



INSTALLATION, OPERATION &
MAINTENANCE INSTRUCTIONS
FOR ALL
GENERATION 3
TRAILER LIFTS
AFTER SN# 4402

Stinger by Axe 02-2018
Generation 3 Trailer Storage Lift

Read Before Using

Always have help when lifting the parts and never lift any items if you have any back problems, as some items are quite heavy.

Never attempt to raise a car on the lift until you have checked to insure that all parts are properly installed and working correctly and you have read the instructions.

Always level the lift and check for leaks.

Never stand under or store a vehicle under the lift without the locks engaged.

Never allow children under the age of eighteen to operate, or be in the area under the lift.

Disconnect the power source when unit is not in use.

DO NOT operate lift if any part has been damaged.

DO NOT run power unit if fluid level is low, as damage will occur.

Use a 10W weight ISO 32 non-foaming hydraulic fluid.

Any customer modification to unit will void warranty.

The Serial # for your lift is located on the outside wall in the center of the ramp that is without the cylinder.

Please refer to the Serial # when ordering replacement parts or options for your lift.

This lift is designed for vehicle storage and is not to be used as a Service Lift. The floor must be smooth, level and in good condition with additional supports to the floor and walls. Check with your trailer manufacturer for proper support.

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Package Sizes:

TR Trailer Auto Lift: 24" X 40" X 156"	1300 lbs
24" X 40" X 168"	1400 lbs
24" X 40" X 192"	1500 lbs
24" x 40" X 216"	1600 lbs



Typical Stinger Packaged Lift

TOOLS REQUIRED

Open & boxed end wrenches: 7/16", 1/2", 11/16", 3/4"
Adjustable 8"/12" Wrench
1/8" & 5/32" Hex Key
1/2" Pinch Bar

Ratchet with 3/4" socket
Vise Grips or lock type pliers
Diagonal Cutting Pliers

Packaging Removal

1. Remove plastic wrap and packaging paper, then with pliers remove the banding straps. Before removing banding stay clear as parts may have moved while in transit.
2. After banding is cut remove the boxes, crossbars and columns located on top of the ramps.

For shipping purposes only each Stinger Lift uses a crate plate bolted on each end of the lift. A 3/4" open end wrench and a 3/4" socket with ratchet is required for crate plate removal. Before removing crate plates, place a 2"x 4" board on edge under each end of the ramps for support after crate plates are removed.



Crate Plate

Before removing crate plates locate two 2" x 4" boards (not provided by Stinger) and place them on edge under the ramps, one at each end. This will support the ramps after crate plates have been removed. Using a 3/4" open end wrench and a 3/4" socket with ratchet remove the top two bolts and nuts from crate plate, next remove top ramp and unload all packaging located inside. Next, with the 2" x 4" boards on edge under each end of the lift, remove bottom bolts and remove crate plate from lift.

Lift is now ready for assembly.

ASSEMBLING THE LIFT

1. Stand the four columns in place. You have two Left and two Right Columns. The tie down bracket welded on the bottom of the foot determines left and right. The tie down bracket on each foot will always face to the outside of the ramps and aligned with the tie down bracket welded to the crossbar. Space columns ramp length apart



Column direction.



2. Installing Cross Bars

Determine first which side of the lift the lock release handle will be located. The lock release handle positioning is where the operator will be standing to operate the lift. Once determined examine cross bar and locate plastic tie along with a handle inserted into the cross bar. (see lock retainer handle picture below) This is the hole that will be used for the lock release handle. So, be sure it faces to the outside of the lift and on the side you want your handle. Both lock retainer handles with plastic tie must be placed on the same side. Proper install should be with Stinger decal facing out and pulleys to the inside of the lift. Lower cross bar into post and near the last lock block, with a set a diagonal cutters remove the plastic tie and then the lock retainer handle, lock levers inside cross bars will spring outward. Slowly lower lock lever on the closest lock block to the floor (36" lock block) Remove lock retainer handle and store away.

Cross Bar



Lock Release Handle

The lock release handle positioning is where the operator will be standing to operate the lift. This will also be the location where the 12 volt hydraulic pump with remote cord, and bulkhead fitting on the cylinder ramp will be located.



Lock Retainer Handle With Plastic Tie

Top Cap

Locate the four universal fitting top caps and place in the top of each column. Secure each top cap to column with one 1/2" x 3/4" bolt, and one 1/2" lock washer provided



Attaching Ramps To Cross Bars

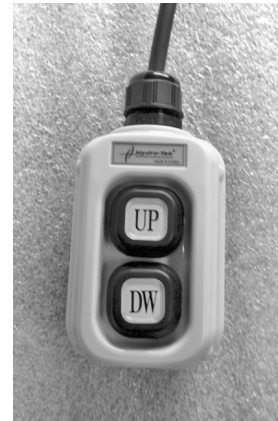
With the cross bars inserted down in the columns and lock levers resting on the lower lock blocks it is time to attach the ramps to the crossbars. **Before mounting cylinder ramp locate flow control valve on side of cylinder ramp. Flow Control Valve, lock release handle, and 12 volt remote cord assembly must all be located on the same side and end.**



Flow Control Valve



Lock Handle



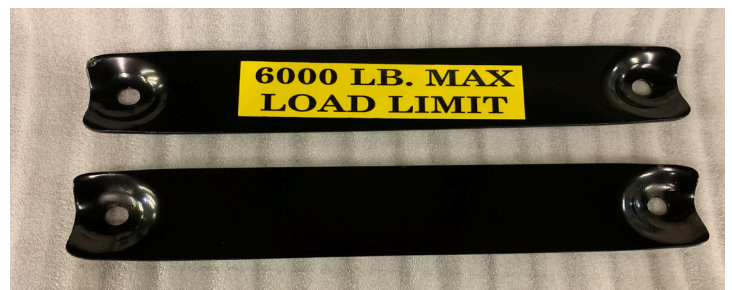
12 V Pump with Remote Cord

Space columns out ramp length apart. Place ramp on top of cross bar with ramp lip resting on top of cross bar. Align mounting holes on ramp with mounting holes in cross bar. Before securing the drive on ramp brackets and bolt on stops with mounting bolts first locate linkage rod inside cross bar. See image on next page. Insert the 1/2 x 3.50" bolts either on top or below the linkage rod inside the crossbar. The two mounting holes nearest the lock release handle will require the 1/2 x 3.50" bolts to be placed below the linkage, the two other mounting holes will require the bolts to be placed above the linkage.

