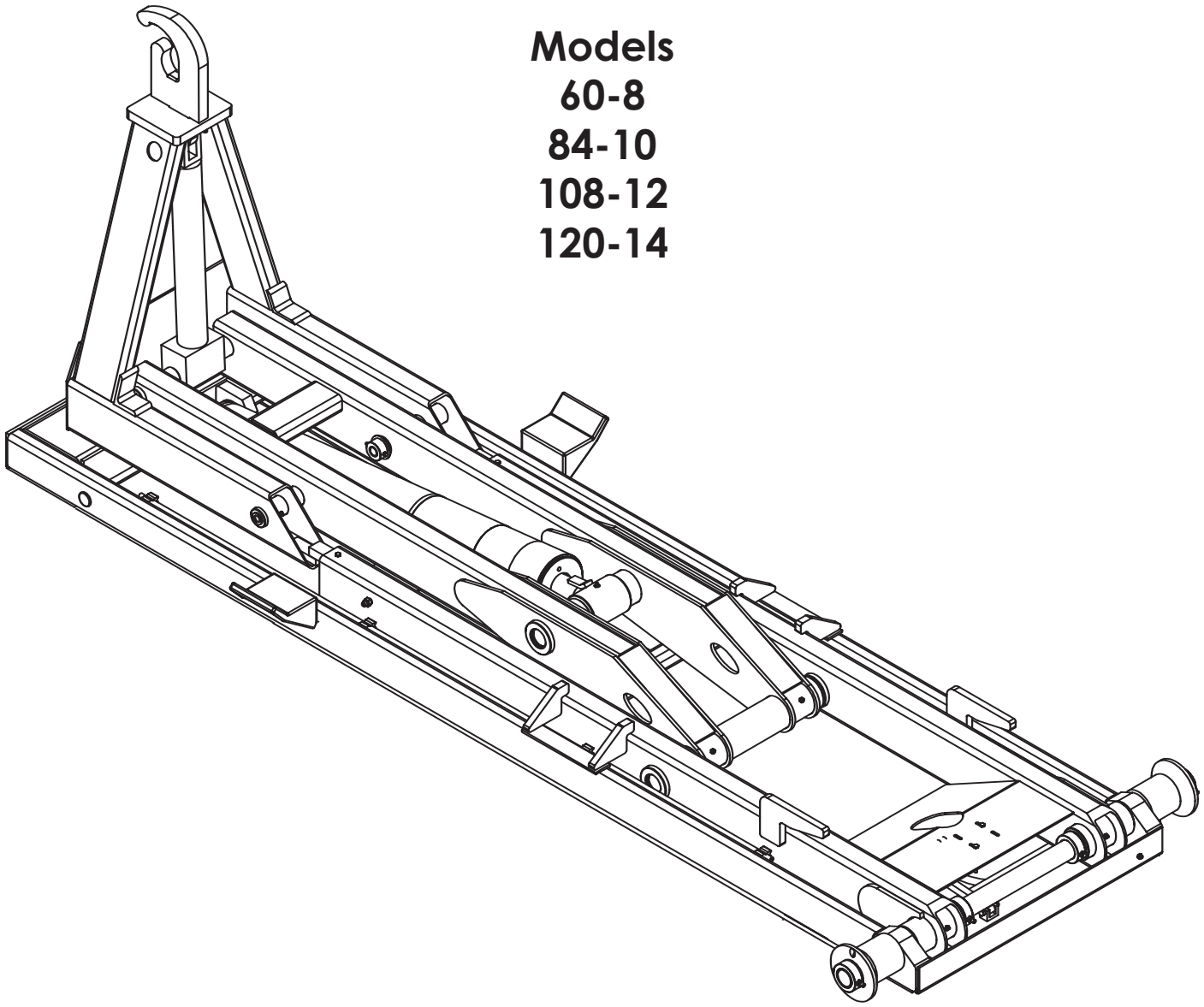
FLEX36 HOOKLIFT
OWNERS' MANUAL

Safety • Operation • Installation • Maintenance



Models
60-8
84-10
108-12
120-14

Stellar Industries, Inc.
190 State Street
PO Box 169
Garner, IA 50438
800-321-3741
Fax: 641-923-2811
www.stellarindustries.com

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Flex36 Hooklift Manual Revisions

Date of Revision	Section Revised	Description of Revision
August 27, 2007	Chapter 6 - Installation	Updated Reservoir Assembly Drawing (PN 35883) to reflect engineering changes.
May 14, 2008	Chapter 7 - Assembly Drawings	Updatted Base Assembly Drawing Drawings to reflect engineering changes.
January 14, 2010	Chapter 6: Installation	Updated Controller Assembly to reflect engineering changes.

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AN OVERVIEW TO OWNER, OPERATOR AND SERVICE PERSONNEL ABOUT SAFETY

As the owner or employer, it is your responsibility to instruct the operator in the safe operation of this equipment and to provide the operator with properly maintained equipment.

FAILURE TO READ THIS MANUAL BY ANYONE WHO WILL OPERATE, SERVICE, OR WORK AROUND THIS HOOKLIFT IS A MISUSE OF THE EQUIPMENT. DEATH OR SERIOUS INJURY WILL RESULT FROM IMPROPER USE OR MAINTENANCE OF THIS MACHINE.

Occupational safety is a prime concern of Stellar Industries in the design and production of this hooklift. Our goal in writing this manual was the safety of the operator and others who work around this equipment.

It is your responsibility to know the specific requirements, governmental regulations, precautions and work hazards that exist in the operation and maintenance of this hooklift. You shall make these available and known to all personnel working with and around the equipment, so that all of you will take the necessary and required safety precautions. **FAILURE TO HEED THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.**

It is also your responsibility to operate and maintain your hooklift with caution, skill, and good judgment. Following the recognized safety procedures will help you avoid accidents. Modification to any part of his hooklift can create a safety hazard and therefore shall not be made without the manufacturer's written approval. Use only factory approved accessories, options, and parts on this equipment. The rebuilding or remounting of this equipment requires the mounting procedures and retesting to be in accordance with factory instructions. Safety covers and devices must remain installed and maintained in proper working condition. Safety decals must be maintained, be completely legible, and be properly located. If safety covers, devices, or decals are missing, they must be replaced with the proper designated Stellar part.

Be capable, careful, and concerned! Make safety your everyday business!

Attention!

According to Federal Law (49 cfr part 571), each final-stage manufacturer shall complete the vehicle in such a manner that it conforms to the standards in effect on the date of manufacture of the incomplete vehicle, the date of final completion, or a date between those two dates. This requirement shall, however, be superseded by any conflicting provisions of a standard that applies by its terms to vehicles manufactured in two or more stages.

Therefore, the installer of Stellar hooklifts is considered one of the manufacturers of the vehicle. As such a manufacturer, the installer is responsible for compliance with all applicable federal and state regulations. They are required to certify that the vehicle is in compliance with the Federal Motor Vehicle Safety Standards and other regulations issued under the National Traffic and Motor Vehicle Safety Act.

Please reference the Code of Federal Regulations, title 49 - Transportation, Volume 5 (400-999), for further information, or visit www.gpoaccess.gov/nara/index.html for the full text of Code of Federal Regulations.

Introduction

Stellar Hooklifts are designed to provide safe and dependable service for a variety of operations. With proper use and maintenance, these hooklifts will operate at peak performance for many years.

To promote this longevity, carefully study the information contained in this manual before putting the equipment into service. Though it is not intended to be a training manual for beginners, this manual should provide solid guidelines for the safe and proper usage of the hooklift.

Once you feel comfortable with the material contained in this manual, strive to exercise your knowledge as you safely operate and maintain the hooklift. This process is vital to the proper use of the unit.

A few notes on this manual:
A copy of this manual is provided with every hooklift and shall remain with the hooklift at all times. Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations.

Please be aware that some sections of this manual contain information pertaining to Stellar manufactured hooklifts in general and may or may not apply to your specific model.

This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

In closing:
If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at service@stellarindustries.com.

ATTENTION

Failure to adhere to the instructions could result in property damage or even serious bodily injury to the operator or others close to the hooklift.

For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at

800-321-3741

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST

Or email at the following addresses:

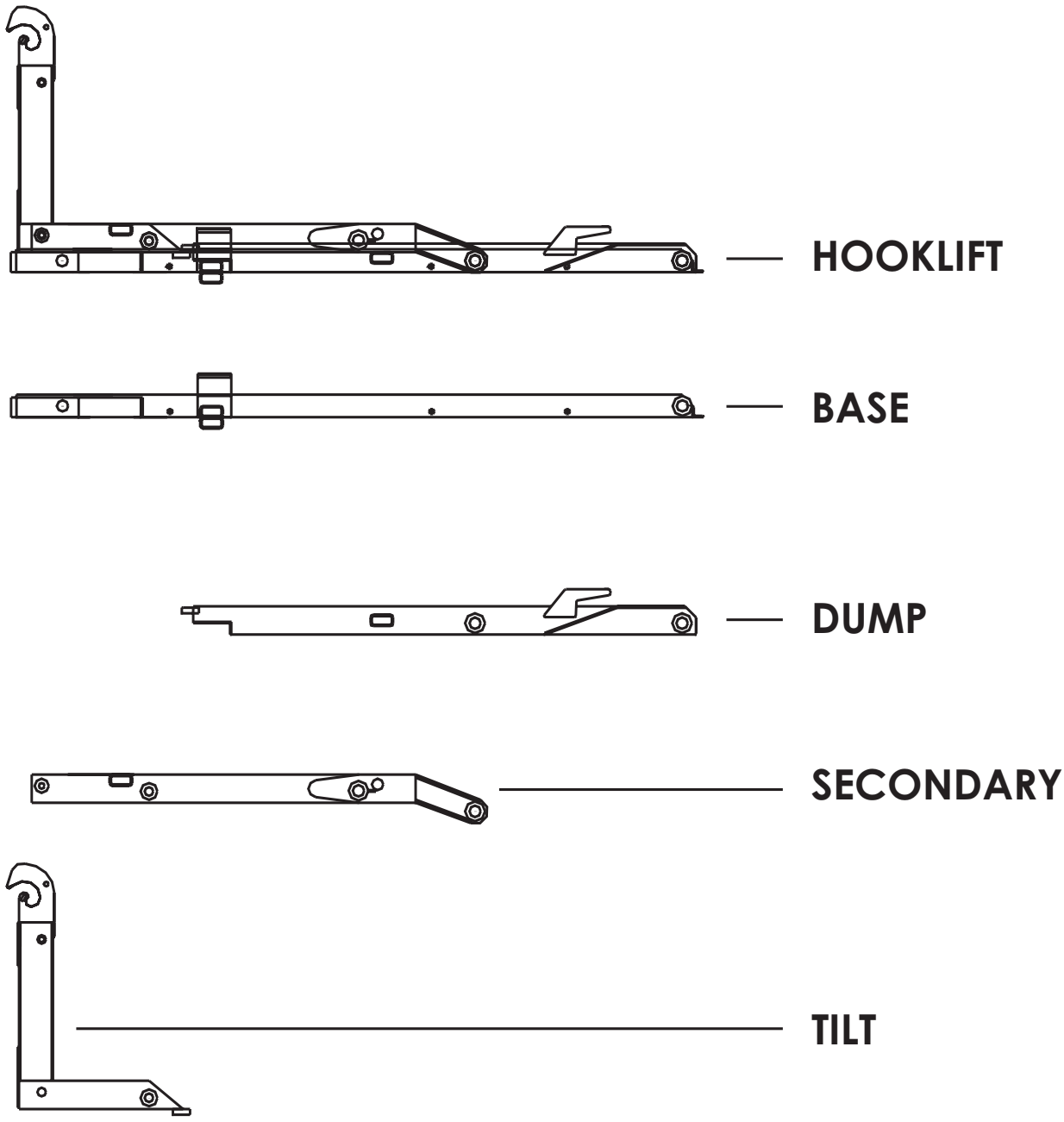
Technical Questions, and Information	service@stellarindustries.com
Order Parts	parts@stellarindustries.com
Warranty Information	warranty@stellarindustries.com

Stellar Flex Hooklift Nomenclature

The Stellar Flex is a hydraulic, body-loading device when mounted on a truck chassis. When mounted, the Stellar Flex can handle a variety of bodies ranging from flatbeds to recycling containers to dump bodies.

Two independently controlled cylinders operate all the functions of the Stellar Flex. By varying the cylinder operation, the Stellar Flex can be used to dump or unload a body.

The Stellar Flex consists of four basic parts: The base, dump, secondary, and tilt sections. Familiarize yourself with the various components of this hooklift and the names of those components. Knowing the proper terminology is necessary to get full benefit from this manual



Chapter 1 - Safety

Please Read the Following Carefully! This portion of the manual contains information regarding all Stellar manufactured hooklifts. Some items contained within this chapter may not apply to your specific equipment.

Safety should be the number one thought on every operator's mind. Three factors should exist for safe operation: a qualified operator, well-maintained equipment, and the proper use of this equipment. The following information should be read and understood completely by everyone working with or near the hooklift before putting the unit into operation.

Please take note that Stellar Industries, Inc. is not liable for accidents incurred by the hooklift because of non-fulfillment from the operator's side of current rules, laws, and regulations.

General Safety
It is the responsibility of the owner to instruct the operator in the safe operation of your equipment and to provide the operator with properly maintained equipment.

Trainees or untrained persons shall be under the direct supervision of qualified persons.

Do not operate equipment under the adverse influence of alcohol, drugs, or medication.

Read all Danger and Caution decals on the equipment and understand their meaning.

Personal Safety
Keep clear of all moving parts.

Always wear the prescribed personal safety devices.

Always wear approved accident-prevention clothing such as: protective helmets, anti-slip shoes with steel toes, protective gloves, anti-noise headphones, protective glasses, breathing apparatus, and reflective jackets. Consult your employer regarding current safety regulations and accident-prevention equipment.

Do not wear rings, wristwatch, jewelry, loose-fitting or hanging clothing such as ties, torn garments, scarves, unbuttoned jackets or unzipped overalls, which could get caught up in the moving parts of the hooklift.

Keep a first-aid box and a fire extinguisher readily available on the truck. Regularly check to make sure the fire extinguisher is fully charged and the first-aid kit is stocked.

Do not use controls and hoses as handholds. These parts move and cannot provide stable support.

Do not allow unauthorized personnel or equipment to enter within 10 feet of hooklift operating area.

Never allow anyone to ride the hooklift or load.

Maintenance Safety
Never modify or alter any of the equipment, whether mechanical, electrical, or hydraulic, without Stellar Industries' approval.

Do not perform any maintenance or repair work on the hooklift unless authorized and trained to do so.
Release system pressure before attempting to make adjustments or repairs.

Do not attempt service or repair when PTO is engaged.

Decals are considered safety equipment. They must be maintained, as would other safety devices. Do not remove any decals.

Replace any decals that are missing, damaged, or not
legible.

The safety instruction plates, notices, load charts and any other sticker applied to the hooklift must be kept legible and in good condition. If necessary, replace them.

Keep all surfaces of the hooklift free of oil and grease to avoid slippery surfaces and aid in
inspections.

Stability
Know the hooklift components and their capabilities and limitations. Overloading the hooklift may result in serious damage of self, others, equipment or the surroundings.

Never exceed manufacturer's load ratings. These ratings are based on the machine's hydraulic, mechanical, and structural design rather than stability.

Load Safety
Full rated dump capacity assumes load will decrease as dump angle increases. Do not take full rated capacity to full dump angle without some unloading of weight as it may cause damage to the chassis and/or the hooklift.

Move the control lever slow and smooth for steady oil flow.

Avoid jerky or sudden movement of the controls.

Be constantly aware of the hooklift position when operating the controls.

Do not attempt to lift fixed loads.
Know the weight of your load to avoid overloading the equipment.

Deduct the weight of the body from the maximum load rating to determine how much
weight can be lifted.

Keep everyone clear when loading, unloading, and dumping.

Do not push on fixed objects or bodies without rollers with the hooklift.

Do not permit loose objects on the hooklift.

Use a qualified person to assist in loading when the load is not visible to the operator.

Do not leave hooklift unattended with suspended load.

Take care when operating in areas supported by vehicle tires, because of the cushioning effect of springs and tires.

Never use the drivetrain of the chassis to assist the hydraulics in loading

Environment
Do not operate the hooklift during electrical storms.

In extreme cold, allow adequate time to warm the truck before engaging the PTO. Do not rev the truck engine and over speed the hydraulic pumps as permanent damage to the pumps may occur. Follow the vehicle owner's manual regarding operating the vehicle in such adverse conditions.

In extreme cold, operate the controls slowly to allow for viscosity changes.

ATTENTION

Stellar Industries, Inc. is not liable for accidents incurred by the hooklift because of the operator's non-fulfillment of current rules, laws and regulations.

Chapter 2 - Operation

Job-Site Set-Up

Thoroughly plan the lift before positioning the vehicle. Consider the following:

1. The vehicle should be positioned in an area free from overhead obstructions to eliminate the need for repositioning.

2. Position the vehicle so that it is impossible for any portion of the equipment to come within the minimum required safe distance of any power line. Maintain a clearance of at least 10 feet between any part of the hooklift, load line, or load, and any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less. Remember to allow for winds that cause power lines to sway. It is recommended that a signal person be used when the vehicle is set-up near power lines.

