

It is recommended that the Owner/Operator record the following information immediately after purchasing.

Dump Truck Body		
Model Number Serial Number		
Subframe Assembly		
Model Number		
Serial Number		
Hoist Assembly		
Model Number		
Serial Number		
Truck		
Year		
Make		
Model		
Truck Number		
Subframe and C Serial Plate Loc	Cylinder eations	
	Champion Hoist & Equipment	C BY
	200 Champion Drive	
	Dunn, NC. 28334	
	800-649-4995	

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**Notice:** Before Operating, Maintaining, or Repairing the Front Mount Telescopic Hoist read this manual completely and refer to it continuously.

# **Safety Alert Symbols**

The terms Danger, Warning, and Caution are used to indicate different levels of potential hazard to equipment and personnel.



Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

**A WARNING** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**ACAUTION** Indicates a hazardous situation which, if not avoided, could result in minor injury.

**NOTICE** Used to warn of a potential hazard to the equipment.



# Safety Checklists

To prevent possible death or injury to personnel and damage to the equipment, the following checklist is to be performed prior to operating and while operating the Truck and Hoist.

# **Pre-Operation Checklist**

- Prior to initial operation of Truck and Hoist read this manual completely and refer to it continuously.
- Prior to operation of Hoist read and understand all the Safety Symbols, (Cautions, Warnings, and Dangers) in this manual, identify them on the Truck and Hoist, and follow their instructions carefully. If any Safety Symbols are missing or incomplete on the Subframe, Hoist, or Dump Body order them from Scelzi Manufacturing.
- Do not allow unauthorized personnel to operate this equipment.
- $\Box$  Do not allow personnel to ride in or on the truck body.
- $\Box$  Do not operate a loaded truck on unlevel or soft surfaces.
- Prior to operation of Hoist inspect to ensure that the safety props, pump/valve guard, & PTO shaft guards are in place and in good working order.
- $\Box$  Disengage the PTO drive prior to operating the truck.

Moderately high PTO speeds will damage the pump and sustained high PTO speeds may cause the hydraulic oil temperature to rise high enough to damage the pump.

# **Operational Checklist**

- □ Before loading the Truck make sure that the load does not exceed the Gross Vehicle Weight (GVW) rating of vehicle or the Hoist's rated lifting capacity.
- □ Always load the Dump Body evenly from side-to-side and from front-to-rear.
- □ Prior to operating the hoist ensure the area is clear of personnel and equipment.
- $\Box$  Do not allow hoist controls and the area around them to become cluttered with tools, cans, etc.
- Do not operate the hoist under Power Lines.
- $\Box$  Do not raise the hoist when truck is in motion.
- $\Box$  Do not move the truck with the hoist raised.
- Always release tailgate latching controls prior to lifting the dump body.
- $\Box$  Always operate the hoist controls from inside the truck cab.
- Do not go underneath a loaded and raised truck body under <u>ANY</u> circumstances.
- $\Box$  Do not go underneath a truck with the engine running.
- Do not go underneath an unloaded raised truck body unless the safety props are properly installed.
- $\Box$  Do not leave truck unattended with truck body raised.

#### **Post Operation Checklist**

- $\Box$  Do not use hands or other body parts to check for hydraulic leaks.
- □ Follow all Federal, State, and local regulation pertaining to this equipment.
- □ Keep all equipment properly maintained and serviced.



# **Periodic Inspections**

The following checklist is to be followed prior to operating and while operating the Truck and Hoist.

# **Daily Inspection (Before Operating)**

- Check hydraulic oil level and add more to the reservoir as needed.
  For PTO driven pumps use HD 32 hydraulic oil.
  For electric driven pumps use ATF, automatic transmission fluid.
- □ Check for any fluid leaks under truck and hoist.
- □ Make sure all components are securely fastened, such as frame/pump guard, tool box is closed, hydraulic hoses for spreader/plow properly stowed, etc.
- $\Box$  Check all lighting to be sure it is functioning properly.
- □ Check lighting on any towed equipment.
- □ Inspect hitch if towed equipment is attached and be sure safety chains are fastened.
- □ Test hydraulic functions and observe for proper operations.
- $\Box$  Check tire pressure per markings on the tires.