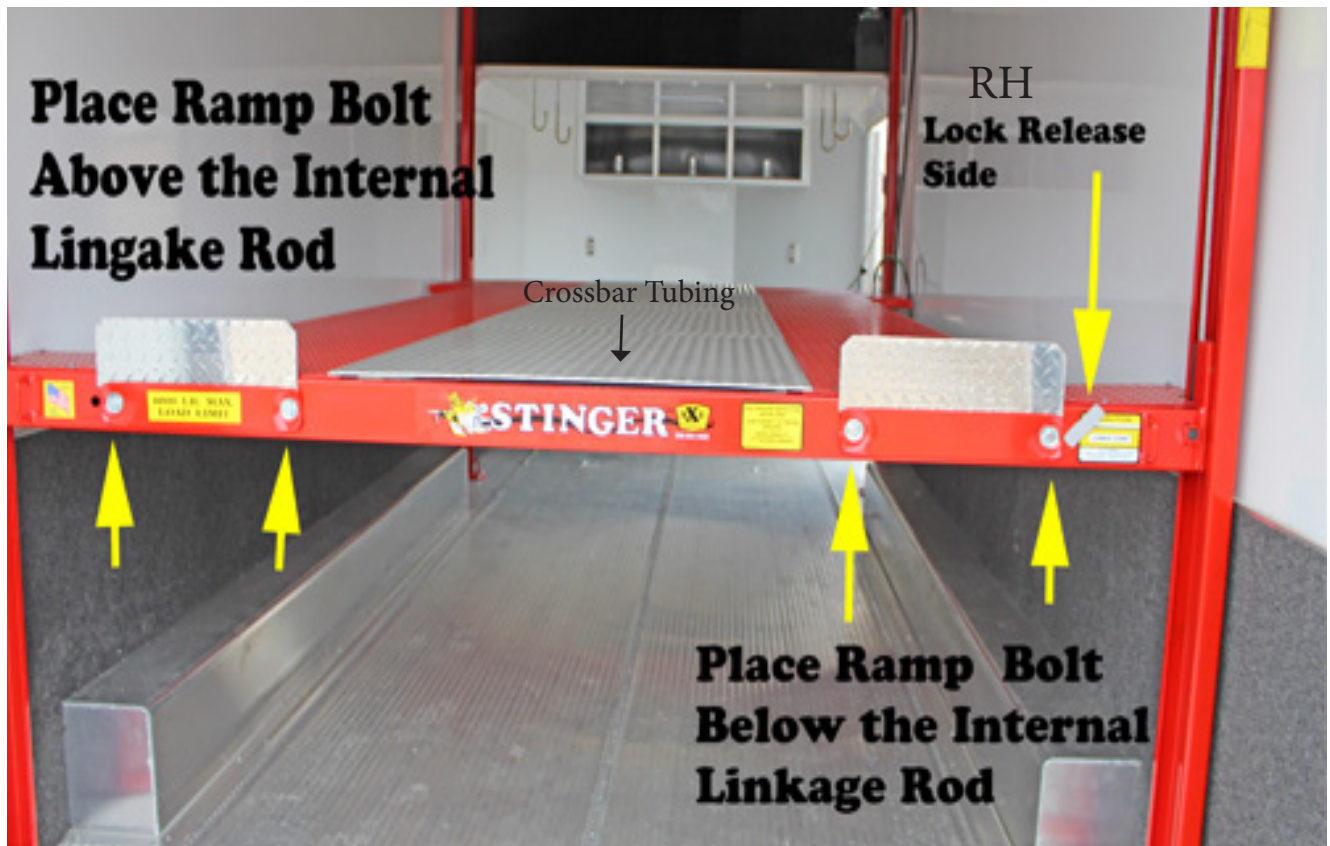
Once aligned secure the 2 aluminum bolt on tire stops, and drive on ramp brackets to the cross bars and ramps and with the four 1/2" x 3.50" hex bolts with washers and nuts attach bolt through the stops, cross bar and ramps. Tighten. Go to other end (drive on end) of lift and Align mounting holes on ramp with mount-



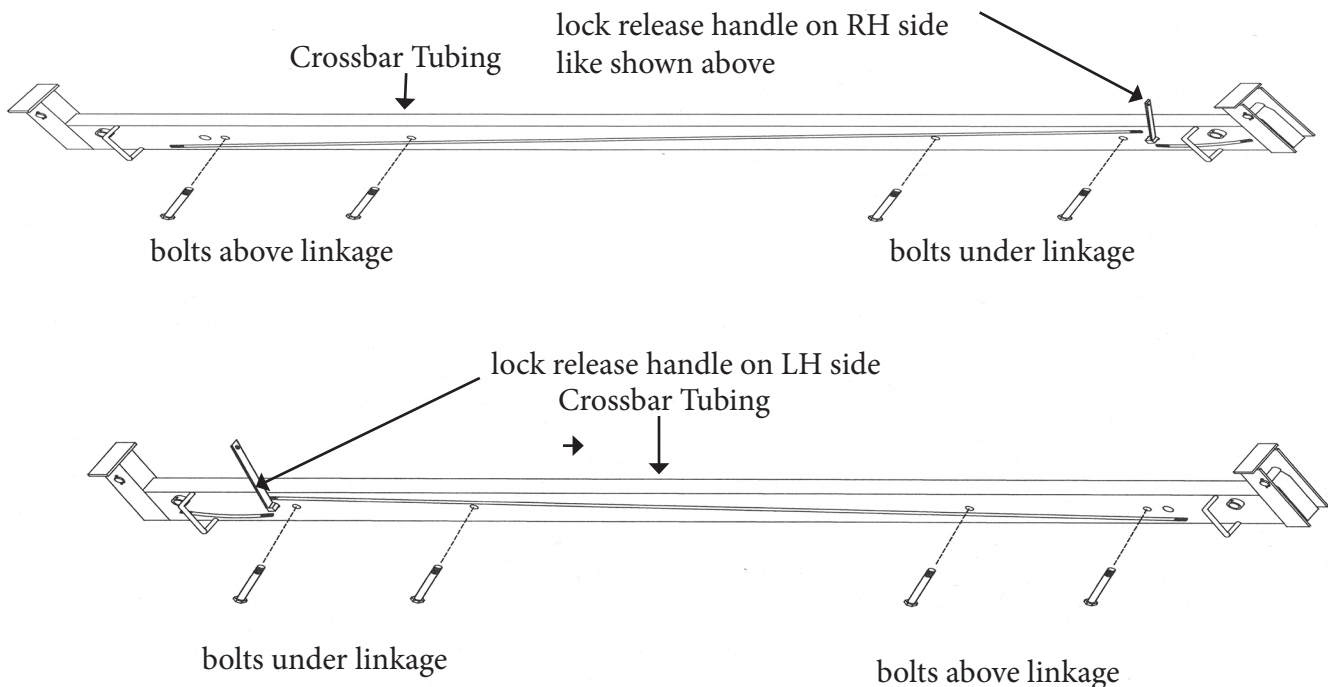
Bolt on tire Stops



Drive on Ramp Brackets

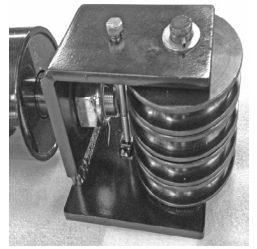


The lock release linkage is located inside the crossbar tube. Before attaching the 1/2" ramp bolts through the crossbar tubing be mindful of where you are placing the bolts. Before placing ramp bolts through crossbar tubing locate the lock release handle side (LH or RH) and with the illustrations below place ramp bolts through the cross bar holes and ramp holes as illustrated. Secure on the back side with the 1/2 x 13 nut provided. Failing to place bolts in correct position to the linkage inside the cross bar tube will cause the linkage to rub on bolts creating a stiff and sloppy lock release mechanism



Caution: After ramps have been attached and before installing cables under lift, make certain that all four lock levers are resting on lock blocks. In addition before going under the lift to install cables, place safety stands under end of the ramps for added safety.

1. You will find four (4) cables and each is tagged a different length. Lay all cables out on the floor next to each other. Cable positions are determined by the distance from the rod end of the cylinder where the pulley cluster is located. Cable A is the longest distance from the post to the rod end of the cylinder , B is second longest, cable C is 3rd longest and cable D being the shortest. See diagram labeled cable routing