3. The vehicle should also be positioned on a firm and level surface that will provide adequate support for the body.

4. The parking brake must be removed to allow the truck to roll under the body while loading.

CAUTION

1. **When loading and unloading bodies, the tilt cylinder must be fully extended before operating the lift cylinder to prevent damage to the latch systems.**
2. **When the PTO is engaged, do not run the engine over 1400 RPM.**
3. **Do not hold the brakes while performing operations.**

Operator Requirements

Operation is limited to the following people:

A. Qualified individual.
B. Trainees under direct supervision of the qualified individual.
C. Test or maintenance individual.
D. Hooklift Inspector.

Operators must:

A. Demonstrate the ability to understand all decals, the owner's manual, and any other information required for safe operation of the hooklift.
B. Be able to demonstrate the ability to safely control the hooklift.
C. Know all safety regulations.
D. Be responsible for maintenance requirements.
E. Understand and be fully capable of implementing all emergency procedures.
F. Understand the operating procedures as outlined by this manual, ANSI Z245 and Federal/State Laws.

Operator Conduct

1. Operators will not engage in any operation that would cause them to divert attention away from the operation of the hooklift.

2. Operators are responsible for all operations under their direct control.

3. Operators will not leave a suspended load unattended.

4. Operators will be familiar with the equipment and the maintenance required for proper care.

Hooklift Controls

1. Be familiar with the sequence and operation of the hooklift controls.

2. Each individual hooklift function should have control function decals. Replace them immediately if they are missing or illegible.

3. Keep hands, feet and control levers free from mud, grease and oil.

4. Be familiar with the control levers and how they operate before attempting to operate the hooklift.

5. Be prepared before beginning operation of the hooklift:
   - All protective guards must be in place.
   - Be aware of the surroundings: low branches, power lines, unstable ground.
   - Be sure all safety devices provided are in place and in good operating condition.
   - Be prepared for all situations. Keep fire extinguisher and first aid kit near.
   - Be sure all regular maintenance has been performed.
   - Visually inspect all aspects of the hooklift for physical damage.
   - Check for fluid leaks.

NOTE: The controller assembly pictured in this chapter may differ from model to model.

Operation Overview

Unloading Operation

1. Stop the truck at the location you wish to unload.

2. Put the truck in neutral and engage the PTO. Run RPM as needed.

3. Locate the black control lever labeled tilt.

4. Pull the tilt lever until the cylinder is fully extended, thus releasing tabs.

5. Locate the red lever labeled lift.

6. Pull lift lever until the body is on the ground and can be detached. Return the hooklift to the stored position and disengage the PTO.

Loading Operation

1. Position the truck in line with the body you intent to pick up.

2. Engage the hook to the body by maneuvering the hooklift with the red(lift) lever. Run RPM as needed.

3. Push the red(lift) lever until the main cylinder is fully retracted.

4. Push the black(tilt) lever until the tilt is fully extended.

5. Disengage the PTO.

Dumping Operation

1. Stop the truck at the location you wish to dump the load.

2. Put the truck in neutral and engage the PTO. Run RPM as needed.

3. Locate the red lever labeled lift.

4. Pull the lever to dump the body.

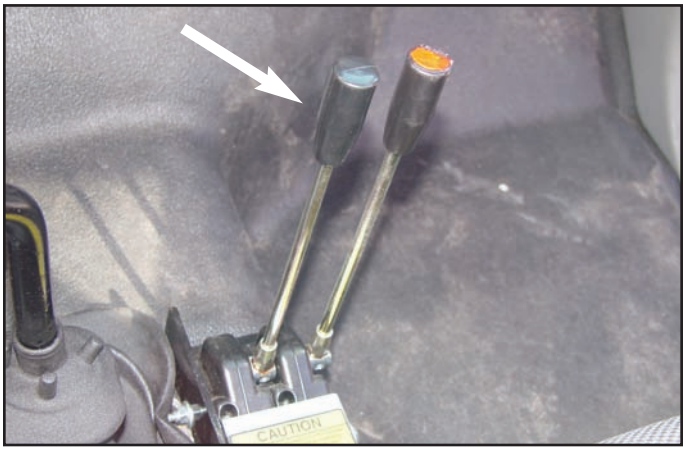
5. Wait until dumping is complete, then push the red(lift) lever until the main cylinder fully retracts.

6. Disengage the PTO.

Unloading Operation

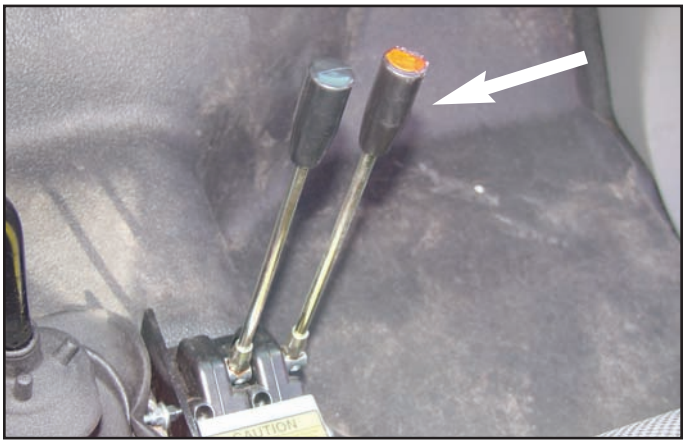
1. Stop the truck at the location you wish to unload.

2. Put the truck in **neutral** and engage the PTO. Run RPM as needed.

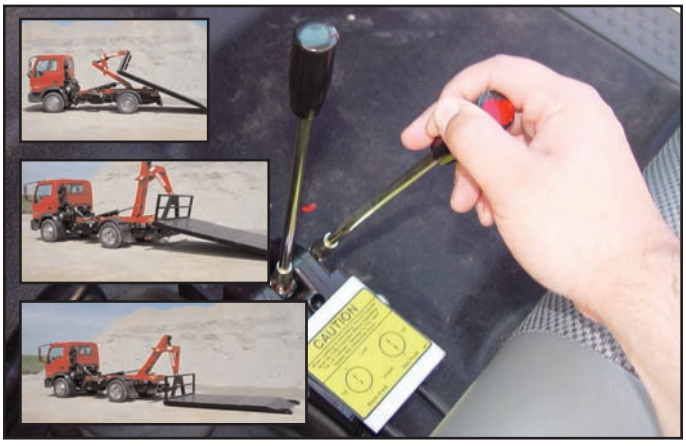


3. Locate the black control lever labeled tilt.

4. Pull the tilt lever until the cylinder is fully extended, thus releasing tabs.



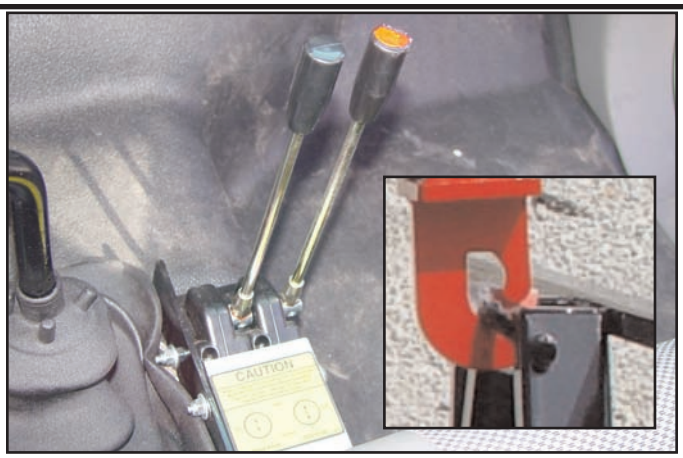
5. Locate the red lever labeled lift.



6. Pull lift lever until the body is on the ground and can be detached. Return the hooklift to the stored position and disengage the PTO.

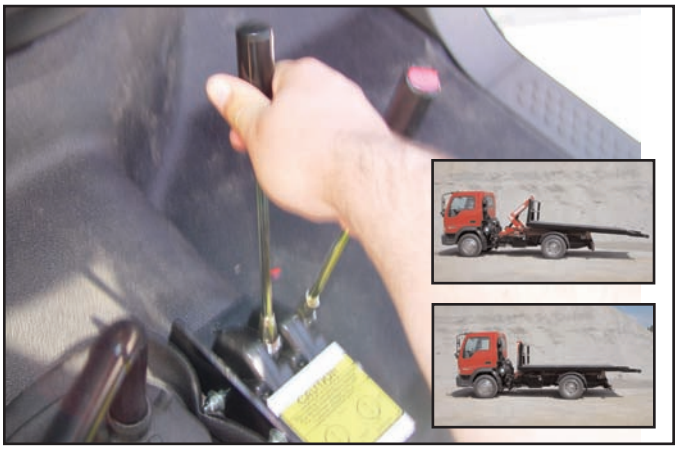
Loading Operation

1. Position the truck in line with the body you intent to pick up.

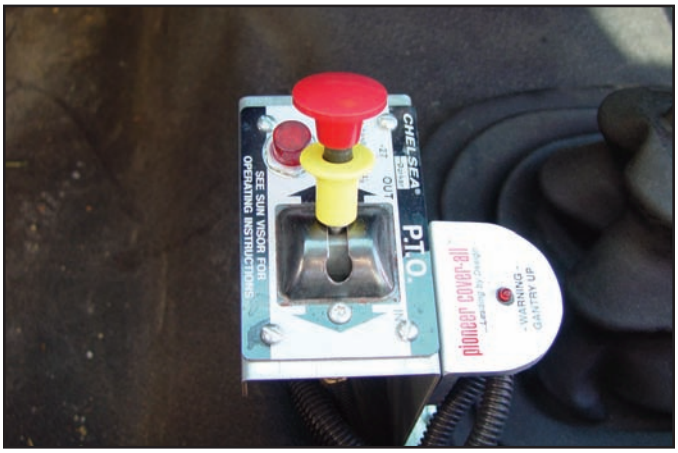


2. Engage the hook to the body by maneuvering the hooklift with the red(lift) lever. Run RPM as needed.

3. Push the red(lift) lever until the main cylinder is fully retracted.



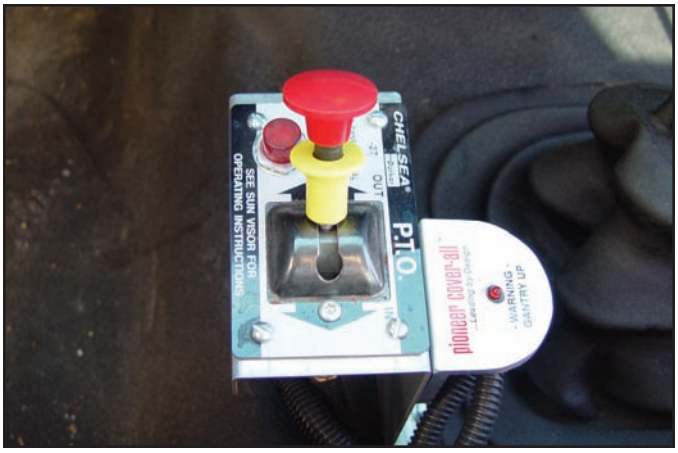
4. Push the black(tilt) lever until the tilt is fully retracted.



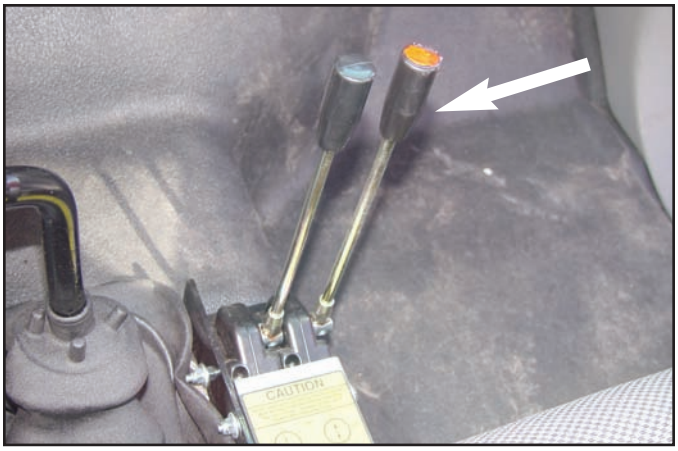
5. Disengage the PTO.

Dumping Operation

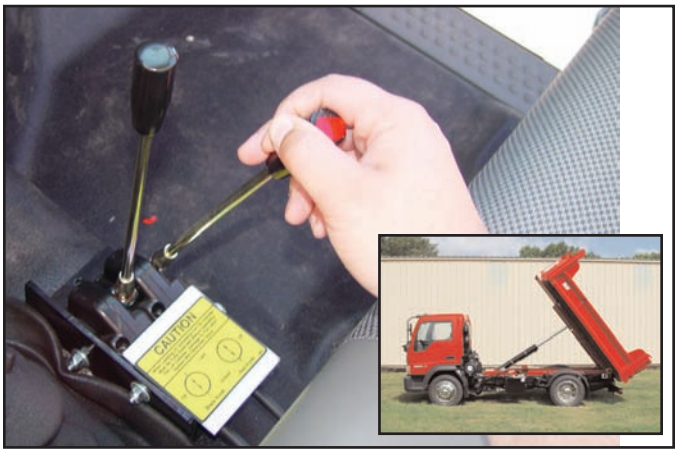
1. Stop the truck at the location you wish to dump the load.



2. Put the truck in **neutral** and engage the PTO. Run RPM as needed.



3. Locate the red lever labeled lift.



4. Pull the lift lever to dump the body.

5. Wait until dumping is complete, then push the red(lift) lever until the main cylinder fully retracts.

6. Disengage the PTO.

Chapter 3 - Maintenance

Please read the following before performing any maintenance on the hooklift.

1. Only authorized service personnel are to perform maintenance on the hooklift.
2. Disengage the PTO before any service or repair is performed.
3. Do not disconnect hydraulic hoses while there is still pressure in those components.
4. Before disconnecting hydraulic components, shut off the engine, release any air pressure on the hydraulic reservoir, and move control levers repeatedly through their operating positions to relieve all pressures.
5. Keep the hooklift clean and free from grease build-up, oil and dirt to prevent slippery conditions.
6. Perform all safety and maintenance checks before each period of use.
7. Replace parts with Stellar Industries, Inc. approved parts only.
8. Immediately repair or have repaired any components found to be inadequate.

Maintenance Procedures

1. Position the hooklift where it will be out of the way of other operations or vehicles in the area.
2. Place all controls in the off position and secure operating features from inadvertent motion.
3. Relieve hydraulic oil pressure from all hydraulic circuits before loosening or removing hydraulic components.
4. Label or tag parts when disassembling.

Periodic Inspection

Periodic Inspection should occur while the hooklift is in use. For the duration of the usage, inspect the hooklift for all of the following:

1. Loose bolts and fasteners.
2. All pins, bushings, shafts, and gears for wear, cracks, or distortion to include all pivot points, and bushings.
3. Hydraulic systems for proper operating pressure.
4. Main frame mount bolts.
5. Cylinders for:
   A. Damaged rods.
   B. Dented barrels.
   C. Drift from oil leaking internally.
   D. Leaks at rod seals or holding valves.
6. PTO and hydraulic pump(s) for leaks.
7. Hydraulic hose and tubing for evidence of damage such as blistering, crushing, or abrasion.
8. Presence of this owner's manual.

Daily Inspection

Daily Inspection should occur each day before the hooklift is put into use. Each day, inspect the hooklift for all of the following:

1. Hydraulic oil level.
2. Loose parts or damage to structures or weld.
3. Cylinder movement due to leakage.
4. Hoses for evidence of oil leaks.
5. Controls for malfunction or adjustment.
6. Parking brake operation.
7. All securing hardware such as cotter pins, snap rings, hairpins, and pin keepers for proper installation.
8. All safety covers for proper installation.
9. Cylinder holding valves for proper operation.
10. Equipment for missing, illegible, or defaced operating decals and safety signs.

Monthly Inspection

Monthly Inspection should occur at the beginning of every work month. Each month, inspect the hooklift for all of the following:

1. Frame bolt tightness - turn barrel nuts and mounting bolts during the first month of operation on new machines and then quarterly thereafter.
2. Cylinders and valves for leaks.
3. Lubrication.
4. Tilt hook for cracks.
5. Structural weldments for bends, cracks, or breaks.
6. All pins and keepers for proper installation.
7. All control, safety, and capacity placards for readability and secure attachment.
8. Inspect all electrical wires and connections for worn, cut, or deteriorated insulation and bare wire. Replace or repair wires as required.
10. Lubrication of all points requiring lubrication.

General Service

The following general suggestions should be helpful in analyzing and servicing your hooklift. Using the following systematic approach should be helpful in finding and fixing problems:

1. Determine the problem.
2. List and record possible causes.
3. Devise checks.
4. Conduct checks in a logical order to determine the cause.
5. Consider the remaining service life of components against the cost of parts and labor necessary to replace them.
6. Make the necessary repair.
7. Recheck to ensure that nothing has been overlooked.
8. Functionally test the new part in its system.

