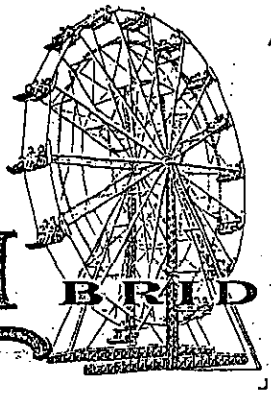
ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS



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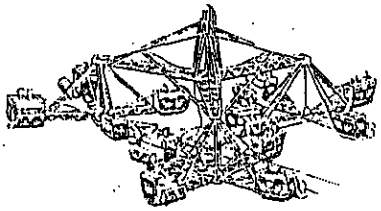
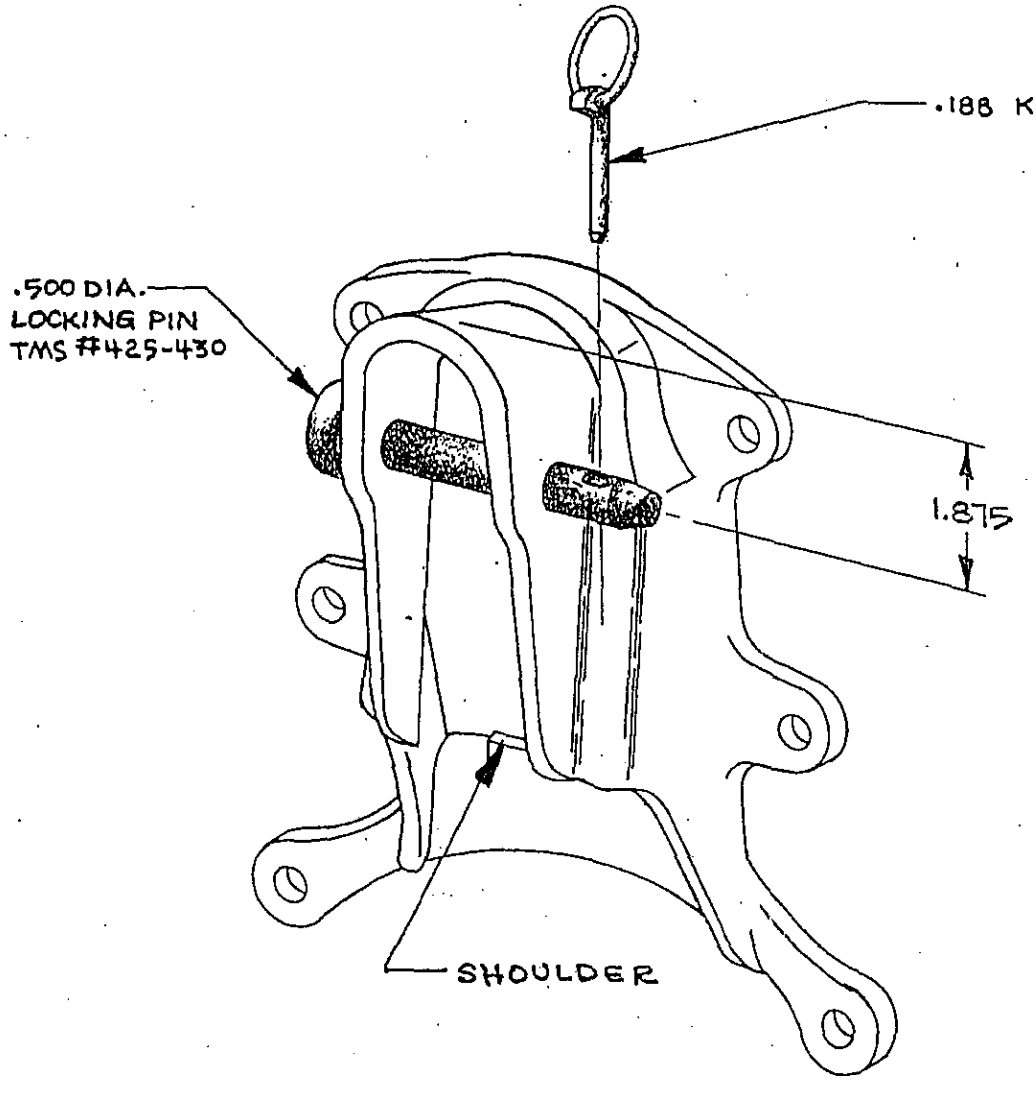


Scrambler
ELI POWER UNITS

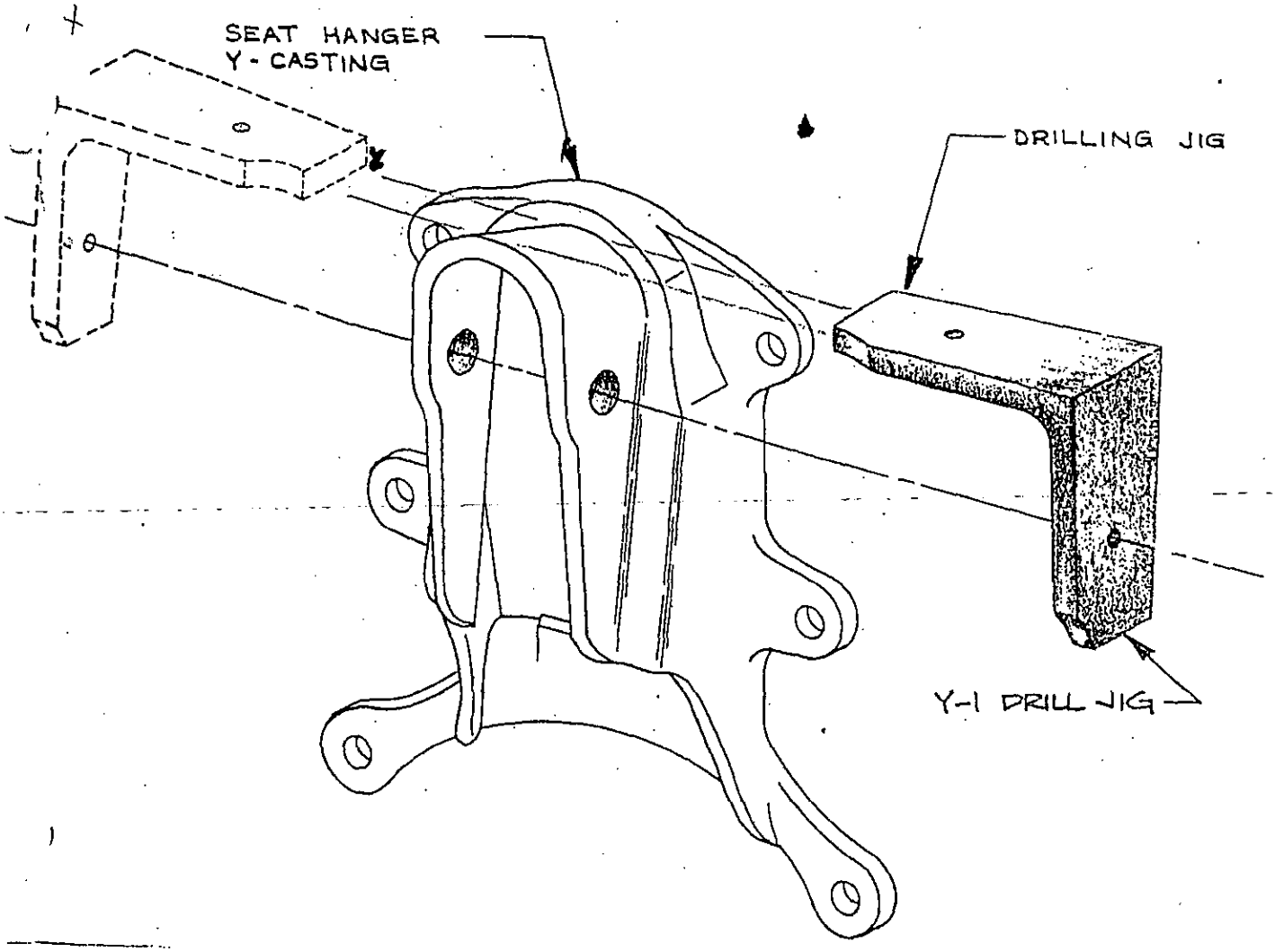
ELI BRIDGE COMPANY
INCORPORATED
800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS, 62650

REPLACEMENT OF MYNY SEAT LOCKS ON ALL NO. 5, 12, 16, HY-5, AND HY-5-II BIG ELI WHEELS



The MYNY seat locks have worked quite well on Big Eli Wheel seats for a great many years. They have given safe and reliable service. When properly installed there is no reason to be concerned about the safety of this kind of seat lock. To be properly installed, the seat lock should be firmly positioned so that it is tight and cannot be shaken loosely. This means that the spring must be in good condition and the shoulder on the seat hanger casting, as identified on the above sketch, must not be worn.