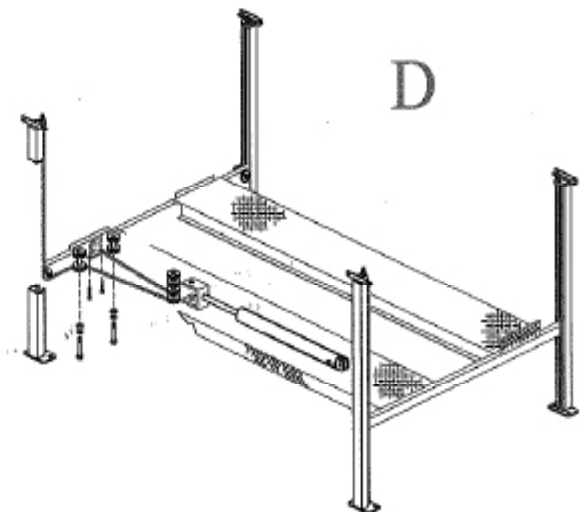
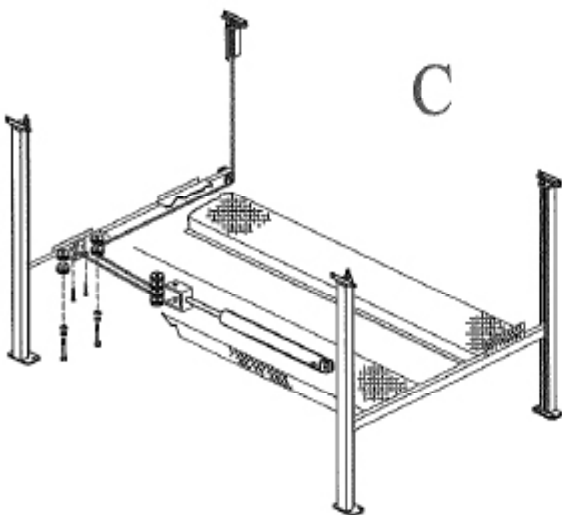
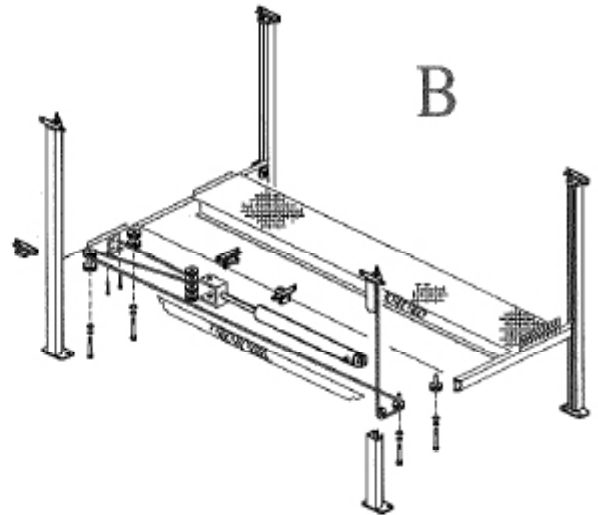
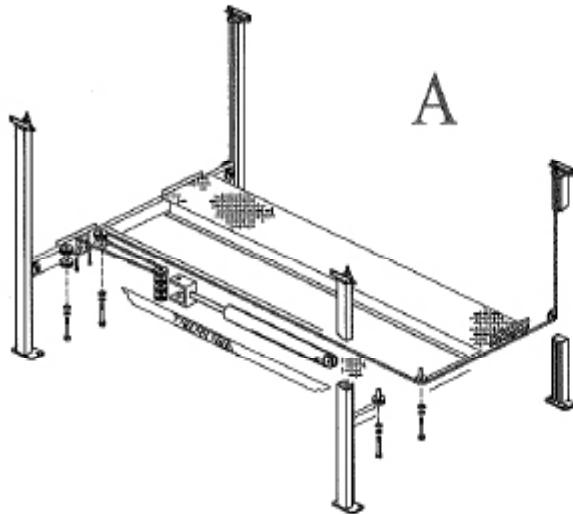
Pulley Cluster Rod End

Once you have determined cable positioning place the threaded end of cable from bottom up through hole in each top cap. Attach using (1) 3/4" flat washer and (2) 3/4" nuts on cable end. (Double nut all cables) Each cable will fit one column only. Start with one inch of cable threaded end protruding from nut. Begin routing each cable around the pulleys.



Top Cap

Cable Routing



Cable Routing

With stud end now attached to top cap begin routing cable around cross bar pulleys

Before installing cables around cross bar pulleys you will need to loosen set screw and remove pulley lock collar Fig 1a.

Secondly, loosen set screw on pulley pin lock collar Fig 2a.

With lock collar removed and pulley pin lock collar loose, lightly tap pulley pin backwards Fig 3a., remove pulley and shims from pin. Place cable in position and reinstall pulley, shims, pulley pin, and lock collar. Tighten lock collars.



1a. Pulley Lock Collar



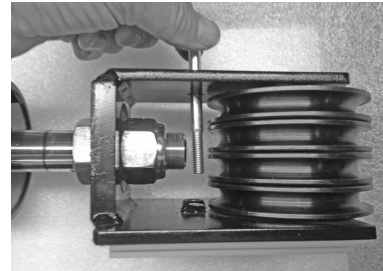
2a. Pulley Pin Lock Collar



3a. Cable Routing

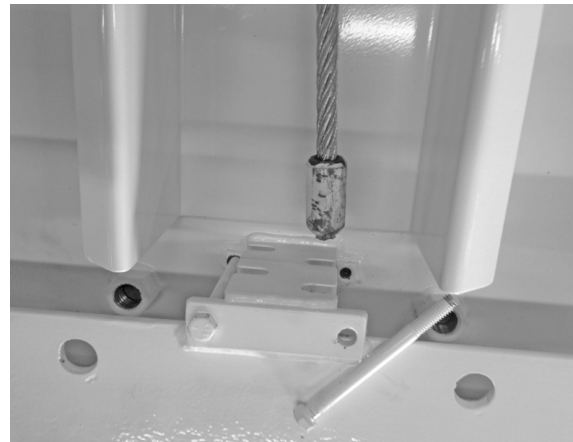
Continue to route cable through opening in side of each ramp. Route cable around pulley as shown in cable routing diagram.

Before routing cables around pulleys in the pulley cluster you will need to extend cylinder rod to its full length, and remove the single 5/16" x 3" cable guide bolt. After cables have been routed around pulleys on the pulley cluster re-attach the 5/16" x 3" pulley bolt and tighten.



Cable Guide Bolt

When installing the longer cables A & B cable routing will first be placed around single pulleys under ramp, then routed down the ramp, outside the center stiffener, and around double set of pulleys at the opposite end, then on to the pulley cluster and finally terminating at the block. See Cable Routing Illustration.

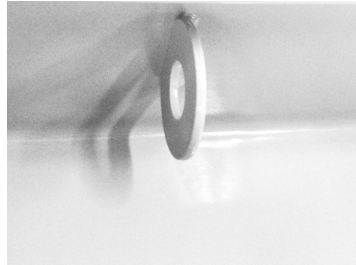
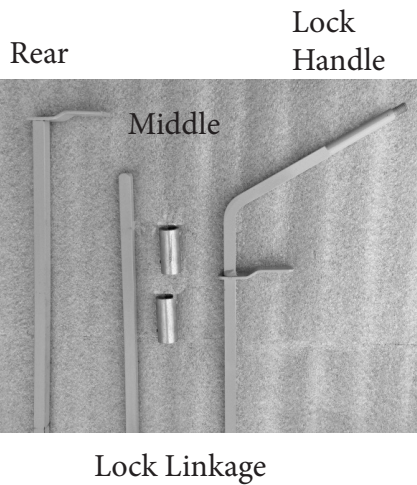


Termination Block



Finished Look

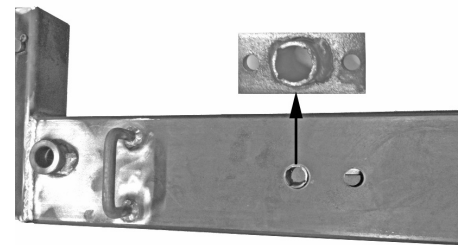
LOCK RELEASE HANDLE LINKAGE



Linkage Guide



1. Insert lock release handle through square bellcrank located inside crossbar and then through linkage guide under the cylinder ramp.



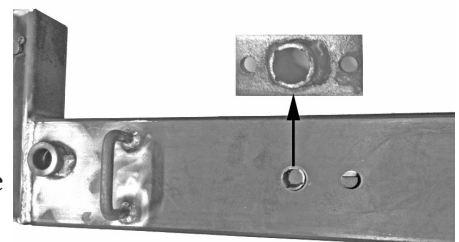
Square Bellcrank



2. Locate the middle lock rod and insert under ramp and through the ramp guides, attach middle lock rod to lock release handle linkage using the connectors provided.



3. Insert 48" rear linkage rod through the bellcrank on rear crossbar and through ramp guides. Attach rear linkage to middle lock rod using the connector provided.