# **Weekly Inspection**

- $\Box$  Perform all of the above checks.
- □ Inspect all mechanical functions, i.e., hoist pivots, rear hinge pivots, single hitch, etc. Be sure they have been properly lubricated and show no signs of stress.
- Test Low Oil Shutdown system to be sure it is operating properly.

# **Bi-Monthly Inspection**

- Lubricate all hoist pivot points and rear hinge assemblies with chassis grease.
- □ Lubricate pintle hitch with chassis grease.

# Six Months to One Year (Depending upon usage)

- □ Change hydraulic oil filter. (1st change after 50 hours of operation.)
- $\Box$  Inspect suction strainer in oil tank.
- □ Check hydraulic oil for contamination, discoloration, signs of wear, etc.



# **Subframe Installation**

**A WARNING** A Subframe is heavy! Be careful when lifting or moving a subframe. Lifting with an Overhead Crane is the safest method.



Carefully measure and inspect the Truck's Chassis Rails for obstructions prior to installing the Subframe. The following instructions must only be performed after all measurements have been completed and any obstructions are relocated or removed. If an obstruction cannot be relocated or removed (i.e., Engine Exhaust) then the Subframe can be placed slightly aft (to the rear) of the ideal location.

- 1. Determine the ideal location for the Subframe on the Chassis Rails by using the dimensions shown in Figure 3, page 11 and Figure 7, page 15. The final location for each individual truck may vary from the ideal location. Factors such as Body Length, Obstructions, and Overhang all must be accounted for before the Subframe is mounted on the Chassis Rails.
- **Note:** The bottom of the Rear Hinge Assembly has two 5/8" holes for mounting the Subframe to the top of the Chassis Rails using two 5/8" bolts.
- 2. Carefully measure the locations of the 5/8" holes in the bottom of the Rear Hinge Assembly.
- 3. Drill (1) 5/8" hole thru the top of each chassis rail to match the location of the holes in the bottom of the Rear Hinge Assembly.
- 4. Remove excess chassis beyond the rear of the Subframe
- 5. Using an Overhead Crane, set Subframe on chassis at least 4 inches from truck cab or obstruction. Align Subframe evenly on chassis. Insert mounting brackets between Subframe & chassis and locate them per Figure 1 below and Figure 4, page 12.
- 6. Install a 5/8" x 2-1/2" bolt thru the bottom of each side of the Rear Hinge Assembly (refer to step 3 above) and bolt them to the Chassis
- **Note:** Inspect chassis rails to determine if any obstructions will prevent ideal placement of the mounting brackets, i.e., wiring, hydraulic hoses, welded-on chassis cross members, or the engine exhaust. The ideal location for the larger, three hole mounting brackets is opposite of each other across the Subframe where the cylinder pivots in the lower bunk. This location provides the most support to the cylinder.
- 7. Use a C-clamp to hold mounting brackets in place.

#### **A**CAUTION Drilling through two pieces of metal can cause the drill bit to bind and stop spinning. A bound drill bit can cause the drill to spin violently and cause injury to personnel.

- 8. Using a 1/2" drill bit carefully drill into the chassis thru the mounting holes in the brackets. Drill just deep enough to mark the locations for bolt holes to be drilled into the chassis and remove mounting brackets.
- 9. Drill eight 1/2" holes thru each side of chassis for Front Mount Bracket and Lower Bunk Bracket.
- 10. Reinsert mounting brackets between Subframe & chassis and bolt them to the Chassis.
- 11. Weld mounting brackets to Subframe with a 1/2" continuous weld. Do **NOT** weld brackets to the Chassis.



# Subframe Installation (Continued)

# Hydraulic Reservoir (Tank) Installation

- 1. Refer to Figure 9, page 18.
- 2. Using an Overhead Crane, set the Hydraulic Reservoir on the Subframe.
- 3. Align the reservoir with the bolt holes in the Subframe and securely bolt it to the brackets.

