

## 90-Day Maintenance Check List

**NOTE ~ Lifter maintenance to be done with chassis only with no bodies attached.**

**NOTE ~ This checklist is in addition to standard chassis maintenance procedures.**

### Run System and Inspect

<input type="checkbox"/>	Run the lifting frame up and down to insure smooth operation
<input type="checkbox"/>	Inspect all nuts, bolts and cotter pins for proper tightness
<input type="checkbox"/>	Inspect lifting frame and locking devices for abnormalities
<input type="checkbox"/>	Inspect front and rear masts; clean any accumulated debris from bottom of rear mast
<input type="checkbox"/>	Inspect all hydraulic fittings and fluid lines for leaks
<input type="checkbox"/>	Check that the oil is clean and that the reservoir is filled within two (2) inches from the top
<input type="checkbox"/>	Inspect the hydraulic cylinder shafts for dirt, gum or varnish. Wipe off any accumulation with kerosene and then with light grade motor oil
<input type="checkbox"/>	Check system pressure

### Grease

<input type="checkbox"/>	Grease all locking shafts
<input type="checkbox"/>	Grease locking lever
<input type="checkbox"/>	Grease front and rear masts with lithium grease

## Locking Hooks

Check measurements of front hooks  
(see drawing DLK-510)

Check measurements of rear hooks  
(see drawing DLK-510)

Adjust front and rear hooks as required  
(see instructions)

Check body stops

Check warning system

Check that locking lever is in good working order

## Electrical

Check all truck lights

Check light plug (see wiring diagram)

Check battery terminals for corrosion

Check circuit breaker terminals for corrosion

Check solenoid terminals for corrosion

Check ground connection

Check voltage to system

## Clean System

Remove body from truck

Power wash truck chassis

Power wash rear mast bottom

## One-Year Maintenance Check List

Change oil

Check hooks

## Oil Recommendations

The hydraulic fluid in the system should be changed as a part of the periodic maintenance of the truck or any time it has become contaminated.

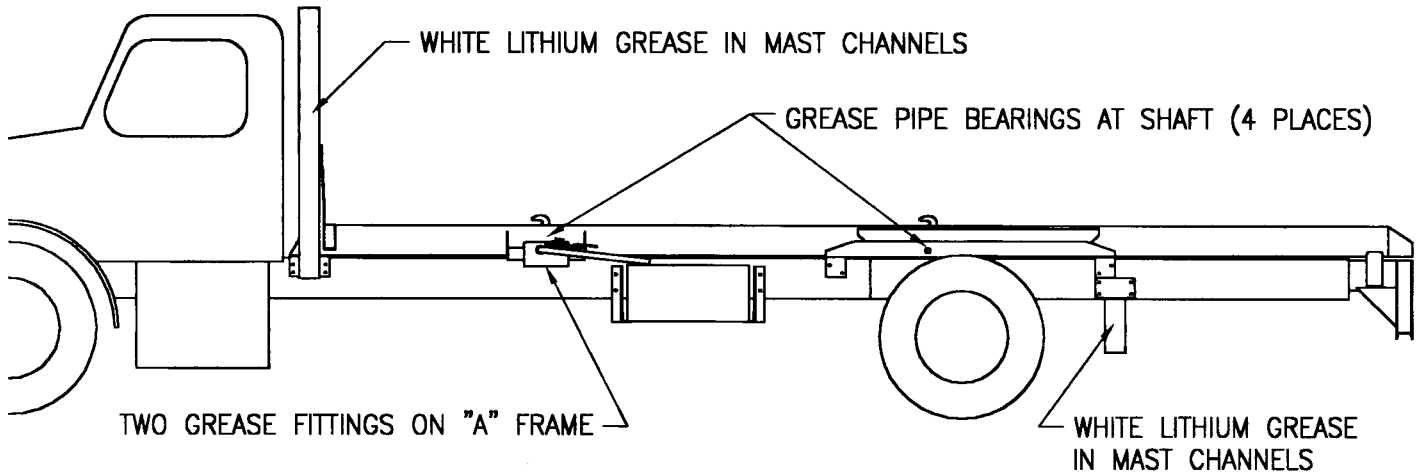
- 1 Use Shell Tellus T-32, Mobil DTE-11 or equivalent hydraulic oil.
- 2 Keep the system clean in order to keep the oil clean.
- 3 Store oil in a clean and dry area to keep it free from water and contaminants.
- 4 Check that the oil is clean.
- 5 When changing or adding oil, be careful not to let contaminants into the system.

