

ALLAN HERSCHELL

CHANCE
MANUFACTURING CO., INC.

Number: 7
Date: 6-20-71

Superceeds:
Number:
Date: 5-1-66

Service Information

Ride:

Subject:

SKY FIGHTER RIDE - MODEL "C"
(1953 and subsequent models)

ERECTION

REFERENCES:

- Blueprint KPC-101A Assembly Dwg.
- Blueprint KP-100P Parts Number Dwg.
- Blueprint KP-121A Hydraulic Circuit Dwg.
- Blueprint KT-101 Foundation Dwg.
- Blueprint - Electric Circuit Diagram

ERECTION OF SKY FIGHTER RIDE MODEL "C" (1953 and Subsequent Models)

1. Roll center drive assembly on planking onto location. Leveling not required.
2. (a) Assemble triangular jack frames at four corners by inserting two 3/4" pins at top and bottom of each corner and insert cotters. Do not screw up on jacks.
(b) Assemble one stiff arm (6 ft. long, 1 1/2" pipe) to triangular jack frame and center drive frame, using two 3/4" pins and cotters.
3. (a) Assemble 8 sweeps, using 3/4" pins x 6" long. Assemble head end of pin at set screw side of yoke. Tighten Allen head set screw into pin.
(b) Assemble 3/4" tie rods to sweeps with 3/4" clevis pins and cotters.
4. Assemble loading platform around outside of ride using taper pins and safety pin to lock in place. Add screw jacks at platform splice.
5. Adjust screws until frames are level. Raise until drive assembly casters are off planks.
6. Assemble planes to sweeps, use taper pins & safety pins. Add 3/8" tie rod to airplanes & sweep using 3/8" clevis pins and cotters.

Factory and General Office, 4219 Irving, Box 2397 Wichita, Kansas 67201

Area Code (316) 942-7411

Sales Office:

103 Ross Ave., Dallas, Texas 75202

Area Code (214) 742-3802

7. Adjust main tie rods so that loaded cars have 2" to 3" clearance between sweeps and platform.
8. Insert light poles and tighten holding screws. Assemble switch panel to light pole.
9. Connect 16 make twist lock jumper cords from airplane to sweep and from sweep to rotating head.
10. Erect fence post using cotter pins - string chain in place. Outlet and inlet to ride can be located in any of eight places.
11. For shipping purposes, the cable which controls the hydraulic plunger valve is fastened to center drive assembly. Unfasten and bring cable out to operating crank on light pole and attach yoke to crank with yoke pin.

SKY FIGHTER - MODEL "C"

ELECTRICAL - SEE CIRCUIT DIAGRAM

1. Connect motor switch 3-prong twist lock tail to power supply of same voltage and cycle as motor nameplate. If possible, never operate on 110 volts in order to avoid voltage drop and to assure better motor performance resulting from 220 or 440 volt operation.
2. Connect lights through tail of light switch (2 prongs) to 110 volt power supply.
3. Connect guns through tail of gun switch (2 prongs) to 110 volt power supply.
4. Connect various jumper cords furnished with ride, as per electrical circuit drawing.

SKY FIGHTER - MODEL "C"

OPERATING INSTRUCTIONS

1. After assembling the four decorating panels to center drive frame, set up is complete and ready to operate.
 - (a) Push "START" button on control switch. This starts motor, causing rotation of ride and gradual raising of planes by travel of hydraulic cylinder.
 - (b) To stop the ride, push "STOP" button on the control switch and then pull valve control crank towards the operator to cause planes to lower and hold crank in this position until planes have stopped rotating and are fully loaded.

2. Hydraulic 3/4" needle valve is provided to regulate the rate at which the planes come down.
 - (a) If the valve is fully closed, the planes will not rise but will only rotate when the "START" button is pushed.
 - (b) If valve is fully opened, the planes may come down too fast under full load of passengers.
 - (c) Regulate the valve position to suit a full load or an average load of passengers. Further adjustment is not required, except as desired.
3. Toggle switch on the lightpole controls operation of the guns.
4. Toggle switch on the frame controls the lights.

NOTE: If the operator so desires, the planes can be raised and lowered while rotating by pulling on the valve control crank to cause lowering of the planes and holding the crank in this position until planes are down as far as desired. Releasing the crank handle will cause the planes to rise.

