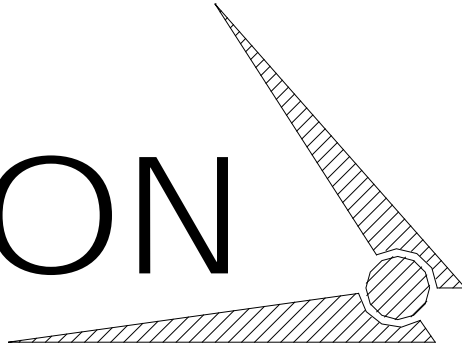


# CHAMPION

Hoist and Equipment



AN AFFILIATE OF

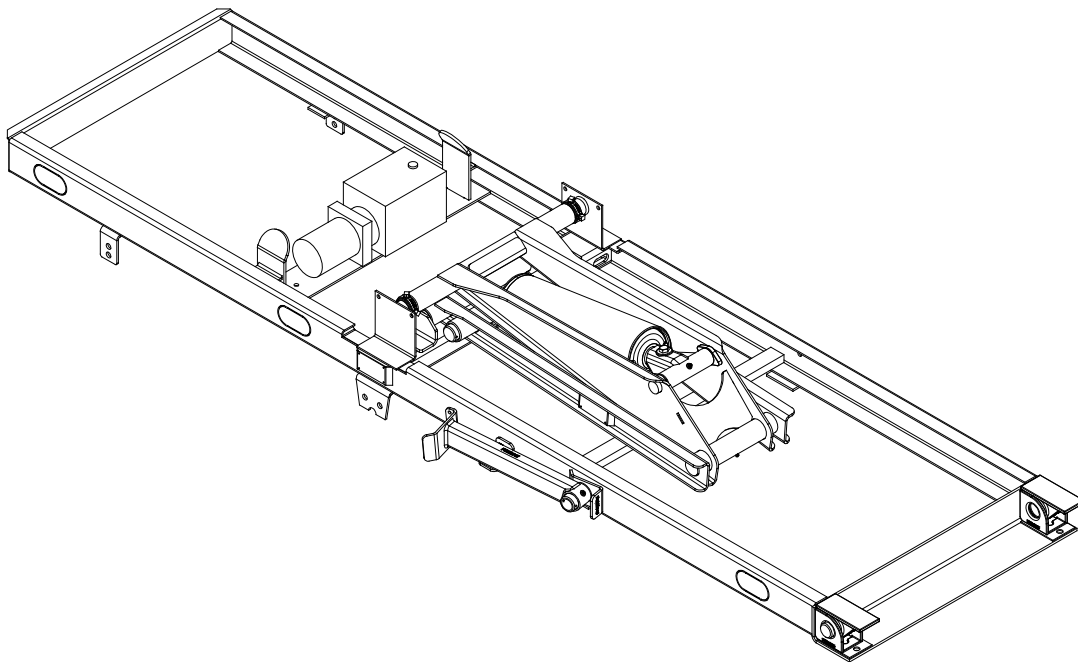
The **Godwin**  
 **Group**

200 CHAMPION DRIVE

DUNN, NC. 28334

(910) 897-4995 FAX: (910) 897-7306

## 9' 515T 50° SUBFRAME, 11' 615T 50° SUBFRAME, & 15' 620T 50° SUBFRAME



Operation & Installation Manual

***CHAMPION HOIST & EQUIPMENT***

200 Champion Drive  
Dunn, N.C. 28334  
800-649-4995  
3/2009

# CS515T, CS615T & CS620T HOIST

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Page 20	15' 620T Subframe with 50° Dump Parts List



# CHAMPION HOIST AND EQUIPMENT

200 CHAMPION DRIVE  
DUNN, N.C. 28334

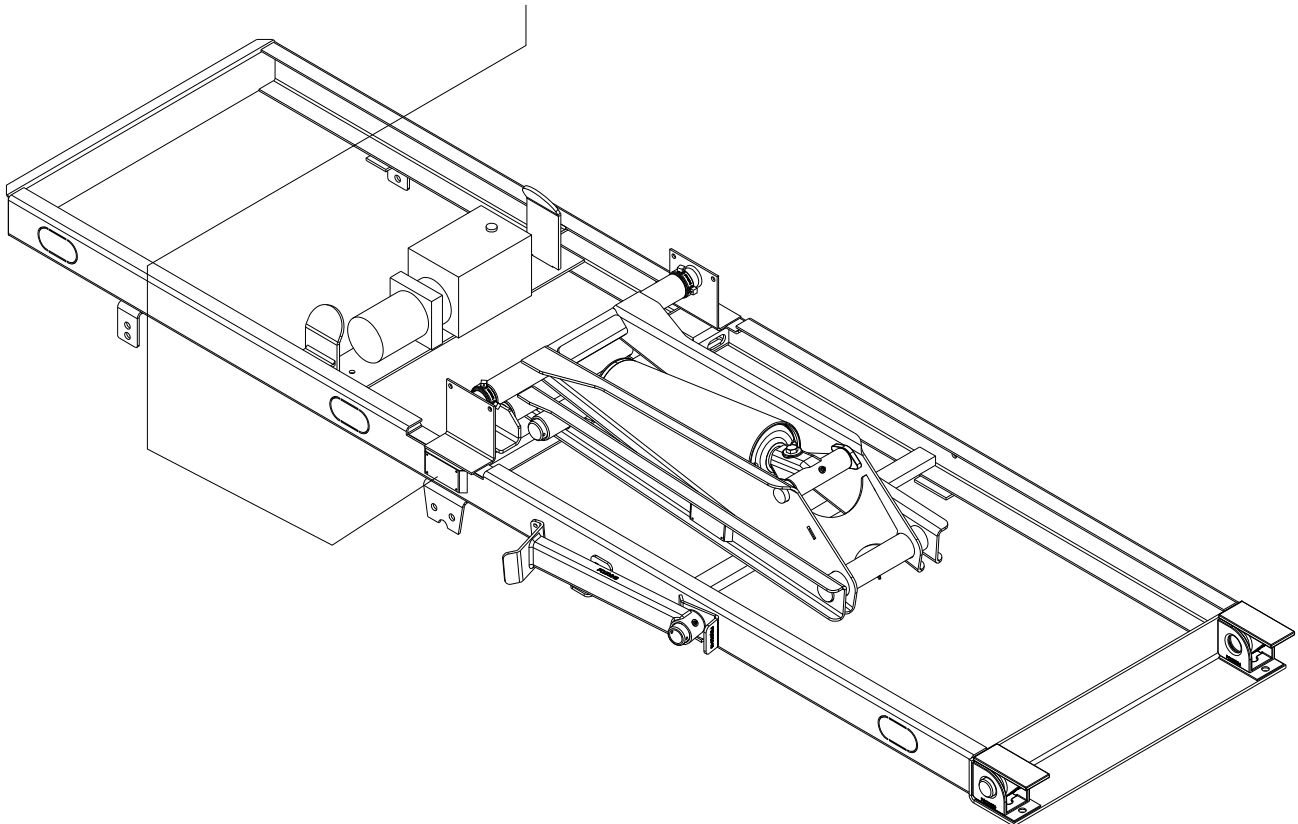
Phone# (800) -649-4995

Phone# (910) -897-4995

fax# (910) -897-7306

when calling, specify (parts) - (service) - (sales)  
have the following information on hand for  
faster service, body model # & Serial #  
hoist model # & serial #  
year, make, type of truck.

this information is provided as indicated

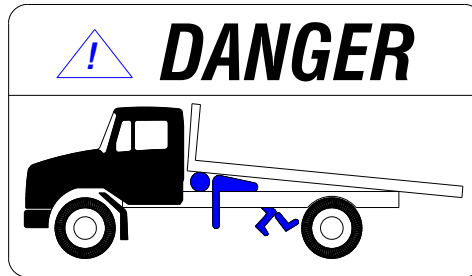


## Operations and Service Manual

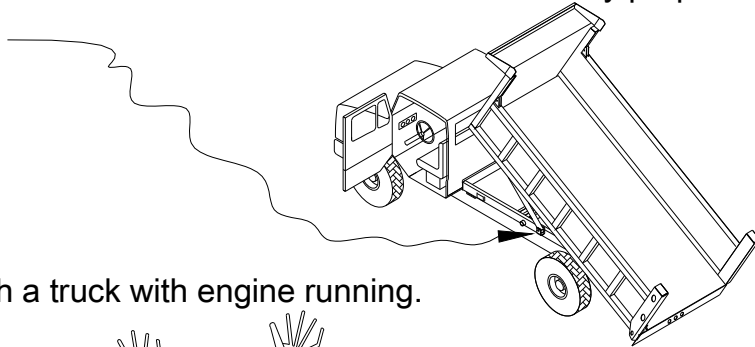
Do not operate this equipment without fully reading and understanding this manual.