# Trouble Shooting Guide

Problem	Possible Cause	Correction
Motor does not start.	Ignition switch is not on.	Turn the truck ignition switch to the "ON" position.
	Chassis Lift cut-off switch is turned off.	Turn the cab mounted cut-off switch to the "ON" position.
	Chassis Lift power fuse is blown.	Replace the 15 amp in-line fuse near the fuse panel in the cab.
	Circuit breaker is tripped.	Reset or replace the circuit breaker, located in the Chassis Lift pump box.
	Pump motor solenoid.	Check voltage on motor side of solenoid while pushing up or down. If there is no voltage, replace the solenoid.
	Bad ground.	Be sure the motor is properly grounded.
	Dead battery.	Charge or replace the battery.
	Battery cables.	Check that all connections are clean and tight. Inspect for breaks and replace if necessary.
	Controller is defective.	Check for live voltage in junction box. Push "UP" check green wire at terminal 4. Push "Down" check red wire at terminal 3. Replace controller.
	Switch on "A" frame is defective.	Check for live voltage in Junction box at terminal 1. Replace switch.
Motor starts but Chassis Lift will not raise/lower.	Motor is defective.	If all above is checked, and the motor is getting power at the post, replace the motor.
	Low line voltage. Control valve not shifting.	Check voltage at terminal 3 and 4, charge battery, check and clean all connections.
	Clogged pressure relief valve.	Clear pressure relief valve and reset pressure per instructions.
	Defective pressure relief valve.	If above process doesn't work then replace the valve.
Motor starts but Chassis Lift will not lift a load.	Defective control valve.	Replace valve.
	Low system pressure.	Push down the down button and note pressure. If under 1500 PSI, reset pressure per instructions.
	Clogged pressure relief valve.	Clear pressure relief valve and reset pressure per instructions.
	Defective pressure relief valve.	If above process doesn't work, replace the valve.
	Low line voltage. Control valve not shifting.	Check voltage, charge battery, check and clean all connections.
Cargo exceeds 24,000 lbs.	Check payload weights and reload.	

