUPPORT ASSY-F/LGHT 4021434-001	2.0
	32411800	402-834-013	EAR WELDT-WINDBRACE 402-834-01	1.0
	37491600	4021434-005	SUPPORT-TUBE WELDT 4021434-005	1.0
22	70107500	4021434-002	SUPPORT ASSY-F/LGHT 4021434-002	2.0
	32411800	402-834-013	EAR WELDT-WINDBRACE 402-834-01	1.0
	37491700	4021434-006	SUPPORT-TUBE WELDT 4021434-006	1.0
23	65190000		HAIRPIN 1/8	12.0
24	65189700		HAIRPIN 3/32	4.0

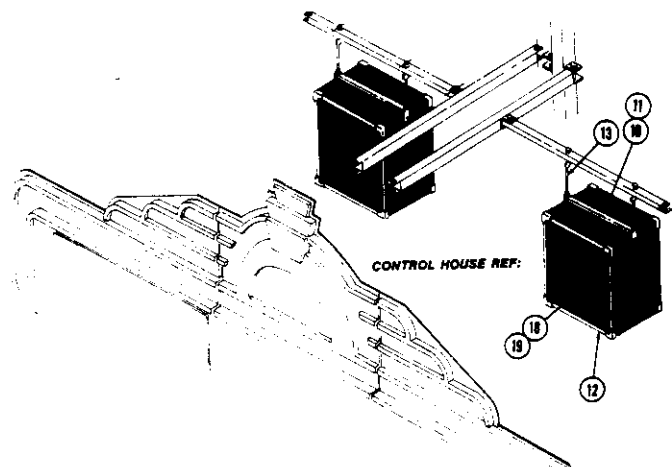
D-8 Chance Rides, Inc.
 Revised September, 1991



*Vinyl Speaker Cover -
 part number 22068500
 (4 required)*



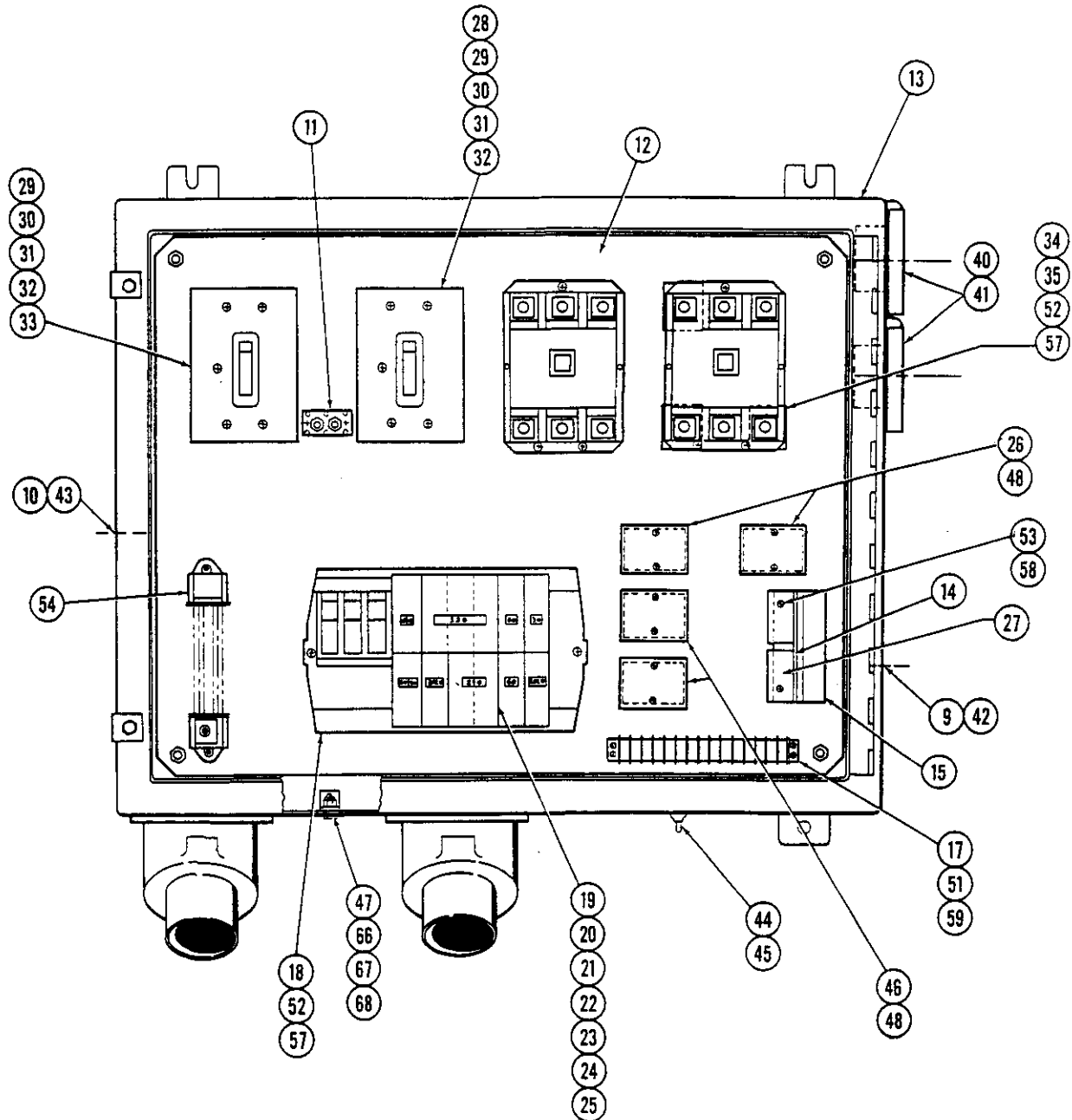
DETAIL A



DETAIL B

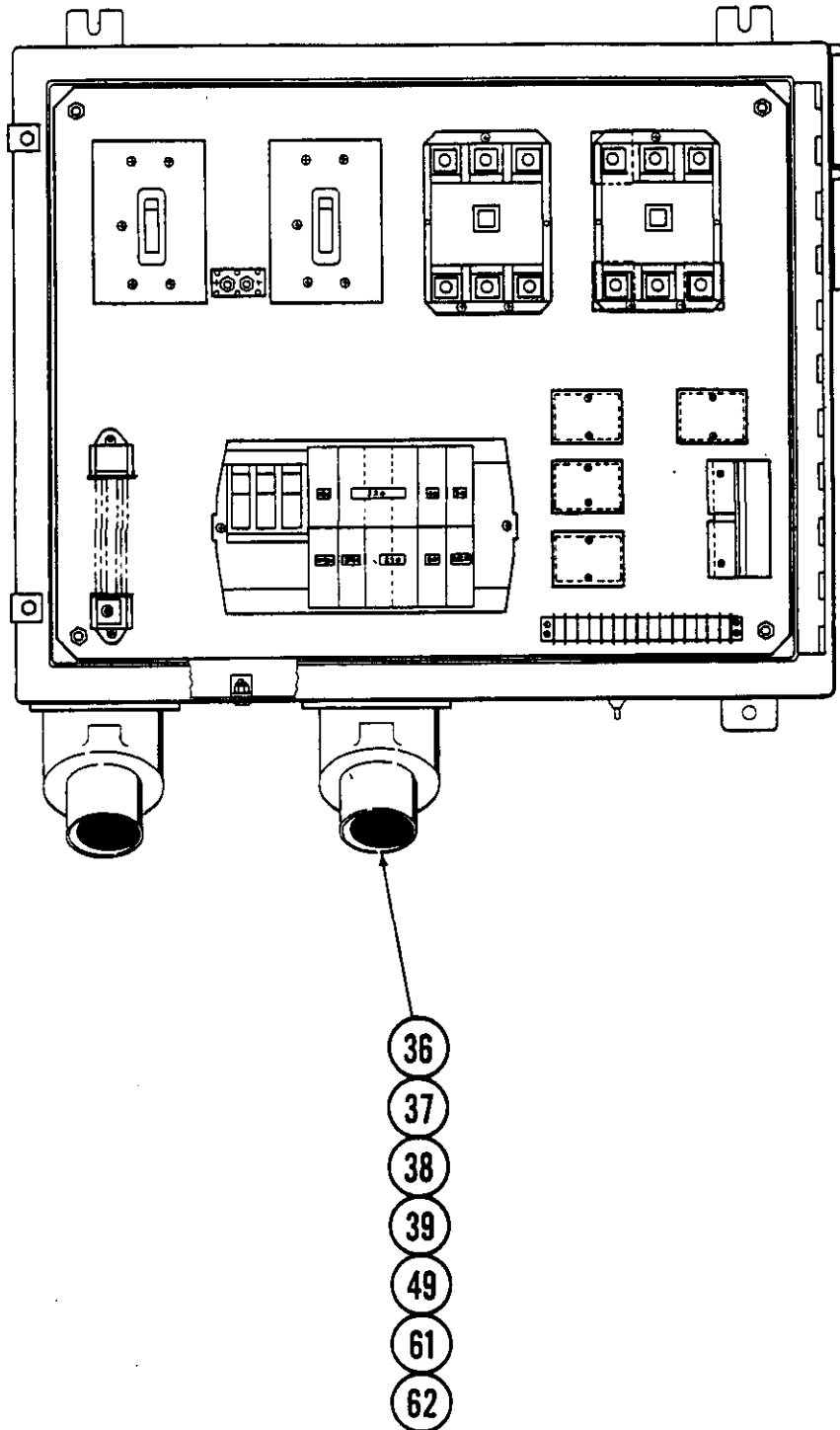
Index number	Part number	Drawing number	Description	Quantity per assembly
6	31097200	402-448-001	CABLE ASSY-PHONO 4' 402-448-001	2.0
7	31097300	402-448-002	CABLE ASSY-PHONO 6' 402-448-002	4.0
9	31097700	402-448-003	CABLE ASSY-PHONO 45' 402-448-003	2.0
10	37491900	4021423-001	SUPPORT WELD'T 4021423-001	4.0
11	30378534	4021423-005	BAR-SOUND SYS 4021423-005	8.0
12	24588500		MUSIC SYSTEM-4 SPEAKER (BAPTIST)	1.0
13	31532700	402-816-002	CHAIN ASSY 402-816-002	4.0
14	31532800	402-816-001	CHAIN ASSY 402-816-001	2.0
15	20623300		BLOCK SINGLE STL 4" W/BECKET	1.0
16	61225700		BOLT EYE 5/16-18 X 2 1/2	4.0
17	36236100	402-817-001	ROPE ASSY 402-817-001	1.0
18	60767400		BOLT HHCS 3/8-16 X2 GR5	24.0
19	64781600		NUT HEX 3/8-16 N/I	24.0
20	64781200		NUT HEX 5/16-18 N/I	8.0
21	68530400		WASHER WROT 5/16 STANDARD	8.0

+ Separate parts listing provided



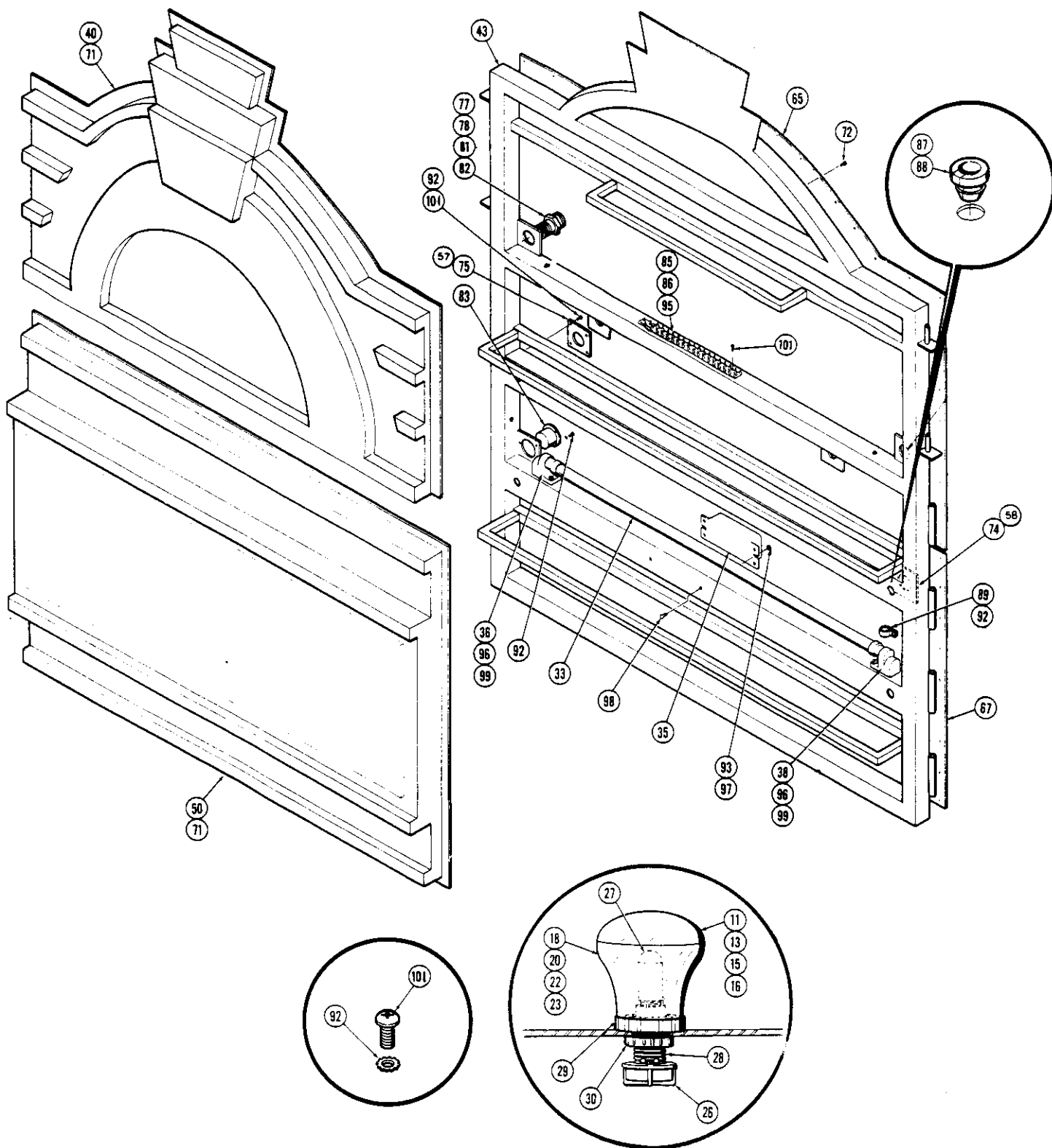
Index number	Part number	Drawing number	Description	Quantity per assembly
9	64830500		LOCKNUT 1/2 SEALING	1.0
10	64830900		LOCKNUT 1 1/2 SEALING	1.0
11	71203100	CSN45A03-02	BLOCK ASSY-TERMINAL CSN45A03-02	1.0
12	35358593	402-411-001	PLATE-MOUNTING 402-411-001	1.0
13	71549700	402-412-001	ENCLOSURE-M/CONT BOX 402-412-001	1.0
14	35486665	4021412-001	PLATE-MTG, RELAY 4021412-001	1.0
15	33331700	4021413-001	HEATSINK-RELAYS 4021413-001	1.0
17	27846600		TERMINAL BLOCK	1.0
18	25023100		PANEL MAIN LUG-200A NEMA 1 FLUSH	1.0
19	21597600		CIRCUIT BREAKER 30A/1P 120/240V	1.0
20	21603700		CIRCUIT BREAKER 60A/1P 120/240V*	2.0
21	21606200		CIRCUIT BREAKER 90A/2P 120/240V*	1.0
22	21606700		CIRCUIT BREAKER 20A/1P DUPLEX*	2.0
23	21606600		CIRCUIT BREAKER 15A/1P DUPLEX*	1.0
24	21607101		CIRCUIT BREAKER 20A/3P 120/240V	1.0
25	21603000		CIRCUIT BREAKER 20-30A/1P DUPLEX	1.0
26	25969000		RELAY 120V DPDT (P&B)	2.0
27	25948900		RELAY SOLIDSTATE (SSAC)	3.0
28	21602600		CIRCUIT BREAKER 150A/3P 600V	1.0
29	26976300		SOLENOID SHUNT TRIP 120V	2.0
30	23255800		HANDLE MECHANISM-EB&FB BREAKERS	2.0
31	26580900		SHAFT ONLY-BREAKER MECH. (SHORT)	2.0
32	23255700		HANDLE ONLY-BREAKER MECHANISM*	2.0
33	21602700		CIRCUIT PROTECTOR-MOTOR 150A	1.0
34	21926800		CONTACTOR 120V SIZE 3 NON-REV 3P	2.0
35	23650000		INTERLOCK AUX CONTACT	3.0
40	21903200		RECEPTACLE-FLUSH 4P4W 20A/208V	2.0
41	22079900		COVER W/P-2.125 FACE DIA.	2.0
42	21910700		CONN. LT-FLX 1/2" 90D NON-INS	1.0
43	21910800		CONN. LT-FLX 1 1/2" 90D NON-INS	1.0
44	27681200		SWITCH TOGGLE-2PST	1.0
45	20768400		BOOT TOGGLE - LEVER EXPOSED	1.0
46	25964900		RELAY PHASE CONTROL	2.0
47	24235700		CONN. LUG SCREW (2 - 2/0)	1.0
48	26969900		SOCKET 8-PIN (P&B)	4.0
52	61143800		SCREW MS 1/4-20X1/2 TRS PH	10.0
53	61142200		SCREW MS 10-24 X1/2 TRS PH	2.0
54	61115400		SCREW MS 8-32 X3/4 RHP	2.0
57	68542200		WASHER LOCK 1/4 EXTERNAL	8.0
66	61180000		BOLT HHCS 3/8-16 X1 BRASS %	1.0
67	64804000		NUT HEX 3/8-16 BRASS	1.0
68	68542700		WASHER LOCK 3/8 INTERNAL	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
36	22080500		BOX-30D ANGLE ADAPTER 100A	2.0
37	25456500		RECEPTACLE INLET 3P4W 150A	1.0
38	25449100		RECEPTACLE INLET 4P5W 150A	1.0
39	21252000		CAP RECEPTACLE PROTECTIVE	2.0
49	61119400		SCREW MS 1/4-20X3/4 RHP	8.0
61	68530200		WASHER SAE 1/4	8.0
62	64750000		NUT HEX 1/4-20 FULL	8.0

+ Separate parts listing provided



FRONT SIGN ASSEMBLY - Center section

402-413-002

Index number	Part number	Drawing number	Description	Quantity per assembly
11	24076600		TURBO CAP-TL47 BLUE (T8)	24.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	84.0
15	24076000		TURBO CAP-TL47 RED (T1)	18.0
16	24076800		TURBO CAP-TL47 PURPLE (T12)	46.0
18	24076700		TURBO BASE-TL47 BLUE (T8)	24.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	84.0
22	24076100		TURBO BASE-TL47 RED (T1)	18.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	46.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	172.0
27	24075500		BULB TURBO-TL47 130V/10W	172.0
28	24075000		TURBO SOCKET-TL47	172.0
29	24075300		TURBO COLLAR-TL47	172.0
30	24075100		TURBO NUT-TL47	172.0
33	23936300		LAMP FLOURESCENT 4' T12/40W	4.0
35	20354100		BALLAST 120V F/2-4' LAMPS	2.0
36	33393800	CSN45A16-01	HOLDER-LAMP CSN45A16-01	4.0
	22073600		COVER LAMPHOLDER-RUBBER (GE)	1.0
	23386200		LAMPHOLDER (GE)	1.0
	24524400		MOUNT L/HLDR INJ CSN38A01-00	1.0
	61114600		SCREW MS 6-32 X1 1/4 RHP	2.0
38	33393600	CSN45A17-01	HOLDER-LAMP CSN45A17-01	4.0
	22073500		COVER LAMPHOLDER-RUBBER (GE)	1.0
	23387800		LAMPHOLDER (GE)	1.0
	24524400		MOUNT L/HLDR INJ CSN38A01-00	1.0
	61114600		SCREW MS 6-32 X1 1/4 RHP	2.0
40	36776100	402-407-001	SIGN-ENT,CENTER 402-407-001*	1.0
43	32889500	402-862-001	FRAME WELDT-CT/ENT SGN 402-862-1	1.0
50	36776600	402-407-006	SIGN-ENTRANCE,CTR 402-407-006*	1.0
57	21910700		CONN. LT-FLX 1/2" 90D NON-INS	1.0
58	21878600		CONN. LT-FLX 3/4" 90D NON-INS	1.0
65	32037539	402-484-007	COVER-SIGN ENTTR 402-484-007*	1.0
67	32037541	402-484-009	COVER-SIGN ENTR 402-484-009*	1.0
71	66144000		RIVET 3/16 AD66ABS	50.0
72	66407100		SCREW #8X3/8 PH S/T PAN HD	50.0
74	35358578	402-881-002	PLATE-CONDUIT 402-881-002	1.0
75	35358577	402-881-001	PLATE-CONDUIT 402-881-001	1.0
77	24758700		NUT SIZE 18 (DEUTSCH)	2.0
78	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	2.0
81	26970400		SOCKET 16 GAUGE DEUTSCH	26.0
82	23497900		CONNECTOR (DEUTSCH)	2.0
83	2103800		BASE FEM 4P4W 20A/208V	1.0
85	20624700		BLOCK TERMINAL	1.0

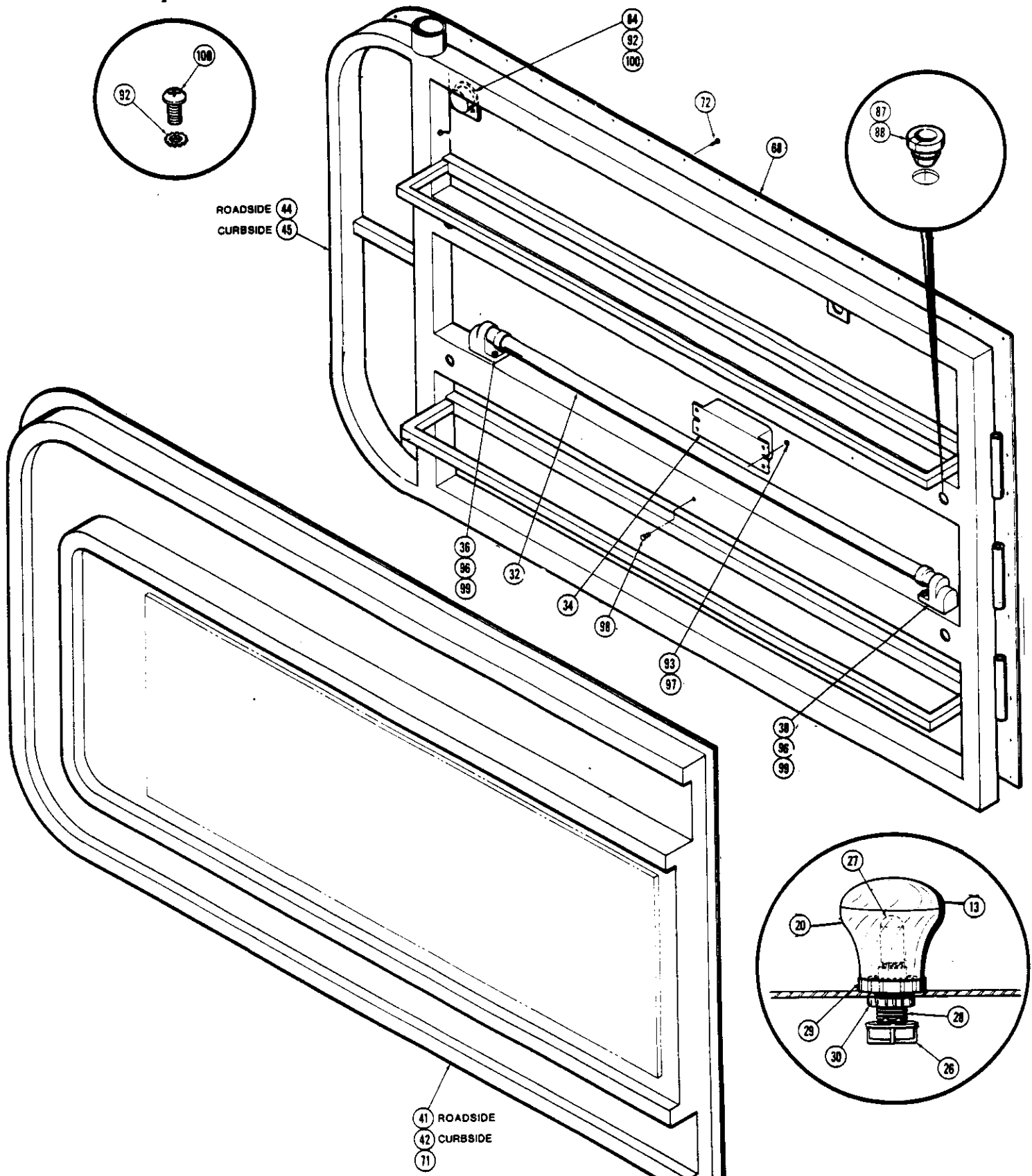
+ Separate parts listing provided

See illustration on page D-14

Index number	Part number	Drawing number	Description	Quantity per assembly
86	71203100	CSN45A03-02	BLOCK ASSY-TERMINAL CSN45A03-02	1.0
	20624700		BLOCK TERMINAL	.2
	64792800		NUT HEX #10-32	4.0
87	61407100		BUSHING NYLON 1 3/32 SNAP	6.0
88	61400800		BUSHING NYLON 5/8 - 1/2 MINI	8.0
89	61600400		CLAMP 3/8 TUBING	2.0
92	68541500		WASHER LOCK #10 EXTERNAL	18.0
93	68530200		WASHER SAE 1/4	4.0
95	64792800		NUT HEX #10-32	32.0
96	64780500		NUT HEX 10-24 N/I	19.0
97	64781000		NUT HEX 1/4-28 N/I	4.0
99	61116200		SCREW MS 10-24 X1 RHP	16.0
101	61113800		SCREW MS 6-32 X1/2 RHP	5.0

+ Separate parts listing provided

D-18 Chance Rides, Inc.
 Revised September, 1991



FRONT SIGN ASSEMBLY - Curbside wing (shown)
FRONT SIGN ASSEMBLY - Roadside wing (opposite)

402-413-003
402-413-004

Index number	Part number	Drawing number	Description	Quantity per assembly
13	24076200		TURBO CAP-TL47 YELLOW (T2)	97.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	97.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	97.0
27	24075500		BULB TURBO-TL47 130V/10W	97.0
28	24075000		TURBO SOCKET-TL47	97.0
29	24075300		TURBO COLLAR-TL47	97.0
30	24075100		TURBO NUT-TL47	97.0
32	23940400		LAMP FLOURESCENT 6' T12/50W	4.0
34	20353500		BALLAST 120V ECONO	2.0
36	33393800	CSN45A16-01	HOLDER-LAMP CSN45A16-01	4.0
	22073600		COVER LAMPHOLDER-RUBBER (GE)	1.0
	23386200		LAMPHOLDER (GE)	1.0
	24524400		MOUNT L/HLDR INJ CSN38A01-00	1.0
	61114600		SCREW MS 6-32 X1 1/4 RHP	2.0
38	33393600	CSN45A17-01	HOLDER-LAMP CSN45A17-01	4.0
	22073500		COVER LAMPHOLDER-RUBBER (GE)	1.0
	23387800		LAMPHOLDER (GE)	1.0
	24524400		MOUNT L/HLDR INJ CSN38A01-00	1.0
	61114600		SCREW MS 6-32 X1 1/4 RHP	2.0
41	36776200	402-407-002	SIGN-ENT, WING R/S 402-407-002*	1.0
42	36776300	402-407-003	SIGN-ENT, WING C/S 402-407-003*	1.0
44	32889900	402-861-002	FRAME WELDT-WING 402-861-002*	1.0
45	32889800	402-861-001	FRAME WELDT-WING 402-861-001*	1.0
68	32037535	402-484-001	COVER-SIGN-ENTR 402-484-001*	1.0
71	66144000		RIVET 3/16 AD66ABS	50.0
72	66407100		SCREW #8X3/8 PH S/T PAN HD	50.0
84	21903400		BASE FEM 2P3W 15A/125V	1.0
87	61407100		BUSHING NYLON 1 3/32 SNAP	4.0
88	61400800		BUSHING NYLON 5/8 - 1/2 MINI	8.0
92	68541500		WASHER LOCK #10 EXTERNAL	5.0
93	68530200		WASHER SAE 1/4	4.0
96	64780500		NUT HEX 10-24 N/I	18.0
97	64780800		NUT HEX 1/4-20 N/I	4.0
99	61116200		SCREW MS 10-24 X1 RHP	16.0
100	61115800		SCREW MS 10-24 X1/2 RHP	5.0

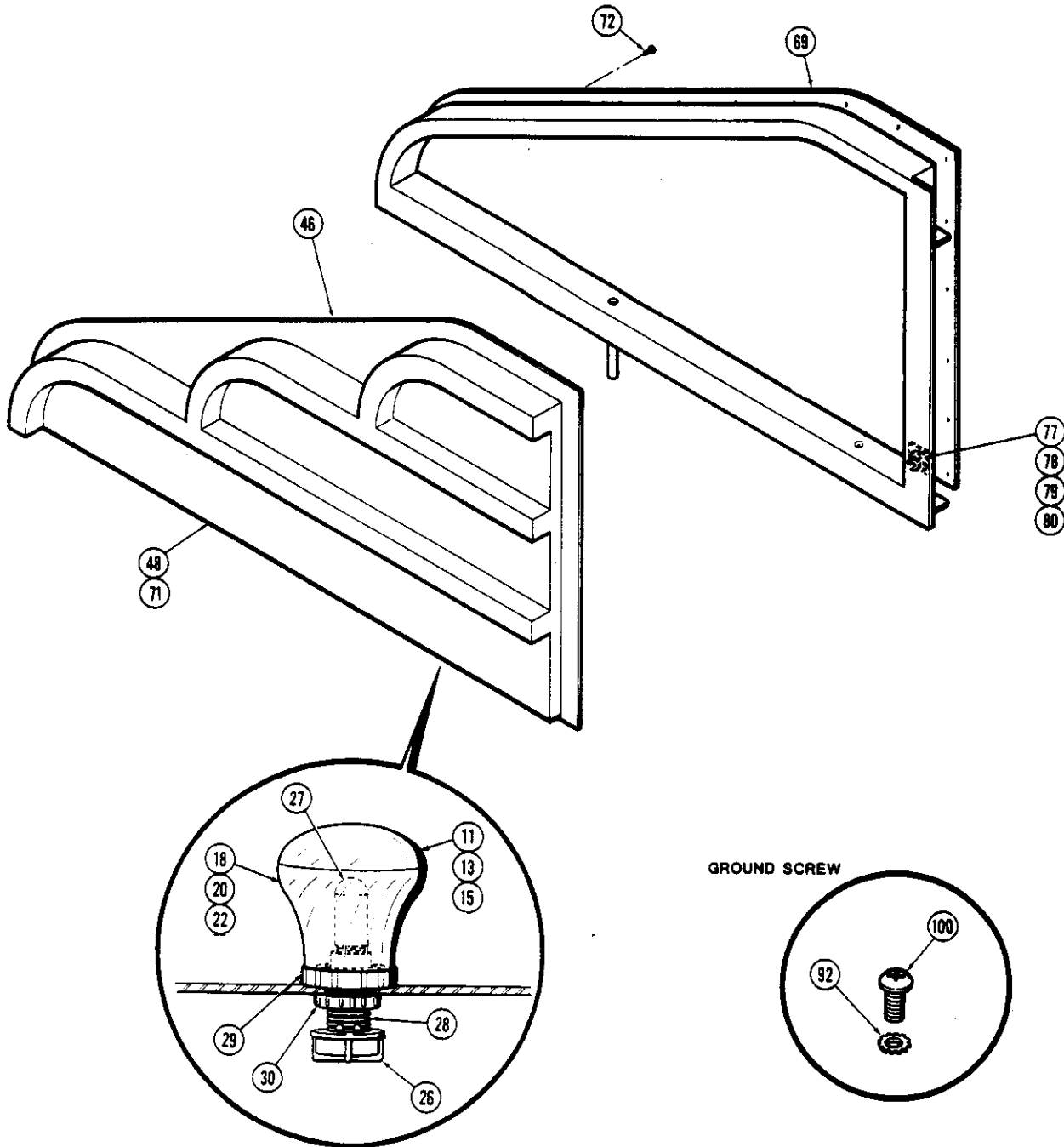
+ Separate parts listing provided

402-413-003

402-413-004

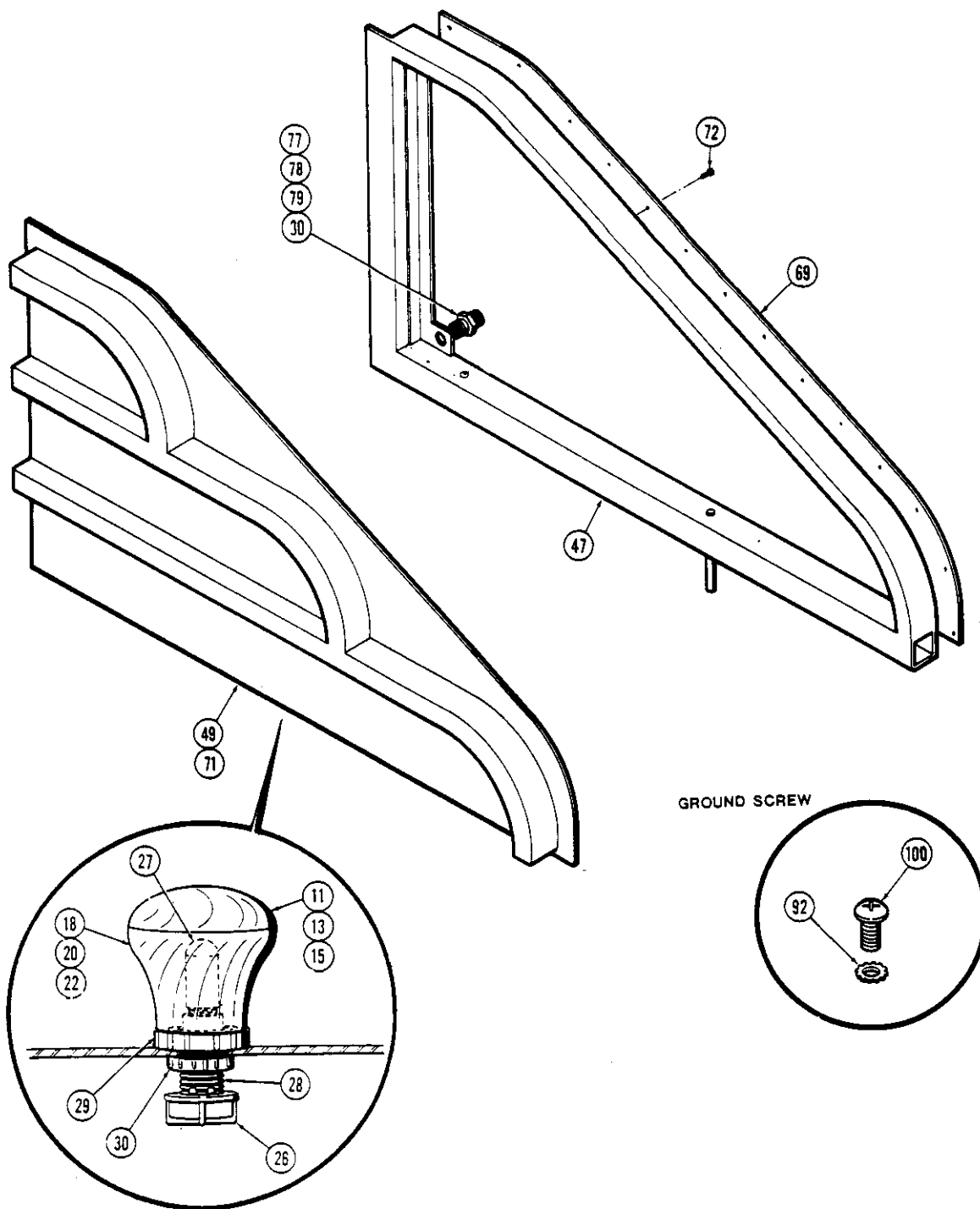
FRONT SIGN ASSEMBLY - Curbside wing

FRONT SIGN ASSEMBLY - Roadside wing



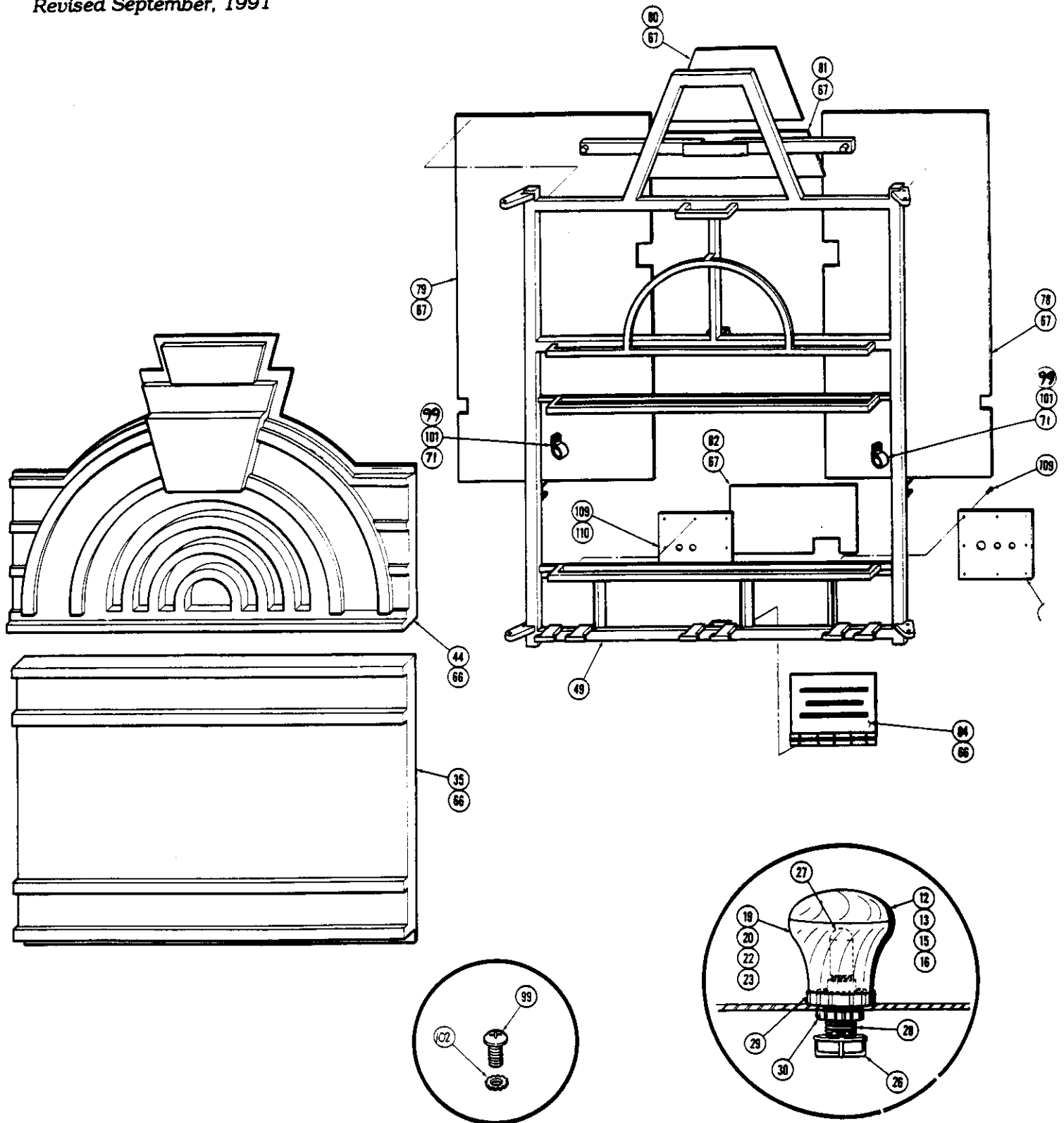
Index number	Part number	Drawing number	Description	Quantity per assembly
11	24076600		TURBO CAP-TL47 BLUE (T8)	13.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	6.0
15	24076000		TURBO CAP-TL47 RED (T1)	22.0
18	24076700		TURBO BASE-TL47 BLUE (T8)	13.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	6.0
22	24076100		TURBO BASE-TL47 RED (T1)	22.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	41.0
27	24075500		BULB TURBO-TL47 130V/10W	41.0
28	24075000		TURBO SOCKET-TL47	41.0
29	24075300		TURBO COLLAR-TL47	41.0
30	24075100		TURBO NUT-TL47	41.0
46	32889600	402-860-001	FRAME WELDT-SCALLOP 402-860-001*	1.0
48	36776400	402-407-004	SIGN-ENT,SCALLOP R/S 402-407-4*	1.0
69	32037542	402-484-011	COVER-SIGN ENTR 402-484-011*	1.0
71	66144000		RIVET 3/16 AD66ABS	25.0
72	66407100		SCREW #8X3/8 PH S/T PAN HD	25.0
77	24758700		NUT SIZE 18 (DEUTSCH)	1.0
78	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	1.0
79	25172500		PIN 16 GA (DEUTSCH)	13.0
80	23497700		CONNECTOR (DEUSTCH)	1.0
92	68541500		WASHER LOCK #10 EXTERNAL	1.0
100	61115800		SCREW MS 10-24 X1/2 RHP	1.0

+ Separate parts listing provided



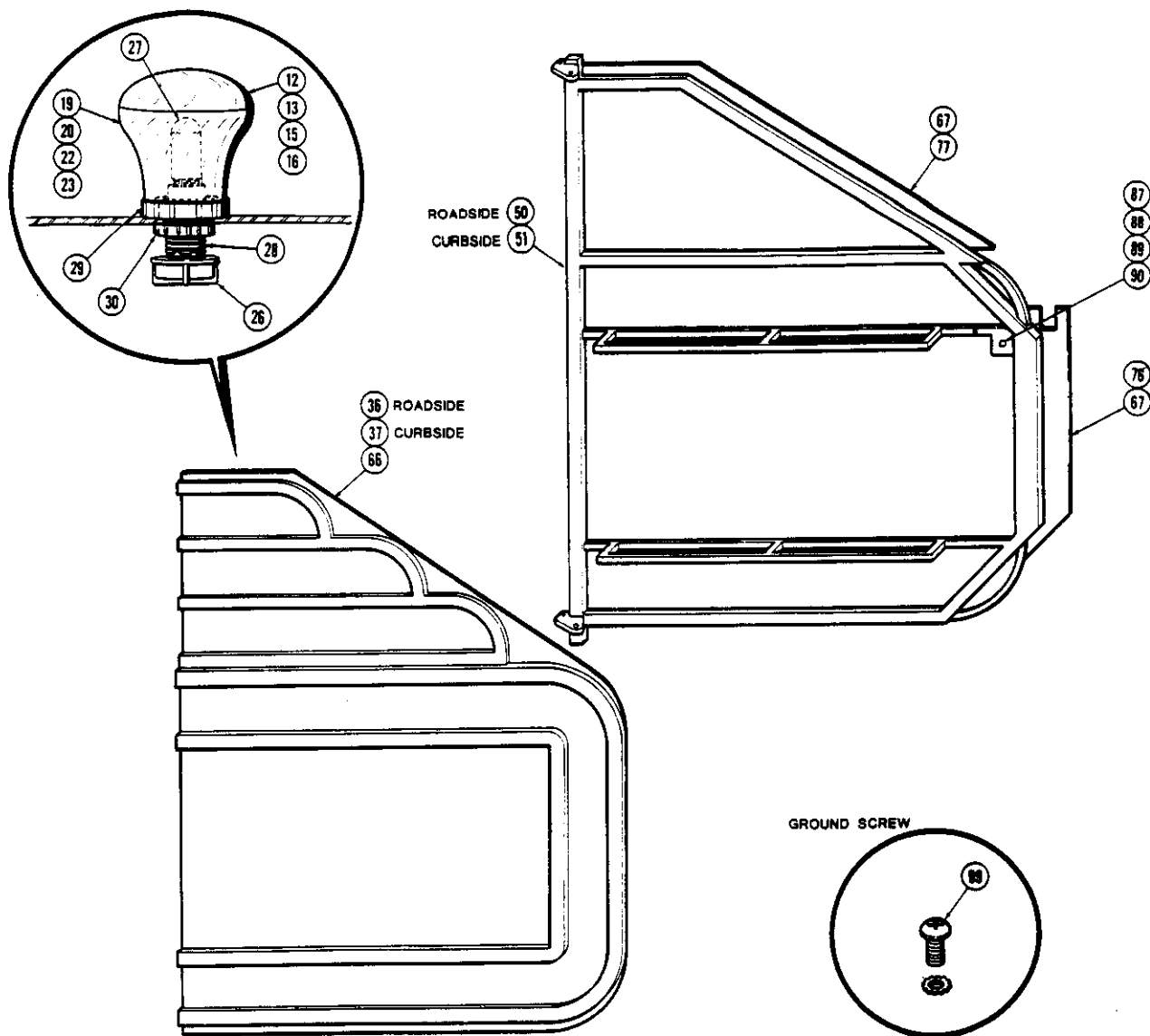
Index number	Part number	Drawing number	Description	Quantity per assembly
11	24076600		TURBO CAP-TL47 BLUE (T8)	13.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	6.0
15	24076000		TURBO CAP-TL47 RED (T1)	22.0
18	24076700		TURBO BASE-TL47 BLUE (T8)	13.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	6.0
22	24076100		TURBO BASE-TL47 RED (T1)	22.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	41.0
27	24075500		BULB TURBO-TL47 130V/10W	41.0
28	24075000		TURBO SOCKET-TL47	41.0
29	24075300		TURBO COLLAR-TL47	41.0
30	24075100		TURBO NUT-TL47	41.0
47	32889700	402-860-002	FRAME WELDT-SCALLOP 402-860-002*	1.0
49	36776500	402-407-005	SIGN-ENT, SCALLOP C/S 402-407-5*	1.0
69	32037542	402-484-011	COVER-SIGN ENTR 402-484-011*	1.0
71	66144000		RIVET 3/16 AD66ABS	25.0
72	66407100		SCREW #8X3/8 PH S/T PAN HD	25.0
77	24758700		NUT SIZE 18 (DEUTSCH)	1.0
78	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	1.0
79	25172500		PIN 16 GA (DEUTSCH)	13.0
80	23497700		CONNECTOR (DEUSTCH)	1.0
92	68541500		WASHER LOCK #10 EXTERNAL	1.0
100	61115800		SCREW MS 10-24 X1/2 RHP	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
12	24076600		TURBO CAP-TL47 BLUE (T8)	32.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	92.0
15	24076000		TURBO CAP-TL47 RED (T1)	21.0
16	24076800		TURBO CAP-TL47 PURPLE (T12)	134.0
19	24076700		TURBO BASE-TL47 BLUE (T8)	32.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	92.0
22	24076100		TURBO BASE-TL47 RED (T1)	21.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	134.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	558.0
27	24075500		BULB TURBO-TL47 130V/10W	558.0
28	24075000		TURBO SOCKET-TL47	558.0
29	24075300		TURBO COLLAR-TL47	558.0
30	24075100		TURBO NUT-TL47	558.0
35	30329100	402-408-001	BACKDROP-LEXAN 402-408-001*	1.0
44	30330300	402-408-010	BACKDROP-LEXAN 402-408-010*	1.0
49	32927200	402-864-001	FRAME WELDT-B/DROP CTR 402-864-1	1.0
66	66144000		RIVET 3/16 AD66ABS	75.0
67	66407100		SCREW #8X3/8 PH S/T PAN HD	75.0
78	32037548	402-483-007	COVER-BACKDROP,ALUM 402-483-007*	1.0
79	32037549	402-483-008	COVER-BACKDROP,ALUM 402-483-008*	1.0
80	32037545	402-483-009	COVER-BACKDROP,ALUM 402-483-009*	1.0
81	32037547	402-483-010	COVER-BACKDROP,ALUM 402-483-010*	1.0
82	32037559	402-483-005	COVER-BACK,BOT MST 402-483-005*	1.0
84	32037561	4021421-001	COVER-BACKDROP-CTR 4021421-001	1.0
99	61115800		SCREW MS 10-24 X1/2 RHP	4.0
101	61600400		CLAMP 3/8 TUBING	2.0
102	68541500		WASHER LOCK #10 EXTERNAL	2.0
108	32037560	402-483-002	COVER-BACK,CONDUIT 402-483-002*	1.0
109	60700400		BOLT HHCS 1/4-20 X1 GR5	16.0
110	32037558	402-483-003	COVER-BACK,CONDUIT 402-483-003*	1.0

+ Separate parts listing provided



BACKDROP SIGN ASSEMBLY - Roadside wing (shown)
BACKDROP SIGN ASSEMBLY - Curbside wing (opposite)

402-414-003
402-414-004

Index number	Part number	Drawing number	Description	Quantity per assembly
12	24076600		TURBO CAP-TL47 BLUE (T8)	20.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	68.0
15	24076000		TURBO CAP-TL47 RED (T1)	26.0
16	24076800		TURBO CAP-TL47 PURPLE (T12)	94.0
19	24076700		TURBO BASE-TL47 BLUE (T8)	20.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	68.0
22	24076100		TURBO BASE-TL47 RED (T1)	26.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	94.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	416.0
27	24075500		BULB TURBO-TL47 130V/10W	416.0
28	24075000		TURBO SOCKET-TL47	416.0
29	24075300		TURBO COLLAR-TL47	416.0
30	24075100		TURBO NUT-TL47	416.0
36	30329200	402-408-002	BACKDROP-LEXAN 402-408-002*	1.0
37	30329300	402-408-003	BACKDROP-LEXAN 402-408-003*	1.0
50	32890000	402-863-001	FRAME WELDT-BACKDROP 402-863-1*	1.0
51	32890100	402-863-002	FRAME WELDT-BACKDROP 402-863-2*	1.0
66	66144000		RIVET 3/16 AD66ABS	75.0
67	66407100		SCREW #8X3/8 PH S/T PAN HD	75.0
76	32037546	402-483-004	COVER-BACKDROP,F/G 402-483-004*	1.0
77	32037544	402-483-001	COVER-BACKDROP,F/G 402-483-001*	1.0
87	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	1.0
88	24758700		NUT SIZE 18 (DEUTSCH)	1.0
89	26970100		SOCKET #12 (DEUTSCH)	8.0
90	23500600		CONNECTOR (DEUTSCH)	1.0
99	61115800		SCREW MS 10-24 X1/2 RHP	1.0

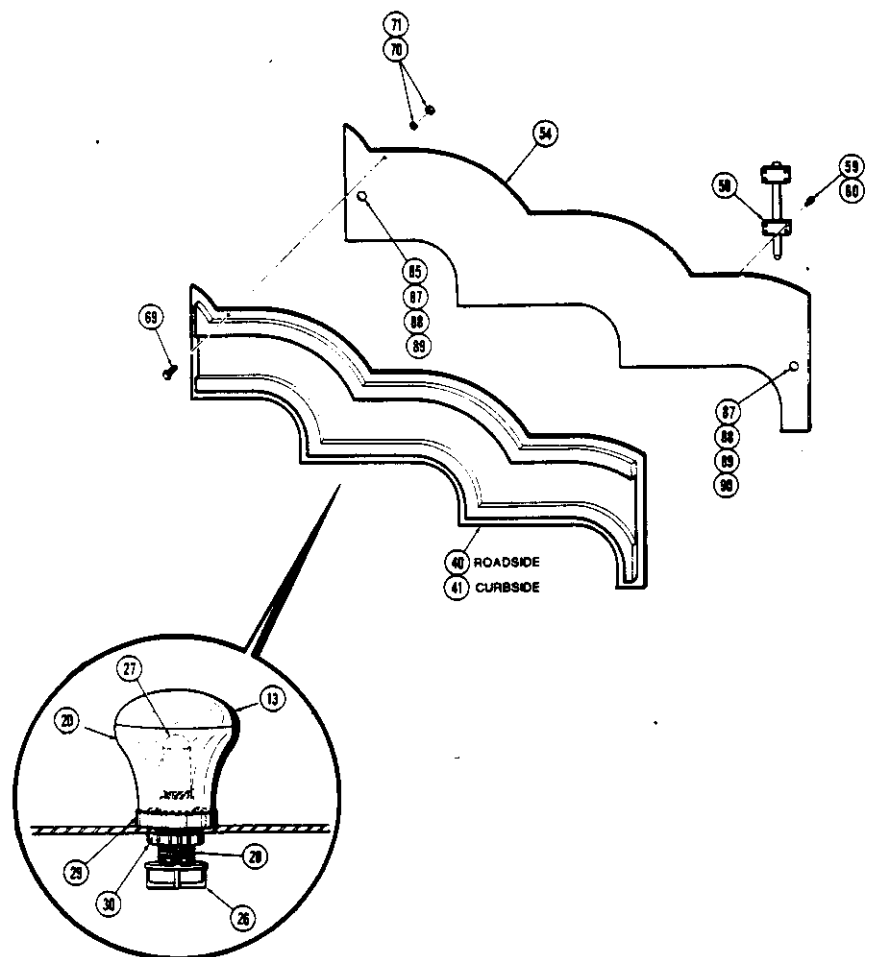
+ Separate parts listing provided

402-414-003

402-414-004

BACKDROP SIGN ASSEMBLY - Roadside wing

BACKDROP SIGN ASSEMBLY - Curbside wing



BACKDROP SCALLOP ASSEMBLY - Roadside middle panel (shown)
BACKDROP SCALLOP ASSEMBLY - Curbside middle panel (opposite)

402-414-007
402-414-008

Index number	Part number	Drawing number	Description	Quantity per assembly
13	24076200		TURBO CAP-TL47 YELLOW (T2)	26.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	26.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	26.0
27	24075500		BULB TURBO-TL47 130V/10W	26.0
28	24075000		TURBO SOCKET-TL47	26.0
29	24075300		TURBO COLLAR-TL47	26.0
30	24075100		TURBO NUT-TL47	26.0
42	30329800	402-408-008	BACKDROP-LEXAN 402-408-008*	1.0
39	30329500	402-408-005	BACKDROP-LEXAN 402-408-005*	1.0
52	30334400	402-438-001	BACKING-PANEL 402-438-001*	1.0
56	30334600	402-438-003	BACKING-PANEL 402-438-003*	1.0
58	35259400	402-438-008	PIN WELDT 402-438-008	2.0
59	60700200		BOLT HHCS 1/4-20 X3/4 GR5	16.0
60	64780800		NUT HEX 1/4-20 N/I	16.0
69	61115900		SCREW MS 10-24 X5/8 RHP	40.0
70	64780500		NUT HEX 10-24 N/I	40.0
87	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	2.0
88	24758700		NUT SIZE 18 (DEUTSCH)	2.0
89	26970100		SOCKET #12 (DEUTSCH)	8.0
90	23500600		CONNECTOR (DEUTSCH)	1.0
91	25172200		PIN #12 (DEUTSCH)	8.0
99	61115800		SCREW MS 10-24 X1/2 RHP	2.0

+ Separate parts listing provided

402-414-007

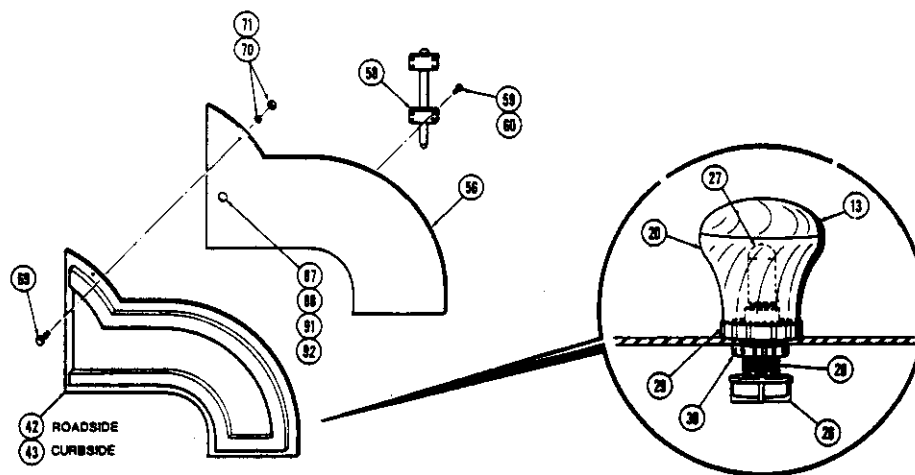
BACKDROP SCALLOP ASSEMBLY - Roadside middle panel

402-414-008

BACKDROP SCALLOP ASSEMBLY - Curbside middle panel

D-30 Chance Rides, Inc.