MAINTENANCE

1. The ride is shipped with 10 gallons of Socony-Vacuum DTE light oil in the hydraulic storage drum. Maintain oil level between the high and low marks on the dipstick - using same oil.

2. FLUID DRIVE UNIT

- (a) At the Allan Herschell factory, the fluid drive sheave is given the proper amount of a premium grade of SAE 10W low oil. A change of oil is necessary every five years unless excessive slippage indicates that an earlier change is necessary. Check the oil level yearly. A slippage of 85 R.P.M. between the R.P.M. of the motor and the R.P.M. of the hydrosheave is considered standard. The hydrosheave bearings are lubricated for life. The fluid sheave has the correct quantity of oil when it is positioned with its 2 1/2" marking at the top center position which places the plug opening off center. Fill with proper fluid until oil tends to run out the plug openings. Then, replace pipe plug. Use gasket compound on plug threads.

3. VERTICAL SHAFT WORM REDUCER W-300

- (a) Follow instructions on the name plate using 600W in warm weather and 1/2 of S.A.E. 40 and 1/2 of 600W in cold weather. Maintain proper level.

VERTICAL SHAFT WORM REDUCER E-300 (continued)

- (b) Drain and refill after first 150 hours of operation.
 - (c) Use grease gun (furnished) on upper bearing fitting. Use Mobil MP Grease or King Graphite Product KGP-24.
 - (d) Keep breather fitting clean and open.
4. Use grease gun (furnished) on fittings. Use Mobil MP Grease or King Graphite Product KGP-24 on -
- (a) Motor (Ball bearing type only)
 - (b) Sweeps (at rotating head)
 - (c) Top of rotating head (two fittings)
 - (d) Bottom of rotating head (one fitting)
5. Use light machine oil on chain.
6. **HYDRAULIC PLUNGER VALVE MECHANISM:**

The external tension spring is adjusted at the factory to keep the plunger of the hydraulic valve depressed and it should require no adjustment. If necessary, make this adjustment by taking up on the eyebolt nut above the spring.

7. **BUZZERS FOR GUN OPERATION.**

- (a) IF gun buzzers burn out, remove mounting plate and replace with buzzer of same voltage and cycle.

Standard buzzer equipment on ride is:

24V, 60 cycle - Connected 24 volts at transformer for 60-cycle operation.

24V, 60 cycle - Connected 16 volts at transformer for 25 cycle operation.

TWIN-DISC CO. HYDRA-SHEAVE NO. 745HSD18 BORE 1 1/2 IN. V.V. WITH A.H. CO. SHAFTS OPEN S.W. NO. 001A 1/2 AND KP-114 REFER TO KIDDIE RIDE DRIVE INSTRUCTION SHEETS FOR MAINTENANCE INFORMATION.

Part C - 11-21-50
 Rev. D. 04/15/53
 E. GH-2827 P.H. 7-5-50

6.5 TYPE E MOTOR FRAME 218.3 N.P. 1728 R.P.M. 3 PH. 50 CYCLE BALL BEG OPEN HORIZONTAL OR KP-114 PH. 115/210 V.

EDWARDS NO. 88-000 TRANSFORMER 100 CYCLE 60 WATTAGE SPECIFY 115 V. 110 V.A. CAPACITY 40 CYCLE 115 V. 110 V. 210 V.

KP-115 JACK FRAME PIN (1)
 KP-90 STIFF LEG (1)

VIEW

CLEAN WEATHER PIPE (1)
 DRAIN PIPE

SEALED FOR LIFE BEARING OR NO. 1 LUBRICANTS

KP-118 PULLEY (1)
 KP-141-3 PIN (1)

USCO UNIVERSAL MOUNTED REDUC. RATIO 15:1 MOUNTING 10MM1 ANGLE FT. ASSEM. 28-OUTPUT SHAFT PROJECTING UP WITH SINGLE EXTENDED INPUT SHAFT STANDARD LENGTH 1/2" DIMENSION

MAINTAIN GREASE BETWEEN HIGH AND LOW LEVEL USE NO. 000'S GREASE IN NORMAL WEATHER OR GREASE OF ONE HALF SAE 40 AND ONE HALF OF NO. 000'S IN TOOLS WEATHER DRAIN AND REFILL AFTER FIRST 100 HOURS OF OPERATION