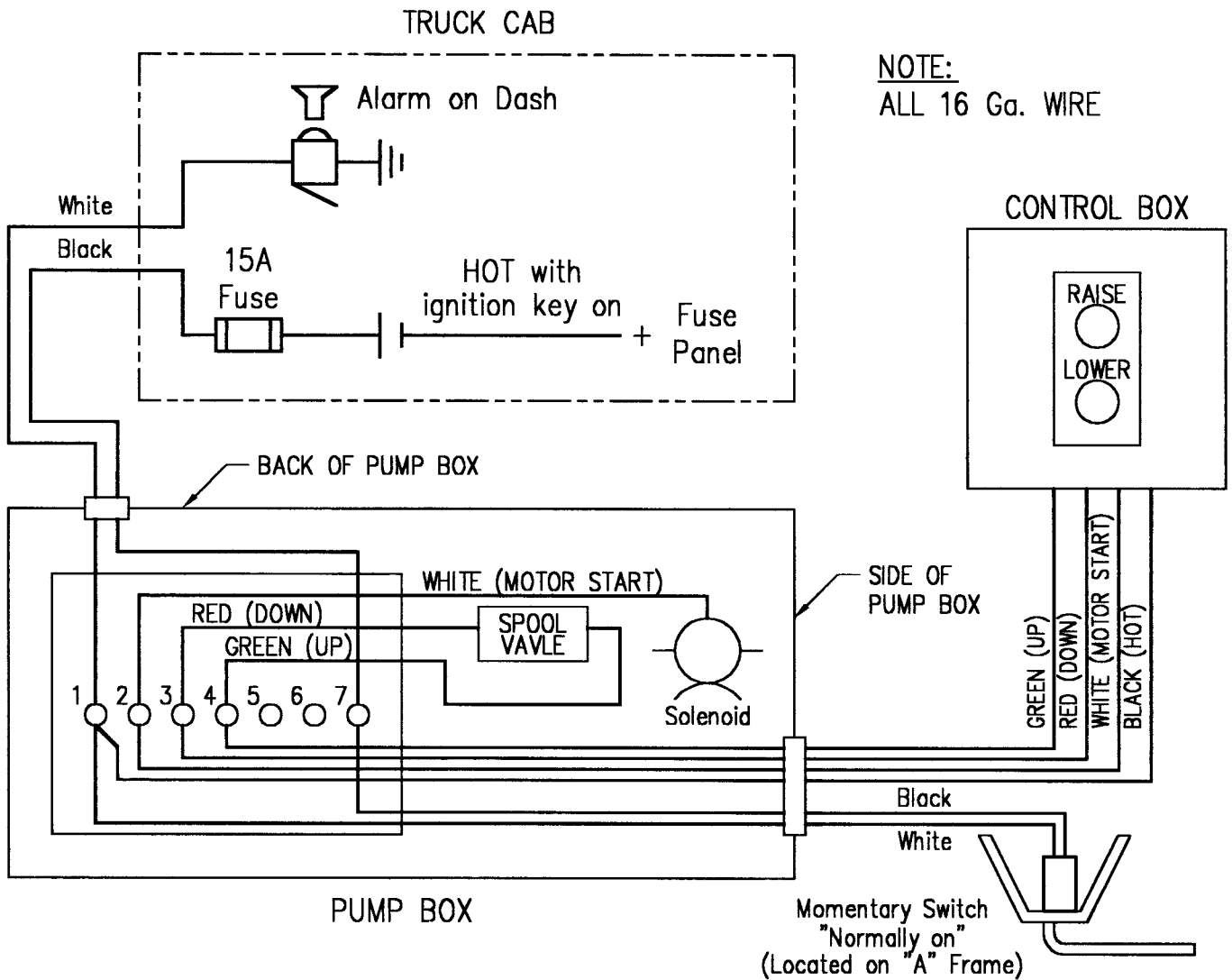
# Trouble Shooting Guide

Problem	Possible Cause	Correction
Chassis Lift FRONT goes down, but BACK will not go down all of the way.	Ice or debris on or between truck chassis and lifter.	Raise Chassis Lift and clean off debris.
	Dirt and/or rocks in rear mast.	Power wash rear mast.
	Not enough oil in closed section of hydraulic system.	Open rear bleeder plug and push down button (see bleeding instructions). Be sure you have 1500 PSI.
Chassis Lift BACK goes down but FRONT will not go down all of the way.	Ice or debris on or between truck chassis and lifter.	Raise Chassis Lift and clean off debris.
	Excess oil in closed section.	Open front bleeder plug and push the down button (see bleeding instructions). Be sure there is 1500 PSI.
	Defective JL50 Pressure Relief Valve.	Replace pressure relief valve.
	Bad rear cylinder piston seals.	Replace rear cylinder piston seals and/or pistons.
Chassis Lift BACK goes up but the FRONT does not.	Not enough oil to closed section of hydraulic system.	Open rear bleeder plug and push down button. Be sure you have 1500 PSI.
Chassis Lift moves side to side.	Too much space between front and/or rear masts plastic slide blocks and channel.	Raise Chassis Lift half way and place shims behind plastic slide blocks until tight.
	Front or Rear mast is bent.	Call Factory!!!!
Body will not lock on easily.	Body is not forward enough.	Back the truck up until the front wing plates contact the "scrub" plates on the front of the body.
	Body is not forward enough.	Check and remove any ice, snow, debris or obstruction that may be built up in front of body.
	Ice or debris on or between truck chassis and lifter.	Raise Chassis Lift and clean off debris.
	Excess oil in closed section.	Open front bleeder plug and push the down button (see bleeding instructions). Be sure there is 1500 PSI.
Body goes out of balance regularly.	System needs to be bled.	Bleed system per instructions.
	Bad rear cylinder piston seals.	Replace rear cylinder piston seals and/or pistons.
	Defective JL50 Pressure Relief Valve.	Replace pressure relief valve.
Oil overflows from the reservoir.	Down flow valve is not set properly.	Set flow valve with a full body until it lowers at same rate as it goes up.
Body "slams" or moves while in transit.	Hooks are not adjusted properly.	Check and adjust hooks.
Body lights do not work.	Light plug wiring.	Check that all wire connections are tight and wired to the correct pin.
	Light plug is dirty.	Use a light plug wire brush and clean the light plug and socket.