Cleanliness

An important item in preserving the long life of the hooklift is keeping dirt, grime, and corrosive material out of the working parts. Thoroughly wash and grease the hooklift periodically.

Choice Lubricants for DX Bearings

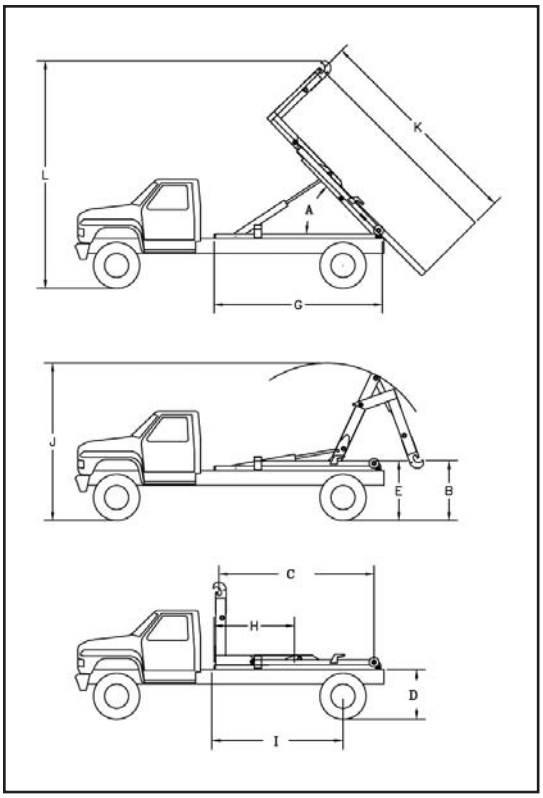
Greases Recommended

Type of Grease	Description
Premium Quality Multi-Purpose	Stabilized, Anti-Oxidant Lithium Base Lithium Base with 3% Molybdenum Disulfide High Drop Point
Multi-Purpose	Calcium Based, for General Automotive and Industrial Use Calcium Grease, Water Stabilized, High Drop Point
Anti-Friction Bearing	Calcium Based with EP Additives Lithium Based Sodium Based
Extreme Pressure (EP)	Lithium Based with EP Additives Calcium Based with EP Additives
High Temperature	Modified Sodium Based, High Drop Point
Transmission	Semi-Fluid, Calcium Based
Molybdenum Filled	Lithium Based with 2% Molybdenum Disulfide
Graphite Filled	Sodium Based with 2% Graphite
Block Grease	Sodium Based Solid Grease
White Grease	Aluminum Complex Based with Anti-Oxidant & Rust Inhibitors & Zinc Oxide Additives
Silicone	Lithium Based with Silicone Oil Lubricant

Greases Not Recommended

Type of Grease	Description
Cup Grease	Light Service Calcium or Sodium Based Grease
Graphite Filled	Greases with More than 10% Graphite
Molybdenum Filled	Greases with More than 10% Molybdenum Disulfide
Fluorocarbon	Low Molecular Weight Chlorofluoroethylene Polymer with Inert Thickeners
White Grease	Calcium Based, Zinc Oxide Filled

Chapter 4 - Specifications



- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve. Solenoid-activated hydraulic control valve with electric remote control pendant is optional.
- Ten (10) gallon capacity frame-mounted oil reservoir.
- Hydraulic flow shall not exceed 16-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder movement in case of pressure loss.
- Grease zerks at all points to allow purging of contaminates.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- DX pre-lubricated bushings used at pivot points.
- Greaseable load rollers.

		60-8	84-10	108-12	120-14
	Lifting/Dumping Capacity	Up to 9,000lbs (4,082kg)	Up to 16,000lbs (7,257kg)	Up to 16,000lbs (7,257kg)	Up to 16,000lbs (7,257kg)
A	Dump Angle	54°	53°	54°	50°
B	Lowest Hook Heigh	23.5" (60cm)	25" (63.5cm)	27" (68.5cm)	28" (71cm)
C	Effective Length	91" (231cm)	115" (292cm)	142" (361cm)	151" (383.5cm)
D	Truck Frame Height	34" (86cm)	36" (91.5cm)	36" (91.5cm)	36" (91.5cm)
E	Hooklift Height	39.5" (100cm)	41.5" (105.5cm)	41.5" (105.5cm)	41.5" (105.5cm)
G	Hooklift Length	99.25" (252cm)	126" (320cm)	154" (391cm)	161" (409cm)
H	Hooklift Center of Gravity	43" (109cm)	58" (147cm)	68" (173cm)	70" (178cm)
I	Chassis Cab to Axle	60" (152.5cm)	84"-96"	108"-120"	120"-130"
			(213.5cm-244cm)	(274.5cm-305cm)	(305cm-330cm)
J	Max. Height When Loading	104" (264cm)	118" (300cm)	135" (343cm)	136" (345.5cm)
K	Longest Body to Dump	120" (305cm)	144" (366cm)	180" (457cm)	192" (488cm)
L	Max. Height When Dumping	141" (358cm)	162" (411.5cm)	185" (470cm)	187" (475cm)
	Operating Pressure	See table 1.1	See table 1.1	See table 1.1	See table 1.1
	Shipping Weight	1,275lbs (578.5kg)	1,360lbs (617kg)	1,615lbs (733kg)	1,650lbs (748.5kg)
	Hook Height	35.63" (90.5cm)	35.63" (90.5cm)	35.63" (90.5cm)	35.63" (90.5cm)
	(from bottom of hook bar)				
	Shipping Dimensions	100"x49"x47"	126"x49"x47"	154"x49"x47"	161"x49"x47"
	(LxHxW)	(254x124.5x119.5cm)	(320x124.5x119.5cm)	(391x124.5x119.5cm)	(409x124.5x119.5cm)

Stellar Flex36 Model 60-8 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	8-foot through 9-foot. Longer bodies up to 10-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	54°
Operating Pressure:	See table 1.1 in Chapter 6: Installation for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,275 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 34" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure gear pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Cylinder must be double acting (4" Bore x 2" Rod x 17" Stroke) and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Cylinder must be double acting and include dual pilot-operated counterbalance valves to prevent cylinder movement in case of pressure loss.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter type 304 or 17-4 stainless steel minimum.
Pins:	All pins to be type 304 or 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Flex36 Model 84-10 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	10-foot through 12-foot. Longer bodies up to 13-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	53°
Operating Pressure:	See table 1.1 in Chapter 6: Installation for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,360 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 36" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure gear pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Cylinder must be double acting (4" Bore x 2" Rod x 17" Stroke) and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Cylinder must be double acting and include dual pilot-operated counterbalance valves to prevent cylinder movement in case of pressure loss.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter type 304 or 17-4 stainless steel minimum.
Pins:	All pins to be type 304 or 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Flex36 Model 108-12 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	12-foot through 14-foot. Longer bodies up to 16-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	54°
Operating Pressure:	See table 1.1 in Chapter 6: Installation for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,615 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 36" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure gear pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Cylinder must be double acting (4" Bore x 2" Rod x 17" Stroke) and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Cylinder must be double acting and include dual pilot-operated counterbalance valves to prevent cylinder movement in case of pressure loss.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter type 304 or 17-4 stainless steel minimum.
Pins:	All pins to be type 304 or 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Flex36 Model 120-14 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	13-foot through 15-foot. Longer bodies up to 16-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	50°
Operating Pressure:	See table 1.1 in Chapter 6: Installation for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,650 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 36" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure gear pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Cylinder must be double acting (4" Bore x 2" Rod x 17" Stroke) and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Cylinder must be double acting and include dual pilot-operated counterbalance valves to prevent cylinder movement in case of pressure loss.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter type 304 or 17-4 stainless steel minimum.
Pins:	All pins to be type 304 or 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Chapter 5 - Decals

Decals of Note

Electrocution Hazard Decal

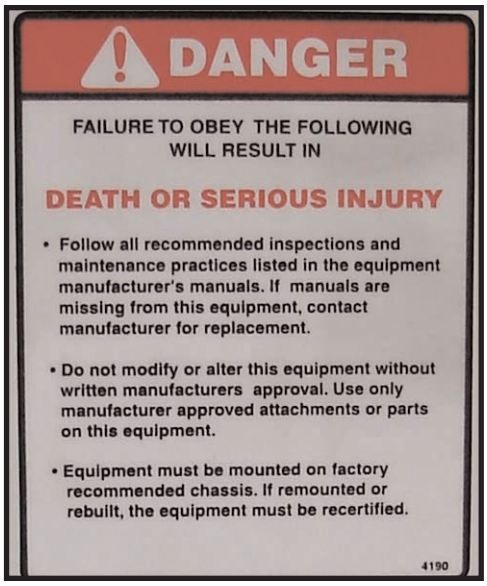
Location: On each side of the tilt base.
Function: To inform the operator of the hazard associated with electrocution, the possible consequences should the hazard occur, and how to avoid the hazard.
PN: C1179

Hands Clear Decal

Location: On each side of the tilt base.
Function: To inform the operator of the hazard associated with tilt operation, the possible consequences should the hazard occur, and how to avoid the hazard.
PN: C0865

Operation Hazard Decal

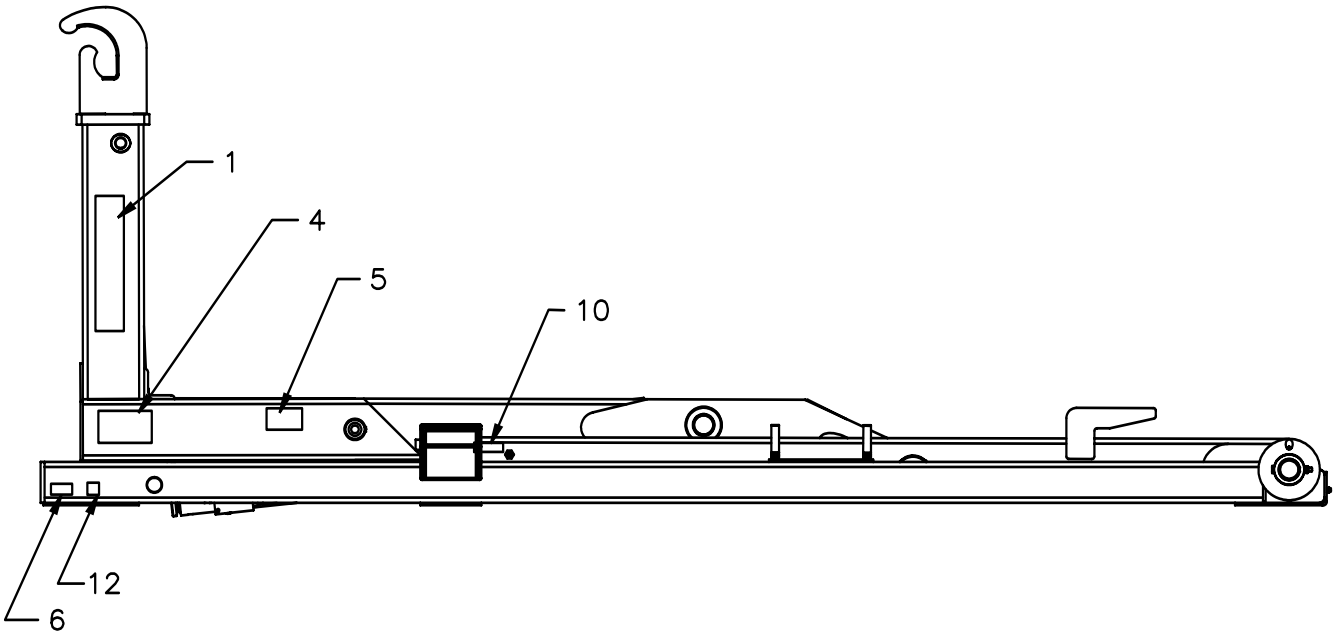
Location: Truck Frame
Function: To inform the operator of the need for proper training, familiarity with safe operating procedures and , the possible consequences without training.
PN: C4540



Operation Hazard Decal

Location: Truck Frame
Function: To inform the operator and other personnel in the work area of the hazard associated with improper maintenance and unauthorized modifications, the possible consequences should the hazard occur, and how to avoid the hazard. PN: 4190

Decal Kit Placement - PN 35559



PN 35559

ITEM	PART No.	DESCRIPTION	QTY
01	35528	DECAL – FLEX LOADER	2
*02	26135	DECAL – DECAL NOTICE FIX TABS	1
*03	C4545	DECAL – ELECTROCUTION 5 X 13	1
04	C1179	DECAL – ELECTROCUTION 4.5 X 7.5	2
05	C0865	DECAL – HANDS CLEAR	2
06	4214	DECAL – SERVICE	1
*07	0651	DECAL – CAUTION 2 POSITION	1
*08	4190	DECAL – DANGER	2
*09	C4540	DECAL – DANGER	2
10	26134	DECAL – DANGER MISUSE HAZARD	4
**11	36814	DECAL WARNING OPERATORS MANUAL	1
***12	35234	DECAL STELLAR MADE IN THE USA	1

NOTES:
1. LEFT OVER DECALS SHOULD BE MOUNTED ON BACK OF LOADER AND ON TRUCK FRAME
2. EXTRA ELECTROCUTION DECALS SHOULD BE SHIPPED LOOSE
3. PLACE ONE OF 26134 & ONE OF 26135 IN CAB ON CONTROLLER ASM

* THESE DECALS NOT SHOWN(MOUNT IN CAB OR ON TRUCK FRAME)
** THIS DECAL TO BE PLACED ON THE RSRVR TANK
*** THIS DECAL NOT INCLUDED IN 35559

Chapter 6 - Installation

Every hooklift installation is unique. However, certain guidelines exist that apply to every model. Listed below is a general set of chronological steps that may be followed when installing a Stellar Hooklift. If any questions arise during the installation process, feel free to contact your local dealer or Stellar Customer Service at 800-321-3741.

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Basic Installation Overview

1. **Clear the truck frame.**
2. **Set the Flex on the truck frame.**
3. **Shorten the truck frame to within 2" from the rear of the loader.**
4. **Install bumper.**
5. **Install tie down channels. (See corresponding Mounting Kit Drawing in this chapter)**
6. **Install tarper tower (If applicable).**
7. **Install cab and PTO controls.**
8. **Mount hydraulic reservoir tank and valve bank.**
9. **Mount PTO and Pump.**
10. **Run hydraulic hoses.**
11. **Connect suction and pressure to the reservoir tank and valve bank.**
12. **Install mud flaps and fenders.**
13. **Run Flex.**

Installation Steps - Basic Guidelines

1. **Clear the truck frame.**

2. **Set the Flex on the truck frame.**
   a. The front plate of the base needs to be at least 2" behind the cab or any equipment mounted behind the cab.
   b. Be sure to square the Flex on the truck frame.
   c. Take a visual and look for any potential issues. For example: Clearance problems, cross members extending too high, insufficient room in front of the Flex for tarpers, exhaust manifolds, etc, or insufficient room in the rear to allow for bumper selection. Feel free to space up if needed.

3. **Shorten the truck frame to within 2" from the rear of the loader.**

4. **Install bumper.**
   a. See Government Regulations for acceptable placement.

5. **Install tie down channels. (See corresponding Mounting Kit Drawing in this chapter)**
   a. Move anything on the truck frame that may be in the way of the tie down channels.
   b. Place a tie down channel on either side of the base, **within 2" of the front plate.**
   c. Place a tie down channel on either side of the base, **within 7" of the rear of the hooklift.**
   d. The final channels should be placed in the approximate position shown in the corresponding mounting diagram. The top of the lower channel should be flush with the top of the chassis frame rail.
   e. Using the channels as a guide, drill six (6) 11/16" holes through the truck frame. (Note: For Flex36 Model 60-8, you only need to drill four (4) holes.)
   f. Using 5/8" bolts, washers, and nuts, secure all tie down channels to the truck frame. All bolts should be torqued to 160 ft-lbs.
   h. Weld the upper tie down channels to the hooklift base. Use 5/8" washers to space the channels up. Remove washers when finished.
   g. Using 5/8" bolts, washers, and nuts, fasten two (2) tie-down channels together with the narrow faces toward each other. Do this with all of the channels.

6. **Install tarper tower (If applicable).**
   a. See brand specific installation instructions.

7. Install cab and PTO controls.
   a. Use PTO brand specific installation instructions.
   b. See Controller Assembly Drawing (PN 38841) for details.
   c. See Dump Light Kit Installation

8. Mount hydraulic reservoir tank and valve bank.
   a. Make sure the tank isn't too far away if cables are being used.
   b. Don't raise the tank above the frame height.
   c. See Power Beyond Installation guide for valve bank details.
   d. See Reservoir Assembly Drawing PN 35883 for details.

9. Mount PTO and Pump.
   a. Be sure to check the rotation of the pump to ensure proper installation.
   b. Use brand specific installation instructions.