Square Bellcrank

12 Volt Electric Motor Unit Install Instructions

Prior to mounting power unit determine if unit will be positioned vertically, or horizontally.

If mounted vertical insert breather cap with dipstick attached in top of fluid reservoir and solid plug in the bottom, if mounted horizontal place cap with dipstick in bottom of reservoir and solid plug in the top



Pump Installation

Remove pump and remote cord from pump box.

12 Volt Pumps can draw up to 200 DC Amps

110 Volt Pump can draw up to 16 AC Amps

Mount motor in preferred location. **Reminder:**

Electric Motor remote control cord must be in reach of the lock release handle.

Attach red cord wire and positive battery cable from battery to Solenoid Terminal marked Bat +

Attach black wire from remote cord to Solenoid Spade Terminal labeled "Cord Black"

Attach white wire from remote cord to Coil wire labeled "Coil White"

Attach Negative - Terminal of battery to the stud labeled Bat - on electric motor.

(For more wiring info see drawing in rear of manual)

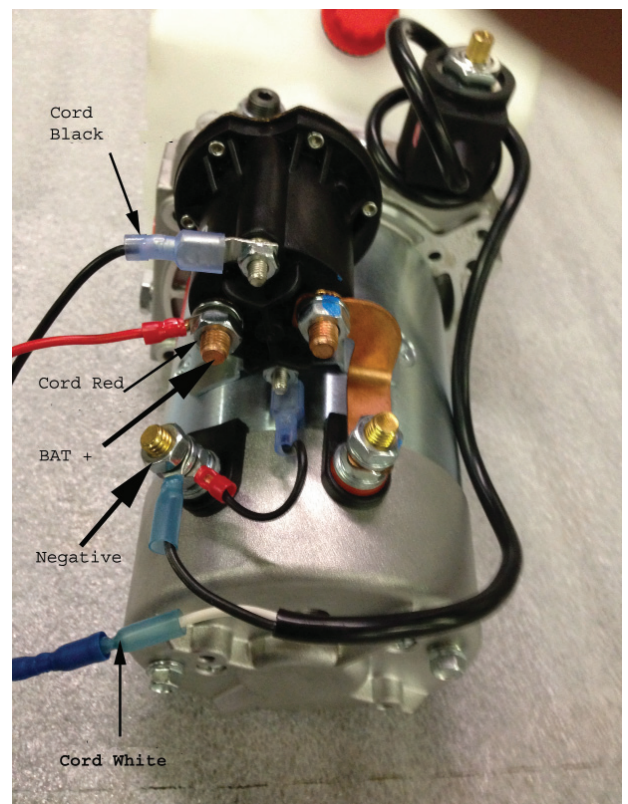
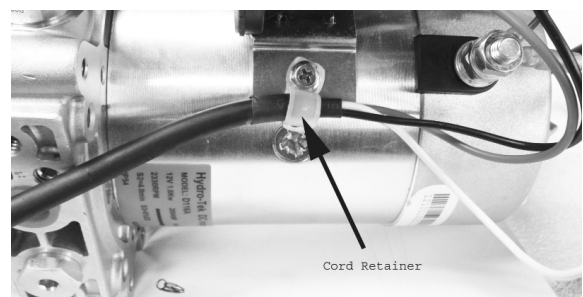


Fig 1b. 12 Volt Wiring Diagram

STOP!! Before continuing make sure remote control cord is secured to the motor as shown in fig 2b. "Power Cord." To secure cord to motor first remove the Phillips head screw that attaches the solenoid to motor. Replace this Phillips head screw with the 5 mm hex head bolt and remote cord retainer supplied by Stinger. Secure cord to motor as shown. When finished the cord should be tight and not move when pulled on.



FLOW CONTROL VALVE

To lift the ramps this system uses a fixed power up speed, and to lower the lift it uses gravity down variable speed. The speed of the lift on the down motion is determined by the adjustment of the flow control valve located on the outside of the cylinder ramp. See Flow Control Valve Illustration Below.

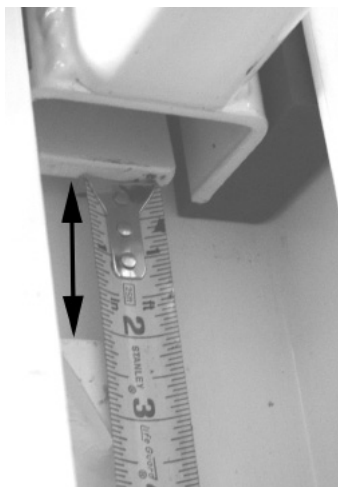
Before you operate the lift, turn the flow control valve adjustment screw clockwise until it is fully seated, then turn the flow control valve counter-clockwise $\frac{1}{4}$ turn. This will give you a starting point for determining the speed that the lift moves on the downward motion. To increase the down speed turn the flow control valve adjustment screw counter-clockwise. To slow down the speed turn the flow control valve adjustment screw clockwise.

Note: When you are making your initial downward speed adjustments inside the trailer with no vehicle in place the downward speed may seem slow, however, the speed will change after adding the vehicle. After placing vehicle on lift adjust flow control valve to desired downward speed.



Flow Control Valve

Lock Adjusting



Lock release linkage should be adjusted so that all 4 lock levers are adjusted the same height above each lock block. After the lift has been supplied with power and is resting on the first set of lock blocks, raise the lift until the lock lever closest to the lock release handle is about 1-2" above the lock block inside the column. Next, go to each corner and adjust each lock lever to the same height above each lock block. Adjustments are made by turning the $\frac{3}{4}$ " nut on the cable end located on each top cap. If locks are properly adjusted you should hear one sound when lift is raising and locks are retracting. DO NOT operate the lift if all four locks DO NOT spring out against the column.

ANCHOR LIFT TO TRAILER

1. Lower the lift to the lowest position. Make sure this is where the lift is to be located and leave lowered while installing the anchor bolts.
2. Drill through the hole located in each foot at the base of each column. The trailer must have additional floor supports under these points.
3. Fasten with no less than grade 8 U.S.A. made ½" bolts and lock nuts. (Not Included.)
4. Raise the lift to the highest position making sure all locks engaged.



Floor Mounting Location

5. At the top of each column there is a top cap with mounting holes, align and fasten lift to walls using grade 8 U.S.A. made bolts.
7. After anchoring, operate lift up and down several times to make sure there are no obstructions.
8. Now you can drive your vehicle onto the lift. Push the up button on your power unit remote control and raise the vehicle.



MAINTENANCE BEFORE EACH USE

Check all fasteners before use. **IMPORTANT!**

Check cables for frays or kinks and make sure they are on pulleys correctly.

Check hydraulic system for leaks and fluid level in reservoir.

Check that all locks are adjusted so that when you engage the single lock release handle each lock is clear of the lock blocks located on each post.

Check pulleys and bearings for cracks or wear.

Clean all dirt or foreign material from inside of columns and coat with W-D 40 as needed.

Important!

If any part is damaged or broken, it needs to be replaced before use.

Safety Lock Operation

When lowering vehicle, simply raise lift up about 1” to clear locks inside post. Open all four locks by holding lock release handle down firmly until its tab is located inside the “LOWER ZONE” on the decal (see illustration below) and slowly press the down button on the hand held remote. Lift will begin to lower, hold handle down firmly inside lower zone keeping all locks open until the last lock block has been passed, handle can then be released. You can stop the lift at any safety lock block by stopping between the blocks and releasing handle and lowering lift on lock blocks.

LOCKS CLOSED



LOCKS OPEN READY TO LOWER



LOWER ZONE

Rules of the Road

To reduce or eliminate the lift from jumping up and down on your lock blocks, secure the cross bars down to each foot of each post before transporting. (Straps not included.) See image labeled “Tie Down Points”

Before transporting a vehicle on the lift keep just a little tension on the cables so they are snug around all the pulleys. By doing this you minimize the chances of a cable falling out of the groove on pulleys located on the cross bars and under the ramp.