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<b>DEMOUNTABLE CONCEPTS, INC.</b>			
GREASE DIAGRAM			
CHASSIS LIFT			
FOR:			
SIZE <b>A</b>	REV. NO. 	PART NO. <b>DLK-470</b>	
DRAWN KEVIN PERKINS		DATE 5/14/01	JOB NO.
SCALE 1/4"=12"		CAD# DLK-470	SHEET 1 OF 1



**NOTE:**  
ALL 16 Ga. WIRE

Run the black and white wires in the 16/2 cable from the cab (from DLK-291) in through the 1/2" watertight connector at the rear of the pump box. Connect these wires as shown. White to position 1 and black to position 7.

Run the black and white wires in the 16/2 cable from the "A" frame switch (from DLK-423). White to position 1 and black to position 7.

Run the 16/4 cable from the control box (from DLK-423). Black to position 1, white to position 2, red to position 3 and green to position 4. Position 5 and 6 to remain empty.

Be sure all connections are secure. Check for proper connections by turning on the ignition key. Unlock the Chassis Lift, push in on the yellow handle and push the big black bar down. The alarm in the cab should turn on. When the system is locked, the alarm should turn off.

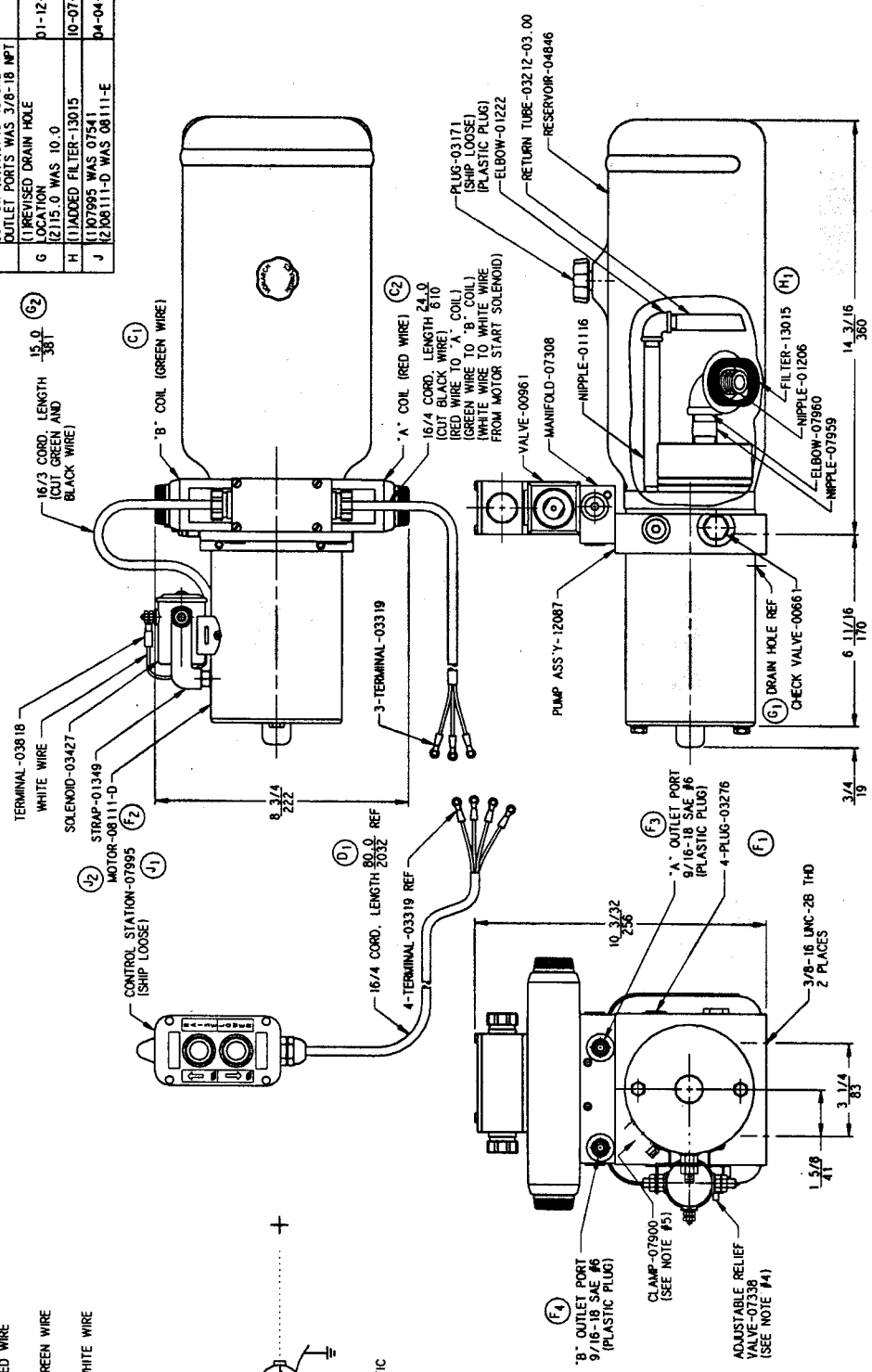
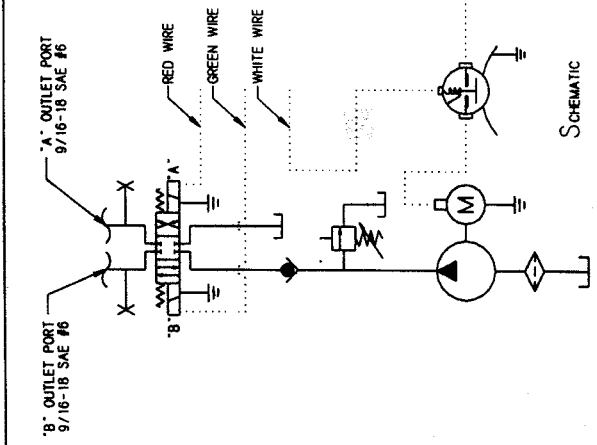
Secure the junction box.

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<b>DEMOUNTABLE CONCEPTS, INC.</b>			
FINAL CONTROL WIRING CONNECTIONS			
CHASSIS LIFT			
FOR:			
SIZE	REV. NO.	PART NO.	
A		DLK-425	
DRAWN	DATE	APP. BY	
KEVIN PERKINS	5/16/01		
CAD# DLK-425		SHEET 1 OF 1	

REV	DESCRIPTION	DATE	BY	APP
C	(1) GREEN WIRE WAS RED (2) RED WIRE WAS GREEN (3) GENERAL REVISIONS	05-29-98	AKB	
D	(1) CORD LENGTH 80.0/2032 WAS 96.0/2438	07-31-98	AKB	
E	(1) REMOVED PLUG-03274	09-21-98	B.F.	
F	(1) REMOVED 2-ELBOW-07560 (1) REVERSED MOTOR ORIENTATION (1) REVERSED MOTOR ORIENTATION OUTLET PORTS WAS 3/8-18 NPT	11-23-98	B.F.	
G	(1) REVISED DRAIN HOLE LOCATION WAS 10.0	01-12-99	B.F.	
H	(1) ADDED FILTER-13015	10-07-99	HJV	
J	(1) 107995 WAS 07541 (2) 1208111-D WAS 08111-E	04-04-00	TPG	