VERMOREL PULLEY WITH 18 IN. DIAMETER INTERIOR PITCH MOUNTED TO 1 1/2" DIA. SHAFT
 KP-117 OIL DRAIN COVER
 1/2" DIA. OIL DRAIN
 1/2" DIA. WEATHER (DRAIN) (1)
 TO OIL DRAIN THROUGH VACUUM POL. DTC. KIDIE CO.
 MAINTAIN OIL LEVEL BETWEEN HIGH AND LOW MARKS ON DIP-STER. VITRE SCREEN

GREASE MONTHLY

WHEN ORDERING HYDRAULIC HOSES REFER TO HYDRAULIC CIRCUIT DRAWING NO. KP-114

JUMPER CORD ASSEMBLY (1)

LOW-BELT NO. 00-80 SINGLE WIDTH ROLLER CHAIN SPROCKET 11 TOOTH. OR HOME KEYWAY AND SET SCREW (1)

KP-104 1/2" DIA. BELT NO. 00-80 SINGLE WIDTH ROLLER CHAIN SPROCKET 20 TEETH SPECIAL

LOW-BELT NO. 00-80 SINGLE WIDTH ROLLER CHAIN SPROCKET 20 TEETH SPECIAL

LOW-BELT NO. 00-80 SINGLE WIDTH ROLLER CHAIN SPROCKET 20 TEETH SPECIAL

SEE SECTIONAL ELEVATION OF DRIVING HEAD AND CYLINDER

INVERT (MONTHLY)

KP-115 SHEET PIN (1)
 1/2" DIA. WITH LONG HALF DOG
 1/2" DIA. WITH SHORT HALF DOG
 1/2" DIA. WITH NO HALF DOG
 KP-115 (1)

HOBERS PUMP NO. V. 714-3 (1)

BROWNING AK-60H SHEAVE 7/8" BORE OIL BROWNING 1" BELT NO. 00-80 (1)
 1/2" DIA. HOV-50 1/4" METERING VALVE (1)
 CAR LIFTING VALVE SEE ENLARGED VIEW
 BROWNING NO. 8K-60 SHEAVE 1/2" BORE (1)
 ONE 1/2" BELT NO. 00-80
 KA-115-T MOTOR BASE

VIEW FROM HOV ASSEMBLY (1)
 LEGS (1)
 JACK FRAME (1)

SWIVEL CASTER BASE (1)
 RIGID DIST. BASE (1)

KP-118 FRAME (1)

ALLAN HERSCHELL CO. INC. INDEPENDENCE, MO. 64601
 PART NUMBERS, DIMENSIONS AND LUBRICATION INSTRUCTIONS
 SEE DRAWING NO. KP-100

P.M.

SECTIONAL ELEVATION

DRIVING



U.S. CONSUMER PRODUCT SAFETY COMMISSION

WASHINGTON, D.C. 20207

IMPORTANT SAFETY NOTICE

ATTENTION STATE AMUSEMENT RIDE SAFETY OFFICIALS

SKYFIGHTER AMUSEMENT RIDE INSPECTION

APRIL 2, 1992

The U.S. Consumer Product Safety Commission (CPSC) received a report of an incident involving the "Skyfighter" children's amusement ride. The rides were manufactured by the now defunct Allan Herschell Company. Two children, ages two and three, were injured when a 1/2 inch diameter stabilizing rod snapped causing one of the attached airplanes to fall. The airplane with the two children fell four to five feet and slid along the ground until striking one of the metal ground feet. One of the children damaged four teeth and the other suffered mild contusions.