Do not allow unauthorized personnel to operate this equipment.

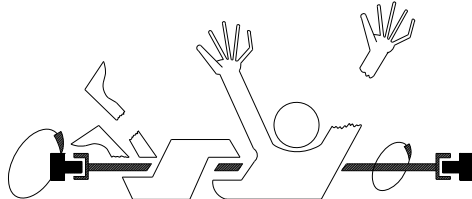
Do not go underneath a loaded raised bed under ANY circumstances.



Do not go underneath an unloaded raised bed unless the safety props are properly positioned.



Do not go underneath a truck with engine running.



Do not allow controls and area around them to become cluttered with tools, cans, etc.

Do not use hands or other body parts to check for hydraulic leaks.

Do not leave truck unattended with bed raised.

Do not allow personnel to ride in or on the bed.

Do not load the equipment beyond the GVW rating of the vehicle or the hoist rating.

Do not operate the hoist on an unlevel or soft surface.

Do not operate the hoist **UNDER POWER LINES!!**

Do not raise the hoist when vehicle is in motion.

Do not move a vehicle with a raised hoist.

## Be sure to.....

- \* Follow all Federal, State, Local regulations pertaining to this equipment.
- \* Keep unit properly maintained and serviced.
- \* Understand and follow all safety decals and keep them in good condition.
- \* Check hydraulic oil level weekly.
  - \* For PTO driven pumps use HD 32 hydraulic oil.
  - \* For electric driven pumps use ATF, automatic transmission fluid.
- \* Add correct hydraulic oil to reservoir as needed.
- \* Use EP-2 grease for all grease fittings.
- \* Lubricate hoist and rear hinge assembly every 90 to 180 days depending on useage. (See MP50077 )
- \* Check all bolts, welds, electrical connections frequently.

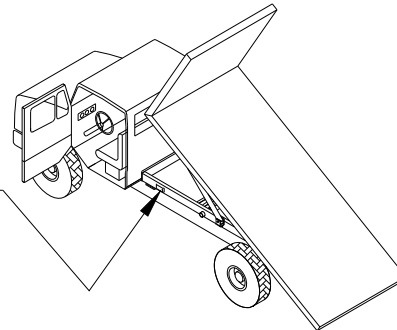
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## When Calling for Parts/Service Be Sure To Have....

Hoist: model number \_\_\_\_\_  
serial number \_\_\_\_\_

Serial Plate Location



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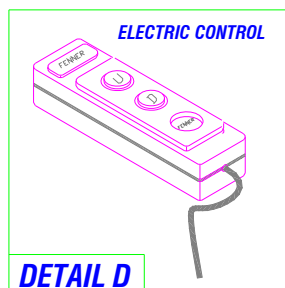
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## Hoist Operation for Electric Pump Application:

To Operate the push button Hoist:

Press and hold appropriate button. See Detail D Below.

NOTE: Pump will stop when button is released.