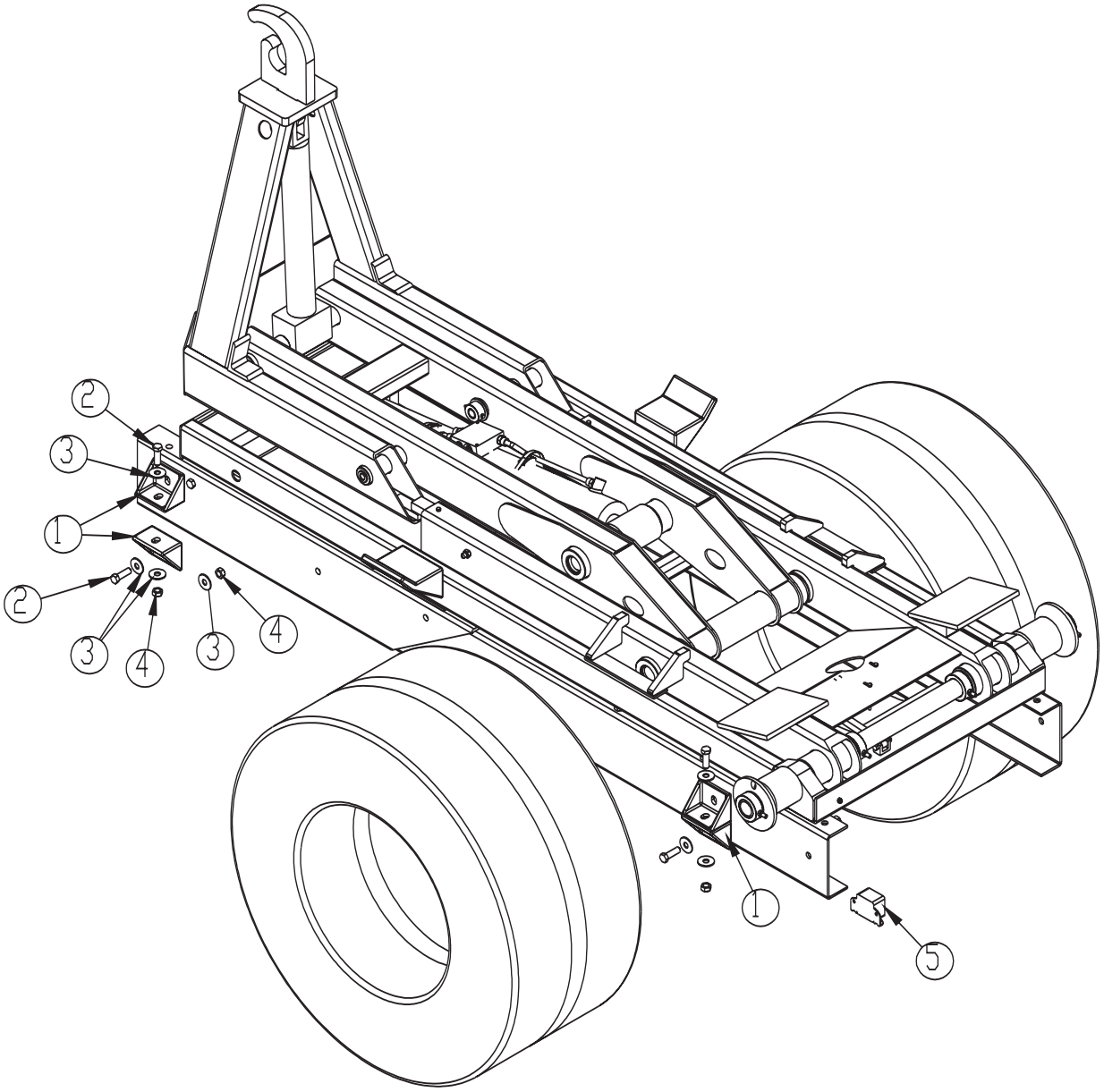
10. Run hydraulic hoses.
   a. Run hoses between the pump and reservoir tank.
   b. Run hoses between the PTO and valve bank.
   c. Protect these lines with hose wrap when necessary.
   d. Keep these lines away from sharp edges.
   e. Keep these lines away from the exhaust or other temperature extreme items.
   f. Keep these lines away from the driveshaft or other moving items.
   g. See hydraulic schematics for details.

11. Connect suction and pressure to the reservoir tank and valve bank.
   a. Fittings on the valve bank should be 3" lower than the long sills.
   b. Fill reservoir to site gauge, within 3" from the top (Roughly 10 Gallons).
   c. Petro-Canada Hydrex 32 (ISO 32) hydraulic oil is recommended.
   d. When connections are secure, turn reservoir on.

12. Install mud flaps and fenders.

3. Run Flex.
   a. Bleed the air out of the hydraulic system.
   b. Check the oil level and add oil if needed.
   c. Calibrate rotary valve.
   d. Calibrate dump light system.
   e. Be sure to check all clearances.
   f. Set/check relief pressure no higher than 4200 PSI (see chart/diagram).

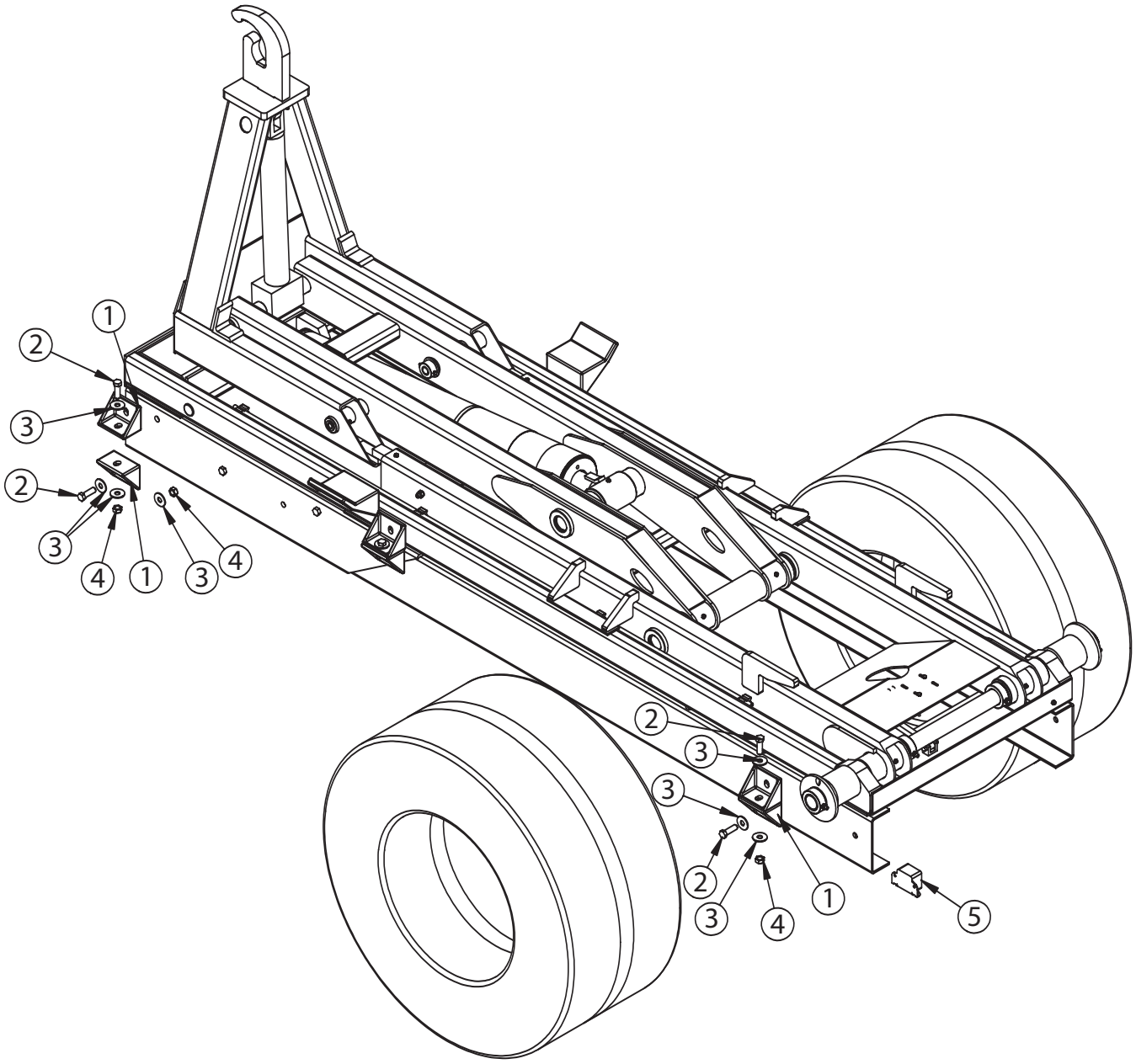
Mounting Kit (Model 60-8) - PN 33320



PN 33320

ITEM	PART	DESCRIPTION	QTY.
1	D0143	TIE DOWN CHANNEL	8
2	C1025	CAP SCR 0.63-11X2.00 HHGR8 ZY	8
3	C1038	WASHER 0.63 FLAT	16
4	24868	NUT 0.63-11 HH NYLOC	8
5	D0045	BACKUP ALARM .97 DECIBAL	1

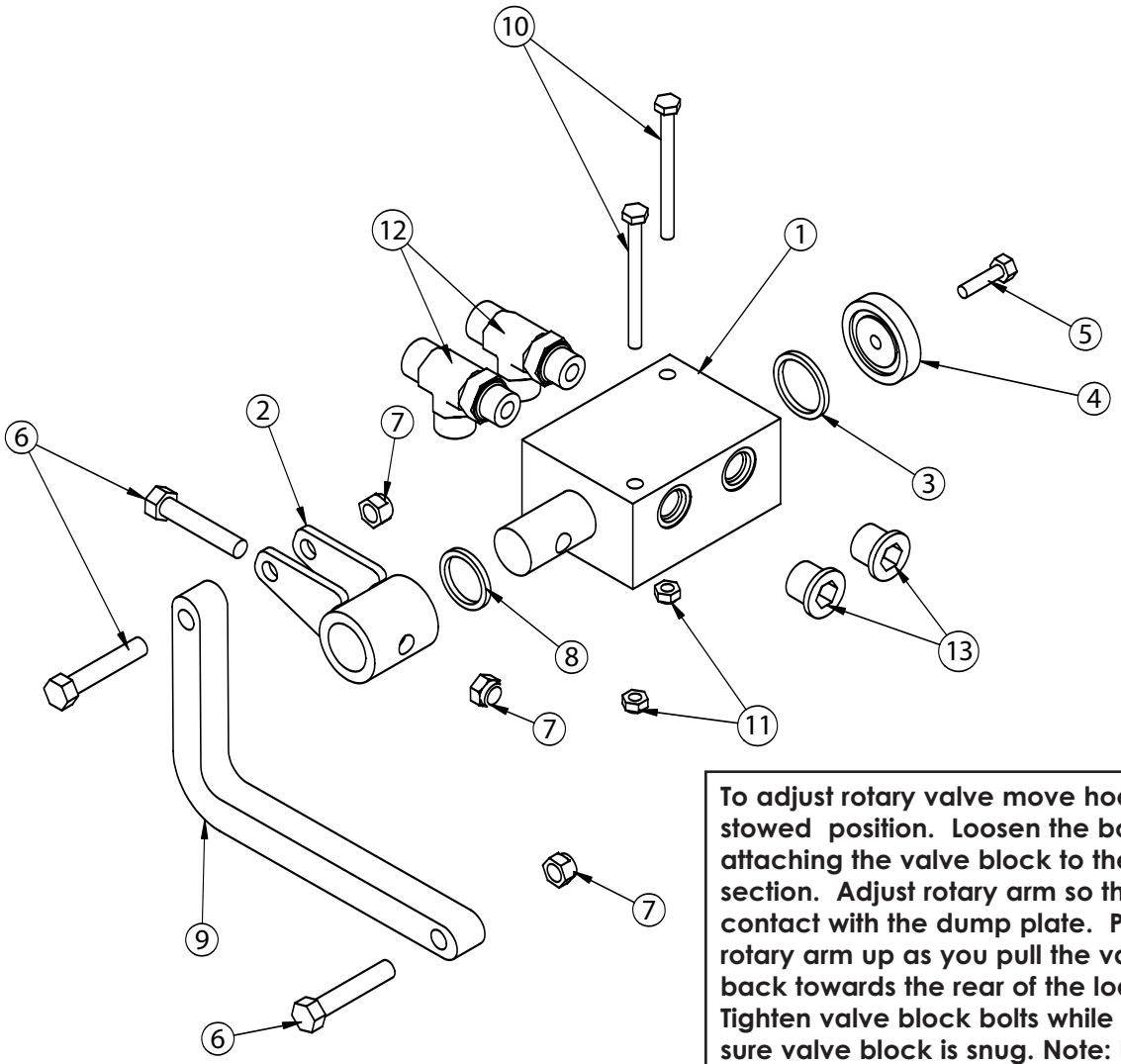
Mounting Kit (Models 84-10, 108-12, 120-14) - PN 23700



PN 23700

ITEM	PART	DESCRIPTION	QTY.
1	D0143	TIE DOWN CHANNEL	12
2	C1025	CAP SCR 0.63-11X2.00 HHGR8 ZY	12
3	C1038	WASHER 0.63 FLAT	24
4	24868	NUT 0.63-11 HH NYLOC	12
5	D0045	BACKUP ALARM .97 DECIBAL	1

Rotary Valve (All Models) - PN 37741

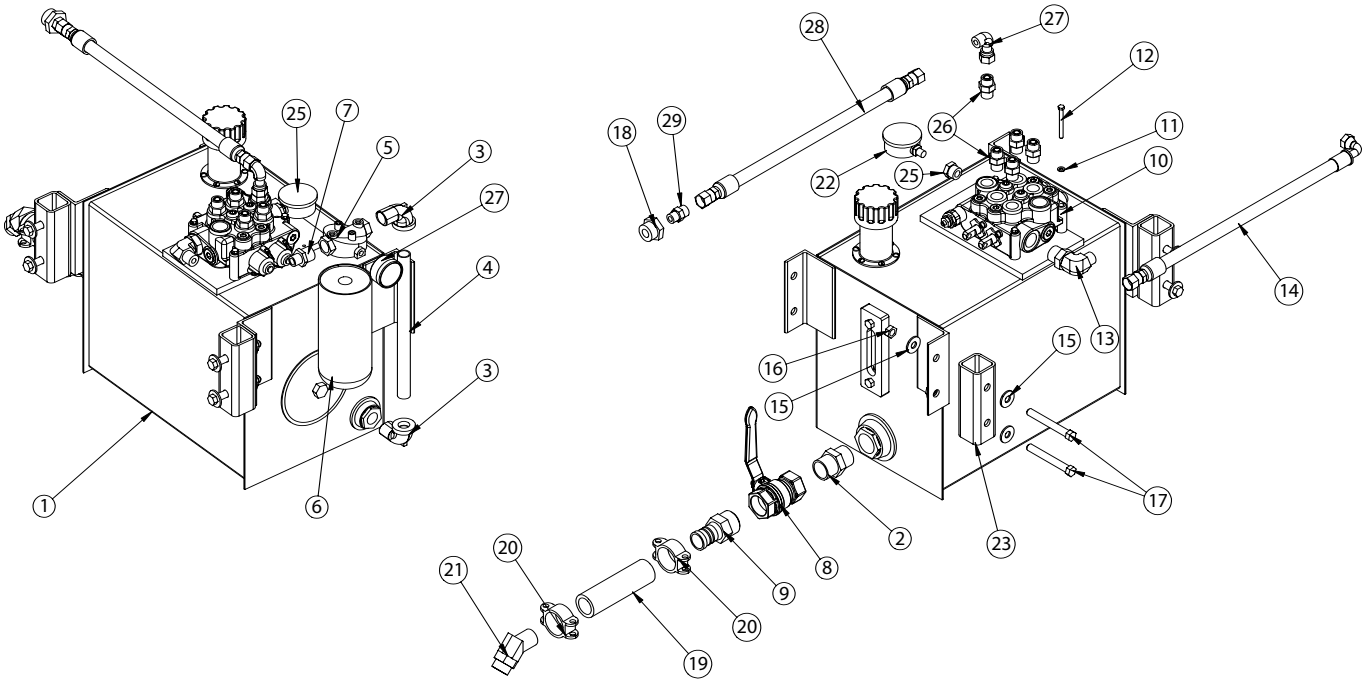


To adjust rotary valve move hooklift into stowed position. Loosen the bolts that are attaching the valve block to the dump section. Adjust rotary arm so that it is in contact with the dump plate. Push the rotary arm up as you pull the valve block back towards the rear of the loader. Tighten valve block bolts while making sure valve block is snug. Note: It should engage between 4 and 10 degrees.