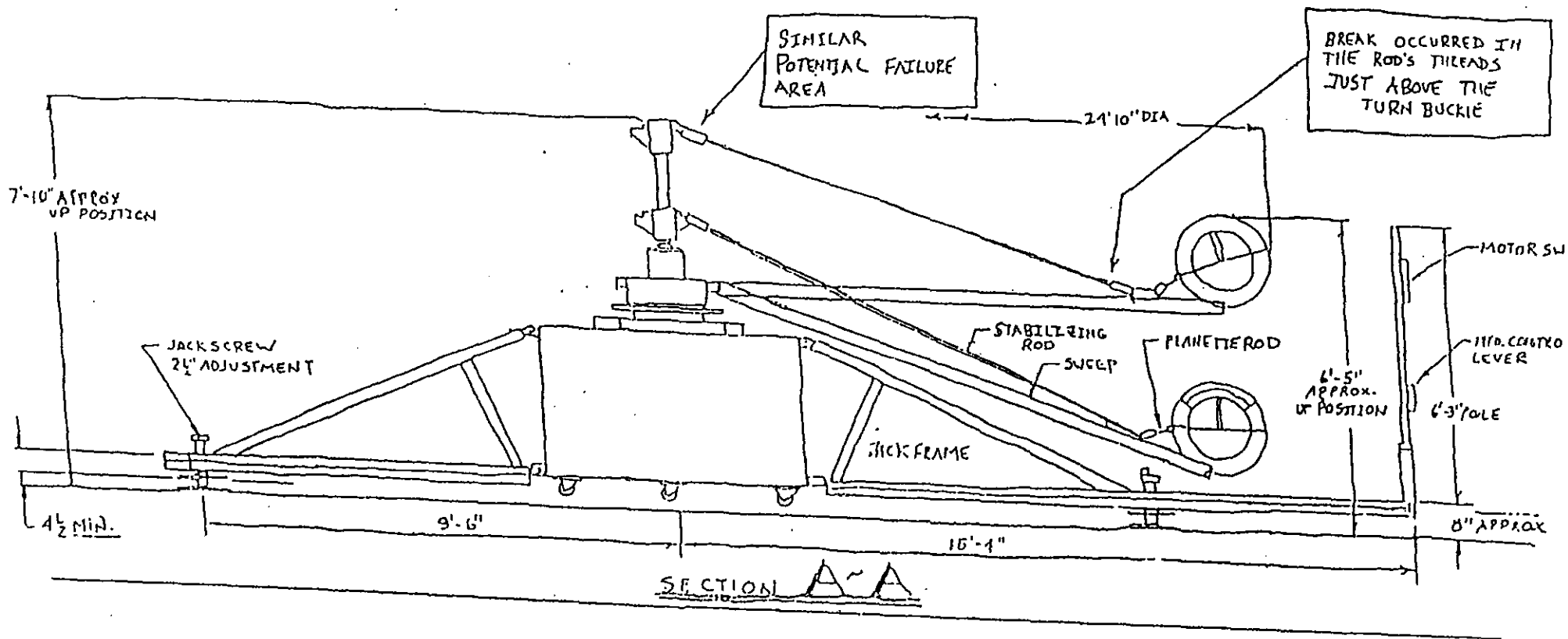
The Skyfighters were manufactured from 1949 through the early 1950's. While the number of Skyfighters manufactured is not known, there may be a number of rides still in use today. They were originally chain driven but may have been modified with an electric hydraulic system. We encourage you to conduct inspections of any known Skyfighters in your state to determine if the stabilizing arms are experiencing metal fatigue (see attached drawing). If so, the bars should be replaced immediately. Also, all connections, sweeps, and areas prone to fatigue should be inspected, and parts replaced as necessary.

Any information you can provide on previous state inspections of the Skyfighter rides, information on any related incidents, and names and addresses of owners of the rides would be appreciated. Information can be sent to John Shumlansky at the Division of Corrective Actions, Consumer Product Safety Commission, Washington, D.C. 20207; or by fax at (301) 504-0359. Questions can be directed to John or Marc Schoem on (301) 504-0608. We appreciate your assistance in this matter.

ALLAN HERSCHELL

"SKYFIGHTER"

AMUSEMENT RIDE





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

AMENDMENT TO THE APRIL 2, 1992 SAFETY NOTICE

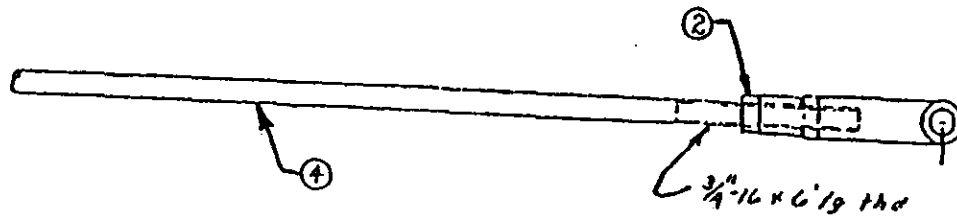
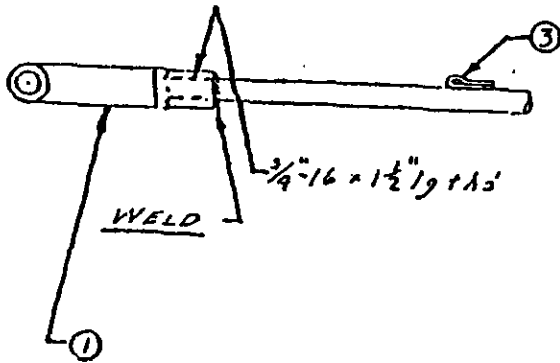
ATTENTION STATE AMUSEMENT RIDE SAFETY OFFICIALS
SKYFIGHTER AMUSEMENT RIDE INSPECTION