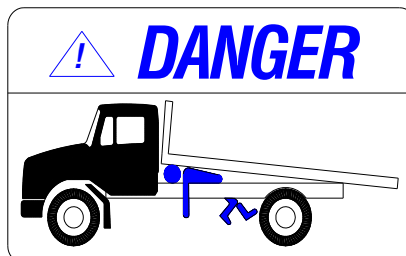


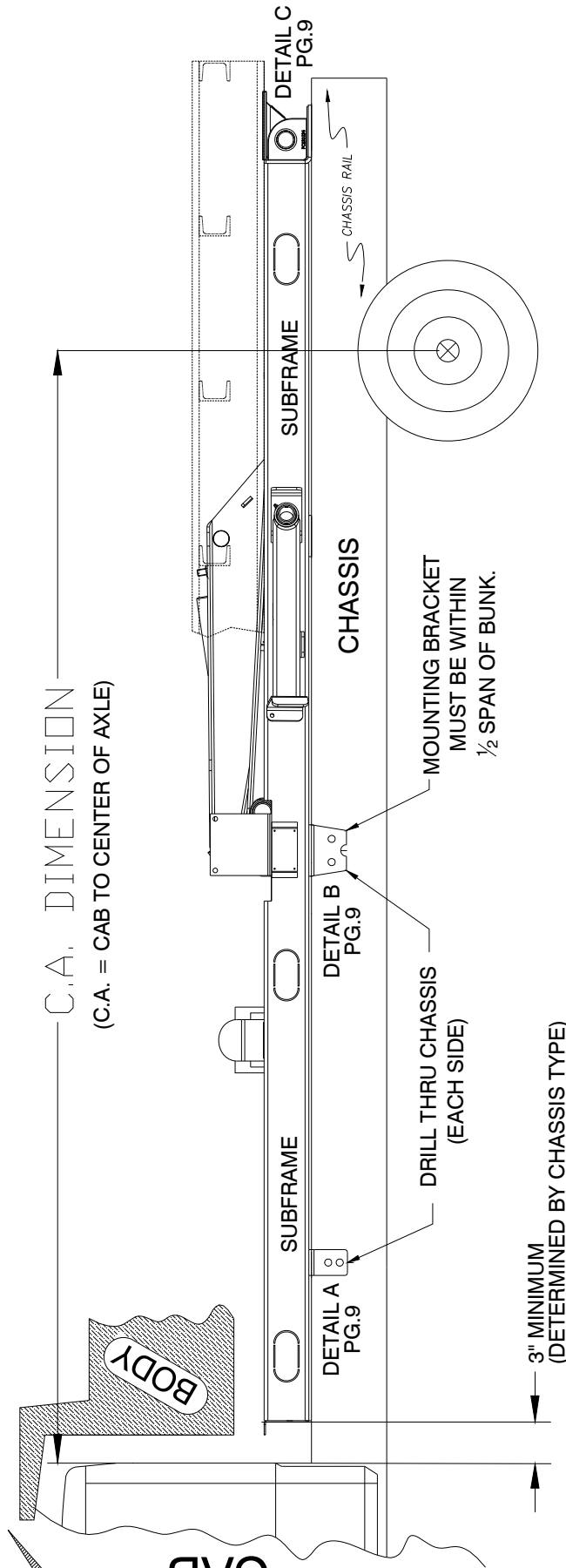
## INSTALLATION INSTRUCTIONS

### REFER TO MP50074

- STEP #1 SET SUB FRAME ON CHASSIS 3" FROM CAB.  
(NOTE: MAKE SURE THERE ARE NO OBSTRUCTIONS (MUFFLER ETC.)
- STEP #2 DRILL (1) 1/2" HOLE THRU EACH SIDE OF CHASSIS FOR FRONT MOUNT BRACKET.
- STEP #3 DRILL (2) 11/16" HOLES THRU EACH SIDE OF CHASSIS FOR LOWER BUNK BRACKET.
- STEP #4 DRILL (1) 5/8" HOLE THRU EACH SIDE OF CHASSIS FOR REAR HINGE ANGLE AND INSTALL 5/8" x 2-1/2" BOLT.
- STEP #5 REMOVE EXCESS CHASSIS.
- STEP #6 INSTALL PUMP CABLE ASSEMBLY IN CAB OF TRUCK. THIS REQUIRES A 1/2" HOLE DRILLED THRU CAB FLOOR. (NOTE: CONTROL MUST MOUNTED IN FLOOR DUE TO CABLE LENGTH)
- STEP #7 HYDRAULIC PUMP MOUNT BRACKET PROVIDED WITH SUBFRAME.
- STEP #8 PLUMB HYDRAULICS PER PLUMBING DIAGRAM:  
PD40045 - DOUBLE ACTING ELECTRIC PUMP (PAGE 11)
- STEP #9 AFTER HYDRAULIC CONNECTIONS ARE COMPLETED AND CABLE ASSEMBLY INSTALLED, FILL RESERVOIR WITH OIL.
- STEP #10 LOWER BODY ON SUB FRAME IN POSITION. RAISE HOIST UNTIL UPPER LIFT POINTS ARE FLUSH AGAINST CROSS SILL. TACK WELD REAR HINGE FLIPPERS AND UPPER LIFT POINTS SUFFICIENTLY TO ALLOW BODY TO BE RAISED SAFELY. RAISE BODY, MAKE SURE TO ENGAGE SAFETY PROP. SECURELY WELD REAR HINGE FLIPPERS AND UPPER LIFT POINTS TO BODY.
- STEP #11 REINSPECT ALL WELDS, CHECK THAT ALL HARDWARE IS SECURE, AND PLUMBING CONNECTION FOR LEAKS. (REPAIR AS NECESSARY)
- STEP #12 GREASE ALL PIVOT POINTS AND GREASE FITTINGS. (SEE MP50077)

NOTE: NEVER WORK ON A RAISED EMPTY BODY WITHOUT SAFETY PROPS IN PLACE!!!



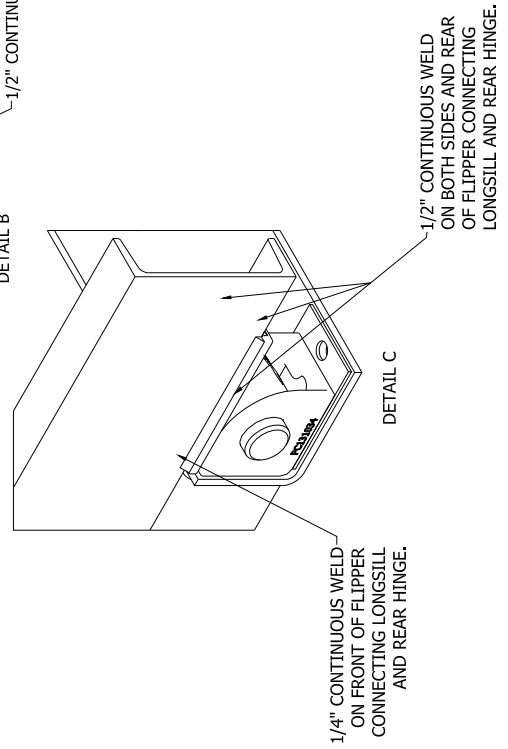
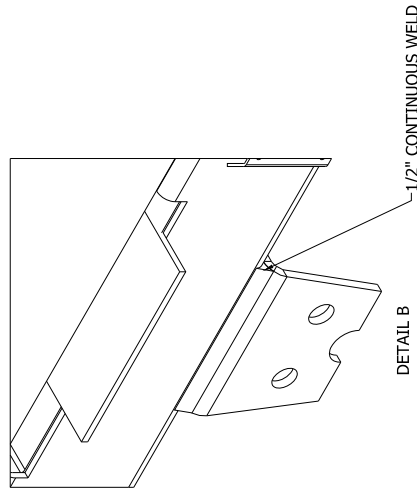
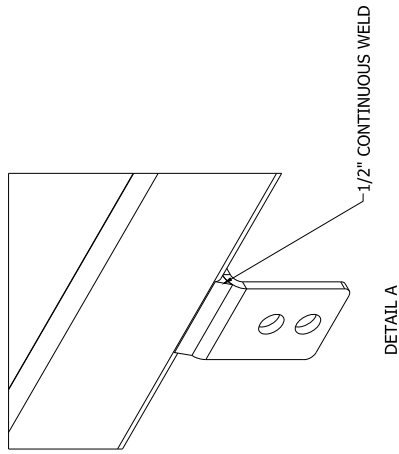


**NOTE:**  
SEE WELD DETAILS FOR  
MOUNTING BRACKETS AND REAR  
HINGE ON SHEET 9 (MP50074A)

C.A. DIMENSIONS (CAB TO CENTER OF AXLE)									
C.A. DIMENSION	60"	72"	84"	96"	108"	120"	132"	144"	156"
BODY LENGTH	8'	9'	10'	11'	12'	13'	14'	15'	16'



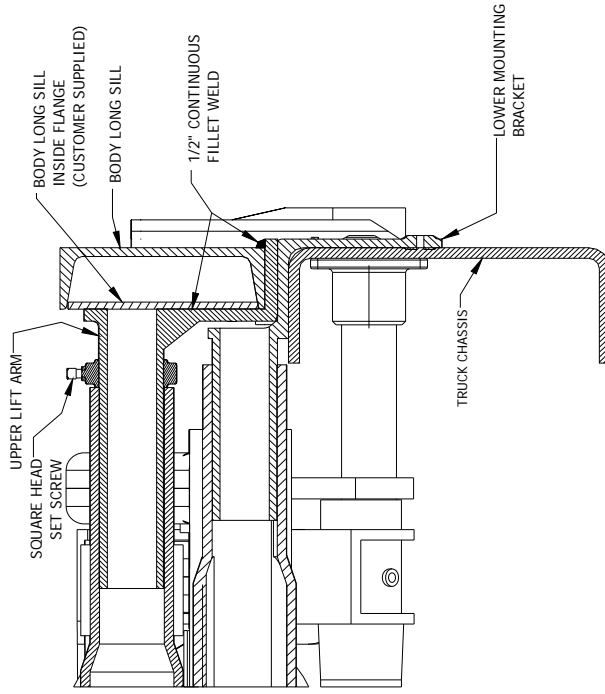
# WELD DETAILS:



# REMOVING SLACK FROM HOIST AND REAR HINGE

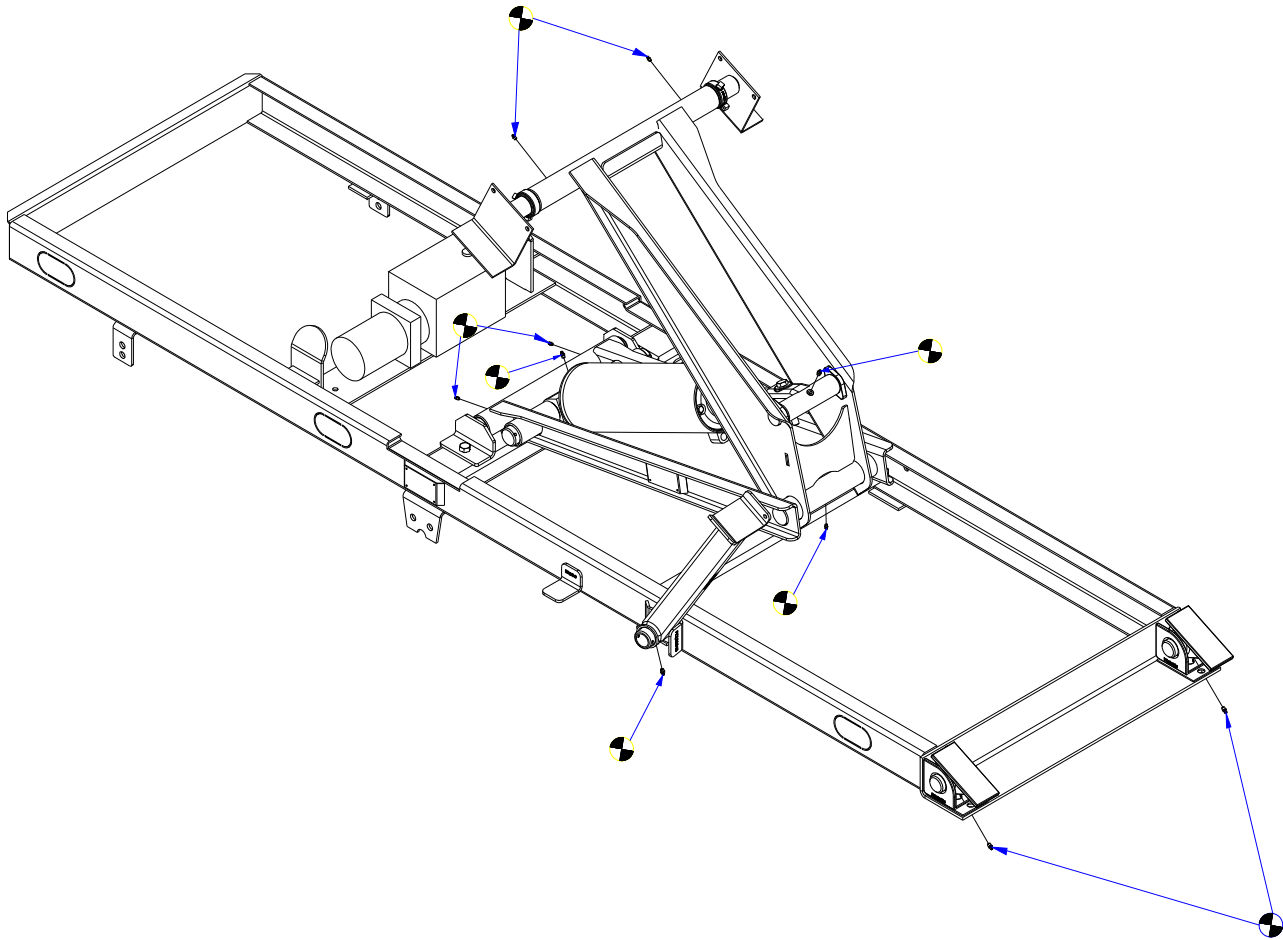
## PROCEDURE STEPS: (SEE ILLUSTRATION LEFT)


- SIT THE BODY FLUSH ONTO THE TRUCK CHASSIS.
- WELD LIFT ARMS TO LONG SILLS USING 1/2" CONTINUOUS FILLET WELD. (SEE BELOW)
- MAKE SURE HOIST IS CENTERED WITHIN THE TRUCK CHASSIS RAILS.
- SLIDE THE HOIST SET COLLARS FIRMLY AGAINST THE LIFT ARM SHOULDERS AND TIGHTEN THE SQUARE HEADED SCREWS.



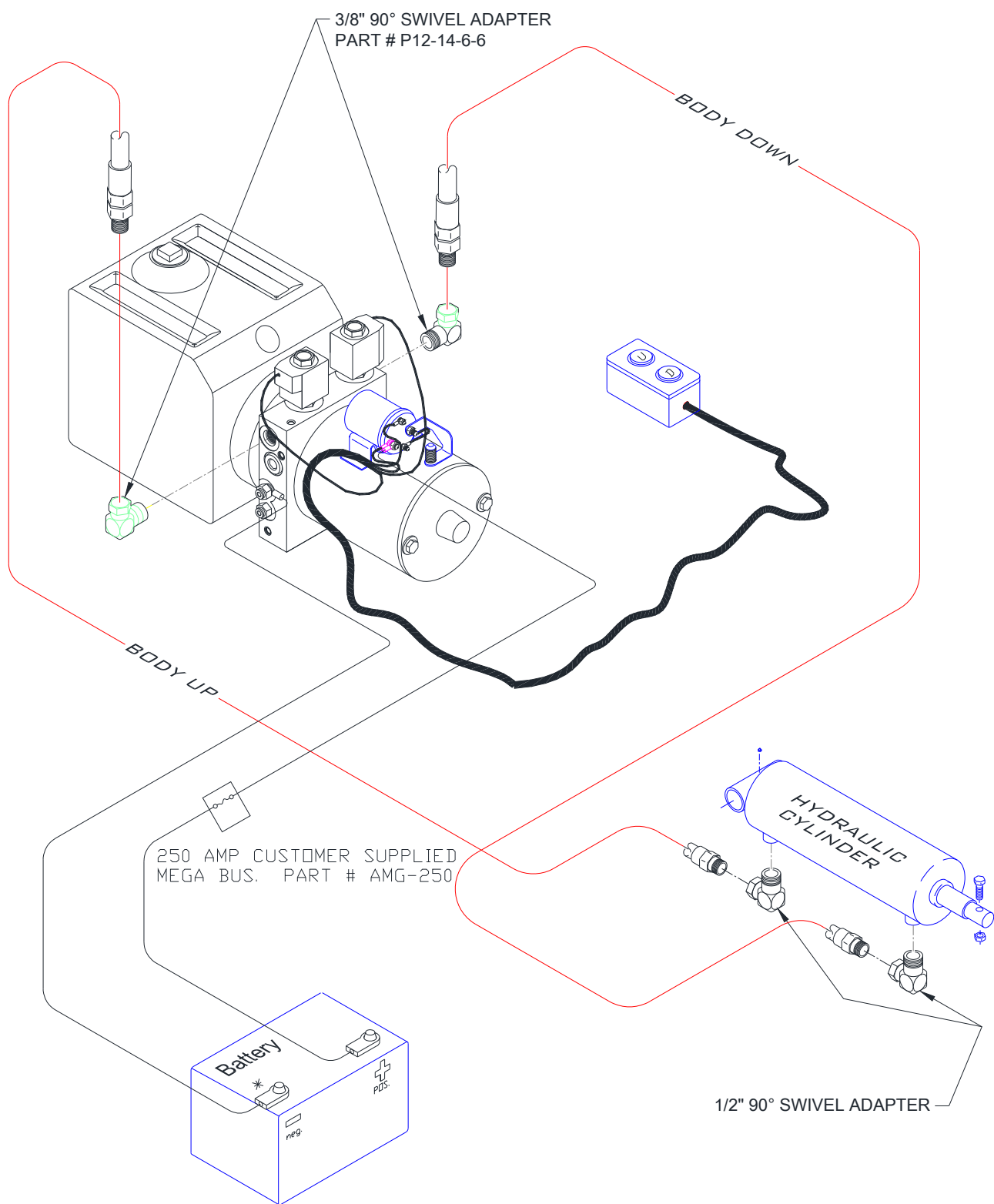
**CAUTION:** FAILURE TO PERFORM THIS PROCEDURE AS SPECIFIED COULD CAUSE HOIST FAILURE AND THEREFORE VOIDS ASSOCIATED WARRANTY.

# LUBRICATION INSTRUCTIONS



 - INDICATES GREASE FITTING LOCATIONS THAT MUST BE LUBRICATED DEPENDING ON USAGE, LOAD, ENVIRONMENT AND CLIMATE. LUBRICATE ALL PIVOT POINTS USING EP-2 CHASSIS GREASE OR EQUAL.

\* Grease hoist and rear hinge assembly each time truck is serviced.