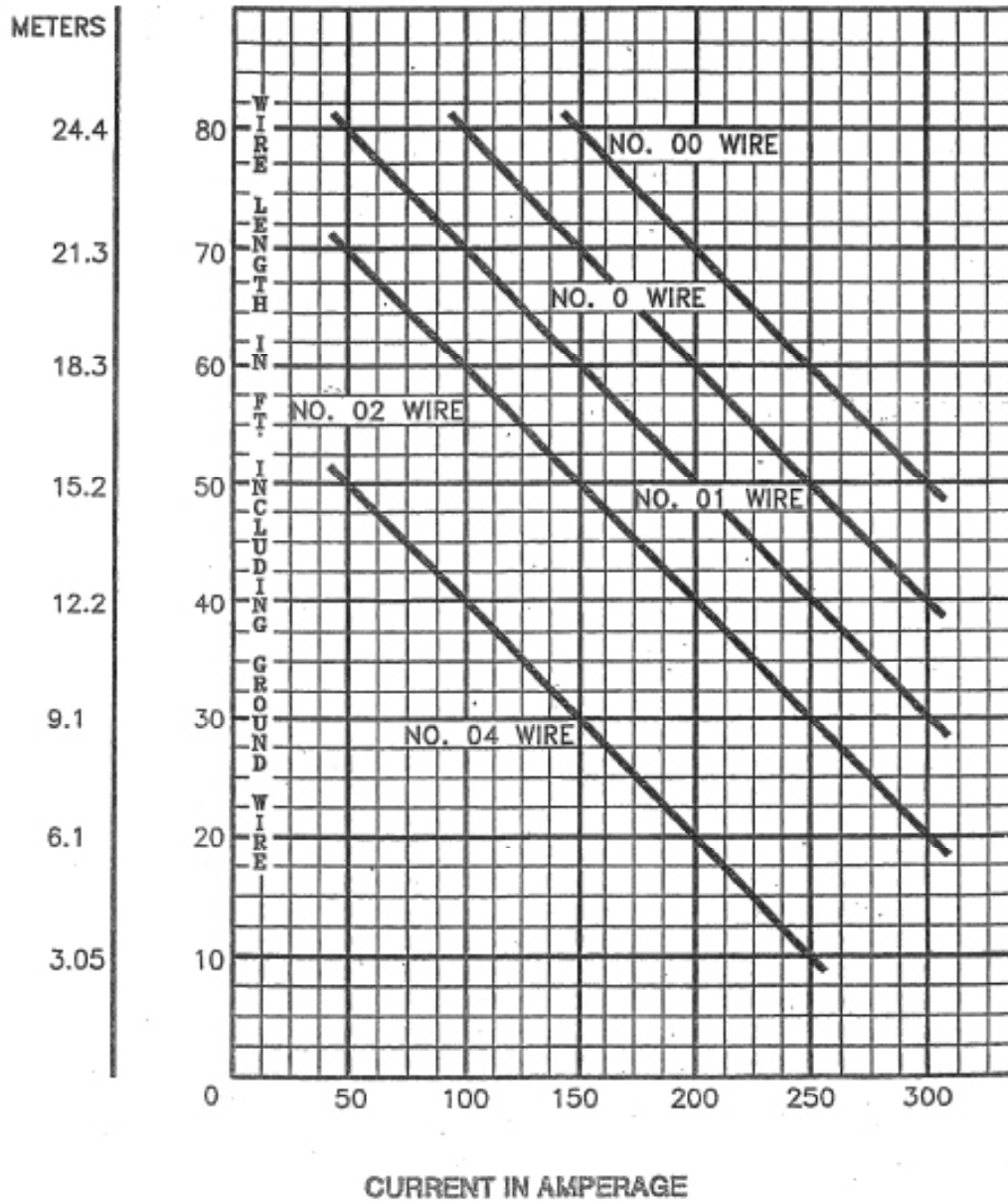


Pulley Cables



D.C. UNIT RECOMMENDED

ELECTRIC CONDUCTOR SIZE



WARRANTY

Stinger by Axe Residential and Trailer Standard Built Lifts are warranted for 5 years on structure and one year on mechanical components to the original purchaser and to be free of defects in material and workmanship.

Custom Built Residential and Trailer Lifts including Chassis Trailer Lifts have a limited warranty excluding the standard warranty on standard built lifts. The custom lifts, because of the nature as to which they will be used, will have no structural warranty and component parts are covered for a period of 1 year.

Stinger by Axe shall repair or replace at their option for this period those parts returned to the factory with freight prepaid which prove upon inspection to be defective.

This warranty does not cover damage caused by operator misuse, neglect, abuse, shipping damage, or lack of required maintenance.

In no event shall Stinger by Axe be liable for loss of time, manufacturing cost, labor, materials, or loss of profit either directly or indirectly as the result of operational failure of products of its manufacture nor be liable for special, consequential, or incidental damages for the breach or delay in performance of the warranty.

Stinger by Axe reserves the right to make design changes or add improvements to its product line without incurring any obligation to make such changes on product sold previously.

No reimbursements will be given for repairs ordered without the expressed, written consent of Stinger by Axe.

Stinger by Axe assumes no burden for damages or losses after shipment is turned over to a commercial carrier. All shipments should be carefully examined upon arrival. If any damages are found, contact the delivering carrier immediately.

Any customer modification to equipment will void the warranty.

Warranty adjustments within the above stated policies are based on the model and serial number of the equipment. This data must be furnished with all warranty claims. The serial number for your lift is located on the outside wall of the blank (no cylinder) ramp.



THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

WARRANTY IS NOT VALID UNLESS WARRANTY CARD IS COMPLETED AND RETURNED TO STINGER BY AXE UPON ARRIVAL OF PRODUCTS.

G3 TRAILER LIFT

NO	PART #	DESC.	QTY
1	ST39156	CYLINDER RAMP (LENGTH WILL VARY)	1
2	ST39014	BLANK RAMP (LENGTH WILL VARY)	1
3	ST39280	PULLEY CLUSTER W.A.	1
4	ST39219	CROSS BAR ASSY (WIDTH WILL VARY)	2
5			
6	ST39523	TOP CAP W.A.	4
7			
8	ST39529	LEFT COLUMN W.A.	2
9	ST39530	RIGHT COLUMN W.A.	2
10	ST39252	PULLEY PIN	4
11	ST39553	PULLEY COVER RIGHT	2
12	ST39554	PULLEY COVER LEFT	2
13			
14	REF ONLY	MIDDLE LOCK ROD (LENGTH WILL VARY)	1
15			
16	ST59053	48" REAR LOCK ROD W.A.	1
17	ST59055	LOCK ROD HANDLE W.A.	1
18	ST59061	38" ALUMINUM DRIVE-ON RAMPS	2
19	ST59066	TIRE STOP	2
20	ST59070	DRIVE ON RAMP BRACKETS	2
21	ST59071	TUBE CONNECTOR	2
22	ST59076	PULLEY SPACER-LONG 3/4"x1 3/4"	2
23	ST63037	COMPLETE PULLEY ASSY. 4"	6
24	ST63039	COMPLETE PULLEY ASSY. 3"	4
25	PR63017	CYLINDER BREATHER	1
26	PR63022	CYLINDER PIN	1
27	PR63023	HAIR PIN CLIP	2
28	PR65006	3/8" NPT STEEL FLOW CONTROL	1
29	PR65007	HYDRAULIC ADAPTOR	1
30	PR65008	12 VOLT POWER UNIT	1
31	PR65010	90 DEGREE PUMP FITTING (COMES WITH POWER UNIT)	1
32			
33	PR65108	90 DEGREE BULKHEAD FITTING 7-2016	1
34	PR65113	48" HYDRAULIC HOSE ASSY. (MALE TO FEMALE)	1
35	PR65024	REMOTE CONTROL CABLE	1
36			
37	PR65039	3"x46" HYDRAULIC CYLINDER	1