37741

ITEM	PART	DESCRIPTION	QTY.
1	22456	ROTARY VALVE ASM	1
2	22450	WLDMT ROTARY VALVE ECCENTRIC	1
3	D1638	O'RING 1.12X1.38X0.12 568-216	1
4	3748	WASHER ROTARY VALVE	1
5	0480	CAP SCR 0.25-20X1.00 HHGR5	1
6	0353	CAP SCR 0.38-16X2.00 HHGR5	3
7	0347	NUT 0.38-16 HH NYLOC	3
8	0977	O'RING 1.00X1.25X0.12 568-214	1
9	22449	PLATE ROTARY VALVE ARM	1
10	0482	CAP SCR 0.25-20 X 3.00 HHGR5	2
11	0333	NUT 0.25-20 HHGR5 NYLOC	2
12	7350	FTG ST RUN TEE 8R5OLO	2
13	D1535	PLUG STR HOLLOW HEX 0.50 8-HP5ON	2

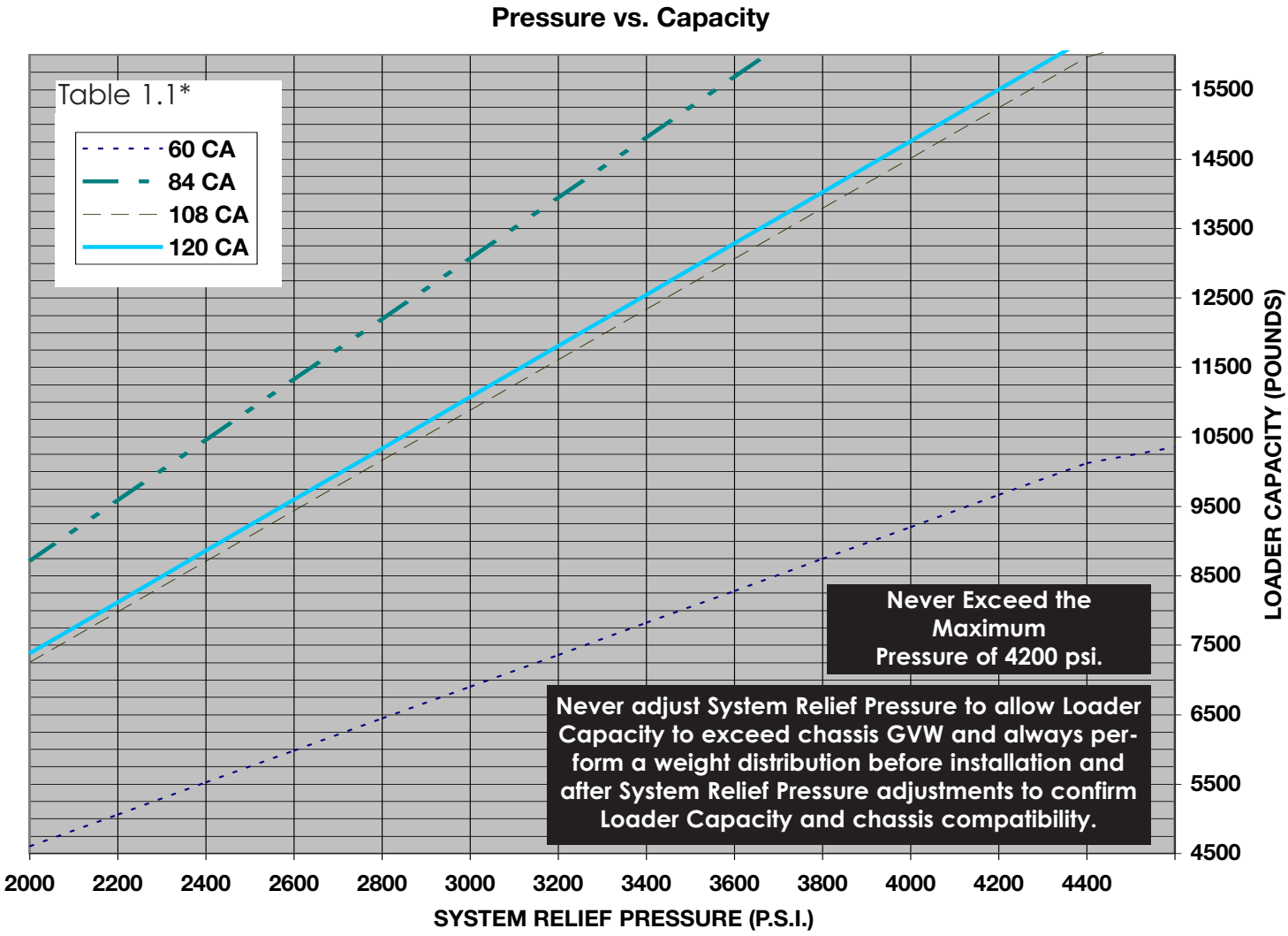
Reservoir Assembly - PN 35883



PN 35883

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	26455	RSRVR ASM 10GAL K MODEL	1	13	C4227	FTG MF/MSTR 90 8-12 C5OLO-S	1	25	25630	FTG ADAPT 10-1/4 F5OG	1
2	1115	FTG NIPPLE HEX MALE 0101-20-20	1	14	26731	HOSE 0.50(381-JC-J9-8-8-8-18-0)	1	26	C2252	FTG ADAPT 8-10-F5OLO-S	5
3	c2242	ST EL 0.75 90 DEG BLK	2	15	0352	WASHER 0.50 USS FLAT ZINC	8	27	C2376	FTG ADAPT 8-C6LO-S	1
4	3320	NIPPLE 0.75X12.00 PIPE	1	16	C6106	NUT 0.50-13 HHGR5 NYLOC	4	28	31676	HOSE 0.50(471TC-JC-JC-8-8-8-120)	1
5	c6226	FILTER HEAD	1	17	0506	CAP SCR 0.50-13X4.00 HHGR5	4	29	1554	FTG ADAPT 8-F5OLO-S	1
6	C6229	FILTER LARGE AE-10L	1	18	D0549	FTG ADAPT 16-8 F5OG5-S	1				
7	C6014	FTG ADAPT 8-12 FOLO-S	1	19	17767	HOSE SUCT 1.25 10FT	1				
8	C5511	VALVE BALL 1.25	1	20	C1123	HOSE CLAMP 88 DB-20	2				
9	C2282	FTG 1.25 NPT TO 1.25 BARB	1	21	C4747	NIPPLE O'RING 45 4603-20-16	1				
10	24611	VB 2-SECTION VDM8	1	22	10094	GAUGE OIL LF 2.5" 0-500 BM	1				
11	0521	WASHER 0.25 LOCK	3	23	9892	SPACER TANK MOUNTING 10 GAL	2				
12	0339	CAP SCR 0.25-20X2.50 HHGR5	3	24	16145	GAUGE PRES FILTER SERVICE CI20	1				

Setting System Relief Pressure



Instruction Overview:
See next page for details.

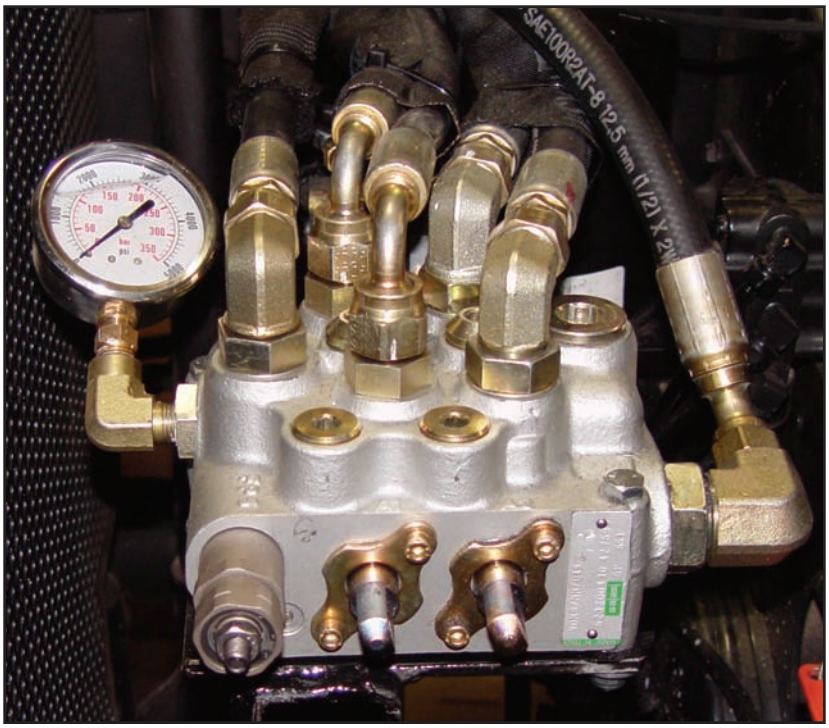
1. Engage the PTO. Run truck at 1300 RPM.

2. Push the red (lift) lever until the boom bottoms out. Keep pushing the lever forward until the pressure is set.

3. Release the jam nut using a 13 mm wrench.

4. Adjust the system relief pressure using 4 mm allen wrench.

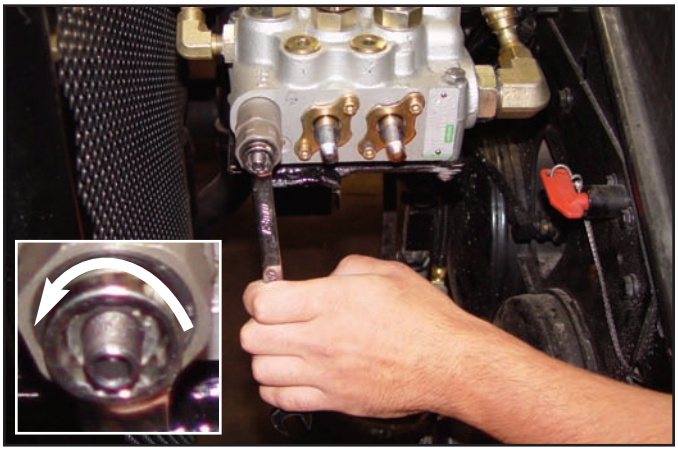
5. Once system pressure is set, tighten the jam nut to lock system pressure. No permanent thread lock may be used



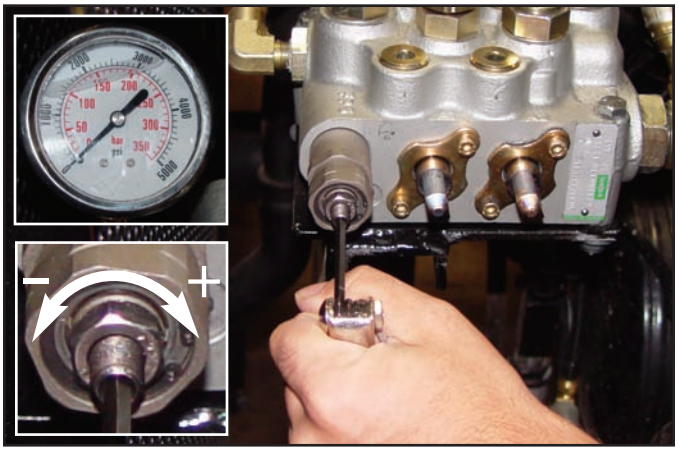
Setting System Relief Pressure Continued

1. Engage the PTO. Run the truck at 1300 RPM.

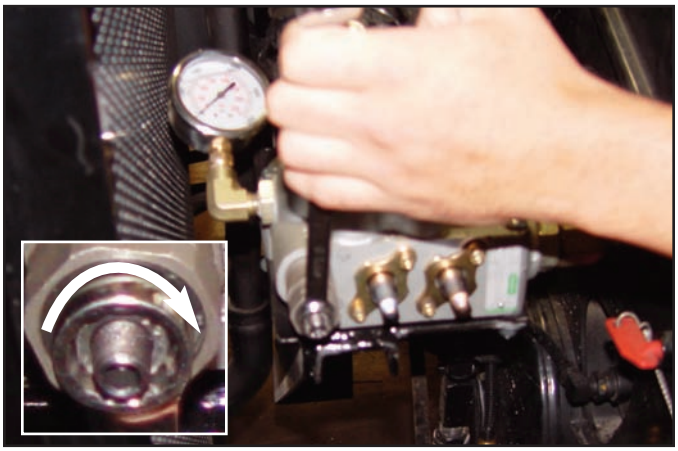
2. Push the red (lift) lever until the boom bottoms out. Keep pushing the lever forward until steps 3-5 are complete.



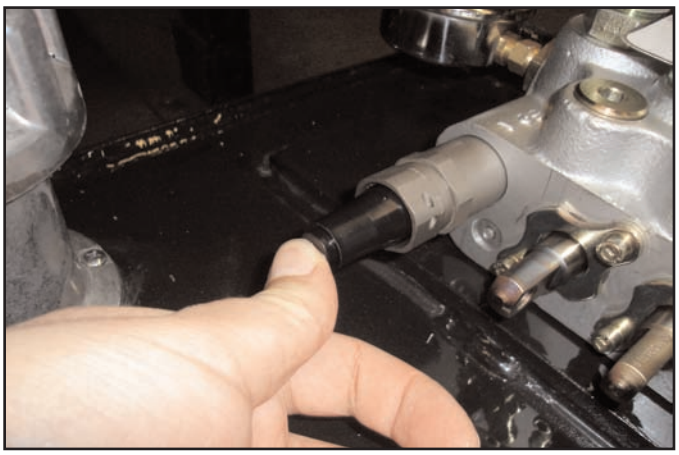
3. Release the jam nut using a 13 mm wrench.



4. Adjust the system relief pressure using 4 mm allen wrench. Clockwise increases pressure, counter clockwise decreases pressure.



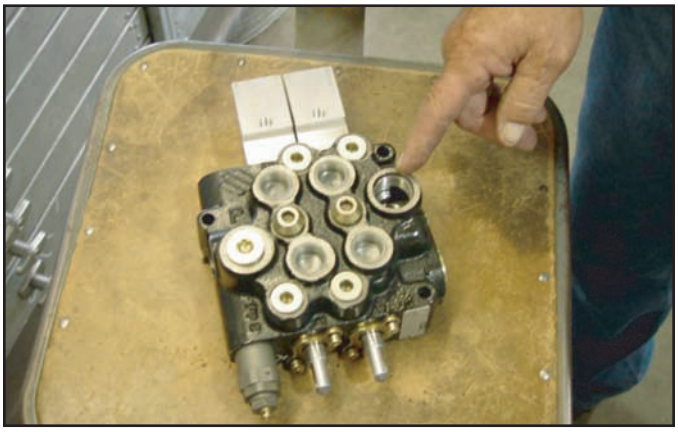
5. Once system pressure is set, tighten the jam nut to lock system pressure. Permanent thread lock should not be used.



6. Release all functions and disengage the PTO. Snap tamper cap into position over the jam nut. The break away clip will be destroyed if the cap is removed.

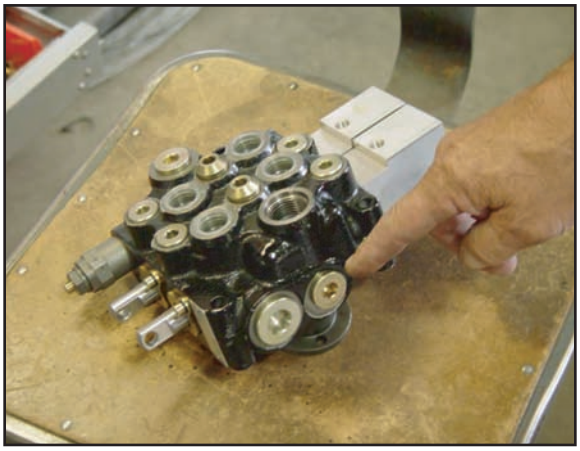
Installation Instructions for the Power Beyond VDM8 Valve

These instructions ar intended for correct installation of power beyond on a Salami VDM8 valve bank. If any hydraulic component is integrated after this valve the power beyond must be installed correctly, or serious damage may incur to the hydraulic system.



1. Remove cover/access plug to reveal the power beyond access point. Can also be used as the Return/Tank port.

2. Install a 3/8" straight thread pipe plug into lower portion of cavity to activate the power beyond feature. Use thread sealer (tape sealers not recommended.