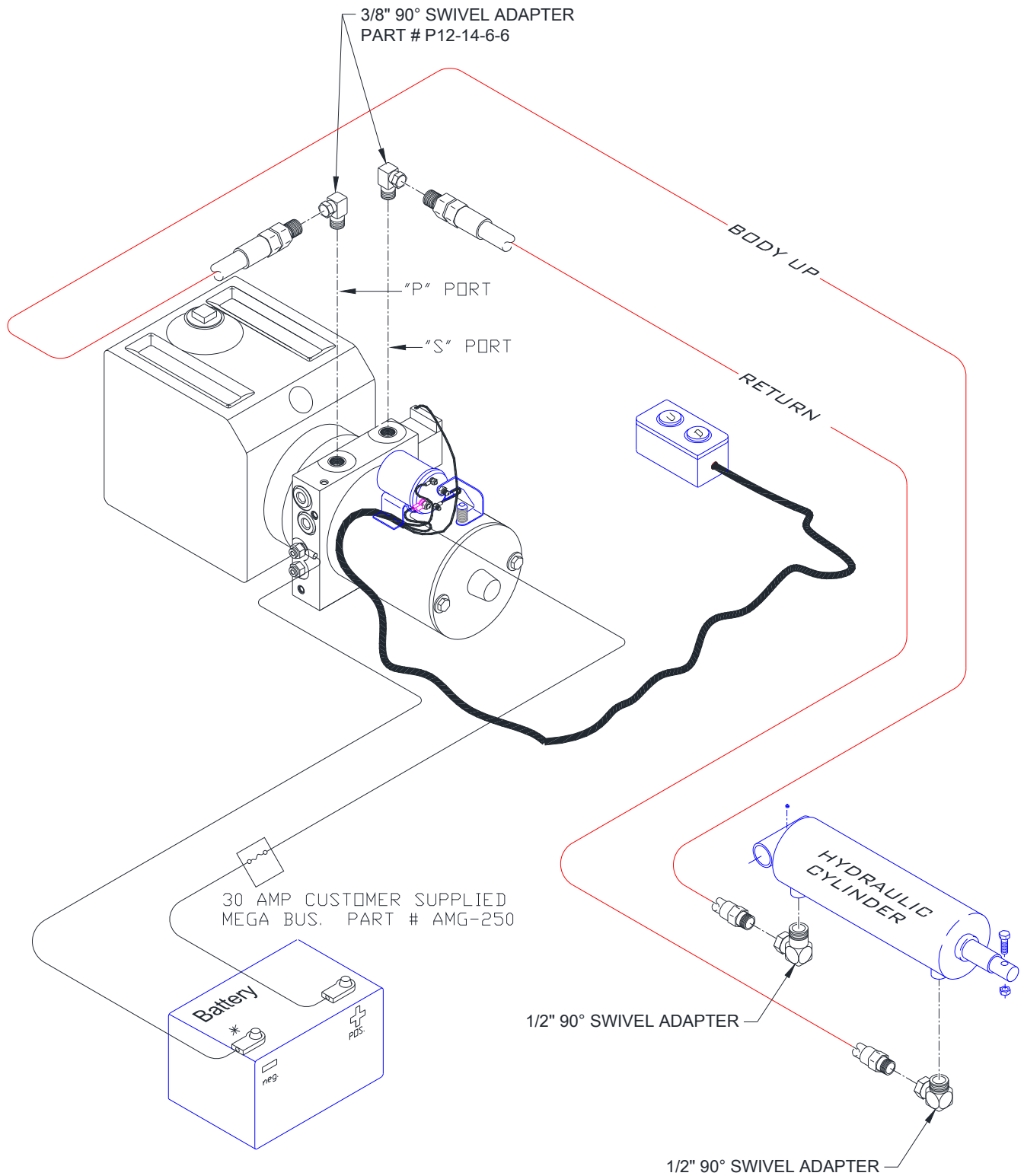


NOTE: Ground Wire is to be ground to valve body.  
DO NOT GROUND TO CHASSIS!!.

HYDRAULIC PLUMB DIAGRAM  
DOUBLE ACTING ELECTRIC PUMP

GODWIN MFG. CO., INC.  
DUNN, NORTH CAROLINA

PD40045



NOTE: Ground Wire is to be ground to valve body.  
DO NOT GROUND TO CHASSIS!!.

HYDRAULIC PLUMB DIAGRAM  
SINGLE ACTING ELECTRIC PUMP

GODWIN MFG. CO., INC.  
DUNN, NORTH CAROLINA

**PD40048**

# Electric Pump Priming Procedure

## Single acting (3519) or Double acting (3551)

(A) Be sure hoist and electric pump are completely installed and ready to safely operate. Fill electric pump reservoir with Automatic Transmission Fluid to within 1" of top.

(B) Power the hoist "Up" using the "White" button on the push button controller. NOTE: If hoist does not start to raise within 10 seconds, stop and check that the hydraulic lines are correctly installed. See below:

Monarch 3551 (double acting, yellow) "C1" port = hoist raise (white button) = 2800psi  
"C2" port = hoist lower (black button) = 800psi

Monarch 3519 (single acting, orange) "P" port = hoist raise (white button) = 2800psi  
**Must be connected >** "S" port = lower/vent to res. (black button) = -0- psi

(C) When powering the hoist "Up" the first time it is imperative that the reservoir **NOT** run out of fluid. Maintain a half tank of fluid on the first lift by stopping and filling as needed.

(D) As you are fully raising the hoist safely check for leaks, any visual obstructions, etc.

(E) **For Double Acting Pump Only - Lower** the hoist by pressing the **black** button. *NOTE: Lower the hoist 1/3 and stop for 20 seconds, repeat two more times until hoist is fully lowered.* Once the hoist has fully lowered **CONTINUE** to hold the "black" button until the oil in the reservoir stops moving (turbulence). (about 20 seconds) The turbulence you see in the reservoir during this crucial step is in reality filling the top side (or down side) of the cylinder. This typically has to be done only upon the initial installation or when the unit has run low in oil and is being refilled.

(F) After steps A through E have been done fill the reservoir as needed to maintain 2/3 to 3/4 full with bed down.

### HELPFUL HINTS:

(1) Perform the above priming steps no more than twice in 30 minutes due to the oil aerating.

(2) If the reservoir overflows when lowering, the following could cause this.

- (a) Aerated oil
- (b) "Hoist lower" line too small or obstructed
- (c) wrong ports used on pump
- (d) extremely cold conditions.

(3) Make sure the customer understands that the electric power unit (used when necessary) will have the same lifting capacity but will be slower than a PTO driven unit.

(4) Do not operate pump more than (2) minutes at a time or without truck engine running so as to keep a charge in battery.

Rev. 5/15/09 JrG

### ELECTRIC PUMP PRIMING PROCEDURE

GODWIN MFG. CO., INC.  
DUNN, NORTH CAROLINA

**MP50398**

## MONARCH M-3519 (single acting). M-3551 (double acting) ELECTRIC PUMP TROUBLESHOOTING

Motor on pump does not operate.

### Electric pump Solenoid does not click.

- (A) Bad hot(+) or ground(-) cable(s) from battery to pump. Be sure to use both cables and connect directly to battery. It is advisable to install a 250amp Mega fuse at the positive battery connection. *Note: On newer trucks the ground cable from battery to chassis is too small to carry the load of the electric pump unit. This is why you need (2) individual positive and ground cables from battery to electric pump unit.*
- (B) Check for 12v signal at small post of solenoid when pressing the “up” button of the control. If voltage is below 12 volts it may be a sign of an alternator or battery issue. If no voltage it may be the switch or a broken or corroded wire

### Electric pump Solenoid clicks but motor does not operate.

- (A) Check battery connection between solenoid and motor.
- (B) Contacts in solenoid could be burned. (Check this by shorting the two large posts on the solenoid, if motor turns replace solenoid assembly)
- (C) Motor could be bad.
- (D) Pump could be seized.