JUNE 9, 1992

On April 2, 1992 the U.S. Consumer Product Safety Commission (CPSC) distributed a safety notice concerning the "Skyfighter" children's amusement ride. The ride's stabilizing arms may experience metal fatigue and shear off at the threaded ends. The attached tubs will fall to the ground and possibly result in serious injury to a rider.

The original notice indicated that the stabilizing rods were 1/2 inch in diameter and encouraged you to inspect known Skyfighters in your state. Since the manufacturer of the rides are no longer in business, it was difficult for us to obtain specific measurements or distribution information. We have recently been notified that the stabilizing rods were originally 3/4 inch in diameter and not 1/2 inch as previously suggested. We have received an original Allen Herschell drawing of the stabilizing rod and a copy is attached for reference. Please verify that the proper sized stabilizing rods are utilized with the Skyfighter rides to ensure adequate protection against wear and metal fatigue. If not, the bars should be replaced immediately. Again, all connections, sweeps, and areas prone to fatigue should be inspected, and parts replaced as necessary.

If you have any questions, please contact John Shumlansky at the Division of Corrective Actions, Consumer Product Safety Commission, Washington, D.C. 20207, telephone: (301) 504-0608; or by fax at (301) 504-0359.



ITEM	QTY	DESCRIPTION	UNIT
4	Ø	Rivets 3/8" x 8-11" 1/2	CRS.
3	Ø	Pin Collar 1/4" x 1/4" 19	
2	Ø	Nut 3/4" - 16	
1	76	Washers 3/4" - 16	

ALLAN HERSCHELL CO., INC.
NORTH TOHAWANDA, N. Y.

NAME
TENSION ROD

USED ON:
KIBBIKUPGEORLANE RYBA

APPROVED BY: [Signature]
DATE: [Date]
SCALE: [Scale]



Issuing Entity:
U.S. Consumer Product Safety Commission
Washington, DC 20207

CPSC Hotline: 1-800-638-CPSC(2772)

CPSC's Web Site: <http://www.cpsc.gov>

ADMENDED SAFETY NOTICE [from June 9, 1992]
ATTENTION STATE AMUSEMENT RIDE SAFETY OFFICIALS

Allan Herschell "SKYFIGHTER" AMUSEMENT RIDE INSPECTION

AUGUST 2nd 2000

On June 9, 1992, the United States Consumer Product Safety Commission (CPSC) distributed an amendment to an April 2, 1992 safety notice concerning the Allan Herschell "Skyfighter" children's amusement ride. The ride's stabilizing arms/tension rod may experience metal fatigue and shear off at the threaded ends. The attached tubs will fall to the ground and possibly result in serious injury to a rider.

The amendment to the original notice provided for the verification of the use of the proper-sized 3/4-inch diameter stabilizing rods and the inspection by you of known "Skyfighters" in your state. We have recently received a request for clarification of this ride's inspection requirements. The ride's inspection is to assure that rods that are worn, cracked, or suffering from metal fatigue cracking are not used. It is recommended that the "Skyfighter" inspection include a daily visual and annual nondestructive inspection of the stabilizing rods of the "Skyfighter." The annual nondestructive inspection shall use dye-penetrant inspection or magnetic-particle inspection after appropriate preparation by qualified personnel to locate open-to-the-surface cracks that may be overlooked with unaided-eye visual techniques. The annual nondestructive inspection should be done by personnel qualified in the method used. Any cracked rods should be replaced immediately.

Continue verifying that the proper-sized stabilizing rods are utilized with the "Skyfighter" and assure that the rods are not worn or cracked. All connections, sweeps, and areas prone to fatigue should be inspected and parts replaced as necessary.

If you have any questions, please contact:
J. A. DeMarco
Office of Compliance
U.S. Consumer Product Safety Commission,
Washington, D.C. 20207,
Telephone: (301) 504-0608 x 1353,
FAX at (301) 504-0539.

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