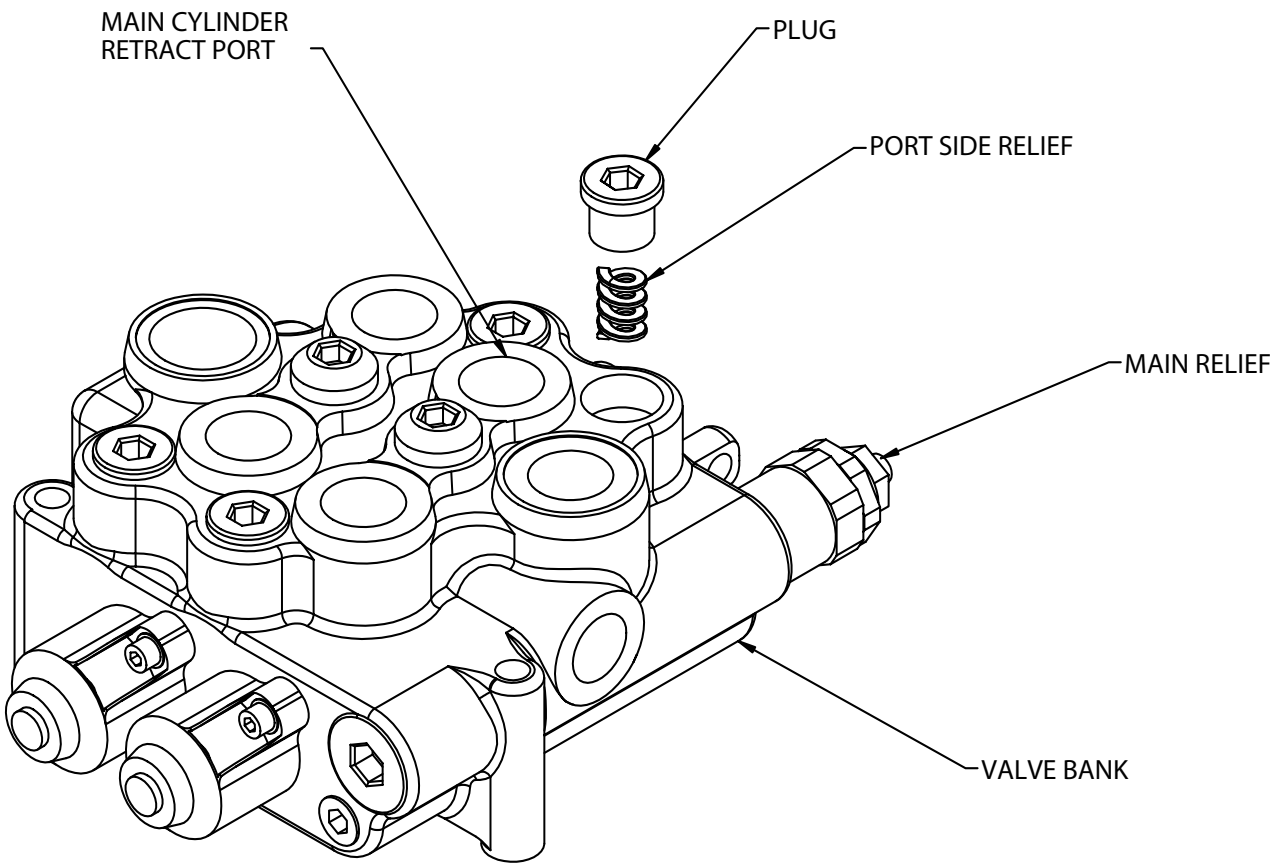
3. The Power Beyond feature is now activated and will divert oil to alternate system via the port shown.

Note:

1. *The return/tank line must be connected to the top or the side port, labeled "T".*
2. *Using the return line to run auxiliary equipment will directly result in a failure and will not in any circumstance be covered under warranty.*
3. *A standard Stellar hooklift will have 6 hydraulic lines attached to the valve. A Stellar hooklift with Power Beyond will have 7 hydraulic lines attached to the valve.*

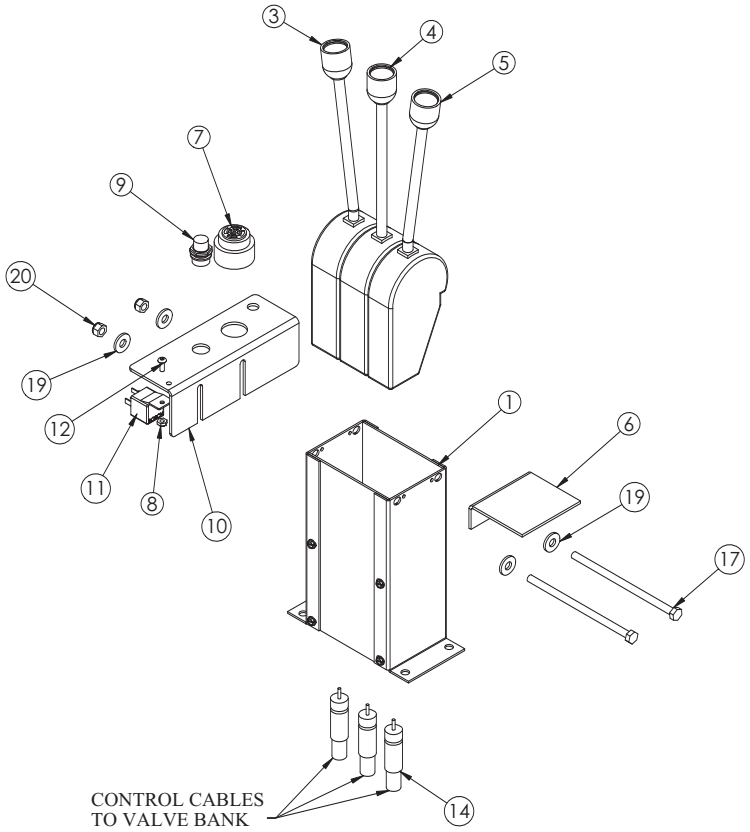
Port Side Relief Installation

- For some options, port side relief is required.
- To install port side relief:
    1. Remove plug.
    2. Insert relief.
    3. Replace plug
- Relief can be installed on the retract or extend side of the valve bank.

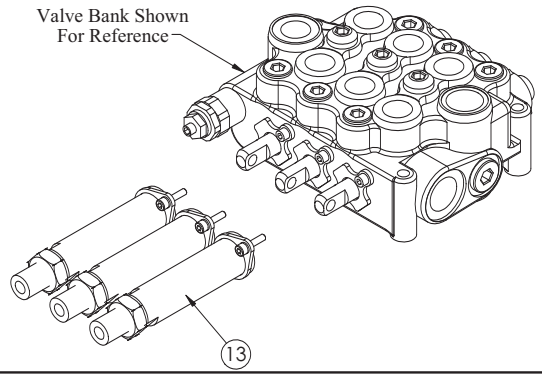


Controller Assembly

In Cab Installation



At Valve Installation

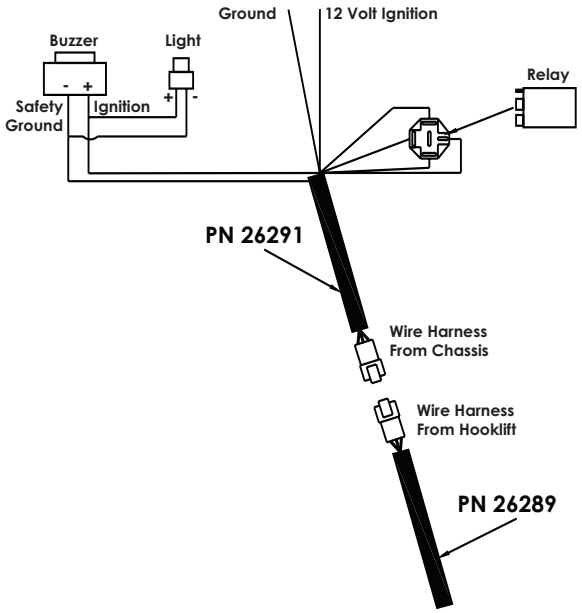


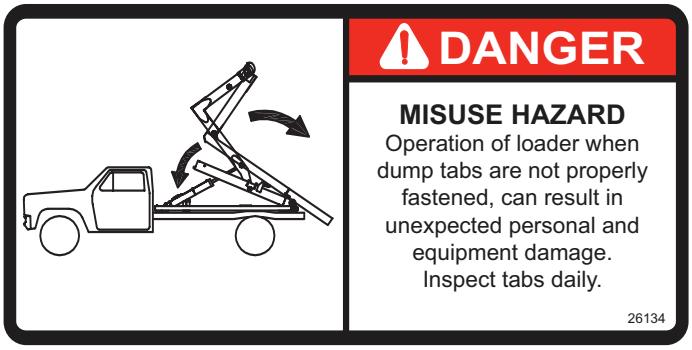
ITEM	PART	DESCRIPTION	QTY.
1	38351	VALVE CTRL CONSOLE 3LEVER RVC (3 Section Only)	1
1	37470	VALVE CTRL CONSOLE 2LEVER RVC (2 Section Only)	1
3	37475	CONTROLLER CTR LOCK LEFT BEND	1
4	37476	CONTROLLER CTR LOCK NO BEND (3 Section Only)	1
5	37474	CONTROLLER CTR LOCK RIGHT BEND	1
6	25933	BRKT CONTROLLER DECAL	1
7	26031	BACKUP ALARM PIEZO JAMECO 123537	1
8	26034	NUT #10-24 HH NYLOC	1
9	26288	LIGHT INDICATOR RED FORCE PTO	1
10	26293	PLATE TAB ALARM MNT	1
11	C6072	RELAY BOSCH 20-30 AMP	1
12	D1711	CAP SCR #10-24X0.50 BTNHD SS	1
13	37469	CABLE CONN. KIT FOR VD8A/VDM8	2/3
14	37471	CONTROL CABLE 96 IN WESCON	2/3
14	37472	CONTROL CABLE 144 IN WESCON	2/3
14	37473	CONTROL CABLE 192 IN WESCON	2/3
17	20057	CAP SCR 0.31-18X6.50 HHGR5 (3 Section Only)	2
17	0491	CAP SCR 0.31-18X4.00 HHGR5 (2 Section Only)	2
19	0343	WASHER 0.31 USS FLAT ZINC	4
20	0342	NUT 0.31-18 HHGR5 NYLOC	2

Installation Instructions:

1. Connect the 12 Volt ignition wire to a key-on battery source.
2. Hook the wire harness in the cab to the wire harness from the hooklift.

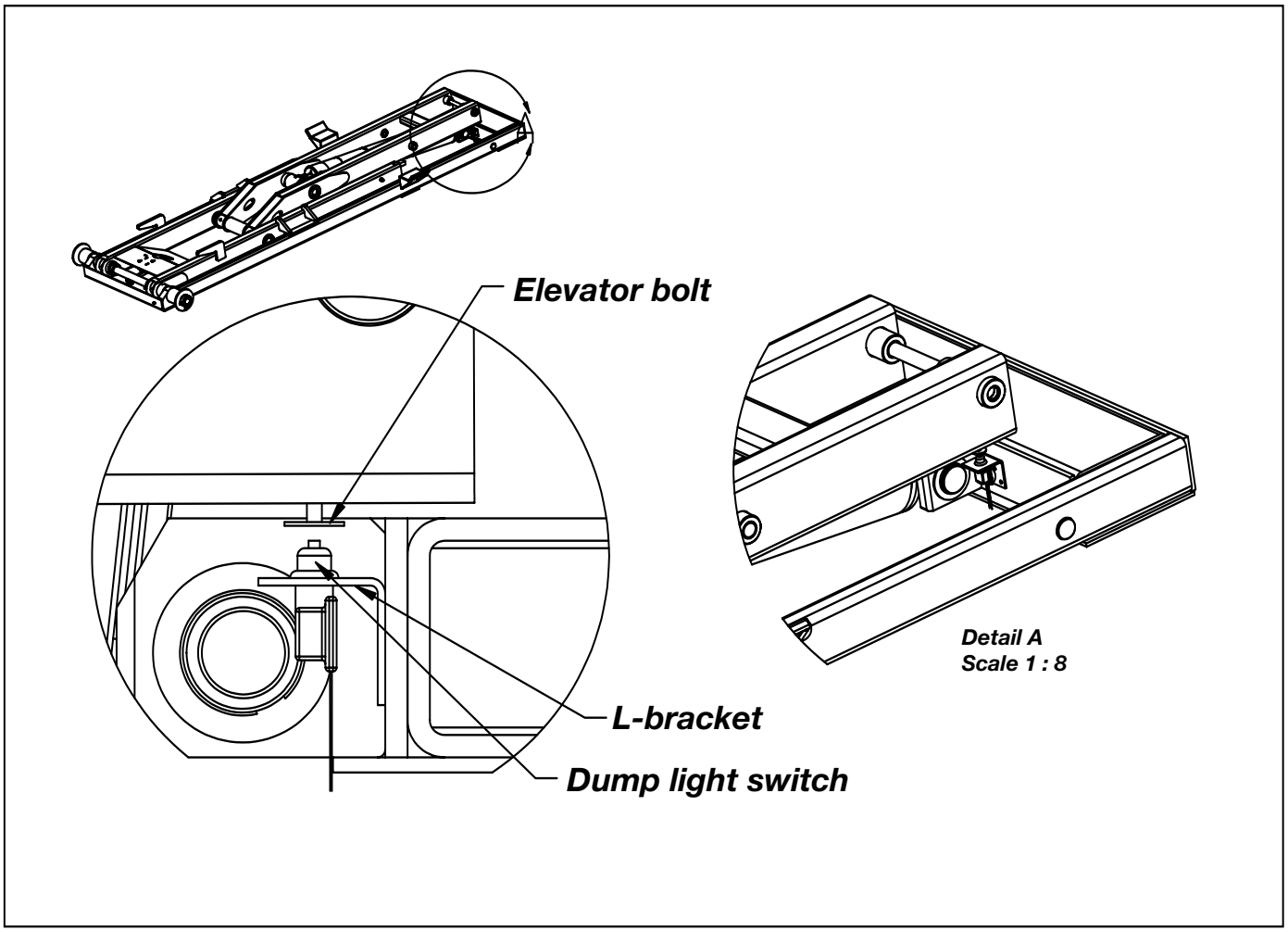
Note: Alarm will now sound when dump tabs have been damage. ***Tab alarm installtion is required.***



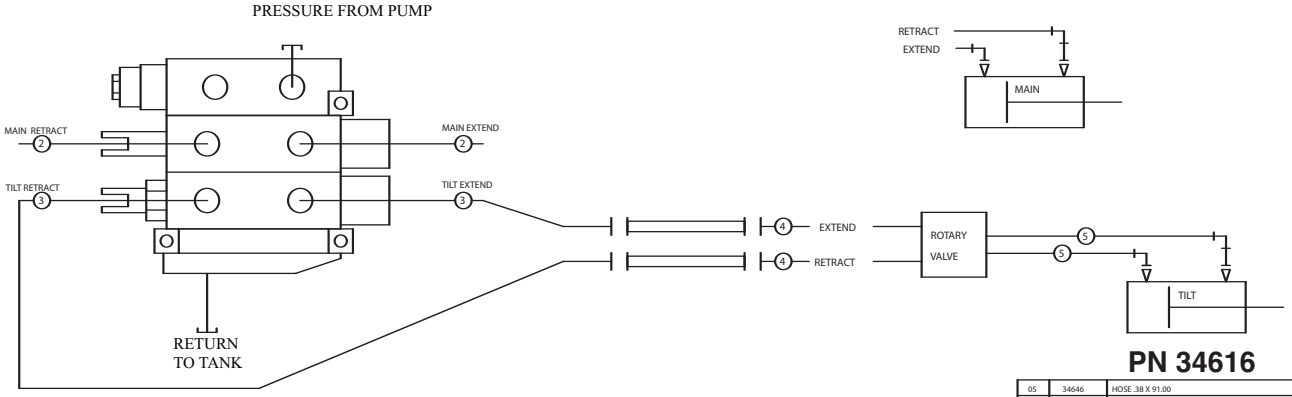


Dump Light Kit Installation

- Bolt L-bracket to front of base, drilling and tapping holes in appropriate area.
- Attach dump light switch to L-bracket.
- Drill and tap ¼-20 hole in bottom of secondary tube. Hole should be located directly above dump light switch when secondary is in lowered position.
- Screw in elevator bolt, and adjust so that switch is engaged when secondary is in lowered position.
- Install light in bracket provided with control console.
- Complete the wiring; following instructions provided with dump light kit.