### Motor/pump turns but hoist will not work.

- (A) Check for 12 volts at valve coil(s). Could be bad switch or broken wire.
- (B) Is/are coil(s) magnetized when button is pressed? Could be bad coil/ or connector.
- (C) Cartridge stem could be bent. With bed down, remove cartridge and roll on table to check for alignment.
- (D) Check pump unit pressure. Up should be 2800psi and down (on double acting units) should be 800psi.

### Hoist stuck in up position, will not come down.

- (A) Check for 12 volts at “down” coil.
- (B) Bent stem on “down” cartridge. Call for service technician. **DO NOT ATTEMPT TO REPAIR!**

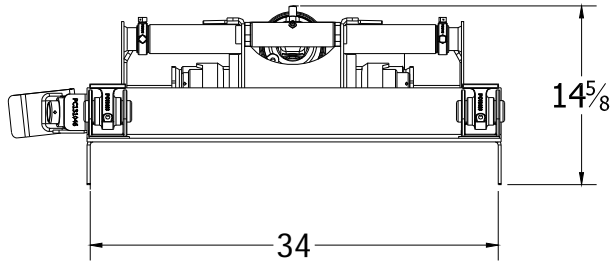
Rev. 5/15/09 JrG

ELECTRIC PUMP  
PRIMING TROUBLESHOOTING

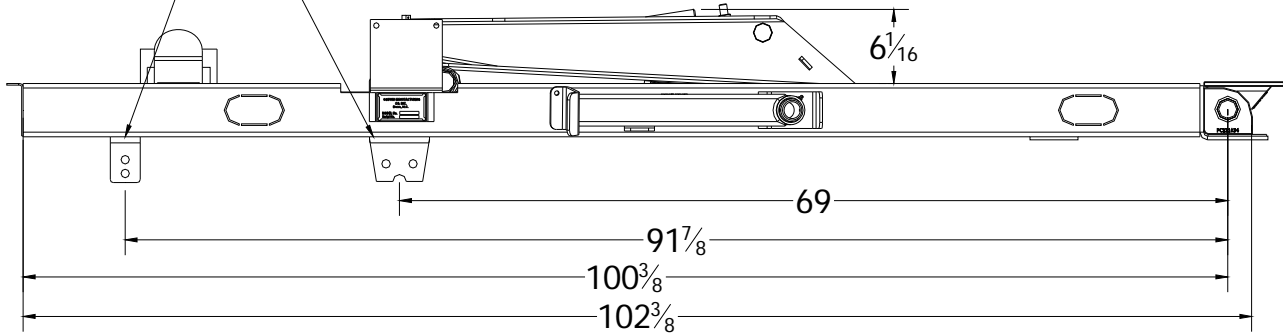
GODWIN MFG. CO., INC.  
DUNN, NORTH CAROLINA

MP50399

# CHAMPION SUBFRAME MODEL: 9' 515T 50° SUBFRAME



MOUNTING BRACKETS ARE SHIPPED LOOSE. THIS IS THE SUGGESTED PLACEMENT OF THE BRACKETS.



# CHAMPION

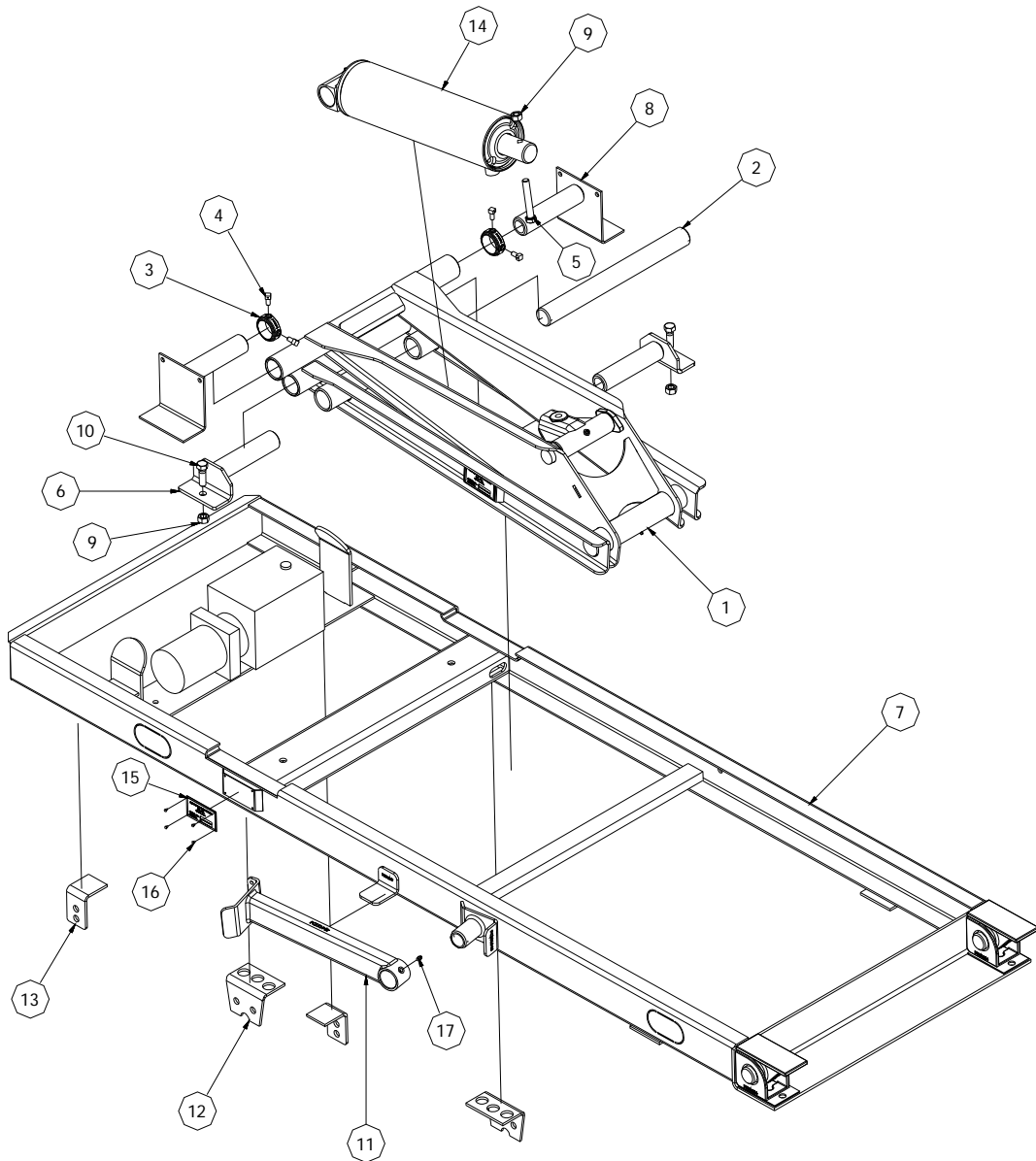
Hoist and Equipment

Dunn, North Carolina, U.S.A.