0681-9



- NOTES:
- CLAMP-07900 MUST BE INSTALLED AT THIS LOCATION
  - RELIEF VALVE ADJUSTMENT INSTRUCTIONS:  
A. LOOSEN JAM NUT  
B. ADJUST PRESSURE  
1. TURN SCREW CLOCKWISE TO INCREASE PRESSURE  
2. TURN SCREW COUNTERCLOCKWISE TO DECREASE PRESSURE  
NOTE: OUTLET PORT (PRESSURE) FLOW VALVE (07538) MUST BE LOCKED TO MAKE RELIEF VALVE OPERATE WHILE ADJUSTING
  - TIGHTEN JAM NUT
  - SPECIFICATIONS:  
A. GEAR CODE: NO. 07  
B. UNLESS OTHERWISE SPECIFIED: 1500 PSI  
C. MISCELLANEOUS: RELIEF VALVE FACTORY SET AT: 103 BARS
  - PROJECTION: THIRD ANGLE
  - DIMENSIONS: INCH/MILLIMETER

DEMOUNTABLE CONCEPTS

NON-SPECIFIED TOLERANCES:	SCALE	DATE	DESIGN	PART NO.	APPROVED
FRACT: 1/16, 1/32, 1/64, 1/128, 1/256, 1/512	1/4	12-01-97	HJV		
ANGLES: 30, 45, 60, 90, 120, 150, 180	MONARCH HYDRAULICS INC.				
BREAK EDGES: .005-.010	GRAND RAPIDS, MICHIGAN				
REMOTE BURS: 1/16, 1/32, 1/64, 1/128, 1/256, 1/512	6-1890				

PUMP UNIT, M-3515-0102, HORIZ. MT., 12 VDC

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DLK-490

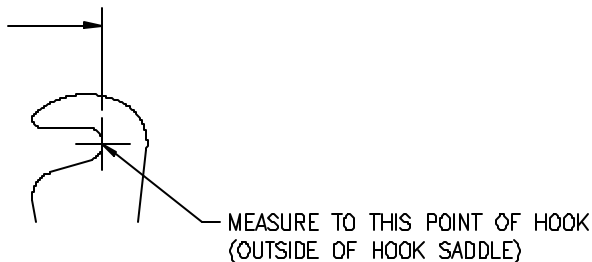


## Instructions for aligning hooks on Chassis Lift

### Check if the welded front hooks are out of adjustment

#### Items to check:

- A- Does the body lock warning system work when the lever is in the up and pinned position?
- B- Are the body stops (flat bar plates that are welded to the Chassis Lift behind the rear hooks) in place and in good condition?
- C- Has the driver reported any banging or body movement on inspection reports?
- D- Is the padlock safety key intact?
- E- Measure from the wing plates (the triangular shaped plates that the body hits up against) to the saddle of the first set of hooks. This measurement should be  $53 \frac{7}{8}'' \pm \frac{1}{4}''$ . If it is greater than this measurement, the hooks will need to be adjusted. Please follow these instructions to make hook adjustments.



## Install fixture

Clamp fixture onto Chassis Lift so that the centerline of the 1 1/8" bar is exactly 53 1/4" from the front wing plates on the Chassis Lift.

Note: The fixture is constructed from the following materials: 1 1/8" round rod @ 34" long. Two (2) pieces of 2 x 2 x 1/4" angle @ 6" long)

Note: If you do not have a fixture, clamp a piece of 4" channel onto the top of the Chassis Lift behind the hooks. Push the hooks forward until the back of the throat of the hook is exactly 53 7/8" from the wing plate. (Detail 1)

Double check measurement and tack weld fixture or channel to the top of Chassis Lift. Note any air gap between the throat of the hook attached to the locking handle and the locking bar on the fixture. See Figure 1. If there is more than a 1/8" gap, the hooks attached to the locking handle will need to be adjusted.