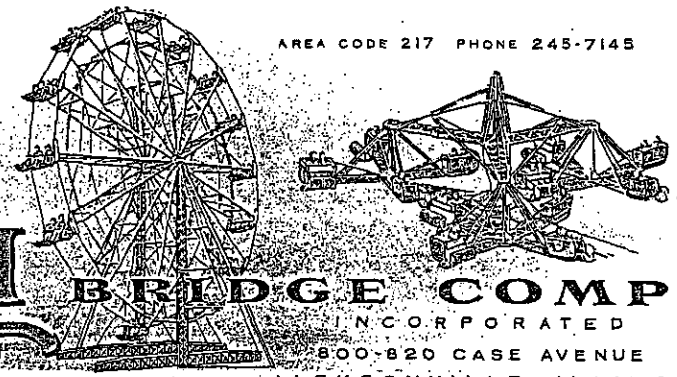
We feel that for safety considerations it is very important for the operator to be sure that each seat pin is properly locked, and so we are now furnishing the No. 425-430 pin and 3/16" Klik-pin in place of the MYNY seat lock. The operator must look at the pin in order to be able to insert the Klik-pin, and in doing so he will see whether or not the seat pin is securely locked.



Modifying the seat hanger casting is easy. You are provided with a drilling jig ich is shown in the sketch. Lay the drill jig on top of the seat hanger casting, :h the cutout corner located as shown. Drill a 3/16" diameter hole through one side the casting, using the drilling jig as a guide for the drill. Then roll the drill ; over the top and against the other side of the seat hanger casting. Drill a 3/16" le through that side. The two sides of the casting are not parallel, so the two holes ; not exactly in line with each other. Drill clear through both sides of the casting :h a 1/4" diameter drill to straighten the two holes into alignment, and follow with ·ger drills until the final hole size is 33/64" diameter, which is 1/64" larger than pin diameter.

So long as the MYNY seat lock is in good condition and the seat hanger casting is worn on the shoulder where the seat lock engages there is no reason to replace the t lock. When you must replace a seat lock or the seat hanger casting shoulder omes worn, then that is the time to change over to the new locking arrangement.-- You— l be pleased to know that we are able to furnish this new type of lock at approxi- ely one-third of the cost of the MYNY seat lock.

ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS



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ELI POWER UNITS

ELI BRIDGE COMPANY
INCORPORATED
800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS, 62650
AREA CODE 217 PHONE 245-7145

9 January 1975

Dear Owner/Operator:

RE: WARNING about HY-5
16.5-19.5 TIRES AND WHEELS.

A number of HY-5 owners have reported tire problems to Eli Bridge Company. Several customers have experienced blown tires. Two that we know of had the wheel and tire blow off the axle. We have done extensive tests on this situation to find its cause and solution.

The brakes on a HY-5 axle heat up and retain their heat during hilly or mountain driving. With the slow speeds involved, air cooling has little effect. This heat in the brake shoes and drums is not above the recommended brake operating temperature.

In the 16.5-19.5 tire, the wheel rim is very close to the brake drum. This encourages the brake heat to be transferred to the wheel rim and then to the tire bead. Melting of the rubber at the tire bead causes the tire failures.

Another condition may be present that can make a blowout really dangerous. According to Firestone, if the tire is filled with air from a compressor containing non-permanent anti-freeze, or that has been cleaned with a flammable solvent, or if a rubber lubricant containing a flammable solvent was used in mounting the tire, then an explosive mixture can exist. If such an explosive mixture does exist, it can be set off by an overheated wheel or an electrostatic spark. During one of our tests, a tire, wheel, and brake drum were thrown about 150 feet. We think it might have been an explosion as described above.

Heat build up is increased by using only the trailer brakes when going down hills. These brakes are not intended to stop both tractor and trailer. Use ALL brakes together. Adjust all brakes to apply evenly. Shift down, and let the engine help the brakes.

When tire problems were first reported to us, we recommended the above practices. In most cases there were no further complaints. The original tire selection employed all the information that was available to us at the time.

Subsequent reports coming to a head in recent months indicated a more basic problem. At that time a testing program was run with the participation of a Firestone representative.

On the basis of these tests, the Firestone Tire and Rubber Company recommends using 15-22.5 x 14 ply tires and wheels to prevent the normal brake heat from going into the tires. These wheels provide about two inches of clearance over the brake drums.

During severe braking tests, this combination did not develop dangerous tire bead temperatures. These wheels and tires are on order. You will be notified when they are available.

In the meantime, use the utmost care when pulling your HY-5 over hilly country. Even though you have never had this problem, there is a proved danger. Avoid excessive braking. Watch for signs of bead melting near the brake drum. Sometime when you think you have normal running temperatures, use an oven thermometer to check the temperature of the wheel at the bead. 300 degrees Fahrenheit was given as the upper limit for our tests by a Firestone representative.

If you have reason to think the tires may be overheated, stay away from them. Get to an open area as soon as possible, away from people, and allow at least thirty minutes for cooling. During the first fifteen minutes after stopping, a tire may blow from heat build up. THIS IS AN ESPECIALLY DANGEROUS TIME. If a tire should explode it could cause very serious injury, or even be fatal if a person were in direct line of the explosion. STAY ALERT. BE CAREFUL.

After studying the information in this letter, if you should have further questions about your tires and wheels, please call Eli Bridge Company.

Very truly yours,

ELI BRIDGE COMPANY

Lee A. Sullivan, Jr.
Lee A. Sullivan, Jr.
President.

LAS,Jr/pc

AREA CODE 217 PHONE 245-7145

ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS

Scrambler
ELI POWER UNITS

ELI BRIDGE COMPANY
INCORPORATED
800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS, 62650

April 1, 1975

RE: WARNING about HY-5
16.5-19.5 TIRES AND WHEELS.

Dear HY-5 Owner/Operator:

On January 9th I wrote you about a serious problem that some owners of HY-5 BIG ELI Wheels have experienced with using the above mentioned size tires and wheels. As mentioned to you, the problem appears to be a matter of heat build-up in the tire -- resulting in tire failure.

In that same letter I mentioned that we had conducted extensive tests on this situation in an effort to find its cause and solution. On the basis of these tests, the Firestone Tire and Rubber Company recommends using 15-22.5 x 14 ply tires, with corresponding size wheels, to prevent the normal brake heat from going into the tires. These wheels provide about two inches of clearance over the brake drums and, during severe braking tests, this combination did NOT develop dangerous tire bead temperatures.

Many owners have not reported the problem I have discussed with you, and possibly this has not been a problem to you. However, since the present tires and wheels on your HY-5 BIG ELI Wheel could present you with the potentially dangerous situation outlined in my previous letter, we do most strongly recommend that you purchase and install the following on your HY-5 BIG ELI Wheel:

2 each Firestone Bias Ply, wide base tires for normal highway service - 15-22.5 (inflated to 75 psi, 60 mph maximum speed); mounted on Firestone 15-22.5 single duplex wheel with negative 2.50" offset, 10-hole, 11-1/4" bolt circle, Budd-type mounting, for inside alignment.

Cash Price, f.o.b. our factory @ $463.35 ea. - $926.70

As a special consideration to owners of HY-5 BIG ELI Wheels, we will make the above equipment available at a cost of $700.00, f.o.b. our factory, until June 1, 1975. The full price, quoted above, will then be effective on orders received and/or shipped after June 1, 1975.

We have the 15-22.5 tires and wheels in stock, available for prompt shipment following receipt of your firm order and shipping instructions. Shipments will be made C.O.D., or in keeping with such arrangements you have previously established with our accounting department.

The above mentioned equipment is all that is necessary to make this suggested change-over on your HY-5 BIG ELI Wheel. We recommend that you make this change before the beginning of your 1975 operating season. Once you have made this change-over, the "old style" tires and wheels should not be returned to regular service on your HY-5 BIG ELI Wheel.

Please keep in mind that the special price offer I have made you will not be continued beyond June 1, 1975.

Sincerely yours,

ELI BRIDGE COMPANY

Lee A. Sullivan, Jr.
President.

LAS,Jr/pc

HY-5

SERVICE BULLETIN

for

HY-5 BIG ELI Wheels

(Serial No. 1 - 45)

The hydraulic motor that is mounted in the tower of your HY-5 BIG ELI Wheel, and used for driving the Wheel, is a Gresen RJMS-2000 hydraulic motor. It is with regret that we inform you that we have been notified by the manufacturer that this particular motor has been discontinued from their line and will no longer be available.