COUNCIL GROVE KANSAS AX39500G3 3-2017				JW
				B
NO	PART #	DESC.	QTY	
38	PR65053	168" HYDRAULIC HOSE (FEMALE TO FEMALE)	1	
39	PR66006	3/4" SPLIT LOCK WASHER	4	
40	PR66016	1"-14 JAM NUT ZINC COATED	3	
41	PR66017	3/4"-10X 3 3/4" HEXT BOLT	4	
42				
43	PR66097	5/16" NCX3 3/4" HEX BOLT	2	
44				
45				
46	PR10-0123	1/2"-13 WHIZ NUT	8	
47	PR10-0127	1/2" FLAT WASHER ZINC COATED	8	
48	PR10-0128	1/2" LOCK WASHER	4	
49	PR10-0134	1/2"-13 X 3 1/2" HEX BOLT	8	
50				
51	PR10-0185	1/4"-20 X3/8" SET SCREW	4	
52	PR10-0191	3/4" -10 HEX NUT	4	
53	PR10-0192	3/4" FLAT WASHER	9	
54				
55	PR10-0243	3/4" MACHINED BUSHING	18	
56	PR10-0269	1/2"-13 X3/4" HEX BOLT	4	
57	PR10-0301	3/4" LOCK COLLAR ZINC COATED	4	
58	PR10-0302	3/4" LOCK COLLAR	4	
59				
60				
61	PR30-0115	BLACK NYLON BALL	1	
62				
63				
64				
65	ST59102	DRIP PAN ASSY	2	
66	PR10-0238	#10 SELF DRILL SCREW	8	
67				
68	REF ONLY	3/8" STEEL CABLE	1	
69	REF ONLY	3/8" STEEL CABLE	1	
70	REF ONLY	3/8" STEEL CABLE	1	
71	REF ONLY	3/8" STEEL CABLE	1	
72				