910 - 897 - 4995

Fax 910 - 897 - 6822

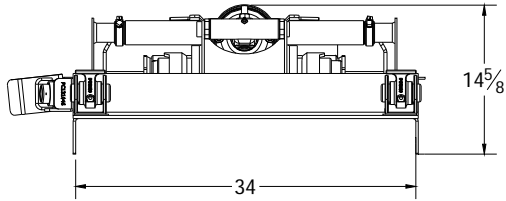
CS515T  
9' 50° SUBFRAME



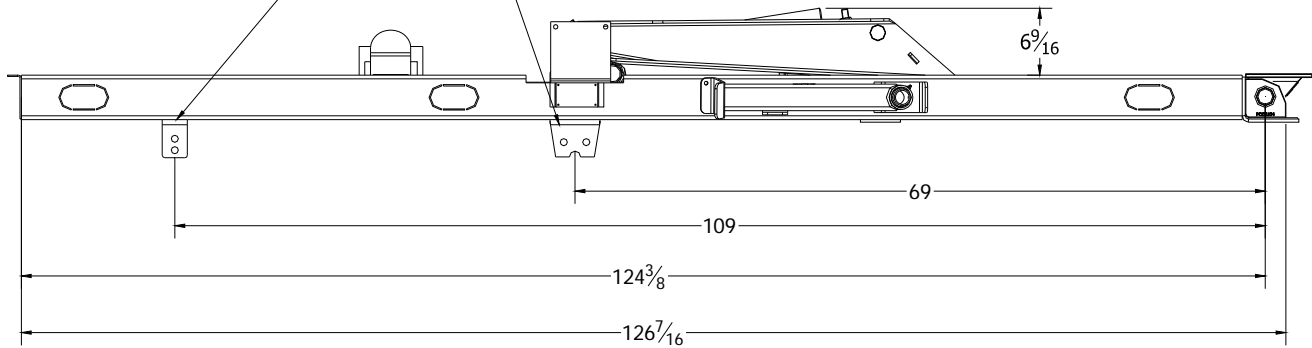
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	W12334	SCISSOR HOIST WELDMENT, 415T/515T/615T
2	1	SM12016	BOTTOM CYLINDER SHAFT, 415/515/615/615LS/415T/515T/615T
3	2	PC12161	COLLAR, LIFT ARM 1-7/8"
4	4	P34	SET SCREW 3/8"-16 x 3/4" SOHD
5	1	102-617-L	Hex Cap Screw, 5/8 x 4, GR 9
6	2	W13934	WELDMENT: LOWER PIVOT, SUBFRAME - READING
7	1	W131182	WELDMENT: 615T SUBFRAME, 11' BODY - 50 DEG DUMP
8	2	W131019	UPPER LIFT ARM WELDMENT - READING
9	3	116-7-A1	NUT, HEX, 5/8 UNC
10	2	102-609-A1	Hex Bolt - UNC (Regular Thread - Inch)
11	1	PC131048	SAFETY PROP PIVOT ARM - READING
12	2	F131024	SUBFRAME MOUNTING BRACKET - READING
13	2	F13937	MOUNTING BRACKET, 2 HOLE - READING
14	1	A21322	ASSEMBLY, 515 DA CYLINDER
15	2	P10100	SERIAL PLATE
16	8	PAAP43	RIVET, 1/8" CHERRY POP
17	1	P800	1/8" PIPE THREAD GREASE FITTING



# CHAMPION SUBFRAME MODEL: 11' 615T 50° SUBFRAME



MOUNTING BRACKETS ARE SHIPPED LOOSE. THIS IS THE SUGGESTED PLACEMENT OF THE BRACKETS.



# CHAMPION

Hoist and Equipment

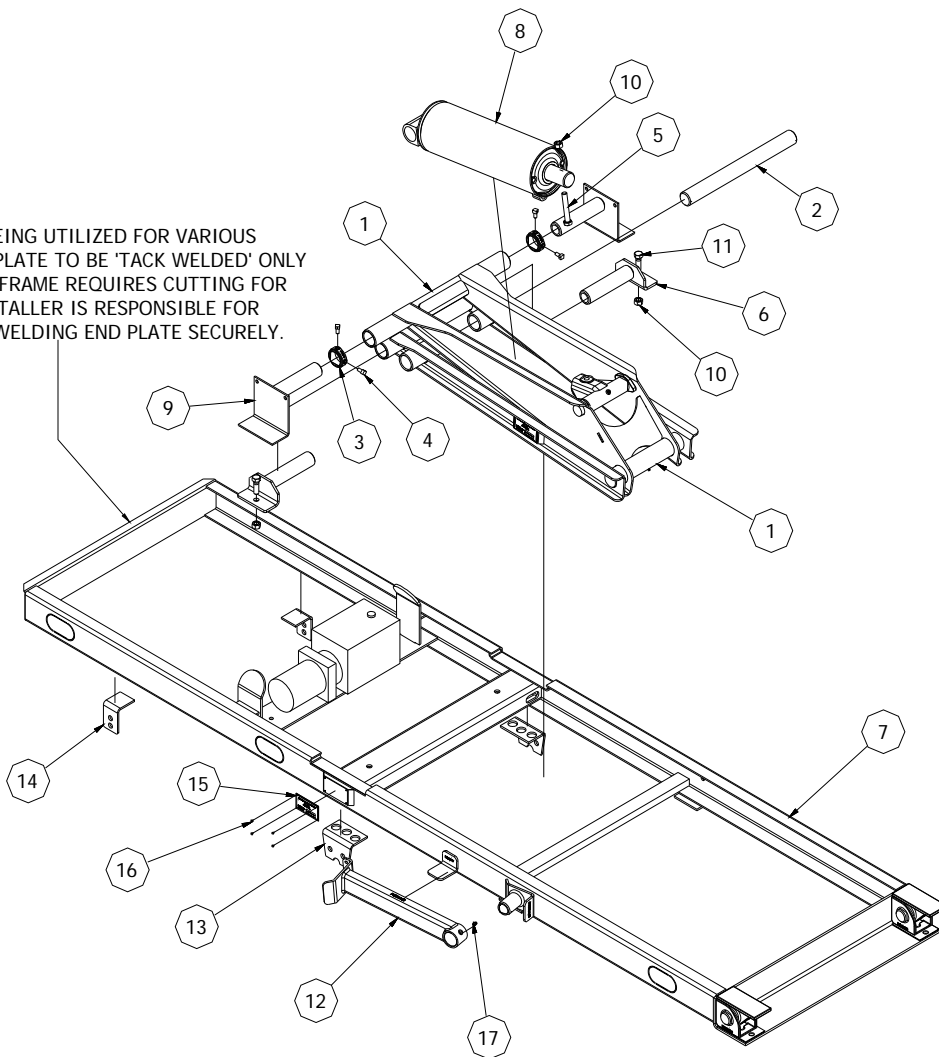
Dunn, North Carolina, U.S.A.

910 - 897 - 4995

Fax 910 - 897 - 6822

CS615T  
11' 50° SUBFRAME

NOTE:  
 DUE TO THIS UNIT BEING UTILIZED FOR VARIOUS APPLICATIONS, END PLATE TO BE 'TACK WELDED' ONLY FOR REMOVAL IF SUBFRAME REQUIRES CUTTING FOR SHORTER BODY. INSTALLER IS RESPONSIBLE FOR RE-ATTACHING AND WELDING END PLATE SECURELY.