Your present Gresen motor assembly may continue to give you good service for some time. But since we no longer have any Gresent hydraulic motors on hand, and as it is no longer possible for us to secure more, we felt that it was imperative that you be notified of this situation before you experience an actual need.

In an attempt to find a suitable replacement for the Gresen RJMS-2000 motor we have consulted with 51 different hydraulic motor manufacturers. It was finally concluded by our engineering department that no other hydraulic motor available can be used as a direct replacement for the Gresen motor.

It was therefore necessary to develop a completely new drive motor arrangement for the HY-5 BIG ELI Wheel. We believe we now have a drive that is a considerable improvement over the one previously used. This new drive arrangement uses the Tyrone M20400 hydraulic gear motor, and our experimentation shows that it has substantially more power than the Gresent motor provided.

This new motor arrangement is being used on all 1976 model HY-5 BIG ELI Wheels, and it was specifically designed to permit the conversion of older model Wheels. The new motor arrangement mounts next to the tower, as show by the enclosed photos, making it a more servicable installation. If you desire, or find it neccessary to make this conversion on your Wheel, we feel you will be pleased with the results.

It is recommended that this conversion be made here at the factory. However, recognizing that it may be inconvenient for you to bring your Wheel to the factory, the necessary equipment for conversion can be furnished in "kit" form, including instructions, so you can make the installation yourself.

Based on our current costs, price of the conversion kit (f.o.b. our factory) is $2,550. Or, if you bring your Wheel to the factory, we estimate the total cost of this conversion (including our labor, Illinois tax, etc.) would be $3,100. It is our intention to continue this pricing for a period of 90 days, after which time it will be subject to change.

You should not feel that it is necessary to replace your present Gresen motor as long as it continues to give you good service. But you do have this assurance that adequate replacement equipment is available to you.

BIG ELI Service Department

ELI BRIDGE COMPANY
800-820 Case Avenue
Jacksonville, Illinois 62650
(217) #245-7145

July 10, 1976.

ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS

AREA CODE 217 PHONE 245-7145

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ELI POWER UNITS

ELI BRIDGE COMPANY
INCORPORATED
600-620 CASE AVENUE
JACKSONVILLE, ILLINOIS. 62650

29 April 1977

RE: Loading Platform Pinch Cover.

Dear HY-5 BIG ELI Wheel Owner:

Though the HY-5 BIG ELI Wheel has been in use for a number of years, and literally thousands of people yearly have been loaded on and off this ferris wheel, we recently learned that in spite of the warning in the HY-5 Instruction Manual, an accident did occur in connection with the loading platform. Apparently a customer's toes were pinched by the back edge of the loading platform as it was being raised.

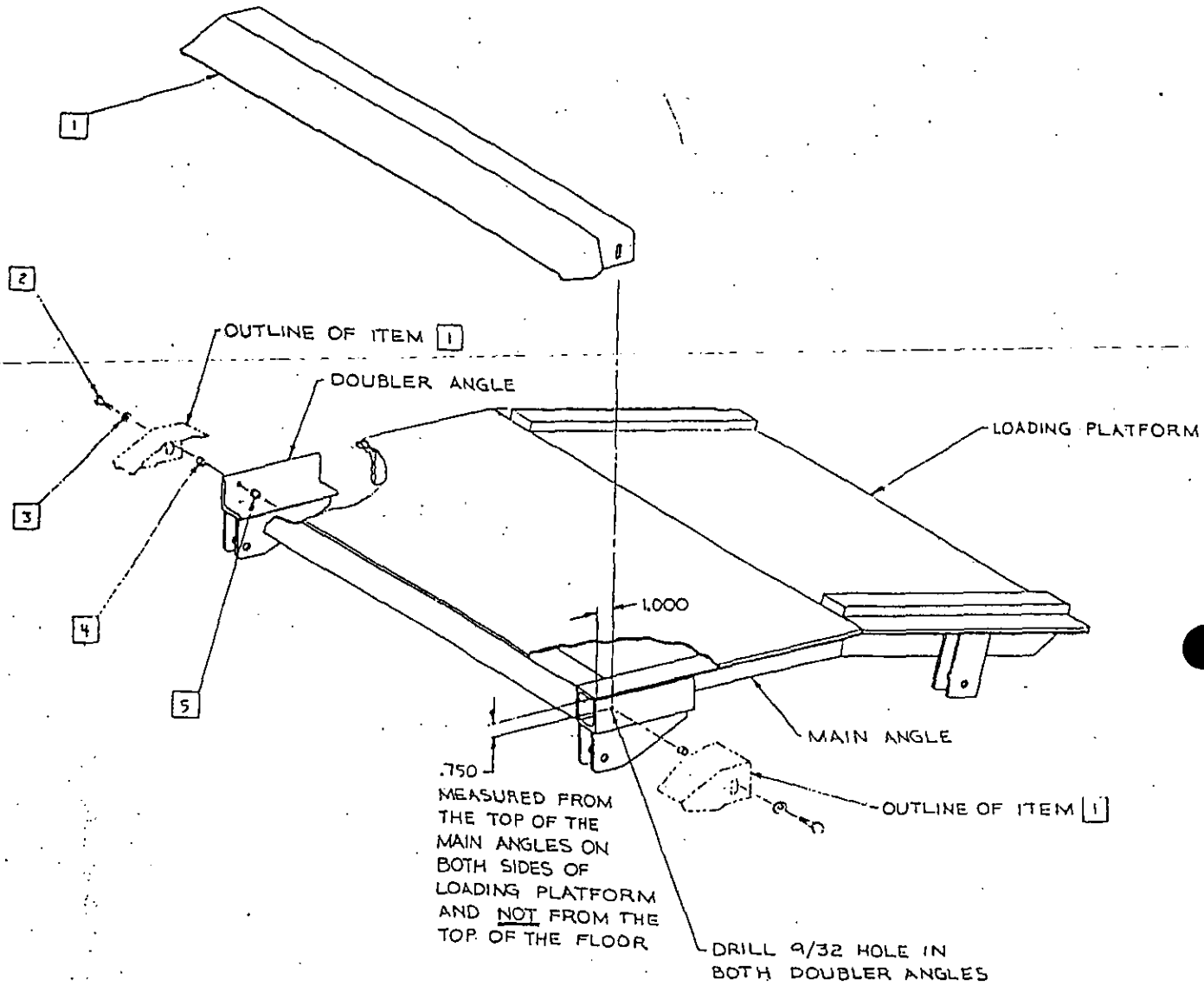
In an effort to prevent future incidents which can only occur by misuse, the accompanying cover is being furnished to you to install on your HY-5 BIG ELI Wheel. Please read and follow the instructions carefully.

Very truly yours,

ELI BRIDGE COMPANY

Robert L. Garner

RLG/pc
Encl: Pinch Cover Kit
w/instructions



ITEM	QUANTITY	DESCRIPTION
1	1	PINCH COVER
2	2	BOLT: 1/4-20 HEX HEAD – 1 1/4 INCHES LONG
3	2	WASHER: 1/4 WROUGHT
4	2	SPACER
5	2	NUT: 1/4-20 ESNA

INSTRUCTIONS

1. Drill a 9/32 hole in the doubler angle, one each side of the loading platform, one inch horizontally from the rear end of the platform, and 3/4 inch vertically from the top of the main angle (refer to drawing).

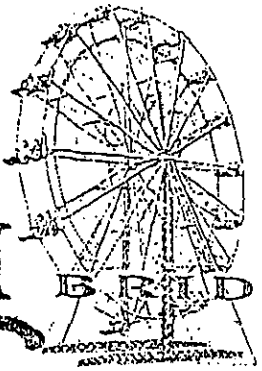
2. Set the pinch cover over the gap with the long side to the rear of the trailer.

3. Bolt the cover on so that the spacer is in the slot and the washer holds the cover on the spacer. The bolt should be tightened so the spacer is solid against the angle.

4. The cover should have some play in it to allow it to follow the contour of the ramp. If the cover is not free to move, check to see that the cover is not caught between the spacer and the angle, or the spacer and the washer. If this does not work, file out the slot until it is free.

5. To work properly all edges of the cover must be flush with the platform and ramp, otherwise the cover will become a trip hazard.

ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS



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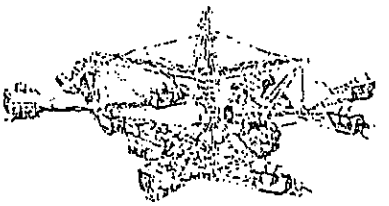

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ELI POWER UNITS

ELI BRIDGE COMPANY
INCORPORATED
800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS, 62650

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HY-5 BULLETIN

NUMBER 50

APPLIES TO SERIAL NUMBERS 1 THROUGH 53

DATE: 13 April 1979

SUBJECT: REPLACEMENT FOR HANDYMAN JACK

There have been a few instances where the handyman jack, used to apply tension to the idler pullback rods, has broken. When this happens, drive cable tension is lost, along with control of the Wheel.

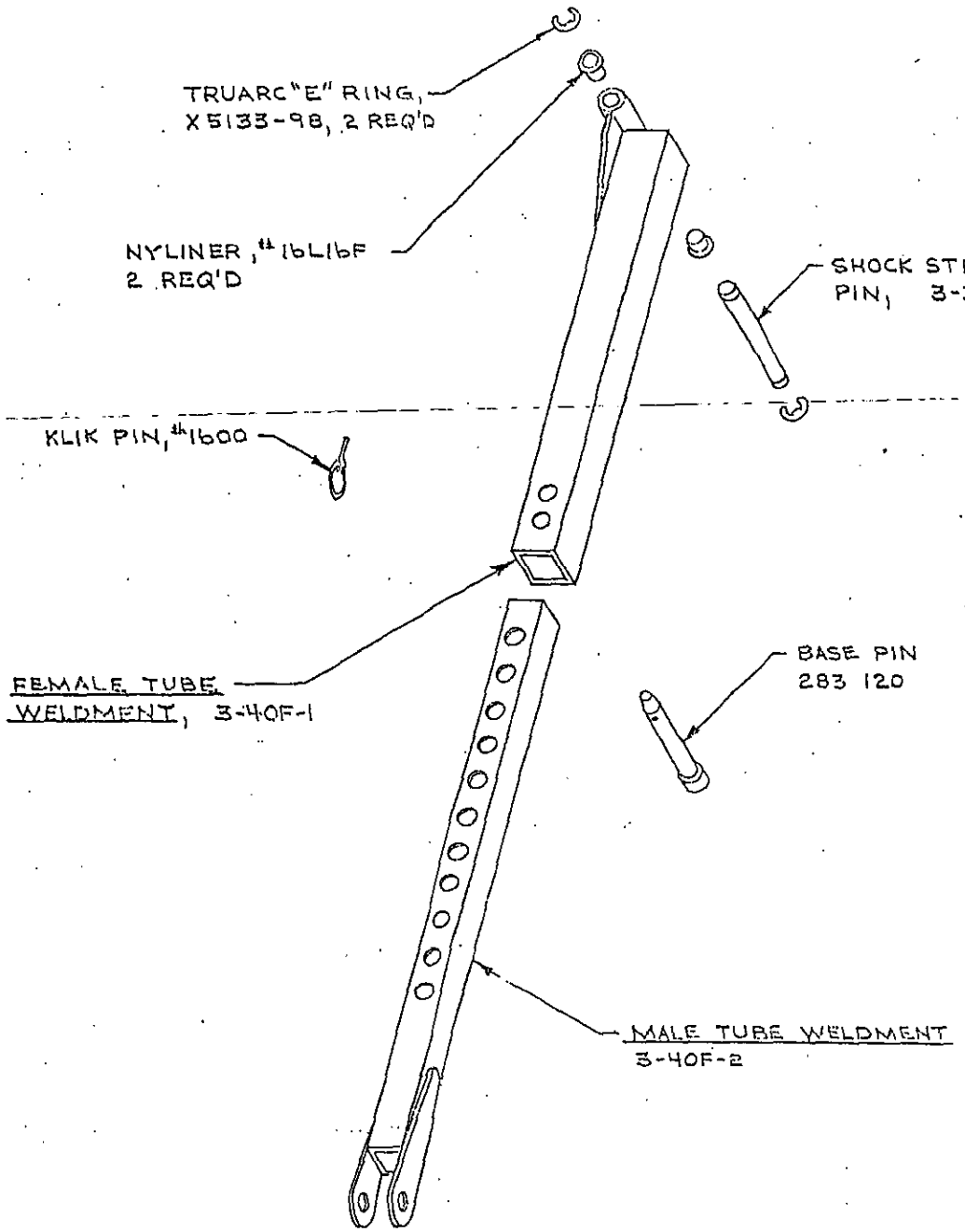
We are sending this replacement for the handyman jack at no charge. It is to be installed in the same location as the handyman jack was.

The series of holes will allow you to pin the two parts together so that very little tightening will have to be done on the idler pullback turnbuckles. Install the No. 283 120 base pin and lock it with a Klik-pin.