Revised September, 1991



BACKDROP SCALLOP ASSEMBLY - Roadside bottom panel (shown)
BACKDROP SCALLOP ASSEMBLY - Curbside bottom panel (opposite)

402-414-009
402-414-010

Index number	Part number	Drawing number	Description	Quantity per assembly
13	24076200		TURBO CAP-TL47 YELLOW (T2)	54.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	54.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	54.0
27	24075500		BULB TURBO-TL47 130V/10W	54.0
28	24075000		TURBO SOCKET-TL47	54.0
29	24075300		TURBO COLLAR-TL47	54.0
30	24075100		TURBO NUT-TL47	54.0
41	30329700	402-408-007	BACKDROP-LEXAN 402-408-007*	1.0
43	30329900	402-408-009	BACKDROP-LEXAN 402-408-009*	1.0
54	30334500	402-438-002	BACKING-PANEL 402-438-002*	1.0
56	30334600	402-438-003	BACKING-PANEL 402-438-003*	1.0
58	35259400	402-438-008	PIN WELDT 402-438-008	2.0
59	60700200		BOLT HHCS 1/4-20 X3/4 GR5	16.0
60	64780800		NUT HEX 1/4-20 N/I	16.0
69	61115900		SCREW MS 10-24 X5/8 RHP	20.0
70	64780500		NUT HEX 10-24 N/I	20.0
87	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	1.0
88	24758700		NUT SIZE 18 (DEUTSCH)	1.0
91	25172200		PIN #12 (DEUTSCH)	8.0
99	61115800		SCREW MS 10-24 X1/2 RHP	1.0

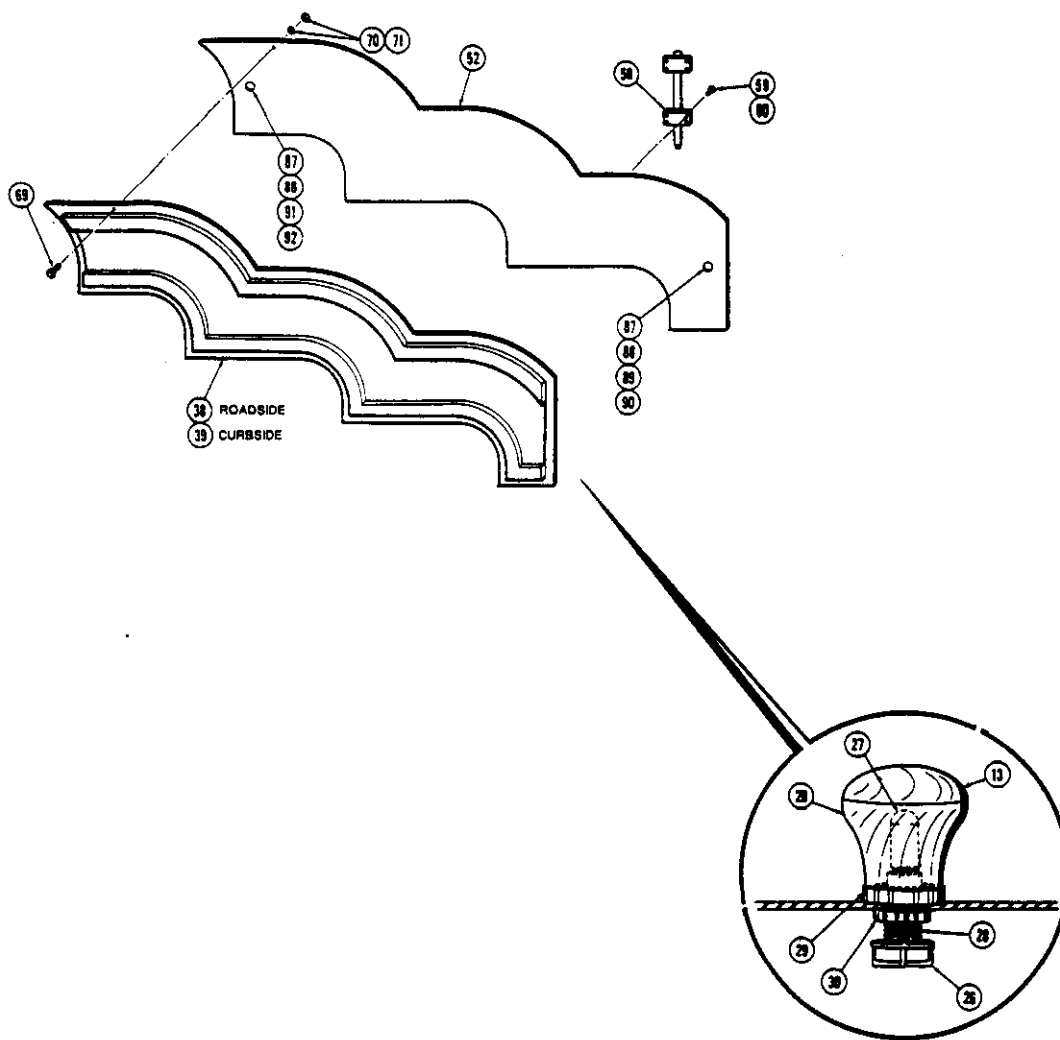
+ Separate parts listing provided

402-414-009

BACKDROP SCALLOP ASSEMBLY - Roadside bottom panel

402-414-010

BACKDROP SCALLOP ASSEMBLY - Curbside bottom panel



BACKDROP SCALLOP ASSEMBLY - Roadside top panel (shown)
BACKDROP SCALLOP ASSEMBLY - Curbside top panel (opposite)

402-414-011
402-414-012

Index number	Part number	Drawing number	Description	Quantity per assembly
13	24076200		TURBO CAP-TL47 YELLOW (T2)	54.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	54.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	54.0
27	24075500		BULB TURBO-TL47 130V/10W	54.0
28	24075000		TURBO SOCKET-TL47	54.0
29	24075300		TURBO COLLAR-TL47	54.0
30	24075100		TURBO NUT-TL47	54.0
38	30329400	402-408-004	BACKDROP-LEXAN 402-408-004*	1.0
40	30329600	402-408-006	BACKDROP-LEXAN 402-408-006*	1.0
52	30334400	402-438-001	BACKING-PANEL 402-438-001*	1.0
54	30334500	402-438-002	BACKING-PANEL 402-438-002*	1.0
58	35259400	402-438-008	PIN WELDT 402-438-008	2.0
59	60700200		BOLT HHCS 1/4-20 X3/4 GR5	16.0
60	64780800		NUT HEX 1/4-20 N/I	16.0
69	61115900		SCREW MS 10-24 X5/8 RHP	40.0
70	64780500		NUT HEX 10-24 N/I	40.0
87	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	2.0
88	24758700		NUT SIZE 18 (DEUTSCH)	2.0
89	26970100		SOCKET #12 (DEUTSCH)	8.0
90	23500600		CONNECTOR (DEUTSCH)	1.0
91	25172200		PIN #12 (DEUTSCH)	8.0
99	61115800		SCREW MS 10-24 X1/2 RHP	2.0

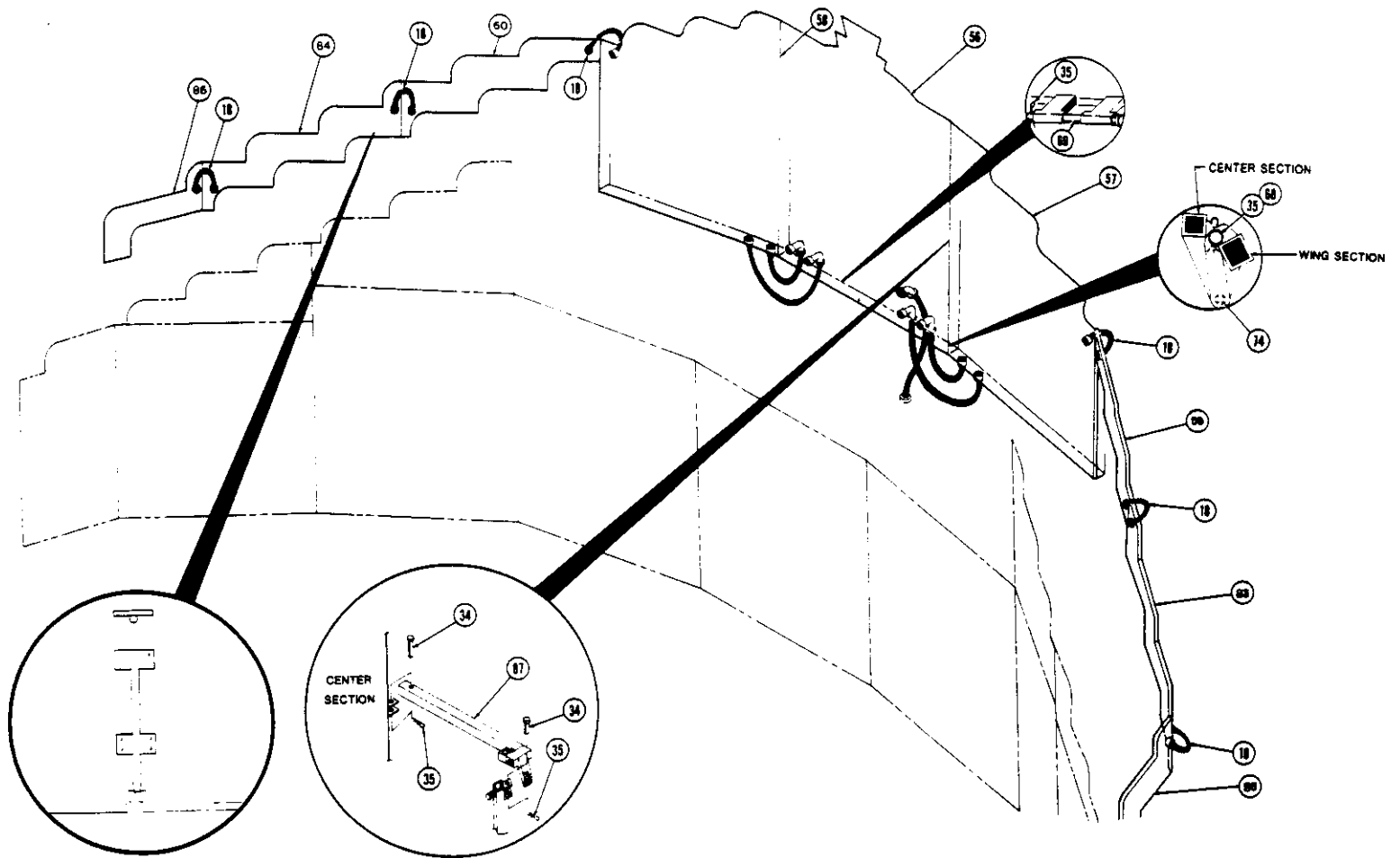
+ Separate parts listing provided

401-414-011

BACKDROP SCALLOP ASSEMBLY - Roadside top panel

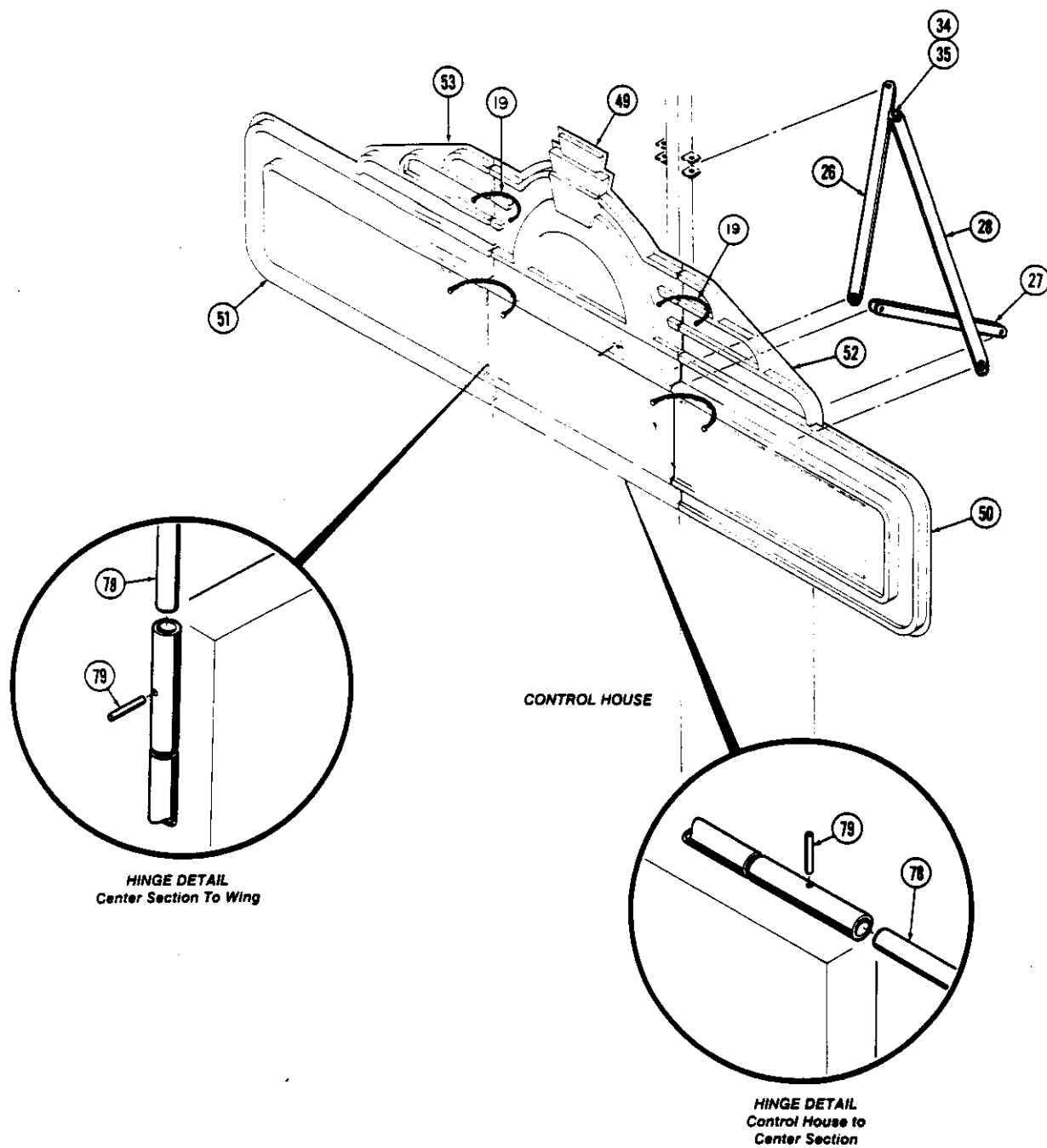
402-414-012

BACKDROP SCALLOP ASSEMBLY - Curbside top panel



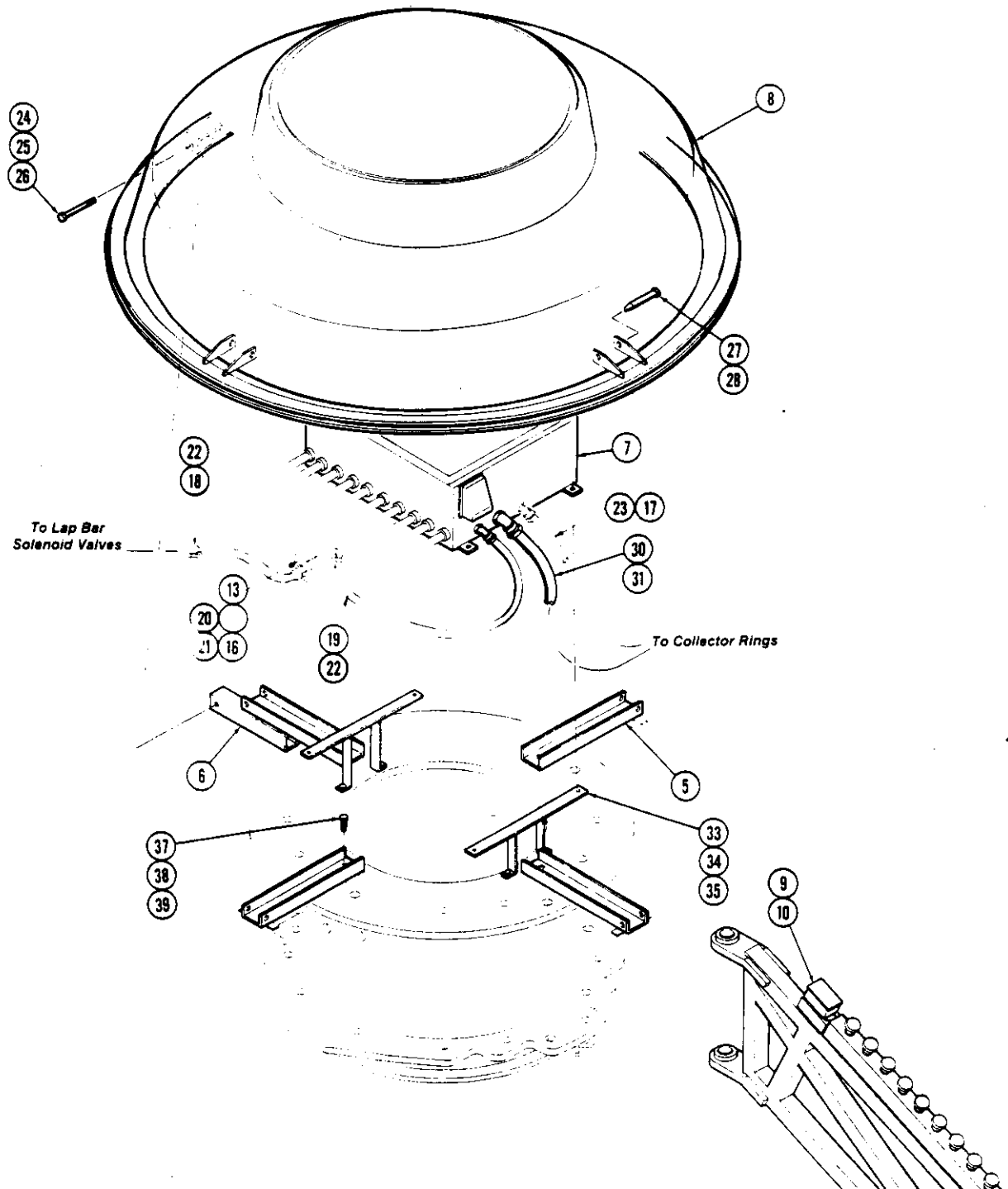
Index number	Part number	Drawing number	Description	Quantity per assembly
18	33307400	402-482-001	HARNES ASSY 402-482-001	6.0
	23496500		CONNECTOR (DEUTSCH) -059	1.0
	23500700		CONNECTOR DEUTSCH (-059)	1.0
	25172600		PIN 12 GA (DEUTSCH)	8.0
	26970300		SOCKET 12 GAUGE (DEUTSCH)	8.0
	48001800		CONDUIT .5 FLEXGUARD	2.0
	48505100		WIRE 12 GA THHN STRAND	1.0
34	35228800	CSN10A03-03	PIN-TPR1/2X3-5/8 2-3/8G/L HPL/8*	8.0
35	65190000		HAIRPIN 1/8	25.0
56	30334800 +	402-414-002	BACKDROP-ELEC,CTR 402-414-002*	1.0
57	30334900 +	402-414-003	BACKDROP-ELEC,WING 402-414-003*	1.0
58	30335000 +	402-414-004	BACKDROP-ELEC,WING 402-414-004*	1.0
59	36325500 +	402-414-011	SCALLOP-TOP,R/S 402-414-011*	1.0
60	36325600 +	402-414-014	SCALLOP-TOP-C/S 402-414-014*	1.0
68	35228600	CSN10A03-01	PIN-TPR 1/2X2-11/16 1-9/16G/L*	4.0
69	35252100	CSN10A03-11	PIN-TPR 1/2X9-1/2 8 5/8 G/L*	3.0
74	61218301		BOLT SHOULDER 3/4 X 3/4	4.0
83	36325100 +	402-414-007	SCALLOP-MIDDLE,R/S 402-414-007*	1.0
84	36325200 +	402-414-008	SCALLOP-MIDDLE,C/S 402-414-008*	1.0
85	36325300 +	402-414-009	SCALLOP-BOTTOM,R/S 402-414-009*	1.0
86	36325400 +	402-414-010	SCALLOP-BOTTOM,C/S 402-414-010*	1.0
87	30914300	402-838-001	BRACE WELDT-SIGN 402-838-001	2.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
19	33276405	402-482-006	HARNESS ASSY 402-482-006	2.0
	23496700		CONNECTOR (DEUTSCH) -059	1.0
	23497800		CONNECTOR (DEUTSCH) -059	1.0
	25172500		PIN 16 GA (DEUTSCH)	13.0
	26970400		SOCKET 16 GAUGE DEUTSCH	13.0
	48001400		CONDUIT .75 FLEXGUARD	2.0
	48505300		WIRE 16 GA TFF STRAND	1.0
26	38259041	402-882-001	TUBE WELDT-LAMP SUPP 402-882-001	2.0
27	38259042	402-882-003	TUBE-SIGN SUPPORT 402-882-003	2.0
28	38259043	402-882-004	TUBE-WING SUPPORT 402-882-004	2.0
34	35228800	CSN10A03-03	PIN-TPR1/2X3-5/8 2-3/8G/L HP1/8*	12.0
35	65190000		HAIRPIN 1/8	12.0
49	30335300	402-413-002	ENTRANCE-ELEC,CTR 402-413-002*	1.0
50	30335400	402-413-003	ENTRANCE-ELEC,WING 402-413-003*	1.0
51	30335500	402-413-004	ENTRANCE-ELEC,WING 402-413-004*	1.0
52	30335600	402-413-005	ENTRANCE-ELEC,WING 402-413-005*	1.0
53	30335700	402-413-006	ENTRANCE-ELEC,WING 402-413-006*	1.0
78	41802600		BAR .75 RD BRASS F/M	10.7
79	65182400		PIN EXPANSION 3/16 X 1	3.0

+ Separate parts listing provided

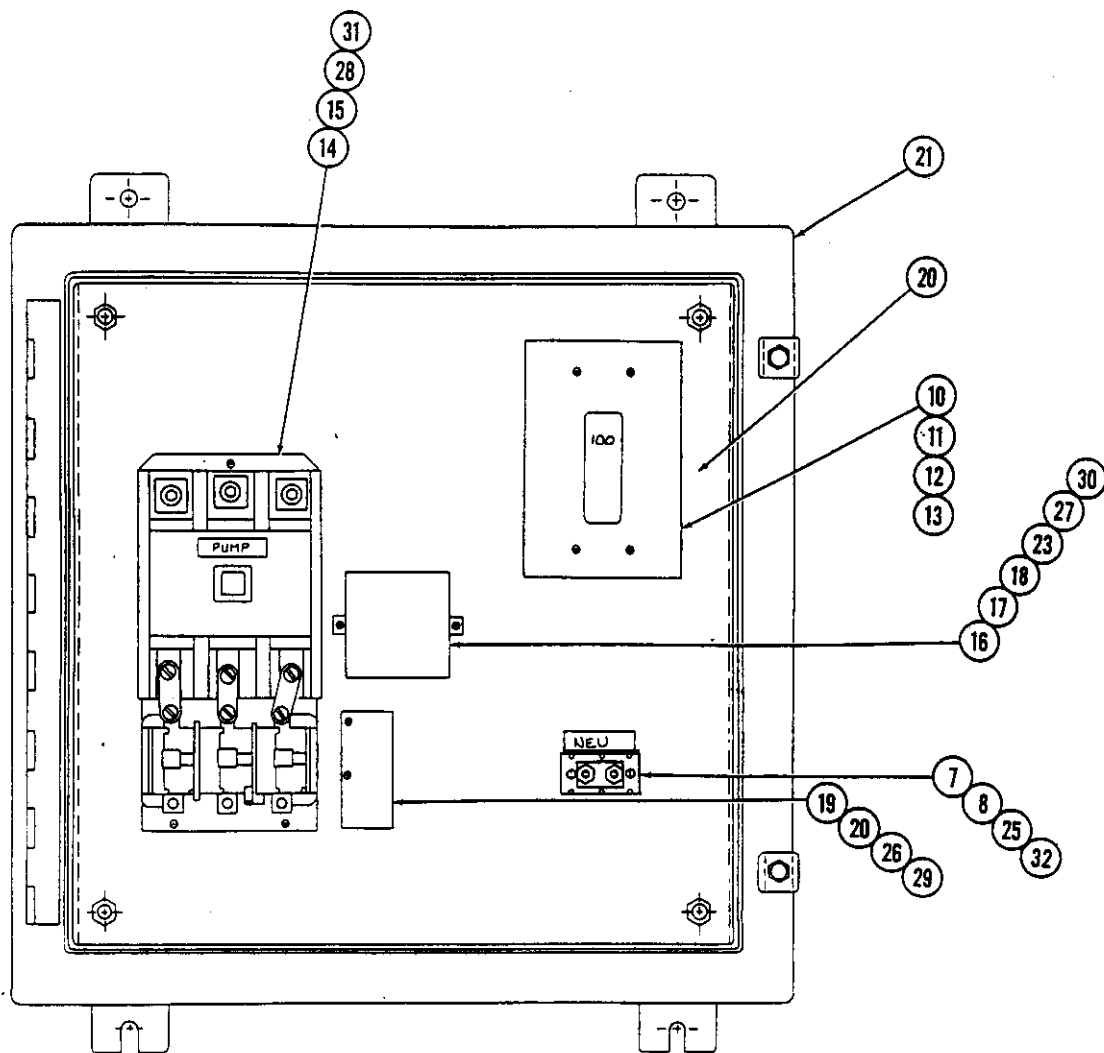


Index number	Part number	Drawing number	Description	Quantity per assembly
5	31554500	402-383-005	CHANNEL WELD'T 402-383-005	3.0
6	30269100	402-383-004	ARM WELDT-PIVOT 402-383-004	1.0
7	30783900	402-452-001	BOX ASSY-CONT,SPIN 402-452-001	1.0
8	34072300 +	402-499-001	LIGHT ASSY-CTR SPINNER 402-499-1	1.0
9	34088900 +	402-478-001	LIGHT INSTL-SWEEP 402-478-001*	19.0
10	34089000 +	402-478-002	LIGHT INSTL-SWEEP 402-478-002*	1.0
13	20830700		BOX WATERPROOF (3) 1/2" HOLES	1.0
16	61115800		SCREW MS 10-24 X1/2 RHP	4.0
17	44102500		CONDUIT .75 FLX SEAL-TIGHT UL	2.0
18	44102200		CONDUIT .5 FLX SEAL-TIGHT UL	3.5
20	21910500		CONN. LT-FLX 1/2" STR NON-INS	1.0
21	24685100		NIPPLE CONDUIT 1/2 X CLOSE	1.0
22	21910700		CONN. LT-FLX 1/2" 90D NON-INS	2.0
23	21909600		CONN. LT-FLX 3/4" STR NON-INS	1.0
24	60850100		BOLT HHCS 1/2-13 X2 1/2 GR8	1.0
25	64782400		NUT HEX 1/2-13 FULL N/I	1.0
26	68531600		WASHER WROT 1/2 STANDARD	2.0
27	35229100	CSN10A03-06	PIN-TPR1/2X5-5/8 4-3/8G/L HP1/8*	3.0
28	65190200		HAIRPIN 5/32	3.0
30	44103000		CONDUIT 1 FLX SEAL-TIGHT UL	1.0
31	21895100		CONN. LT-FLX 1" STR NON-INS	1.0
33	34517020	4021411-001	MOUNT WELDT-CONT BOX 4021411-001	2.0
34	60766600		BOLT HHCS 3/8-16 X1 GR5	4.0
35	68530800		WASHER WROT 3/8 STANDARD	4.0
37	60786400		BOLT HHCS 3/8-16 X1 1/4 GR8	8.0
38	64781600		NUT HEX 3/8-16 N/I	12.0
39	68531000		WASHER SAE 3/8	16.0

+ Separate parts listing provided

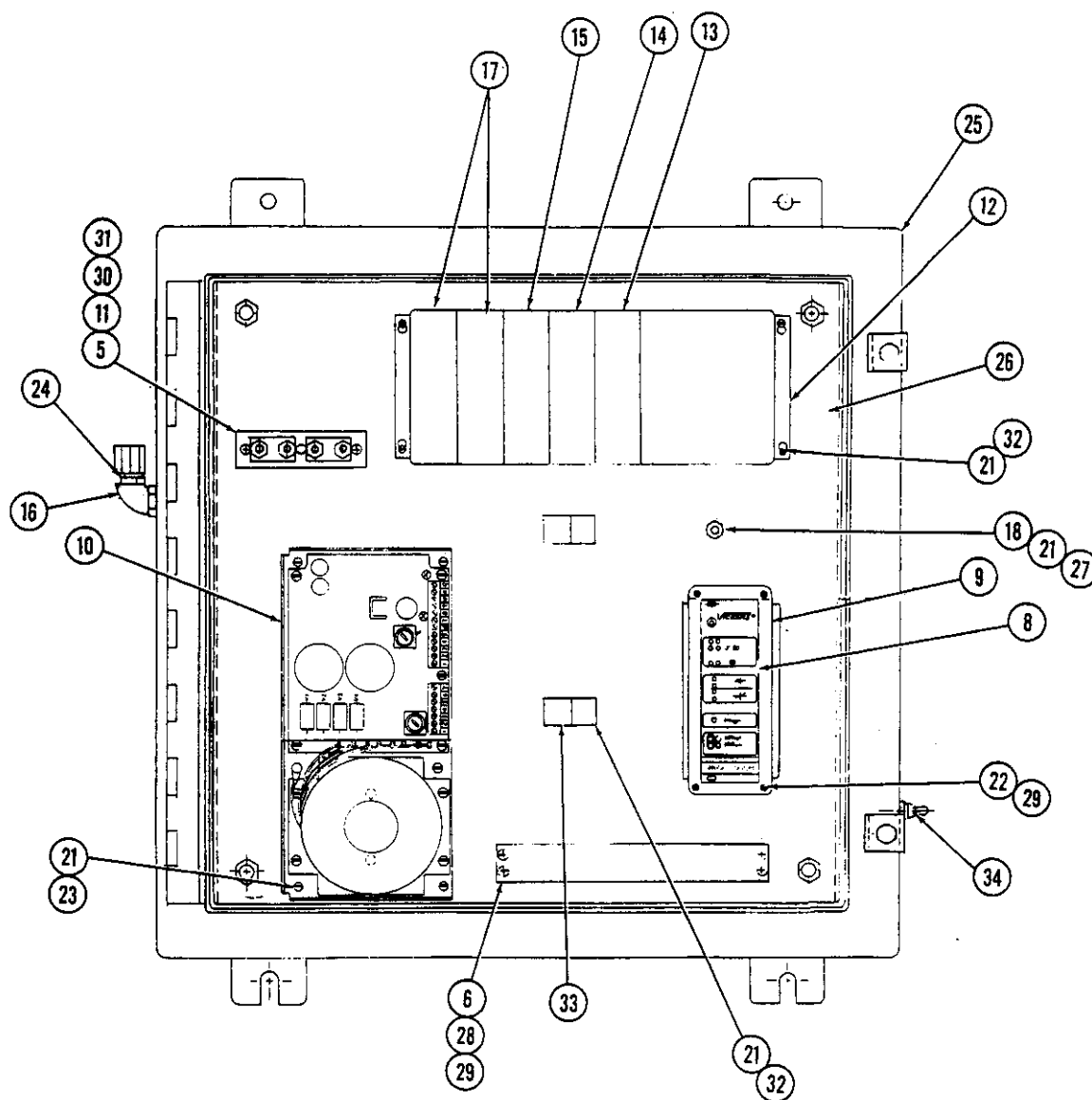
D-40 Chance Rides, Inc.

Revised September, 1991



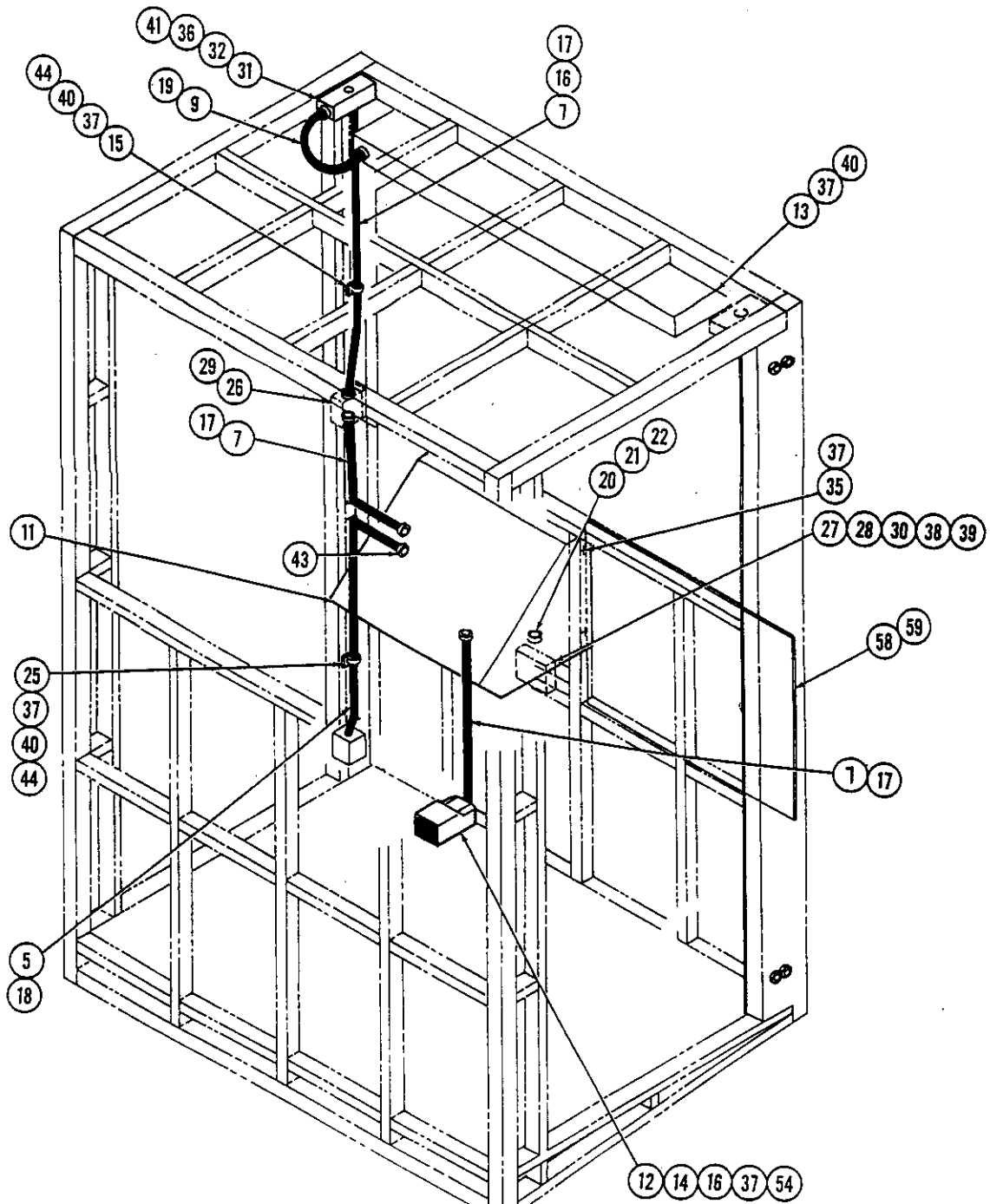
Index number	Part number	Drawing number	Description	Quantity per assembly
7	27930600		TERMINAL TIE 2-HOLE	1.0
8	71203100	CSN45A03-02	BLOCK ASSY-TERMINAL CSN45A03-02	1.0
10	26580900		SHAFT ONLY-BREAKER MECH. (SHORT)	1.0
11	23255700		HANDLE ONLY-BREAKER MECHANISM*	1.0
12	23255800		HANDLE MECHANISM-EB&FB BREAKERS	1.0
13	21602700		CIRCUIT PROTECTOR-MOTOR 150A	1.0
14	23328400		HEATER ELEMENT 87	3.0
15	27337200		STARTER AC 120V SIZE 4 NON-REV	1.0
16	22948200		FUSE BLOCK 600V SNAP FIT	2.0
17	22948300		FUSE BLOCK END SEC.	1.0
18	22948700		FUSE 10AMP TIME-DELAY	1.0
19	25949300		RELAY OVERLOAD (SQ/D)	1.0
20	23331702		HEATER ELEMENT 8.5	1.0
21	71550600	402-422-001	ENCLOSURE-MTR C/BOX 402-422-001	1.0
22	35358597	402-421-001	PLATE-MOUNTING 402-421-001*	1.0
23	22149200		FUSE 20AMP TIME-DELAY	1.0
25	64780300		NUT HEX #6-32 N/I	2.0
26	68541600		WASHER LOCK #10 INTERNAL	2.0
27	68544400		WASHER LOCK #8 INTERNAL	2.0
28	68542200		WASHER LOCK 1/4 EXTERNAL	3.0
29	61115800		SCREW MS 10-24 X1/2 RHP	2.0
30	61115600		SCREW MS 10-24 X3/8 RHP	2.0
31	61143800		SCREW MS 1/4-20X1/2 TRS PH	3.0
32	61113800		SCREW MS 6-32 X1/2 RHP	2.0

+ Separate parts listing provided



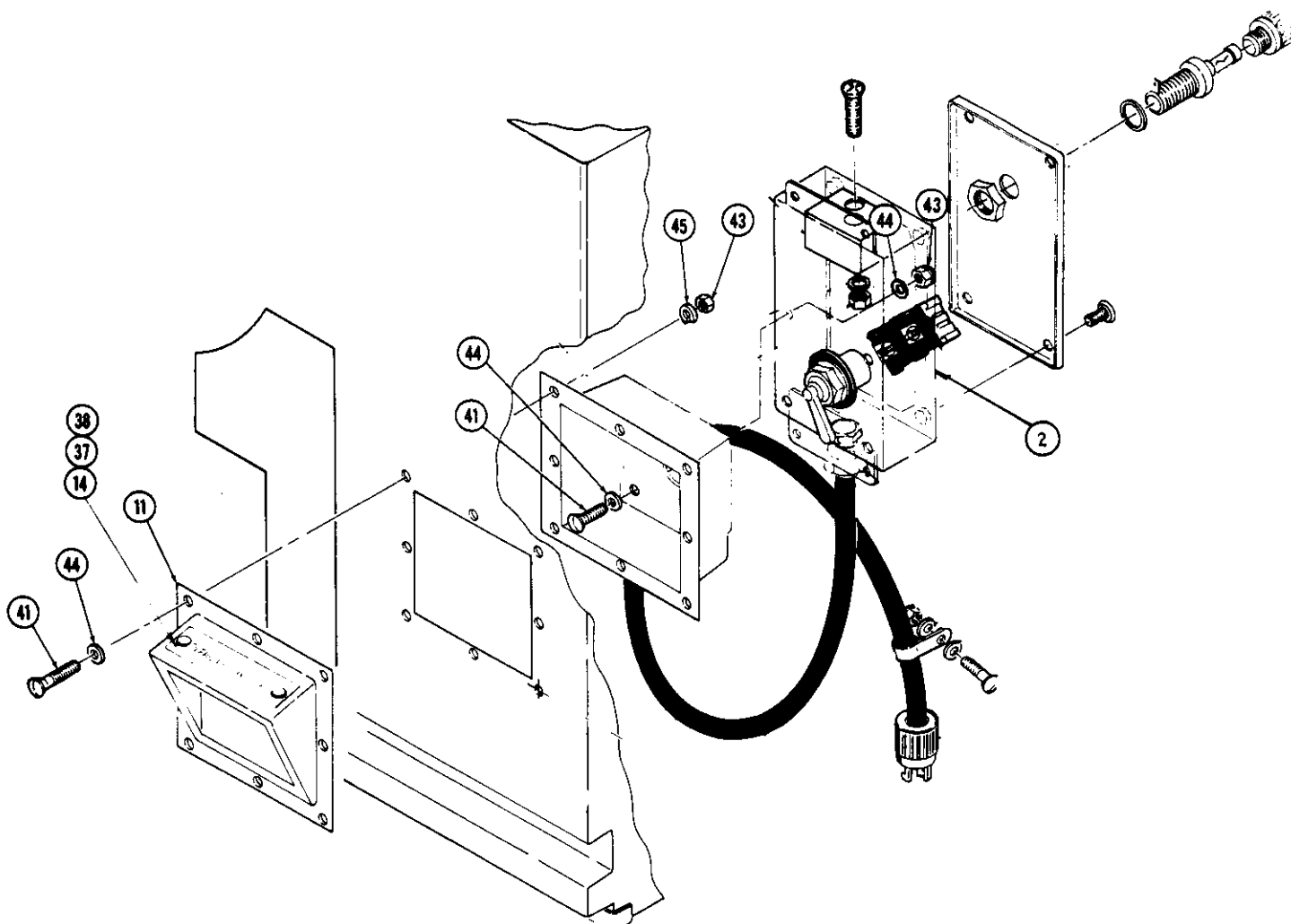
Index number	Part number	Drawing number	Description	Quantity per assembly
5	70248700	CSN45A03-04	TERMINAL BLOCK CSN45A03-04	1.0
6	27846600		TERMINAL BLOCK	1.0
7	23650100		INTERLOCK (HOFF)	1.0
8	25545402		AMPLIFIER (VICKERS)	1.0
9	25545401		RACK CARD HOLDER	1.0
10	25545400		POWER SUPPLY-DRIVE CONTROL	1.0
11	27930600		TERMINAL TIE 2-HOLE	2.0
12	22085001		RACK F/DRIVE CONTROL BOX	1.0
13	22085000		CPU CONTROL BOX-DRIVE CONTROL	1.0
14	22085004		OUTPUT ANALOG	1.0
15	22085003		INPUT 115VAC	1.0
16	64830500		LOCKNUT 1/2 SEALING	1.0
17	22085002		OUTPUT RELAY	2.0
18	64803400		NUT HEX #10-24 BRASS	2.0
21	68541500		WASHER LOCK #10 EXTERNAL	12.0
22	61115300		SCREW MS 8-32 X1 1/2 RH SLT	4.0
23	61115800		SCREW MS 10-24 X1/2 RHP	4.0
24	21910700		CONN. LT-FLX 1/2" 90D NON-INS	1.0
25	71551200	402-432-001	ENCLOSURE-DRIVE C/B 402-432-001	1.0
26	35358598	402-431-001	PLATE-MOUNTING 402-431-001*	1.0
27	61160200		SCREW MS 10-24 X1 BRS RHP	1.0
28	61115400		SCREW MS 8-32 X3/4 RHP	4.0
29	68544400		WASHER LOCK #8 INTERNAL	8.0
30	61113800		SCREW MS 6-32 X1/2 RHP	2.0
31	64780300		NUT HEX #6-32 N/I	2.0
32	61142200		SCREW MS 10-24 X1/2 TRS PH	6.0
33	61600600		CLAMP 1/2 TUBING	2.0
34	27659500		SWITCH TOGGLE-1PST MOMENTARY	1.0
35	20768400		BOOT TOGGLE - LEVER EXPOSED	1.0

+ Separate parts listing provided



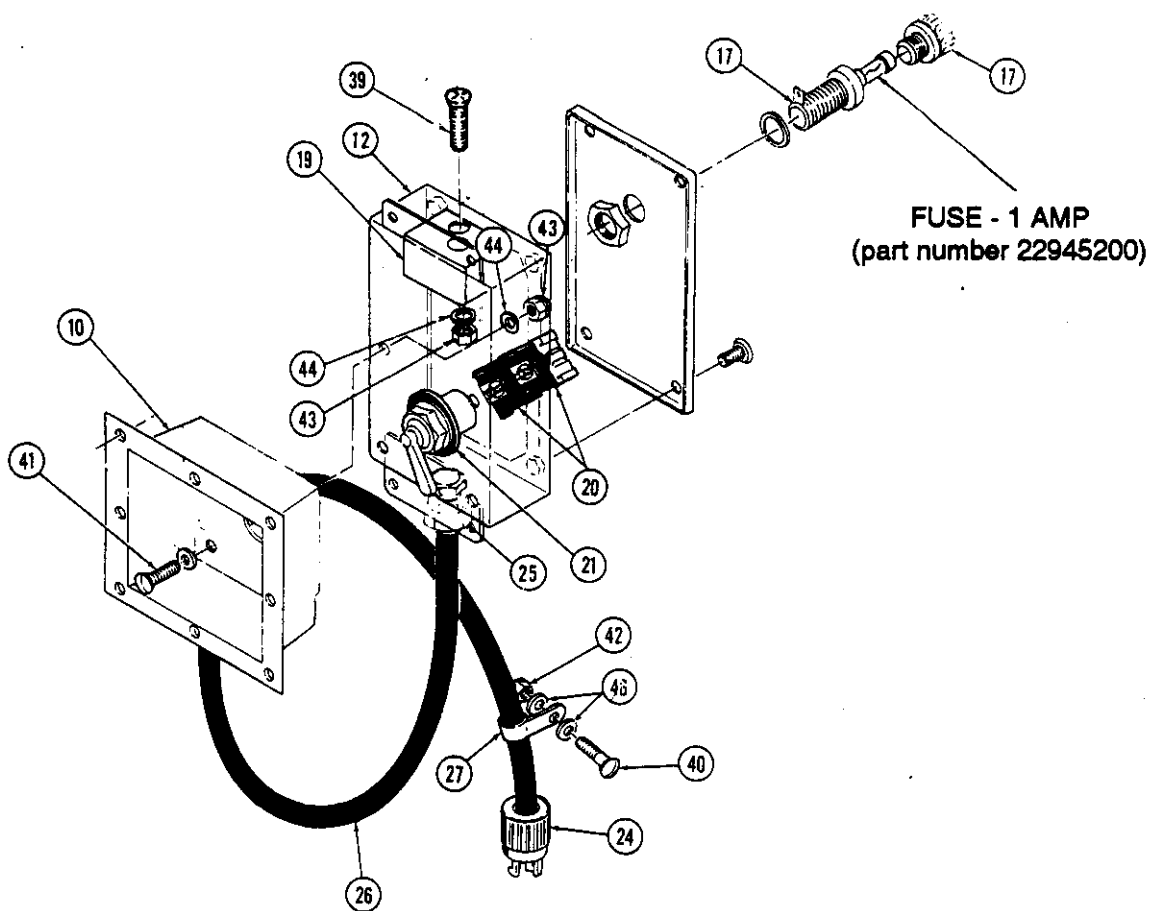
Index number	Part number	Drawing number	Description	Quantity per assembly
5	44103100		CONDUIT 1 EMT	3.4
7	44112000		CONDUIT .5 EMT	7.0
9	44102200		CONDUIT .5 FLX SEAL-TIGHT UL	1.9
11	34983983	+ 402-440-001	PANEL ASSY-CONTROL 402-440-001	1.0
12	27669100		SWITCH-FOOT HERC/LINEMSTR	1.0
13	24085900		LIGHT STRIP-4' 120V*	1.0
14	25887600		REDUCER FEM 3/4"-1/2"	1.0
15	21852000		PIPE STRAP-EMT 1/2" - 1 HOLE	1.0
16	21851900		CONN. EMT ELBOW 1/2" INSULATED	2.0
17	21905800		CONN. EMT 1/2" STR NON-INS	4.0
18	21908200		CONN. EMT 1" STR NON-INS	2.0
19	21910500		CONN. LT-FLX 1/2" STR NON-INS	2.0
20	24690200		NIPPLE 1/2 X 2 GALV	1.0
21	64831100		LOCKNUT CONDUIT 1/2"	1.0
22	21033000		BUSHING CONDUIT 1/2" PLASTIC	1.0
25	21852100		PIPE STRAP-EMT 1" - 1 HOLE	1.0
26	27680700		SWITCH WALL-IVORY	1.0
27	21908700		RECEPTACLE DUPLEX 2P3W 15A/125V	2.0
28	22073201		COVER 4 X 4 DUAL DUPLEX W/P	1.0
29	22072700		COVER APPL2594,S/C58C30,RACO 865	1.0
30	20831701		BOX 4 X 4 KNOCKOUT (5 HOLE)	1.0
31	20830700		BOX WATERPROOF (3) 1/2" HOLES	1.0
32	22041000		COVER BLANK-WEATHERPROOF	1.0
35	66435000		SCREW #14X3/4 S/T HH	4.0
36	64780800		NUT HEX 1/4-20 N/I	4.0
37	68537000		WASHER LOCK 1/4 SPRING MED	12.0
38	68541500		WASHER LOCK #10 EXTERNAL	4.0
39	61115800		SCREW MS 10-24 X1/2 RHP	4.0
40	60700000		BOLT HHCS 1/4-20 X1/2 GR5	5.0
41	60700200		BOLT HHCS 1/4-20 X3/4 GR5	2.0
43	21033200		BUSHING CONDUIT 1" PLASTIC	1.0
44	68530200		WASHER SAE 1/4	3.0
54	60700400		BOLT HHCS 1/4-20 X1 GR5	3.0
58	66156000		RIVET 3/16 1601-0613	22.0
59	35398100	402-435A059	PLATE-CONTROL HOUSE 402-435A059	1.0

+ Separate parts listing provided



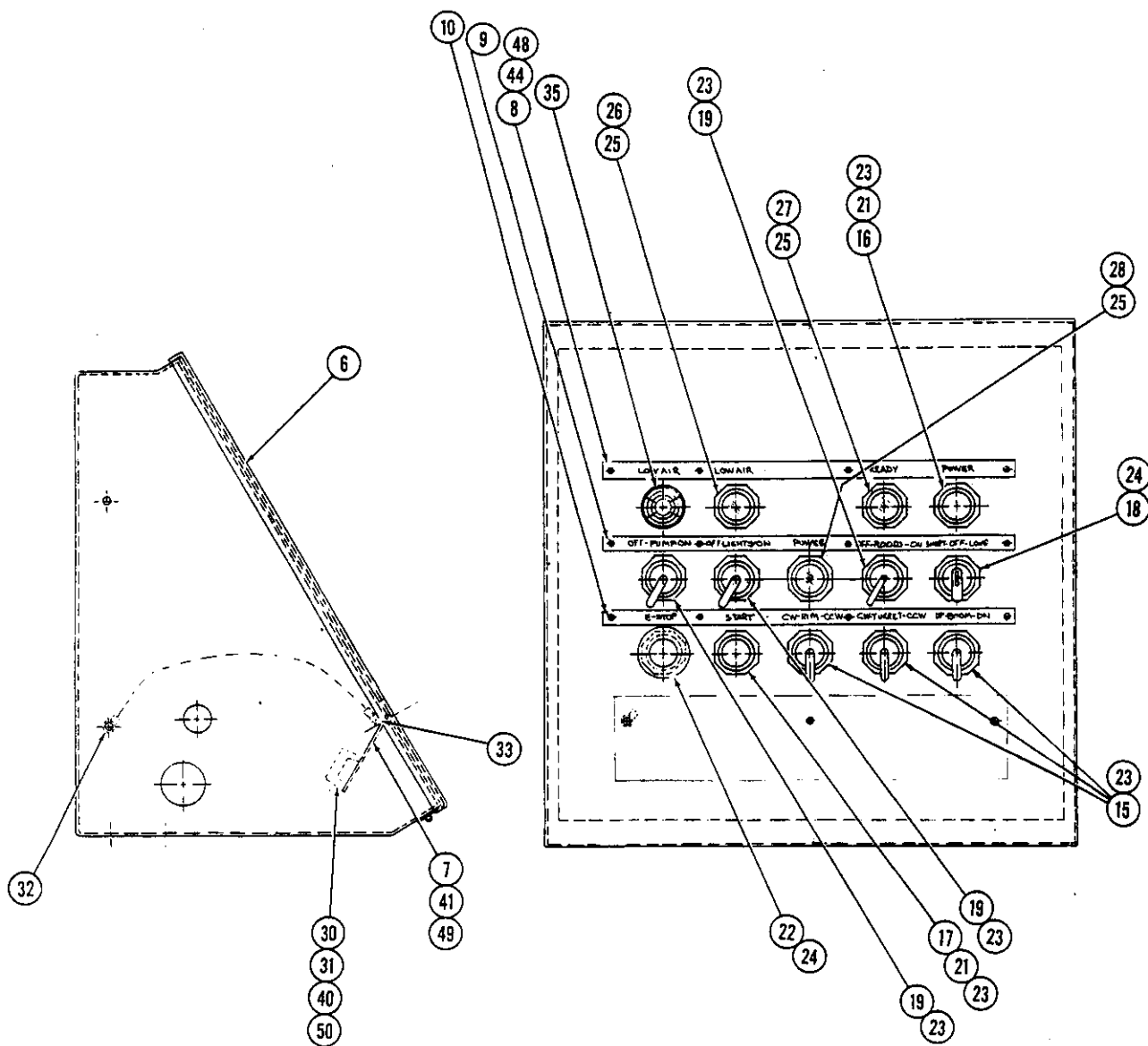
Index number	Part number	Drawing number	Description	Quantity per assembly
2	37681500 +	402-436-002	SWITCH ASSY-LAP BAR 402-436-002	1.0
11	33418100	402-447-002	HOOD-LAP BAR SWCH 402-447-002	1.0
14	71558000	4021419-001	NAMEPLATE-LAP BAR 4021419-001	1.0
37	68529700		WASHER WROT 3/16 STANDARD	2.0
38	66164000		RIVET 3/16 1641-0621	2.0
41	61116000		SCREW MS 10-24 X3/4 RHP	8.0
43	64780500		NUT HEX 10-24 N/I	8.0
44	68529800		WASHER SAE 3/16	8.0
45	68541500		WASHER LOCK #10 EXTERNAL	8.0

+ Separate parts listing provided



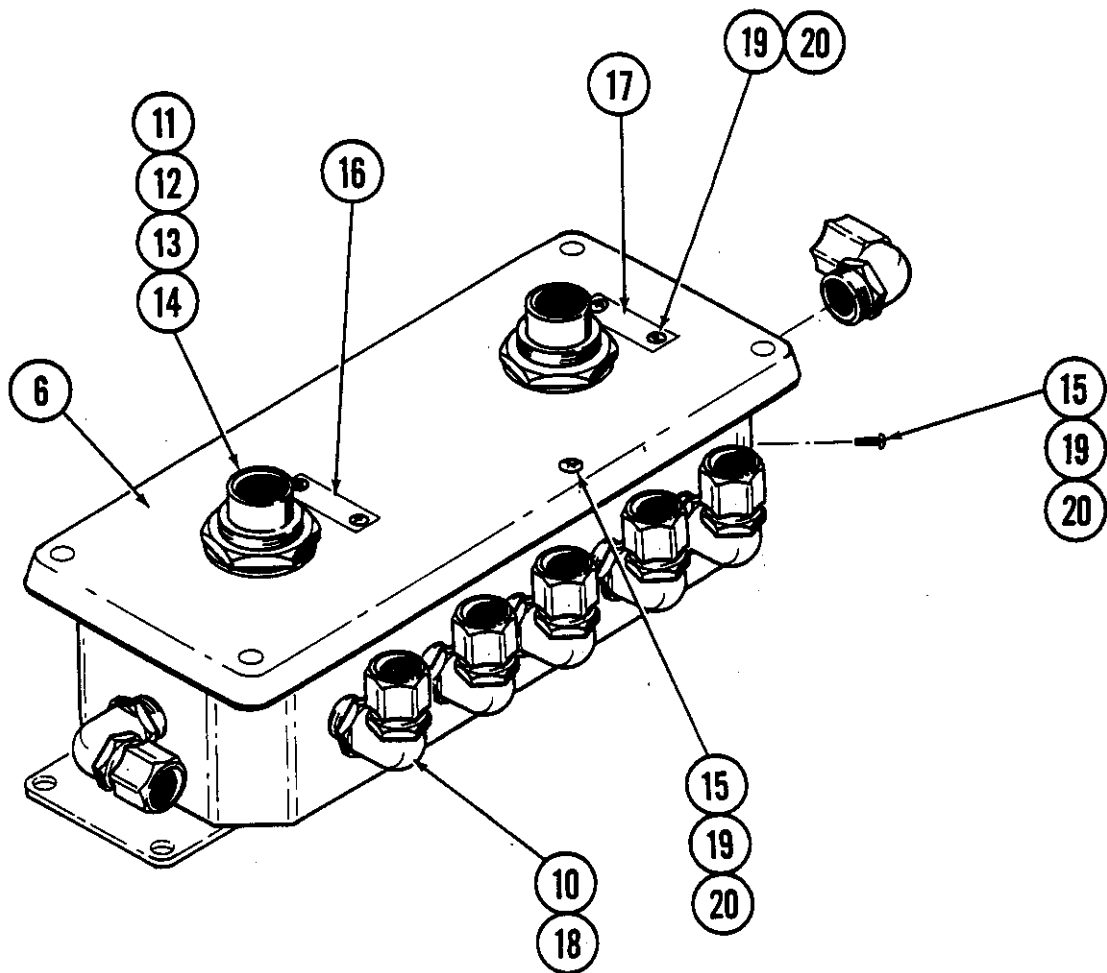
Index number	Part number	Drawing number	Description	Quantity per assembly
10	30334300	402-447-001	BACKING-LAP BAR SWITCH 402-447-1	1.0
12	71559700	4021414-001	BOX-LAP BAR SWITCH 4021414-001	1.0
17	23386600		HOLDER FUSE-PANEL MOUNT (L/F)	1.0
19	27937801		TIMER 7 SEC. SOLID STATE (SSAC)	1.0
20	20634500		CONTACT BLOCK 1 N/O	2.0
21	24839900		OPERATOR ROTARY	1.0
24	21902800		PLUG MALE 4P5W 20A/208V	1.0
25	27443200		CONN. S/REL 1/2" STR (3/4 MAX)	1.0
26	48500600		CABLE 14/5 SO	2.7
27	61601000		CLAMP 3/4 TUBING	1.0
39	61116400		SCREW MS 10-24 X1 1/4 RHP	1.0
40	61144100		SCREW MS 1/4-20X3/4 TRS PH	1.0
41	61116000		SCREW MS 10-24 X3/4 RHP	4.0
42	64780800		NUT HEX 1/4-20 N/I	1.0
43	64780500		NUT HEX 10-24 N/I	5.0
44	68529800		WASHER SAE 3/16	9.0
46	68530200		WASHER SAE 1/4	2.0

+ Separate parts listing provided



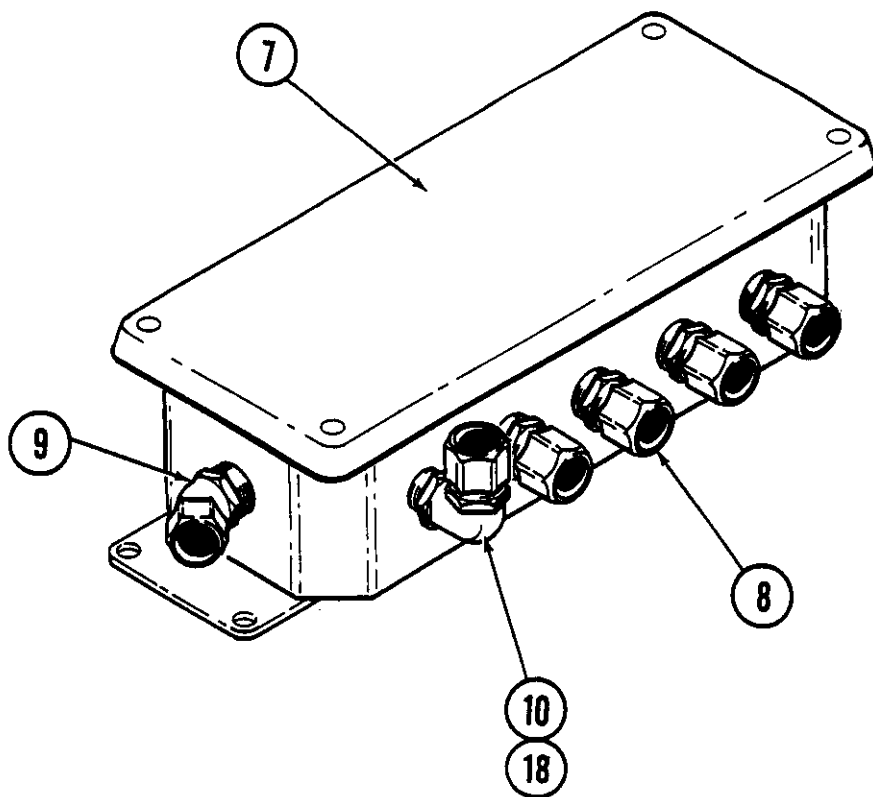
Index number	Part number	Drawing number	Description	Quantity per assembly
6	71549000	402-442-001	CONSOLE BOX 402-442-001	1.0
7	35358592	402-443-001	PLATE-MTG, TERM BLK 402-443-001	1.0
8	71549100	402-432-004	NAMEPLATE-LOW AIR 400-432-004	1.0
9	71549200	400-432-005	NAMEPLATE-PUMP 400-432-005	1.0
10	71549300	400-432-006	NAMEPLATE-E-STOP 400-432-006	1.0
15	24842000		OPERATOR 3POS SWING KNOB	3.0
16	21250300		CAP-FLUSH PUSHBUTTON RED	1.0
17	21249700		CAP-FLUSH PUSHBUTTON GREEN	1.0
18	24842002		OPERATOR 3POS KEY LOCK	1.0
19	24839900		OPERATOR ROTARY	3.0
21	24841300		OPERATOR PUSHBUTTON-EXT. HEAD	2.0
22	24841400		OPERATOR MUSHROOM HD 1 1/2 DIA	1.0
23	20634500		CONTACT BLOCK 1 N/O	14.0
24	20634600		CONTACT BLOCK 1 N/C	7.0
25	24095000		LIGHT INDICATOR 120V (W-H)	3.0
	20992900		BULB 130V/6W INCANDESCENT-CLEA	1.0
26	24025600		LENS-INDICATOR RED	1.0
27	24024600		LENS-INDICATOR GREEN	1.0
28	23741900		LENS CAP-PUSHBUTTON (WHITE)	1.0
30	27846600		TERMINAL BLOCK	1.0
31	20626800		BLOCK TERMINAL ASSY	1.0
32	27845000		TERMINAL RING 1/4 STUD 10-12GA*	1.0
33	27844900		TERMINAL RING #10 STUD 10-12GA*	1.0
35	20175101		ALARM AUDIO SIGNAL	1.0
40	68544400		WASHER LOCK #8 INTERNAL	8.0
41	68541600		WASHER LOCK #10 INTERNAL	3.0
44	64780300		LOCKNUT N/I #6-32 ZP	12.0
48	61113800		SCREW MS 6-32 X1/2 RHP	12.0
49	61142200		SCREW MS 10-24 X1/2 TRS PH	3.0
50	61115200		SCREW MS 8-32 X1/2 RHP	8.0

+ Separate parts listing provided



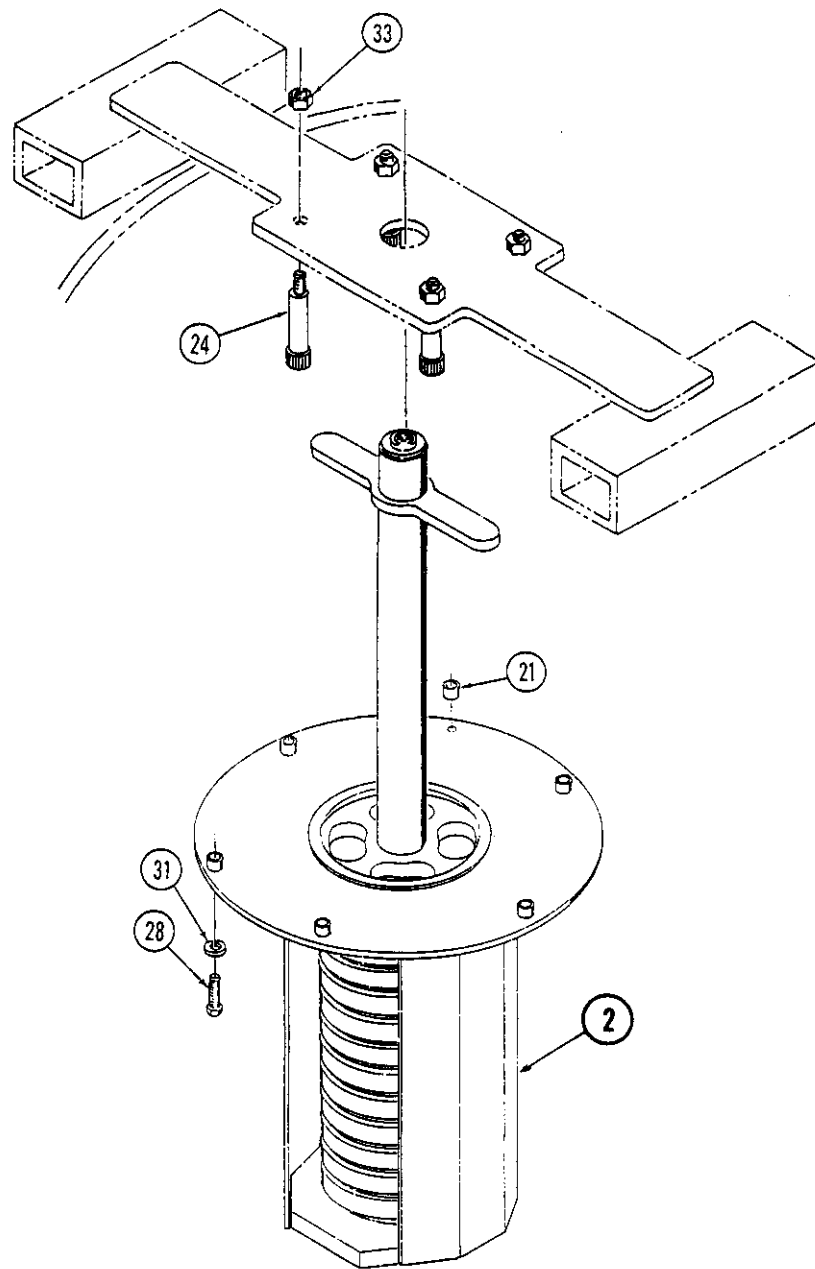
Index number	Part number	Drawing number	Description	Quantity per assembly
6	71548400	402-445-001	J-BOX-TR RECEPTACLE 402-445-001	1.0
10	21910700		CONN. LT-FLX 1/2" 90D NON-INS	7.0
11	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	2.0
12	24758700		NUT SIZE 18 (DEUTSCH)	2.0
13	23497900		CONNECTOR (DEUTSCH)	2.0
14	26970400		SOCKET 16 GAUGE DEUTSCH	28.0
15	21226100		CAP-DUST 18 (DEUTSCH)	2.0
16	71548600	402-437-001	NAMEPLATE-JACKS 402-437-001	1.0
17	71548700	402-437-002	NAMEPLATE-FLOORS 402-437-002	1.0
18	64830500		LOCKNUT 1/2 SEALING	7.0
19	64780300		NUT HEX #6-32 N/I	5.0
20	61113800		SCREW MS 6-32 X1/2 RHP	5.0
21	68536800		WASHER LOCK #10 SPRING MED	1.0
22	64803400		NUT HEX #10-24 BRASS	2.0
25	61160000		SCREW MS 10-24 X3/4 BRS RHP	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
7	71548500	402-445-002	J-BOX TR RECEPTACLE 402-445-002	1.0
8	21910500		CONN. LT-FLX 1/2" STR NON-INS	4.0
9	21910600		CONN. LT-FLX 1/2" 45D NON-INS	1.0
10	21910700		CONN. LT-FLX 1/2" 90D NON-INS	1.0
18	64830500		LOCKNUT 1/2 SEALING	1.0