Hydraulic Schematic (Model 60-8) - PN 34616

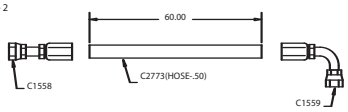


NOTE: IF RESERVOIR IS MOUNTED ON CS
HOSES 3 AND 4 ARE REVERSED

PN 34616

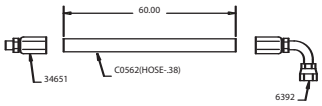
ITEM	PART No.	DESCRIPTION	QTY
05	34646	HOSE .38 X 91.00	2
04	34645	HOSE .38 X 41.00	2ref
03	34644	HOSE .38 X 60.00	2ref
02	18169	HOSE .50 X 60.00	2ref
01	34647	HOSE ASM 9-16M LOADERS	1

STELLAR #18169 - (471TC-JC-J9-8-8-8-60")
QTY - 2



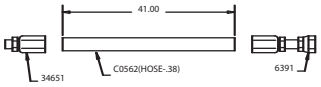
FUNCTION: MAIN CYLINDER

STELLAR #34644- (471TC-J0-J9-8-8-6-60")
QTY - 2



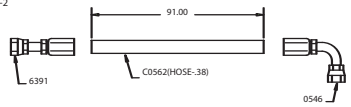
FUNCTION: TILT VB TO PORT TUBES

STELLAR #34645 - (471TC-JC-J0-8-8-6-41")
QTY - 2



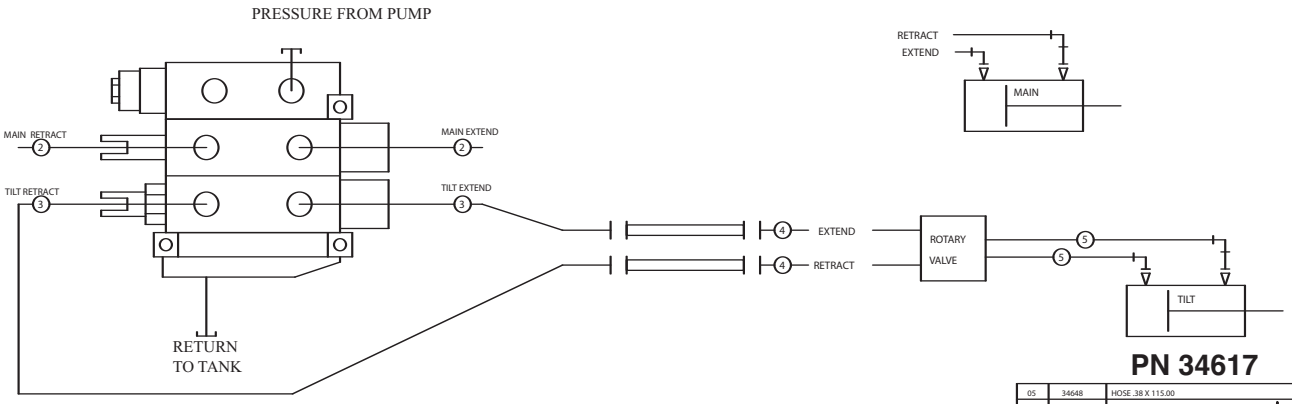
FUNCTION: PORT TUBES TO ROTARY VALVE

STELLAR #34646 - (471TC-JC-J9-8-6-6-91")
QTY -2



FUNCTION: TILT ROTARY VAVLVE TO CYLINDER

Hydraulic Schematic (Model 84-10)- PN 34617

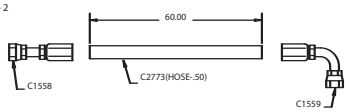


NOTE: IF RESERVOIR IS MOUNTED ON CS
HOSES 3 AND 4 ARE REVERSED

PN 34617

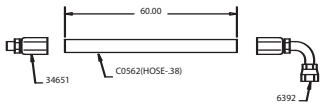
ITEM	PART No.	DESCRIPTION	QTY
05	34648	HOSE .38 X 115.00	2
04	34645	HOSE .38 X 41.00	2ref
03	34644	HOSE .38 X 60.00	2ref
02	18169	HOSE .50 X 60.00	2ref
01	34647	HOSE ASM 9-16M LOADERS	1

STELLAR #18169 - (471TC-JC-J9-8-8-8-60")
QTY - 2



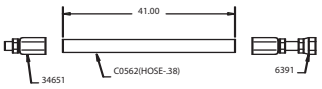
FUNCTION: MAIN CYLINDER

STELLAR #34644- (471TC-J0-J9-8-8-6-60")
QTY - 2



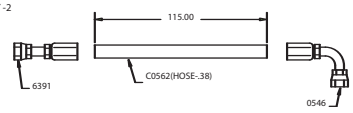
FUNCTION: TILT VB TO PORT TUBES

STELLAR #34645 - (471TC-J0-JC-8-8-6-41")
QTY - 2



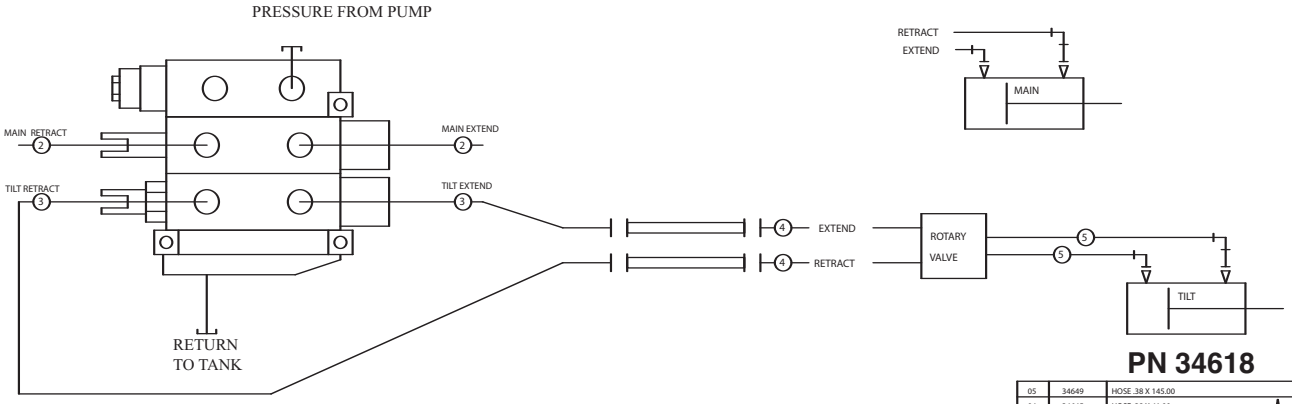
FUNCTION: PORT TUBES TO ROTARY VALVE

STELLAR #34648 - (471TC-JC-J9-8-6-6-115")
QTY -2



FUNCTION: TILT ROTARY VAVLVE TO CYLINDER

Hydraulic Schematic (Model 108-12) - PN 34618

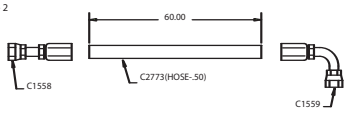


NOTE: IF RESERVOIR IS MOUNTED ON CS
HOSES 3 AND 4 ARE REVERSED

PN 34618

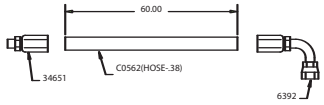
ITEM	PART No.	DESCRIPTION	QTY
05	34649	HOSE .38 X 145.00	2
04	34645	HOSE .38 X 41.00	2ref
03	34644	HOSE .38 X 60.00	2ref
02	18169	HOSE .50 X 60.00	2ref
01	34647	HOSE ASM 9-16M LOADERS	1

STELLAR #18169 - (HTB-JC-J9-8-8-8-60")
QTY - 2



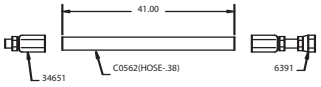
FUNCTION: MAIN CYLINDER

STELLAR #34644- (471TC-J0-J9-8-8-6-60")
QTY - 2



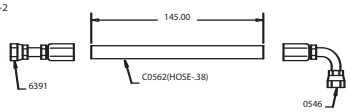
FUNCTION: TILT VB TO PORT TUBES

STELLAR #34645 - (471TC-JC-J0-8-8-6-41")
QTY - 2



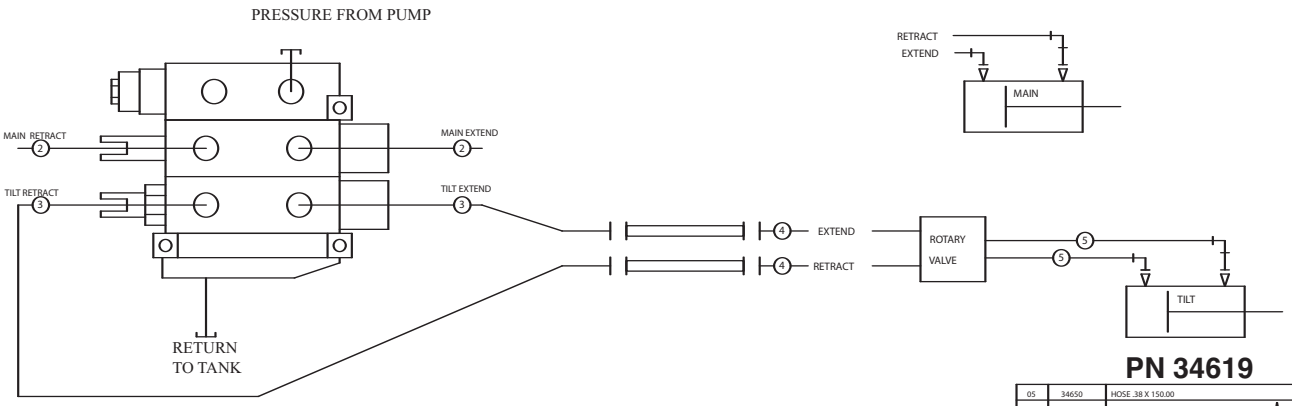
FUNCTION: PORT TUBES TO ROTARY VALVE

STELLAR #34649 - (471TC-JC-J9-8-6-6-145")
QTY -2



FUNCTION: TILT ROTARY VAVLVE TO CYLINDER

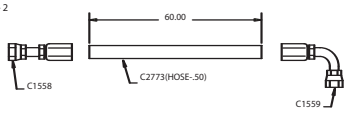
Hydraulic Schematic (Model 120-14)- PN 34619



PN 34619

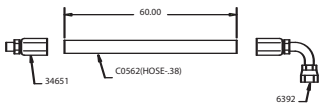
ITEM	PART No.	DESCRIPTION	QTY
05	34650	HOSE .38 X 150.00	2
04	34645	HOSE .38 X 41.00	2ref
03	34644	HOSE .38 X 60.00	2ref
02	18169	HOSE .50 X 60.00	2ref
01	34647	HOSE ASM 9-16M LOADERS	1

STELLAR #18169 - (471TC-JC-J9-8-8-8-60")
QTY - 2



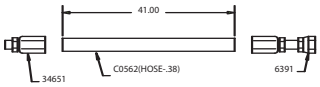
FUNCTION: MAIN CYLINDER

STELLAR #34644- (471TC-J0-J9-8-8-6-60")
QTY - 2



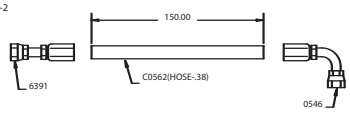
FUNCTION: TILT VB TO PORT TUBES

STELLAR #34645 - (471TC-JC-J0-8-8-6-41")
QTY - 2



FUNCTION: PORT TUBES TO ROTARY VALVE

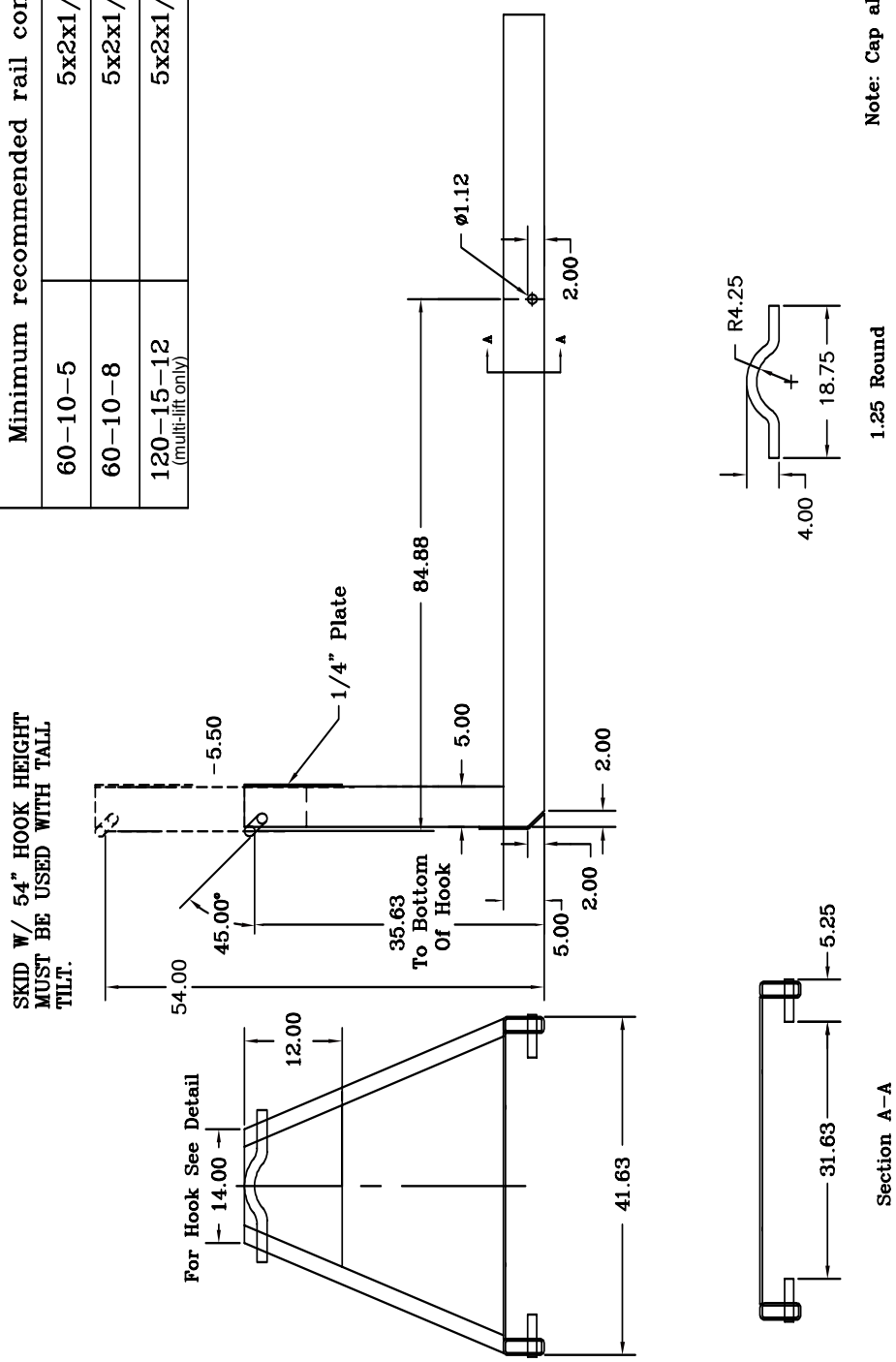
STELLAR #34650 - (471TC-JC-J9-8-6-6-150")
QTY -2



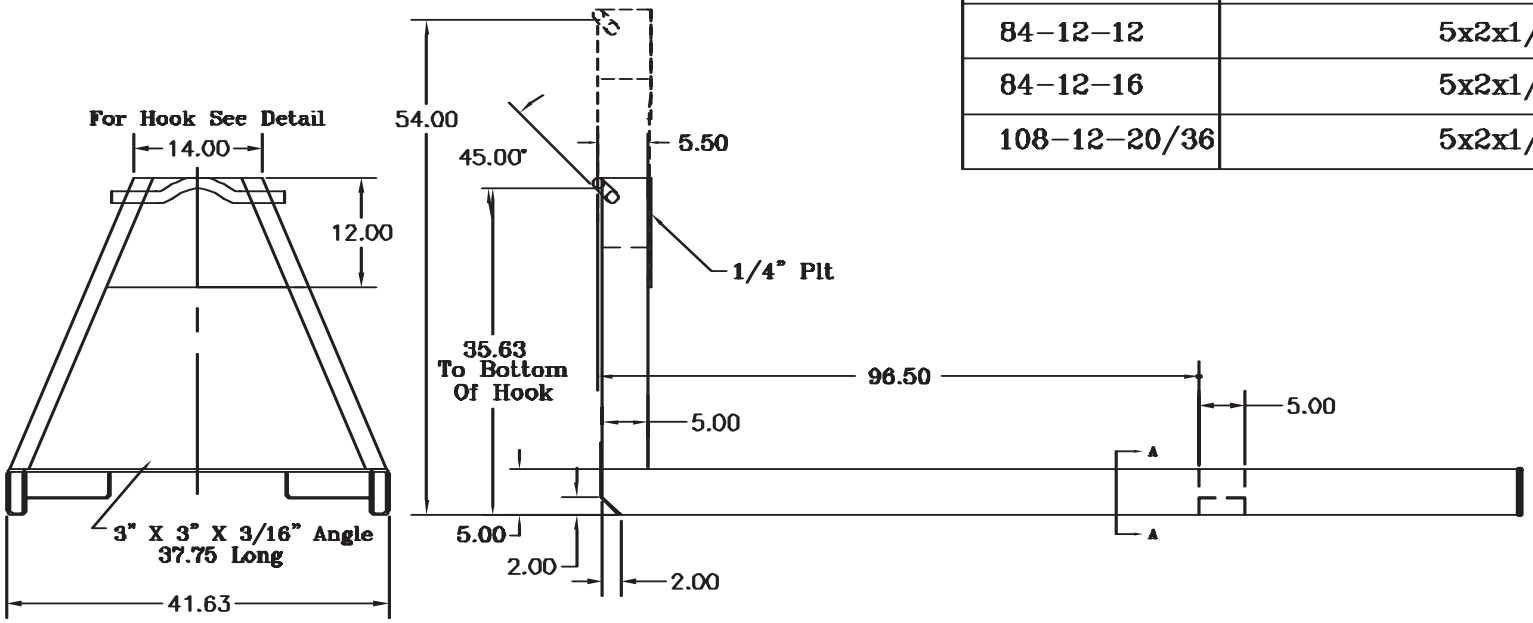
FUNCTION: TILT ROTARY VAVLVE TO CYLINDER

Subframe Model 60-8

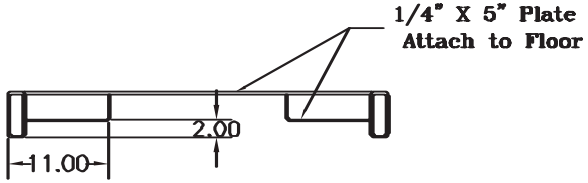
Minimum recommended rail construction.	
60–10–5	5x2x1/4
60–10–8	5x2x1/4
120–15–12 (multi-lift only)	5x2x1/4



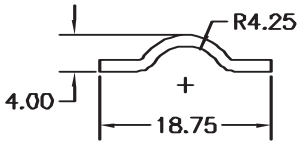
SKID W/ 54" HOOK HEIGHT MUST BE USED WITH TALL TILT.