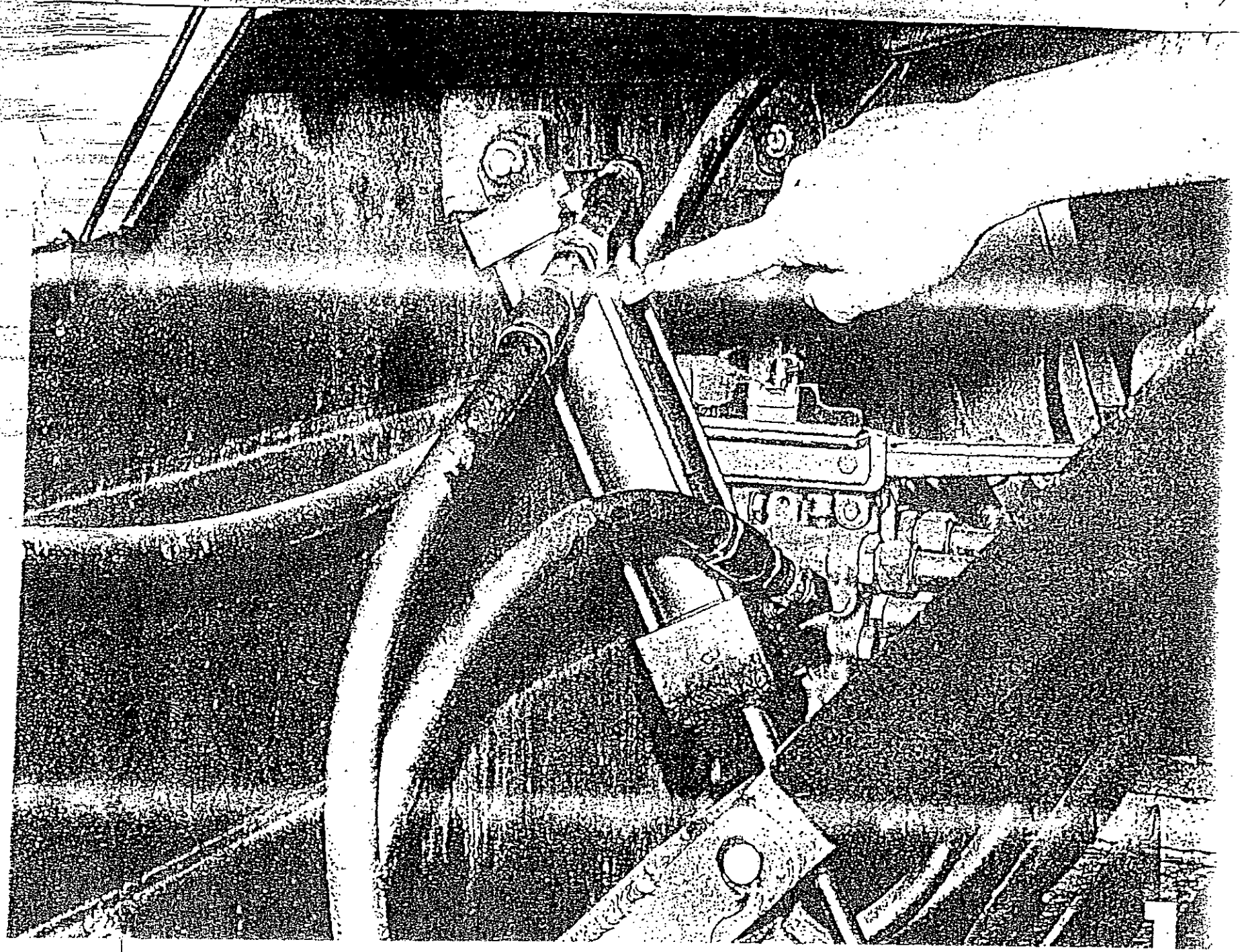
William C. Deem

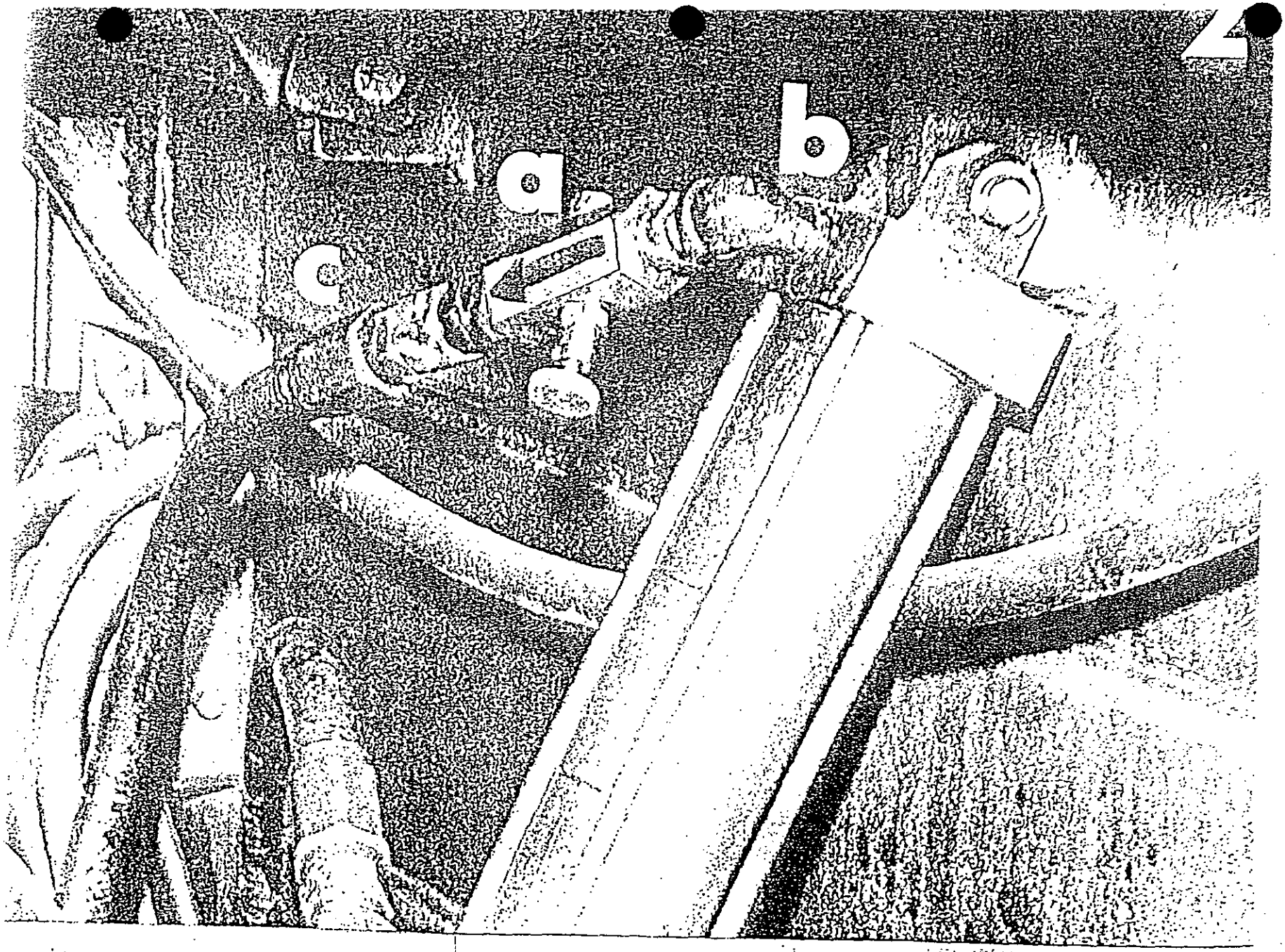
William C. Deem
Chief Engineer
ELI BRIDGE COMPANY

REVISIONS



DATE 30 MAY 79		SCALE 1=10	JOB HY-5	ORIG. EQUIP. 54 THRU —
DES EJS	DRN LADBLY	TITLE JACK ASSEMBLY		
CHK	APPR			
MATERIAL		NUMBER OF PARTS REQ'D 1	PART NUMBER 3-40F	




a
b
c
d

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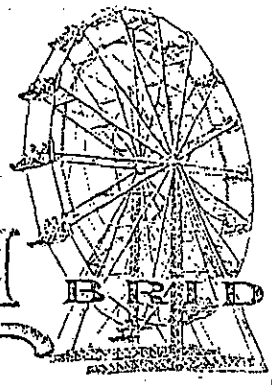
BIG ELI
FERRIS WHEELS



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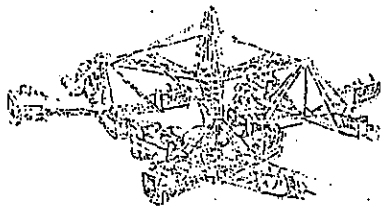

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ELI POWER UNITS

ELI BRIDGE COMPANY
INCORPORATED
800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS. 62650

May 30, 1979

RE: HY-5 BIG ELI WHEEL; Idler pullback and drive cable tightener.

Dear Friend:

The attached outlines a potential problem that has arisen regarding use of the handyman jack to apply tension to the idler pullback rods on the HY-5 BIG ELI Wheel.

An improved Pullback Adjustment Assembly has been developed to replace the handyman jack arrangement. It is very simple to install. We are prepared to send you this new style assembly WITHOUT CHARGE, f.o.b. our factory.

The new style Pullback Adjustment Assembly weighs approximately 35 pounds, and can be shipped by United Parcel Service to most locations. Please use the enclosed Order form and postage paid reply envelope to tell us where your shipment should be sent to reach you promptly.

YOUR handyman jack replacement is packaged and ready to be shipped. All we need is your shipping instructions.

Very truly yours,

ELI BRIDGE COMPANY

Robert L. Garner

RLG
Enclosures
Cert./RR

NOTICE: In our making, and your accepting, this "no charge" replacement offer, it is understood and "agreed" that you will, upon its receipt, immediately install the new style Pullback Adjustment Assembly in place of the handyman jack; with the handyman jack to be removed from future use of any kind, and junked.

This "no charge" replacement offer is for your IMMEDIATE acceptance. We reserve the right to terminate this offer, without notice, at any time following 30 days after the date of this letter.

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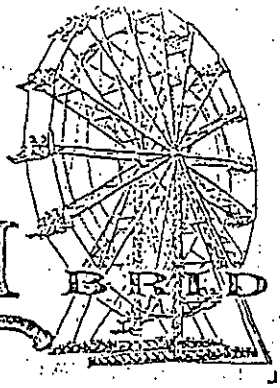
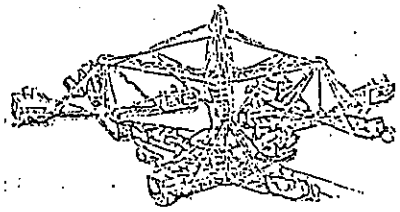
BIG ELI
FERRIS WHEELS





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800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS. 62650

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HY-5 BULLETIN

NUMBER 1

APPLIES TO SERIAL NUMBERS 1 THROUGH 49

DATE: May 28, 1980

SUBJECT: CONTROLLING THE LOWERING SPEED OF THE HY-5 LOADING PLATFORM

The basic HY-5 hydraulic circuit provides for the soft raising and lowering of the loading platform. However, we have often found the control valves out of adjustment so that the loading platform drops with a loud noise. The HY-5 Manual covers this adjustment, but apparently it is not clear enough, and when looking at the hydraulic equipment, with the loading platform on one end of the trailer and the controls on the other, it may not be obvious how the equipment functions unless you consult the Manual. To make it easier to understand, we have moved the control device right to the loading platform cylinder.

We are now fitting all new HY-5's with a flow control valve, which controls the flow only as the loading platform is lowered. Results have been quite satisfactory from the reports we have received, and we believe it should be installed on all older HY-5's.

Picture No. 1 shows the location of the flow control valve on the butt end of the cylinder under the loading platform. The valve is a Deltrol Pneu-Trol F25BK, with a maximum operating pressure of 2,000 pounds per square inch, and there is an arrow stamped on it which must be pointed in the same direction as the one at "a" in Picture No. 2. When installed in this way, oil can flow freely without restriction into the cylinder when the loading platform is raised, but when the cylinder retracts to lower the loading platform, the flow control restricts the flow of oil leaving the cylinder, and regulates the speed with which the loading platform is lowered. The speed of lowering is adjusted with the control knob on the side of valve "a". If you close it tightly in a clockwise direction the cylinder will not retract at all, and if you open it all the way counterclockwise it will restrict the oil hardly at all. Adjust the knob until the platform lowers without banging. It must be fast enough so that when the next seat swings by, the loading platform will be well out of the way. A jam nut under the control knob is provided to maintain the setting. Filtration of the hydraulic fluid is important to prevent foreign matter from adversely affecting the valve operation. The valve can be completely dismantled for cleaning without removing it from the line.