# **Hydraulic Pump Installation**

**Note:** Prior to mounting Hydraulic Pump check rotation of pump to be sure which port is the pressure port.

- 1. For Electric driven pumps, determine the best location for the hydraulic Pump Bracket and weld it to the Subframe. Bolt the Hydraulic Pump to the Mounting Bracket.
- 2. For Power Take-Off (PTO) driven pumps, mount Hydraulic Pump to PTO.
- 3. Plumb Hydraulics per Plumbing Diagram outlined in Figure 7, page 16.
- 4. After hydraulic connections are completed and cable assembly is installed, fill reservoir with oil.

Note: For PTO driven pumps use HD 32 hydraulic oil.

For electric driven pumps use ATF, automatic transmission fluid.

# Pump Cable Assembly Installation in Cab

1. Carefully select a location in the floor of the cab to drill a 1/2" hole through to mount the cable. The location must be close to the operator but not near power cables and other obstructions.

Note: Control cable must be mounted in floor due to cable length.

- 2. Drill through cab floor with a 1/2" hole drill bit.
- 3. Carefully thread the cable through the hole and lay it out along the best route to the pump. Pay particular attention to not damaging the cable on the sharp edges of the hole and routing the cable in such a way as to not bind the cable during operation.
- 4. Install the cable to the pump.
- 5. Inject silicon gel into the hole in the cab and around the cable so as to seal the hole and protect the cable.

# **Dump Body Installation**

#### **A WARNING** Dump Bodies are very heavy! Be careful when lifting or moving.

#### Aligning the Body

- 1. Using an Overhead Crane, suspend Dump Body over the Subframe behind the bunk and cylinder.
- 2. Lower the Body down low enough to extend the Cylinder Rod to the Upper Bunk connection.
- 3. Connect the cylinder to the Upper Bunk connection.
- 4. Move the body forward until it aligns with the subframe and lower it.
- 6. Inspect body for correct alignment to subframe and adjust alignment until correct.
- 7. Weld Rear Hinge Flippers to the body.



# **Dump Body Installation (Continued)**

# **Installing Safety Prop Cups**

- 8. Using an Overhead Crane, raise the front of dump body high enough to install the Safety Prop Cups. Leave body raised until installation is complete.
- **Note:** The Safety Prop Cups must be located on a body cross channel. This means that the cup will be tucked-up inside of the dump body so that it can be welded to a cross channel, and the floor of the body. Refer to Figure 2 below.
- Note: When correctly installed the Safety Prop will angle slightly (80°) towards the rear of the truck. Put another way, 90° is perpendicular (vertical) to the truck frame therefore 80° is 10° off of vertical. This will prevent the Safety Prop from slipping out of the Safety Cup.
- 9. Mount the Safety Cup to a cross member, and underside of the floor. Secure it with a C-Clamp and weld all contact points with 3/8 inch continuous bead.
- 10. Remove C-clamp and put Safety Props in the cups and lower the Body down onto the Safety Props.
- 11. Inspect all welds and check all hardware/plumbing connections for looseness and oil leaks. Repair as needed.

# Purging the Hoist and Lubricating

- 12. Check the fluid level in the Reservoir and fill until full, (three inches from the top). Fully lower the body and disconnect the Overhead Crane.
- 13. Raise body with Hoist Power until the cylinder is fully extended and the Safety Props are put in place.
- 14. Open the Bleeder Valve on the cylinder and purge air out of the cylinder until a steady stream of oil expels. Close bleeder valve and lower body to chassis. Repeat several times, until only oil comes out (no air bubbles).
- 15. Grease all Pivot Points and grease fittings.



# **Figure 2: Ideal Mounting Bracket Locations**

CHAMPION

# **Dump Body Installation (Continued)**

#### **Pneumatic Knock-Off Installation and Adjustment**

**Note:** Refer to Figure 9, page 19; Figure 6, page 14; and PD40102, page 18 for the following instructions.

**Note:** The Pneumatic Knock-Off is a safety device used to limit body dump angle and to prevent the cylinder from over extending.

#### Installation

- 1. Securely mount the Pneumatic Knock-Off to the mounting bracket provided with the Knock-Off. Using two M6 washers and locking nuts and tighten them to 4 Newton Meters (Nm).
- 2. Using a C-clamp locate and mount the Pneumatic Knock-Off on the Lower Bunk directly behind the center of cylinder as shown in Figure 6, page 14.
- Note: The distance between work line of the Pneumatic Knock-Off and the pivot of cylinder should be a MINIMUM of 125 mm.