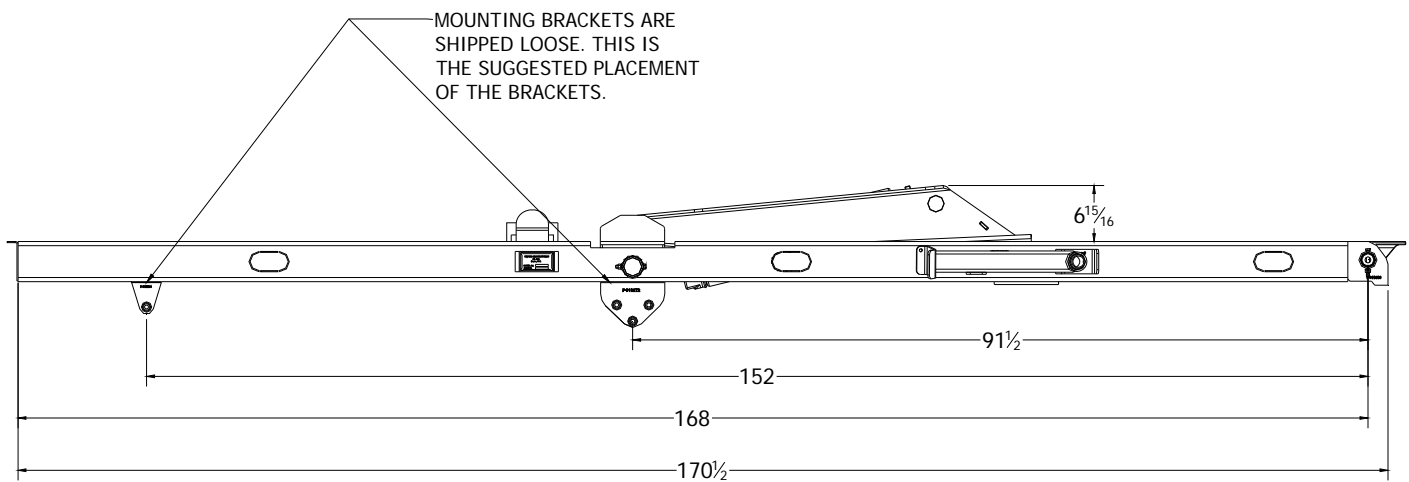
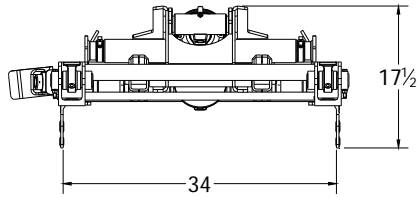


PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	A12339	615T SCISSOR HOIST ASSEMBLY
2	1	SM12016	BOTTOM CYLINDER SHAFT, 415/515/615/615LS/415T/515T/615T
3	2	PC12161	COLLAR, LIFT ARM 1-7/8"
4	4	P34	SET SCREW 3/8"-16 x 3/4" SQHD
5	1	102-617-L	Hex Cap Screw, 5/8 x 4, GR 9
6	2	W13934	WELDMENT; LOWER PIVOT, SUBFRAME - READING
7	1	W131110	WELDMENT, 615T SUBFRAME, 11' BODY - 50 DEG DUMP
8	1	A21323	ASSEMBLY, 615 DA CYLINDER
9	2	W131019	UPPER LIFT ARM WELDMENT - READING
10	3	116-7-A1	NUT, HEX, 5/8 UNC
11	2	102-609-A1	Hex Bolt - UNC (Regular Thread - Inch)
12	1	PC131048	SAFETY PROP PIVOT ARM - READING
13	2	F131024	SUBFRAME MOUNTING BRACKET - READING
14	2	F13937	MOUNTING BRACKET, 2 HOLE - READING
15	2	P10100	SERIAL PLATE
16	8	PAAP43	RIVET, 1/8" CHERRY POP
17	1	P800	1/8" PIPE THREAD GREASE FITTING

CS615T  
 11' 50° SUBFRAME

# CHAMPION SUBFRAME MODEL: 15' 620T SUBFRAME

**NOTE:**  
SUBFRAME UNIT CAN BE USED WITH  
A 520T, 620T, 5520T, OR 6620T HOIST.



## CHAMPION

Hoist and Equipment

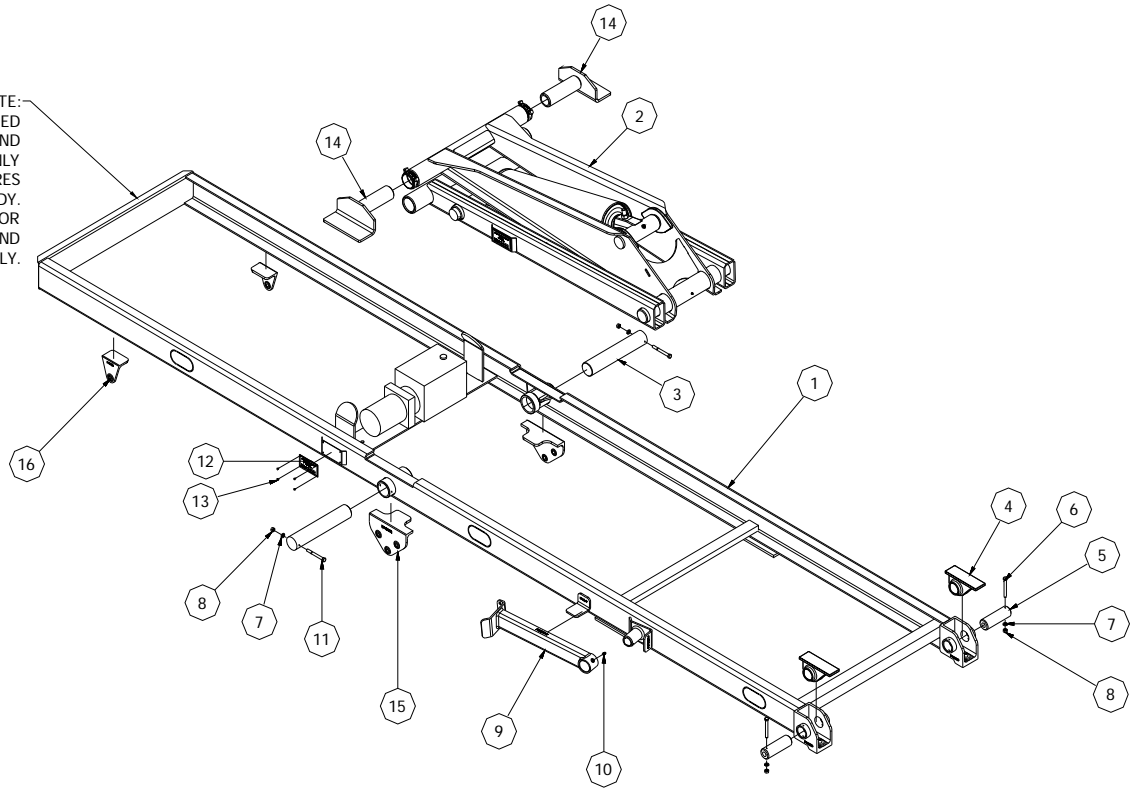
Dunn, North Carolina, U.S.A.

910 - 897 - 4995

Fax 910 - 897 - 6822

CS620T  
15' SUBFRAME

NOTE:  
 DUE TO THIS UNIT BEING UTILIZED  
 FOR VARIOUS APPLICATIONS, END  
 PLATE TO BE 'TACK WELDED' ONLY  
 FOR REMOVAL IF SUBFRAME REQUIRES  
 CUTTING FOR SHORTER BODY.  
 INSTALLER IS RESPONSIBLE FOR  
 RE-ATTACHING AND WELDING END  
 PLATE SECURELY.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	W131143	WELDMENT, 15' 620T SUBFRAME
2	1	A12341	620T SCISSOR HOIST ASSEMBLY
3	2	SM12262	SHAFT, UNIVERSAL SUBFRAME, 2 1/4"
4	2	PC10636	HINGE FLIPPER, 1-3/4"
5	2	PC10816	1-3/4" REAR HINGE PIN, SHORT VERSION
6	2	102-214	Hex Cap Screw, 3/8 X 3 1/4"
7	4	118-3-A1	LOCK WASHER, 3/8"
8	4	116-3-A1	Hex Nut, 3/8 UNC
9	1	PC131048	SAFETY PROP PIVOT ARM - READING
10	1	P800	1/8" PIPE THREAD GREASE FITTING
11	2	102-215-A1	3/8 x 3-1/2" HEX CAP SCREW
12	1	P10100	SERIAL PLATE
13	4	PAAP43	RIVET, 1/8" CHERRY POP
14	2	W13974	WELDMENT, LOWER LIFT ARM 2-1/4" - MIRAGE
15	2	PC13272	8" MOUNTING BRACKET
16	2	PC13280	4" MOUNTING BRACKET

CS620T  
 15' SUBFRAME