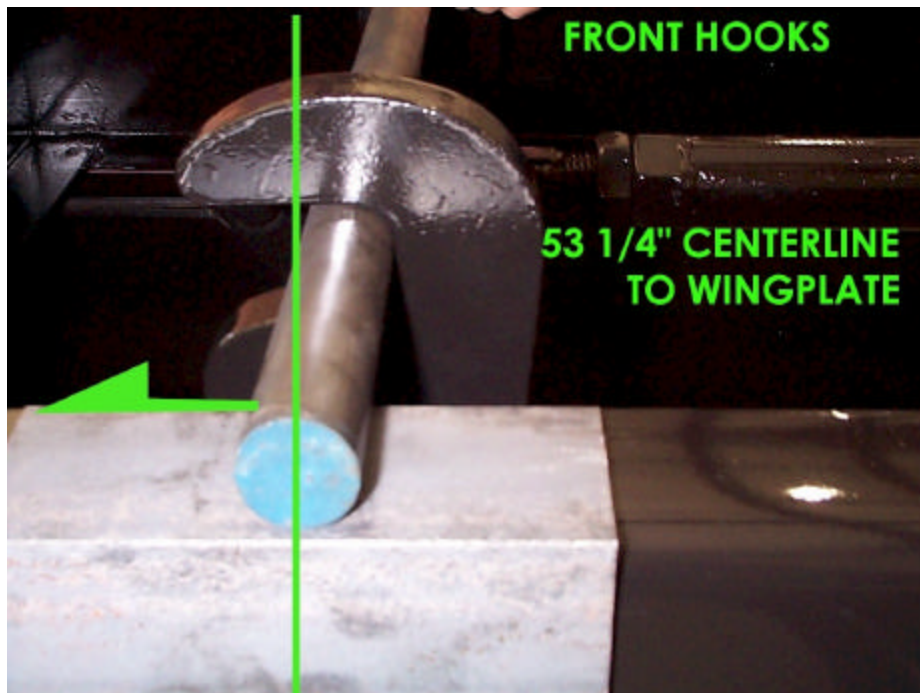
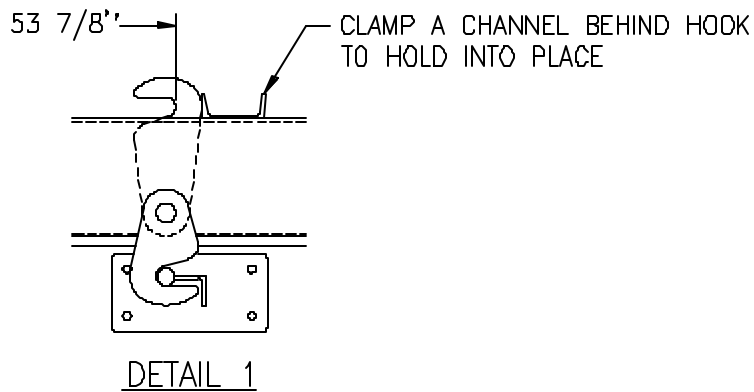


Figure 1



## Adjust the welded hook assembly

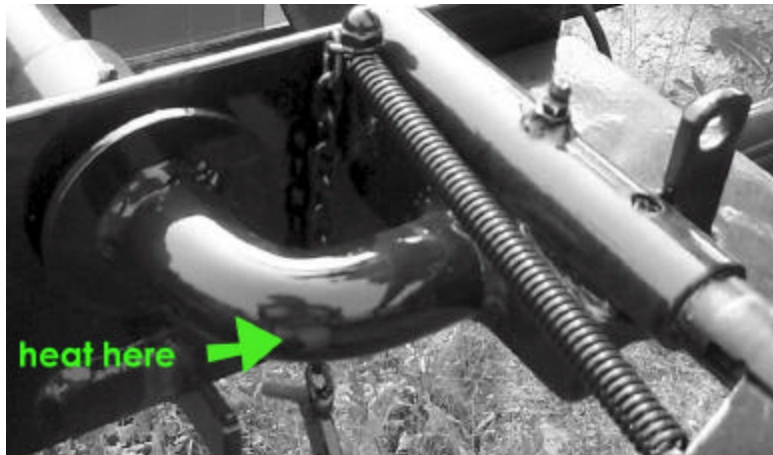
First be sure the fixture is clamped and tacked to the chassis.

To adjust the hooks, first **push in** on the spring-loaded handle and lift the locking handle **above** its normal locked position (the lock pin will be slightly above the hole on the face plate of the A-frame assembly). See Figure 2. Have a helper clamp the hooks to the locking bar fixture.