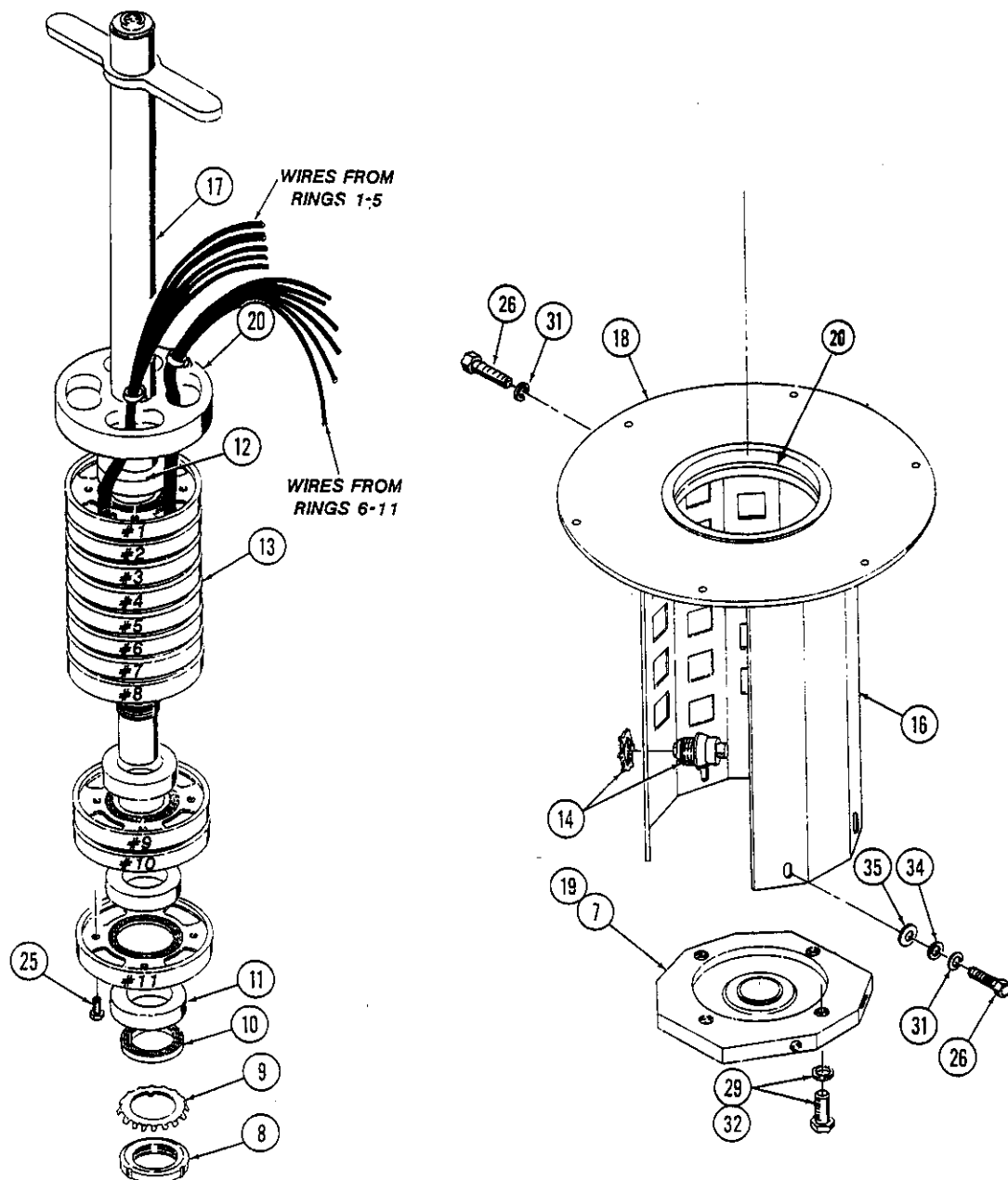
+ Separate parts listing provided



Revised September, 1991

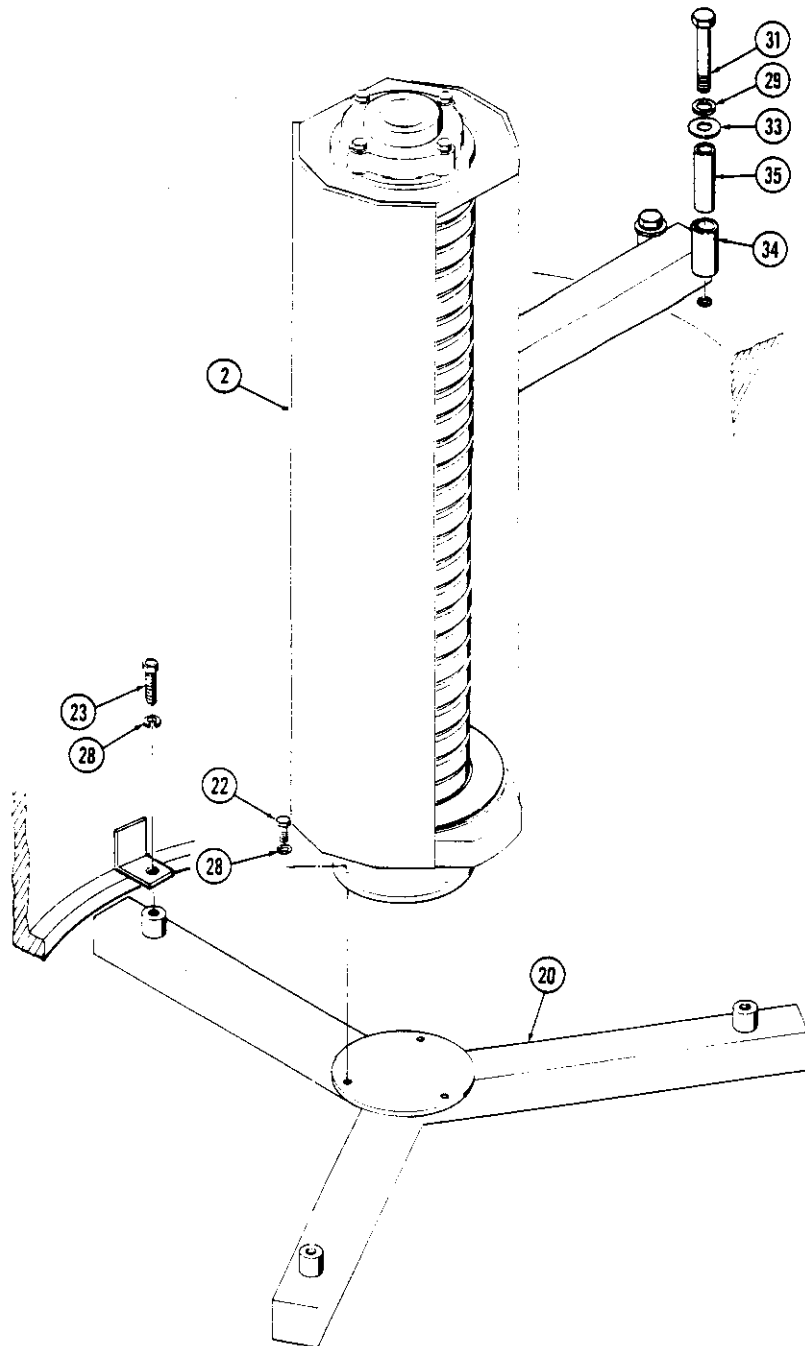
+ Separate parts listing provided

HUB COLLECTOR RING INSTALLATION

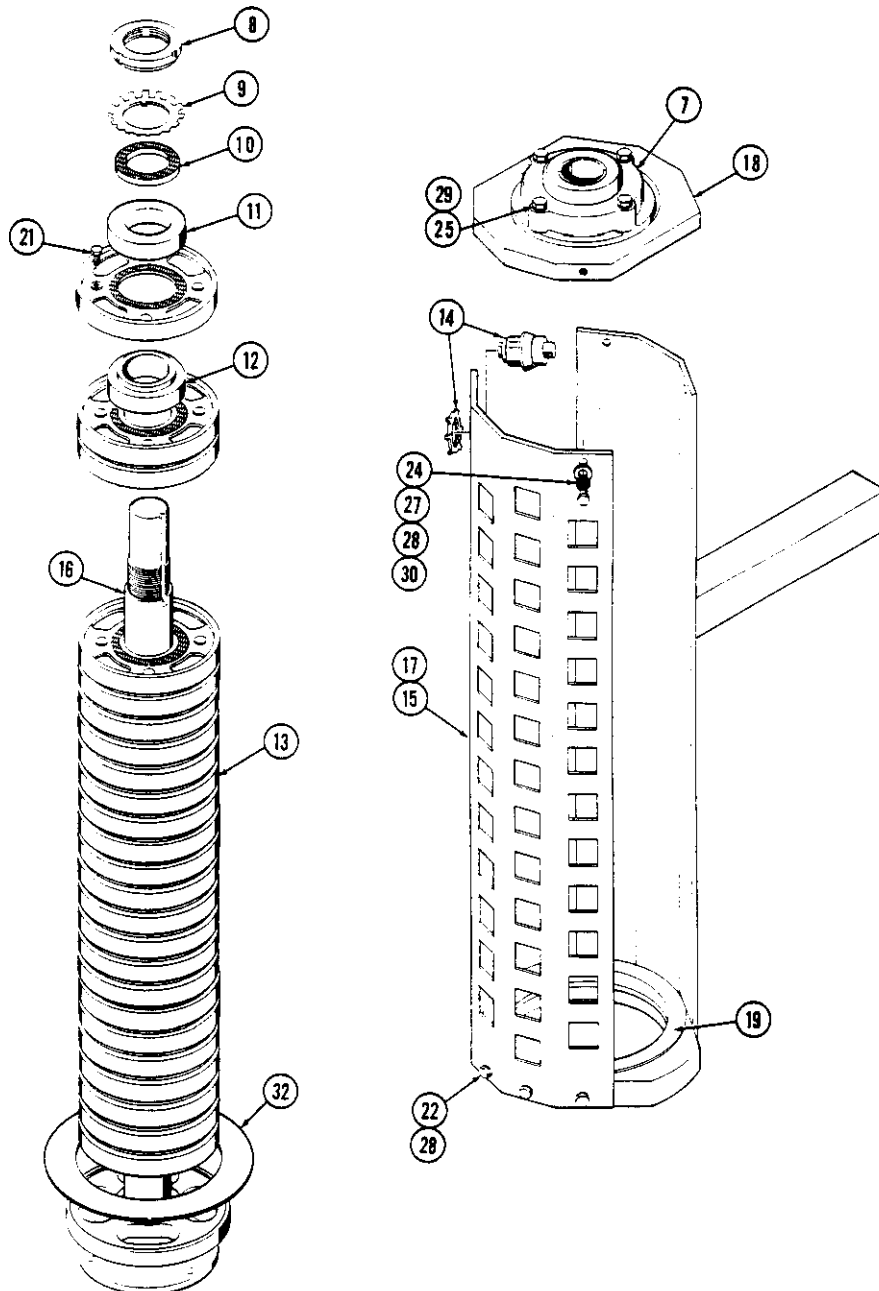


Index number	Part number	Drawing number	Description	Quantity per assembly
7	20513001		BRG FLNG (SEALMASTER)	1.0
8	24757800		NUT 2-18 (TORR)	1.0
9	28557500		WASHER TORRINGTON (W-10)	1.0
10	38555200	CSN45B07-00	WASHER-COLL RING CSN45B07-00	1.0
11	37006300	CSN45B06-01	SPACER-COLL RING CSN45B06-01	1.0
12	37006400	CSN45B05-00	SPACER-COLL RING CSN45B05-00	11.0
13	31776400	CSN45B04-00	COLLECTOR RING CSN45B04-00	11.0
14	30974900	CSN45A01-00	BRUSH HOLDER ASSY CSN45A01-00	22.0
	20973200		BRUSH 5/8 X 1 1/4 Q1-ST*	1.0
	31228200	CSN45B02-01	CAP-BRUSH HOLDER CSN45B02-01	1.0
	33392300	CSN45A09-00	HOLDER-BRUSH CSN45A09-00	1.0
	61179000		BOLT HHCS 1/4-20 X1/2 BRASS	1.0
	64831300		LOCKNUT CONDUIT 1"	1.0
	65180300		PIN EXPANSION 3/32 X 5/16	1.0
16	35358594	402-460-006	PLATE-BRUSH 402-460-006	1.0
17	37370600	402-458-001	STEM MACHINING-BOOM 402-458-001	1.0
18	30976700	402-460-001	BRUSH HOLDER WELDT 402-460-001	1.0
19	34513019	402-455-002	MOUNT-BEARING 402-455-002	1.0
20	31054200	402-455-001	BUSHING-NYLON 402-455-001	1.0
25	61179000		BOLT HHCS 1/4-20 X1/2 BRASS	11.0
26	60766400		BOLT HHCS 3/8-16 X3/4 GR5	4.0
29	60842000		BOLT HHCS 1/2-13 X1 1/2 GR5	4.0
31	68537400		WASHER LOCK 3/8 SPRING MED	8.0
32	68537800		WASHER LOCK 1/2 SPRING MED	4.0
34	68531000		WASHER SAE 3/8	4.0
35	68531400		WASHER SAE 7/16	4.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
2	36130000 +	402-451-002	RING ASSY-COLLECTOR 402-451-002	1.0
20	37490400	402-457-001	SUPPORT WELDT 402-457-001	1.0
22	60766400		BOLT HHCS 3/8-16 X3/4 GR5	3.0
23	60767000		BOLT HHCS 3/8-16 X1 1/2 GR5	3.0
28	68537400		WASHER LOCK 3/8 SPRING MED	6.0
29	68537800		WASHER LOCK 1/2 SPRING MED	2.0
31	60843400		BOLT HHCS 1/2-13 X3 1/4 GR5	2.0
33	38553900	402-735-001	WASHER 402-735-001	2.0
34	38259080	402-736-001	TUBE-2 1/2"LG 402-736-001	2.0
35	38259081	402-736-002	TUBE-2 5/8"LG 402-736-002	2.0
+ Separate parts listing provided				

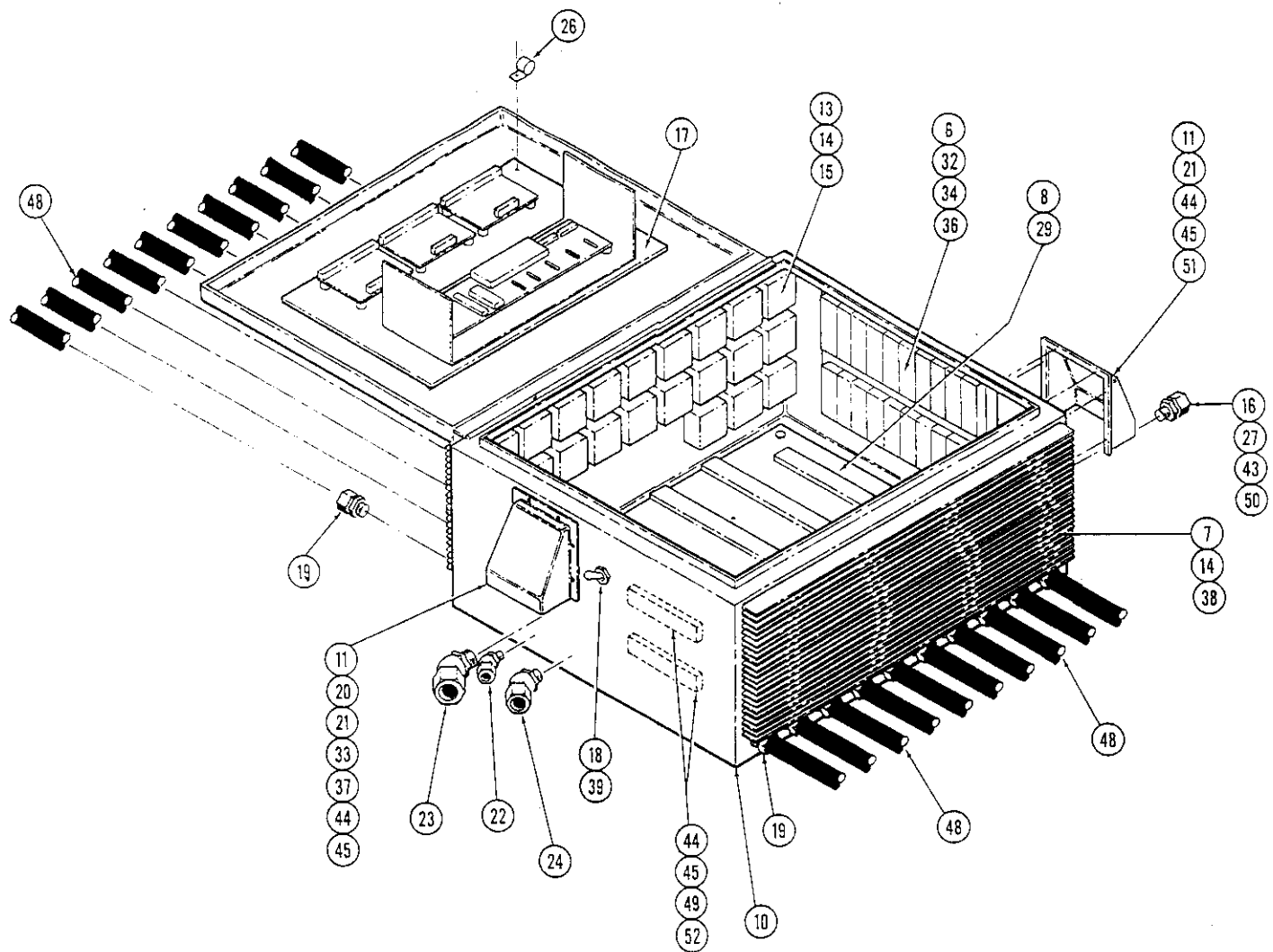


TURRET COLLECTOR RING ASSEMBLY

402-451-002

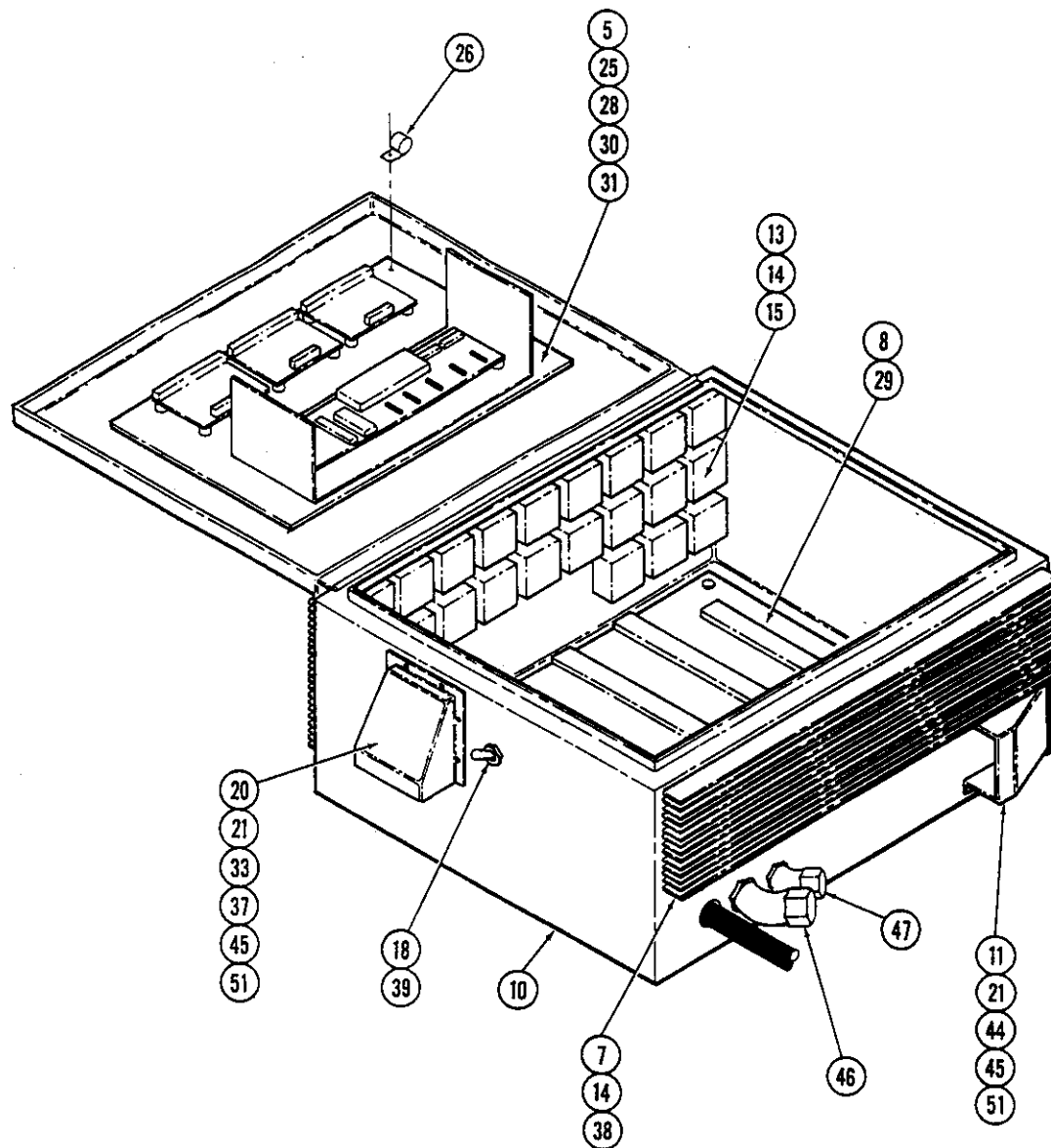
Index number	Part number	Drawing number	Description	Quantity per assembly
7	20513001		BRG FLNG (SEALMASTER)	1.0
8	24757800		NUT 2-18 (TORR)	1.0
9	28557500		WASHER TORRINGTON (W-10)	1.0
10	38555200	CSN45B07-00	WASHER-COLL RING CSN45B07-00	1.0
11	37006300	CSN45B06-01	SPACER-COLL RING CSN45B06-01	1.0
12	37006400	CSN45B05-00	SPACER-COLL RING CSN45B05-00	24.0
13	31776400	CSN45B04-00	COLLECTOR RING CSN45B04-00	24.0
14	30974900	CSN45A01-00	BRUSH HOLDER ASSY CSN45A01-00	48.0
15	35358591	402-456-004	PLATE-BRUSH 402-456-004	1.0
16	37370700	402-454-001	STEM MACH-TURRET 402-454-001	1.0
17	34513020	402-456-001	MOUNT WELDT-BRUSH 402-456-001	1.0
18	34513019	402-455-002	MOUNT-BEARING 402-455-002	1.0
19	31054200	402-455-001	BUSHING-NYLON 402-455-001	1.0
21	61179000		BOLT HHCS 1/4-20 X1/2 BRASS	24.0
22	60766400		BOLT HHCS 3/8-16 X3/4 GR5	4.0
24	60766600		BOLT HHCS 3/8-16 X1 GR5	4.0
25	60842000		BOLT HHCS 1/2-13 X1 1/2 GR5	4.0
27	68531000		WASHER SAE 3/8	4.0
28	68537400		WASHER LOCK 3/8 SPRING MED	4.0
29	68537800		WASHER LOCK 1/2 SPRING MED	4.0
30	68531400		WASHER SAE 7/16	4.0
32	36115200	4021426-001	RING-DEBRIS 4021426-001	1.0

+ Separate parts listing provided



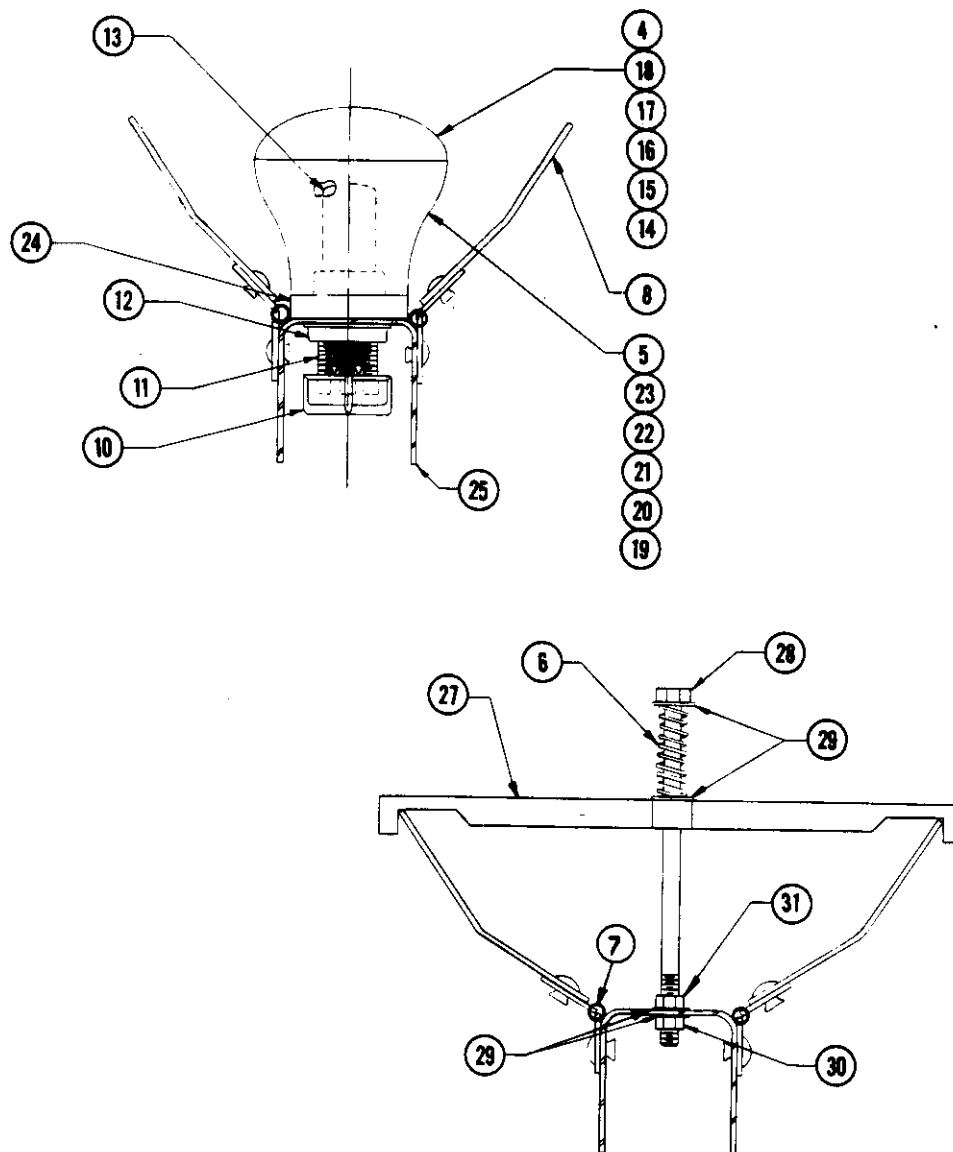
Index number	Part number	Drawing number	Description	Quantity per assembly
6	34983986	4021406A001	PANEL ASSY-TERMINAL 4021406A001	1.0
	25969701		RELAY 120V AC (IDEC)	20.0
	26966300		SOCKET RELAY (IDEC)	20.0
	27223200		SPRING HOLD DOWN (IDEC)	20.0
	34983985	4021407A001	PANEL-MOUNTING 4021407A001	1.0
	38048200	4021447-001	TRACK-MOUNTING 4021447-001	2.0
	61115200		SCREW MS 8-32 X1/2 RHP	6.0
	68544400		WASHER LOCK #8 INTERNAL	6.0
7	33331600	4021400-001	HEATSINK 4021400-001	6.0
8	35358599	402-479-001	PLATE ASSY-BACK 402-479-001	1.0
10	32472600	4021401-001	ENCLOSURE-SPIN/LGHT 4021401-001	1.0
11	32054627	402-417A001	COVER-AIR INLET 402-417A001	2.0
13	61116400		SCREW MS 10-24 X1 1/4 RHP	44.0
14	68541500		WASHER LOCK #10 EXTERNAL	60.0
15	35950300	1080960-001	RELAY ASSY-N/CLOSED 1080960-001	44.0
	25948300		RELAY 120V N/C (SSAC)	1.0
	25986000		RESISTOR 5100 OHM 5 1/4W	1.0
16	23497900		CONNECTOR (DEUTSCH)	2.0
17	35358602	4021404-001	PLATE ASSY-LIGHT CONT 4021404-1	1.0
18	27671000		SWITCH TOGGLE-1PST	1.0
19	21909600		CONN. LT-FLX 3/4" STR NON-INS	20.0
20	22578000		FAN EXHAUST 34CFM 115V	1.0
21	22671500		FILTER AIR FAN F/CONTROL BOX	2.0
22	21877100		CONN. LT-FLX 3/4" 45D INSULATED	1.0
23	21906000		BASE MALE 3P3W 20A/208V	1.0
24	21895600		CONN. LT-FLX 1" 45D INSULATED	1.0
26	61601000		CLAMP 3/4 TUBING	4.0
27	24196800		LOCKWASHER SIZE 18 (DEUTSCH)	2.0
29	68537400		WASHER LOCK 3/8 SPRING MED	4.0
32	61142600		SCREW MS 10-24 X1 TRS PH	4.0
33	22947100		FUSE LAMP GLASS .25 X 1.25	1.0
34	64780500		NUT HEX 10-24 N/I	4.0
36	27019500		SPACER ALUM #10 3/8OD X 5/8 LGTH	4.0
37	21905600		FUSE HOLDER IN-LINE	1.0
38	61115800		SCREW MS 10-24 X1/2 RHP	16.0
39	20768400		BOOT TOGGLE - LEVER EXPOSED	1.0
43	24758700		NUT SIZE 18 (DEUTSCH)	2.0
44	61113800		SCREW MS 6-32 X1/2 RHP	19.0
45	64780300		NUT HEX #6-32 N/I	27.0
48	44102501		CONDUIT .75 (CARFLEX)	48.0
49	71203400	CSN45A03-05	BLOCK ASSY-TERMINAL CSN45A03-05	2.0
50	26970400		SOCKET 16 GAUGE DEUTSCH	26.0
51	61125100		SCREW MS 6-32 X7/8 OV HD	8.0
52	27931000		TIE TERMINAL 5 HOLE MS 25226-4-5	2.0

+ Separate parts listing provided



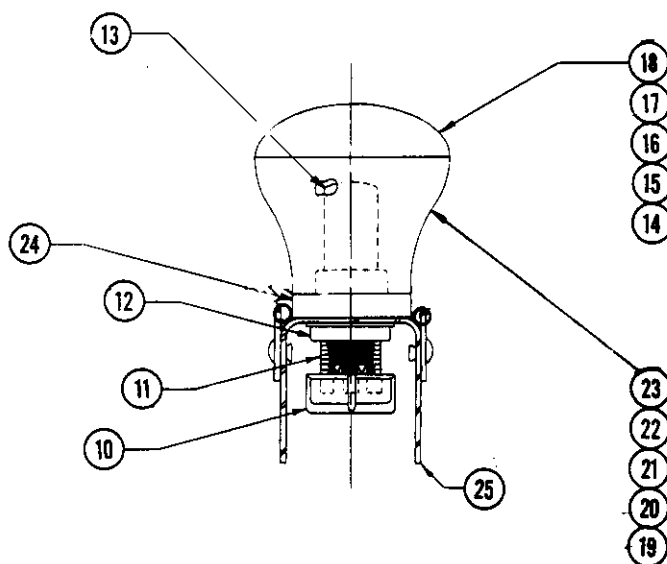
Index number	Part number	Drawing number	Description	Quantity per assembly
5	35358603 +	4021404-002	PLATE ASSY-LIGHT CONT 4021404-2	1.0
7	33331600	4021400-001	HEATSINK 4021400-001	5.0
9	35358601 +	402-479-002	PLATE ASSY-BACK,C/BOX 402-479-2	1.0
11	32054627	402-417A001	COVER-AIR INLET 402-417A001	1.0
12	32472700	4021405-001	ENCLOSURE-LIGHT,SIGN 4021405-1	1.0
13	61116400		SCREW MS 10-24 X1 1/4 RHP	39.0
14	68541500		WASHER LOCK #10 EXTERNAL	50.0
15	35950300	1080960-001	RELAY ASSY-N/CLOSED 1080960-001	39.0
	25948300		RELAY 120V N/C (SSAC)	1.0
	25986000		RESISTOR 5100 OHM 5 1/4W	1.0
18	27671000		SWITCH TOGGLE-1PST	1.0
20	22578000		FAN EXHAUST 34CFM 115V	1.0
21	22671500		FILTER AIR FAN F/CONTROL BOX	2.0
25	64780800		NUT HEX 1/4-20 N/I	4.0
26	61601000		CLAMP 3/4 TUBING	4.0
28	61144300		SCREW MS 1/4-20X1 1/4 TRS PH	4.0
29	68537400		WASHER LOCK 3/8 SPRING MED	4.0
30	64750000		NUT HEX 1/4-20 FULL	4.0
31	68530200		WASHER SAE 1/4	8.0
33	22947100		FUSE LAMP GLASS .25 X 1.25	1.0
37	21905600		FUSE HOLDER IN-LINE	1.0
38	61115800		SCREW MS 10-24 X1/2 RHP	11.0
39	20768400		BOOT TOGGLE - LEVER EXPOSED	1.0
44	61113800		SCREW MS 6-32 X1/2 RHP	6.0
45	64780300		NUT HEX #6-32 N/I	14.0
46	21892200		CONN. LT-FLX 1 1/4" 90D NON-INS	1.0
47	21894800		CONN. LT-FLX 1" 90D NON-INS	1.0
51	61125100		SCREW MS 6-32 X7/8 OV HD	8.0

+ Separate parts listing provided



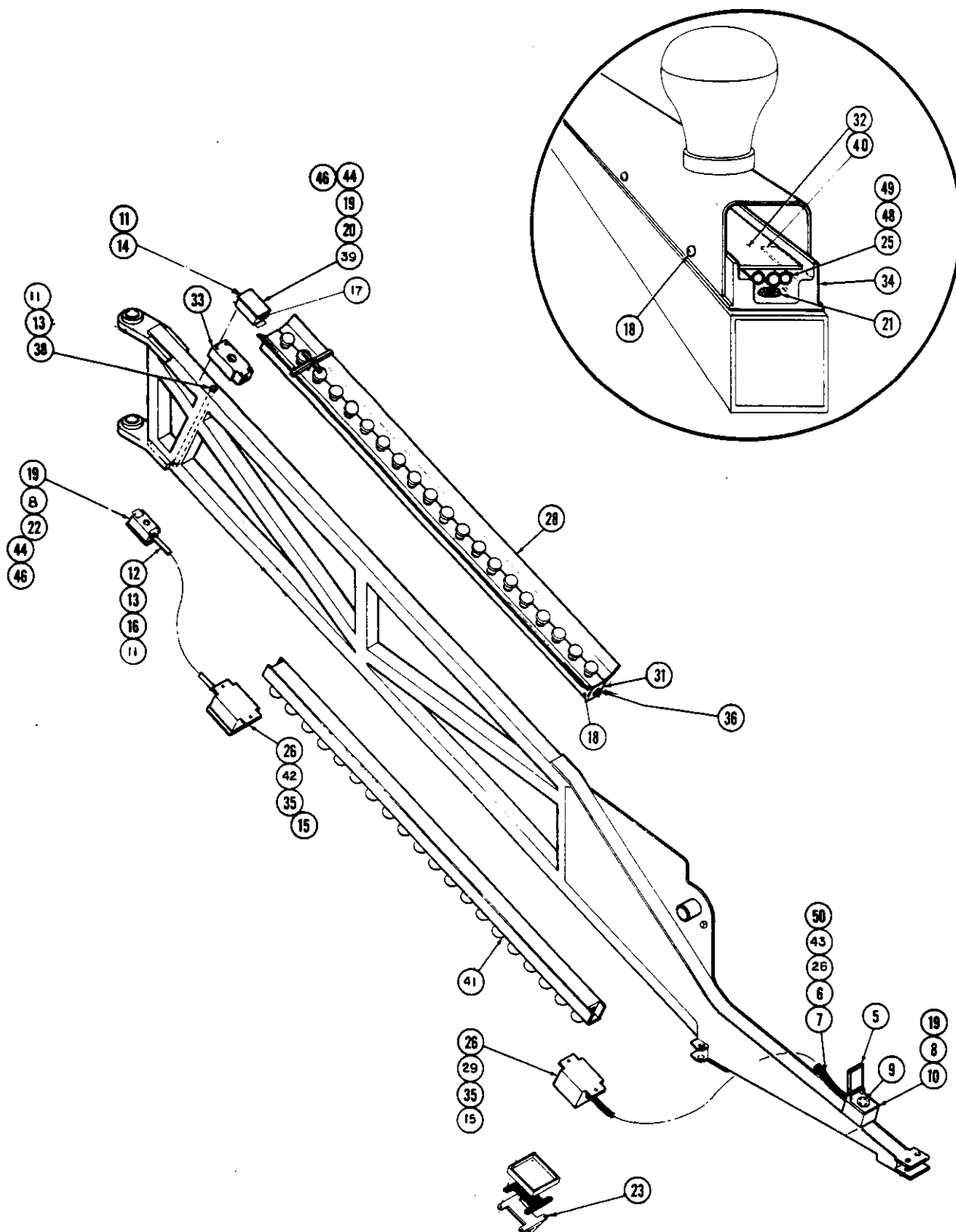
Index number	Part number	Drawing number	Description	Quantity per assembly
4	24077200		TURBO CAP-TL47 GREEN (T3)	1.0
5	24077300		TURBO BASE-TL47 GREEN (T-3)	1.0
6	27214800		SPRG *	.5
7	33341800	402-480-001	HINGE-LIGHT REFLECTOR 402-480-1	6.0
8	35905700	402-471-001	REFLECTOR-SWEEP LGHT 402-471-001	2.0
9	66156000		RIVET 3/16 1601-0613	23.0
10	24075200		TURBO COMPRESSION CAP-TL47/TL67	20.0
11	24075000		TURBO SOCKET-TL47	20.0
12	24075100		TURBO NUT-TL47	20.0
13	24075500		BULB TURBO-TL47 130V/10W	20.0
14	24077000		TURBO CAP-TL47 CLEAR (T7)	4.0
15	24076200		TURBO CAP-TL47 YELLOW (T2)	4.0
16	24076400		TURBO CAP-TL47 ORANGE (T4)	4.0
17	24076000		TURBO CAP-TL47 RED (T1)	4.0
18	24076800		TURBO CAP-TL47 PURPLE (T12)	3.0
19	24077100		TURBO BASE-TL47 CLEAR (T7)	4.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	4.0
21	24076500		TURBO BASE-TL47 ORANGE (T4)	4.0
22	24076100		TURBO BASE-TL47 RED (T1)	4.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	3.0
24	24075300		TURBO COLLAR-TL47	20.0
25	30378525	402-463-001	BAR-LIGHT 402-463-001	1.0
27	37491300	402-481-001	SUPPORT WELDT-REFLECTOR402-481-1	1.0
28	60703600		BOLT HHCS 1/4-20 X5 GR5	1.0
29	68530200		WASHER SAE 1/4	4.0
30	64780800		NUT HEX 1/4-20 N/I	1.0
31	64759600		NUT HEX 1/4-20 JAM	1.0
32	61115800		SCREW MS 10-24 X1/2 RHP	1.0
33	68541500		WASHER LOCK #10 EXTERNAL	1.0
34	64792600		NUT HEX 10-24	1.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
10	24075200		TURBO COMPRESSION CAP-TL47/TL67	20.0
11	24075000		TURBO SOCKET-TL47	20.0
12	24075100		TURBO NUT-TL47	20.0
13	24075500		BULB TURBO-TL47 130V/10W	20.0
14	24077000		TURBO CAP-TL47 CLEAR (T7)	4.0
15	24076200		TURBO CAP-TL47 YELLOW (T2)	4.0
16	24076400		TURBO CAP-TL47 ORANGE (T4)	4.0
17	24076000		TURBO CAP-TL47 RED (T1)	4.0
18	24076800		TURBO CAP-TL47 PURPLE (T12)	4.0
19	24077100		TURBO BASE-TL47 CLEAR (T7)	4.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	4.0
21	24076500		TURBO BASE-TL47 ORANGE (T4)	4.0
22	24076100		TURBO BASE-TL47 RED (T1)	4.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	4.0
24	24075300		TURBO COLLAR-TL47	20.0
25	30378525	402-463-001	BAR-LIGHT 402-463-001	1.0

+ Separate parts listing provided



Wipeout Parts Catalog D-73

Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
8	61115800		SCREW MS 10-24 X1/2 RHP	4.0
11	21033100		BUSHING CONDUIT 3/4" PLASTIC	5.0
12	64831200		LOCKNUT CONDUIT 3/4"	2.0
13	64830600		LOCKNUT 3/4 SEALING	4.0
14	21909600		CONN. LT-FLX 3/4" STR NON-INS	1.0
15	61407100		BUSHING NYLON 1 3/32 SNAP	2.0
17	61401000		BUSHING NYLON 3/4 - 5/8	1.0
18	66407100		SCREW #8X3/8 PH S/T PAN HD	32.0
19	68541500		WASHER LOCK #10 EXTERNAL	10.0
20	61116400		SCREW MS 10-24 X1 1/4 RHP	4.0
21	66166200		FASTENER BLIND (.214-.420) STEEL	8.0
22	30784418	4021420-001	BOX-JUNCTION 4021420-001	1.0
23	24082600		LIGHT STROBE "WEDGE"	1.0
25	48015000		TUBE AIR BRAKE .25 BLACK*	12.0
25	48015200		TUBE AIR BRAKE .25 RED*	12.0
25	48015400		TUBE AIR BRAKE .25 YELLOW*	12.0
26	60700000		BOLT HHCS 1/4-20 X1/2 GR5	4.0
27	31554000 +	402-477-002	CHANNEL ASSY-LIGHT 402-477-002*	1.0
28	31553900 +	402-477-001	CHANNEL ASSY-LIGHT 402-477-001*	1.0
30	71108900	402-475-004	WEDGE STROBE MTG ENCL 402-475-4	1.0
31	31220400	402-474-001	CAP-END, SWEEP LIGHT 402-474-001	1.0
32	32037555	402-473-001	COVER-AIR HOSE 402-473-001	1.0
33	30641300	402-631-001	BLOCK-ROUTING SPACER 402-631-1	1.0
34	30953100	402-462-001	BRACKET-MTG, SWEEP LGHT 402-462-1	2.0
35	68537000		WASHER LOCK 1/4 SPRING MED	4.0
36	27442500		CONN. S/REL 1/2" STR (3/8 MAX)	1.0
38	44122500		CONDUIT .75 RIGID-GALV	3.1
39	30784419	4021420-002	BOX-JUNCTION 4021420-002	1.0
40	44712600		TAPE .125X.375 VYL S/B FOAM	1.0
42	32473100	402-475-003	ENCLOSURE-J BOX 402-475-003	1.0
44	64803400		NUT HEX #10-24 BRASS	2.0
46	61159800		SCREW MS 10-24 X1/2 BRS RHP	2.0

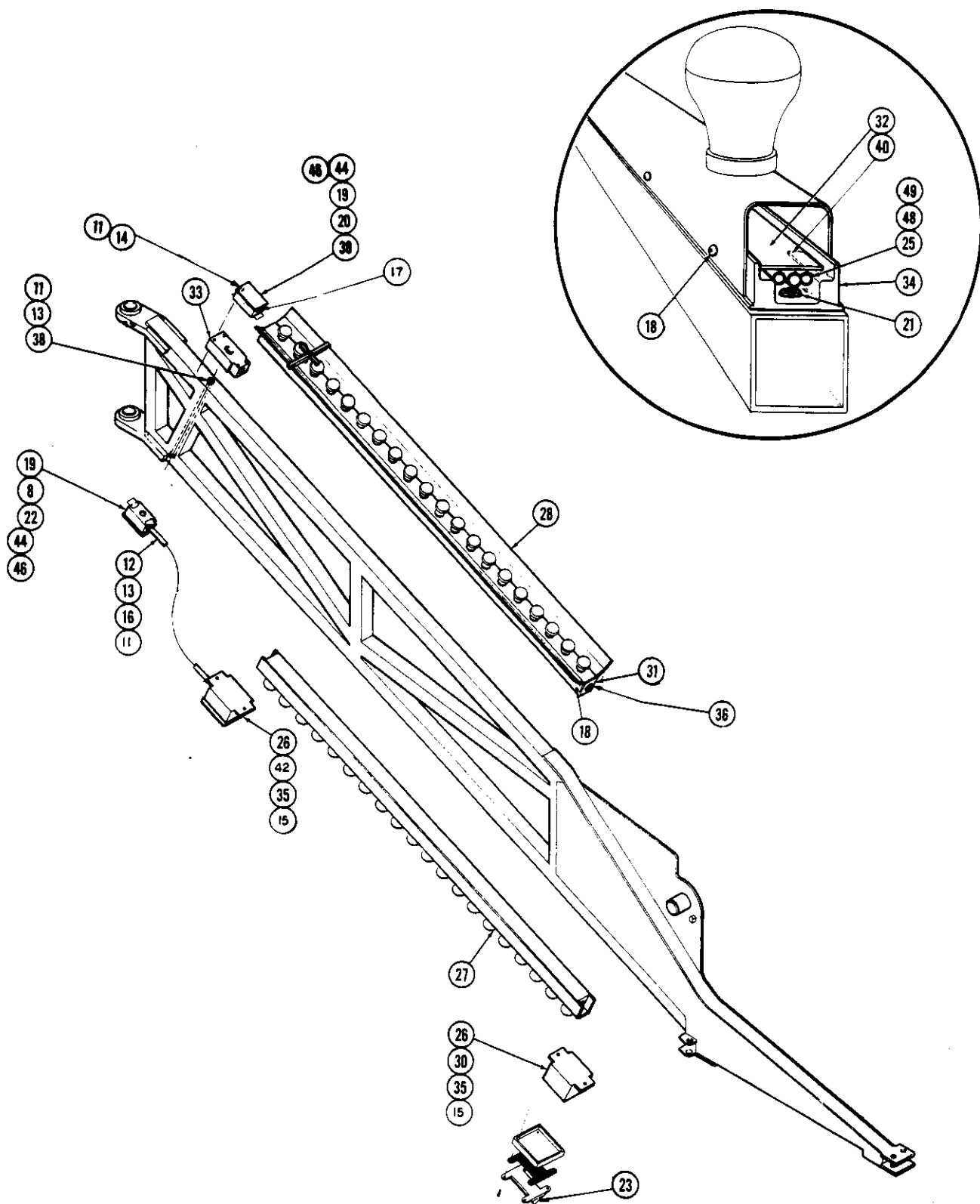
+ Separate parts listing provided

402-478-001

SWEEP LIGHT INSTALLATION (Sweeps #2 Through #20)

D-74 Chance Rides, Inc.

Revised February, 1993



SWEEP LIGHT INSTALLATION (Sweep #1)

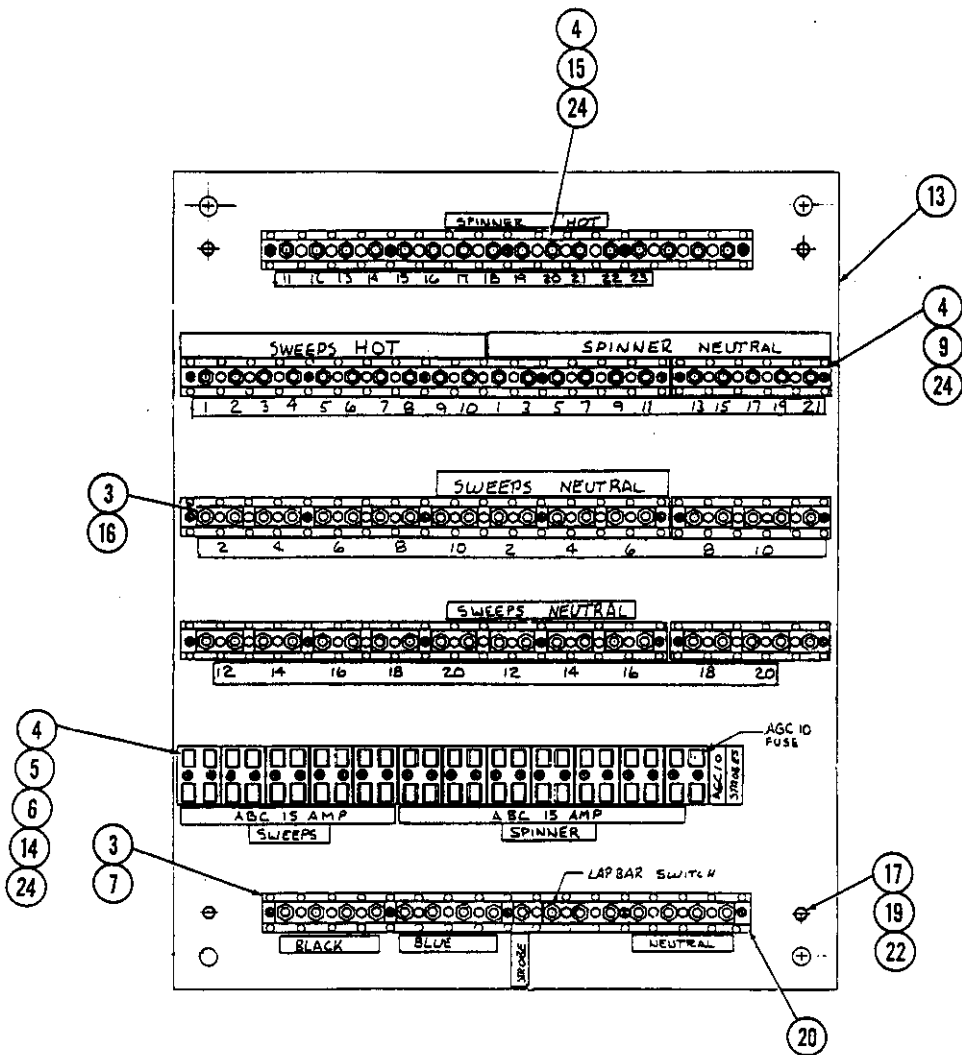
402-478-002

Wipeout Parts Catalog D-75

Revised February, 1993

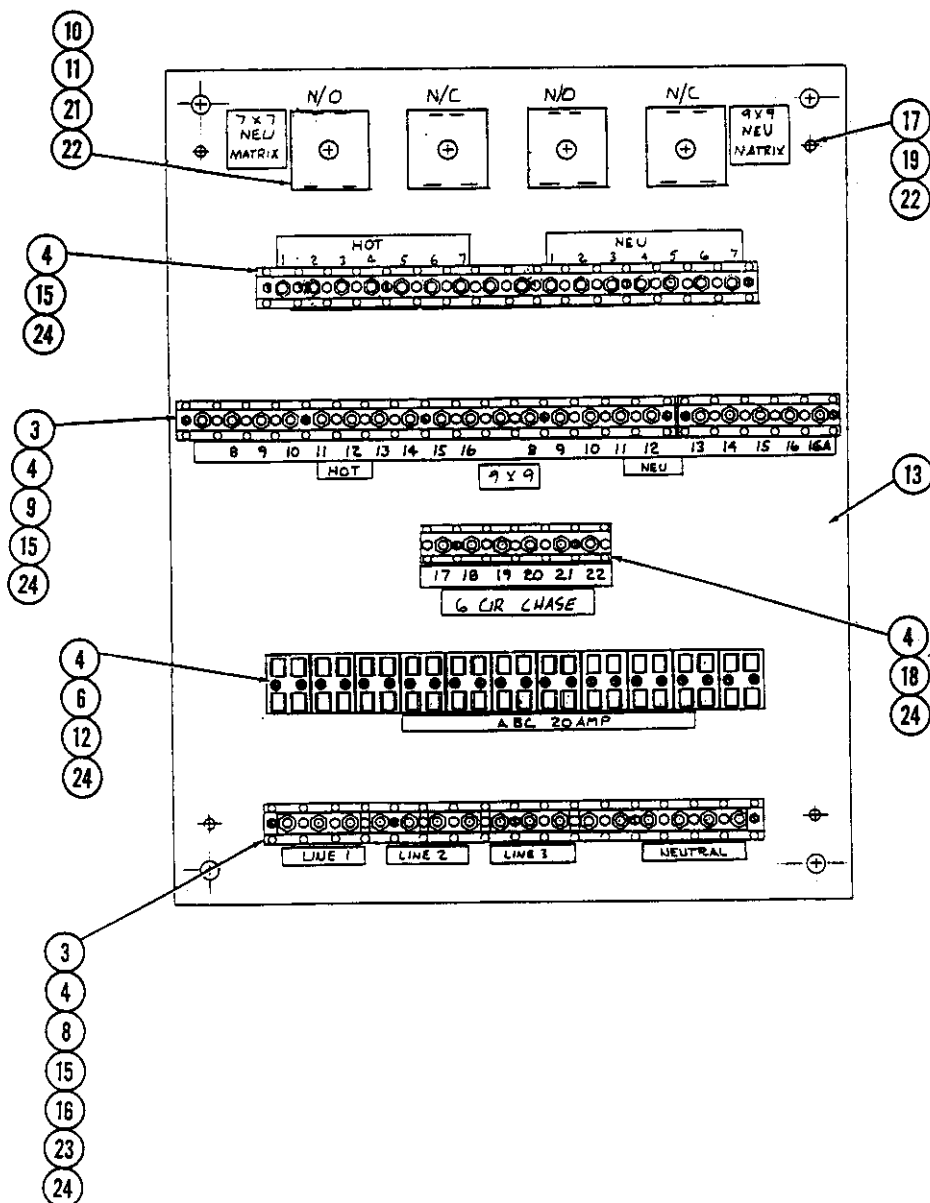
Index number	Part number	Drawing number	Description	Quantity per assembly
5	22079400		COVER W/P ALUM-VERTICAL 1.566	1.0
6	21851700		CONN. LT-FLX 3/8" STR INSULATED	2.0
7	44102000		CONDUIT .375 FLX SEAL-TIGHT UL	5.0
8	61115800		SCREW MS 10-24 X1/2 RHP	8.0
9	21903500		RECEPTACLE-FLUSH 4P5W 20A/208V	1.0
10	20830700		BOX 2 X 4 W/P W/3 1/2" HOLES	1.0
11	21033100		BUSHING CONDUIT 3/4" PLASTIC	5.0
12	64831200		LOCKNUT CONDUIT 3/4"	2.0
13	64830600		LOCKNUT 3/4 SEALING	4.0
14	21909600		CONN. LT-FLX 3/4" STR NON-INS	1.0
15	61407100		BUSHING NYLON 1 3/32 SNAP	2.0
16	61601000		CLAMP 3/4 TUBING	2.0
17	61401000		BUSHING NYLON 3/4 - 5/8	1.0
18	66407100		SCREW #8X3/8 PH S/T PAN HD	32.0
19	68541500		WASHER LOCK #10 EXTERNAL	14.0
20	61116400		SCREW MS 10-24 X1 1/4 RHP	4.0
21	66166200		FASTENER BLIND (.214-.420) STEEL	8.0
22	30784418	4021420-001	BOX-JUNCTION 4021420-001	1.0
23	24082600		LIGHT STROBE "WEDGE"	1.0
25	48015000		TUBE AIR BRAKE .25 BLACK*	12.0
25	48015200		TUBE AIR BRAKE .25 RED*	12.0
25	48015400		TUBE AIR BRAKE .25 YELLOW*	12.0
26	60700000		BOLT HHCS 1/4-20 X1/2 GR5	6.0
27	31554400 +	402-477-003	CHANNEL ASSY-LIGHT 402-477-003*	1.0
28	31553900 +	402-477-001	CHANNEL ASSY-LIGHT 402-477-001*	1.0
29	71110200	402-475-005	WEDGE STROBE MTG ENCL 402-475-5	1.0
31	31220400	402-474-001	CAP-END, SWEEP LIGHT 402-474-001	1.0
32	32037555	402-473-001	COVER-AIR HOSE 402-473-001	1.0
33	30641300	402-631-001	BLOCK-ROUTING SPACER 402-631-1	1.0
34	30953100	402-462-001	BRACKET-MTG, SWEEP LGHT 402-462-1	2.0
35	68537000		WASHER LOCK 1/4 SPRING MED	4.0
36	27442500		CONN. S/REL 1/2" STR (3/8 MAX)	1.0
38	44122500		CONDUIT .75 RIGID-GALV	3.1
39	30784419	4021420-002	BOX-JUNCTION 4021420-002	1.0
40	44712600		TAPE .125X.375 VYL S/B FOAM	1.0
42	32473100	402-475-003	ENCLOSURE-J BOX 402-475-003	1.0
43	68542200		WASHER LOCK 1/4 EXTERNAL	2.0
44	64803400		NUT HEX #10-24 BRASS	2.0
46	61159800		SCREW MS 10-24 X1/2 BRS RHP	2.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
3	64792800		NUT HEX #10-32	160.0
4	61113800		SCREW MS 6-32 X1/2 RHP	71.0
5	22945000		FUSE 15AMP CERAMIC .25 X 1.25	23.0
6	20624500		BLOCK FUSE	12.0
7	27931100		TERMINAL TIE 4-HOLE	2.0
9	71203400	CSN45A03-05	BLOCK ASSY-TERMINAL CSN45A03-05	3.0
13	35358604	4021402-001	PLATE-MTG, CONTR BOX 4021402-001	1.0
14	22947700		FUSE 10AMP GLASS .25 X 1.25	1.0
15	20624700		BLOCK TERMINAL	5.0
16	27930600		TERMINAL TIE 2-HOLE	20.0
17	61160200		SCREW MS 10-24 X1 BRS RHP	4.0
19	64803400		NUT HEX #10-24 BRASS	8.0
20	27930700		TIE TERMINAL 7 HOLE MS 25226-4-7	1.0
22	68541500		WASHER LOCK #10 EXTERNAL	8.0
24	68544100		WASHER LOCK #6 INTERNAL	71.0

+ Separate parts listing provided



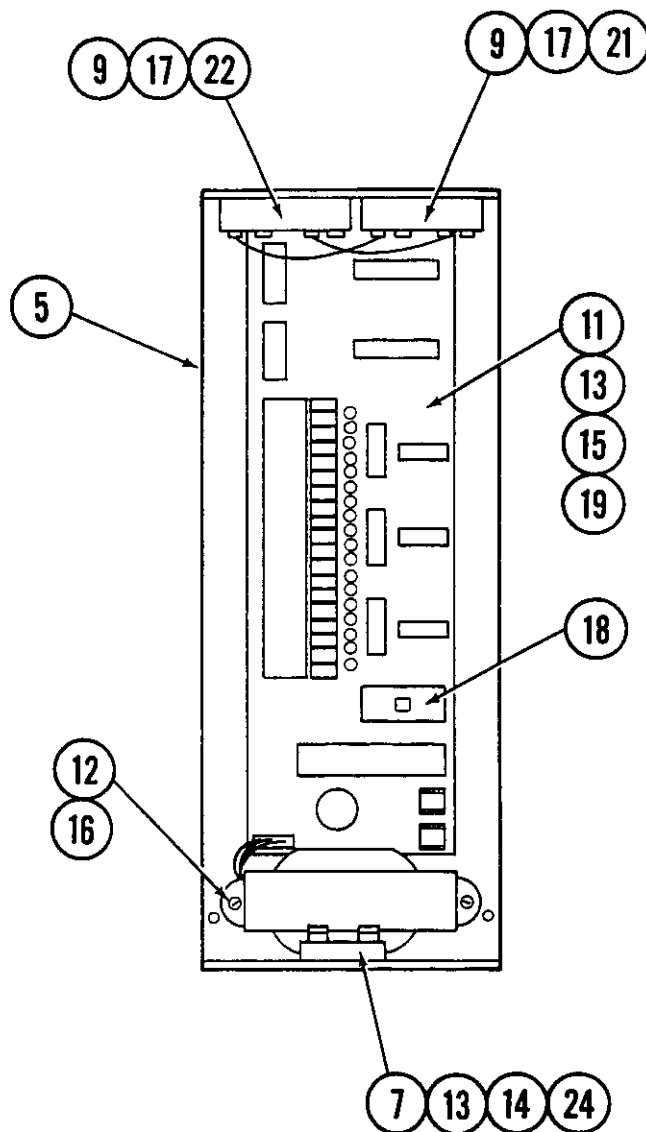
Wipeout Parts Catalog D-79
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
3	64792800		NUT HEX #10-32	64.0
4	61113800		SCREW MS 6-32 X1/2 RHP	40.0
6	20624500		BLOCK FUSE	11.0
8	27930500		TERMINAL TIE 3-HOLE	2.0
10	25948300		RELAY 120V N/C (SSAC)	2.0
11	25948900		RELAY SOLIDSTATE (SSAC)	2.0
12	22946100		FUSE 20AMP CERAMIC .25 X 1.25	22.0
13	35358604	4021402-001	PLATE-MTG, CONTR BOX 4021402-001	1.0
15	20624700		BLOCK TERMINAL	2.0
16	27930600		TERMINAL TIE 2-HOLE	2.0
17	61160200		SCREW MS 10-24 X1 BRS RHP	4.0
18	70248900	CSN45A03-06	TERMINAL BLOCK CSN45A03-06	1.0
19	64803400		NUT HEX #10-24 BRASS	8.0
21	61118600		SCREW MS 10-32 X1 RHP	4.0
22	68541500		WASHER LOCK #10 EXTERNAL	12.0
23	27930900		TERMINAL TIE 6-HOLE	1.0
24	68544100		WASHER LOCK #6 INTERNAL	40.0