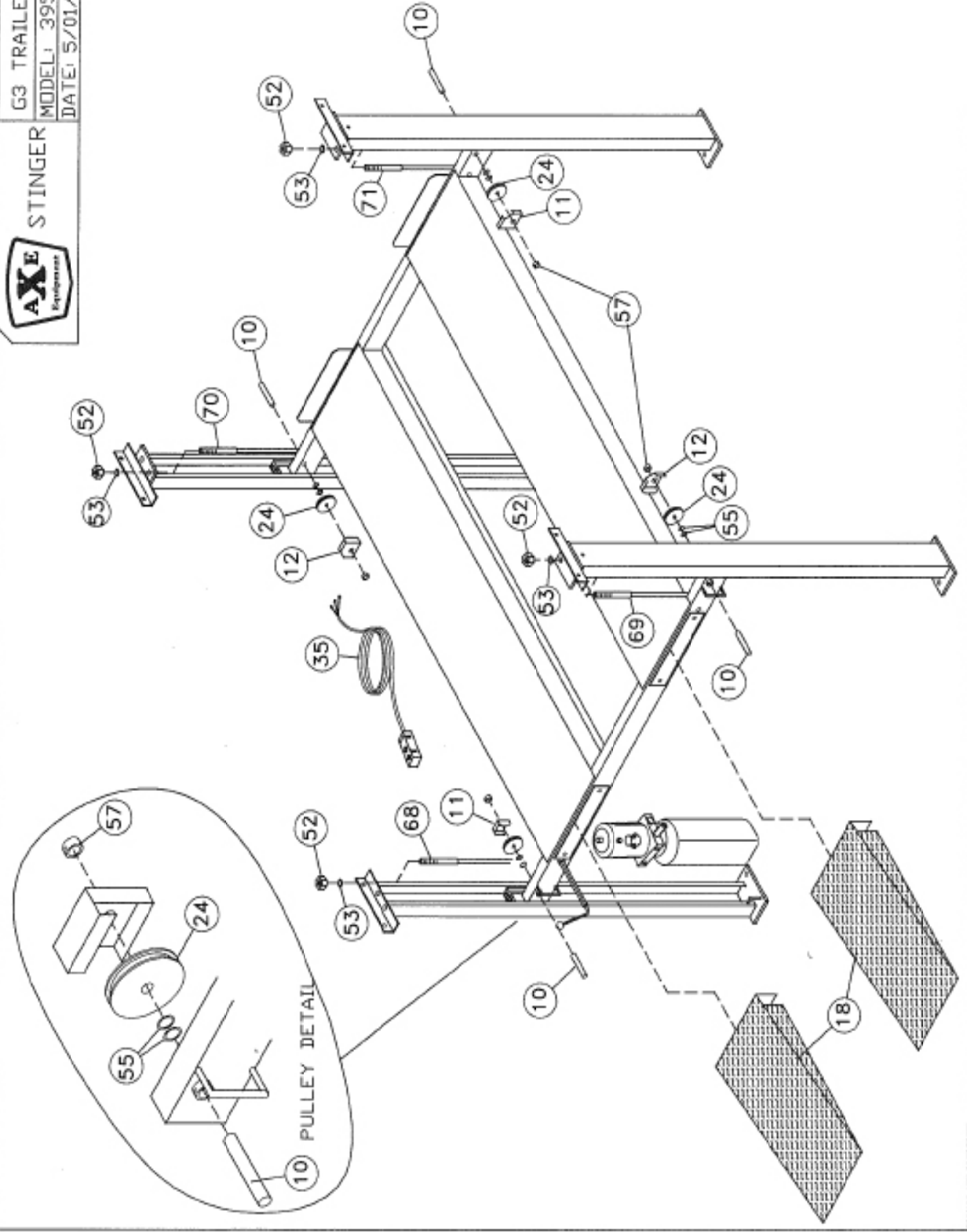


STINGER

G3 TRAILER LIFT ASSY

MODEL: 39500G3

DATE: 5/01/05-11/3/2105



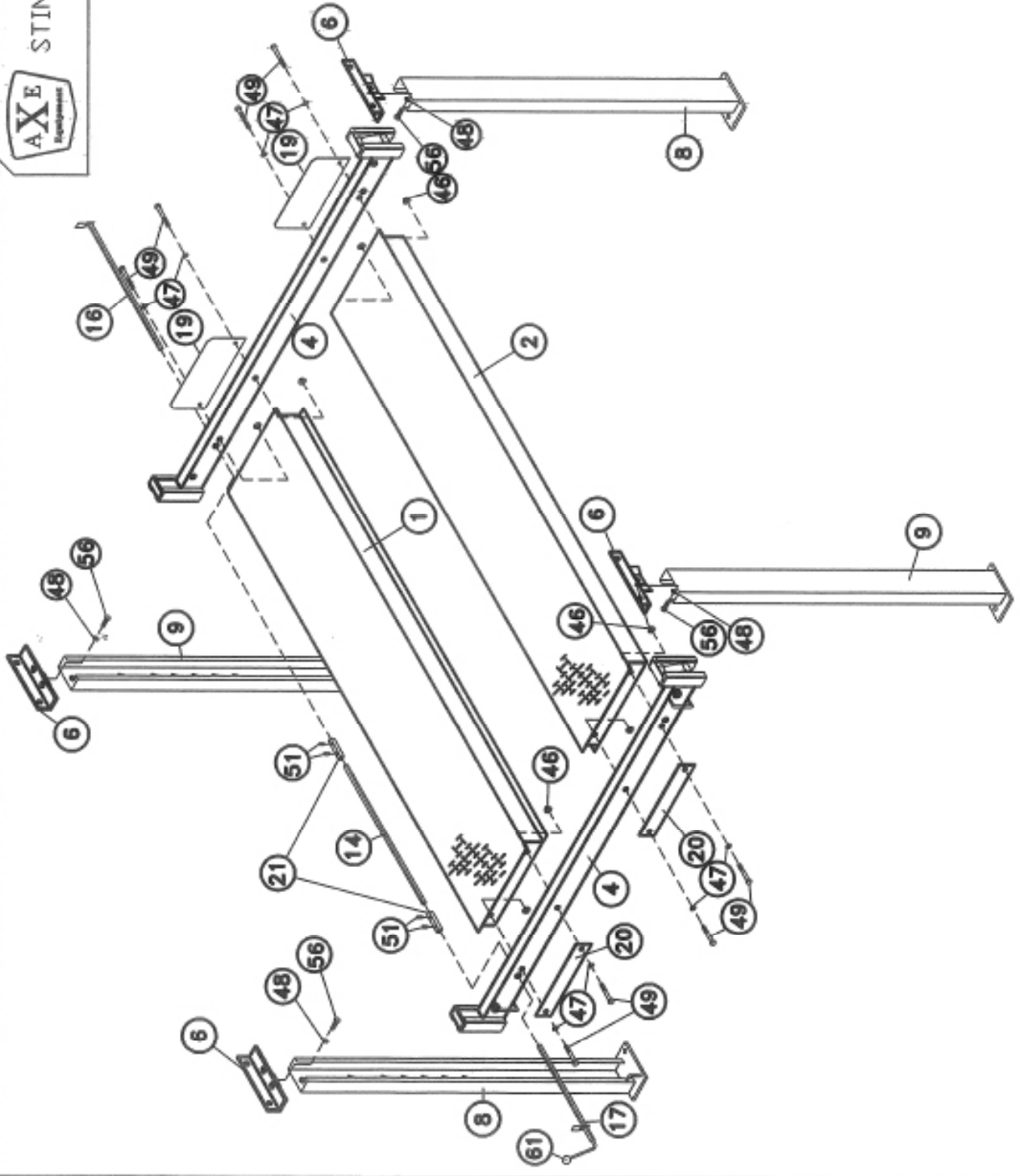
39500

PT#	PART DESC	DATE	SCALE	REV CODE	REV #	REV DATE
39500	G3 TRAILER LIFT ASSY	5/01/05	FULL	CD	NA	NA



STINGER

QTY: 1





STINGER

QTY: 2 DATE 10-01-2015

MODEL: 39500 G3

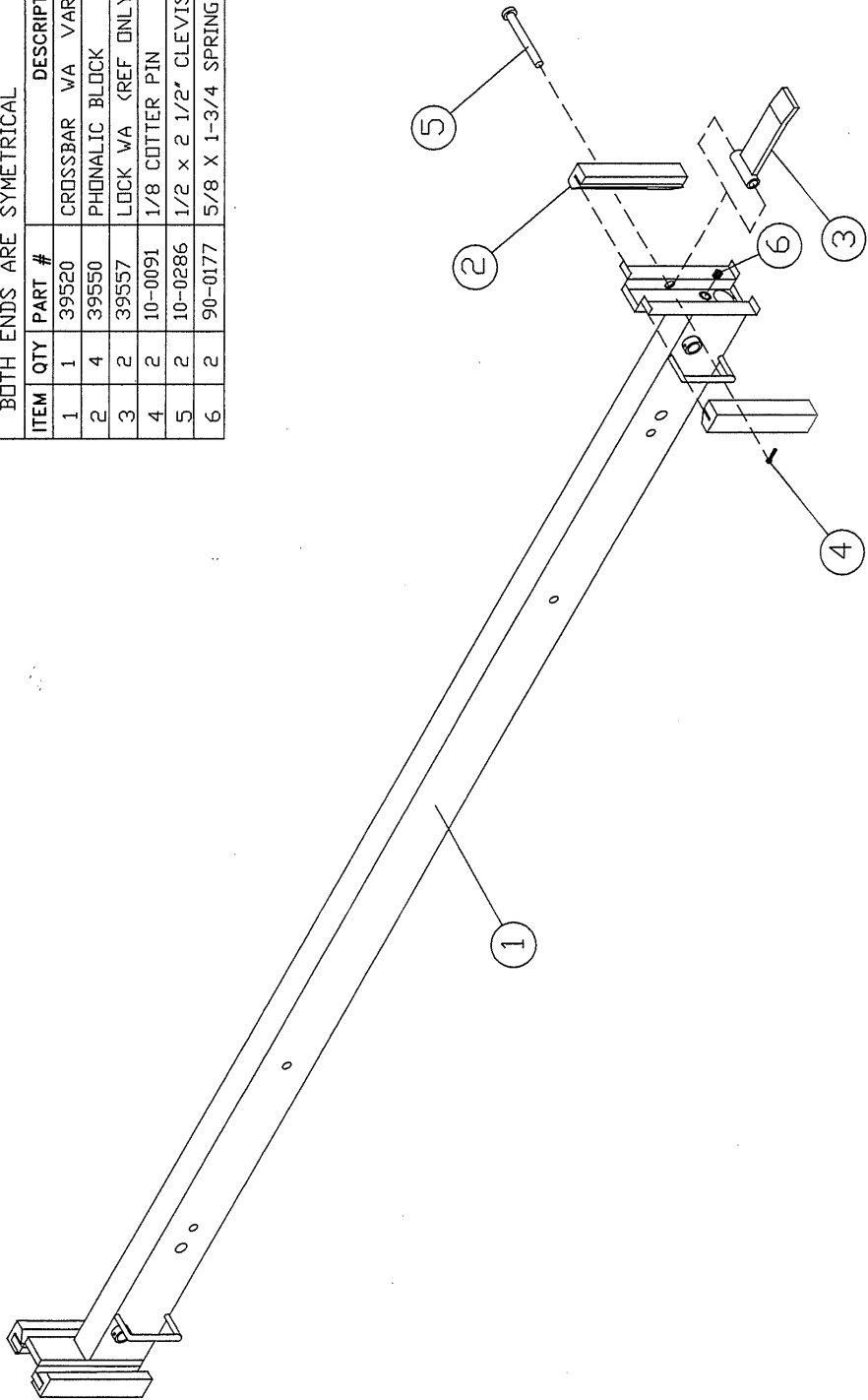
CROSSBAR ASSEMBLY G3 PG 2 OF 2

REMOVE WIRE FROM LOCK HINGE TUBE

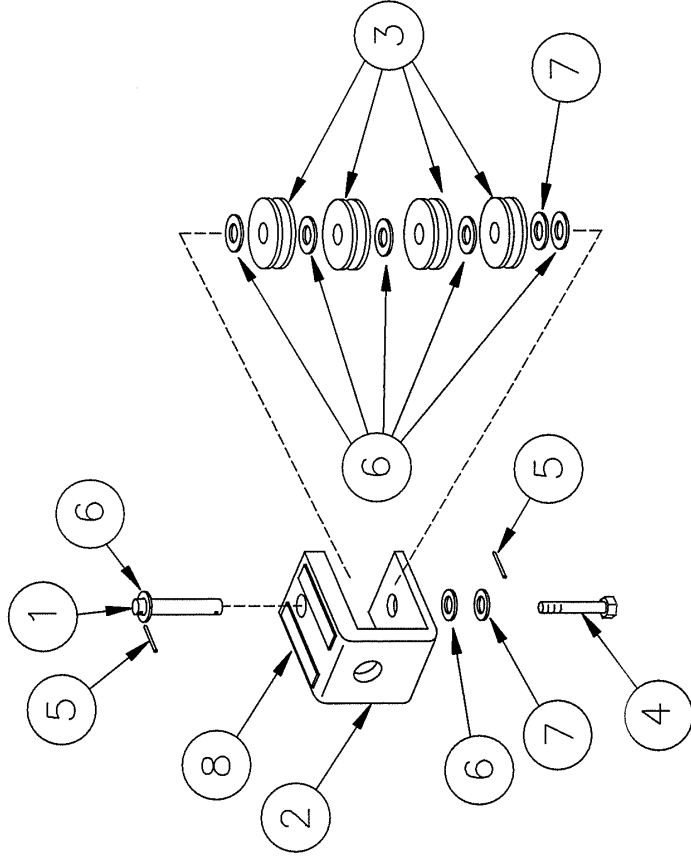
INSTALL #3 USING 1#5

BOTH ENDS ARE SYMETRICAL

ITEM	QTY	PART #	DESCRIPTION
1	1	39520	CROSSBAR WA VARIES
2	4	39550	PHONALIC BLOCK
3	2	39557	LOCK WA (REF ONLY)
4	2	10-0091	1/8 CUTTER PIN
5	2	10-0286	1/2 x 2 1/2" CLEVIS PIN
6	2	90-0177	5/8 X 1-3/4 SPRING