There have been different cylinders and hoses used in this location, and so we are not able to tell you exactly what additional fittings you will need at "b" and "c" to connect the flow control valve to the cylinder and to the hose. The street ell shown at "b" is not the proper fitting to use there, because a standard black iron pipe street ell does not have a sufficient margin of strength to resist HY-5 hydraulic operating pressures adequately.

If you cannot get the proper fittings locally to install the flow control valve, they can be obtained from Eli Bridge Company. Measure the outside diameter of the pipe threads on the end of the hose at "c", or, better yet, take the complete part number off the side of the hose fitting at "c". Be sure to tell us what and where you have measured, so we can be sure to send you the right fittings.

Eliminating the impact of the loading platform lowering will reduce the loading on the cylinder itself, and should extend the life of the cylinder.

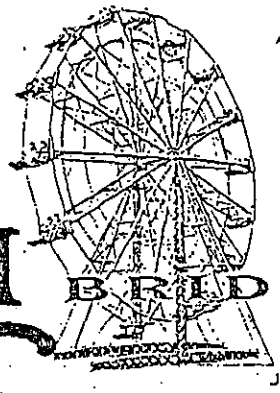
If you do not reduce the banging of the loading platform, the pins in all of the loading platform joints will wear, and as wear develops there will be less and less opportunity for the loading platform linkage to go over center into a self-locking position. If the loading platform linkage does not go over center, this could easily injure someone when he puts his weight on the loading platform. Therefore, if your HY-5 is not equipped with this flow control, you should install one.

Because of safety considerations, Eli Bridge Company considers this a mandatory change.

William C. Deem

William C. Deem
Chief Engineer
ELI BRIDGE COMPANY

ALL STEEL PORTABLE
BIG ELI
FERRIS WHEELS



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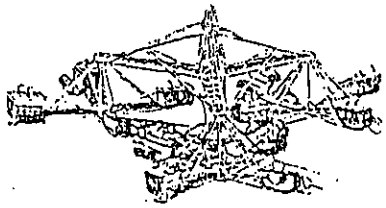

Scrambler
ELI POWER UNITS

ELI BRIDGE COMPANY
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800-820 CASE AVENUE
JACKSONVILLE, ILLINOIS, 62650

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HY-5 BULLETIN

NUMBER 2

APPLIES TO SERIAL NUMBERS 1 THROUGH 45

DATE: May 28, 1980

SUBJECT: LOADING PLATFORM OVER-CENTER LINKAGE

The operating linkage underneath the HY-5 loading platform was designed to hold the loading platform in a fixed position, without the necessity for pressure on the hydraulic cylinder which operates it. The cylinder moves the linkage from its stowed position to an over-center position. When this happens, the load of the loading platform pulls on the end of the cylinder rod so that no pressure is needed. By stepping on the loading platform foot control, the cylinder is extended, but having once been extended it will stay there until pressure is applied to the rod end of the cylinder to retract it. This is why it is not necessary to keep your foot on the foot control, after the cylinder is extended.

As wear develops in the pin connections it becomes more and more difficult to get the linkage over-center. If it does not go over-center, and if the seal on the piston of the cylinder is worn, a person stepping on the loading platform can cause the linkage to fold up, with the potential danger of the person slipping or falling off the loading platform.

Check the linkage as shown in the photograph by positioning a straight board or bar (b) on the lower link (a), and observing the position of the other end of the board at (c). If the linkage is over-center, there should be less space between the board and upper link at (c) than there is at (b). If the space at (c) is greater, then corrective action must be taken.

Originally, the pins at (d), (e), (f), and (g) were 3/8" diameter and turned on nylon bushings. The holes for the bushings were 7/16" in diameter.

Ream the pin holes at (d), (e), and (f) to 1/2" in diameter, and install 1/2" pins, cotter keyed on each end. The two ends of the cylinder must be left as is, or interchangeability with a replacement cylinder will be affected.

It is nearly impossible to ream out the pin connections at (g) because the holes are quite close to the wall behind, and so we recommend that these holes, which are located at the rear side of the loading platform, be left alone.

Going to the 1/2" diameter pins should tighten up the linkage, but if you should find that the linkage still does not go over-center, then we suggest you contact the factory for further instructions.

Because this is a safety-related matter, Eli Bridge Company considers that the inspection, and modification if the linkage does not go over center, are mandatory.

William C. Deem

William C. Deem
Chief Engineer
ELI BRIDGE COMPANY

g
c
f
a
e
b
d

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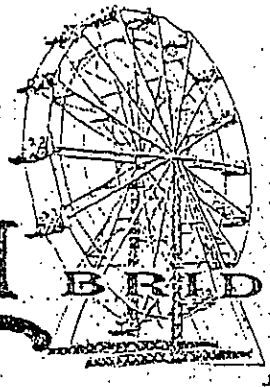

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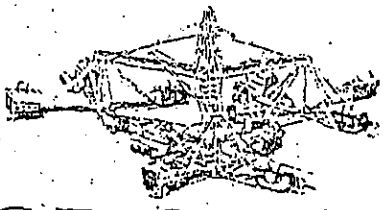

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HY-5 BULLETIN

NUMBER 3

APPLIES TO SERIAL NUMBERS 31 THROUGH 51

DATE: May 28, 1980

SUBJECT: REPLACEMENT OF RACINE HOLDING VALVE WITH REPUBLIC PUSH VALVE ON HY-5 TRIPLE EXTENSION CYLINDERS WHICH RAISE AND LOWER THE TOWERS

The Racine 25725-6-6-2 holding valve with pilot assist was used on HY-5 Serial Nos. 31 through 51. It was selected to provide a safety circuit to prevent the towers from dropping if a hose should fail with the towers part way up or part way down, even though we have not known this ever to happen.

Beginning with HY-5 Serial No. 52, all have been equipped with Republic 689B-3-D2 push valves, replacing the Racine valves. Subsequent service has shown the Republic pu valve to be superior to the Racine valve for this service.

Use of the Racine valve required pilot pressure from the hydraulic pump at all times to hold the valve open. If a hose should break, pressure would be lost and the valve would close, preventing further movement of the cylinders. This is the safety feature of the Racine valve. On lowering the towers, however, the back pressure of the oil flow going through the filter tended to raise the towers against the effort of the winch to lower them. This tendency turned out to be a definite nuisance, especially when using the electric motor to drive the hydraulic pump, rather than the gasoline engine.

The use of the Republic valves eliminates this problem.

When installed properly, oil flows unimpeded through the valve for raising the towers. Oil will not flow out of the cylinder at any time unless the palm button, shown in Picture No. 2, is pressed. No pilot pressure is required, so there is no back pressure for the winch to work against. After the towers break over center, you do not need the winch at all.

It is necessary to have at least two men to lower the towers, one on each side to

operate the palm buttons on the Republic valves. It is still necessary, of course, to operate the winch and cylinder valves as before.