+ Separate parts listing provided

402-479-002

BACK PLATE ASSEMBLY - Sign Lighting



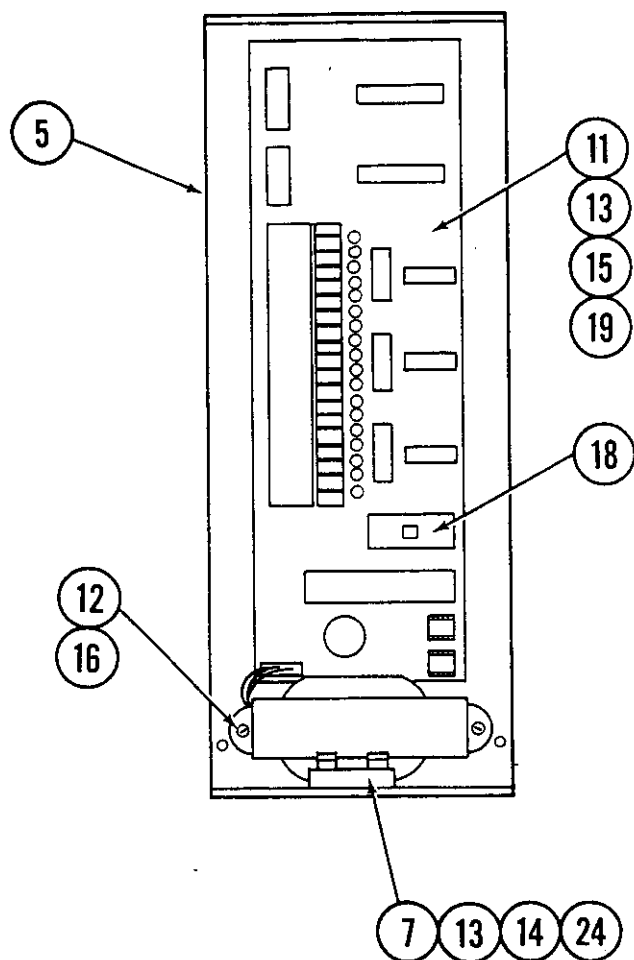
Wipeout Parts Catalog D-81
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
5	30851482	4021408-001	BRACKET-LIGHT CONTROL 4021408-1	1.0
7	22945200		FUSE LAMP CERAMIC .25 X 1.25	2.0
9	68541500		WASHER LOCK #10 EXTERNAL	2.0
11	27019503		SPACER NYLON #6 1/40D X 3/8 LGTH	5.0
12	64780600		NUT HEX 10-32 N/I	2.0
13	64780300		NUT HEX #6-32 N/I	7.0
14	61113800		SCREW MS 6-32 X1/2 RHP	2.0
15	61114000		SCREW MS 6-32 X3/4 RHP	5.0
16	61118200		SCREW MS 10-32 X1/2 RHP	2.0
17	61118600		SCREW MS 10-32 X1 RHP	2.0
18	22516300		EPROM 256K	1.0
19	21956100		CONTROLLER LIGHT SEQUENCER	1.0
21	25948900		RELAY SOLIDSTATE (SSAC)	1.0
22	25948300		RELAY 120V N/C (SSAC)	1.0
24	20624500		BLOCK FUSE	1.0

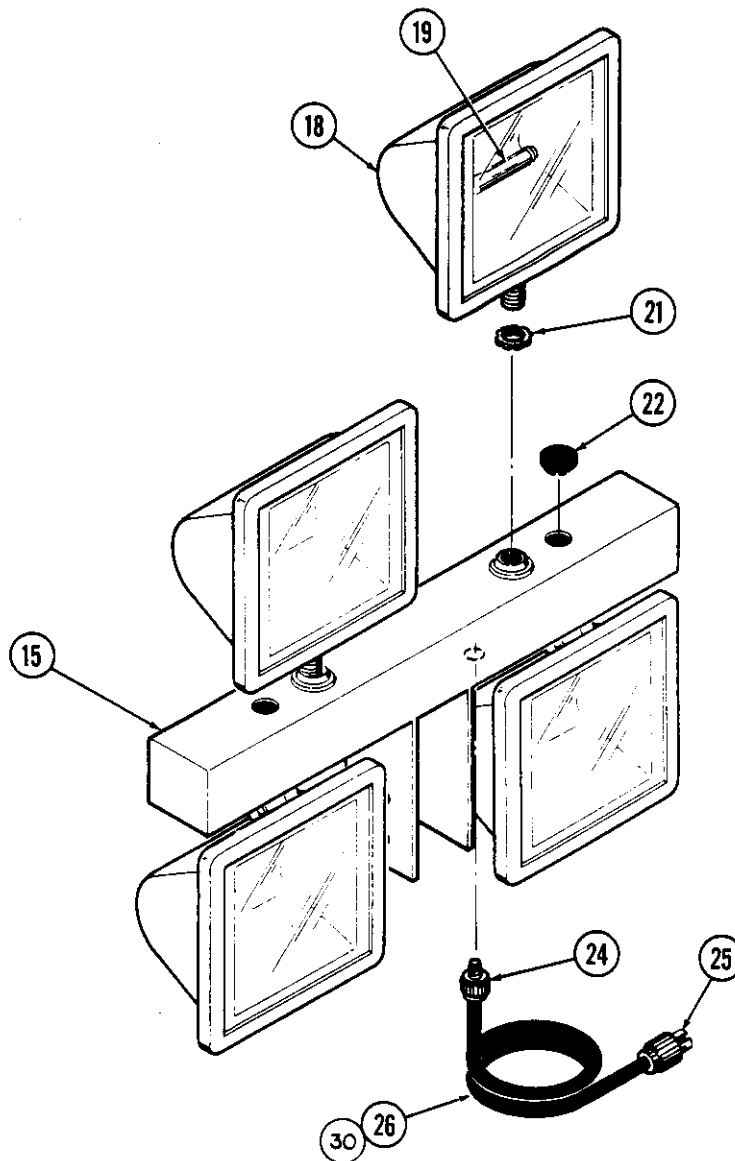
+ Separate parts listing provided

402-487-001

LIGHTING CONTROLLER - Hub and Sweeps



Index number	Part number	Drawing number	Description	Quantity per assembly
5	30851482	4021408-001	BRACKET-LIGHT CONTROL 4021408-1	1.0
6	22945100		FUSE 10AMP CERAMIC .25 X 1.25	1.0
7	22945200		FUSE 1AMP CERAMIC .25 X 1.25	1.0
11	27019503		SPACER NYLON #6 1/40D X 3/8 LGTH	5.0
12	64780600		NUT HEX 10-32 N/I	2.0
13	64780300		NUT HEX #6-32 N/I	7.0
14	61113800		SCREW MS 6-32 X1/2 RHP	2.0
15	61114000		SCREW MS 6-32 X3/4 RHP	5.0
16	61118200		SCREW MS 10-32 X1/2 RHP	2.0
18	22516300		EPROM 256K	1.0
19	21956100		CONTROLLER LIGHT SEQUENCER	1.0
24	20624500		BLOCK FUSE	1.0
+ Separate parts listing provided				



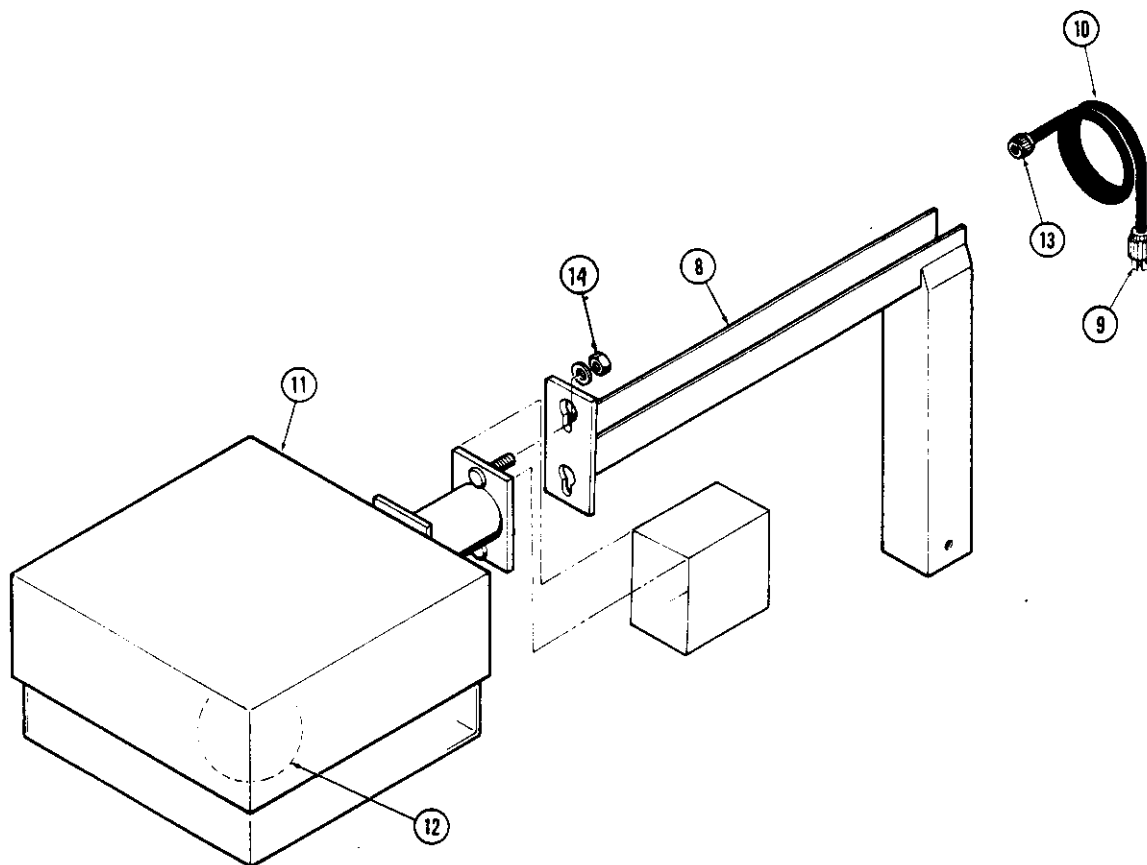
Wipeout Parts Catalog D-85
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
15	34510301	402-492-001	MTG BAR-FLOODLIGHT 402-492-001	1.0
18	24079600		LIGHT FIXTURE W/QUARTZ BULB	4.0
19	23937500		LAMP QUARTZ 500W/120V	4.0
21	64831100		LOCKNUT CONDUIT 1/2"	4.0
22	65446000		PLUG HOLE 1 NYLON	4.0
24	21878700		FITTING 3/8" STR XTRAFLEX	1.0
25	21902700		PLUG MALE 4P4W 20A/208V	1.0
26	48004400		CONDUIT .375 XTRAFLEX TUBING	3.0
30	48505100		WIRE 12 GA THHN STRAND X	1.0

+ Separate parts listing provided

402-490-001

FLOOD LIGHT ASSEMBLY



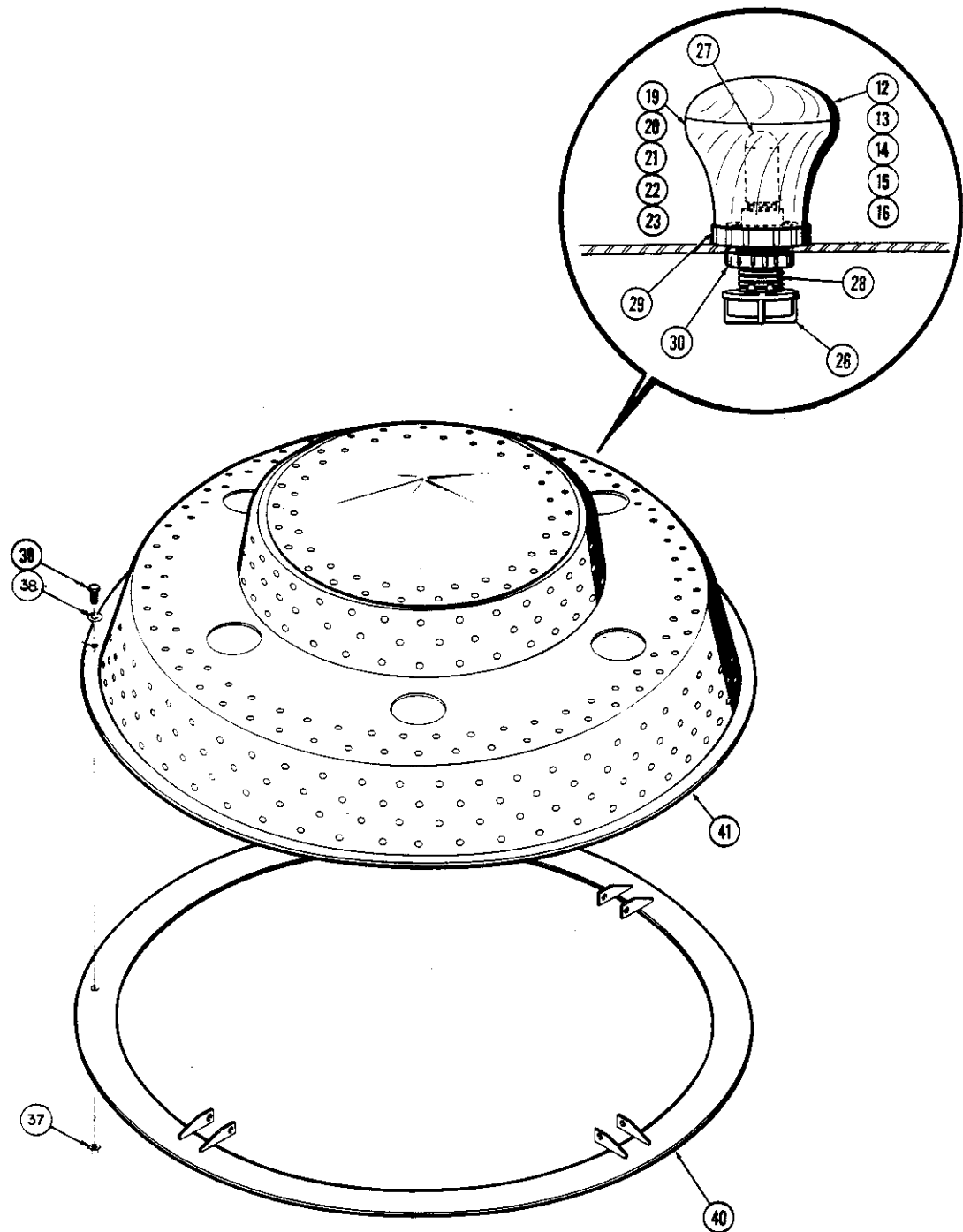
Wipeout Parts Catalog D-87
Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
8	35511021	402-495-001	POLE WELDT-WALKWAY LGHT402-495-1	1.0
9	21905100		PLUG MALE 2P3W 15A/125V	1.0
10	71568600	402-496-010	CONDUIT XTRAFLEX 402-496-010	1.0
11	24096000		LIGHT FIXTURE W/ARM-G/W WALKWAY	1.0
	24096001		COVER LIGHT F/24096000	1.0
	24096002		TRANSFORMER LIGHT F/24096000	1.0
12	23938300		LAMP 175W G/W WALKWAY	1.0
13	21878700		FITTING 3/8" STR XTRAFLEX	1.0
14	64751600		NUT HEX 1/2-13 FULL	2.0

+ Separate parts listing provided

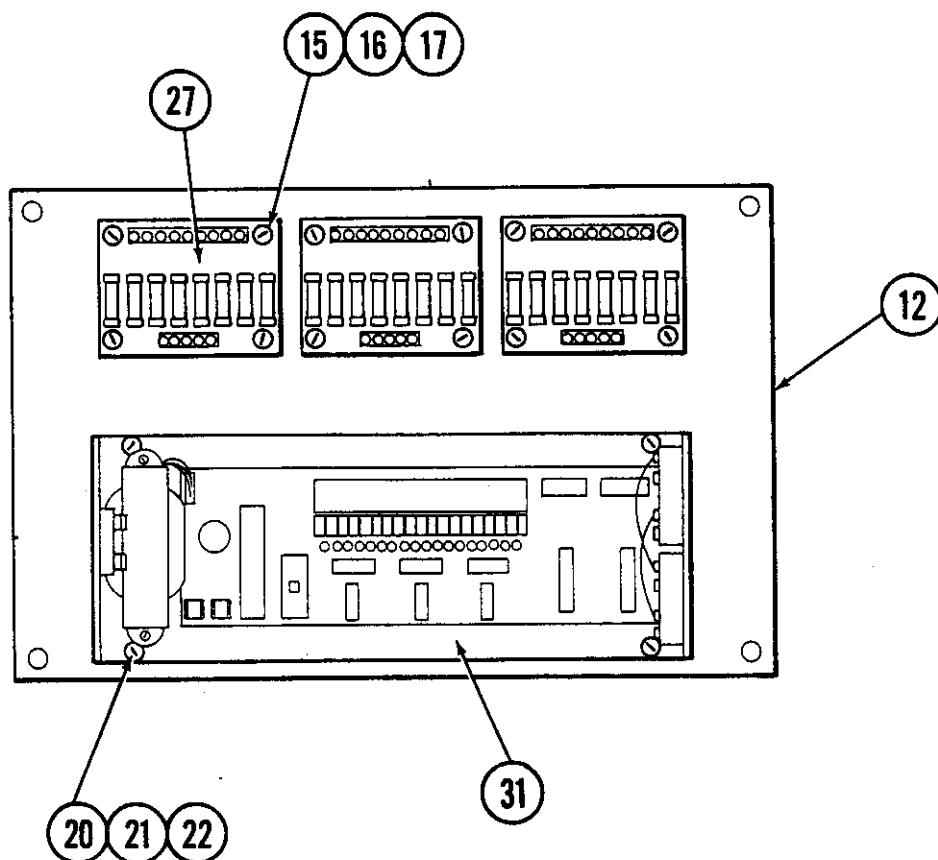
402-496-001

WALKWAY LIGHT ASSEMBLY



Wipeout Parts Catalog D-89
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
12	24077000		TURBO CAP-TL47 CLEAR (T7)	78.0
13	24076200		TURBO CAP-TL47 YELLOW (T2)	78.0
14	24076400		TURBO CAP-TL47 ORANGE (T4)	78.0
15	24076000		TURBO CAP-TL47 RED (T1)	78.0
16	24076800		TURBO CAP-TL47 PURPLE (T12)	126.0
19	24077100		TURBO BASE-TL47 CLEAR (T7)	78.0
20	24076300		TURBO BASE-TL47 YELLOW (T2)	78.0
21	24076500		TURBO BASE-TL47 ORANGE (T4)	78.0
22	24076100		TURBO BASE-TL47 RED (T1)	78.0
23	24076900		TURBO BASE-TL47 PURPLE (T12)	126.0
26	24075200		TURBO COMPRESSION CAP-TL47/TL67	438.0
27	24075500		BULB TURBO-TL47 130V/10W	438.0
28	24075000		TURBO SOCKET-TL47	438.0
29	24075300		TURBO COLLAR-TL47	438.0
30	24075100		TURBO NUT-TL47	438.0
37	64780800		NUT HEX 1/4-20 N/I	12.0
38	68530200		WASHER SAE 1/4	12.0
39	60700400		BOLT HHCS 1/4-20 X1 GR5	12.0
40	36114900	402-382-001	RING WELD-T 402-382-001	1.0
41	37142400	402-472-001	SPINNER-CTR,HOLE LOC 402-472-001	1.0
+ Separate parts listing provided				



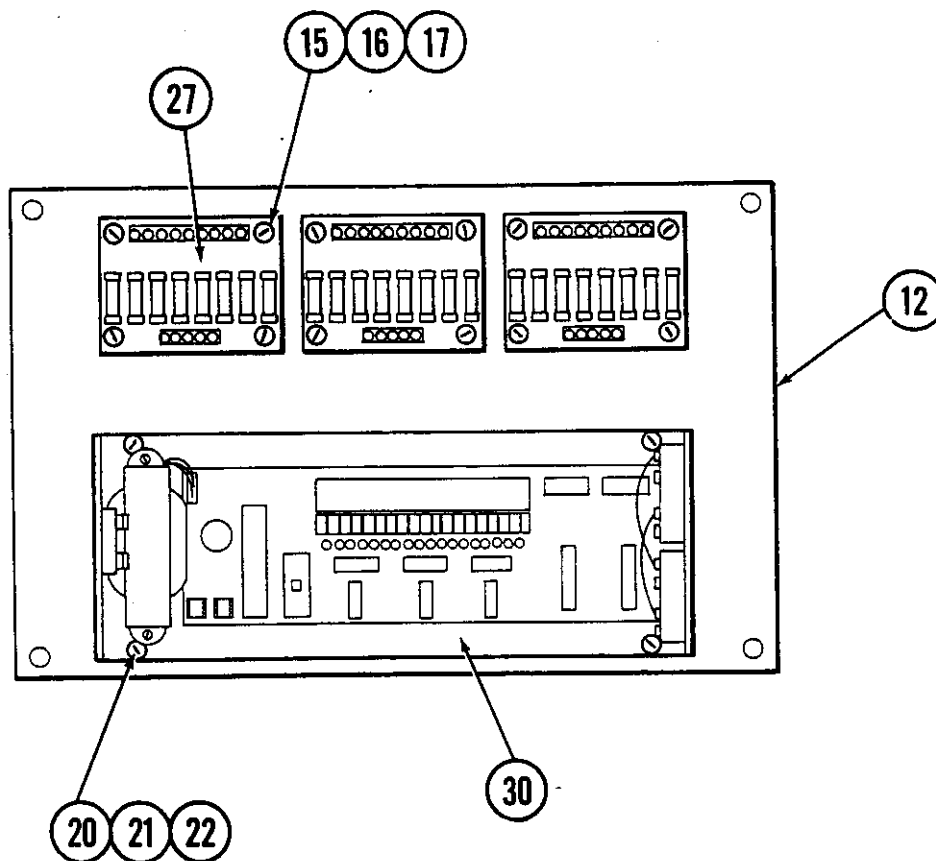
Wipeout Parts Catalog D-91
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
12	35358605	4021403-001	PLATE-DOOR, LIGHT CONTR 4021403-1	1.0
15	27019503		SPACER NYLON #6 1/40D X 3/8 LGTH	12.0
15	68544400		WASHER LOCK #8 INTERNAL	12.0
17	61115400		SCREW MS 8-32 X3/4 RHP	12.0
20	27019500		SPACER ALUM #10 3/80D X 5/8 LGTH	4.0
21	68536800		WASHER LOCK #10 SPRING MED	4.0
22	61116000		SCREW MS 10-24 X3/4 RHP	4.0
25	22945200		FUSE LAMP CERAMIC .25 X 1.25	24.0
27	21956102		DIODE ASSY-CONTROLLER	3.0
31	31943400 +	402-487-001	CONTROLLER-LIGHT 402-487-001	1.0

+ Separate parts listing provided

4021404-001

LIGHTING CONTROL PLATE ASSEMBLY - Hub and Sweeps



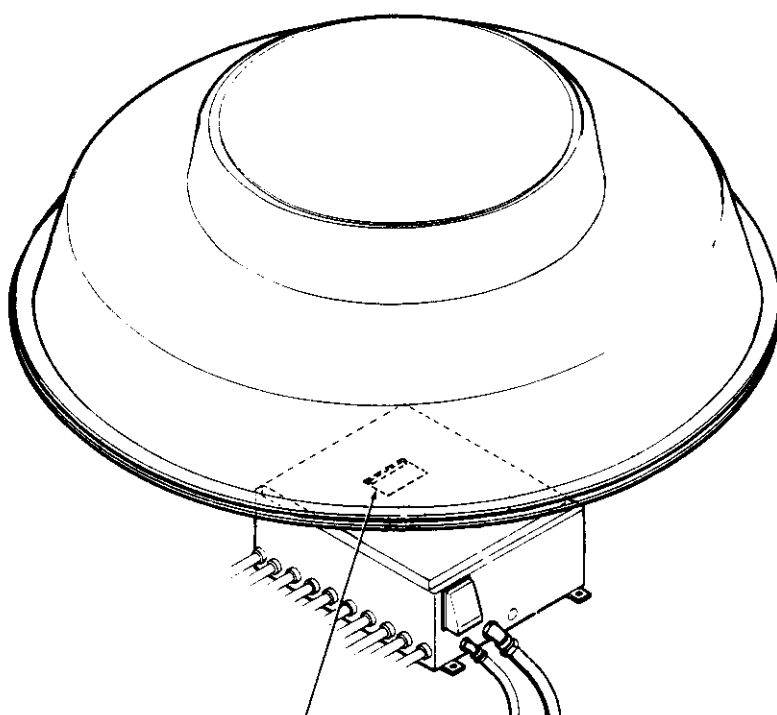
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
12	35358605	4021403-001	PLATE-DOOR, LIGHT CONTR 4021403-1	1.0
15	27019503		SPACER NYLON #6 1/40D X 3/8 LGTH	12.0
16	68544400		WASHER LOCK #8 INTERNAL	12.0
17	61115400		SCREW MS 8-32 X3/4 RHP	12.0
20	27019500		SPACER ALUM #10 3/80D X 5/8 LGTH	4.0
21	68536800		WASHER LOCK #10 SPRING MED	4.0
22	61116000		SCREW MS 10-24 X3/4 RHP	4.0
25	22945200		FUSE LAMP CERAMIC .25 X 1.25	24.0
27	21956102		DIODE ASSY-CONTROLLER	3.0
30	31943500 +	402-487-002	CONTROLLER-LIGHT, W/O R 402-487-2	1.0

+ Separate parts listing provided

4021404-002

LIGHTING CONTROL PLATE ASSEMBLY - Sign

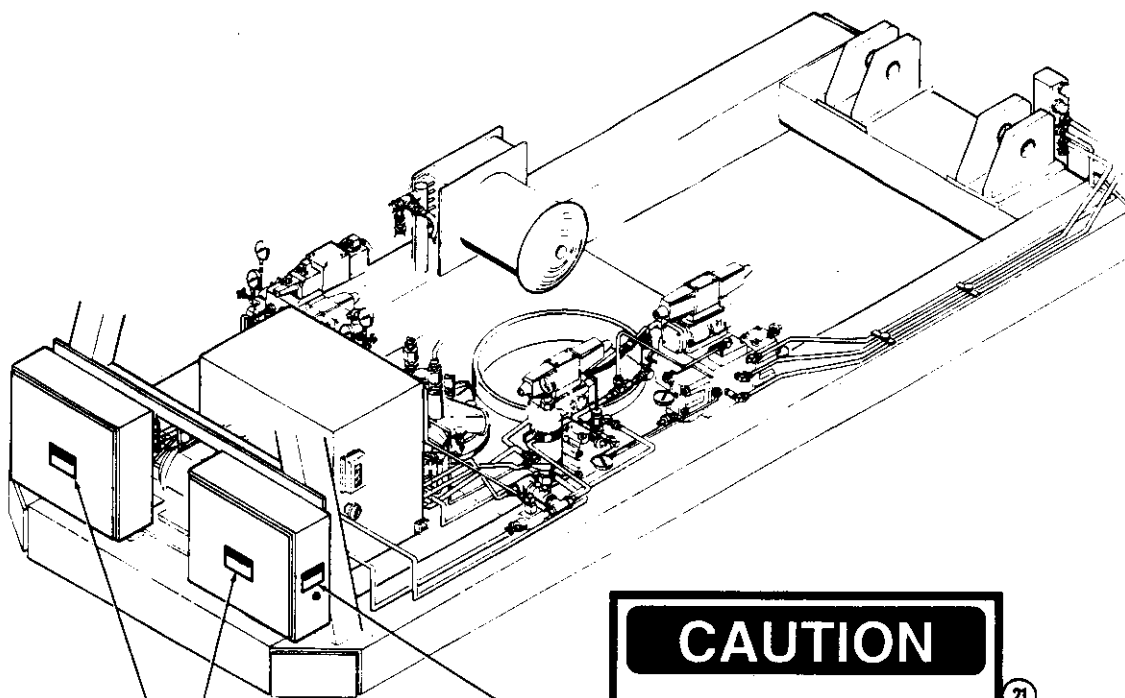


CAUTION
TURN POWER OFF
BEFORE OPENING
BOX

23

Index number	Part number	Drawing number	Description	Quantity per assembly
23	22188301		DECAL "TURN POWER OFF"	1.0

+ Separate parts listing provided



CAUTION
TURN POWER OFF
BEFORE OPENING
BOX

23

CAUTION
TO PREVENT INJURY
TURRET MUST BE CHAINED
BEFORE ACTIVATING TURRET
BRAKE RELEASE SWITCH

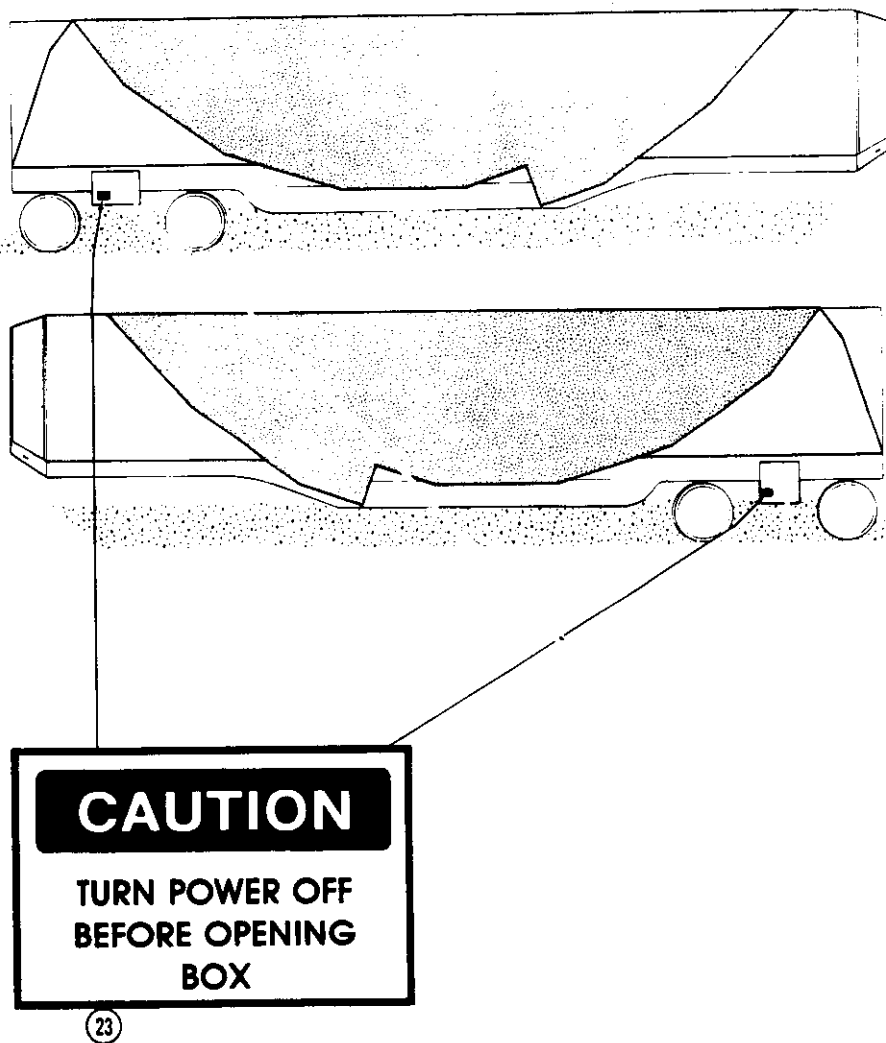
21

Wipeout Parts Catalog D-97
Revised September, 1991

Index number	Part number	Drawing number	Description	Quantity per assembly
22	26762400		SIGN DANGER-HIGH VOLTAGE*	1.0
23	22188301		DECAL "TURN POWER OFF" 4001436-1	1.0

+ Separate parts listing provided

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
23	22188301		DECAL "TURN POWER OFF" 4001436-1	1.0

+ Separate parts listing provided

TRAILERS AND BASE



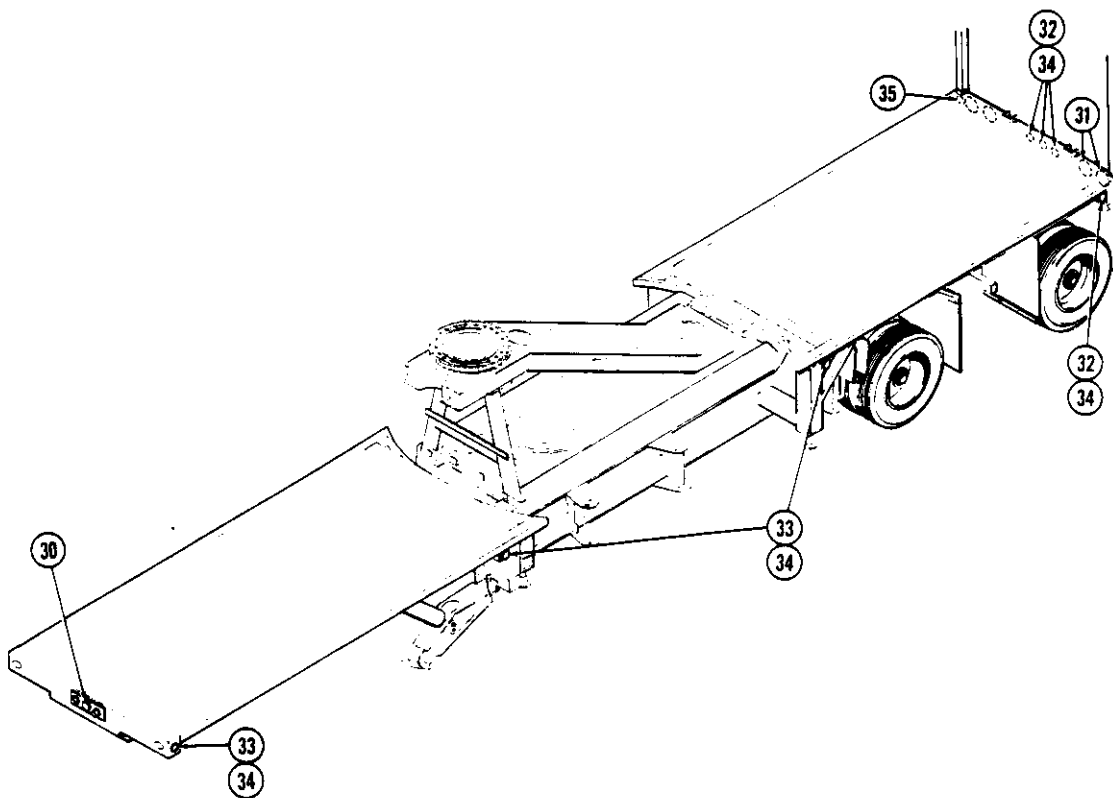
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Trailer roading components - Mechanical	E-4
Trailer operating components	E-6
Trailer air system installation	E-8
Trailer safety decals	E-12

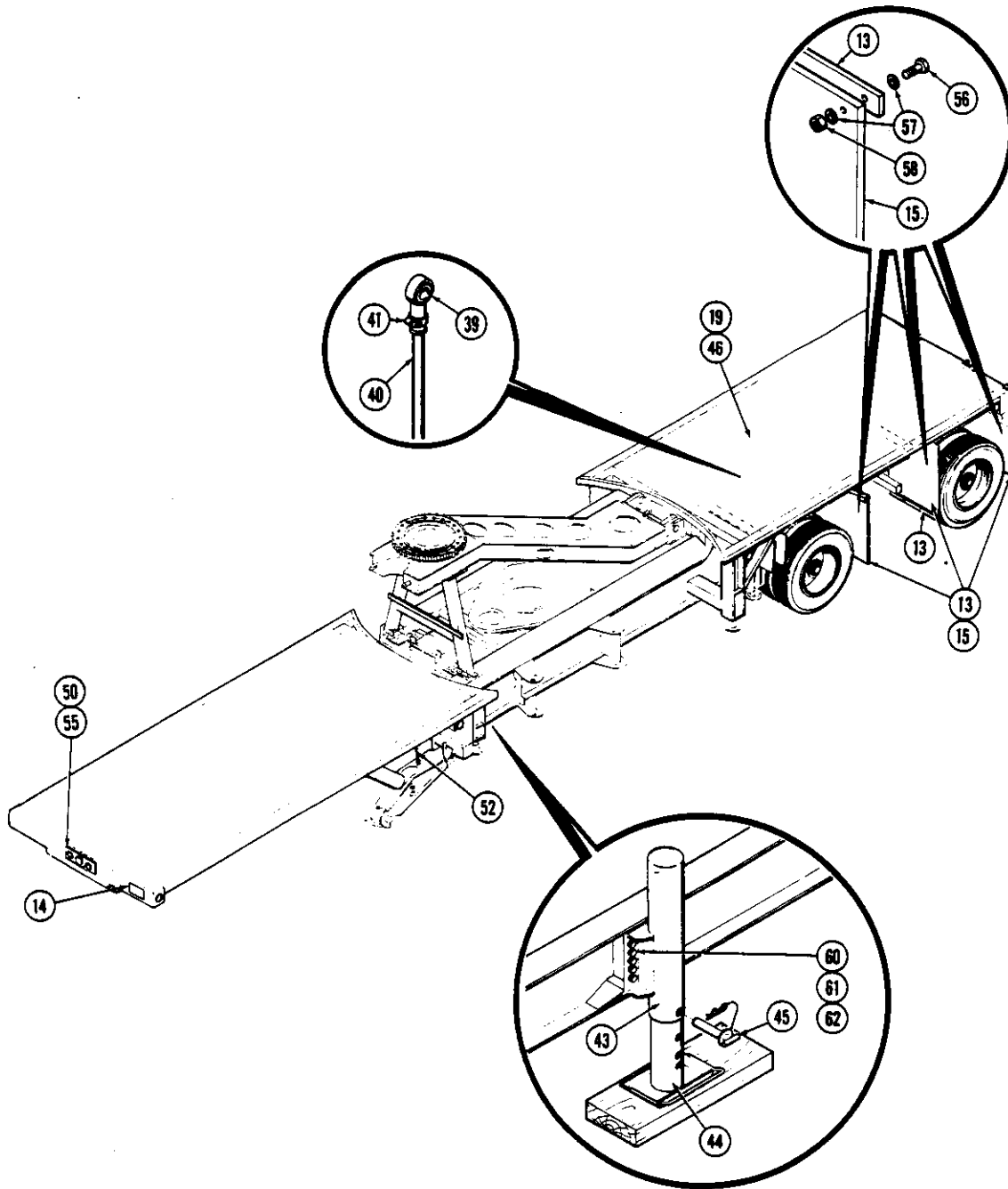
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Wichita, KS 67277-2328

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Fax (316) 942-7416

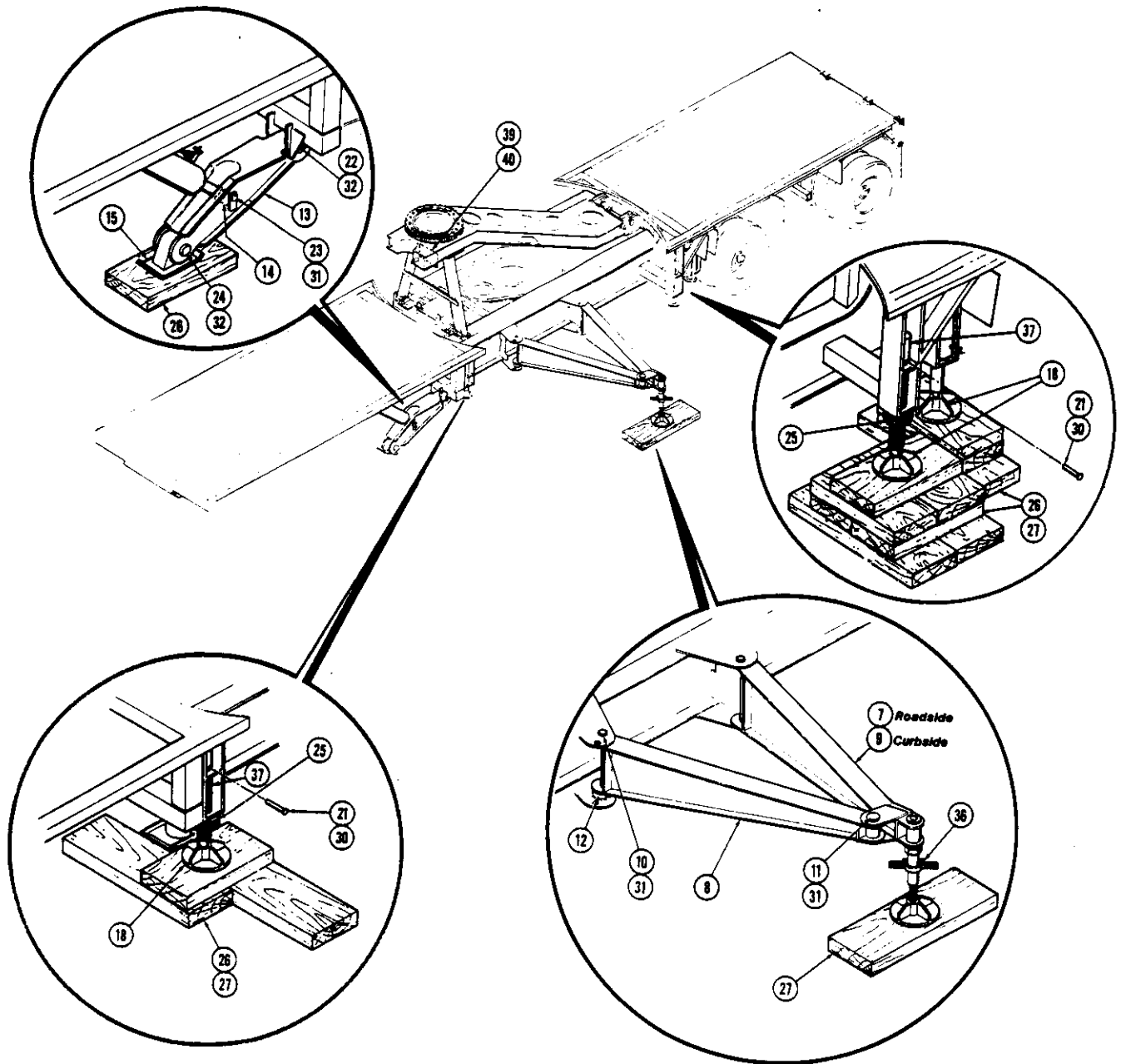


+ Separate parts listing provided



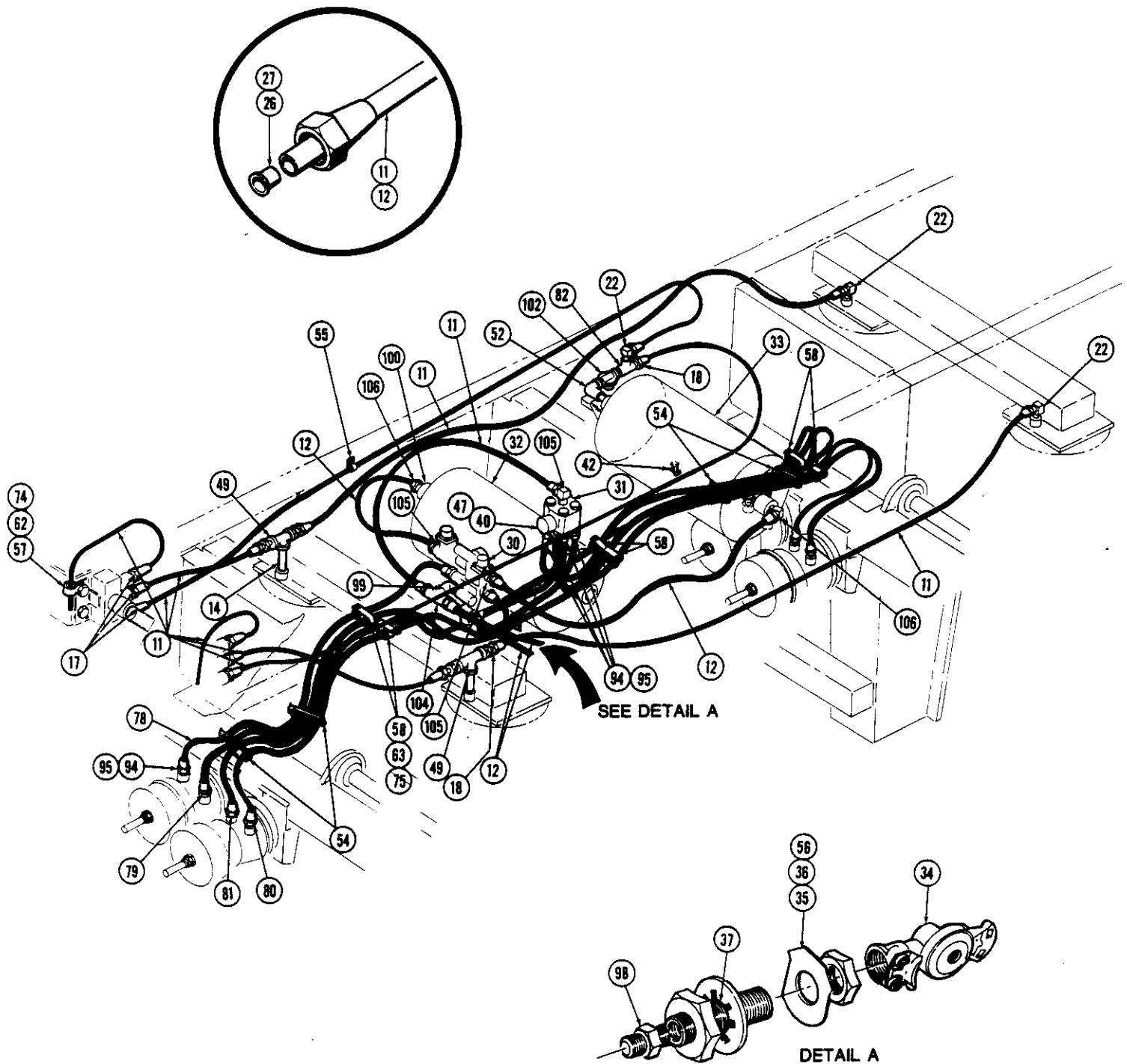
Index number	Part number	Drawing number	Description	Quantity per assembly
13	33391700	CSN25C16-00	HOLDER-MUD FLAP CSN25C16-00	8.0
14	25335900		PLAQUE-TRLR VIN PL CSN70C03-00	1.0
15	22765200		FLAPS MUD PAINTED WHITE 24 X 30*	6.0
19	21952600		CONTROL KIT AIR TURNER AK-40	1.0
39	24165000		LINK-DAMPENER 1/4 ID X 3" LG	4.0
40	26170300		ROD-CONNECTING 1/4" DIA	2.0
41	21631900		CLAMP HOSE 1/4"-5/8"*	4.0
43	33697500	402-526-001	JACKSTAND WELDT-FEMALE 402-526-1	2.0
44	33697600	402-526-002	JACKSTAND WELDT-MALE 402-526-002	2.0
45	35248300	402-527-001	PIN WELDT-JACKSTAND 402-527-001	2.0
46	70676700	402-538-001	TRAILER AIR SYS INSTL 402-538-1	1.0
50	35482400	400-549-001	PLATE-MOUNTING 400-549-001	1.0
52	31530400	402-930-001	CHAIN ASSY-LIFT LEG 402-930-001	2.0
55	61118400		SCREW MS 10-32 X3/4 RHP	4.0
56	60766800		BOLT HHCS 3/8-16 X1 1/4 GR5	16.0
57	68530800		WASHER WROT 3/8 STANDARD	32.0
58	64750800		NUT HEX 3/8-16 FULL	16.0
60	60951400		BOLT HHCS 3/4-10 X1 3/4 GR5	10.0
61	68533000		WASHER SAE 3/4	10.0
62	64805600		NUT FLEXLOC 3/4-10 FULL	10.0

+ Separate parts listing provided

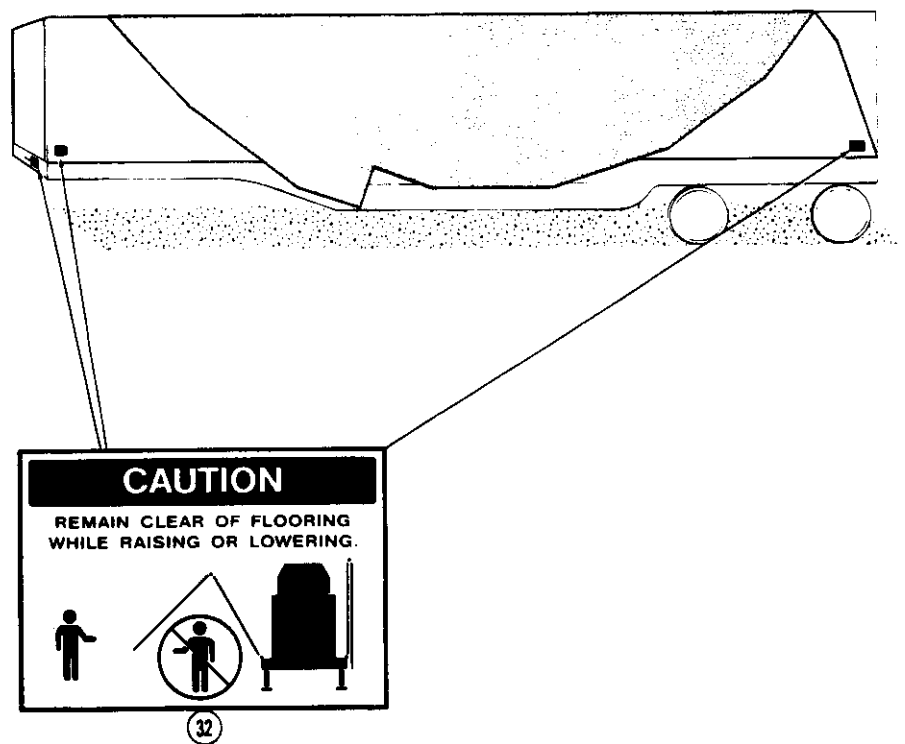


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7	34907700	402-530-001	OUTRIGGER WELDT 402-530-001*	1.0
8	34907800	402-530-002	OUTRIGGER WELDT 402-530-002*	2.0
9	34907900	402-530-003	OUTRIGGER WELDT 402-530-003*	1.0
10	35257300	402-531-001	PIN WELDT 402-531-001	4.0
11	35257400	402-531-002	PIN WELDT 402-531-002	2.0
12	37011200	402-531-008	SPACER-3/4",OUTRIGGER 402-531-8	2.0
13	34016500	402-535-001	LEG WELDT-LIFT 402-535-001	2.0
14	31662400	402-536-001	CLEVIS WELDT 402-536-001	2.0
15	32873900	402-537-001	FOOT WELDT 402-537-001	2.0
18	33687500	CSN05-06-00	JACK PAD-LEVEL JACK CSN05-06-00	6.0
21	35229100	CSN10A03-06	PIN-TPR 1/2X4-3/8GL CSN10A03-06*	4.0
22	35177500	CSN10A10-05	PIN-TPR 1 1/2X11 7/8 CSN10A10-05	2.0
23	35255200	CSN10A09-06	PIN-TPR 1 1/4X10-3/4 8-15/16G/L	2.0
24	35229100	CSN10A03-06	PIN-TPR1/2X5-5/8 4-3/8G/L HP1/8*	4.0
25	34754000	CSN50B03-00	NUT-LOCK,HYD JACK CSN50B03-00	4.0
26	20626100		BLOCK JACK PAD 3X12X24 99A03-1	26.0
27	20626200		BLOCK JACK PAD 3X12X36 99A03-2	16.0
30	65189700		HAIRPIN 3/32	4.0
31	65190400		HAIRPIN 3/16	8.0
32	65190500		HAIRPIN 1/4 COTTER	4.0
36	70312300	1031501-001	JACK SCREW ASSY 1031501-001	2.0
	33250400	CSN05-15-00	HANDLE-OUTRGR SCREW CSN05-15-0	1.0
	33687700	CSN05-05-00	JACK PAD-O/RIGGER CSN05-05-00	1.0
	36426800	1031501-006	SCREW ASSY-OUTRIGGER 1031501-0	1.0
	36430800	CSN01A05-02	SCREW-JACK,2"X9" CSN01A05-02*	1.0
	38282000	1031501-003	TUBE ASSY-OUTRIGGER 1031501-00	1.0
37	36435900	392-525-001	SCREW-JACK,MAIN TR 392-525-001*	4.0
39	25342900		PLATE INFO "WIPEOUT"	1.0
40	66148000		RIVET 3/16 AD64BS	4.0

+ Separate parts listing provided



Index number	Part number	Drawing number	Description	Quantity per assembly
11	48015000		TUBE AIR BRAKE .25 BLACK*	28.5
12	48010000		TUBE AIR BRAKE .375 BLACK*	86.7
14	62779900		NIPPLE 1/4 X 6 STD BLK	2.0
17	60145400		ADAPTER 1/8MP:1/4 TUBE	6.0
18	60145800		ADAPTER 1/4MP:1/4 TUBE	5.0
22	60165800		ADAPTER 90D 1/4MP:1/4 TUBE	6.0
26	60169800		INSERT TUBING 1/4"	14.0
27	60170000		INSERT TUBING 3/8"	14.0
30	28465000		VALVE SPRING BRAKE SR-4 (B/W)	1.0
31	28465100		VALVE RELAY VERTICAL R12 (B/W)	1.0
32	27761800		TANK AIR*	1.0
33	27761900		TANK AIR*	1.0
34	20924000		BRAKE COUPLING MIDLAND	2.0
35	27727000		TAG EMERGENCY (B/W)	1.0
36	27727100		TAG SERVICE B/W 201500	1.0
37	27535600		STUD-CLAMPING (B/W)	2.0
40	62700800		BUSHING HEX 1/2-1/4 STEEL	1.0
42	21731000		DRAIN COCK 1/4" (P/H)	2.0
47	62766800		NIPPLE 1/2 X CLOSE SCH 80	1.0
49	62784200		TEE 1/4 STD BLK	3.0
52	60256200		ADAPTER 90D 3/4FP:3/4MP	1.0
54	68855000		TIE CABLE NYLON 3 7/8"	25.0
55	61600600		CLAMP 1/2 TUBING	20.0
56	66157000		RIVET 3/16 1601-0619	40.0
57	61600000		CLAMP 1/4 TUBING	10.0
58	61601000		CLAMP 3/4 TUBING	20.0
62	61119600		SCREW MS 1/4-20X1 RHP	4.0
63	60766600		BOLT HHCS 3/8-16 X1 GR5	8.0
74	64750000		NUT HEX 1/4-20 FULL	4.0
75	64750800		NUT HEX 3/8-16 FULL	8.0
78	33476556	402-544-001	HOSE ASSY-AIR BRAKE 402-544-001	2.0
79	33476557	402-544-002	HOSE ASSY-AIR BRAKE 402-544-002	2.0
80	33467600	391-542-005	HOSE ASSY 391-542-005	2.0
81	33467900	391-542-008	HOSE ASSY 391-542-008	2.0
82	60262000		ADAPTER TEE 1/4MP:1/4FP:1/4FP	1.0
94	60131600		SLEEVE 37D FLARED 1/2"	16.0
95	60010600		NUT SHORT-1/2 OD TUBE	16.0
98	60250200		ADAPTER BUSHING 1/2MP:3/8FP	4.0
99	60255600		ADAPTER 90D 1/4FP:1/4MP	1.0
100	60252500		ADAPTER NIPPLE 1/4MP CLOSE	2.0
102	60250000		ADAPTER BUSHING 1/2MP:1/4FP	1.0
104	60191200		ADAPTER TEE 1/4MP:3/8:3/8 TUBE	1.0
105	60160600		ADAPTER 90D 1/4MP:3/8 TUBE	2.0
106	60165200		ADAPTER 90D 1/2MP:3/8 TUBE	2.0
108	60145000		ADAPTER 1/4MP:3/8 TUBE	2.0



Index number	Part number	Drawing number	Description	Quantity per assembly
32	22198501		DECAL (FOLDING FLOORS)	5.0

+ Separate parts listing provided

PLATFORMS, FENCES AND RAMPS

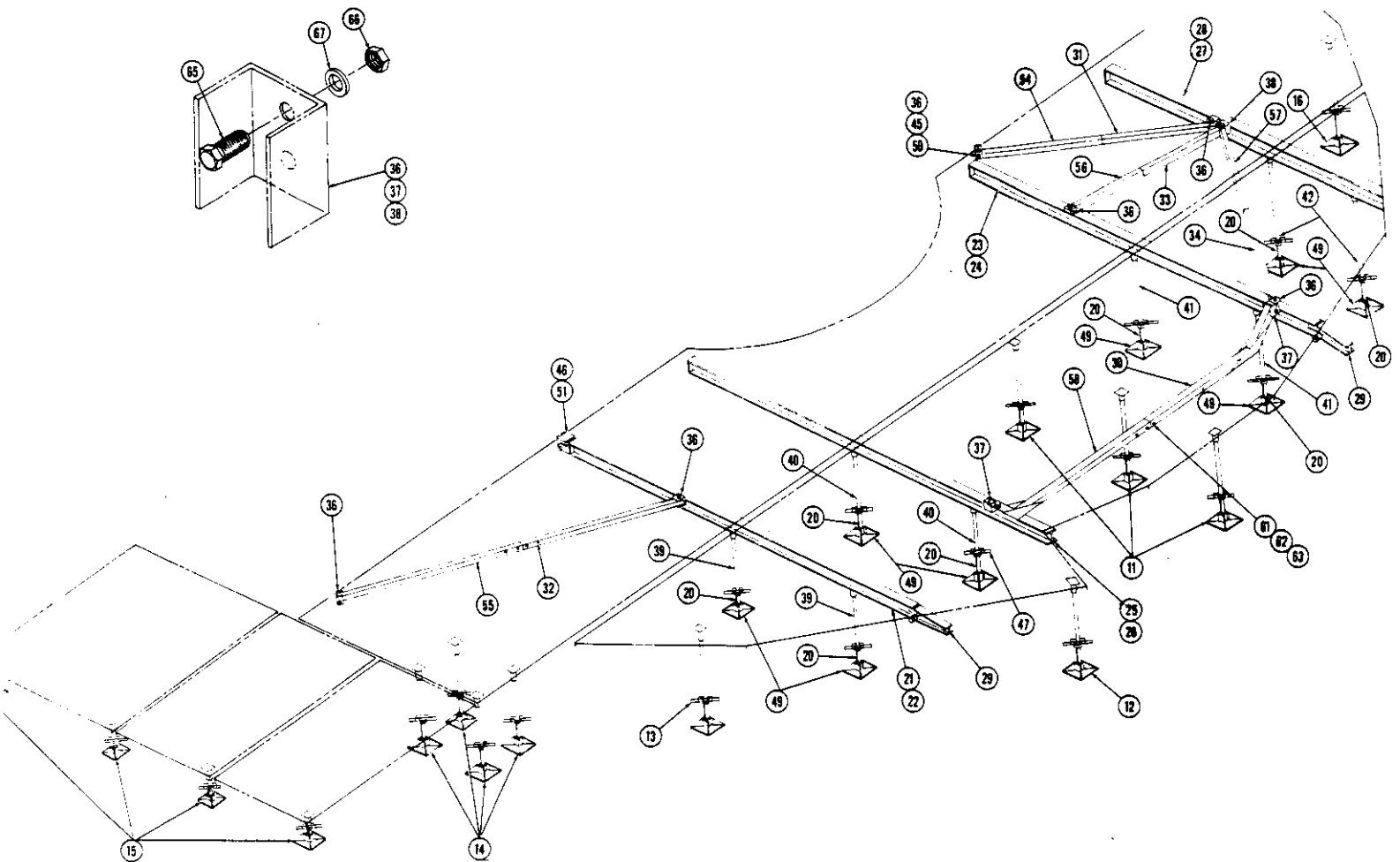
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CHANCE RIDES, INC.