# **A** CAUTION A bound drill bit can cause the drill to spin violently and cause injury to personnel.

- 3. Using a 8 mm drill bit carefully drill into the Lower Bunk thru the mounting holes in the brackets. Drill just deep enough to mark the location for the bolt holes.
- 4. Remove the C-clamp and Pneumatic Knock-Off assembly.
- 5. Drill two 8 mm diameter holes thru the Lower Bunk.
- 6. Install the Pneumatic Knock-Off assembly using two M8 x 30 Hex Head Bolt and tighten to 20 Nm.
- 7. Connect Knock-Off to the pneumatic system according to Figure 9, page 19 and PD40102, page 18.
- 8. Fit at least 30 cm of 6 mm air hose to Port 3, the Exhaust port of the Knock-Off. Point the empty end of the air hose downwards and firmly attach it with a tie-wrap.

#### Adjustment

- 1. Turn the adjustment fully inward.
- 2. Keeping the engine at low revs, run the cylinder out to the end of stroke.
- 3. Lower the cylinder 6 to 8 inches.
- 4. Turn the adjustment bolt outward until it touches the cylinder and lock it with the contra-nut.
- 5. Check for proper function by lowering and raising the cylinder at low engine revs.
- 6. If cylinder raises too far and reaches end of stroke, turn out the adjustment bolt by 3 turns and check again. Repeat this step until cylinder stops extending 6 to 8 inches from end of stroke.
- 7. Check for proper function by lowering and raising the cylinder at high engine revs.
- 8. If cylinder raises too far and reaches end of stroke, turn out the adjustment bolt by 3 turns and check again. Repeat this step until cylinder stops extending 6 to 8 inches from end of stroke.











# Figure 6: 5383 Subframe and Hoist Parts List

			A131135 - Parts List
Item	Qty.	Part Number	Description
1	1	W131134	Subframe Weldment, 5383, 10 Foot
2	2	PC10463	Hinge - 1-3/4" Flipper
3	3	P800	1/8" Pipe Thread Grease Fitting
4	2	PC10525	Rear Hinge Pin
5	3	102-214	Hex Cap Screw, 3/8 x 3-1/4"
6	3	118-3-A1	Lock Washer, 3/8"
7	3	116-3-A1	Hex Nut, 3/8" UNC
8	2	PC13280	4" Mounting Bracket
9	1	SM13033	Safety Stand
10	1	102-417-A1	Cap Screw; HH, 1/2" UNC x 4" GR8
11	1	118-5-A1	Lock Washer, 1/2"
12	1	116-5-A1	Hex Nut, 1/2"
13	2	PC13278	8" Mounting Bracket
14	1		Serial Plate
15	4	PAAP43	Rivet, 1/8" Cherry Pop
16	1	A15076	11 Gallon Reservoir Assembly (Refer to Figure 8, page 17)
17	1	PH5-3-83	Hyva Hydraulic Cylinder
18	1	P14700506	Knock-Off Cylindrical with Support (Refer to Figure 5, page 19)
19	1	SM13099	Pin, Cylinder Attach, 5383 Subframe



# **Instructions to Reverse C102 Pump Rotation**

Note: Refer to Figure 7 below for the following instructions.

- **Note:** When viewing a Clockwise (CW) pump from the Shaft End Cover with the Drive Shaft on top. The Valve Spool will be on the RIGHT side of the pump.
- Note: When viewing a Counterclockwise (CCW) pump from the Shaft End Cover with the Drive Shaft on top. The Valve Spool will be on the LEFT side of the pump.

# Adjustment

- 1. Securely mount Pump Flange in a vise, Shaft down.
- 2. Remove the four, 5/8" 11 hex bolts and washers that hold the body of the pump together.
- 3. Remove the Valve and Center sections of pump leaving the Front Cover and Gears in place.
- 4. Rotate the Valve and Center sections 180 degrees from their original position and carefully lower them back onto the Gears and Front Cover.
- 5. Reinstall the four, 5/8" 11 hex bolts and washers and evenly torque to 200 foot pounds in a diagonal pattern.













Maintenance and Service Record		
Date	Maintenance and Services Performed	