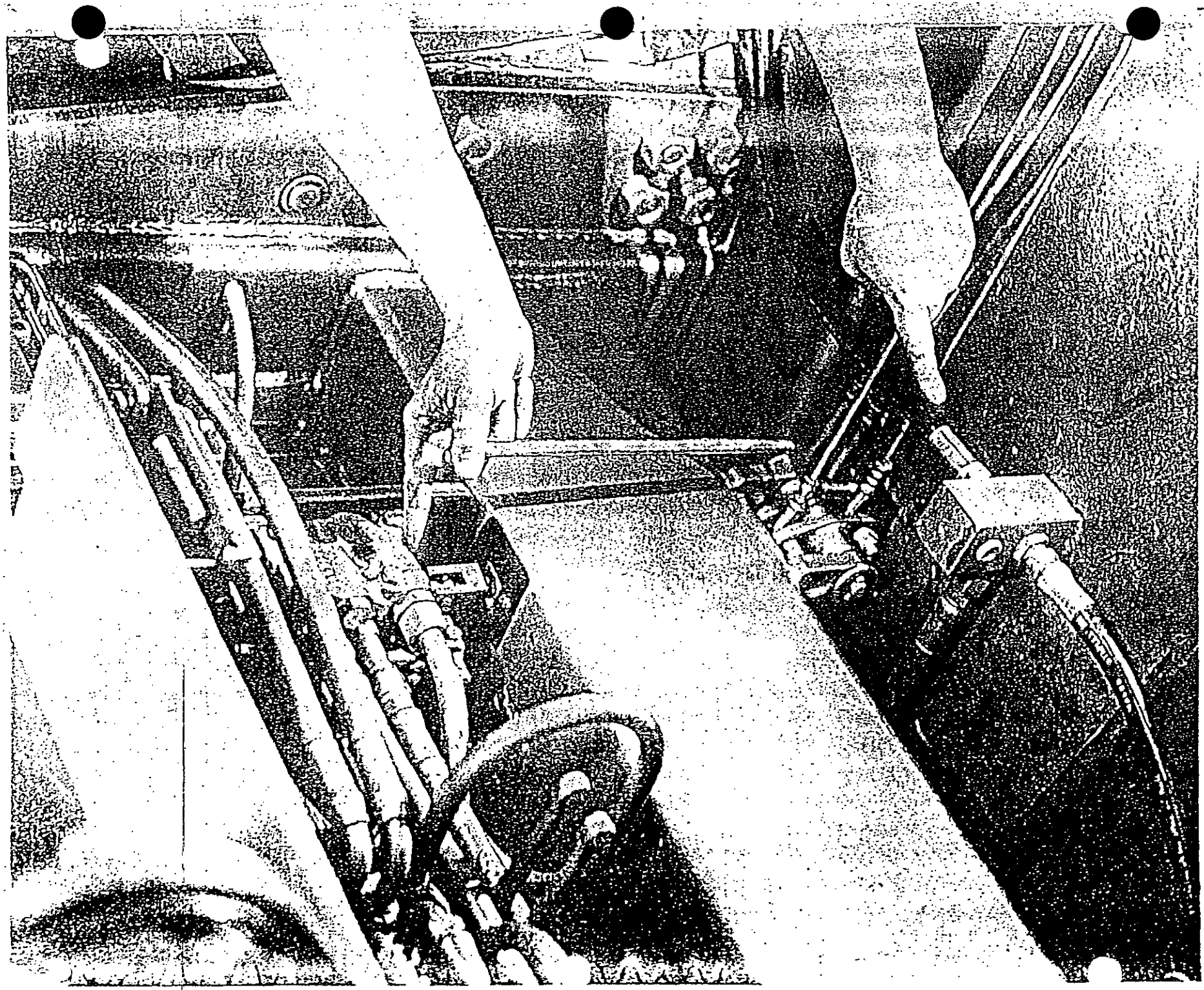
Besides replacing the Racine holding valve with pilot assist for the Republic push valve, shown in Picture No. 2, it is necessary to modify the plumbing to the manifold block on the floor of the trailer, and to replace the directional control valve higher up in the trailer. Both are shown in Picture No. 1.

A complete modification kit is available from Eli Bridge Company.

Because of safety considerations, Eli Bridge Company considers this a mandatory change.

William C. Deem

William C. Deem
Chief Engineer
ELI BRIDGE COMPANY



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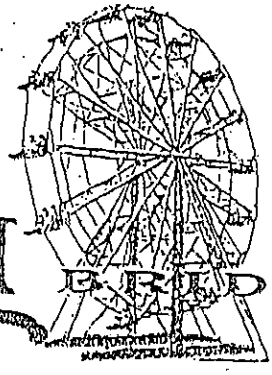

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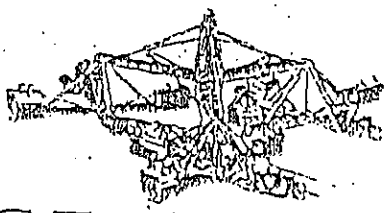

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HY-5 BULLETIN

NUMBER 4

APPLIES TO SERIAL NUMBERS ALL THROUGH _____

DATE: May 18, 1982

SUBJECT: HY-5 SWAY BRACE CABLES

When traveling on the highway, the spoke stack is braced with sway brace cables, each of which extend from the top of the spoke stack on one side diagonally down to t trailer frame on the other side. The "X" bracing keeps the stacked spokes from swayi from side to side. A number of times it has been reported to us that operators have attempted to raise the towers without removing the sway brace cables. This has cause the spokes at the top of the stack to be bent out of shape. Bates Brothers in Ohio suggested a modification to eliminate this problem. The sway brace cable attaches to a removable T-shaped bracket, called the sway brace end plate weldment, that slips through the top spoke. Their suggestion was to use the same kind of bracket on the bottom spoke. In this way the sway brace cables would be entirely contained within the spoke stack, so that even if the towers were raised there would be no possibility of damaging the spokes.

The sway brace cables would need to be shortened, and you would need two more of the No. 6-180B Sway Brace End Plate Weldments, which sell for $14.40 each. It is our suggestion that you install the end plate weldments on the top and bottom of the spok stack, and locate the turnbuckles on the bottom end plate weldments. Then connect th sway brace cables to the top end plate weldments, and cut off the other ends of the cables above the Nicopress sleeves which clamp the cables. Put a thimble over the ey in each turnbuckle, and pull the cable through the eye and over the thimble. Be sure the turnbuckle is opened up so that later you can tighten the cable. Pull the cable tight and clamp it with two cable clamps. The U-bolt of the cable clamp should be ov the short end of the cable, and not on the part of the cable which carries the load. Finally, cut off the surplus cable.

We do not consider this to be a mandatory change, but we do recommend it. Makin this change will certainly be cheaper than repairing damaged spokes.

William C. Doom

William C. Doom, Chief Engineer
ELI BRIDGE COMPANY

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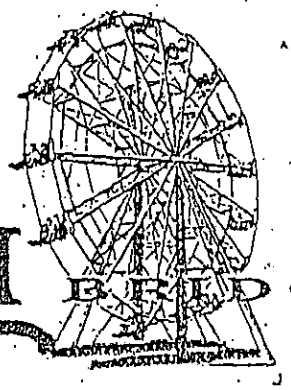

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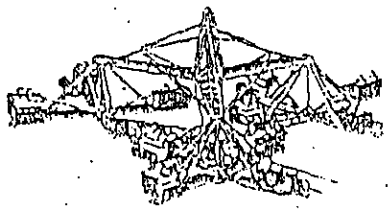

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HY-5 BULLETIN

NUMBER 5

APPLIES TO SERIAL NUMBERS ALL THROUGH _____

DATE: May 18, 1982

SUBJECT: HY-5 STAR LIGHT PANEL HINGES

The HY-5 star light panels are self-locating as the Wheel is opened up or folded down. The ends next to the main axle are hinged to the top spoke cross bars. As the light panels are re-positioned, these hinges do not turn very much. If they are not lubricated and are allowed to rust, the hinge pins can "freeze" solid in the hinges. Then when the Wheel is opened or closed the hinges cannot turn. This then puts a heavy bending load on the hinge plates. It has come to our attention that on one occasion, at least, this has caused the hinge to break, allowing the light panel to fall. To our knowledge no one was hurt when this happened, but it is a potentially dangerous situatic

We believe that substituting stainless steel hinges and hinge pins will eliminate this "freezing" of the hinge pin in the hinge, and prevent the light panel from getting loose. However, we still recommend regular lubrication of each hinge.

Accordingly, we are making available at below our cost sets of stainless steel hinges and hinge pins, bolts, and self-locking nuts. One set with enough parts to modify one HY-5 consists of 20 hinges with the necessary bolts and nuts, and is priced at $32.00 FOB Jacksonville.

We believe that this problem would not exist if the original hinges were kept well lubricated. This was covered in the lubrication section of the HY-5 Manual. However, since there has been at least one instance where the hinge broke, allowing a light panel to fall, we feel that this is a mandatory modification.

William C. Doom

William C. Doom
Chief Engineer
ELI BRIDGE COMPANY

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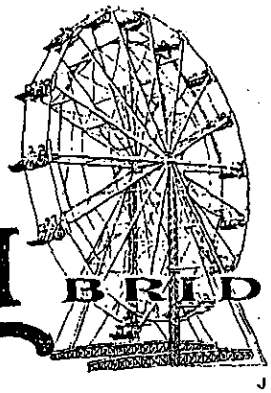

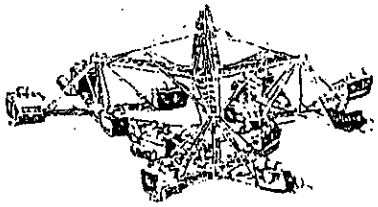

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BIG ELI

Bulletin No. 950508-1

Applies to All Big Eli® HY-5 Wheels

Date: May 8, 1995
Subject: Bolt Wear in HY-5 Spoke Stack Tenon Chain

The axle end of the spoke stack on all HY-5 Wheels is held together with spoke connection plates, spoke tenons, and .500" (1/2") diameter bolts. During normal setup, take-down, and transportation over the road, the bolts will wear. Experience has shown that the bolts wear the most where the two spoke connection plates bear against the bolt. The more a Wheel is set up, taken down, and transported over the road, the more bolt wear will occur.