4219 Irving
P.O. Box 12328
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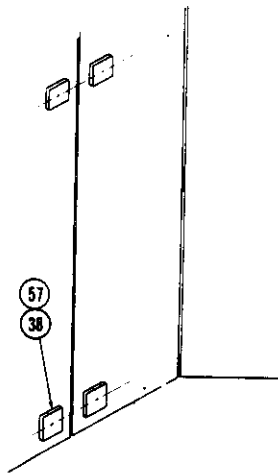
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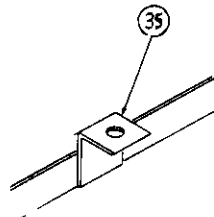
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11	70153300	CSN01A01-01	JACK SCREW ASSY CSN01A01-01	6.0
12	70153500	CSN01A01-03	SCREW JACK ASSY CSN01A01-03	2.0
13	70153700	CSN01A01-05	SCREW JACK ASSY CSN01A01-05	2.0
14	71352600	CSN01A01-08	SCREW ASSY-JACK CSN01A01-08	8.0
15	71379400	CSN01A01-09	SCREW ASSY-JACK CSN01A01-09	6.0
16	70068300	CSN01A01-14	JACK SCREW ASSY CSN01A01-14	2.0
20	36427400	CSN01A06-02	SCREW-JACK, 1 1/2X17"CSN01A06-02*	16.0
21	30438509	402-853-025	BEAM-I WELD'T 402-853-025*	1.0
22	30438508	402-853-024	BEAM-I WELD'T 402-853-024*	1.0
23	30438501	402-853-001	I-BEAM WELD'T 402-853-001*	1.0
24	30438502	402-853-002	I-BEAM WELD'T 402-853-002*	1.0
25	30438503	402-853-003	I-BEAM WELD'T 402-853-003*	1.0
26	30438504	402-853-004	I-BEAM WELD'T 402-853-004*	1.0
27	30438505	402-853-005	I-BEAM WELD'T 402-853-005*	1.0
28	30438506	402-853-006	I-BEAM WELD'T 402-853-006*	1.0
29	30438507	402-853-007	I-BEAM WELD'T 402-853-007*	4.0
30	37031501	402-854-001	SPREADER WELD'T 402-854-001*	2.0
31	37031504	402-854-002	SPREADER WELD'T 402-854-002*	2.0
32	37031505	402-854-003	SPREADER WELD'T 402-854-003*	2.0
33	37031502	402-854-004	SPREADER WELD'T 402-854-004*	2.0
34	37031503	402-854-005	SPREADER WELD'T 402-854-005*	2.0
36	31660501	402-856-001	CLEVIS-PLATFORM 402-856-001	12.0
37	31660502	402-856-002	CLEVIS-PLATFORM 402-856-002	4.0
38	31660503	402-856-003	CLEVIS 402-856-003	2.0
39	33490901	402-857-001	HOUSING-JACK WELD'T 402-857-001*	4.0
40	33490902	402-857-002	HOUSING-JACK WELD'T 402-857-002*	4.0
41	33490903	402-857-003	HOUSING-JACK WELD'T 402-857-003*	4.0
42	33490904	402-857-004	HOUSING-JACK WELD'T 402-857-004*	4.0
45	35252201	CSN10A03-13	PIN-TPR 1/2X5 29/32LG-4 11/16GL	20.0
46	35231200	CSN10A05-08	PIN-TPR 3/4X6-1/4 4 5/8 G/L*	12.0
47	33251900	CSN25A38-02	HANDLE-JACK SCREW CSN25A38-02	16.0
49	33682900	GSN05-23-00	JACK PAD PLATE SQ CSN05-23-00	16.0
50	65190000		HAIRPIN 1/8	20.0
51	65190400		HAIRPIN 3/16	12.0
54	37031506	402-854-006	SPREADER WELD'T 402-854-006*	2.0
55	37031507	402-854-007	SPREADER WELD'T 402-854-007*	2.0
56	37031508	402-854-008	SPREADER WELD'T 402-854-008*	2.0
57	37031509	402-854-009	SPREADER WELD'T 402-854-009*	2.0
58	37031510	402-854-010	SPREADER WELD'T 402-854-010*	2.0
61	60849400		BOLT HHCS 1/2-13 X1 3/4 GR8	20.0
62	68531600		WASHER WROT 1/2 STANDARD	40.0
63	64761200		NUT HEX 1/2-13 JAM	20.0
65	60786600		BOLT HHCS 3/8-16 X1 1/2 GR8	24.0
66	64750800		NUT HEX 3/8-16 FULL	24.0
67	68530800		WASHER WROT 3/8 STANDARD	24.0

+ Separate parts listing provided

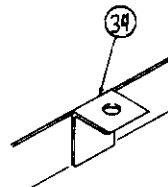
G-4 Chance Rides, Inc.
 Revised February, 1993



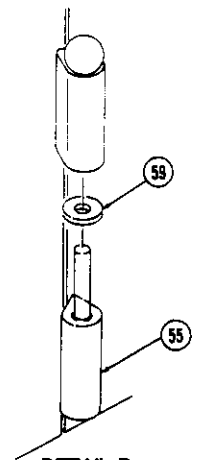
DETAIL A



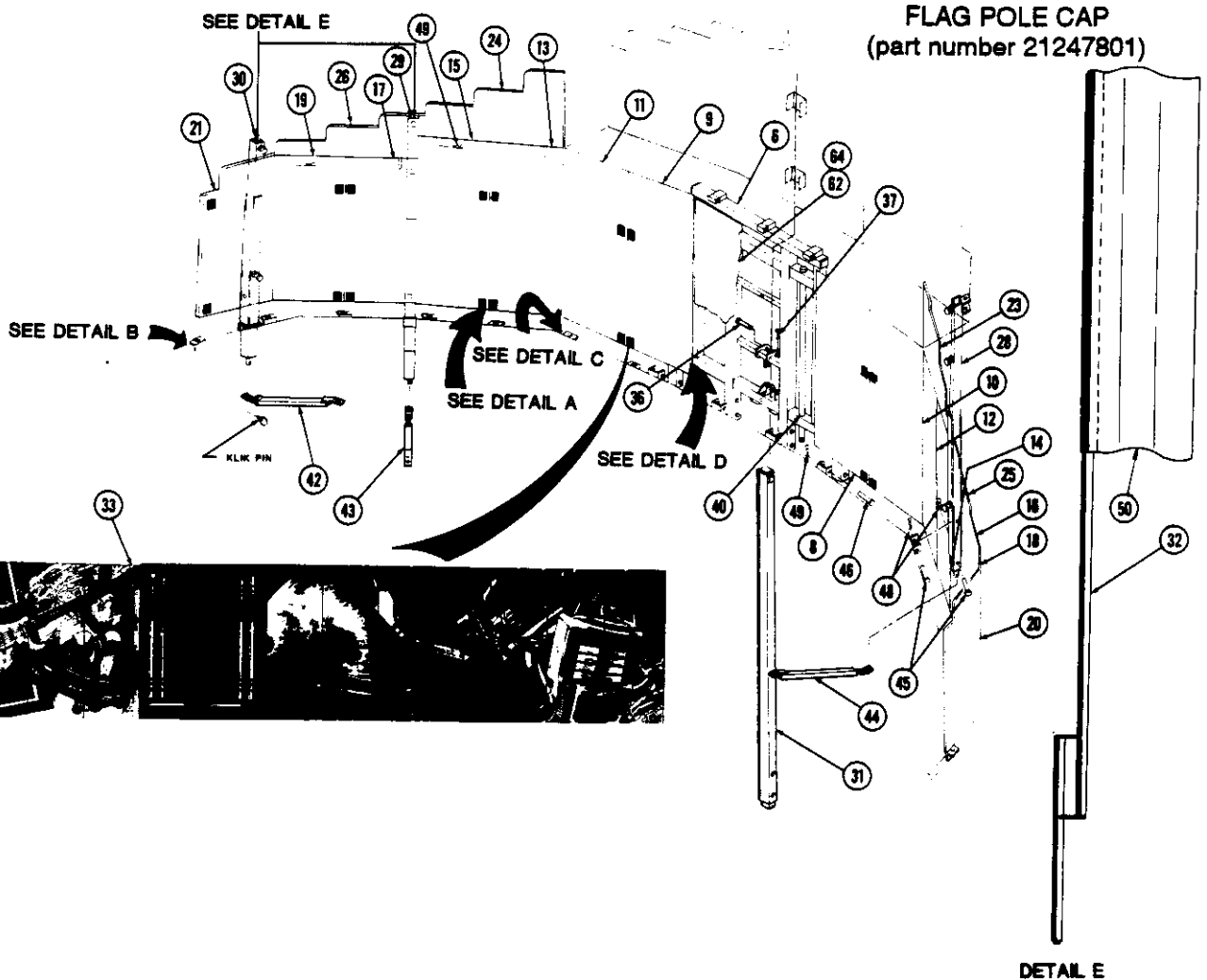
DETAIL B



DETAIL C

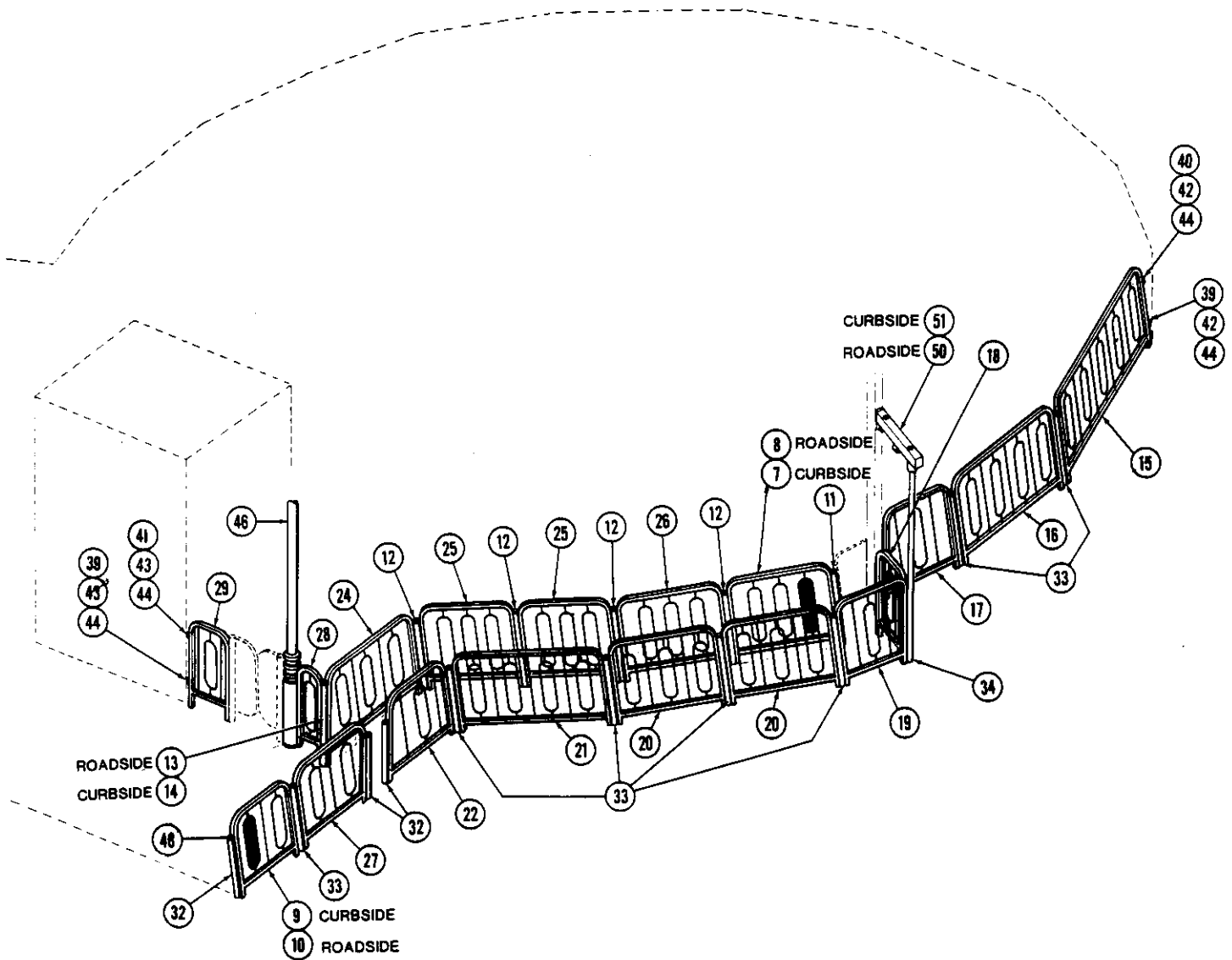


DETAIL D



Index number	Part number	Drawing number	Description	Quantity per assembly
6	32891900	402-865-001	FRAME WELDT-BACKDROP 402-865-001	1.0
8	34983927	402-845-001	PANEL ASSY 402-845-001*	1.0
9	34983928	402-845-002	PANEL ASSY 402-845-002*	1.0
10	34983929	402-845-003	PANEL ASSY 402-845-003*	1.0
11	34983930	402-845-004	PANEL ASSY 402-845-004*	1.0
12	34983931	402-845-005	PANEL ASSY 402-845-005*	1.0
13	34983932	402-845-006	PANEL ASSY 402-845-006*	1.0
14	34983933	402-845-007	PANEL ASSY 402-845-007*	1.0
15	34983934	402-845-008	PANEL ASSY 402-845-008*	1.0
16	34983935	402-845-009	PANEL ASSY 402-845-009*	1.0
17	34983936	402-845-010	PANEL ASSY 402-845-010*	1.0
18	34983937	402-845-011	PANEL ASSY 402-845-011*	1.0
19	34983938	402-845-012	PANEL ASSY 402-845-012*	1.0
20	34983939	402-845-013	PANEL ASSY 402-845-013*	1.0
21	34983940	402-845-014	PANEL ASSY 402-845-014*	1.0
23	34983961	402-849-001	PANEL ASSY 402-849-001*	1.0
24	34983962	402-849-002	PANEL ASSY 402-849-002*	1.0
25	34983963	402-849-003	PANEL ASSY 402-849-003*	1.0
26	34983964	402-849-004	PANEL ASSY 402-849-004*	1.0
28	35525800	402-846-001	POST WELDT 402-846-001	2.0
29	35525900	402-846-002	POST WELDT 402-846-002	2.0
30	35526000	402-846-003	POST WELDT 402-846-003	2.0
31	38242000	402-864-004	TUBE WELDT 402-864-004	1.0
32	35511026	402-898-001	POLE WELDT-BANNER 402-898-001	6.0
33	25014900		PANEL BACKDROP-WIPEOUT (SET)*	1.0
34	30215221	402-822-001	ANGLE-LOCKING 402-822-001	6.0
35	30215227	402-822-002	ANGLE-LOCKING 402-822-002	8.0
36	35180000	CSN10A04-03	PIN-TPR 5/8X5-3/4 4 5/16G/L*	1.0
37	65190200		HAIRPIN 5/32	1.0
38	31013300	402-845-055	BUMPER-URETHANE 402-845-055	32.0
40	71555000	402-402-003	CONDUIT INSTL-BACKDROP 402-402-3	1.0
42	38686500	402-834-001	WINDBRACE ASSY 402-834-001*	2.0
43	38686600	402-834-002	WINDBRACE ASSY 402-834-002*	2.0
44	38686700	402-834-003	WINDBRACE ASSY 402-834-003*	2.0
45	35229000	CSN10A03-05	PIN-TPR1/2X4-1/8 2-7/8G/L HP1/8*	18.0
46	35246300	CSN10A05-09	PIN-TPR 3/4X6-7/8 5 3/8 G/L*	8.0
48	65190000		HAIRPIN 1/8	18.0
49	65190200		HAIRPIN 5/32	16.0
50	20372300		BANNER WIPEOUT-BACK DROP	6.0
55	23350001		HINGE HALF-MALE (WELD-ON)	4.0
57	66149200		RIVET 3/16 AD68ABS	56.0
59	23350000		SHIM-HINGE (BRASS)	28.0
62	44705000		SHT FIBERGLASS .090 4 X 8 SHT	2.0
64	66161000		RIVET 3/16 AV1682 0621	96.0

+ Separate parts listing provided



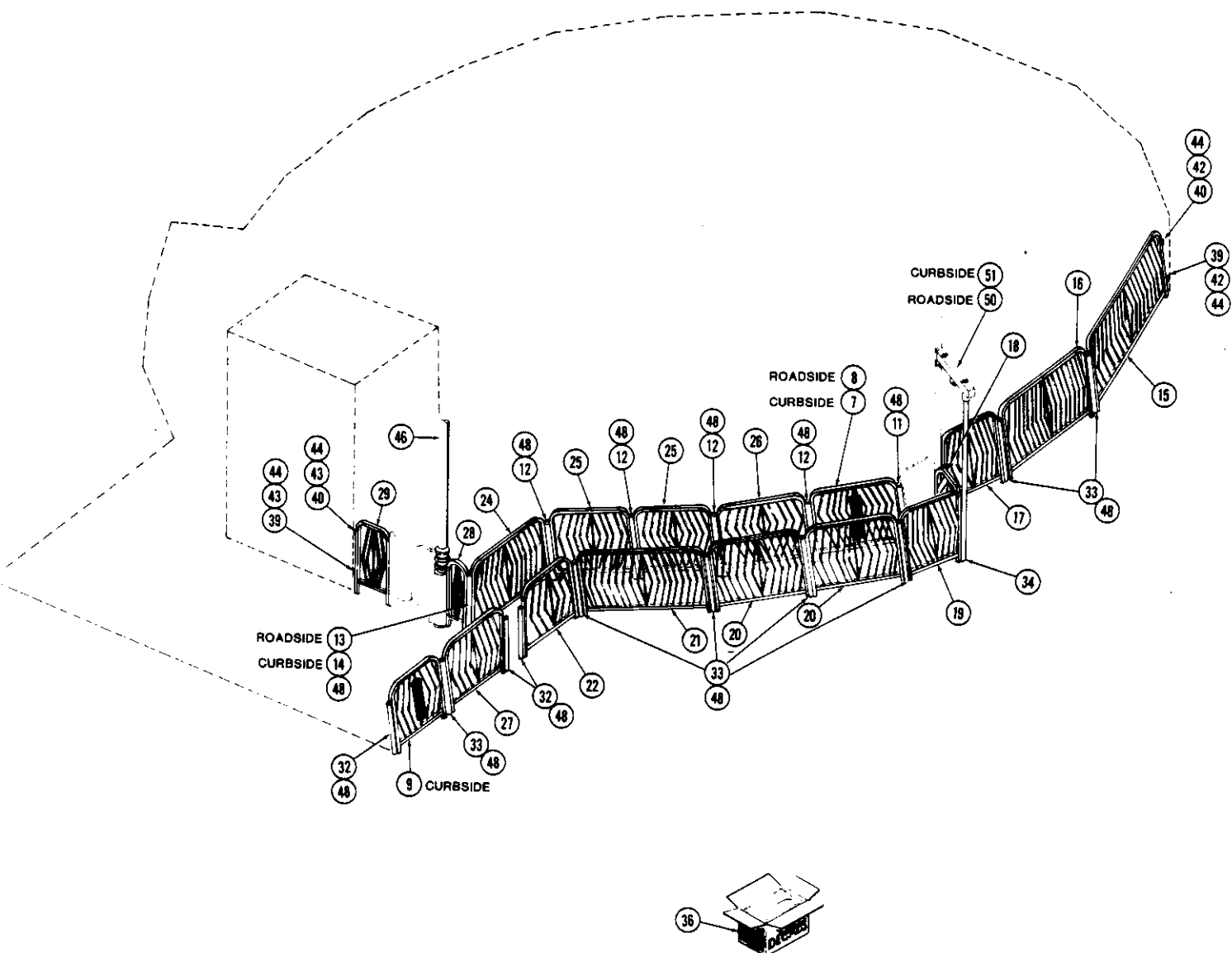
Wipeout Parts Catalog G-7
Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
7	32610108	402-867-022	FENCE ASSY 402-867-022*	1.0
8	32610109	402-867-023	FENCE ASSY 402-867-023*	1.0
9	32610110	402-867-024	FENCE ASSY 402-867-024*	1.0
10	32610111	402-867-025	FENCE ASSY 402-867-025*	1.0
11	35525400	402-883-001	POST WELDT 402-883-001*	2.0
12	35525500	402-883-002	POST WELDT 402-883-002*	8.0
13	35525600	402-883-003	POST WELDT 402-883-003*	1.0
14	35525700	402-883-004	POST WELDT 402-883-004*	1.0
15	32610070	402-867-001	FENCE WELDT 402-867-001*	2.0
16	32610071	402-867-002	FENCE WELDT 402-867-002*	2.0
17	32610072	402-867-003	FENCE WELDT 402-867-003*	2.0
18	32610073	402-867-004	FENCE WELDT 402-867-004*	2.0
19	32610074	402-867-005	FENCE WELDT 402-867-005*	2.0
20	32610075	402-867-006	FENCE WELDT 402-867-006*	4.0
21	32610076	402-867-007	FENCE WELDT 402-867-007*	2.0
22	32610077	402-867-008	FENCE WELDT 402-867-008*	2.0
24	32610079	402-867-010	FENCE WELDT 402-867-010*	2.0
25	32610080	402-867-011	FENCE WELDT 402-867-011*	4.0
26	32610081	402-867-012	FENCE WELDT 402-867-012*	2.0
27	32610082	402-867-013	FENCE WELDT 402-867-013*	2.0
28	32610083	402-867-014	FENCE WELDT 402-867-014*	2.0
29	32610084	402-867-015	FENCE WELDT 402-867-015*	2.0
32	35525000	402-869-001	POST WELDT 402-869-001*	6.0
33	35525100	402-869-002	POST WELDT 402-869-002*	14.0
34	35525200	402-869-003	POST WELDT 402-869-003*	2.0
39	33501800	402-821-001	HOUSING ASSY-PIN 402-821-001	4.0
41	60700200		BOLT HHCS 1/4-20 X3/4 GR5	16.0
42	60701600		BOLT HHCS 1/4-20 X2 1/2 GR5	8.0
43	60700400		BOLT HHCS 1/4-20 X1 GR5	8.0
44	68530200		WASHER SAE 1/4	32.0
46	31806800 +	402-850-001	COLUMN ASSY 402-850-001	2.0
48	21247800		CAP FENCE 1 3/4 X 2" BLK	34.0
50	37026600	402-894-001	SPEAKER WELDT-HORIZ 402-894-001*	1.0
51	37026700	402-894-002	SPEAKER WELDT-HORIZ 402-894-002*	1.0

402-805-001

FENCE AND POST INSTALLATION
Ride serial numbers through 402-02592

G-7A Chance Rides, Inc.
Revised, February, 1993



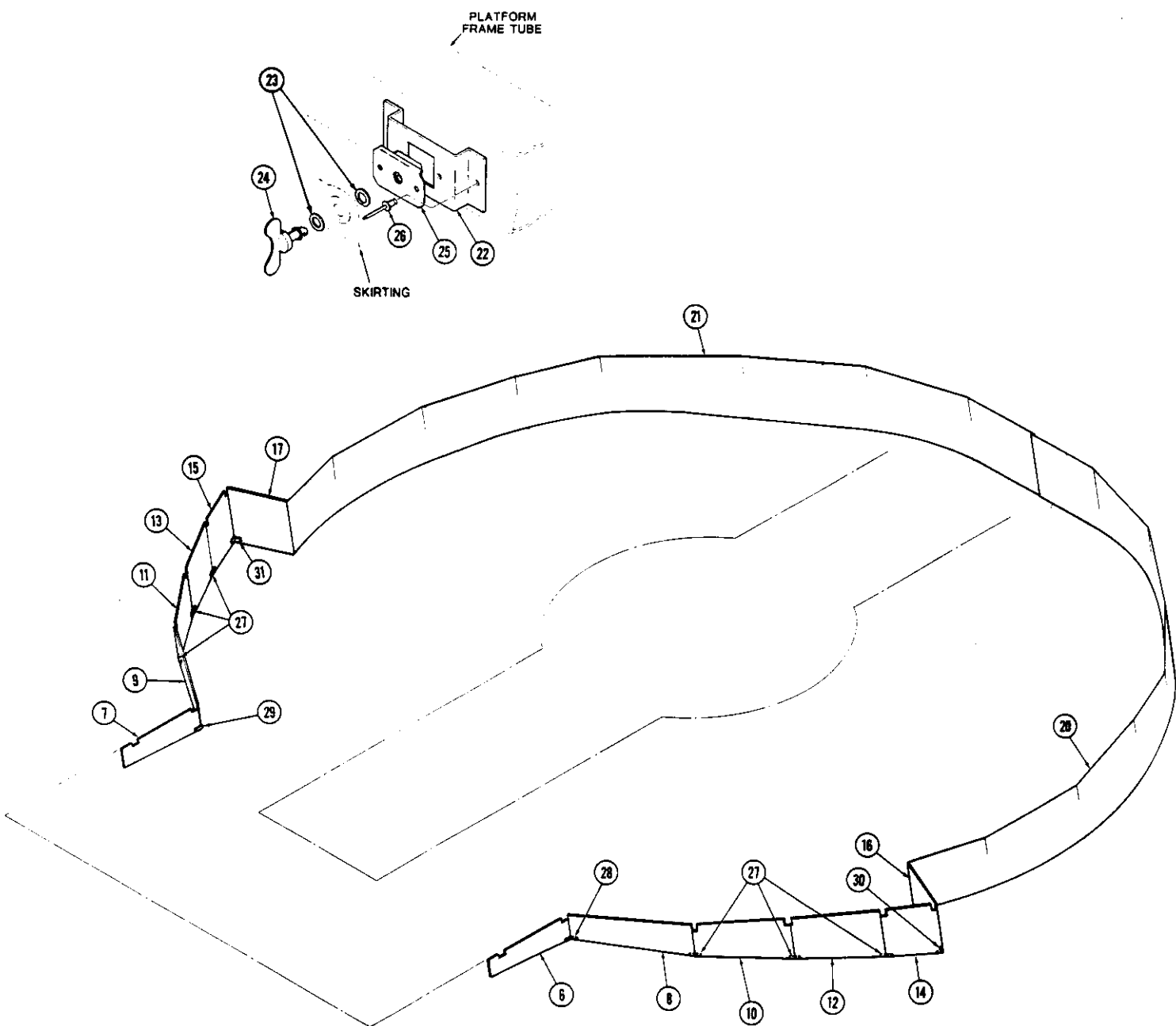
FENCE AND POST INSTALLATION
Ride serial number 402-02693 and on

402-1805-001

Wipeout Parts Catalog G-7B

Revised February, 1993

Index number	Part number	Drawing number	Description	Quantity per assembly
7	32610199	4021867-022	FENCE ASSY-1993 4021867-022*	1.0
8	32610200	4021867-023	FENCE ASSY-1993 4021867-023*	1.0
9	32610201	4021867-024	FENCE ASSY-1993 4021867-024*	2.0
11	35525400	402-883-001	POST WELDT 402-883-001*	2.0
12	35525500	402-883-002	POST WELDT 402-883-002*	8.0
13	35525600	402-883-003	POST WELDT 402-883-003*	1.0
14	35525700	402-883-004	POST WELDT 402-883-004*	1.0
15	32610184	4021867-001	FENCE WELDT-1993 4021867-001*	2.0
16	32610185	4021867-002	FENCE WELDT-1993 4021867-002*	2.0
17	32610186	4021867-003	FENCE WELDT-1993 4021867-003*	2.0
18	32610187	4021867-004	FENCE WELDT-1993 4021867-004*	2.0
19	32610188	4021867-005	FENCE WELDT-1993 4021867-005*	2.0
20	32610189	4021867-006	FENCE WELDT-1993 4021867-006*	4.0
21	32610190	4021867-007	FENCE WELDT-1993 4021867-007*	2.0
22	32610191	4021867-008	FENCE WELDT-1993 4021867-008*	2.0
24	32610193	4021867-010	FENCE WELDT-1993 4021867-010*	2.0
25	32610194	4021867-011	FENCE WELDT-1993 4021867-011*	4.0
26	32610195	4021867-012	FENCE WELDT-1993 4021867-012*	2.0
27	32610196	4021867-013	FENCE WELDT-1993 4021867-013*	2.0
28	32610197	4021867-014	FENCE WELDT-1993 4021867-014*	2.0
29	32610198	4021867-015	FENCE WELDT-1993 4021867-015*	2.0
32	35525000	402-869-001	POST WELDT 402-869-001*	6.0
33	35525100	402-869-002	POST WELDT 402-869-002*	14.0
34	35525200	402-869-003	POST WELDT 402-869-003*	2.0
36	70008700	402-107-011	DECAL INSTL-SAFETY 402-107-011	1.0
38	33501100	400-821-002	HOUSING ASSY-PIN 400-821-002*	4.0
39	33501000	400-821-001	HOUSING ASSY-PIN 400-821-001*	4.0
41	60700200		BOLT HHCS 1/4-20 X3/4 GR5	16.0
42	60701600		BOLT HHCS 1/4-20 X2 1/2 GR5	8.0
43	60700400		BOLT HHCS 1/4-20 X1 GR5	8.0
44	68530200		WASHER SAE 1/4	32.0
46	31806800	402-850-001	COLUMN ASSY 402-850-001	2.0
48	65447100		PLUG HOLE 1 3/4 NYLON	32.0
50	37026600	402-894-001	SPEAKER WELDT-HORIZ 402-894-001*	1.0
51	37026700	402-894-002	SPEAKER WELDT-HORIZ 402-894-002*	1.0

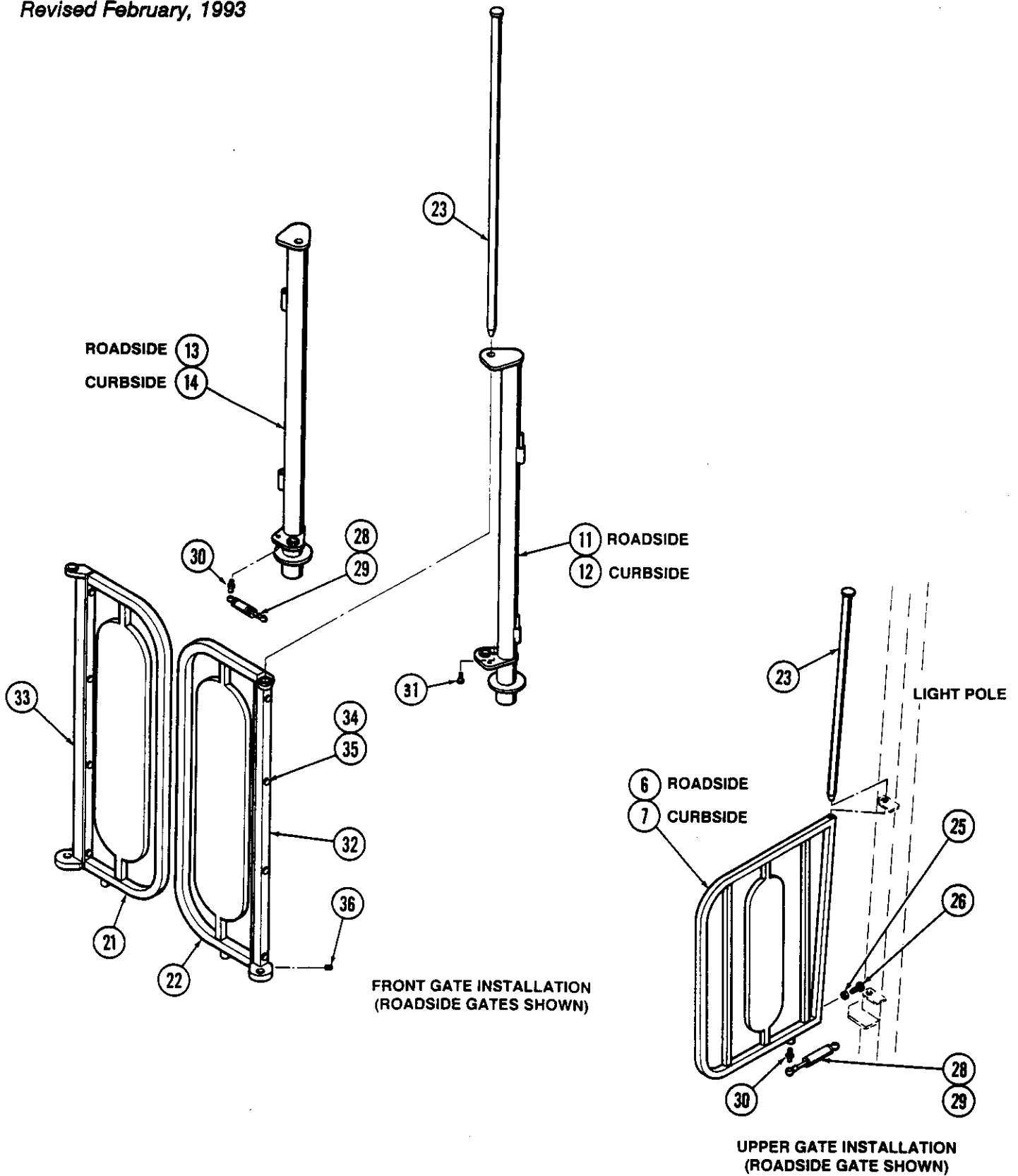


Index number	Part number	Drawing number	Description	Quantity per assembly
6	34983965	402-852-001	PANEL ASSY-TR SKIRT 402-852-001*	1.0
7	34983966	402-852-002	PANEL ASSY-TR SKIRT 402-852-002*	1.0
8	34983967	402-852-003	PANEL ASSY-TR SKIRT 402-852-003*	1.0
9	34983968	402-852-004	PANEL ASSY-TR SKIRT 402-852-004*	1.0
10	34983969	402-852-005	PANEL ASSY-TR SKIRT 402-852-005*	1.0
11	34983970	402-852-006	PANEL ASSY-TR SKIRT 402-852-006*	1.0
12	34983971	402-852-007	PANEL ASSY-TR SKIRT 402-852-007*	1.0
13	34983972	402-852-008	PANEL ASSY-TR SKIRT 402-852-008*	1.0
14	34983973	402-852-009	PANEL ASSY-TR SKIRT 402-852-009*	1.0
15	34983974	402-852-010	PANEL ASSY-TR SKIRT 402-852-010*	1.0
16	34983975	402-852-011	PANEL ASSY-TR SKIRT 402-852-011*	1.0
17	34983976	402-852-012	PANEL ASSY-TR SKIRT 402-852-012*	1.0
20	26813701		SKIRTING TRAILER R/S	1.0
21	26813702		SKIRTING TRAILER C/S	1.0
22	30851483	402-875-001	BRACKET-RECEPTACLE 402-875-001	46.0
23	26012100		RETAINER (SOUTHCO)	46.0
24	22589901		FASTENER 1/4 TURN-WING HEAD	46.0
25	22589902		FASTENER 1/4 TURN-RECEPTACLE	46.0
26	66149000		RIVET 3/16 AD66BS	184.0
27	31674600	402-896-001	CLIP WELDT-LWR PANEL 402-896-1*	6.0
28	31674700	402-896-002	CLIP WELDT-LWR PANEL 402-896-2*	1.0
29	31674800	402-896-003	CLIP WELDT-LWR PANEL 402-896-3*	1.0
30	31674900	402-896-004	CLIP WELDT-LWR PANEL 402-896-4*	1.0
31	31675000	402-896-005	CLIP WELDT-LWR PANEL 402-896-5*	1.0

+ Separate parts listing provided

G-10 Chance Rides, Inc.

Revised February, 1993



GATE INSTALLATION

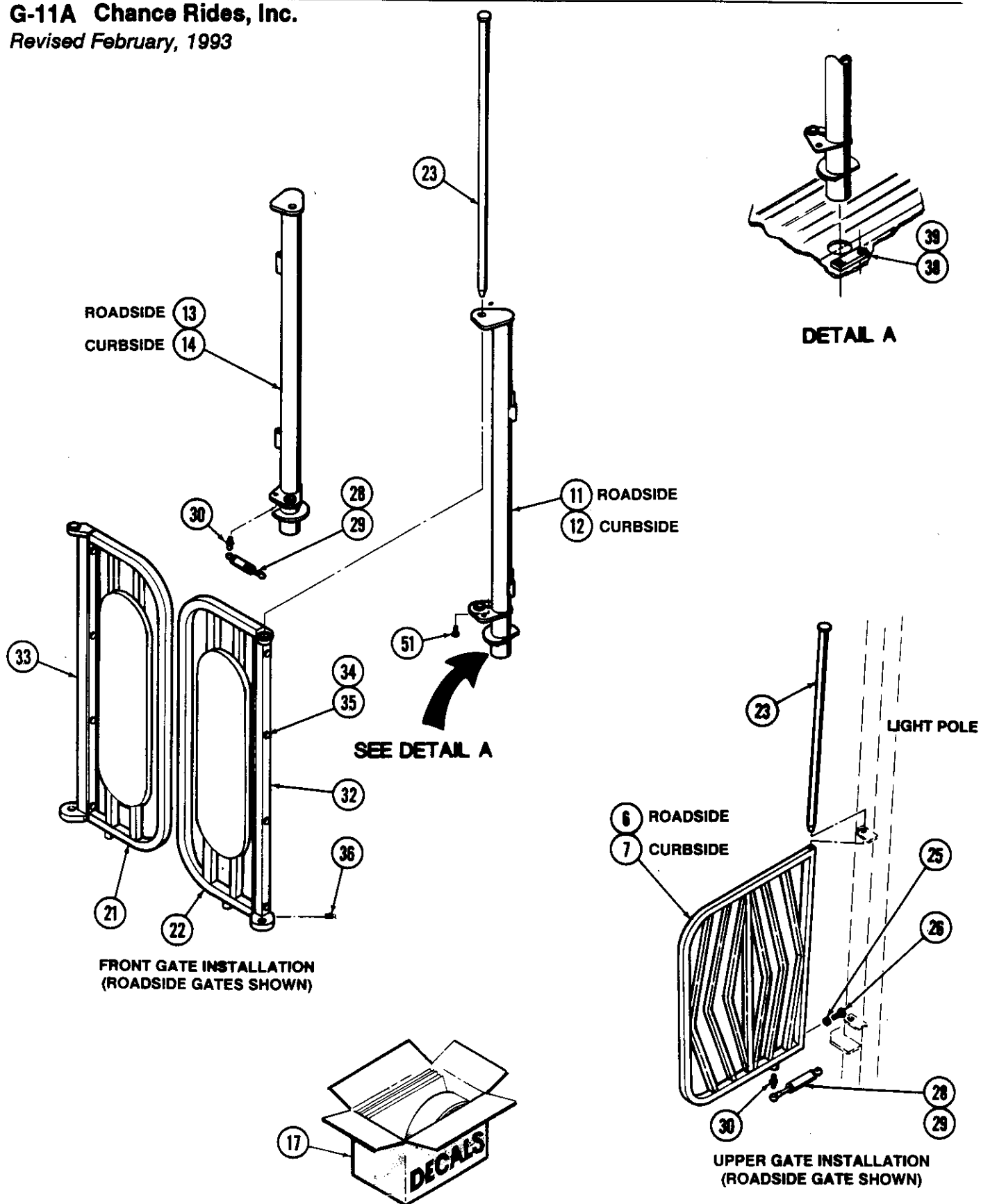
Ride serial numbers through 402-02592

402-807-001

Index number	Part number	Drawing number	Description	Quantity per assembly
6	33008900	402-876-001	GATE ASSY-UPPER 402-876-001*	1.0
	33008700	402-876-003	GATE WELDT-UPPER 402-876-003*	1.0
	34983926	402-873-009	PANEL-GATE,F/GLASS 402-873-009	1.0
	66148000		RIVET 3/16 AD64BS	12.0
7	33009000	402-876-002	GATE ASSY-UPPER 402-876-002*	1.0
	33008800	402-876-004	GATE WELDT-UPPER 402-876-004*	1.0
	34983926	402-873-009	PANEL-GATE,F/GLASS 402-873-009	1.0
	66148000		RIVET 3/16 AD64BS	12.0
11	35530001	402-871-001	POST WELD'T 402-871-001*	1.0
12	35530002	402-871-002	POST WELD'T 402-871-002*	1.0
13	35530003	402-871-003	POST WELD'T 402-871-003*	1.0
14	35530004	402-871-004	POST WELD'T 402-871-004*	1.0
21	33008500	402-873-001	GATE ASSY 402-873-001*	2.0
	33008000	402-873-003	GATE WELDT 402-873-003	1.0
	34983926	402-873-009	PANEL-GATE,F/GLASS 402-873-009	1.0
	66148000		RIVET 3/16 AD64BS	12.0
22	33008600	402-873-002	GATE ASSY 402-873-002*	2.0
	33008000	402-873-003	GATE WELDT 402-873-003	1.0
	34983926	402-873-009	PANEL-GATE,F/GLASS 402-873-009	1.0
	66148000		RIVET 3/16 AD64BS	12.0
23	35200801	402-835-001	PIN WELD'T 402-835-001	6.0
25	64760000		NUT HEX 5/16-18 JAM	2.0
26	60749400		BOLT HHCS 5/16-18X1 GR5	2.0
28	27223100		SPRING GAS F/DOOR	6.0
29	21679000		CLIP RET GAS SPRING 9501-2 A9002	12.0
30	27536300		STUD BALL 10MM*	12.0
31	60766600		BOLT HHCS 3/8-16 X1 GR5	4.0
32	35525701	402-836-001	POST WELD'T-GATE 402-836-001	2.0
33	35525702	402-836-002	POST WELD'T-GATE 402-836-002	2.0
34	60700800		BOLT HHCS 1/4-20 X1 1/2 GR5	16.0
35	64804200		NUT FLEXLOC 1/4-20 FULL	16.0
36	61201100		SCREW SHSS 5/16-18X1/2 N/I	4.0

+ Separate parts listing provided

G-11A Chance Rides, Inc.
 Revised February, 1993



GATE INSTALLATION
 Ride serial number 402-02693 and on

402-1807-001

Wipeout Parts Catalog G-11B

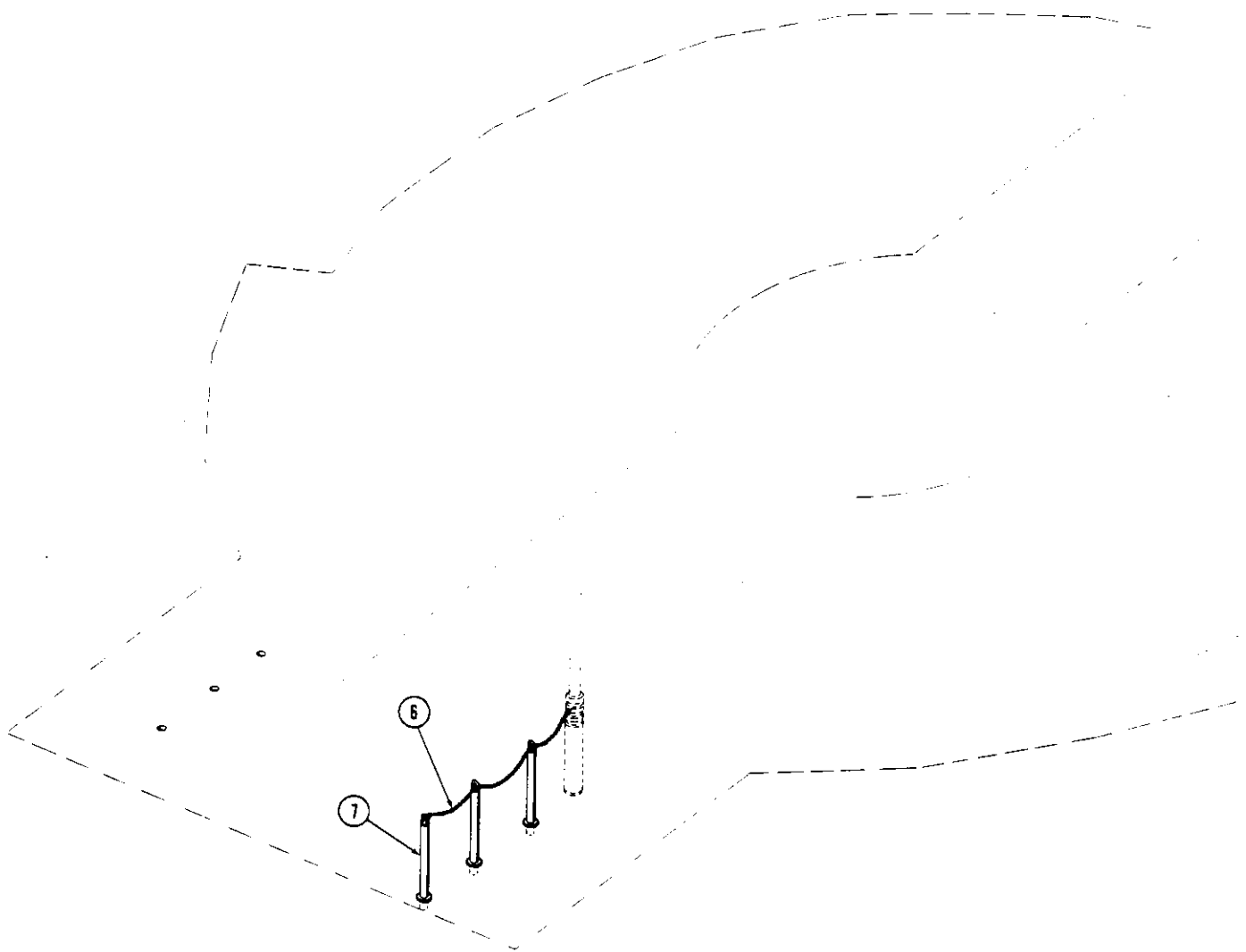
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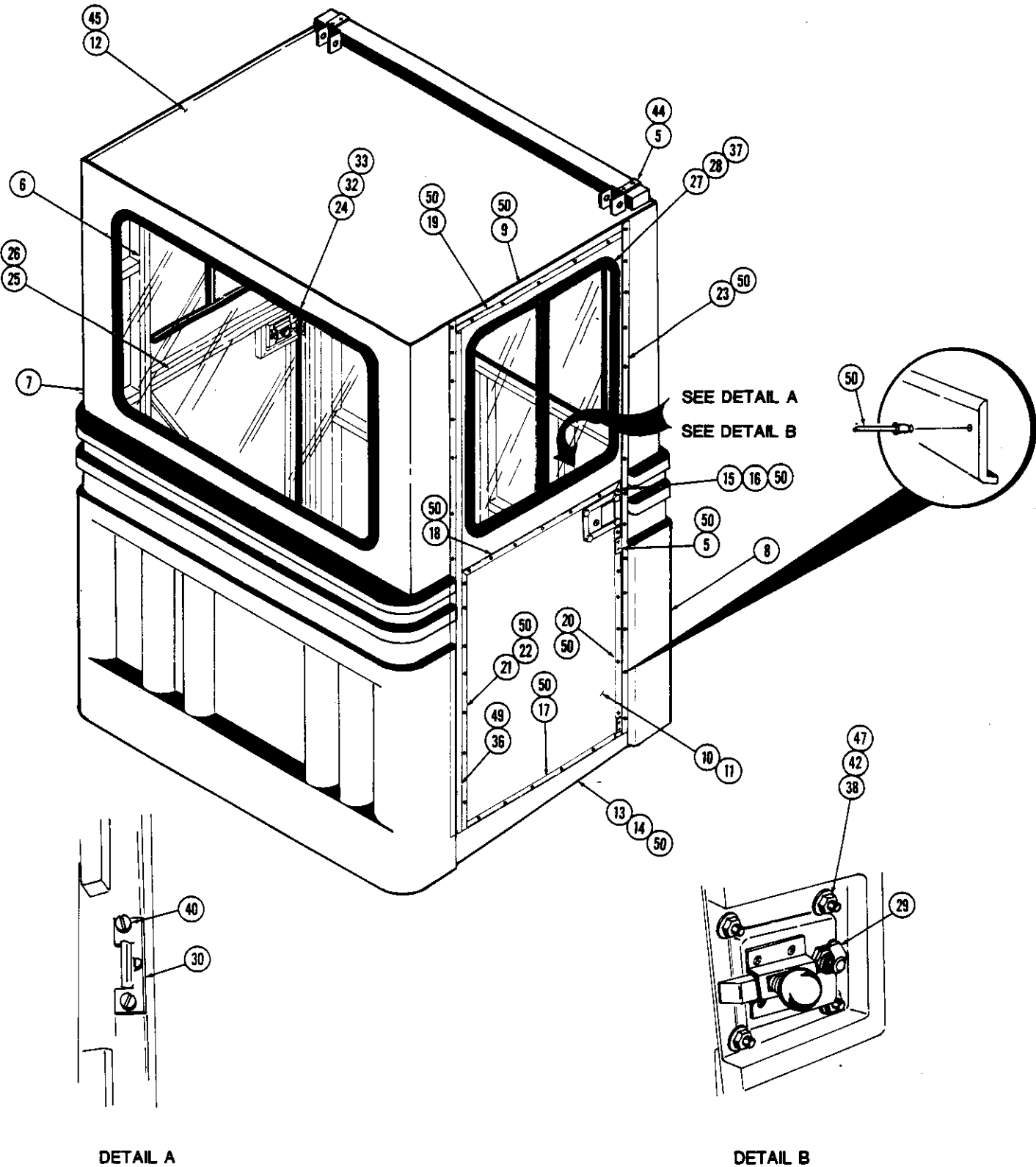
Index number	Part number	Drawing number	Description	Quantity per assembly
6	33011409	4021876-003	GATE WELDT-UPR,1993 4021876-003*	1.0
7	33011410	4021876-004	GATE WELDT-UPR,1993 4021876-004*	1.0
11	35530005	402-871-005	POST WELDT-GATE 402-871-005*	1.0
12	35530006	402-871-006	POST WELDT-GATE 402-871-006*	1.0
13	35530007	402-871-007	POST WELDT-GATE 402-871-007*	1.0
14	35530008	402-871-008	POST WELDT-GATE 402-871-008*	1.0
17	70009000 +	402-107-010	DECAL INSTL-SAFETY 402-107-010	1.0
21	33011406	4021873-001	GATE ASSY-1993 4021873-001*	2.0
22	33011407	4021873-002	GATE ASSY-1993 4021873-002*	2.0
23	35200802	402-835-002	PIN WELDT-GATE 402-835-002*	6.0
25	64760000		NUT HEX 5/16-18 JAM	2.0
26	60749400		BOLT HHCS 5/16-18X1 GR5	2.0
28	27223100		SPRING GAS 2" STROKE (W/SOCKET)*	6.0
29	21679000		CLIP RETAINER-GAS SPRING	12.0
30	27536300		STUD BALL 10MM*	12.0
31	60766600		BOLT HHCS 3/8-16 X1 GR5	4.0
32	35525703	402-836-003	POST WELDT-GATE 402-836-003*	2.0
33	35525704	402-836-004	POST WELDT-GATE 402-836-004*	2.0
34	60700800		BOLT HHCS 1/4-20 X1 1/2 GR5	16.0
35	64804200		NUT FLEXLOC 1/4-20 FULL	18.0
36	61201100		SCREW SHSS 5/16-18X1/2 N/I %	4.0
38	66150000		RIVET 3/16 AD612BS	8.0
39	30378536	402-871-020	BAR-GATE 402-871-020	4.0
42	20728700		BOLT EYE 1/4-20 X 2 1/2	2.0
43	68530000		WASHER WROT 1/4 STANDARD	4.0

+ Separate parts listing provided

402-1807-001

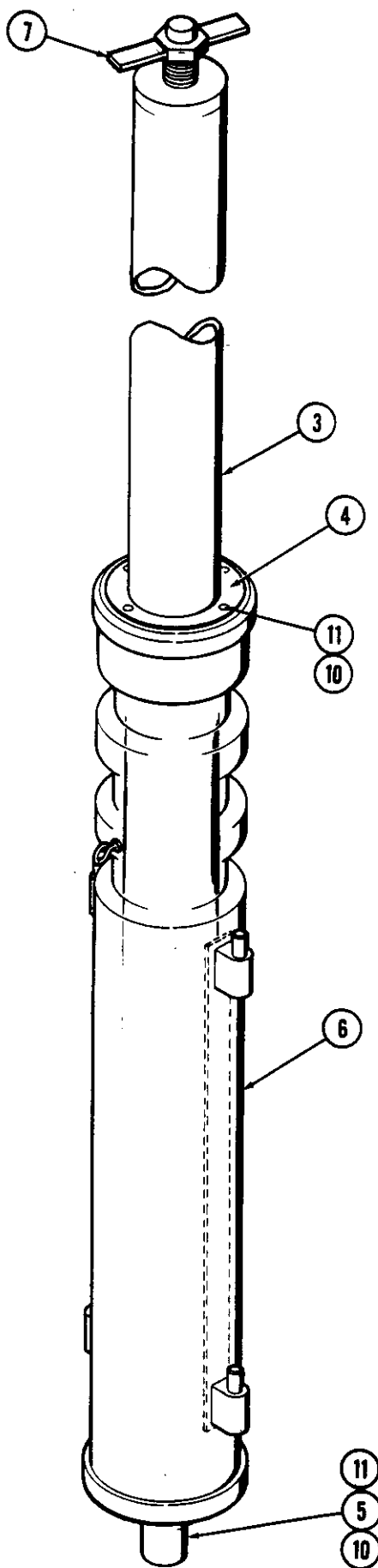
GATE INSTALLATION
Ride serial number 402-02693 and on





Index number	Part number	Drawing number	Description	Quantity per assembly
5	31013300	402-845-055	BUMPER-URETHANE 402-845-055	5.0
6	31941800	402-841-001	CONTROL HOUSE WELDT 402-841-001	1.0
7	32641100	402-890-001	FIBERGLASS-FRONT 402-890-001*	1.0
8	32641200	402-890-002	FIBERGLASS-REAR 402-890-002*	1.0
9	32641300	402-890-003	FIBERGLASS-SIDE 402-890-003*	2.0
10	70322000	402-891-001	DOOR F/GLASS-R/S 402-891-001	1.0
11	70322100	402-891-002	DOOR F/GLASS-C/S 402-891-002	1.0
12	36228400	402-893-002	ROOF-CONTROL HOUSE 402-893-002*	1.0
13	33849000	402-893-003	KICKPLATE-ROADSIDE 402-893-003*	1.0
14	33849100	402-893-004	KICKPLATE-CURBSIDE 402-893-004*	1.0
15	70322200	402-895-001	DOOR TRIM 402-895-001	1.0
16	70322300	402-895-002	DOOR TRIM 402-895-002	1.0
17	70322400	402-895-003	DOOR TRIM 402-895-003	2.0
18	70322500	402-895-004	DOOR TRIM 402-895-004	2.0
19	70322600	402-895-005	DOOR TRIM 402-895-005	2.0
20	70322700	402-895-006	DOOR TRIM 402-895-006	2.0
21	70322800	402-895-007	DOOR TRIM 402-895-007	1.0
22	70322900	402-895-008	DOOR TRIM 402-895-008	1.0
23	70323000	402-895-009	DOOR TRIM 402-895-009	4.0
24	38712400	402-843-001	WINDOW-CONTROL HOUSE 402-843-001	2.0
25	32290200	402-841-002	DOOR WELDT-C/HSE R/S 402-841-2*	1.0
26	32291400	402-841-003	DOOR WELDT-C/HSE C/S 402-841-3*	1.0
27	28685601		WINDOW DOOR-WIPEOUT	1.0
28	28685602		WINDOW DOOR-WIPEOUT	1.0
29	24179900		LOCK PADDLE HANDLE 1-DSLNZ	2.0
30	27452500		STRIKER EBERHARD 5619AZ	2.0
32	42202600		EXTRU W/SHIELD NEOPRENE 20B14*	27.0
33	42202300		EXTRU LOCKING STRIP 20B11*	27.0
36	33342000	402-809-001	HINGE-CONTROL HOUSE 402-809-001	2.0
37	66407100		SCREW #8X3/8 PH S/T PAN HD	46.0
38	61144200		SCREW MS 1/4-20X1 TRS PH	8.0
40	61144800		SCREW MS 1/4-20X2 TRS PH	4.0
42	64780800		NUT HEX 1/4-20 N/I	8.0
44	66149200		RIVET 3/16 AD68ABS	9.0
45	66156000		RIVET 3/16 1601-0613	26.0
47	68530200		WASHER SAE 1/4	8.0
49	66161000		RIVET 3/16 AV1682 0621	80.0
50	66150000		RIVET 3/16 AD612BS	170.0

+ Separate parts listing provided

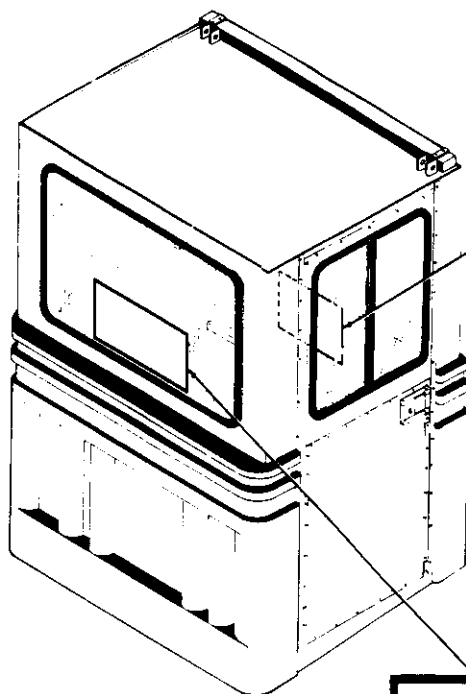


COLUMN ASSEMBLY

402-850-001

Index number	Part number	Drawing number	Description	Quantity per assembly
3	38259054	402-858-001	TUBE WELDT FRNT COLUMN 402-858-1	1.0
4	31763100	402-858-004	COLLAR 402-858-004	1.0
5	31225900	402-858-002	CAP WELDT-LOWER 402-858-002	1.0
6	31806600	402-847-001	COLUMN SUB-ASSY 402-847-001	1.0
	31806700	402-844-001	COLUMN-F/GLASS 402-844-001	1.0
	33501800	402-821-001	HOUSING ASSY-PIN 402-821-001	2.0
	33501900	402-821-002	HOUSING ASSY-PIN 402-821-002	2.0
	37476026	402-839-001	STRIP-BACKING 402-839-001	2.0
	60700200		BOLT HHCS 1/4-20 X3/4 GR5	8.0
	61222500		BOLT EYE 1/4-20 X 1	1.0
	64750000		NUT HEX 1/4-20 FULL	1.0
	64804200		NUT FLEXLOC 1/4-20 FULL	1.0
	68537000		WASHER LOCK 1/4 SPRING MED	8.0
7	36426900	1031004-004	SCREW-POSIT JACK 1031004-004*	1.0
10	61167100		SCREW MS 1/4-20X3/4 FHP	12.0
11	64825800		NUTSERT 1/4-20 THIN STEEL	8.0

+ Separate parts listing provided



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GENERAL INFORMATION

1. PERSONS 135 INCHES OR MORE IN HEIGHT SHALL BE PERMITTED TO RIDE.

2. ANYONE WITH BACK OR NECK INJURY MUST NOT RIDE THIS RIDE.

3. ANY PERSON WHO CANNOT BE ADEQUATELY SECURED BECAUSE OF SIZE OR CONDITION WILL NOT BE ALLOWED TO RIDE.

4. PREGNANT WOMEN ARE NOT ALLOWED TO RIDE.

5. PERSONS WHO ARE VISIBLY ILL OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL ARE NOT PERMITTED TO RIDE.

OPERATIONAL INFORMATION

1. THE FOLLOWING IS ONLY A GENERAL SUMMARY OF THE OPERATION OF THE RIDE. FOR COMPLETE OPERATING INSTRUCTIONS, REFER TO THE OPERATOR'S MANUAL.

2. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

3. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

4. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

5. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

SAFETY INFORMATION

1. THE FOLLOWING IS ONLY A GENERAL SUMMARY OF THE SAFETY INFORMATION FOR THE RIDE. FOR COMPLETE SAFETY INFORMATION, REFER TO THE OPERATOR'S MANUAL.

2. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

3. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

4. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

5. THE OPERATOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE RIDE AT ALL TIMES.

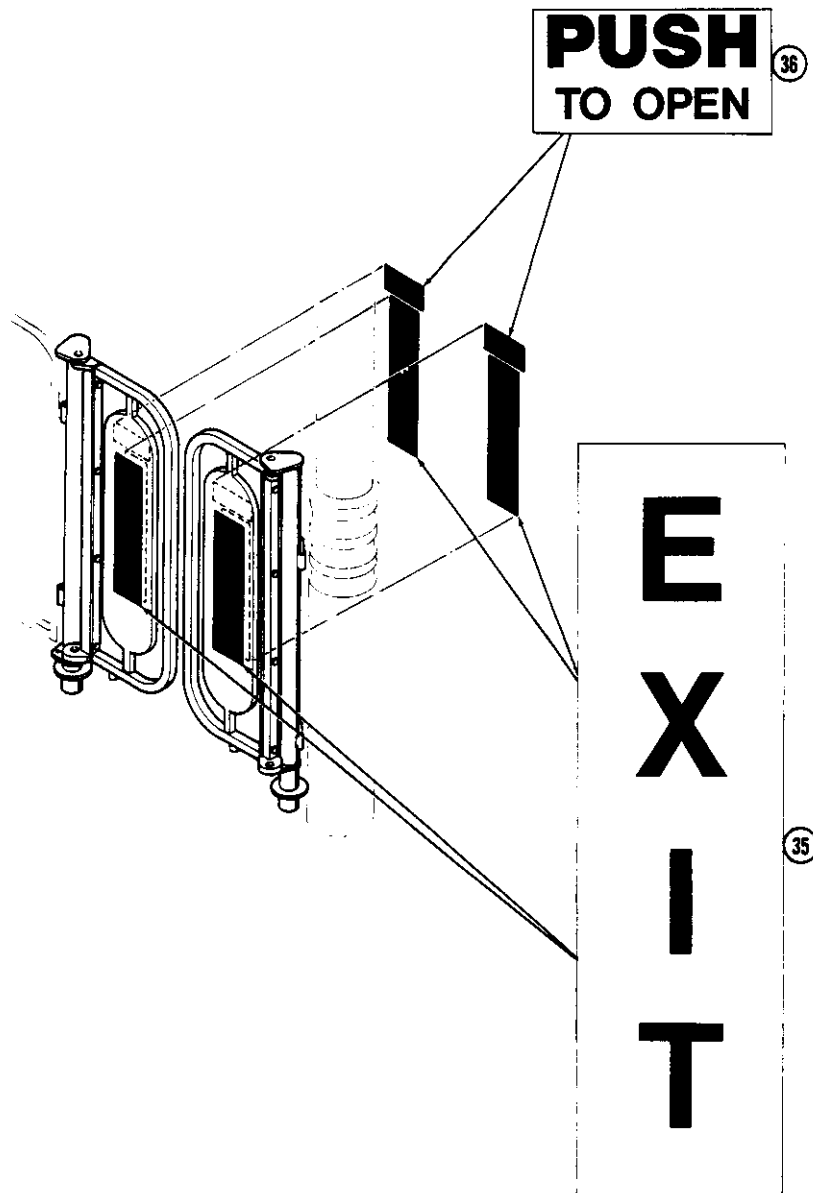
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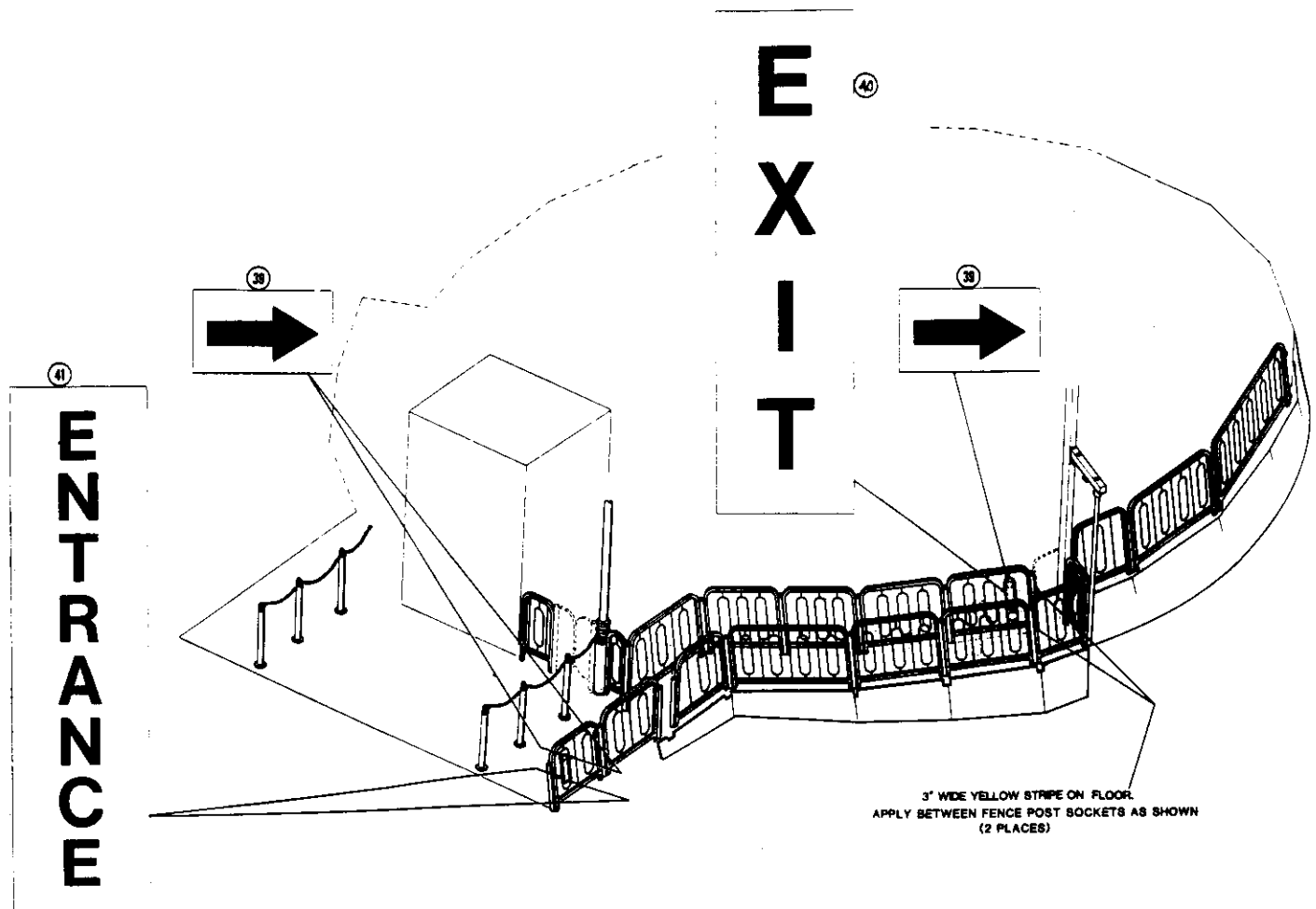
NOTICE TO PASSENGERS

1. NO ONE UNDER 42 INCHES IN HEIGHT SHALL BE PERMITTED TO RIDE.
2. ANYONE WITH BACK OR NECK INJURY MUST NOT RIDE THIS RIDE.
3. ANY PERSON WHO CANNOT BE ADEQUATELY SECURED BECAUSE OF SIZE OR CONDITION WILL NOT BE ALLOWED TO RIDE.
4. PREGNANT WOMEN ARE NOT ALLOWED TO RIDE.
5. PERSONS WHO ARE VISIBLY ILL OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL ARE NOT PERMITTED TO RIDE.

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+ Separate parts listing provided





+ Separate parts listing provided

WIPEOUT

Field inspection and test guide
Manual number 24329313



WIPEOUT

Field inspection and test guide

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Fax (316) 942-7416

Introduction

Proper maintenance is essential to the safe operation of this ride. The inspection points outlined in this field inspection guide are not intended to replace the recommended maintenance schedule. This guide does not contain maintenance and repair procedures and should only be used as a ride inspection guide.

When repairs are necessary use only those components authorized, specified or provided by the manufacturer. If any alterations, modifications and/or additions, installations of unauthorized components are made to the original design without the manufacturer's explicit written consent or without direct supervision by a manufacturer's representative, CHANCE RIDES INC., makes no claims as to the integrity of the altered or modified ride (product).

Information in this field inspection guide applies only to products manufactured by CHANCE RIDES INC. built after January 1, 1986.

CHANCE RIDES INC., reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to such changes.

Manufacturer's Specifications¹¹

Reference Standard:

ASTM - F24 Standards on Amusement Rides and Devices

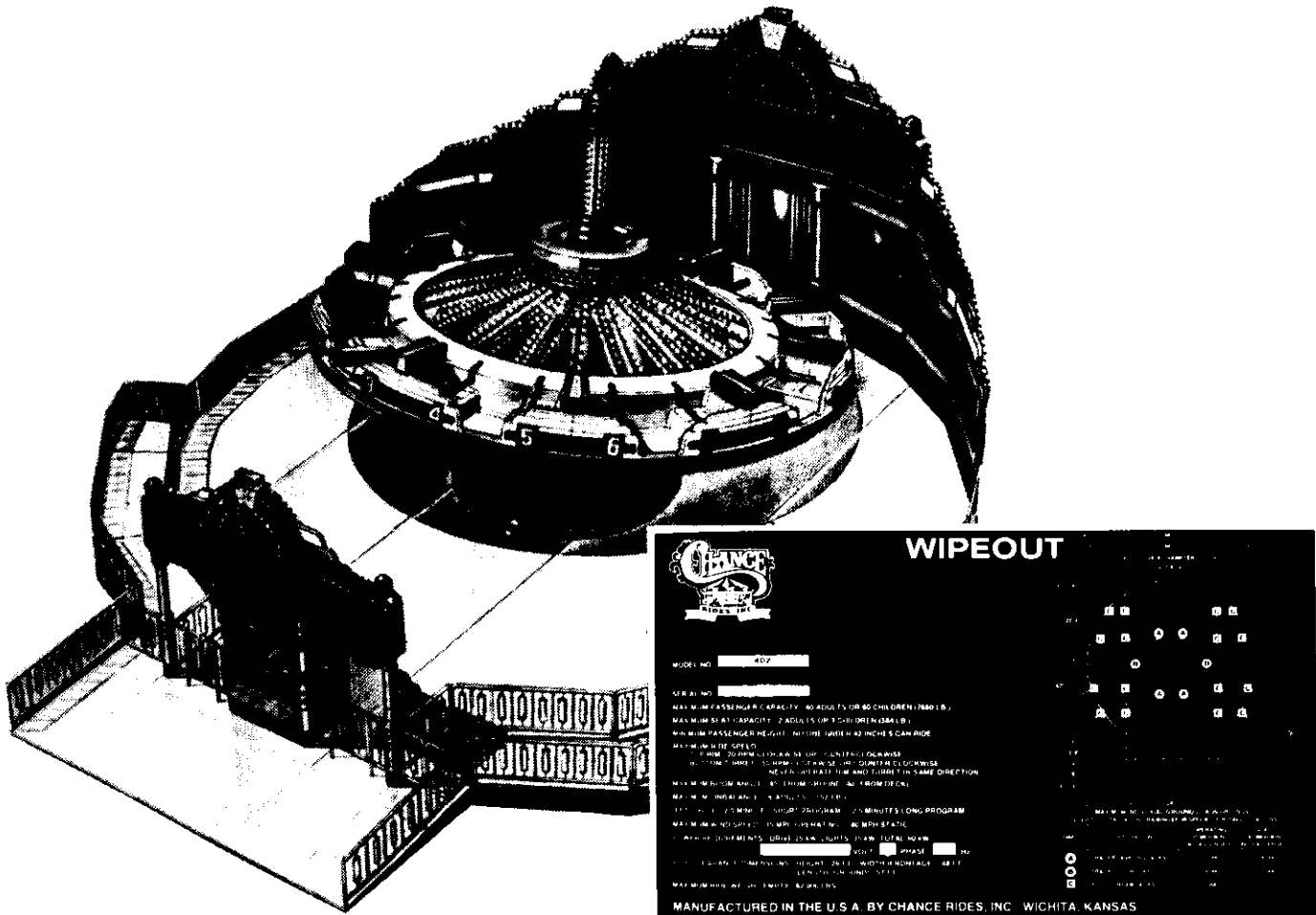
1. F583 Maintenance Procedures for Amusement Rides and Devices
2. F893 Inspection of Amusement Rides and Devices
3. F1159 Design and Manufacture of Amusement Rides and Devices

Chance Rides, Inc., at the time of the initial design and prototype manufacture, determines by calculations and testing the appropriateness of the functional design criteria. The visual esthetics of the ride are also evaluated and together with the functional design criteria make up the manufacturer's design specifications. These design specifications are adhered to on all subsequently produced rides of the same style. Occasionally, through field experience, it becomes necessary to specify a modification to the original design specifications. Actual modification to meet the change in design specifications can only be performed by qualified personnel, following the directives of a Chance Rides, Inc. Service Bulletin, Service Kit, or a Chance Rides, Inc. representative, where applicable.

Any modification performed on a Chance Rides, Inc. product outside the recommended directives established by Chance Rides, Inc. as referenced above, constitutes an unauthorized modification. Chance Rides, Inc. specifically disclaims any liability for losses associated with any unauthorized alteration and/or modification to any of its products. Chance Rides, Inc. will not issue letters for the operation of rides which do not meet the manufacturing specifications; this includes cases where the non-conforming modification is of an aesthetic nature only.

It is the responsibility of the individual inspector to thoroughly inspect the ride as deemed necessary, based on his knowledge and field experience to determine that the ride meets the manufacturer's specifications and/or is safe for operation.

¹¹ B090R1126-0 March 12, 1993



Ride description

The **Wipeout** is mounted on either a single trailer (portable model) or a stationary base (park model). The ride is equipped with an electro-hydraulic drive with air and hydraulic braking.

The ride information plaque is mounted to the boom support structure on the turret. It lists specifications, operating dimensions, ground loads, as well as model and serial number and date of manufacture.

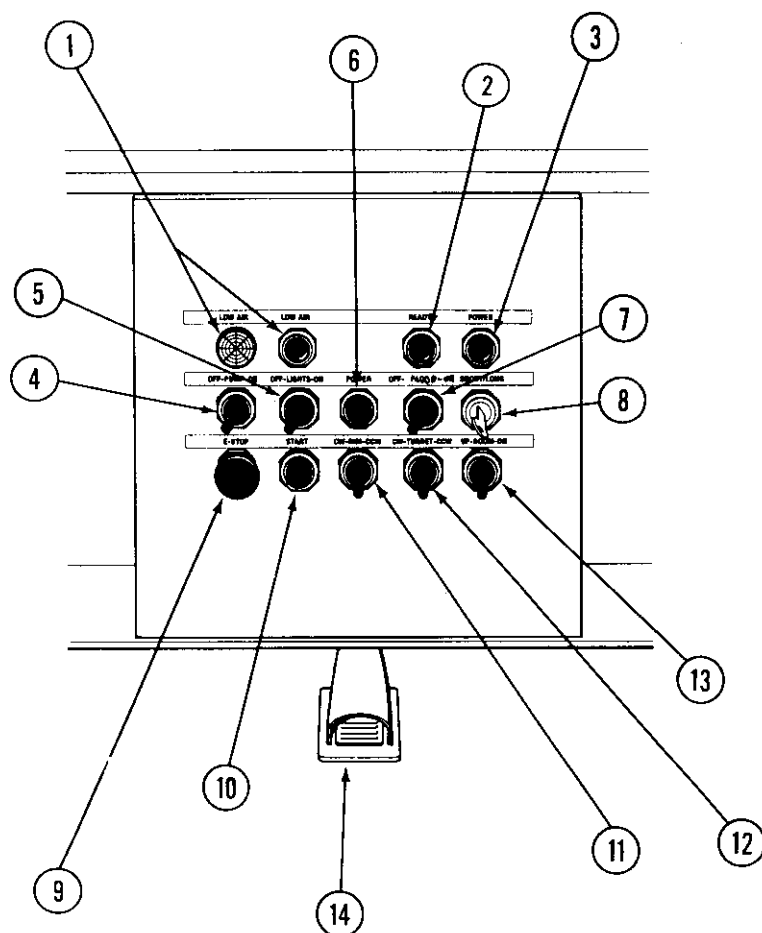
Detailed operation and maintenance information is available in the *Wipeout Service Manual* (manual number 24329311). For more information, or to order manuals, contact CHANCE RIDES, INC.

The ride information plaque is mounted to the boom support structure on the turret. The ride information plaque shown is for example only. Always refer to the information plaque mounted to the ride being inspected.

Operation

Operating controls

1. **Low air pressure alarm and indicator light** - This alarm and red light are normally off. If the air pressure is not sufficient to operator the ride, the alarm and indicator light will come on. Do not start the ride.
2. **Ready light** - This green light will come on when all lap bars are locked in the down position and the operator presence switch is depressed (the pump switch must also be on). The ride cannot be started until this light is on.
3. **Power switch** - Use this switch to turn off the main power circuit breaker in the motor control cabinet. The MAIN POWER INDICATOR LIGHT will go out when this switch is used.
4. **Pump switch** - Use this switch to turn the hydraulic pump either on or off. The pump must be on to run the ride.
5. **Light switch** - Use this switch to control all the decorative lighting on the ride.
6. **Main power indicator light** - This white light is on when the main power circuit breaker in the motor control cabinet is in the "ON" position.
7. **Flood light switch** - Use this switch to control all the flood lights on the ride.
8. **Short/long program switch** - Use this key-operated switch to select either the short or long programmed ride cycle. Do not change the program switch after the ride is started.
9. **E-stop switch** - This switch interrupts the drive program. The ride will come to a normal, programmed stop.
10. **Start switch** - Use this switch to start the programmed ride cycle. The following conditions must exist for the ride to operate:
 - Main power indicator light must be on.
 - Operator presence switch must be depressed.
 - Ready light must be on.



Operating controls

1. Low air pressure alarm and indicator light
2. Ready light
3. Power switch
4. Pump switch
5. Light switch
6. Main power indicator light
7. Flood light switch
8. Short/long program switch
9. E-stop switch
10. Start switch
11. Rim jog switch
12. Turret jog switch
13. Boom jog switch
14. Operator presence switch

11. Rim jog switch - The rim jog feature allows the operator to rotate the rim to any position. The operator presence switch must also be depressed.

12. Turret jog switch - The turret jog feature allows the operator to rotate the turret to any position. The operator presence switch must also be depressed.

13. Boom jog switch - The boom jog feature allows the operator to raise the boom at any position. The operator presence switch must also be depressed.

NOTE: The boom jog feature will operate if one or more of the lap bars is not down and locked.

14. Operator presence switch - This foot switch must be depressed to operate the start or jog buttons. If the switch is released, the drive program is interrupted and the ride will come to a normal, programmed stop.

Operating the ride (test cycle)

The operation procedure is provided on a decal, mounted next to the control console inside the control house. Make sure this decal is legible. Test the operation of all controls. Throughout the ride cycle, check for correct speed and boom angle, and proper brake operation.

Check the overall performance of the ride based on previous operating performances of the individual ride.

Safe rider policy¹⁶

Chance Rides, Inc. anticipates that it may be possible for a rider sitting in the seat on this amusement ride to intentionally turn sideways in the seat, removing his/her legs from underneath the lap bar. If a rider does this, he/she is not properly secured and personal injury could result. In order to reduce the possibility of an unsafe condition occurring, Chance Rides, Inc. highly recommends that all owners/operators of this ride adopt and enforce an operational policy that inhibits such misuse of the ride.

One such policy which can help inhibit the misuse of the ride is a "no single riders" policy. Chance Rides, Inc., however, recognizes that this type of policy may not be practical or suitable in all circumstances. It is therefore up to the individual owner/operator to develop their own operational policy which best meets their own needs, while maintaining the safe operation of the ride.

All owners/operators must realize that horseplay or other behavior on the part of the rider, that leads to an unsafe condition must not be tolerated. All operators of amusement rides must follow the manufacturer's guidelines in giving pre-operational instructions and warnings, then giving undivided attention to the ride and its passengers at all times when the ride is in motion. As stated in the operation/maintenance manuals, the operator must immediately stop the ride if anyone is in a dangerous or unsafe position on the ride.

General inspection and testing

Testing

Field performance testing of amusement rides¹

The following specifications conform with ASTM F846 standard guide for *Testing Performance Of Amusement Rides And Devices*, in effect on date of ride manufacture.

Erection or installation testing

Each erection or installation of a ride shall be given an inspection prior to carrying passengers that shall include but not be limited to the following:

- a. Determine that ride has been erected according to the set-up procedures in the operations manual.
- b. Inspect field inspection points listed in the *Field Inspection Guide*.
- c. Visual check of all passenger carrying devices including restraint devices and latches, and the pins and capscrews securing them.
- d. Visual inspection of entrances, exits, stairways and ramps and devices securing them.
- e. Test of all communications equipment necessary for operation of the ride or device.
- f. Operate the ride to determine that direction of travel conforms to the information plate, ride manual field inspection guide of specification sheet.
- g. Operate the ride for a minimum of three ride cycles to determine that the ride speed does not exceed the speed specified in the information plate, ride manual, field inspection guide, or specification sheet.

Daily pre-opening inspection

This inspection shall include a daily inspection of all items as specified in the previous item (erection or installation testing).

1. B090R1002-0 May 14, 1986

Documented field performance and operational testing

Documentation and certification shall be performed by a person who by demonstrated education and field experience is knowledgeable with construction, erection, operation, maintenance and repair of amusement rides.

Operational load testing

Any operational test including load testing performed on a ride shall be completely non-destructive in nature. Overload testing exceeding the rated limits listed on the information plate, operation manual, field inspection guide or specification sheet shall be deemed inappropriate. Where maximum total passenger weight is not readily available, passenger capacity multiplied by 170 pounds per adult and/or 90 pounds per child may be used.

Non destructive testing with inert loads can be accomplished only with special care as to placement of the load so that it is centered both vertically and horizontally as would be the load of the passenger it replaces. Extra seat reinforcement must be used to offset any load concentration created. Such tests shall be documented and certified as non-destructive by the person making the test and the agency requiring it. Results of all load tests shall be communicated to the factory upon completion by the certifying agency.

Conducting a non-destructive operational load test assures the testing agency only that it will carry a given load in a given way at a given moment and in no way assures future safety of the ride.

Conducting a destructive load or overload test also assures the testing agency that it will carry a given load in a given way at a given moment and in no way assures future safety of the ride. However, it also introduces the probability of inflicting serious irreparable damage to the ride that may or may not be apparent at the time of the test.

CHANCE RIDES, INC. considers inert load testing of any nature appropriate only for situations requiring experimental development of stress-strain testing during prototype development. A certificate of load test on the prototype and certification that each production ride met the design criteria when it was manufactured is available from the factory upon request.

Non-destructive testing²

- REFERENCE** 1. ASTM-F24 Standard On
STANDARD Amusement Rides And Devices
- a. F846-86 Testing Performance Of Amusement Rides
 - b. F853-86 Maintenance Procedures For Amusement Rides And Devices
 - c. F893-87 Inspection Of Amusement Rides And Devices

CHANCE RIDES, INC., at the time of design and manufacture, determines by calculations and testing of a prototype amusement ride the appropriateness for use, of not only the parts, but the entire system of a newly designed ride. These calculations and tests are utilized to, as feasibly as possible, determine the requirements for expected design life of major components. Based on this design criteria, CHANCE RIDES, INC. does not identify critical components on amusement rides to be singled out for non-destructive testing.

If through field experience, there is an indication that a structural or mechanical problem may develop on rides currently operating, CHANCE RIDES, INC. will notify owners by bulletin of the recommended procedures to inspect and correct the possible problem. Any possible defect which could affect the continued safe or proper operation of the ride should be reported immediately to the manufacturer by the owner/operator. This information is necessary so that a determination can be made for either the repair or replacement of the possible defective parts.

Field repairs should not be undertaken without the approval and proper instructions from the manufacturer and should be performed by qualified personnel. These persons should have a complete understanding of both the component's function and the manufacturer's instructions.

It is the responsibility of the individual inspector to thoroughly inspect the ride as he deems necessary based on his knowledge and field experience and manufacturer's recommendations. If the inspector finds an area or component that could be a problem, structural or otherwise, the factory should then be notified. It is then the responsibility of the inspector to ensure that the manufacturer's recommendations for repair,

replacement or otherwise have been completed and are in compliance with the required specifications.

Load testing is a destructive form of testing and is not recommended by the manufacturer, as per previous topic "Field performance testing of amusement rides."

Fasteners

Capscrews

Capscrews used by CHANCE RIDES, INC. are classified as functional load-carrying capscrews if:

- They're used as tension members in the erection or operation of the ride

and/or

- They're required to resist shear through friction-type connections in the erection or operation of a ride.

Capscrews are selected with consideration to grade, size and quantity, using joint capacities based on tightness torques of 60% rated yield and group joint efficiencies of 62.5%

Torque requirements⁴

Capscrews must be tightened to the torque values listed in the torque chart. These values were selected to produce a tightening torque range of 60% to 70% of proof load, when tightened with a hardened washer under the nut or capscrew head (whichever is accessible for tightening). When the capscrew is tightened from the head end, apply anti-seize lubricant to the shank end of the capscrew. When the threads are lubricated, use 10% less torque to tighten the capscrew.

DO NOT TIGHTEN CAPSCREWS OVER THE RECOMMENDED TORQUE. This can damage the capscrew, due to variances in coefficients of friction and torque wrench accuracy.

Always use a torque wrench. It is impossible to accurately measure the tightness of a capscrew by other methods. Torque wrenches must be checked for accuracy twice each operating season.

Size Diameter - Threads/inch	Foot pound torque range (see notes 1 and 2) with locknut and hardened washer	
	SAE J429 Grade 5 ASTM A325	SAE J429 Grade 8 ASTM A490
1/4 - 20	5-6	7-8
1/4 - 28	6-7	8-10
5/16 - 18	11-13	15-18
5/16 - 24	12-15	17-21
3/8 - 16	19-24	27-33
3/8 - 24	22-27	31-38
7/16 - 14	30-35	45-55
7/16 - 20	35-40	50-60
1/2 - 13	50-60	65-80
1/2 - 20	55-65	75-90
5/8 - 11	95-115	130-160
5/8 - 18	105-130	150-180
3/4 - 10	165-200	235-285
3/4 - 16	185-225	260-320
7/8 - 9	270-325	380-460
7/8 - 14	295-360	415-505
1 - 8	400-490	565-690
1 - 12	440-535	620-755
1 1/8 - 7	495-600	800-975
1 1/8 - 12	555-675	900-1095
1 1/4 - 7	700-850	1135-1380
1 1/4 - 12	775-940	1255-1525
1 1/2 - 6	1215-1480	1975-2395
1 1/2 - 12	1370-1660	2220-2700

Torque chart

Torques for functional load carrying cold finished hex head capscrews with dry rolled threads, used with locknuts (see note 3), and tightened with an ASTM A325 hardened washer under the capscrew or locknut head (whichever is accessible for tightening).

This torque range will develop 60% to 70% of proof load.

Refer to **Replacement of capscrews and locknuts** for conditions requiring replacement

NOTES

- 1 Use anti-seize lubricant on capscrew shank when tightened from head end.
2. Use 10% less torque when anti-seize or other lubricant is used on threads.
3. Use same torque range for holes tapped in steel.












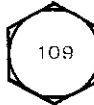
Capscrew grades

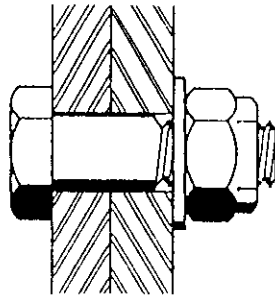
CHANCE RIDES, INC. uses only grade 5 or better capscrews and grade 8 locknuts, with A325 hardened washers for functional loads. The *Grade markings chart* shows the capscrew markings to be found on CHANCE rides. The manufacturer's identification symbols must be present on all functional load carrying capscrews.

CHANCE RIDES, INC. requires the use of cold-formed hex head capscrews with rolled threads. Hex bolts and hot formed hex head capscrews are not recommended because they may have machined threads and can have die seams along the shank.

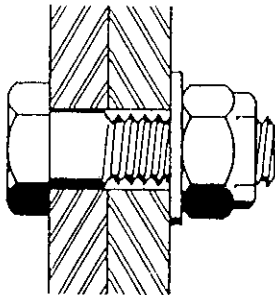
NEVER REPLACE CAPSCREWS OR NUTS WITH PARTS OF A LESSER GRADE, OR DIFFERENT LENGTHS THAN THOSE SHOWN IN THE CHANCE PARTS CATALOG.

Grade markings for functional load carrying capscrews
Manufacturer's identification symbols must be present on all capscrews

Correct markings	Examples of unacceptable markings	
<p>SAE J429 Grade 5 Medium carbon 81,000 yield</p> 	 <p>Grade 5.1 Low carbon</p>	 <p>Grade 5.2 Low carbon martensitic</p>
<p>ASTM A325 Type 1 Medium carbon Longer shank and shorter thread length than Grade 5 81,000 yield</p> 	 <p>ASTM A325 Type 2 Low carbon martensitic</p>	
<p>ASTM A325 Type 3 Corrosion resisting Longer shank and shorter thread length than Grade 5 81,000 yield</p> 		
<p>SAE J429 Grade 8 Medium carbon 130,000 yield</p> 	 <p>ISO R898 Class 8.8 Medium carbon 92,000 yield</p>	
<p>ASTM A490 Alloy steel Longer shank and shorter thread length than Grade 8 130,000 yield</p> 	 <p>ISO R898 Class 10.9 Alloy steel 130,000 yield</p>	

ASTM A325**ASTM A490****Capscrew comparison**

ASTM A325 and A490 cap screws have longer shanks and shorter threads than Grade 5 and Grade 8 cap screws of the same size.

Grade 5**Grade 8****Replacement of cap screws and locknuts**

When permanently installed cap screws and locknuts are disassembled for repair or adjustment, they must be replaced if they have been in service over five (5) years, or corrosion, or other damage requires over-torquing for removal. If a torque wrench is not used to measure excessive removal torques, the cap screws and locknuts must be replaced.

Cap screws and locknuts which are frequently disassembled for portability must be replaced each operating season. If the cap screws and locknuts become damaged, corroded or require excessive torque for removal, they must be replaced. If a torque wrench is not used to measure excessive removal torques, the cap screws and locknuts must be replaced.

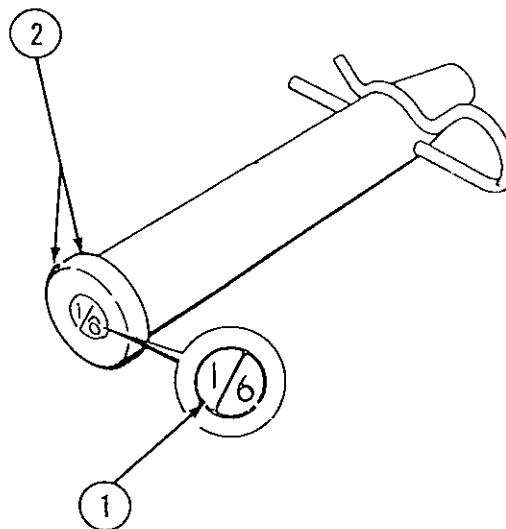
Pins³

Tapered pins used on amusement rides are subject to deterioration due to improper use and wear. CHANCE RIDES, INC. specifies certain pins for certain applications on amusement rides. These pins have been developed over a period of years, taking into account size, design, material and hardness characteristics.

Use only the pins specified by CHANCE RIDES, INC. These pins are identified as shown in the following illustration. Always use the correct hairpin.

Pin identification

1. Date of manufacture
2. Rounded edges

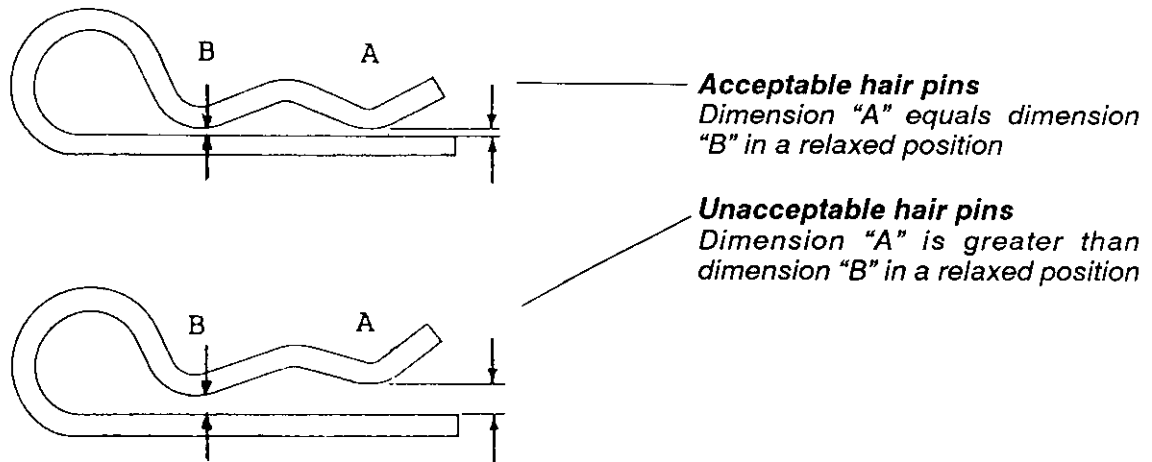


Use care when installing and removing tapered pins. Since these pins are hardened (as are hammers and punches) care must be taken to strike the pin straight on. Striking a pin at an angle can cause the pin to chip, resulting in personal injury. For this reason APPROVED SAFETY GLASSES OR GOGGLES MUST BE WORN AT ALL TIMES when tapered pins are being installed or removed. If a tapered pin is chipped, bent, or "mushroomed" on either end, discard it and replace it with a new pin.

Pin keepers

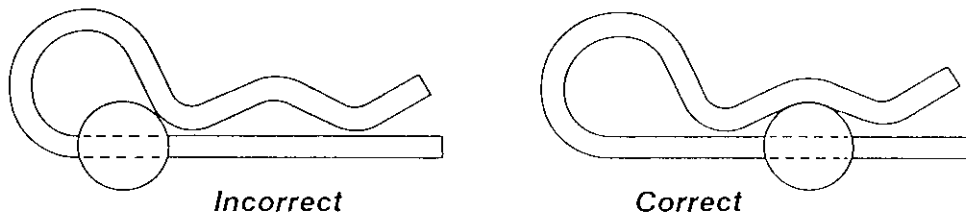
All keepers (R-keys, hair pins, lynch pins, etc.) must be inspected for wear. If a keeper is bent out of shape or "sprung", it must be replaced.

Hairpins are expendable parts. After repeated use, they become worn and "sprung" as shown.



NEVER ATTEMPT TO BEND A HAIR PIN BACK INTO SHAPE.
REPLACE IT WITH A NEW PART.

The correct installation of a hairpin is shown. Incorrectly installed hairpins are more likely to fail, and will distort after only a few uses.



CHANCE RIDES, INC. recognizes and recommends the safety procedures specified in *ASTM Standards F770 Operation Procedures for Amusement Rides and Devices* and *F853 Maintenance Procedures for Amusement Rides and Devices*.

Inspection

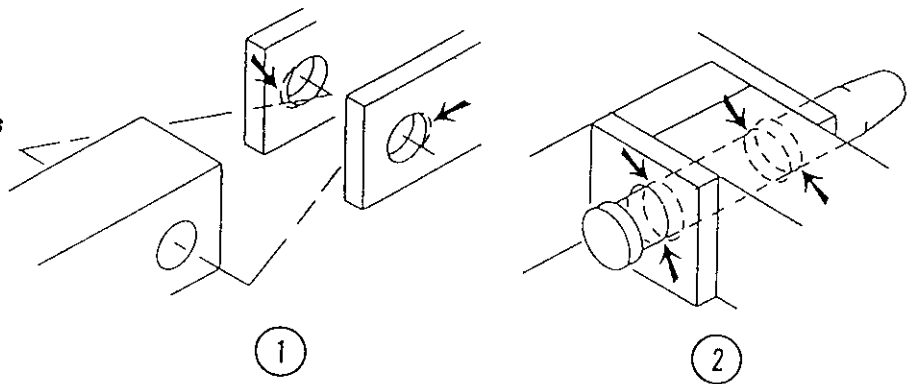
Joint inspection

Some joints will appear to wear rapidly on new rides. This is usually a result of the holes not aligning in the mating parts. When this condition occurs it results in "point contact". A joint with this condition will generally wear rapidly until the load is distributed evenly over the fastener and the parts.

If in doubt about the condition of a bolt, pin or hole on a new ride consult CHANCE RIDES, INC., and replace as required.

1. Inspect stationary joints for "egg-shaped" wear and loose pins.

1. Stationary joint wear
2. Stationary joint-misaligned holes resulting in point contact



2. Inspect moving joints for wear and lubrication.
3. Inspect welded structural joints for cracking or fatiguing.
4. Inspect bolted structural joints for cracking, fatiguing and proper bolt tightness.
5. Inspect pins and keepers on all pin joints for wear and proper installation.
6. Inspect all pins for proper CHANCE identification marks.

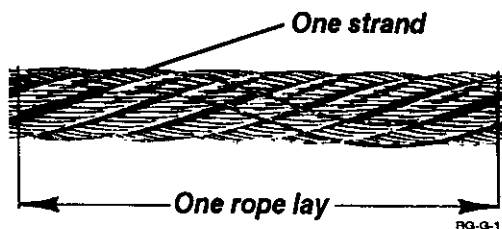
Cable Inspection¹²

Reference standards:

- OSHA 1926-550 Subpart N
Cranes, derricks, hoists, elevators and conveyors
- ANSI B30.5
 - 5-2.4.3 Rope Replacement
 - 5-2.4.4 Rope Maintenance

Chance Rides, Inc. recognizes the above listed standards with regards to cables (wire rope) used for rigging, slings, and hoists for the purposes of setup and/or tear-down of an amusement ride. It is further recognized the no precise rules can be given to determine the exact life expectancy of any given cable, due to the variables to which that cable may be subjected. Continued use of a cable depends on the judgement of the individual who is authorized to evaluate the cable.

Chance Rides, Inc. requires that prior to each setup or tear-down of an amusement ride, the owner's authorized representative inspect and evaluate all cables. Cables must be replaced if any of the following conditions exist.



"Lay" as a unit of measure

1. Six randomly distributed broken wires in one lay;
2. Three broken wires in any one strand in one lay;
3. Wear of one-third the original diameter of outside individual wires;

4. Physical damage such as kinking, crushing, "bird caging", or any other damage resulting in distortion of the cable structure;



Kinking



Crushing



Bird caging

RG-G-2

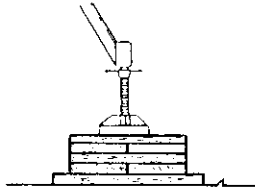
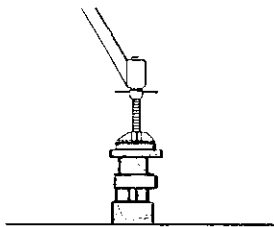
5. Damage due to heat of any kind;

6. Reductions from the nominal cable diameter of more than any of the following:

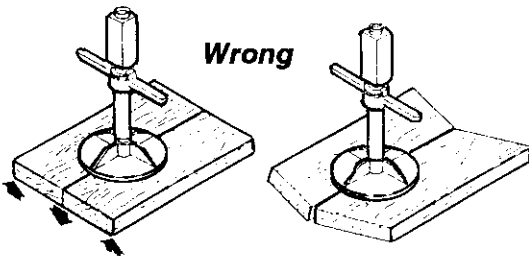
NOMINAL CABLE DIAMETER	MAXIMUM REDUCTION
5/16" and smaller	1/64"
3/8" to 1/2"	1/32"
9/16" to 3/4"	3/64"
7/8" to 1-1/8"	1/16"
1-1/4" to 1-1/2"	3/32"

Leveling and blocking

1. Inspect leveling and blocking at each set up and at the start of each day (rides erected in soft locations require more frequent inspection).
2. Inspect for proper cross blocking at each jack location. Cross blocking distributes weight evenly.

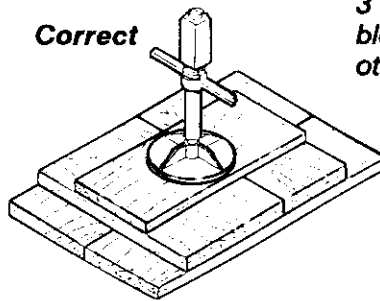


Always cross block
Cross blocking distributes weight evenly.



Wrong

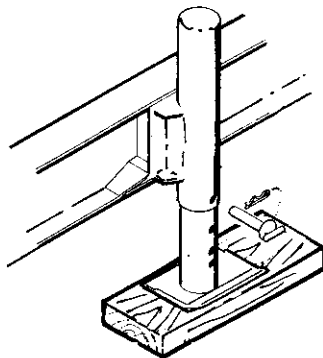
Correct



3 X 12 X 36" and 3 X 12 X 24" blocking is recommended unless otherwise instructed.

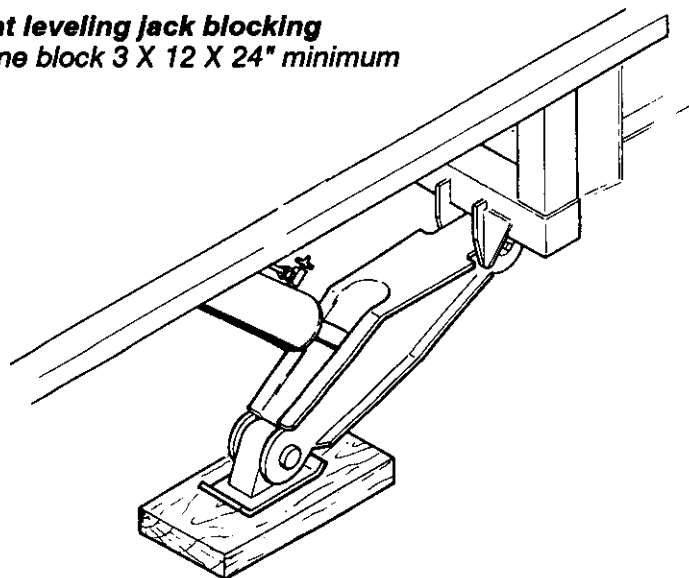
Support leg blocking

- One block 3 X 12 X 36" minimum



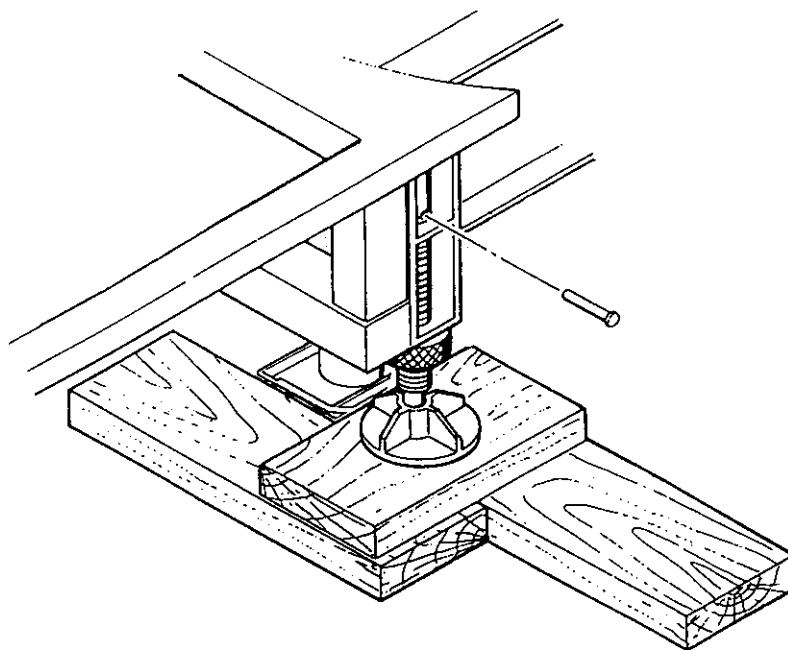
Front leveling jack blocking

- One block 3 X 12 X 24" minimum



Front screw jack blocking

- Minimum two blocks high
- 3 X 12 X 36" and 3 X 12 X 24"
- Stagger blocks as shown to clear support leg
- Roding pin and hairpin

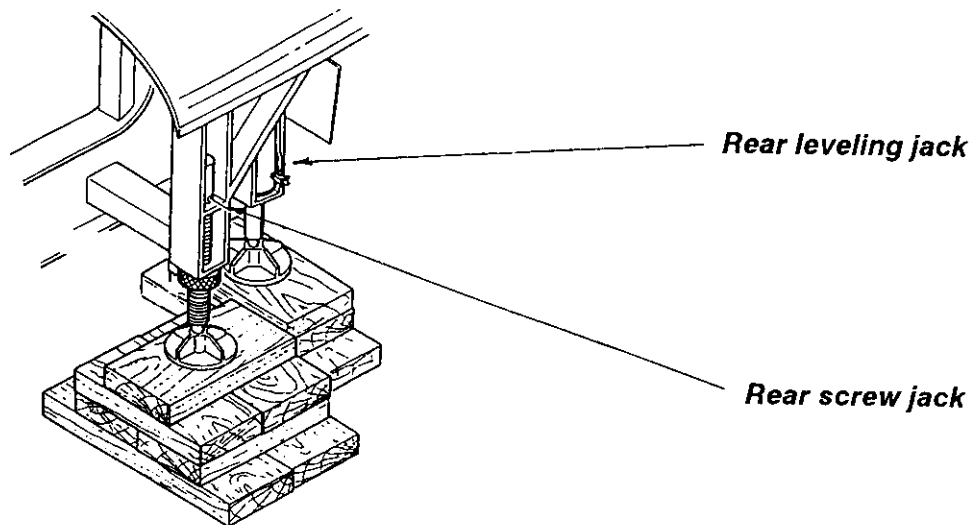


Rear screw jack blocking

- Minimum four blocks high
- 3 X 12 X 36" and 3 X 12 X 24"
- Cross block as shown

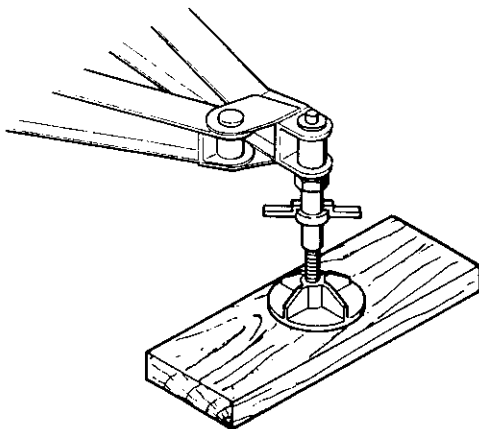
Rear leveling jack blocking

- Minimum two blocks high
- 3 X 12 X 36" and 3 X 12 X 24"
- Stack blocks to clear cross blocking under rear screw jacks as shown



Outrigger blocking

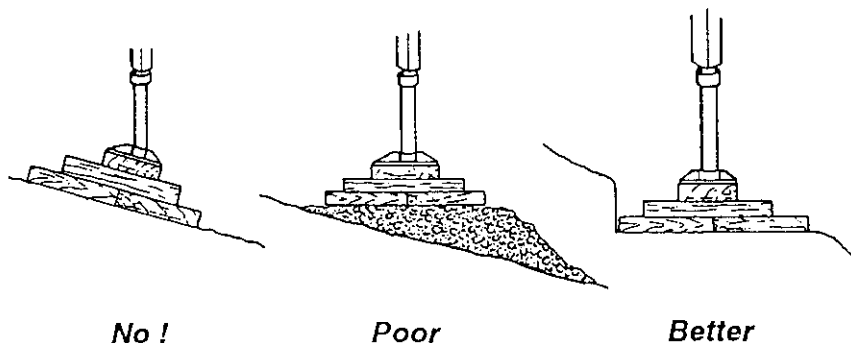
- One block 3 X 12 X 36" Minimum



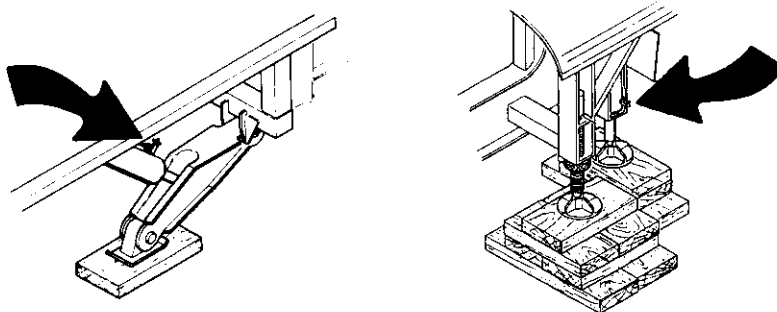
3. Inspect blocking for proper contact with ground.
4. Level ground under blocking by digging where possible, instead of filling. Fill dirt will be soft and allow settling.

Blocking on a slope

Level the ground beneath blocking by digging where possible. Don't fill, the fill dirt will be soft allowing the ride to tilt

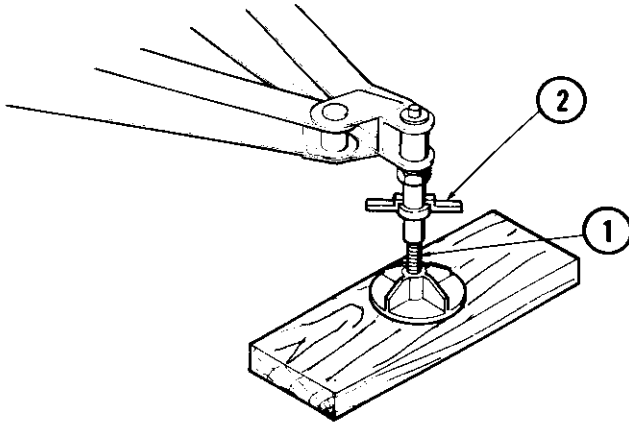


5. Inspect hydraulic leveling jacks for leaks at every set-up. The hydraulic jacks are for leveling purposes only. Make sure that all four screw jacks are on solid blocking and the jack nuts are tightened. Retract the jacks completely and close the shut-off valves so the entire weight of the ride is on the screw jacks.



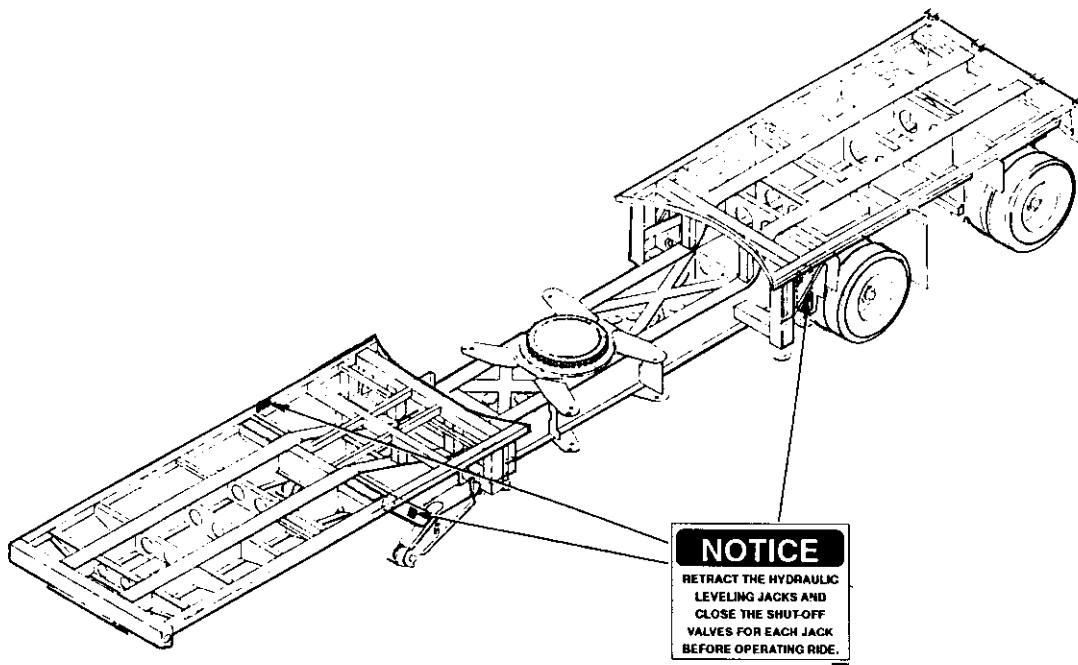
Front and rear leveling shut-off valves

6. Check the jack nuts on screw jacks for tightness.



1. Screw jack
2. Jack nut

7. Check for installation of safety decal at each hydraulic jack and at the jack control valves.



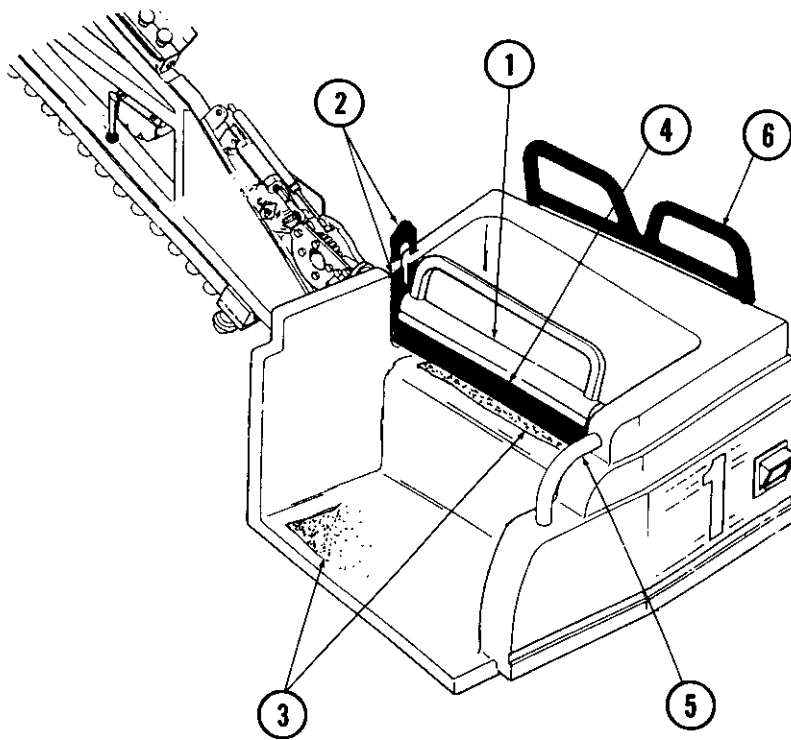
General safety guidelines

The following is a list of general safety rules to which everyone should adhere.

1. All work must be performed by competent, qualified mechanics, capable of understanding the function of the parts and their proper installation.
2. Inspect the ride before each day of operation to determine that no portion of the ride is damaged, missing or worn in such a manner that unsafe conditions can develop.
3. Perform the manufacturer's recommended maintenance procedures at the intervals and in the manner specified in the operation and maintenance manual.
4. Study each job carefully to determine all hazards so that necessary safety precautions can be taken.
5. Examine safety devices (tools, ladders, etc.) before used to insure they are in good condition. Use only OSHA approved safety items. Ladders must be clean and unpainted.
6. Use the proper tool or equipment for each job. All hand electric power tools must be properly grounded.
7. Wear close fitting, comfortable clothing when working on or near moving parts or live electrical circuits. Avoid finger rings, jewelry or other articles which can be caught in moving parts or come in contact with electrical circuits.
8. Protect eyes by wearing approved safety glasses or goggles.
9. Wear a hard hat at all times. When working in elevated areas, use a safety belt.
10. Where work performed is hazardous, never work alone.
11. If guards are removed from equipment, make sure they are replaced before leaving the job.
12. Clean up after each job, disposing of surplus materials.
13. Keep a record of parts replaced and the date of replacement. Inform the manufacturer of any replacement requirements which are frequent or cause unsafe conditions.

14. Make modifications and additions only as outlined in manufacturer's service and safety bulletins.

Vehicle inspection

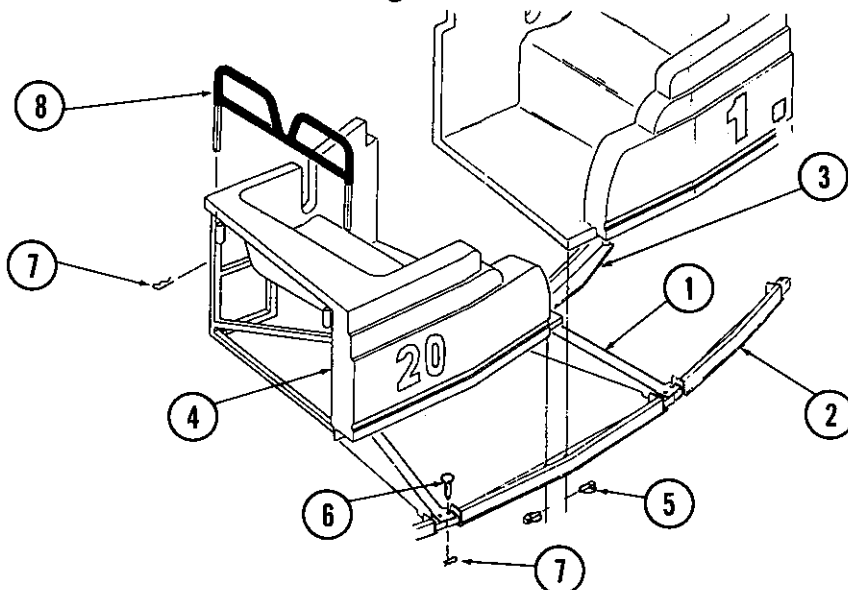


- 1. Lap bar
- 2. Rubber boot
- 3. Anti-slip material
- 4. Lap bar padding
- 5. Hand rails
- 6. Head rests

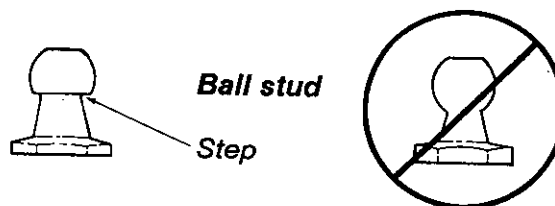
1. Each vehicle is equipped with an air-operated locking lap bar. Check the operation and locking of every lap bar daily. A detailed description of this procedure is given in the following topic, "Lap Bar Operational Check".

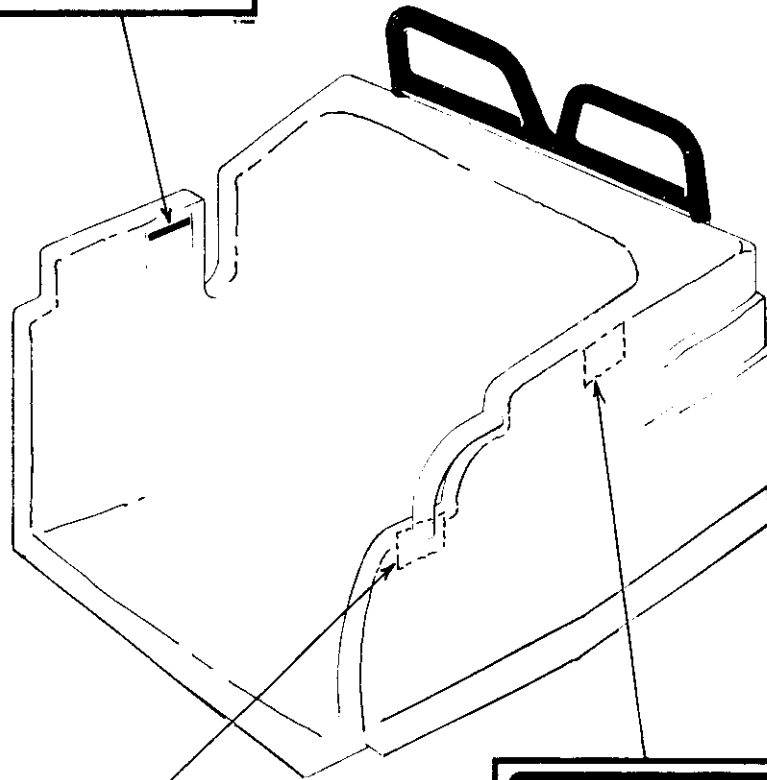
2. Check the condition of the rubber boots between the lap bars and the vehicle fiberglass.
3. Check the operation of the lap bar interlock system using the procedure described in the following topic.
4. Check the overall condition of each vehicle. Inspection points include, but are not limited to, anti-slip material on the seat bottoms and floors, lap bar padding, seat hand rails and head rests.
5. Check the mounting of each vehicle on the spreader bars. The lynch pins must be 7/16" diameter. All lynch pins must be in good working order.

1. Sweep
2. Outer spreader bar
3. Inner spreader bar
4. Vehicle
5. 7/16" lynch pin
6. Pin
7. Hairpin
8. Headrest



6. Inspect the vehicle frame structures for cracks, bends and other damage.
7. Inspect each vehicle for proper decal installation.
8. Insure that the correct ball studs are used to hold the gas springs in place on the lap bars⁷. The proper ball studs have a step at the base of the ball as shown.





Lap bar operational check

A lap bar interlock system prevents the ride from being started if any lap bar is not down and locked. Check the interlock system and the operation of every lap bar daily.



WARNING: Checking the lap bar interlock system requires two people. Extreme care must be taken during the procedure, in the event that the ride starts with the lap bar unlocked. Serious personal injury can result.

1. Move the lap bar switch to "Close" to lower the lap bars. Manually lower and lock each lap bar. All green indicator lights on the sweeps must go off.
2. Depress the operator presence switch and start the ride. It should start and run normally.
3. Stop the ride and move the lap bar switch to "Open" to release the lap bars. The lap bars can then be manually raised.
4. Have a helper sit in vehicle number 1 and hold the lap bar just high enough that it will not lock.



WARNING: The helper must be prepared to immediately push the lap bar down into its locked position, in the event the ride starts. To avoid serious personal injury.

5. Move the lap bar switch to "Close" lowering and locking all lap bar except the one being tested. The green indicator light should stay "On" on the lap bar being tested.
6. Depress the operator presence switch and push the rim jog button. The "Ready" light **MUST NOT** come on and the ride **MUST NOT START OR RUN** when the lap bar is not down and locked.

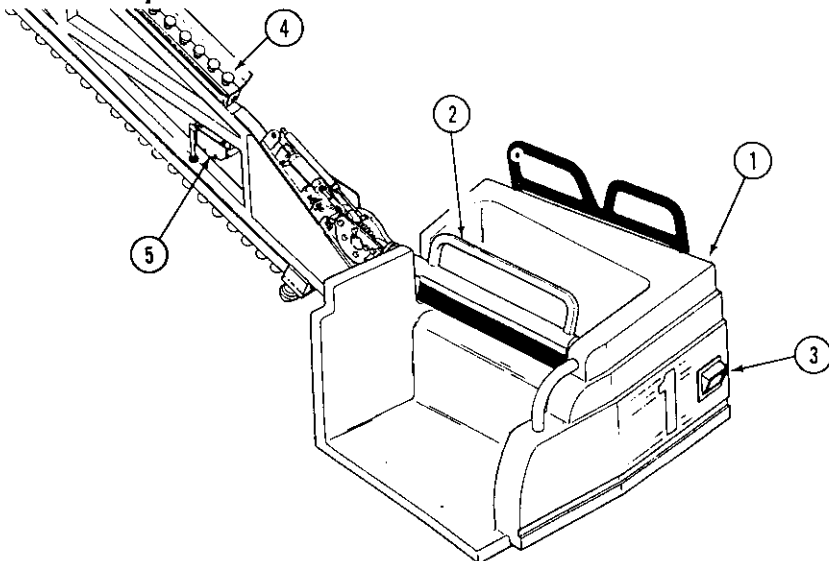


WARNING: When testing the lap bar interlock system, use only the RIM JOG button. If the ride starts with the lap bar up, **STOP THE RIDE IMMEDIATELY** to avoid serious injury to the passenger.

7. If the ride starts, adjustment or repair of the lap bar interlock system is necessary. **DO NOT OPERATE THE RIDE UNTIL REPAIRS ARE MADE.**

If the ride does not start, the lap bar interlock for that vehicle is working properly. Lower and lock the lap bar after the helper exits the vehicle.