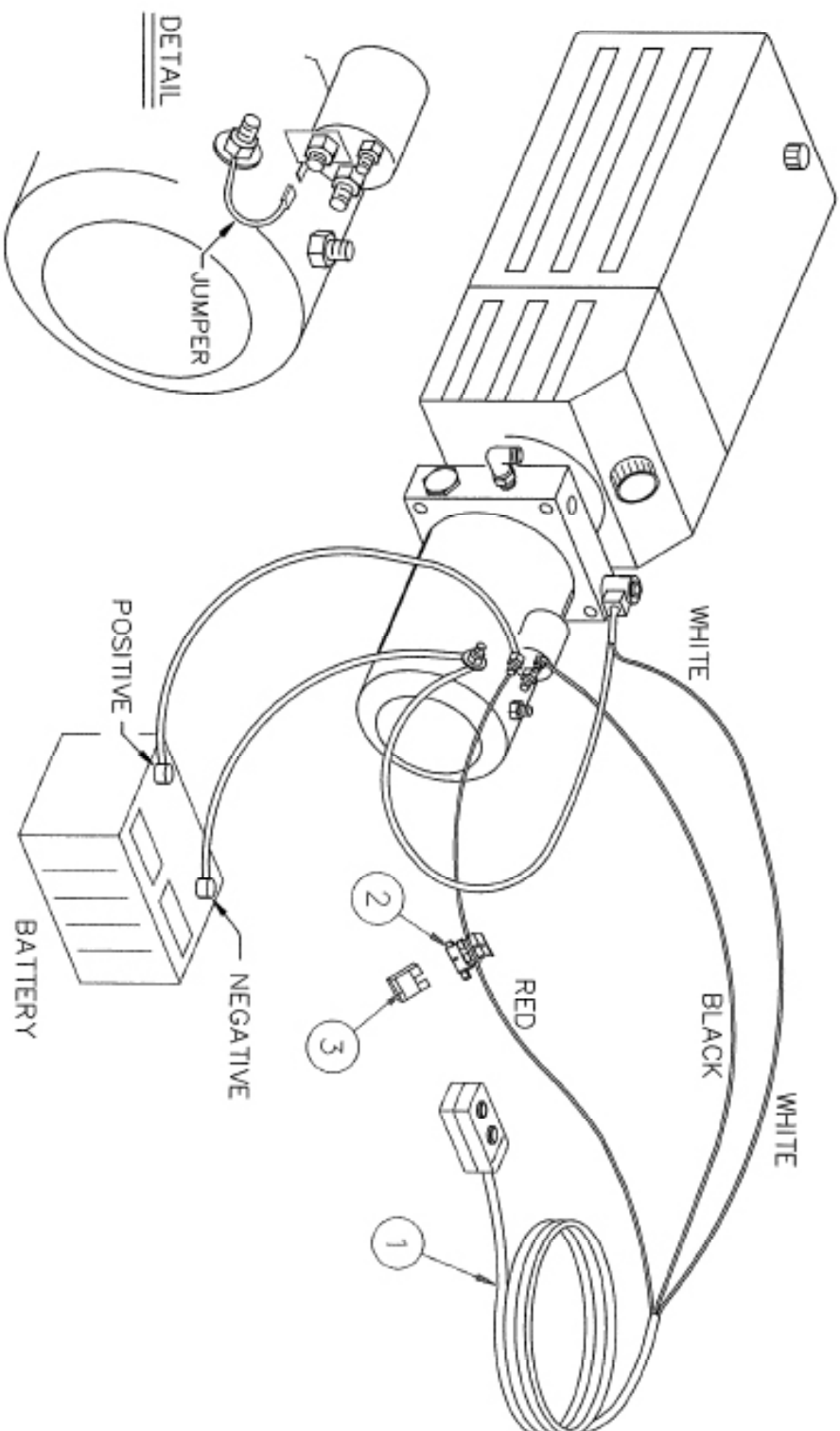


AXE STINGER		PULLEY CLUSTER ASSEMBLY	
		MODEL: ALL TRAILER LIFTS	
		DATE: 10-7-2015	
ITEM	QTY	PART #	DESCRIPTION
1	1	39036	PULLEY CLUSTER PIN
2	1	39052	PULLEY CLUSTER W/A
3	4	63037	COMPLETE PULLEY ASSY <BEARING>
4	1	66038	5/16-18 x 3 1/4 BOLT
5	2	10-0232	1/8 X 1 1/4 TENSION PIN ZP
6	8	10-0243	3/4 MACHINE BUSHING
7	2	66037	THIN SHIMS
8	4	61051	PLASTIC SLIDER DOUBLEUP

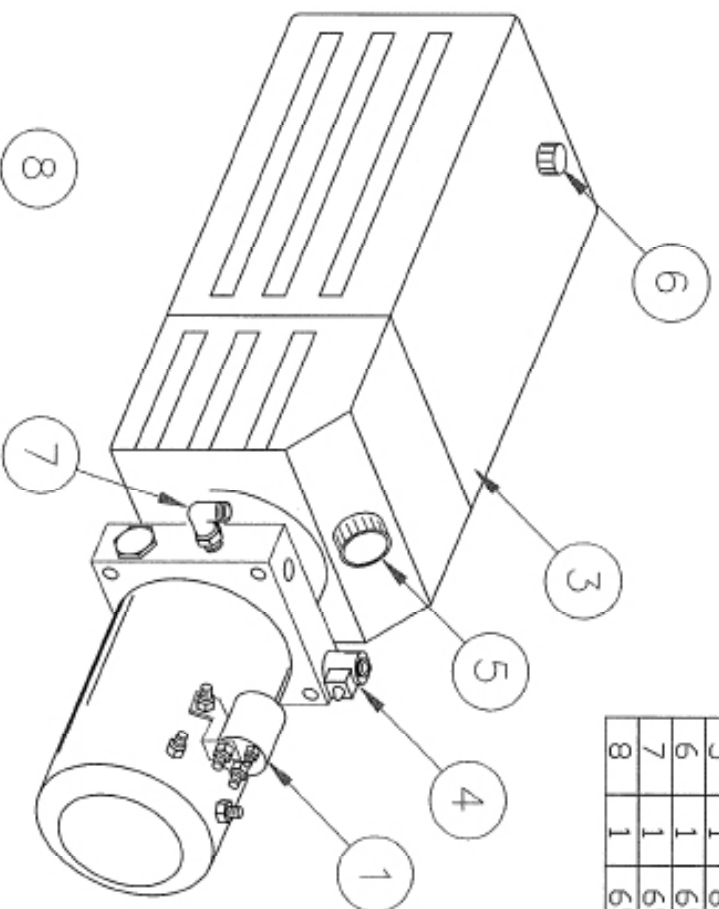


12 VOLT REMOTE CONTROL WIRING DIAGRAM

ITEM	QTY	PART #	DESCRIPTION
1	1	65082	CONTROL CABLE
2	1	65101	PLASTIC FUSE HOLDER
3	1	65102	5 AMP FUSE



		NOTES		ITEM	QTY	PART #	DESCRIPTION
				1	1	65079	12 VOLT SOLENOID
				3	1	65084	2 GALLON RESEVOIR
				4	1	65089	12 V DC COIL
				5	1	65086	BREATHER CAP/DIPSTICK
				6	1	65087	CAP/ PLUG
				7	1	65011	90 DEGREE O-RING FITTING
				8	1	65008	12 VOLT HYD. POWER UNIT



COUNCIL GROVE, KANSAS

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DATE: 1-11-2018

B

QTY: 1

MODEL :ALL TRAILER UNITS

12 VOLT HYDRAULIC POWER UNIT

39082