INSPECTION:

Inspecting for wear can be done quite easily with the Wheel folded for transport as shown in Figure 1. Inspecting the bolts can be accomplished without removing the bolts which would cause the spoke stack to fall. All of the bolts should be inspected one at a time by looking at the bolt where the spoke connection plates bear against it. This can be done by loosening the nut on each bolt which attaches the spoke connection plates and the spoke tenon.

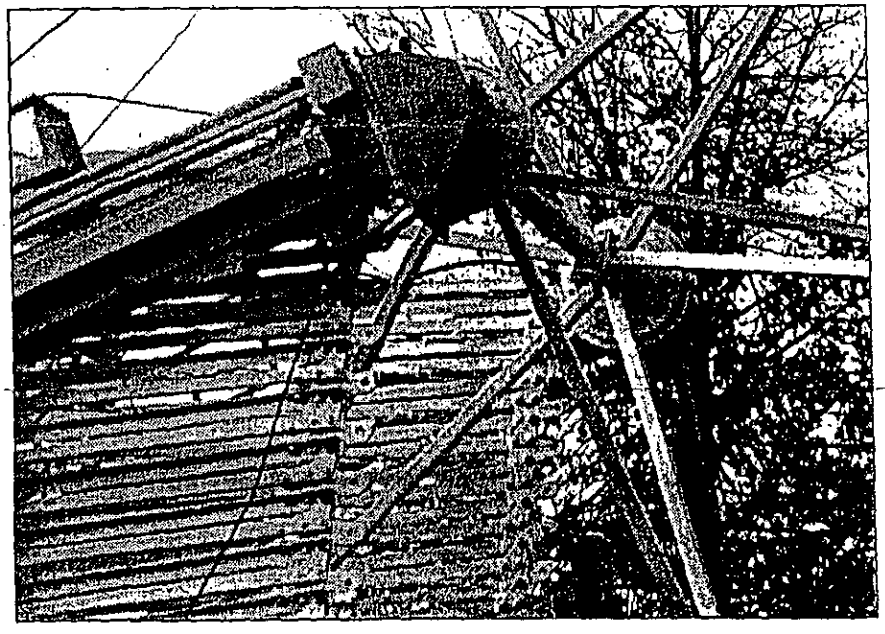


Figure 1

PHONES: 800-274-0211 • 217-245-7146 • FAX 217-479-0103

Engineering Bulletin # 950508-1
Date: May 8, 1995
ubject: Bolt Wear in HY-5 Spoke Stack Tenon Chain

CAUTION: DO NOT TAKE THE NUT COMPLETELY OFF THE BOLT.

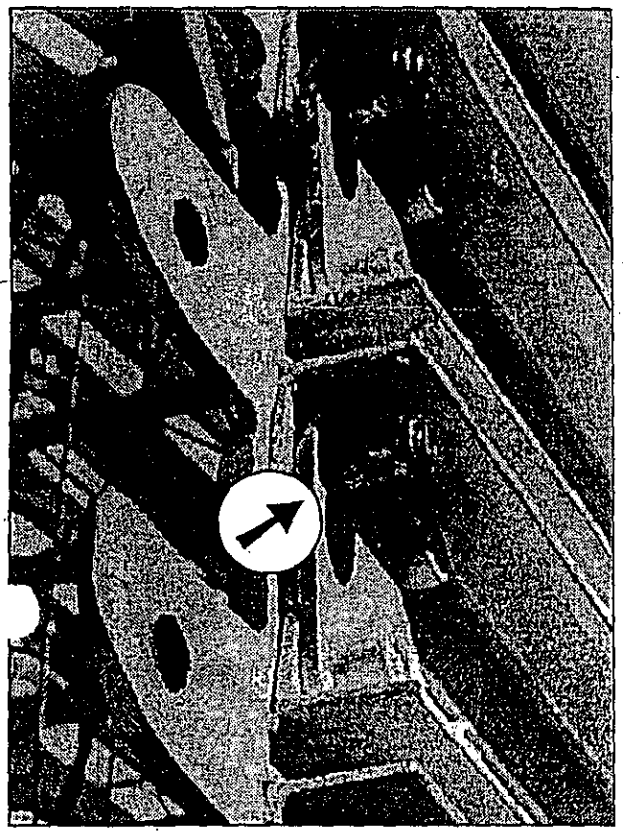


Figure 2

With the nut loosened, move the washer away from the spoke connection plate enough so that the bolt, indicated in Figure 2, can be seen where the inside spoke connection plate bears against it. A worn bolt will have a smaller diameter where the spoke connection plate makes contact with it. The original equipment bolt is .500" (1/2") in diameter. If you can see that any part of the bolt is worn by as much as .0625" (1/16") as shown in Figure 3, the bolt must be replaced.

Be sure to retighten the nut at each spoke tenon connection before loosening the nut on the next one to be inspected.

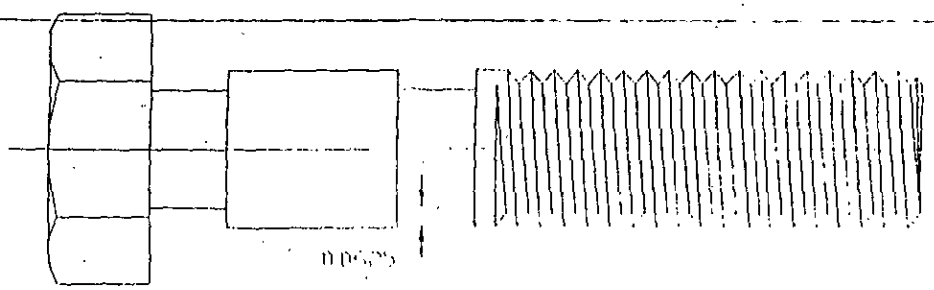
However, do not tighten the nut so much that the joint will not be able to pivot. This means the nut will be free to turn on the bolt unless double nutted as shown in Figure 2, or unless self-locking nut is used.

If the bolt holes in the spoke connection plates or the spoke tenon have elongated from .0625" (1/16") to .125" (1/8") to a total hole length of between .5625" (9/16") and .625" (5/8"), then the spoke connection plates and the spoke tenon should be aligned as closely as possible and then reamed to a diameter of .625" (5/8"). Then install a .625" (5/8") bolt.

If the bolt holes in the spoke connection plates or the spoke tenon have elongated from .125" (1/8") to .250" (1/4") to a total hole length of between .625" (5/8") and .750" (3/4"), then the spoke connection plates and the spoke tenon should be aligned as closely as possible and then reamed out to a .750" (3/4") diameter. Then install a .750" (3/4") bolt.

If the bolt holes in the spoke connection plates or the spoke tenon have become elongated by more than .250" (1/4"), then you must consult with the Engineering Department at Eli Bridge Company to correct the wear problem.

Figure 3



Engineering Bulletin # 950508-1
Date: May 8, 1995
Subject: Bolt Wear in HY-5 Spoke Stack Tenon Chain

HOW TO REPLACE THE BOLTS:

Replacing worn bolts must be done one bolt at a time because each bolt is holding the weight of the spokes hanging below it.

CAUTION: THE SPOKE STACK MUST BE SUPPORTED SO THAT IT DOES NOT FALL WHEN A BOLT IS REMOVED FOR REPLACEMENT.

This can be done by pulling up from the top spoke or by blocking up under the bottom of the spoke stack. Be sure that whatever is used is capable of supporting a minimum of 2400 lbs. on the side of the spoke stack where the bolt is to be removed.

Once the weight of the spoke stack is supported, the nut can be taken off the bolt and the bolt can be removed and replaced with a new bolt, using washers on both sides. The replacement bolts should be lubricated to help in assembly and to reduce bolt wear. Once the new bolt has been installed and the nut tightened, the procedure can be repeated on the next bolt that needs replacement. Continue this procedure until all bolts have been checked, and replaced where needed.

Replacement bolts and self-locking nuts with nylon inserts are available at most hardware stores or through Eli Bridge Company.

Replacement bolts to use:
.500-13 x 2.500 Grade 5 hex head bolt (standard)
.625-11 x 2.500 Grade 5 hex head bolt (oversize)
.750-10 x 2.500 Grade 5 hex head bolt (oversize)

INSPECTION SCHEDULE:

The mandatory inspection must be performed every twelve months. If you find that you are developing enough wear to require bolt replacement in twelve months time, then the time between inspections must be reduced.

ELI BRIDGE COMPANY

Lee A. Sullivan
Chairman of the Board