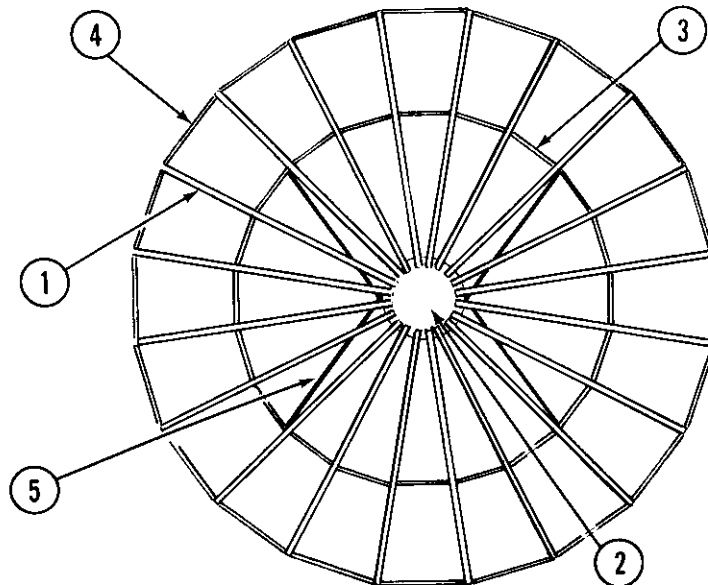
8. Proceed to the next vehicle and repeat Steps 4, 5, 6 and 7 until all the lap bars have been tested, one at a time.
9. Check the operation of the lap bar emergency release lever, located on sweep #1. With all lap bars down and locked, pull this lever to release air pressure to unlock all lap bars.



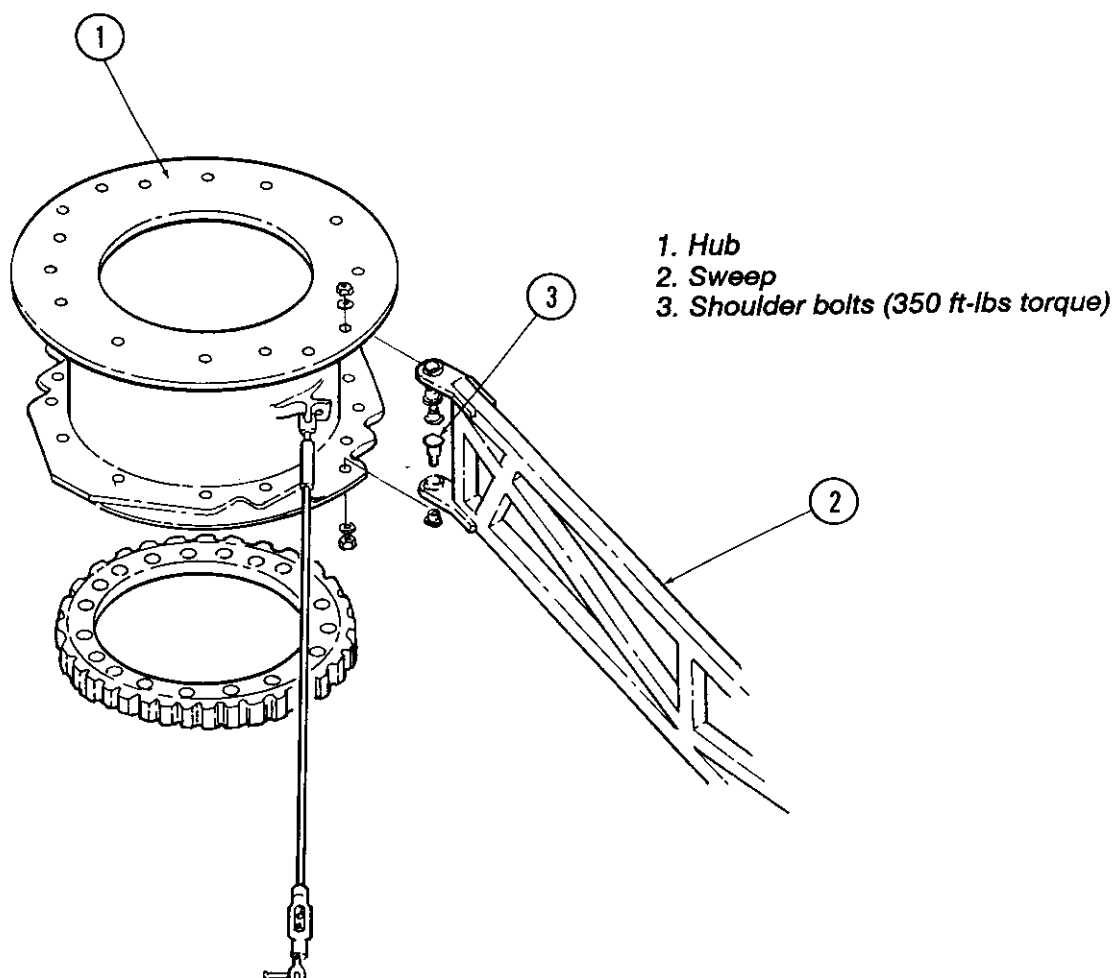
1. Vehicle
2. Lap bar
3. Lap bar switch (vehicle number 1 only)
4. Green indicator light
5. Lap bar emergency release lever (sweep number 1 only)

Hub & sweep inspection

1. Check the installation of all spreader bars, pins and hairpins.
2. Inspect the installation of two sets of cross rods between the sweeps and hub. The cross rods must be in tension, with the turnbuckles snug.

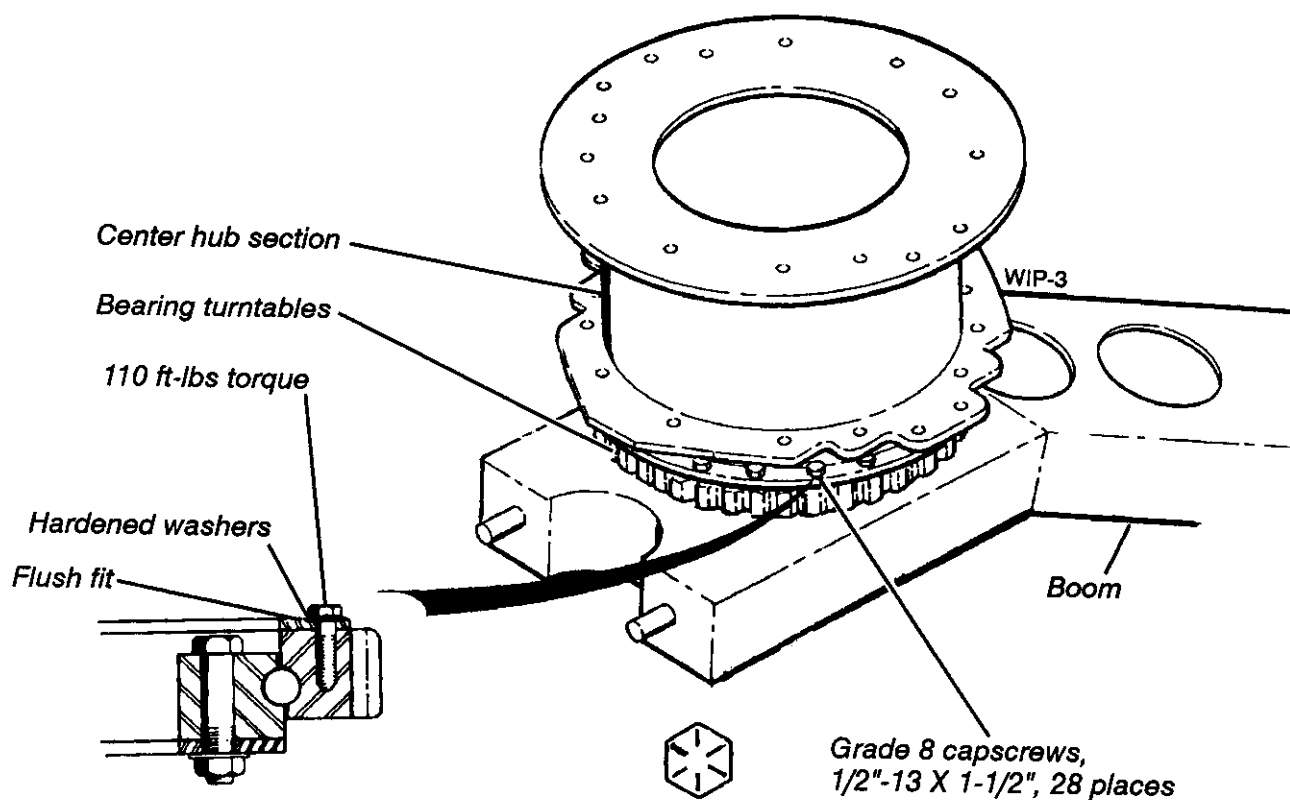


1. Sweep
2. Hub
3. Inner spreader bar
4. Outer spreader bar
5. Cross rod



3. Inspect all sweeps for cracks, bends and other damage.
4. Check the shoulder bolts which attach the sweeps to the hub. These are special heat-treated fasteners, tightened to 350 ft-lbs. torque.

5. Check capscrews that attach the center hub to the bearing turntable on the boom¹⁰. These are Grade 8 hex head capscrews with hardened washers under the heads (28 places). Verify the hardened washers fit flush to the hub. These capscrews must be tightened to 110 ft-lbs torque (dry) or 90 ft-lbs torque (lubricated threads).

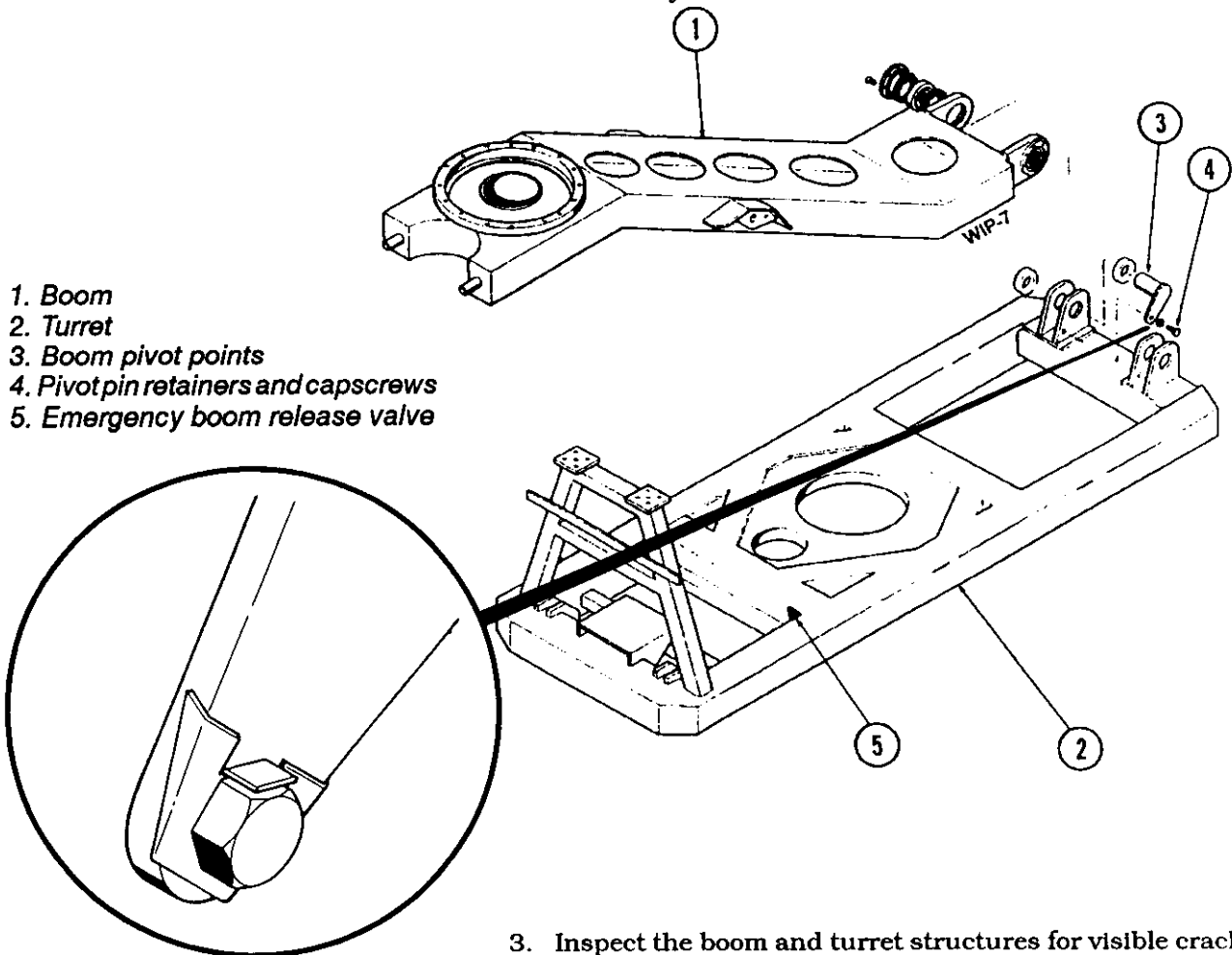


Note: If capscrews are removed and reinstalled with lubricated threads, 90 ft-lbs must be maintained.

Check torque monthly.

Boom and turret inspection

1. Check the boom pivot pins for installation of locking hex head capscrews and capscrew retainers¹³. The tabs on the retainer must be bent over the pin and the capscrew as shown to prevent the capscrew from becoming loose.
2. Check the operation of the emergency boom release valve, located under the ride platform on the turret. Carefully open the valve to lower the boom. Check for installation of the safety decal for this valve.

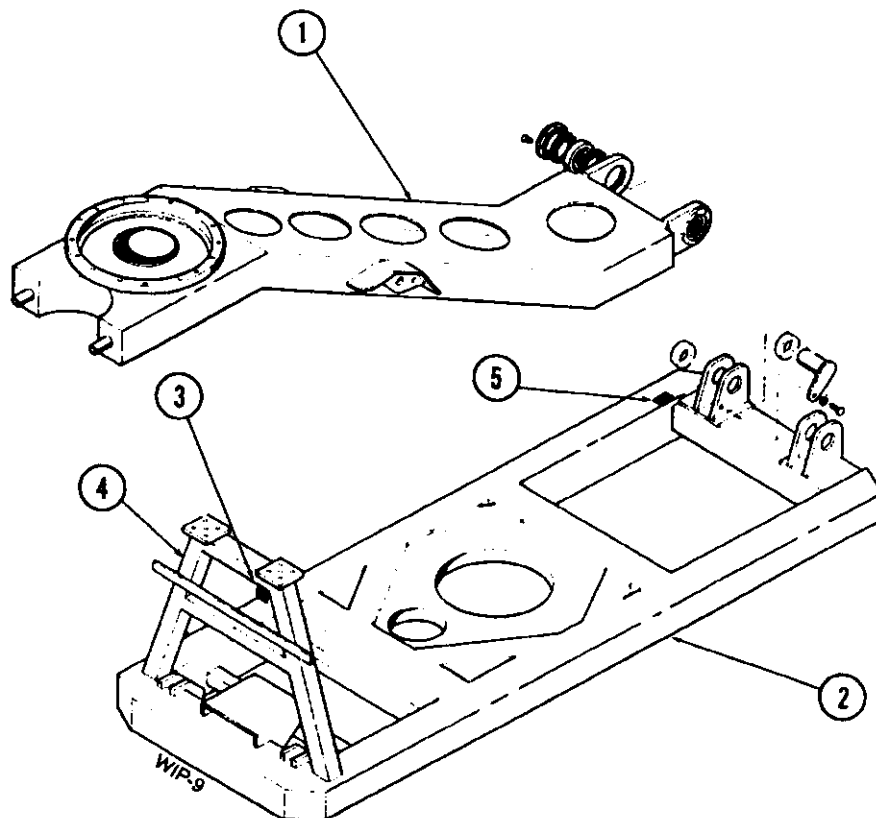


3. Inspect the boom and turret structures for visible cracks or damage.

Electrical and lighting inspection

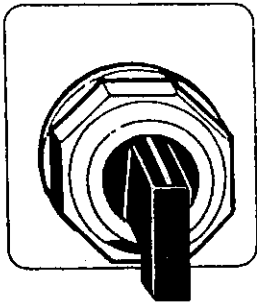
1. Check the boom limit switch, located on the boom support stand. This switch locks out the lap bar switch, so that the lap bars cannot be unlocked when boom is raised. The switch must be adjusted properly, and **MUST NOT BE BY-PASSED**⁶.

1. Boom
2. Turret
3. Boom limit switch
4. Boom support stand
5. Boom angle limit switch

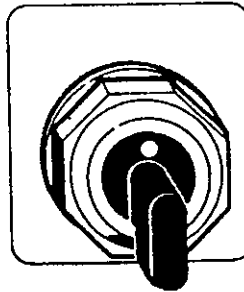


2. Check the boom angle limit switch, located at the boom pivot. This switch controls the maximum angle of the boom, and must be properly adjusted (3" from the full stroke of the cylinders).

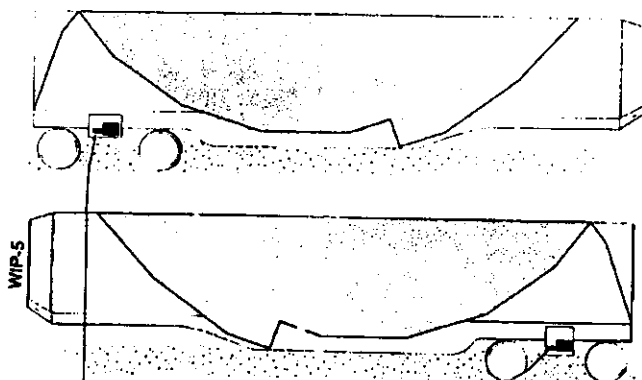
3. Check cable leads, electrical connections and grounding per local code.
4. Test the operator controls, including emergency stop switch, operator presence switch and power switch.
5. Check the electrical jumpers at the front sign and backdrop.
6. Check the three-position swing knob switch on the control console¹⁵. The switch must be the correct type as identified by the following illustration.



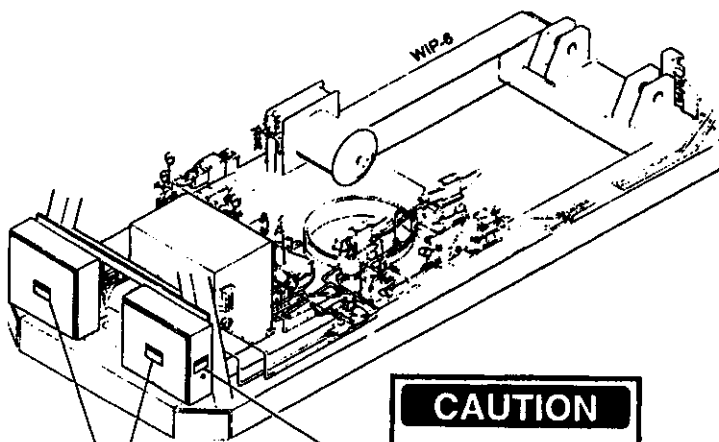
*Three-position
swing knob
switch must be
this style.*



*This style switch
is not allowed.
Replace with
switch shown at
left.*

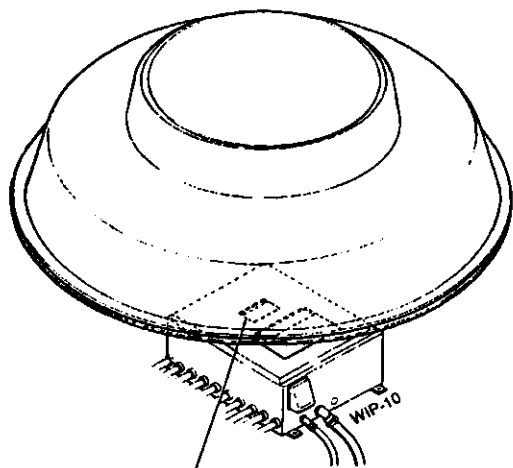


CAUTION
TURN POWER OFF
BEFORE OPENING
BOX



CAUTION
TO PREVENT INJURY
TURRET MUST BE CHAINED
BEFORE ACTIVATING TURRET
BRAKE RELEASE SWITCH

CAUTION
TURN POWER OFF
BEFORE OPENING
BOX



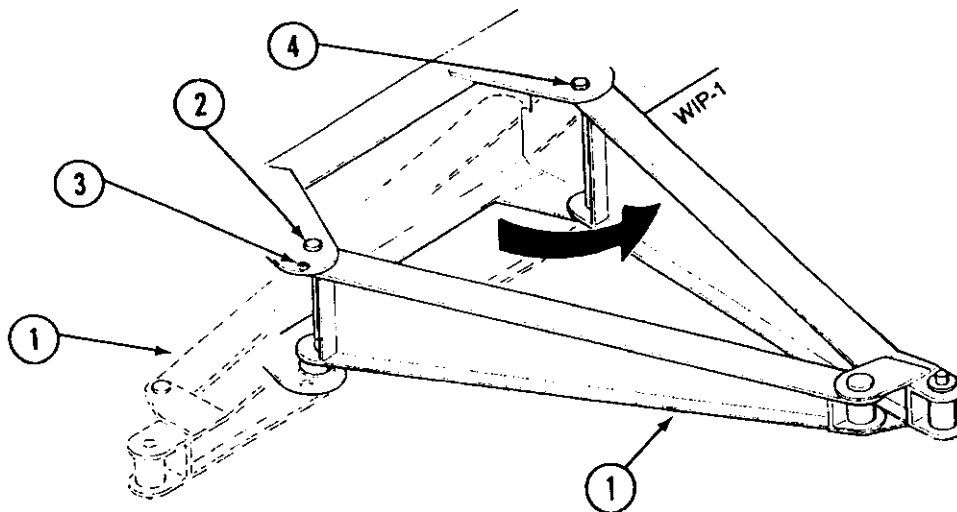
CAUTION
TURN POWER OFF
BEFORE OPENING
BOX

7. Check for installation of safety decals on all electrical boxes.
8. Inspect all quartz flood lights for installation of special clear tape on outside of lens¹⁴.

Trailer inspection

1. Check the trailer for installation at proper 5 degree angle.
2. Inspect trailer outriggers for proper installation of pins in inboard hole.

1. Outrigger
2. Pin (set-up position)
3. Pin hole (used for racking only)
4. Pivot pin

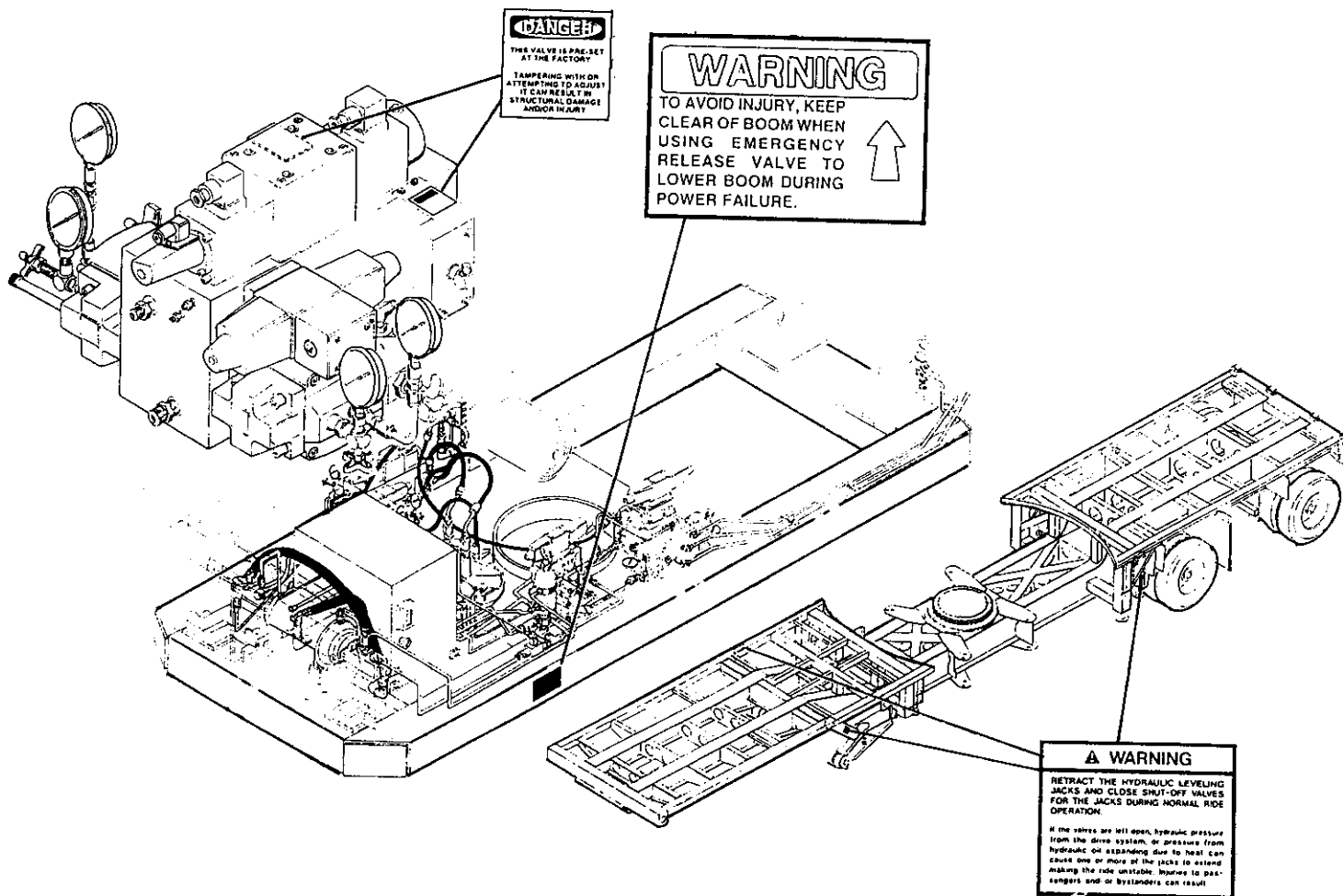


3. Inspect the trailer or park base structures for visible cracks or damage.

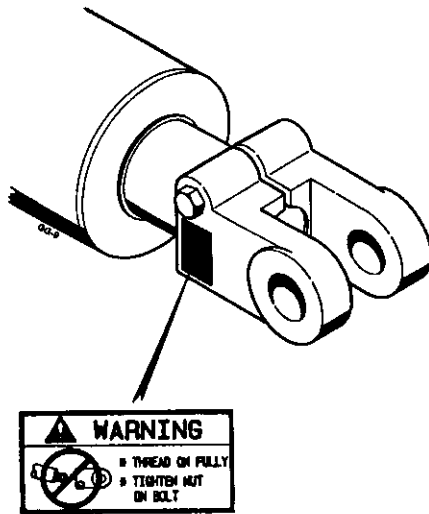
Hydraulic system inspection

The WIPEOUT has two separate hydraulic systems, one for trailer leveling and material handling, the other for the drive system.

1. Inspect each hydraulic system, including hoses, tubes, fittings and other components for leaks.
2. Check for installation of safety decal at pressure retard valve, the emergency boom release valve and the leveling system.

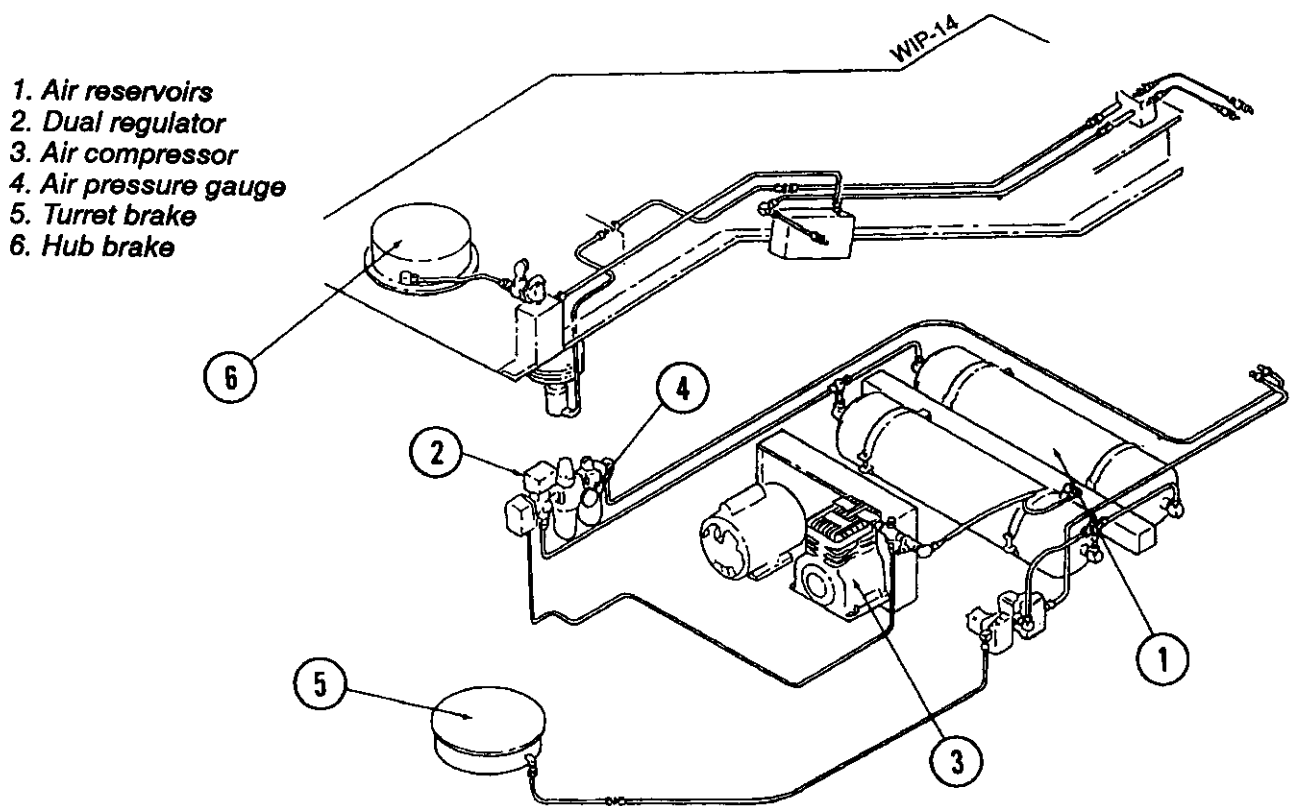


3. Check for the installation of warning decals at the rod end clevis on all hydraulic cylinders.⁹

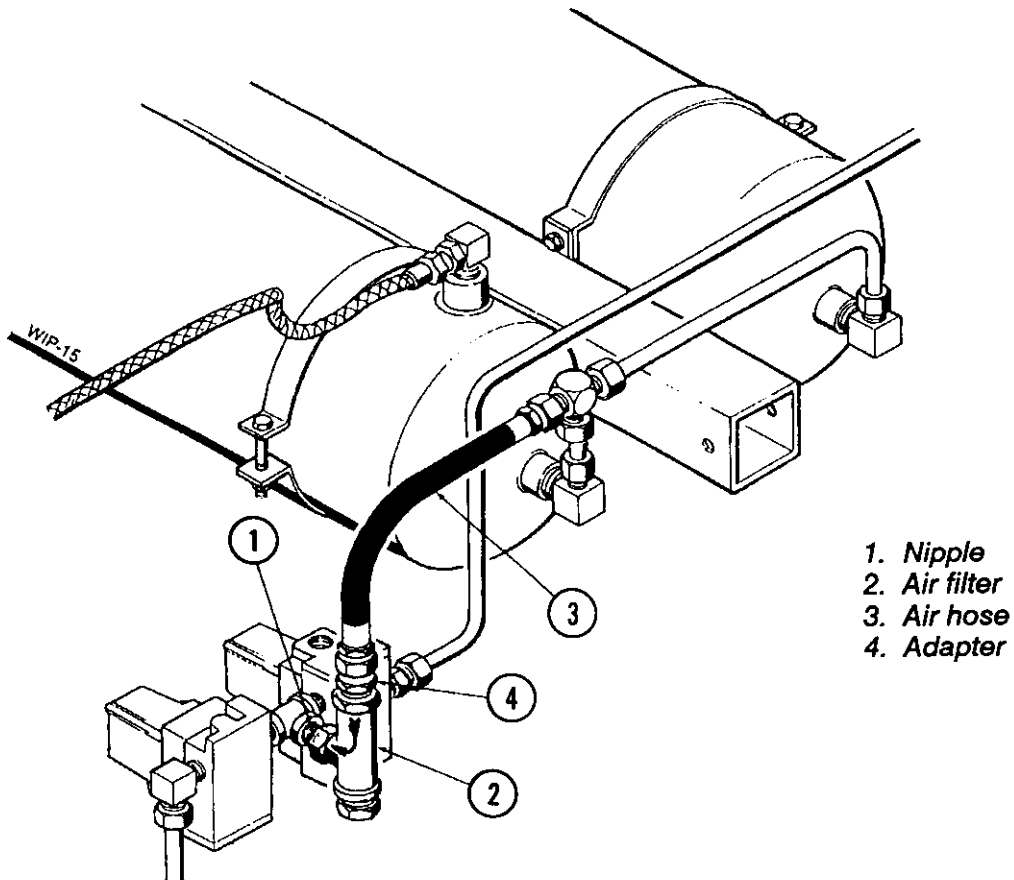


Air system inspection

1. Check for proper air pressure settings. Pressure must be 100 psi at the reservoir and 40 psi at the regulator



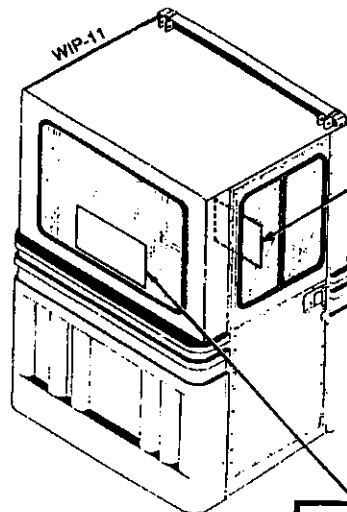
2. Check the entire lap bar air system, including hoses, tubes, fittings and other components for leaks.
3. Check the turret and hub brake air systems, including hoses, tubes, fittings and other components for leaks.
4. Check the operation of the low air pressure indicator light and buzzer.



5. Check for installation of filter kit⁸ in the air line as shown.
6. Inspect the vehicle air system for leaks.

Platform and fence inspection

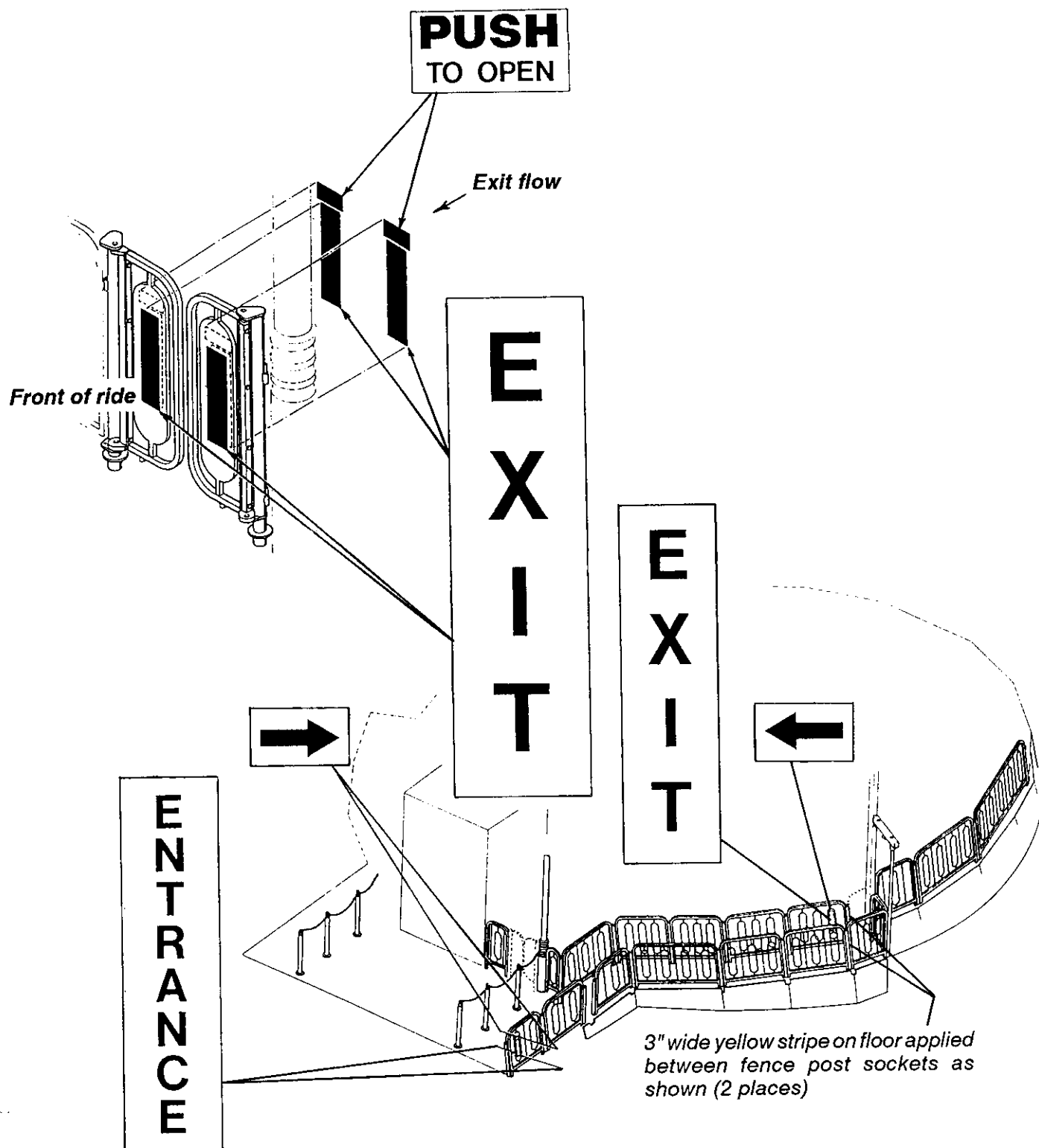
1. Inspect hand rails, ramps, steps and walkways.
2. Inspect all gates and queue line chains. Self-closing gates must operate properly.
3. Inspect all entrance and exit signs.
4. Inspect all safety signs and placards.



WIP-11	WIP-11
1. Inspect the car for proper operation. The car should be able to move up and down the track without any problems. If there are any problems, the car should be repaired before it is used.	1. Inspect the car for proper operation. The car should be able to move up and down the track without any problems. If there are any problems, the car should be repaired before it is used.
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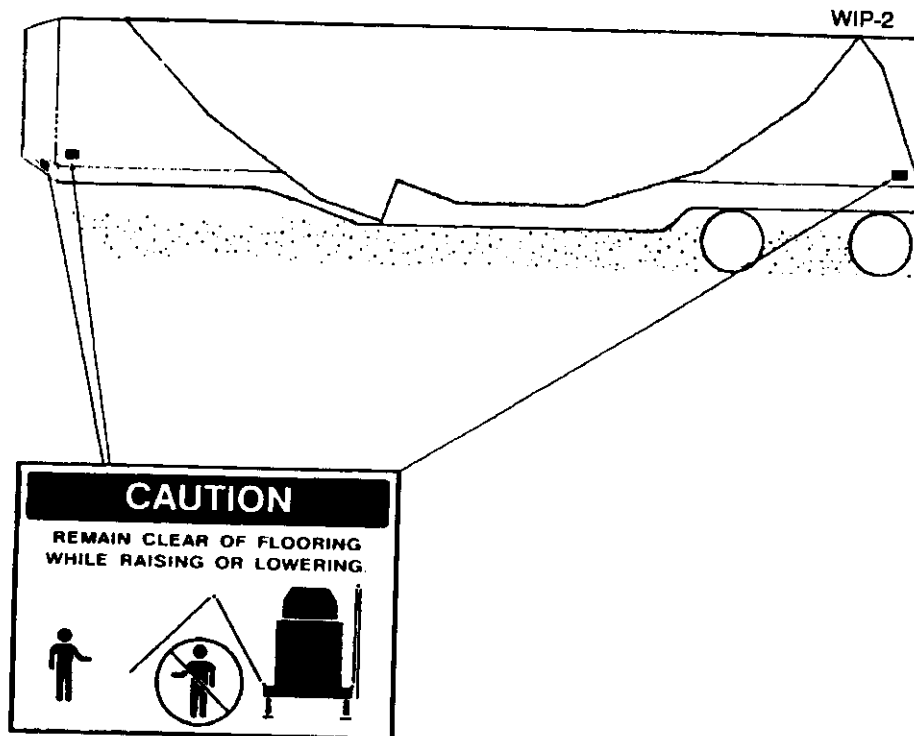
NOTICE TO PASSENGERS

1. NO ONE UNDER 42 INCHES IN HEIGHT SHALL BE PERMITTED TO RIDE.
2. ANYONE WITH BACK OR NECK INJURY MUST NOT RIDE THIS RIDE.
3. ANY PERSON WHO CANNOT BE ADEQUATELY SECURED BECAUSE OF SIZE OR CONDITION WILL NOT BE ALLOWED TO RIDE.
4. PREGNANT WOMEN ARE NOT ALLOWED TO RIDE.
5. PERSONS WHO ARE VISIBLY ILL OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL ARE NOT PERMITTED TO RIDE.



Material handling equipment inspection

1. Inspect the general condition of all chains, cables, winches, straps, etc. Look for broken, worn or missing parts.
2. Inspect the hydraulic cylinders, linkage and rollers for floor racking.
3. Check for proper operation of the winches for the front platform and backdrop sign. The nylon straps must not be cut or frayed.
4. Check for installation of safety decals on floors⁵.



Bibliography

The following service bulletins and manuals are referenced in the preceding text. Service bulletins issued after publication of this guide are located at the back of each section. Any future bulletin releases affecting a ride will be provided by CHANCE RIDES, INC. Bulletins received after receipt of this guide should be considered updates to this guide.

CHANCE RIDES, INC
4219 Irving
P.O. Box 12328
Wichita, KS 67277-2328

Wipeout Service Manual
24329311

March, 1991 (revised September, 1991)

The *Wipeout Service Manual* includes the Set-up Manual, Operation Manual (#24329312), Maintenance Manual and Parts Catalog

1. *Field Performance Testing Of Amusement Rides*
B090R1002-0
May 14, 1986
2. *Non-destructive Testing*
B090R1022-0
March 21, 1988
3. *General Safety - Tapered Pins*
B090R1056-0
February 9, 1990
4. *Replacement And Torque Requirements For Functional Load Carrying Capscrews*
B090R1075-0
May 25, 1990
5. *Safety Decal*
B090R1083-0
August 17, 1990

6. *Boom Limit Switch*
B402R1102-0
June 14, 1991
7. *Ball Stud Recall*
B402R1104-0
October 11, 1991
8. *Air Filter Kit Rework*
B402R1107-0
November 22, 1991
9. *Rod Clevis Bolt Warning Decal*
B090R1108-0
May 1, 1992
10. *Hub Capscrew Torque Check*
B402R1109-0
January 17, 1992
11. *Manufacturer's Specifications*
B090R1126-0
March 12, 1993
12. *Cable Inspection*
B090R1128-0
April 28, 1993
13. *Boom Pivot Pin Capscrew Retainer Installation*
A402R1129-0
June 25, 1993
14. *Flood Light Safety*
B090R1133-0
August 6, 1993
15. *Replacement of Three-Position Swing Knob Switch*
B090R1166-0
November 18, 1994
16. *Safe Rider Policy*
B090R1169-A
April 21, 1995

Floor Handling

B402R1105-0

November 25, 1991

Electric Overload Protector Inspection/Replacement

B402R1110-0

December 20, 1991

Strobe Light Rework

P402R1112-0

April 10, 1992

Brush Holder Housing Lubrication

B402R1134-0

August 6, 1993

Turret Drive Inspection

B402R1164-0

August 15, 1994

WIPEOUT
OPERATION AND MAINTENANCE MANUAL

(Issued September, 1990)

CHANCE RIDES, INC.
4219 Irving
P.O. Box 12328
Wichita, KS 67277-2328

Phone: (316) 942-7411
Telex: 9109976518 (CHANCE WIC)

PRELIMINARY

COMPONENTS WEIGHTS

Seat, Sweeps, Spreaders, and Hub.....	10,500 lbs.
Boom Assembly.....	4,500 lbs.
Turret Assembly.....	6,000 lbs.
Trailer.....	19,000 lbs.
Floors and Platforms.....	10,000 lbs.
Fences, Gates, Signs, and Back Drop.....	5,000 lbs.
Miscellaneous Electrical and Hydraulic.....	2,000 lbs.
Racking and Miscellaneous.....	<u>3,000 lbs.</u>
Total	60,000 lbs.

PRELIMINARY

DESIGN SPECIFICATIONS

The WIPEOUT was designed and manufactured to meet as feasibly as possible the following criteria:

MAXIMUM LOADS and CONDITIONS

1. MAXIMUM LOAD - A maximum load can be derived from random individual passenger weights but cannot exceed the following manufacturers specifications:

- a) 384 pounds maximum load per seat.
- b) 7,680 pounds maximum load for the ride.

NOTE: The maximum load of 384 pounds per seat or 7,680 pounds for the ride equates to an average passenger weight of 192 pounds each.

2. MAXIMUM OUT OF BALANCE - A maximum out of balance load can not exceed the following manufacturers specifications:

- a) Three adjacent seats with maximum load and remaining seats empty.
- b) Three adjacent seats empty and remaining seats with maximum load.

3. MAXIMUM WIND FOR OPERATION - The maximum wind speed at which the WIPEOUT may be operated is 35 miles per hour.

4. MAXIMUM WIND DESIGN - The design has been developed to withstand an over turning moment which could be created by a theoretical 80 mile per hour wind pressure. However, due to unpredictable conditions generated by high winds, such as micro-bursts, the manufacturer cannot guarantee the stability of the ride in high winds.

PRELIMINARY

GENERAL

TO THE OWNER

This manual is your guide to safe, productive operation. Read it carefully. It will help reduce trial and error learning and minimize downtime caused by improper maintenance.

For additional information, contact the CHANCE RIDES CUSTOMER SERVICE DEPARTMENT.

NOTE: Because we try to improve every CHANCE product, specifications and product design are subject to change without notice.

RIDE INFORMATION PLAQUE

The plaque lists ride specifications, operating dimensions, ground loads, as well as model and serial number and date of manufacture.

When ordering parts or requesting information from the CHANCE RIDES CUSTOMER SERVICE DEPARTMENT, always specify the model and serial number of your ride.

NOTE: The terms "right hand" (RH) and "left hand" (LH) as used in this manual are determined by standing in front of the ride and facing the ride.

INTENDED USE

The equipment herein described is intended to be used by a commercial operator to provide a service to the buyer's customers. As a commercial operator, the buyer agrees to operate and maintain the equipment for its intended use in a professional and competent manner as per CHANCE RIDES' recommendation and instructions, ASTM-F24, standard industry and applicable government standards, and good commercial practices using professional and competent mechanics and operators. If at any time, and for any reason, the equipment cannot be adequately and safely operated for its intended use, buyer agrees not to operate the equipment until proper repairs or corrections are made.

PRELIMINARY

WARRANTY

CHANCE RIDES hereby warrants to the original buyer, the new equipment herein described for its intended use, to be free from defects in design, material and factory workmanship for a period of one year or one operating season, whichever is less, commencing from the first day of delivery, subject to the terms and conditions described in the Purchase Agreement. Any used or previously owned equipment sold hereunder is on an "as is" or "as it stands" basis. CHANCE RIDES expressly disclaims any and all express or implied warranties on used equipment.

Defective parts due to improper design and/or workmanship on the part of CHANCE RIDES will be repaired or replaced, subject to the exclusions described in the Purchase Agreement, when returned to CHANCE RIDES at its factory, freight prepaid, for inspection and found to be defective within the warranty period. Defective component parts designed and manufactured by vendors or original manufacturers supplying component parts for the equipment will be subject only to the original manufacturer's or vendor's warranties. CHANCE RIDES' sole obligation on such vendor components is to extend to the buyer the original manufacturer or vendor warranties, if any.

This warranty expressly excludes and disclaims tires and tubes, alignments, wheel balancing, wear from normal use or service, normal maintenance, adjustments, consumable or expendable items, towing charges, loss of revenue due to failure of equipment to operate, damage caused by unreasonable use or use not intended or failure to maintain, and any other economic loss, moral loss, or direct, immediate, special, indirect, incidental, or consequential damages. Express or implied warranties of merchantability or that the equipment conforms to any particular codes or standards relative to the construction or safety of the equipment are expressly disclaimed except ASTM-F24 industry standards that may apply.

The remedies provided by this warranty are the exclusive remedy for damages caused by improper design, material or workmanship. Remedies under this warranty are expressly limited to the supplying of parts as specified above. As a condition of warranty, the buyer must return any defective parts for which a warranty claim is being made, freight prepaid, to CHANCE RIDES, INC., 4219 Irving, Wichita, Kansas, 67209, for inspection by CHANCE RIDES within the duration of the warranty period.

CHANCE RIDES reserves the right to incorporate improvements and changes in material and design of the equipment without notice and is not obligated to incorporate the same improvements or changes in equipment previously manufactured.

PRELIMINARY

OPERATION

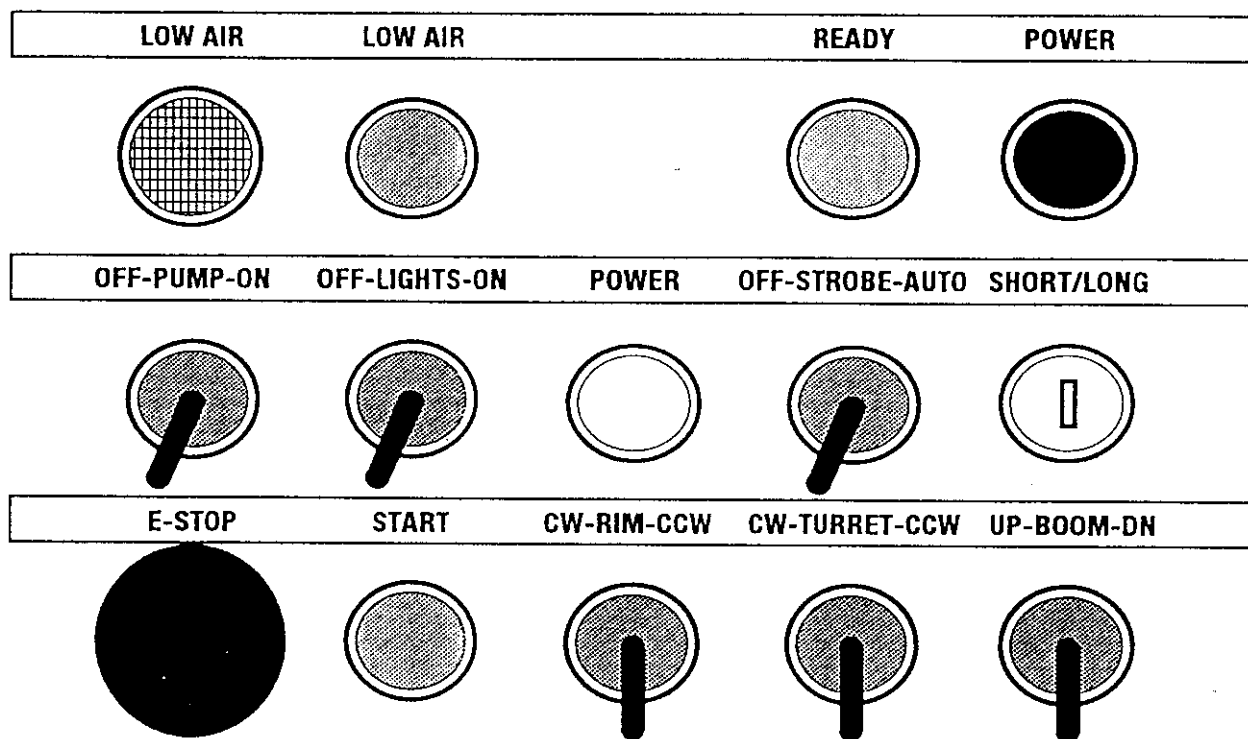
OPERATOR SELECTION AND INSTRUCTION

1. Select competent, mature operators, capable of understanding the function, use and control of amusement rides.
2. Instruct each operator fully in the proper use and function of the ride he is to supervise, including:
 - a. Controls and procedures for normal and emergency operation.
 - b. Manufacturer's recommended maximum speed and load.
 - c. Manufacturer's recommended length of ride time and frequency of repeat rides.
 - d. Any foreseeable misuse of the ride as determined by the manufacturer or owner, or by special conditions such as weather, location or crowds.
 - e. Each operator must have immediate availability of a manufacturer's operator's manual for the ride he supervises.
3. Require the operator to inspect the ride he supervises before each day of operation.
 - a. Determine that no portion of the ride is damaged, missing or worn in such a manner that it is unsafe or that can develop into an unsafe condition.
 - b. Report any irregularities to superintendent or owner.
 - c. Do not operate the ride if any irregularities are found until such condition is corrected.
4. Instruct operators to allow no passenger to ride who is visibly ill or under the influence of drugs or alcohol, or pregnant.
5. Instruct operators and attendants on the proper methods of securing passengers in the ride. Do not allow a passenger in the ride that cannot be properly secured due to passenger size or malfunction of the securing device. Stop the ride immediately if any passenger is observed tampering with any restraining device or behaving dangerously, such as standing up.
6. Advise the operator against starting the ride while any person (passenger, spectator or employee), is in an endangered or unsafe position on the ride or within the ride area.
7. Insist that each operator remain in full control of the operating controls during operation of the ride, and give his full attention to the ride and its passengers.

PRELIMINARY

8. Instruct the operator to allow no other person, other than another trained operator, to operate the controls of the ride, excepting portions of the ride that are designed to be controlled by the passenger.
9. Instruct the operator and attendants fully as to the proper method of assembly and disassembly of portable rides and supply adequate personnel and equipment to do it safely.
10. Instruct the operator to inspect and correct damaged, lost or worn parts that are unsafe or that can develop into unsafe parts, during assembly or disassembly.
11. Advise the operator that factory-installed safety devices must not be tampered with or removed.
12. Instruct operator of owner's or supervisor's procedure for assisting ill or injured passengers.
13. Instruct operators and attendants that patrons are required to secure all articles, such as keys, change, eye glasses, etc., which may become loose while riding.

PRELIMINARY



PRELIMINARY

OPERATOR'S CONSOLE

1. **LOW AIR PRESSURE INDICATOR HORN** - This is an audio alarm system which is normally off. If the air pressure is not sufficient to operate the ride, the horn will come on.
2. **LOW AIR PRESSURE INDICATOR LIGHT** - This red light is normally off. If the air pressure is not sufficient to operate the ride, the light will come on.

IMPORTANT: Do not attempt to operate the ride when the LOW AIR PRESSURE INDICATOR HORN or LIGHT is on.

3. **READY LIGHT** - This green light will come on when all lap bars are locked in the down position and the OPERATOR'S PRESENCE SWITCH is depressed. The ride cannot be started unless this light is on.
4. **POWER SWITCH** - Use this switch to turn off the main power circuit breaker in the motor control cabinet. The MAIN POWER INDICATOR LIGHT will go out when this switch is used.
5. **PUMP ON/OFF SWITCH** - This switch is used to turn the hydraulic pump either on or off. In order to run the ride, the pump must be turned on.
6. **LIGHT SWITCH** - Use this switch to control all the decorative lighting on this ride.
7. **MAIN POWER INDICATOR LIGHT** - This white light is on when the main power circuit breaker in the motor control cabinet is in the "ON" position.
8. **STROBE LIGHT SWITCH** - Use this switch to turn the strobe light manually off or in the automatic position the strobes are programmed into the light package program.
9. **SHORT/LONG PROGRAM SWITCH** - Use this key-operated switch to select either the short ride program or the long ride program for the "RUN" mode.

NOTE: Do not change the position of the PROGRAM SWITCH after the ride has started.

10. **E-STOP SWITCH** - This switch interrupts the drive program. The ride will come to a normal, programmed stop.
11. **START SWITCH** - Use this switch to start the programmed ride cycle. The following conditions must exist for the ride to operator:

- MAIN POWER INDICATOR LIGHT must be on.
- OPERATOR PRESENCE SWITCH must be depressed.
- READY LIGHT must be on (READY LIGHT will not come on unless all passenger restraint devices have been lowered and locked).

12. RIM JOG SWITCH - Use this switch to jog the rim either clockwise or counterclockwise.
13. TURRET JOG SWITCH - Use this switch to jog the turret either clockwise or counterclockwise.
14. BOOM JOG SWITCH - Use this switch to manually raise or lower the boom.
15. OPERATOR'S PRESENCE SWITCH (Not pictured) - This foot pedal switch must be depressed in order to start the ride. This switch interrupts the drive program when released. The ride will come to a normal, programmed stop.

PRELIMINARY

LOADING

CAUTION: Do not operate the ride unless all parts of the vehicle are in good condition, including the lap bars and all non-slip surfaces. All safety signs and placards must be legible.

Any broken or missing parts must be repaired or replaced immediately.

Loading can be done either from the side ramps or through the front gates by the operator's control house.

Seat larger persons in outside seat.

CAUTION: Never allow a person less than 42 inches in height to ride.

CAUTION: Do not allow any passenger on the ride who cannot be properly seated because of passenger size or condition.

Never allow a pregnant woman or a passenger who is visibly ill or under the influence of drugs or alcohol on the ride.

Maximum seat load is 2 adults or 3 children.

CAUTION: Never allow the vehicle to become overloaded. Maximum capacity of each seat is 384 lbs.

If the ride is being operated at less than its full capacity, direct passengers to seats spaced around the vehicle in order to maintain a balanced load.

IMPORTANT: Never operate the ride with an imbalance of more than three seats (1,152 pounds).

WARNING: When loading passengers, make sure that the passengers are seated with the lap bar fully closed and locked.

Never operate the ride while anyone is standing on the ride platform inside the fence area.

WARNING: Instruct passengers that, for their own safety, they are to keep their hands and feet inside and to sit with their feet on the floor.

PRELIMINARY

OPERATOR POSITIONS

The operator at the console is responsible for the safety of the passengers as they ride. He must know and fully understand operation and emergency procedures for this ride, and be at the control panel at all times. The ride must have the operator's complete attention at all times. The operator must give safety announcements including, but not limited to:

1. Sit with feet on floor.
2. Keep hands and feet inside at all times.
3. Lap bars close automatically. Keep hands clear while lowering.

The attendants are to be positioned in such a location as to be aware of the entrance and exit areas at all times, and must not allow persons to enter these areas while the ride is in motion. At all times when the ride is in motion the attendants must remain behind the gates and off the ride platform. Persons waiting in line must not be allowed to hang over or sit on the fences. The attendants are responsible for the safety of the passengers while they wait in line and while they enter and exit the ride. Attendants must see that all safety items including but not limited to the following are met:

1. Lap bars properly locked.
2. Safety announcements given.
3. Larger persons seated toward the outside of the ride.
4. Anyone smaller than 42 inches in height is not on the ride.

Attendants must close lap bars before the ride can be started. At the end of the cycle, when the ride has come to a complete stop, an attendant must release the lap bars so they can be raised.

Attendants must remind passengers to walk while entering and exiting the ride area.

WARNING: Before starting the ride, make sure no people are around the ride structure, close to any exposed electrical components, or any other areas where there is possibility of personal injury.

CAUTION: The operator must remain in full control of the operating controls at all times during the operation of the ride. The ride and its passenger must be given the full attention of the operator.

PRELIMINARY

OPERATING INSTRUCTIONS

1. Turn on the main power circuit breaker in the motor control cabinet.
2. Take your place behind the operator's console.
3. Check the operator's control panel for the MAIN POWER INDICATOR LIGHT.
4. Check to be sure the LOW AIR PRESSURE INDICATORS (horn and light) are off.
5. Turn on the pump.
6. Release the passenger restraint device using the switch located on the side of seat number one.
7. Load the passengers as described in the "LOADING" procedure of this manual.
8. Lower the passenger restraint devices until they lock into place and the green indicator lights on the sweeps go out.
9. Depress the OPERATOR PRESENCE SWITCH, at this time the green READY LIGHT on the operator's control panel should come on.
10. Depress the START SWITCH to start the ride.
11. The ride cycle is programmed and will stop automatically when the cycle is completed. Keep the OPERATOR PRESENCE SWITCH depressed until the ride is in the desired unload position.

NOTE: The length of the ride is selected with the PROGRAM SWITCH.
12. Use the jog switches to bring the ride to the desired location for unloading.

PRELIMINARY

EMERGENCY PROCEDURES

Use the following procedures in the event that the ride fails to operate normally:

In the event of loss of all electrical power to the ride during operation.

The ride will coast to a stop. If power is not restored passengers can be unloaded by using the following procedure:

1. Turn pump off at the operator's control panel.
2. Carefully open emergency release valve located under ride platform on the turret.

WARNING: STAY CLEAR OF THE BOOM AS IT LOWERS WHEN OPENING EMERGENCY RELEASE VALVE.

3. Lap bar locking device can be disengaged using the air release lever located in the center of the ride.

NOTICE: In case of loss of air pressure, lap bar locking device can be disengaged manually at each lap bar.

INSPECTION POINTS

Prior to daily operation, certain inspection procedures should be followed. These inspection points include but are not limited to:

1. Blocking.
2. Fluid levels in reservoirs.
3. Proper function of each operator's control panel button, switch, light, and/or horn.
4. Function of any communication system.
5. Proper function of safety restraint devices including interlock systems.
6. Run the ride through three cycles to observe overall performance of the ride in relation to past performances of the ride.