Figure 2

Heat the "elbow" (90 degree part of the 1 7/16" shaft) of the locking bar until it glows orange. See Figure 3. DO NOT CUT THE METAL. Put a 1 1/2" pipe over the locking bar and bend it down GENTLY until the spring-loaded pin snaps into place. LET THE LOCKING HANDLE AIR COOL.



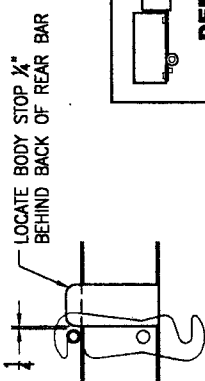
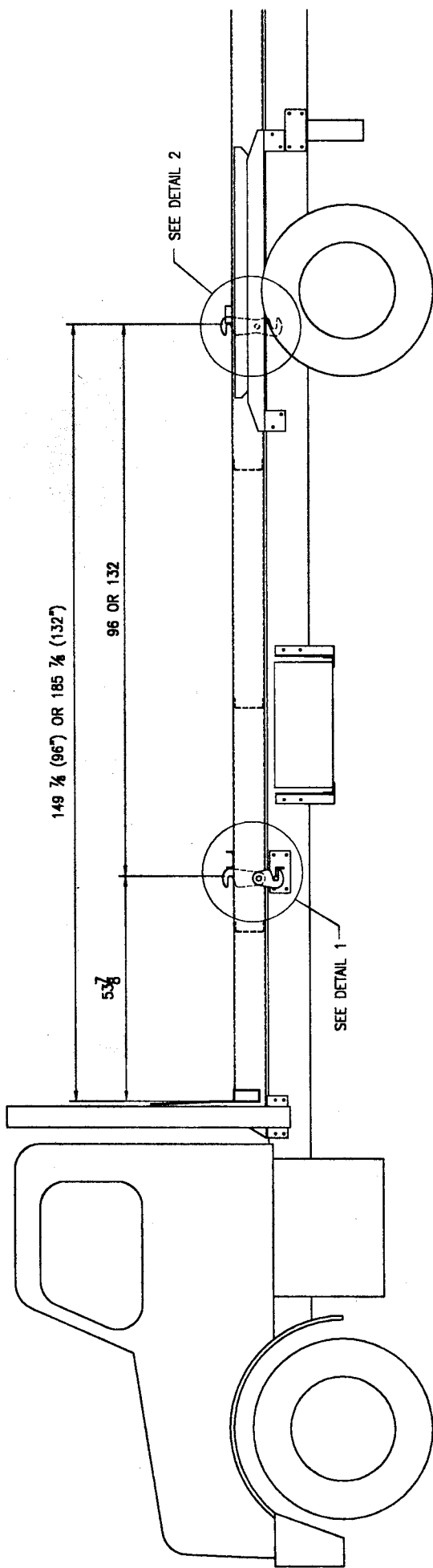
**Figure 3**

### **Adjust the linked hooks**

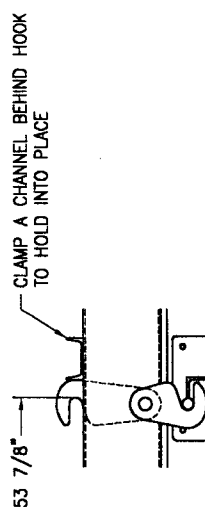
Remove the fixture and relocate it at 149 1/4" (for a 96" hook space) or 185 1/4" (for a 132" hook space) from the front wing plate (clamp jig only - NO TACKING REQUIRED). Adjust the linked hooks tight to the locking bar on the fixture by adjusting the threaded bar on the linkage rod. When finished, tighten the jam nut. See Figure 4.



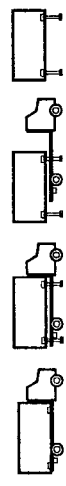
**Figure 4**



DETAIL 1



DETAIL 2



**DEMOUNTABLE CONCEPTS, INC.**

HOOK MEASUREMENTS  
CHASSIS LIFT

SIZE	REV. NO.	PART NO.
B	0	DLK-510
DESIGNED BY	DATE	FOR
KEVIN PERKINS	6/26/01	
SCALE	CAD	lifter-fix
1/2"=12"		

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