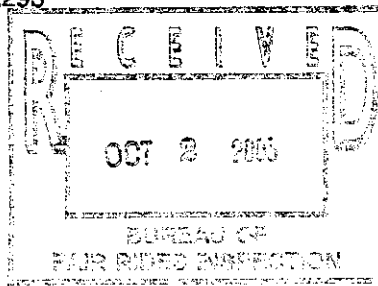
The above items are a minimum check list. Other items which may be considered as standard check points in the industry should also be inspected.

PRELIMINARY

4200 W. Walker
Wichita, KS 67209
Phone: 316-942-7411 ext. 2293
Faxes: 316-945-3498
Web: www.rides.com



Fax



To: Mike Rinehart

State of Florida

From: Steven Laycock QA/Product Safety Mang.

Steven Laycock

Fax: 850-488-9023

Pages: 1

Phone:

Date: October 2, 2003

Re: WIPEOUT s/n 402-02693

CC: Lou Weaver 386-409-0426

Per the Chance Rides, Inc. Safety Alert number A402R1129-0 the above noted amusement ride is required to have the capscrew retainer. These retainers bend down along the edge of the boom pivot pin and up along one flat side of the capscrew it is to retain. The capscrew is made of sheet metal and this verifies that the owner of the above noted amusement ride can make one retainer to match the one that is already in place.

If you have any questions regarding this information, please feel free to contact me.

Subject: Wipeout Stop Operations


Date: Fri, 10 Jan 2003 19:48:41 -0500

From: Michael Rinehart <rineham@doacs.state.fl.us>

To: Ron Brooks <brooksr@doacs.state.fl.us>, Randy Fleck <fleckr@doacs.state.fl.us>, Jerry Callahan <callahj@doacs.state.fl.us>, Cliff Groscurth <groscuc@doacs.state.fl.us>, Brad Mosher <mosherb@doacs.state.fl.us>, Allan Harrison <harrisa@doacs.state.fl.us>, Timothy Simpson <simpsoti@doacs.state.fl.us>, Carlos Corvo <corvoc@doacs.state.fl.us>, Hunter Lyles <lylesh@doacs.state.fl.us>, Jerry Winters <winterj@doacs.state.fl.us>, Larry Cook <cookl@doacs.state.fl.us>, Keith Garner <garnerk@doacs.state.fl.us>, Roland Guay <guayr@doacs.state.fl.us>, Kevin Waters <watersk@doacs.state.fl.us>

On the basis of bulletins 03-02 (Chance 109) and 03-03 (Chance 112) we have issued all operators of the WIPEOUT notice that we will not allow them to operate in Florida until the requirements (lap belt kit and seat closeout kits) are met. See attached letter that was sent to each operator and the attached list of operators. If you discover someone that isn't on the list please let me know.

Mike Rinehart

 Wipeout Shut Down 0103.doc	Name: Wipeout Shut Down 0103.doc Type: WINWORD File (application/msword) Encoding: base64
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Florida Department of Agriculture & Consumer Services
CHARLES H. BRONSON, Commissioner
Division of Standards, Bureau of Fair Ride Inspections

BUREAU OF FAIR RIDE INSPECTIONS
ADMINISTRATION BUILDING, SUITE
3125 CONNER BOULEVARD, STE. N
TALLAHASSEE, FL 32399-1650
Phone (850) 488-9790

January 10, 2003

Chance Bulletins B402CRM109-0 & B402CRM112-0 WIPEOUT RIDE

Dear Sir:

Because of the chance of serious injury to passenger(s) and bystanders raised in the enclosed bulletins issued by Chance Rides Manufacturing, Inc., we will not allow the Chance "Wipeout" ride to operate in the state of Florida until these bulletins have been completely complied with.

If you have any questions regarding this matter please do not hesitate to call or write.

Sincerely,
CHARLES H. BRONSON
COMMISSIONER OF AGRICULTURE

Michael W. Rinehart
Operations & Management Consultant II
Bureau of Fair Rides Inspection

Enclosures

Amusements of Buffalo
Gene Chaffee
PO Box 2030
Riverview, FL 33568-3568
USAID 01675G

Allstar Amusements
Jeff Blomness
15 Willow Bay Drive
South Barrington, IL 60010
USAID 07342

All American Shows
John Terry Portemont
PO Box 1577
Andalusia, AL 36420
USAID 01053

Alpine Amusements
8037 South Neva
Burbank, IL 60450-0459
USAID 08152

Carrousel Amusements, Inc.
Michael J. Parks
190 NW 76th Terrace
Ocala, FL 34482
USAID 05696

Dakota Enterprises, Inc.
Kevin & Cheryl Nolan
3500 Noxahala Park Road
Zanesville, OH 43701

Deggeller Attractions, Inc.
Don & Gregg Deggeller
PO Box 238
Stuart, FL 34995
05469

Farrow Amusement Co. Inc.
James M. Williams
PO Box 6747
Jackson, MS 39282

Hildebrands Midway of Fun
Harlan Bast
PO Box 50332
Lighthouse Point, FL 33074
USAID 02764

Lawrence Carr Amusement Co.
Lawrence Carr
12864 Biscayne Blvd.
N. Miami, FL 33181
USAID 07202

Myers International Midway
Gloria Myers
PO Box 1929
Gibsonton, FL 33534
USAID 04211

Interstate Amusements, Inc.
Vince Weaver
PO Box 17
New Smyrna Beach, FL 33170-7000
USAID 03463G

Murphy Brothers Expositions
Gerald Murphy Sr.
P.O. Box 4696
Tulsa, OK 74159
USAID 07220

Swyear Amusements
Roger Swyear
6353 Spanish Main Drive
Apollo Beach, FL 33570-2437
USAID 00928

United Shows of America
Ed & Donald Gregory
PO Box 900 Expo Drive
Smryna, TN 37167-0009
USAID 00059

World Wide Entertainment Group
Ron Weber
1620 24th St. S.E.
Ruskin, FL 33570-3570
USAID 03813G

Wade Shows
Frank Zaitshik
P.O. Box 210310
Auburn Hills, MI 48321-0310
USAID 00828

Subject: 03-02 Chance Wipeout Bulletin 109


Date: Fri, 10 Jan 2003 13:59:59 -0500

From: Michael Rinehart <rineham@doacs.state.fl.us>


To: Ron Brooks <brooks@doacs.state.fl.us>, Randy Fleck <fleckr@doacs.state.fl.us>, Jerry Callahan <callahj@doacs.state.fl.us>, Cliff Groscurth <groscuc@doacs.state.fl.us>, Brad Mosher <mosherb@doacs.state.fl.us>, Allan Harrison <harrisa@doacs.state.fl.us>, Timothy Simpson <simpsti@doacs.state.fl.us>, Carlos Corvo <corvoc@doacs.state.fl.us>, Hunter Lyles <lylesh@doacs.state.fl.us>, Jerry Winters <winterj@doacs.state.fl.us>, Larry Cook <cookl@doacs.state.fl.us>, Keith Garner <garnerk@doacs.state.fl.us>, Roland Guay <guayr@doacs.state.fl.us>, Kevin Waters <watersk@doacs.state.fl.us>

Attached is a three page bulletin from Chance on the Wipeout, issued 12/20/02 regarding a Lap Belt Kit.

MWR

 03-02 Chnc Wipeout 1.doc	Name: 03-02 Chnc Wipeout 1.doc Type: WINWORD File (application/msword) Encoding: base64
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0302

	CHANCE RIDES MANUFACTURING, INC. 4200 Walker Wichita, KS 67277-2328 U.S.A. Phone: 1-316-942-7411 • FAX: 1-316-942-2812 Website: www.rides.com E-mail: rides@rides.com	Bulletin No: B402CRM109-0 Release Date: December 20, 2002 Effective Date: Immediately Supersedes: N/A
	Completion Date: March 20, 2003 Page: 1 of 3	

SERVICE BULLETIN

Ride Manufacturer: CHANCE RIDES, INC.	Affected Production Dates: All
Ride Name: WIPEOUT	Affected Serial Nos.: All Units
Model No.: 402	
Abstract of Issue: Lap Belt Kit	
Reason For Release: Chance Rides Manufacturing, Inc. has become aware that on the WIPEOUT amusement ride, a passenger can move into an unsafe position in the seat after the lap bar is closed and locked. If this happens while the ride is in operation, serious personal injury to the passenger and bystanders can result. As an additional measure of safety, a lap belt system has been developed which provides a supplemental restraint device to be used in conjunction with the existing passenger restraint system. Two lap belt kits are available, one with manually adjustable belts, the other with automatic retractable belts.	
Action to be Taken: Chance Rides Manufacturing, Inc. requires that all owner/operators of the above noted WIPEOUT amusement rides install one of these lap belt kits within 90 days of the release date of this bulletin. Complete installation instructions are provided with the kit, as well as revised operation and maintenance procedures. Order and install either the <u>Manually Adjustable Lap Belt Kit</u> (part number K402CRM109-0) or the <u>Retractable Lap Belt Kit</u> (part number K402CRM109-1). These kits will be offered at a reduced price if ordered within 90 days of the release date of this bulletin. All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation. Use only those components authorized, specified or provided by Chance Rides Manufacturing, Inc. All applicable OSHA safety standards and safe industry practices must be observed. Observe all safety information contained in the manufacturer's manuals. Make available this bulletin and all related technical information to personnel using the equipment.	
Chance Rides Manufacturing, Inc. issues notifications for the benefit of owners of amusement rides manufactured by Chance Rides Manufacturing, Inc. As a service to the industry, and in the interest of employee and public safety, Chance Rides Manufacturing, Inc. also issues notifications for the benefit of owners of amusement ride equipment for which the manufacturer no longer exists, such as the Allen Herschel Company, Chance Manufacturing Co., Inc., Chance Rides, Inc., etc. In doing so, Chance Rides Manufacturing, Inc. does not assume liability for losses associated with amusement ride equipment built by manufacturers other than Chance Rides Manufacturing, Inc.	

03-02
2

 <small>CHANCE RIDES MANUFACTURING, INC.</small>	CHANCE RIDES MANUFACTURING, INC. 4200 Walker Wichita, KS 67277-2328 U.S.A. Phone: 1-316-942-7411 • FAX: 1-316-942-2012 Website: www.rides.com E-mail: rides@rides.com	Bulletin No: B402CRM109-0
		Release Date: December 20, 2002
		Effective Date: Immediately
		Supersedes: N/A
		Completion Date: March 20, 2003
Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All		
Ride Name: WIPEOUT Affected Serial Nos.: All Units		
Model No.: 402		
Detail of Issue (continued):		
<p>For the MANUALLY ADJUSTABLE LAP BELT KIT, Order part number K402CRM109-0, which contains the following:</p>		
<u>Part Number</u>	<u>Component</u>	<u>Quantity</u>
402-127-030	LAP BELT - Manually Adjustable	40
402-127-001	LAP BELT MOUNT WELDMENT - R.H.	10
402-127-002	LAP BELT MOUNT WELDMENT - L.H.	10
402-127-021	CLAMP PLATE - LAP BELT MOUNT (Saddle)	20
402-127-022	CLAMP PLATE - LAP BELT MOUNT (Flat)	20
60786800	HHCS 3/8-16 x 1-3/4 Grade 8	20
60786400	HHCS 3/8-16 x 1-1/4 Grade 8	40
64813502	LOCKNUT - ESSNA 3/8-16 Grade 8	60
68553100	WASHER - FLAT 3/8 H.T.	120
60701200	HHCS 1/4-20 x 2 Grade 5	180
60700400	HHCS 1/4-20 x 1 Grade 5	80
64780800	LOCKNUT N/I 1/4-20 ZP	260
68530200	WASHER - SAE 1/4 Z/P	520
402-127-031	SLOT TEMPLATE FOR R.H. SEAT	1
402-127-032	SLOT TEMPLATE FOR L.H. SEAT	1
K402CRM109-0	INSTALLATION INSTRUCTIONS	1



CHANCE RIDES MANUFACTURING, INC.

4200 Walker

Wichita, KS 67277-2328

U.S.A.

Phone: 1-316-942-7411 • FAX: 1-316-942-2812

Website: www.rides.com

E-mail: rides@rides.com

Bulletin No: B402CRM109-0

Release Date: December 20, 2002

Effective Date: Immediately

Supersedes: N/A

Completion Date: March 20, 2003

Page: 3 of 3

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: WIPEOUT

Affected Serial Nos.: All Units

Model No.: 402

Detail of Issue (continued):

For the RETRACTABLE LAPBELT KIT, Order part number K402CRM109-1, which contains the following:

<u>Part Number</u>	<u>Component</u>	<u>Quantity</u>
20545704	LAP BELT - Retractable	40
402-127-001	LAP BELT MOUNT WELDMENT - R.H.	10
402-127-002	LAP BELT MOUNT WELDMENT - L.H.	10
402-127-021	CLAMP PLATE - LAP BELT MOUNT (Saddle)	20
402-127-022	CLAMP PLATE - LAP BELT MOUNT (Flat)	20
60849400	HHCS 1/2-13 x 1-3/4 Grade 8	20
64813505	LOCKNUT - ESSNA 1/2-13 Grade 8	20
668531600	WASHER - FLAT 1/2 Z/P	40
60786400	HHCS 3/8-16 x 1-1/4 Grade 8	40
64813502	LOCKNUT - ESSNA 3/8-16 Grade 8	40
68553100	WASHER - FLAT 3/8 H.T.	80
60701200	HHCS 1/4-20 x 2 Grade 5	180
60700400	HHCS 1/4-20 x 1 Grade 5	80
64780800	LOCKNUT N/I 1/4-20 ZP	260
68530200	WASHER - SAE 1/4 Z/P	520
402-127-031	SLOT TEMPLATE FOR R.H. SEAT	1
402-127-032	SLOT TEMPLATE FOR L.H. SEAT	1
K402CRM109-1	INSTALLATION INSTRUCTIONS	1

Subject: 03-03 Chance Wipeout Bulletin 112


Date: Fri, 10 Jan 2003 14:03:30 -0500

From: Michael Rinehart <rineham@doacs.state.fl.us>

To: Ron Brooks <brooksr@doacs.state.fl.us>, Randy Fleck <fleckr@doacs.state.fl.us>, Jerry Callahan <callahj@doacs.state.fl.us>, Cliff Groscurth <groscuc@doacs.state.fl.us>, Brad Mosher <mosherb@doacs.state.fl.us>, Allan Harrison <harrisa@doacs.state.fl.us>, Timothy Simpson <simpsoti@doacs.state.fl.us>, Carlos Corvo <corvoc@doacs.state.fl.us>, Hunter Lyles <lylesh@doacs.state.fl.us>, Jerry Winters <winterj@doacs.state.fl.us>, Larry Cook <cookl@doacs.state.fl.us>, Keith Garner <garnerk@doacs.state.fl.us>, Roland Guay <guayr@doacs.state.fl.us>, Kevin Waters <watersk@doacs.state.fl.us>

Attached is another Chance Wipeout bulletin regarding a "Seat Closeout Kit." They've given the owner/operators until March 20, 2003, to comply. Watch for the serious personal injuries to take place in the next sixty-nine days.

MWR

 03-03 Chnc Wipeout.doc	Name: 03-03 Chnc Wipeout.doc Type: WINWORD File (application/msword) Encoding: base64
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CHANCE RIDES MANUFACTURING, INC.

4200 Walker

Wichita, KS 67277-2328

U.S.A.

Phone: 1-316-942-7411 • FAX: 1-316-942-2012

Website: www.rides.com

E-mail: rides@rides.com

Bulletin No: B402CRM112-0

Release Date: December 20, 2002

Effective Date: Immediately

Supersedes: N/A

Completion Date: March 20, 2003

Page: 1 of 3

SERVICE BULLETIN

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: WIPEOUT

Affected Serial Nos: All Units

Model No.: 402

Abstract of Issue:

Seat Closeout Kit

Reason For Release:

Chance Rides Manufacturing, Inc. has become aware that on the WIPEOUT amusement ride, it is possible for a passenger to extend his/her foot outside the seat. If this happens while the ride is in operation, serious personal injury to the passenger can result.

A seat closeout kit has been developed to help restrain the passengers' feet inside the seat.

Action to be Taken:

Chance Rides Manufacturing, Inc. requires that all owner/operators of the above noted WIPEOUT amusement rides install the seat closeout kit within 90 days of the release date of this bulletin. Complete installation instructions are provided on the following pages of this bulletin.


Order and install the Seat Closeout Kit, (part number K402R1264-0). The kit will be offered at a reduced price if ordered within 90 days of the release date of this bulletin.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation. Use only those components authorized, specified or provided by Chance Rides Manufacturing, Inc. All applicable OSHA safety standards and safe industry practices must be observed.

Observe all safety information contained in the manufacturer's manuals. Make available this bulletin and all related technical information to personnel using the equipment.

Chance Rides Manufacturing, Inc. issues notifications for the benefit of owners of amusement rides manufactured by Chance Rides Manufacturing, Inc. As a service to the industry, and in the interest of employee and public safety, Chance Rides Manufacturing, Inc. also issues notifications for the benefit of owners of amusement ride equipment for which the manufacturer no longer exists, such as the Allen Henschell Company, Chance Manufacturing Co., Inc., Chance Rides, Inc., etc. In doing so, Chance Rides Manufacturing, Inc. does not assume liability for losses associated with amusement ride equipment built by manufacturers other than Chance Rides Manufacturing, Inc.

0303
2

 <small>CHANCE RIDES MANUFACTURING, INC.</small>	CHANCE RIDES MANUFACTURING, INC. 4200 Walker Wichita, KS 67277-2328 U.S.A. Phone: 1-316-942-7411 • FAX: 1-316-942-2012 Website: www.rides.com E-mail: rides@rides.com	Bulletin No:	B402CRM112-0
		Release Date:	December 20, 2002
		Effective Date:	Immediately
		Supersedes:	N/A
		Completion Date:	March 20, 2003
		Page:	2 of 3

Ride Manufacturer:	CHANCE RIDES, INC.	Affected Production Dates:	All
Ride Name:	WIPEOUT	Affected Serial Nos.:	All Units
Model No.:	402		

Detail of Issue

The SEAT CLOSEOUT KIT (part number K402R1264-0) contains the following:

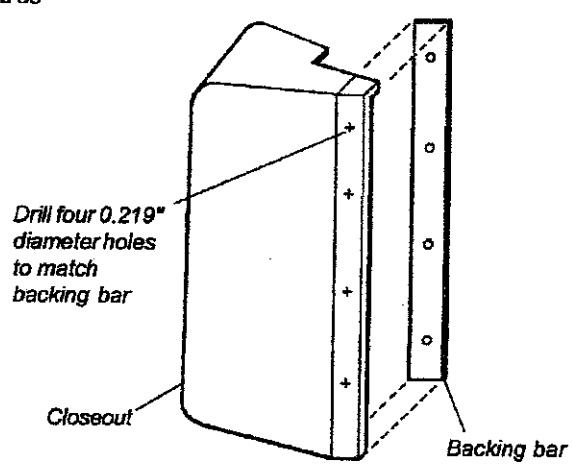
<u>Part Number</u>	<u>Component</u>	<u>Quantity</u>
402-115-011	SEAT CLOSEOUT - Left Hand	10
402-115-013	SEAT CLOSEOUT - Right Hand	10
402-115-012	BACKING BAR	20
661500000	RIVET - 3/16 x 3/4 Aluminum Dome	200

Installation Instructions


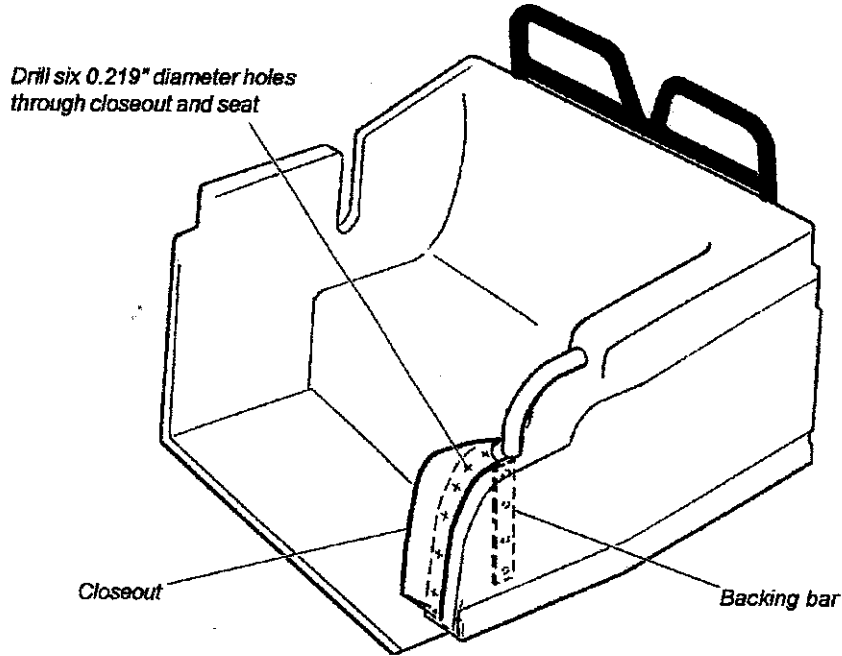
1. Locate each seat closeout in position on the seat. If necessary, trim the seat closeouts as required to fit.

NOTE: The seat closeouts are provided as right-hand and left-hand parts.

2. Using the backing bar as a template, drill four 0.219 inch diameter holes in the flange of the closeout to match the backing bar as shown.



03-03
3

	CHANCE RIDES MANUFACTURING, INC. 4200 Walker Wichita, KS 67277-2328 U.S.A. Phone: 1-316-942-7411 • FAX: 1-316-942-2012 Website: www.rides.com E-mail: rides@rides.com	Bulletin No:	B402CRM112-0
		Release Date:	December 20, 2002
		Effective Date:	Immediately
		Supersedes:	N/A
		Completion Date:	March 20, 2003
		Page:	3 of 3
Ride Manufacturer: CHANCE RIDES, INC.		Affected Production Dates: All	
Ride Name: WIPEOUT		Affected Serial Nos.: All Units	
Model No.: 402			
Detail of Issue (continued):			
<ol style="list-style-type: none"> 3. Locate the closeout in position and use it as a template to locate and drill four 0.219 inch diameter holes in the seat. Also, drill six additional holes along the opposite side of the closeout as shown, going through the seat. 4. Insert the backing bar into the seat from the bottom side, aligning the holes in it with the holes in the seat and the closeout. 5. Use the rivets provided to attach the closeout to the seat at 10 places. 6. Repeat the procedure to install all 20 closeouts. 			
			

4200 W. Walker
Wichita, KS 67209
Phone: 316-942-7411 ext. 2293
Faxes: 316-945-3498
Web: www.rides.com



Fax

To: Larry Carr

From: Steven Laycock

Carr Amusements

Steven Laycock
QA/PRODUCT SAFETY MANAGER

Fax: 803-531-4058

Pages: 1

Phone:

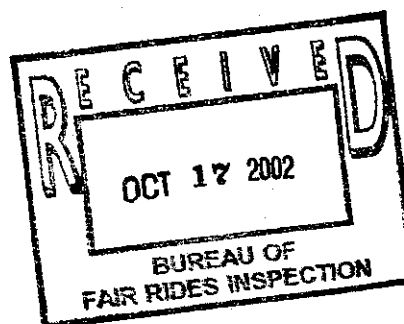
Date: October 17, 2002

Re: WIPEOUT

CC:

The above noted amusement ride was originally designed with a maximum boom angle of 45 degrees from the ground and 40 degree angle from the trailer deck. Please note that this is the maximum angle and the ride should never be operated with a boom angle greater than this as it could constitute a safety concern. Operating the ride with a boom angle less than the maximum decreases the ride action and does not constitute a safety concern. Likewise, operating the ride in only one direction does not constitute a safety concern.

If you have any questions regarding this information, please feel free to contact me.

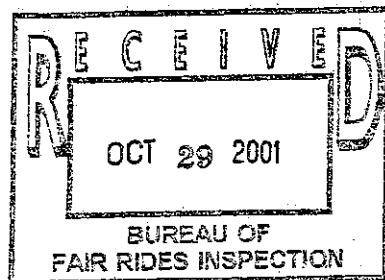


*Murphy B.S.*

Fax

To: Rob Jacobs	From: Steven Laycock
State of Florida	800-242-6231 ext. 2293
Fax: 850-488-9023	Pages:
Phone:	Date: 10/29/01
Re: WIPEOUT s/n 402-00491	CC:

The above noted amusement ride is missing one passenger restraint system on one seat. If the ride otherwise meets the manufacturers specifications, on a temporary basis the ride can be operated if the seat in questions can be blocked off. Operation of the ride can only be done if the operator has some procedure in place which would prevent an individual from gaining access to the seat.





NUMBER: B402R1164-0

DATE: AUG. 15, 1994

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: All Units

Ride: WIPEOUT

Subject: Turret Drive Inspection

Chance Rides, Inc. has become aware that the socket head cap screws that secure the drive pinion to the bearing keeper for the turret drive of the WIPEOUT amusement ride can loosen. If this occurs, the pinion will become loose and could drop out of position, resulting in damage to mechanical parts.

Chance Rides, Inc. requires all owner/operators of the above noted amusement rides to perform the inspection of the turret drive as outlined in this bulletin.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modification or additions and installations of unauthorized components.

INSPECTION PROCEDURES:

1. Raise and block boom to give access to the turret drive motor and to stabilize boom while working under it.

WARNING: Heavy items falling or descending out of control can cause injury to personnel. Make sure the boom is adequately secured before attempting to work under it.

2. Remove the five (5) 5/8-11 x 2 1/2 inch hex head cap screws that hold the hydraulic motor in place.

3. Raise the hydraulic motor to gain access to the bearing keeper.

WARNING: Lifting heavy items can cause injury to personnel. Care must be taken when raising the hydraulic motor, which weighs approximately 150 pounds.

Note: The hydraulic lines may need to be removed from the motor in order to raise the motor out of the way.

4. Check the torque (24 - 30 ft. lbs.) of the six (6) socket head cap screws holding the bearing keeper to the pinion.

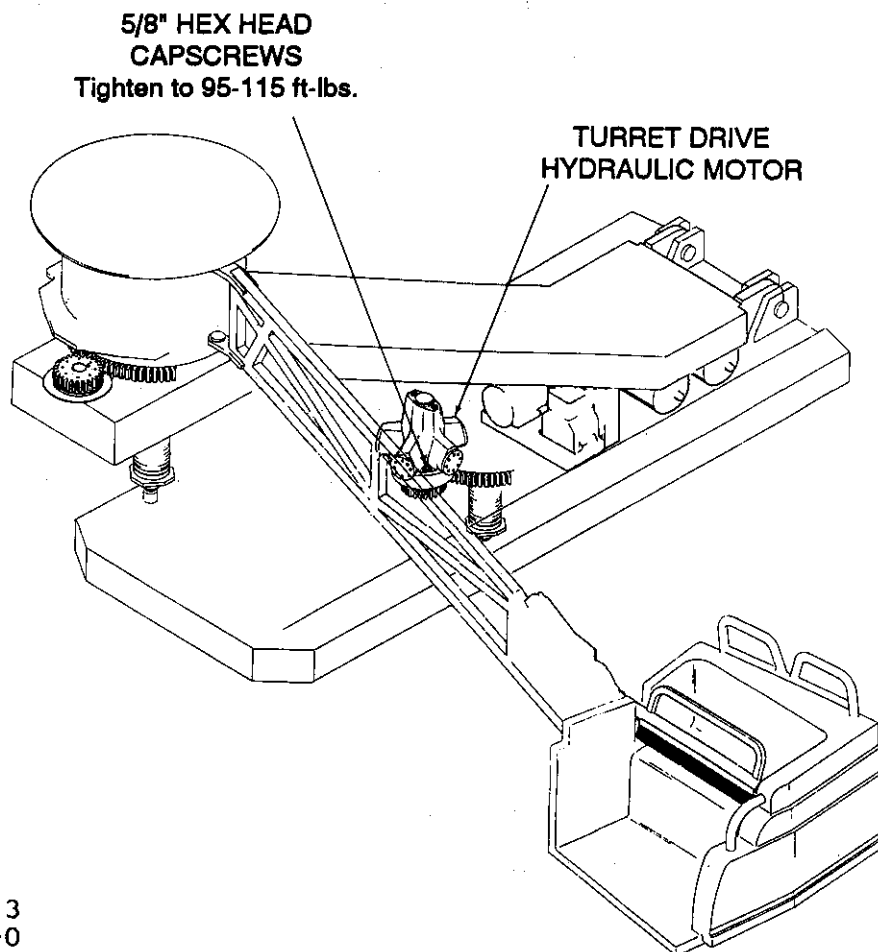
5. If any of these socket head cap screws are loose, perform the following procedure:

a) remove the socket head cap screws

b) clean the threads

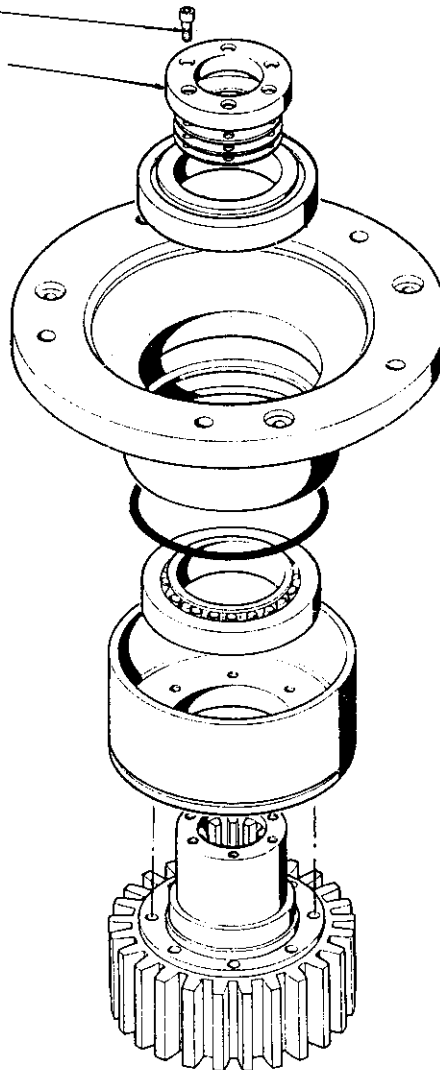
c) apply Blue Loctite 242 to the threads of the socket head cap screws and reinstall using 22 - 27 ft. lbs. of torque

6. Reinstall the hydraulic motor with the five (5) 5/8-11 x 2 1/2 inch hex head cap screws and 95 to 115 ft. lbs. of torque.




SOCKET HEAD
CAPSCREWS
Apply Loctite® 242 Blue
to threads. Tighten to
22-27 ft-lbs.

BEARING KEEPER



01-03 BFi

	CHANCE RIDES, INC. 4219 Irving Wichita, KS 67277-2328 U.S.A. Phone: 1-800-242-6231 • FAX: 1-316-942-7416 Website: www.rides.com	Bulletin No:	B402R1255-A
		Release Date:	May 24, 2001
		Effective Date:	May 24, 2001
		Supersedes:	B402R1255-0
		Completion Date:	Immediately
		Page:	1 of 7
<h1>SERVICE BULLETIN</h1>			
Ride Manufacturer: CHANCE RIDES, INC.		Affected Production Dates: All	
Ride Name: WIPEOUT		Affected Serial Nos.: All units	
Model No.: 402			
Abstract of Issue: Lap Bar Latch Inspection and Maintenance			
Reason For Release: <p>Service Bulletin B402R1255-0 is superseded by this bulletin and is no longer in effect.</p> <p>Chance Rides, Inc. has become aware of an incident where a lap bar on the WIPEOUT amusement ride opened during the operation of the ride. This was due to incomplete engagement of the latching mechanism for the lap bar. In order to maintain the original level of passenger safety, all lap bar latches must be maintained per the manufacturer's specifications.</p> <p>This bulletin is being released to provide detailed inspection and maintenance instructions on the lap bar latch mechanism. Operation of the ride with incorrectly maintained or improperly adjusted lap bar latches can result in serious personal injury to passengers.</p>			
Detail of Issue: <p>Chance Rides, Inc. requires all owner/operators of the above noted WIPEOUT amusement rides to immediately inspect the lap bar latches on every vehicle to ensure that they operate exactly as intended.</p> <p>The lap bar latches must be maintained per the manufacturer's specifications to provide safety to the passengers. The procedures detailed in this bulletin must be performed daily, and anytime the latch is disassembled or replacement parts are installed.</p>			

**CHANCE RIDES, INC.**

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U.S.A.

Phone: 1-800-242-6231 • FAX: 1-316-942-7416

Website: www.rides.comE-mail: rides@rides.com

Bulletin No: B402R1255-A

Release Date: May 24, 2001

Effective Date: May 24, 2001

Supersedes: B402R1255-0

Completion Date: Immediately

Page: 2 of 7

Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: WIPEOUT

Affected Serial Nos.: All units

Model No.: 402

Action to be taken:

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

NOTICE

Use only those components authorized, specified or provided by Chance Rides, Inc.

Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.

Lap Bar Latch Inspection / Maintenance Procedure

Perform the following inspection on every lap bar latch immediately. Thereafter, perform the procedure daily, and anytime the latch is disassembled or replacement parts are installed.

NOTE: Perform each step in the sequence given. Refer to the illustrations for identification of specific components.

If, for any reason, the lap bar latches cannot be adjusted exactly as described, do not operate the ride. Contact the Chance Customer Service Department immediately.

1. Make sure the low air warning devices are operating properly. The ride is equipped with an indicator light and an audible alarm which must come on when air pressure at the tanks is below 65-70 psi.
2. The air pressure to the lap bar lock cylinders must be set to 40 psi. If necessary, adjust the air pressure at the regulator, located near the compressor.



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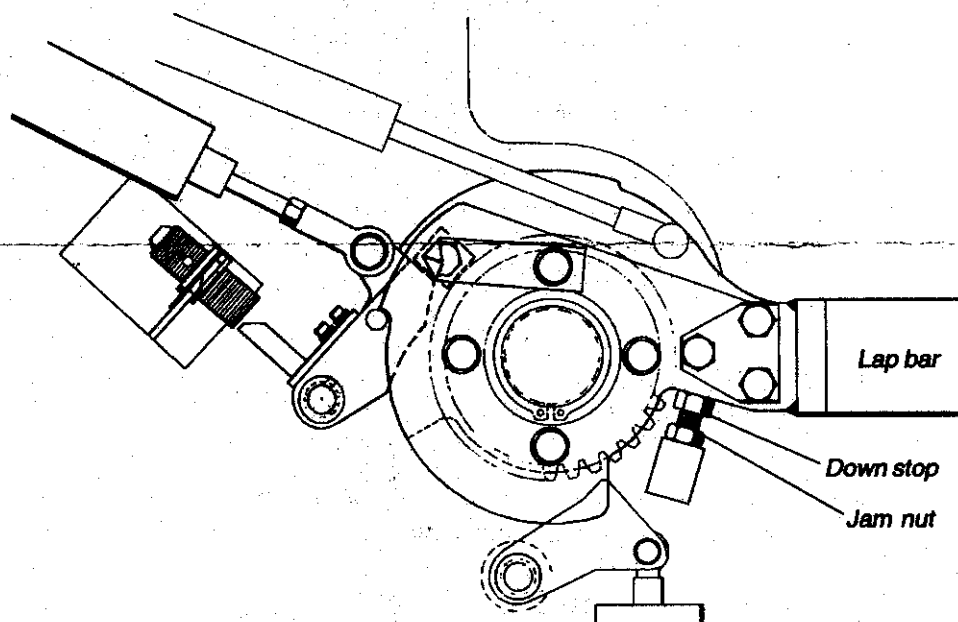
Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All

Ride Name: WIPEOUT Affected Serial Nos.: All units

Model No.: 402

Action to be taken (continued):

3. Check that the lap bar is level in relation to the seat when pushed completely down. If necessary, loosen the jam nut and adjust the down stop, then tighten the jam nut.



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Ride Manufacturer: CHANCE RIDES, INC.

Affected Production Dates: All

Ride Name: WIPEOUT

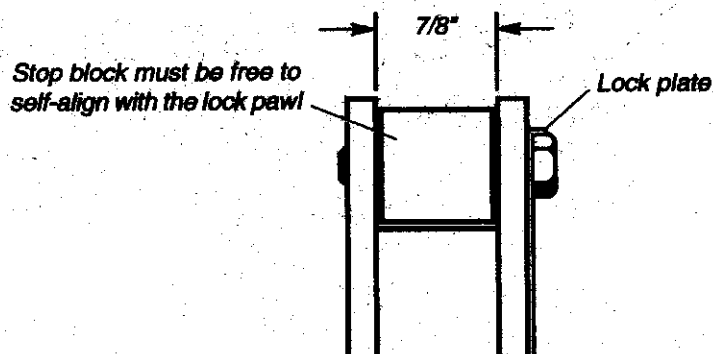
Affected Serial Nos.: All units

Model No.: 402

Action to be taken (continued):

4. Check the engagement of the lock pawl to the stop block. The following conditions must ALL exist when the lock pawl and stop block are correctly adjusted.

- When the lock pawl is fully engaged, the milled slot in the lock pawl must be aligned with the corner of the stop block, and the dowel must engage in the recessed area as shown. If the lock pawl does not engage deeply enough, loosen the jam nut and turn the rod end of the air cylinder to lengthen. The cylinder rod must engage at least seven threads of the rod end. Tighten the jam nut.
- Check the clearance between the locking pawl and stop block. These parts must fit as close as possible and still function smoothly without binding as the lock pawl engages and disengages. If necessary, adjustment can be accomplished by removing the hex head capcrew securing the stop block and rotating the stop block as required (the hole in the stop block is drilled off center to facilitate adjustment). **DO NOT GRIND OR OTHERWISE MODIFY ANY OF THESE PARTS.**
- Make sure the stop block can move between the plates to self-align with the lock pawl. The space between the plates must be maintained at 7/8". **DO NOT OVER TIGHTEN THE HEX HEAD CAPSCREW. This will cause the stop block to bind. When the capcrew is snug, bend the lock plate tabs over the flats of the capcrew to prevent it from turning.**



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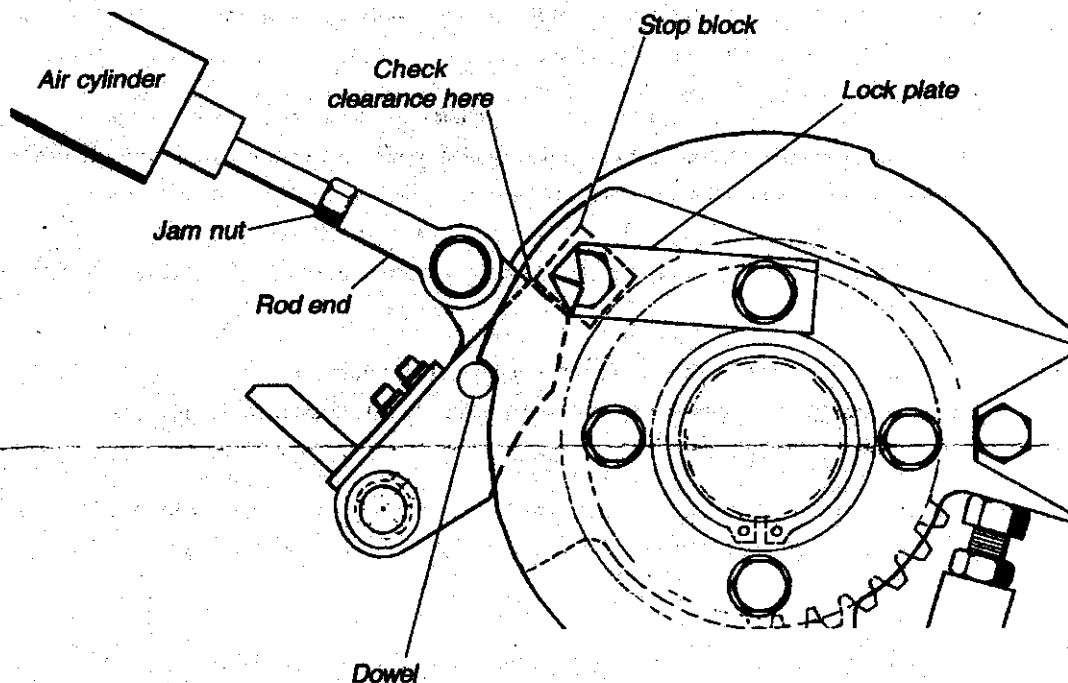
Page: 5 of 7

Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All

Ride Name: WIPEOUT Affected Serial Nos.: All units

Model No.: 402

Action to be taken (continued):





CHANCE RIDES, INC.
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Ride Manufacturer: CHANCE RIDES, INC. Affected Production Dates: All

Ride Name: WIPEOUT Affected Serial Nos.: All units

Model No.: 402

Action to be taken (continued):

5. Check the proximity switch as follows:

- Check the gap between the proximity switch and the adjustable block. The gap must be $3/32"$. If adjustment is necessary, bend up the locking tabs from the switch adjusting nuts and loosen the nuts. Adjust the position of the switch to obtain the correct gap, then tighten the adjusting nuts and bend up the locking tabs over the flats of each nut.

- Check the position of the adjustable block. The block is correctly adjusted when the indicator light on the switch is on when the lock pawl is fully engaged. When the locking pawl is moved slightly from the fully engaged position, the light must go out.

NOTE: The indicator light on the sweep comes on and off opposite of the indicator light on the switch.

If adjustment is required, loosen the two screws on the adjustable block. The block has slotted holes and can be moved up or down as required to obtain the correct adjustment. Tighten the screws on the adjustable block.

- Check the operation of the lap bar interlock system exactly as described in the *WIPEOUT Service Manual* (see page 16 in the "Maintenance Manual" section). This procedure requires two people.

6. With the ride ready to operate, close and latch the lap bars. Make sure each air cylinder is holding its lock pawl in the fully engaged position. Try to release the lap bar latch by pulling the manual release lever toward the cylinder. It must not be easily retracted by hand.



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Ride Manufacturer: CHANCE RIDES, INC.

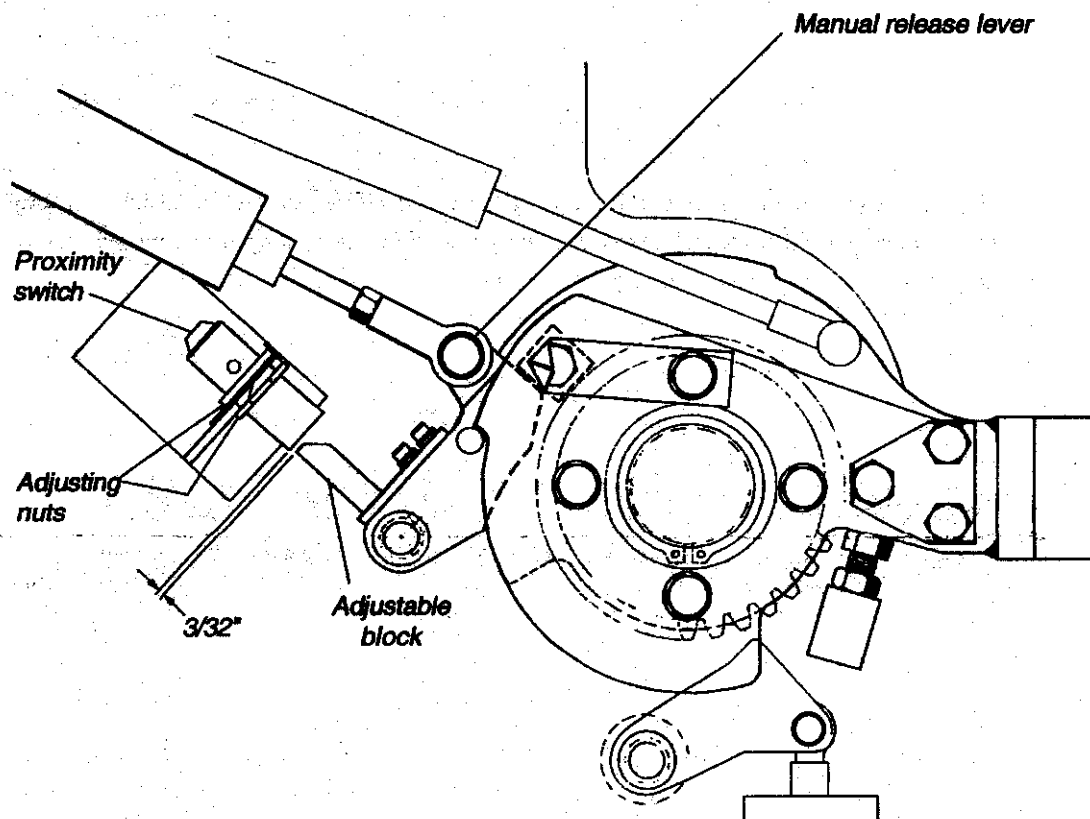
Affected Production Dates: All

Ride Name: WIPEOUT

Affected Serial Nos.: All units

Model No.: 402

Action to be taken (continued):





Florida Department of Agriculture & Consumer Services
BOB CRAWFORD, Commissioner

March 2, 1995

Please Respond To:

VIA FAX: (316) 942-0401

John Worrell
Vice President of Engineering
Chance Industries, Inc.
P.O. Box 12328

Subject: Wipe Out Lap Bars.

Dear Mr. Worrell:

Please be advised the Bureau has closed Goodings Million Dollar Midway's Wipe Out, serial number 430200991, last night. The lights were giving false indications of the lap bars being down and locked when they were not. This is the same Wipe Out which had the accident in Everglades City.

In addition another Wipe Out had three seats closed. A proximity switch was malfunctioning, an air cylinder was missing, and a bolt was sheared. The ride would run with the lap bar up and was reading that the lap bar was down. This Wipe Out is owned by W. G. Wade Shows and has a serial number of 4021791.

With these inspection results this week, I have an increased concern. Please contact me immediately. I called for Steve Laycock before you were open this morning

Sincerely,

BOB CRAWFORD
COMMISSIONER OF AGRICULTURE

Lowell Parrish

Lowell Parrish
Fair Rides Consultant
(904) 488-9790
(904) 488-9023 (FAX) /

LP/rr

Xcc: Steve Laycock



NUMBER: B402R1109-0

DATE: JAN. 17, 1992

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: All Units

Ride: WIPEOUT

Subject: Hub Capscrew Torque Check

The Center hub section on the WIPEOUT amusement ride is secured to the bearing turntable on the boom by 28, Grade 8 hex-head capscrews. It is essential for the care of the equipment and safety of the passengers to maintain the proper torque on these capscrews. Chance Rides, Inc. requires all owner/operators of the above noted rides to perform the following check at least once per month during the operating season.

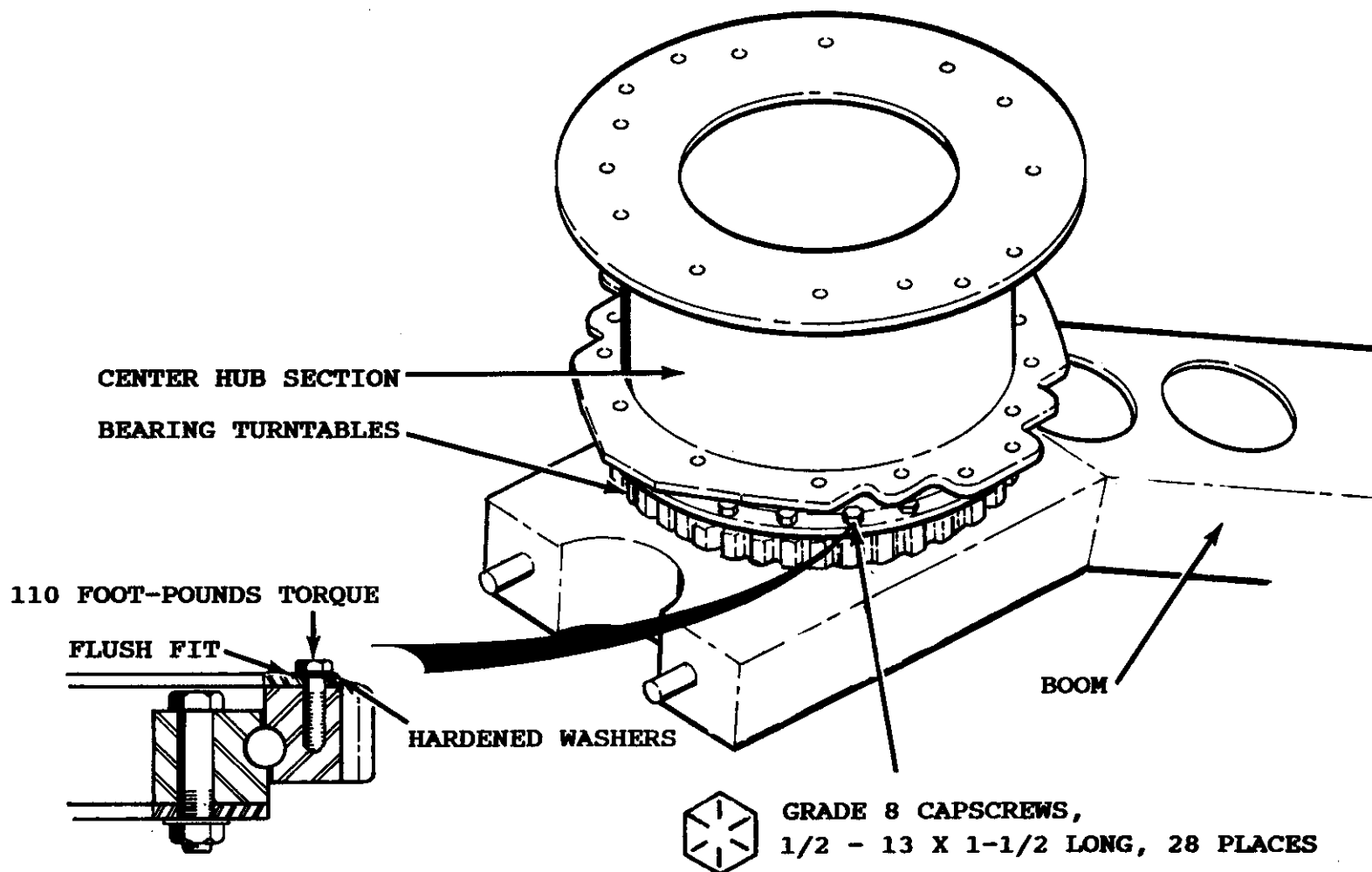
1. Verify that the 28 hardened washers under the capscrews securing the center hub section to the bearing turntable on the boom fit flush to the hub.
2. Using a torque wrench, check for proper torque of these 28 capscrews. Torque values for these capscrews should be 110 foot-pounds.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

NOTICE

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Chance Rides, Inc. SPECIFICALLY DISCLAIMS ANY LIABILITY for losses associated with any unauthorized alterations and/or modifications or additions and installations of unauthorized components.



NOTE: If capscrews are removed and reinstalled with lubricated threads 90 foot-pounds must be maintained.



NUMBER: B402R1110-0

DATE: DEC. 20, 1991

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: 40200190 through 40201891

Ride: WIPEOUT

Subject: Electrical Overload Protector
Inspection/Replacement

Chance Rides, Inc. has become aware that incorrectly sized overload protectors, heaters and fuses, may have been installed on the above noted WIPEOUT amusement rides. The correct size heaters and fuses are necessary to prevent damage to the oil cooler motor, the pump motor for the leveling jacks, and the motor for the air compressor.

Chance Rides, Inc. requires all owner/operators of the above noted rides to perform the inspection and if necessary, the replacement of parts, as outlined in this bulletin.

All work must be performed by qualified personnel, capable of understanding the function of the parts and their proper installation.

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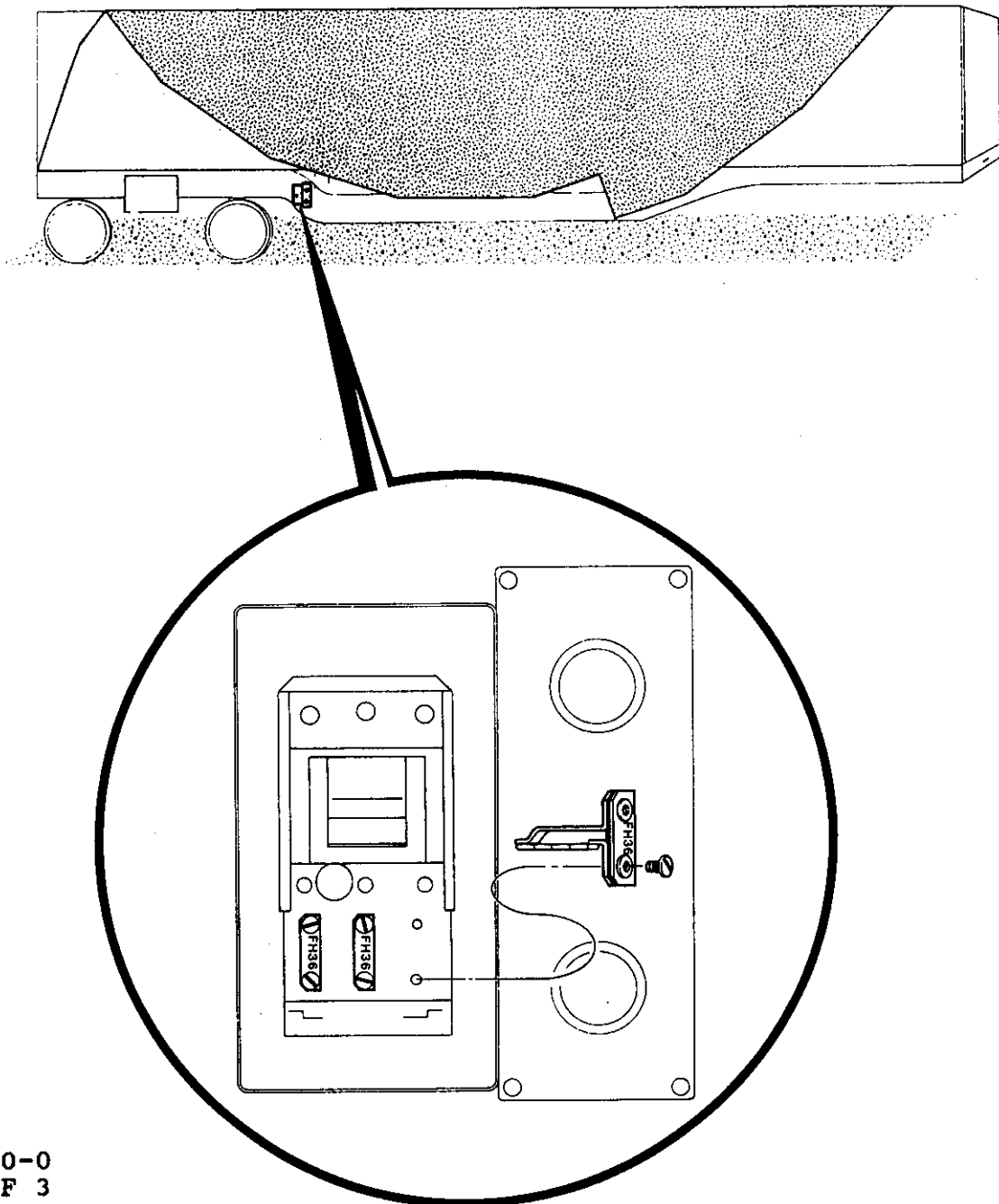
<p>CAUTION: To prevent electrical shock, disconnect all power to the ride before performing any of the following work.</p>

If a new heater or fuse is required, per this bulletin, they will be supplied free of charge, if ordered within 90 days of the date on this bulletin.

INSPECTION/REPLACEMENT OF PUMP MOTOR HEATERS

Three heaters are located in box between rear leveling jack and the floor/jack receptacle box, located on the curbside of the trailer.

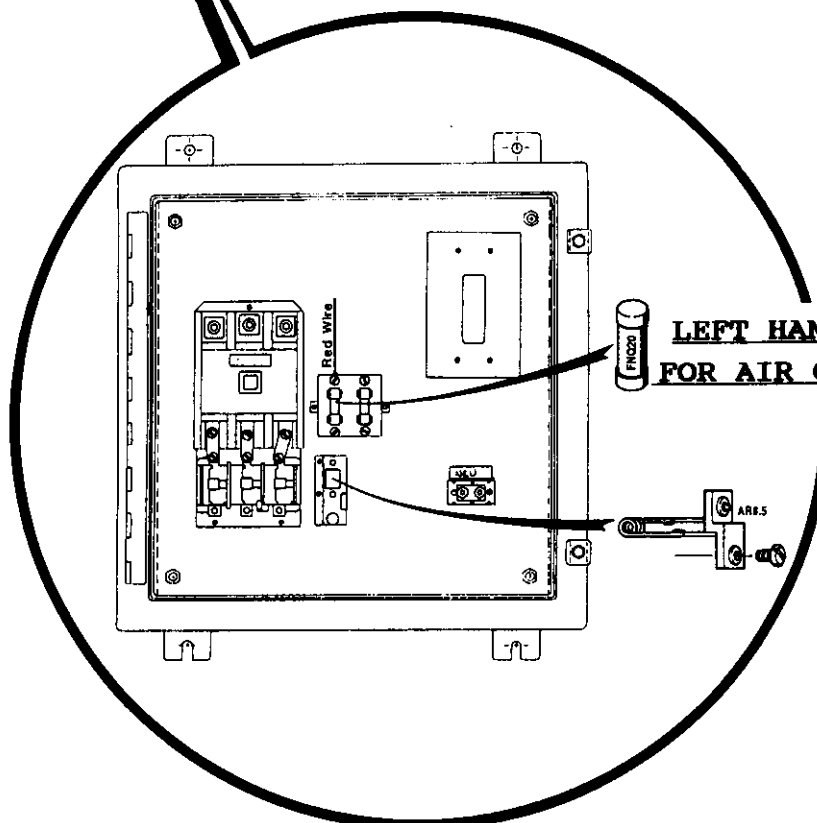
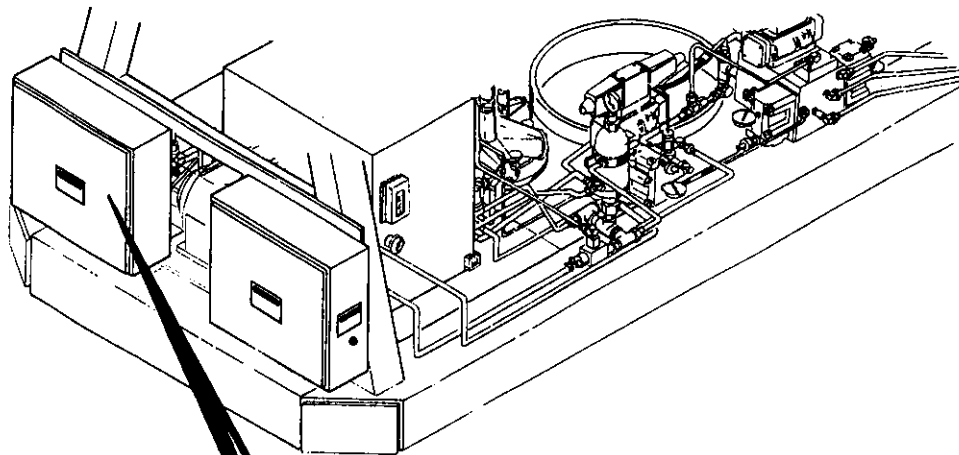
1. Remove cover from box by removing the one screw located at the bottom of the box.
2. Heaters are labeled as to size. Correct size is FH36. If any other size heater is present, order and install new heaters, part number 23324700.
3. To replace heaters, remove the two (2) screws securing the heater in place.
4. Reinstall cover after work is completed.



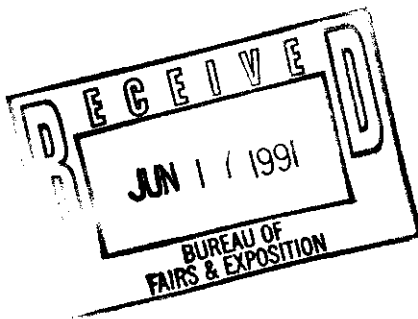
INSPECTION/REPLACEMENT OF OIL COOLER MOTOR HEATER & AIR COMPRESSOR FUSE

This heater and fuse are located in the motor control box, the left hand box with the on/off handle, mounted to the turret.

1. Turn power handle to off position and open door.
2. Locate single heater and inspect for correct heater size. Correct size is AR8.5. If any other size heater is present, order and install new heater, part number 23331702.
3. To replace heater, remove the two (2) screws securing the heater in place.
4. Locate fuse in fuse block directly above oil cooler motor heater and inspect for proper size. The fuse may have to be removed to determine size. The correct size is FNQ20. If any other fuse is present, order and install new fuse, part number 22149200.



LEFT HAND FUSE ONLY IS
FOR AIR COMPRESSOR MOTOR



NUMBER: B402R1102-0

DATE: JUNE 14, 1991

SUPERSEDES:

America's Largest Manufacturer of Amusement Rides

SERVICE BULLETIN

Effective Serial Number: All Units - Chance Rides, Inc.

Ride: WIPEOUT

Subject: Boom Limit Switch

Chance Rides, Inc. has received reports of at least one WIPEOUT amusement ride which was operated with the boom limit switch being by-passed. This could allow the lap bars to be unlocked during operation of the ride, resulting in possible injury to passengers.

NEVER OPERATE THE RIDE WITH THE BOOM LIMIT SWITCH BY-PASSED OR TIED DOWN.

The boom limit switch is a safety item located on the boom support stand of the turret. This switch locks out the lap bar switch, located on seat number 1, so that the lap bars cannot be unlocked while the ride is up in the air.

All maintenance personnel and operators must be instructed as to the importance of this switch. This switch must be properly adjusted at all times during operation.