Minimum recommended rail construction.	
84-12-8	5x2x1/4
84-12-12	5x2x1/4
84-12-16	5x2x1/4
108-12-20/36	5x2x1/4



Section A-A

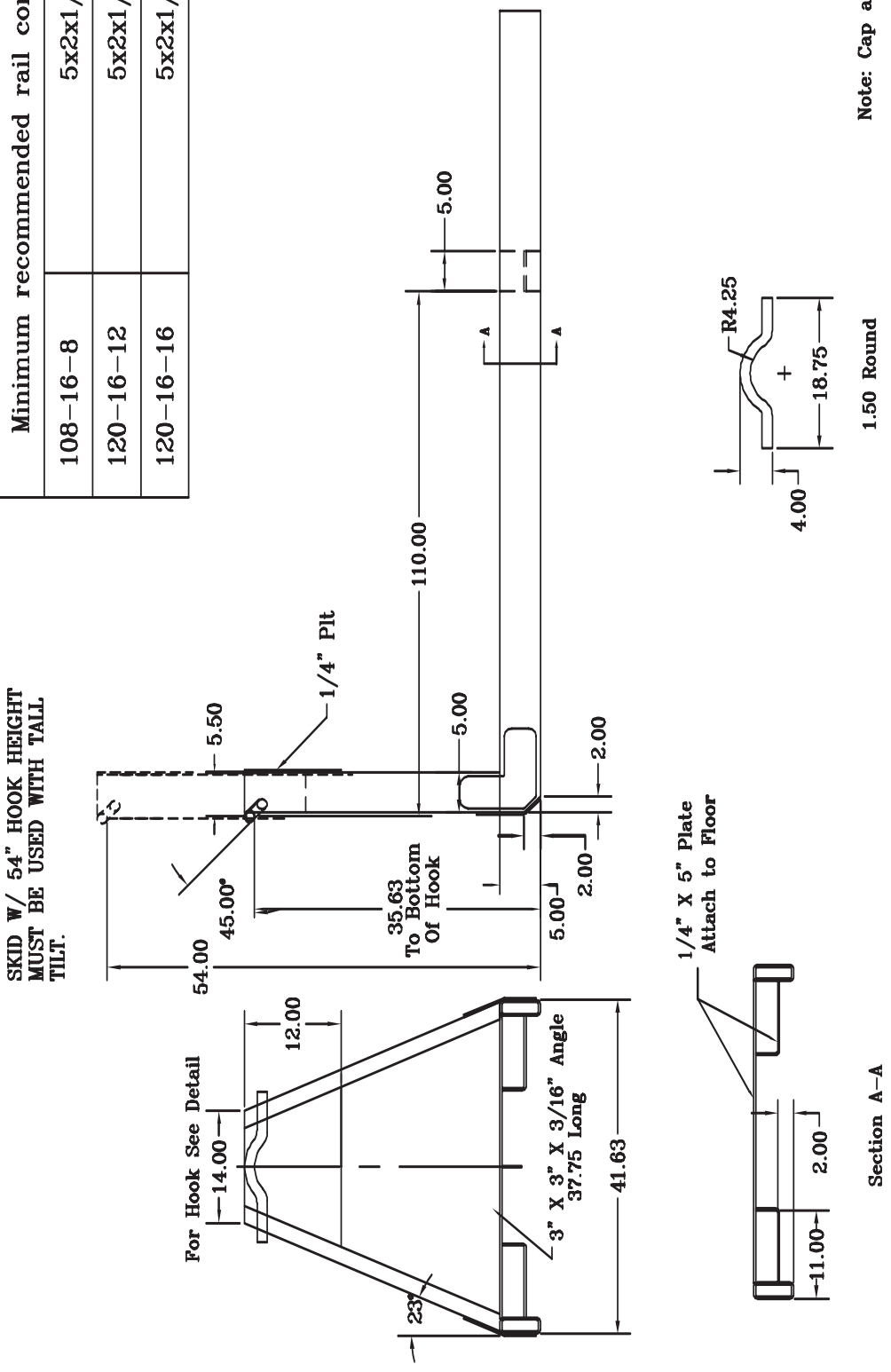


1.25 Round

Note: Cap all tube ends.

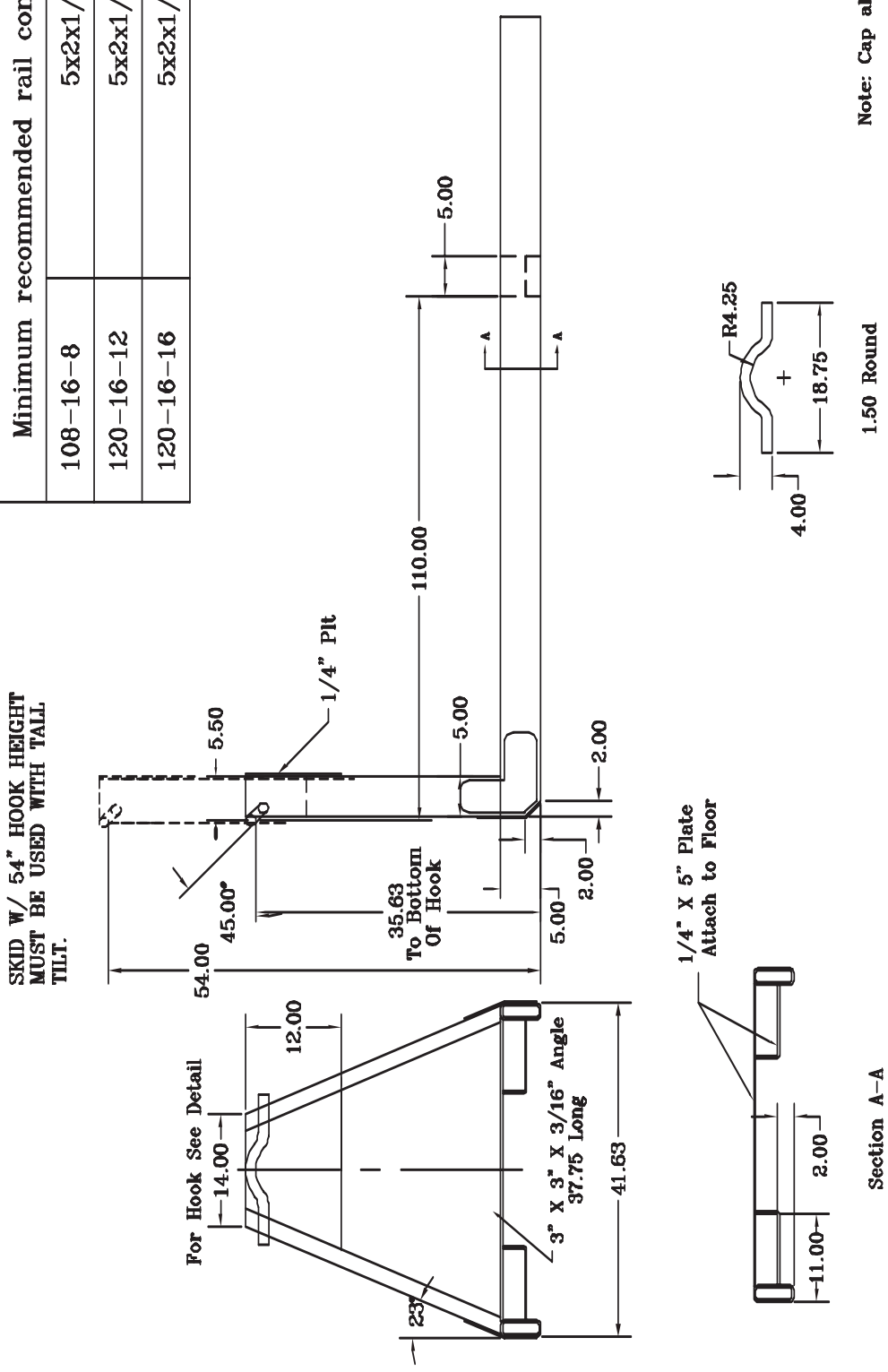
Subframe Model 108-12

Minimum recommended rail construction.	
108–16–8	5x2x1/4
120–16–12	5x2x1/4
120–16–16	5x2x1/4



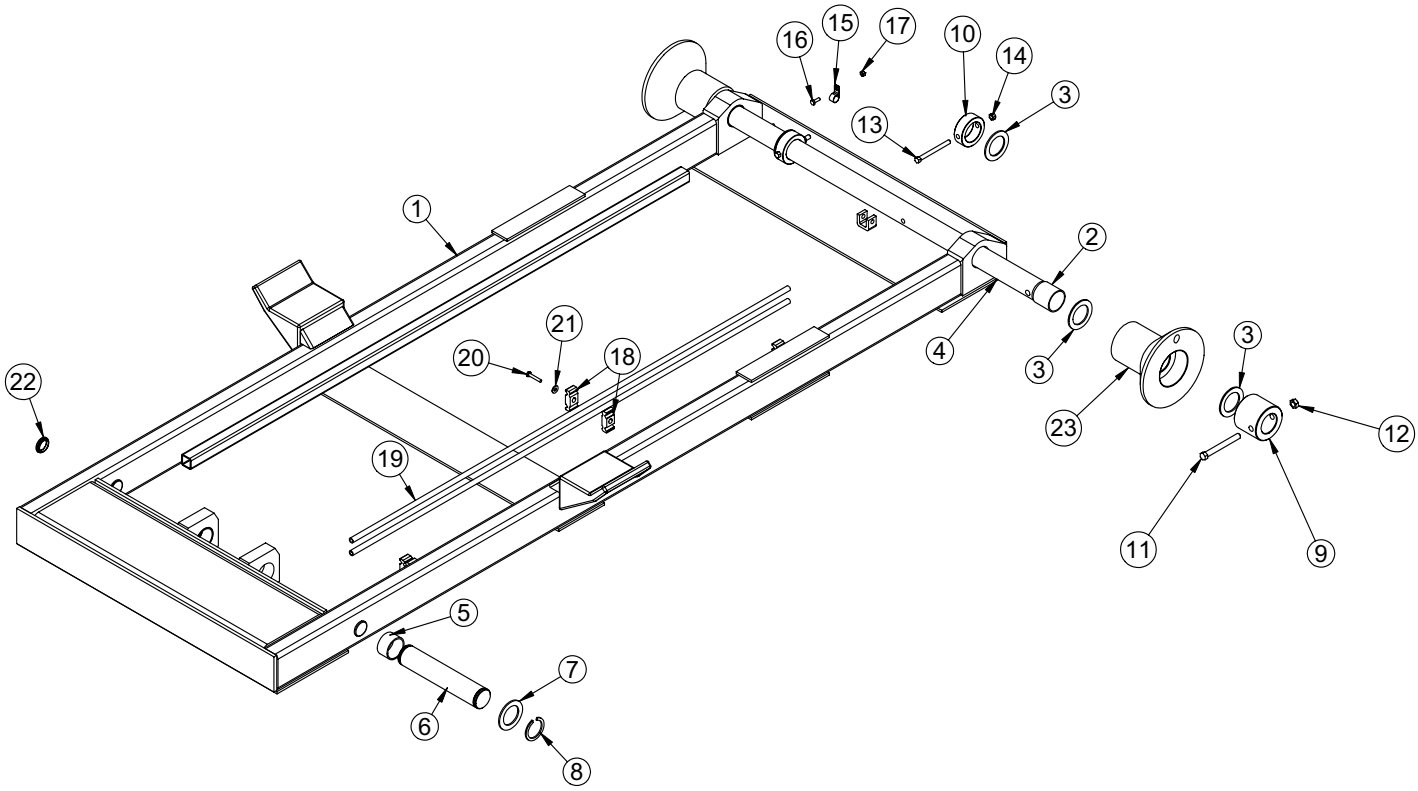
Subframe Model 120-14

Minimum recommended rail construction.	
108–16–8	5x2x1/4
120–16–12	5x2x1/4
120–16–16	5x2x1/4



Chapter 7 - Assembly Drawings

Base Assembly (60-8) - PN 41828

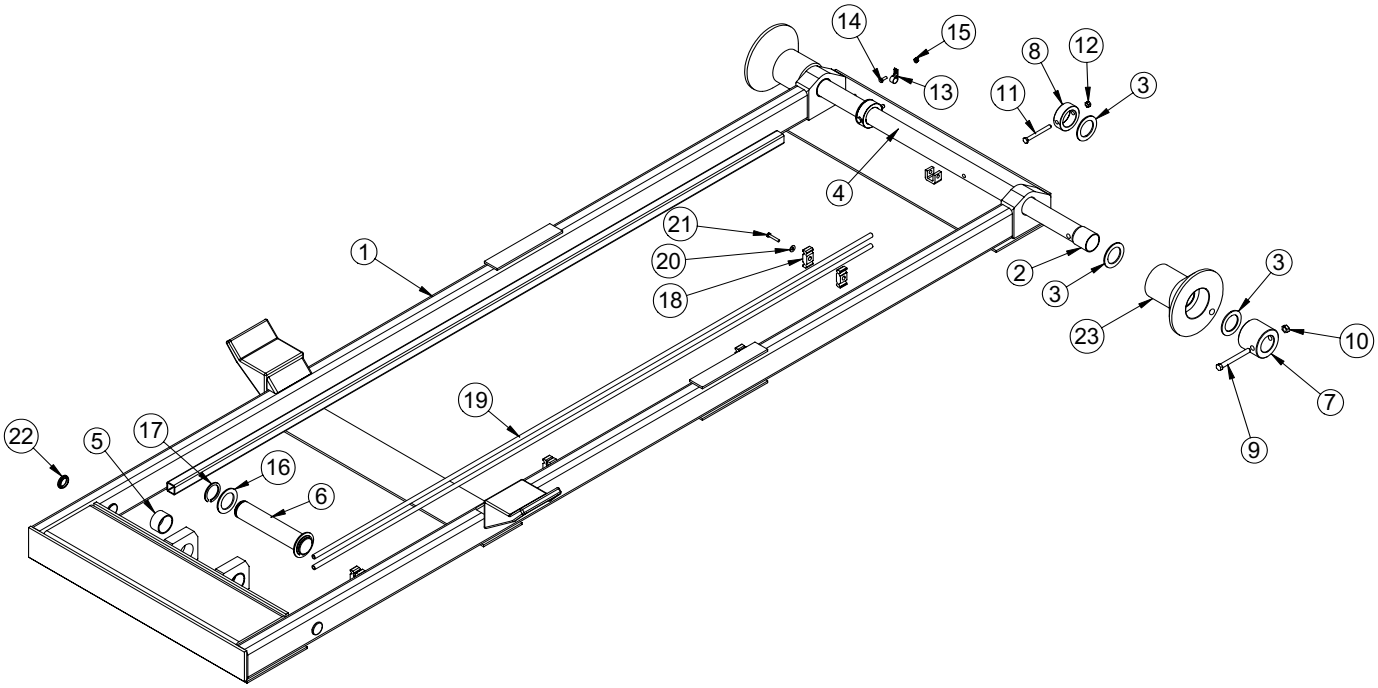


PN 41828

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	31815	BASE 60-8 FLEX 36	1	10	22764	COLLAR 2.01X3.00X1.00	2
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	2	11	0507	CAP SCR 0.50-13X4.50 HHGR5	2
3	1546	THRUST WASHER 2.01DIA UHMW .12THK	6	12	C6106	NUT 0.50-13 HHGR5 NYLOC	2
4	41774	PIN 2.00X49.88	1	13	C0953	CAP SCR 0.38-16X4.00 HHGR5	2
5	23699	BUSHING 32DXR20 2.00X1.25	2	14	0347	NUT 0.38-16 HH NYLOC	2
6	33741	PIN 2.00X10.19 SR	1	15	C0078	HOSE CLAMP #8 RUBBER COATED	1
7	0427	MACHY WASHER 2.00ID 10GA	2	16	0479	CAP SCR 0.25-20X0.75 HHGR5	1
8	0108	SNAP RING 2.00 7200-200	2	17	0333	NUT 0.25-20 HHGR5 NYLOC	1
9	0015	COLLAR 2.01X3.50X2.88	2	18	8622	CLAMP HOSE/TUBE AG-2	6

ITEM	PART	DESCRIPTION	QTY.
19	34415	TUBE ASM 0.50X57.25	2
20	0220	CAP SCR 0.25-20 X 1.50 HHGR5	3
21	0340	WASHER 0.25 FLAT	3
22	19112	PLUG PLASTIC CCF1.50-10-14	4
23	41776PC	ROLLER 4.00 WIDE FLANGE PWDRCT YEL	2

Base Assembly (84-10) - PN 41826

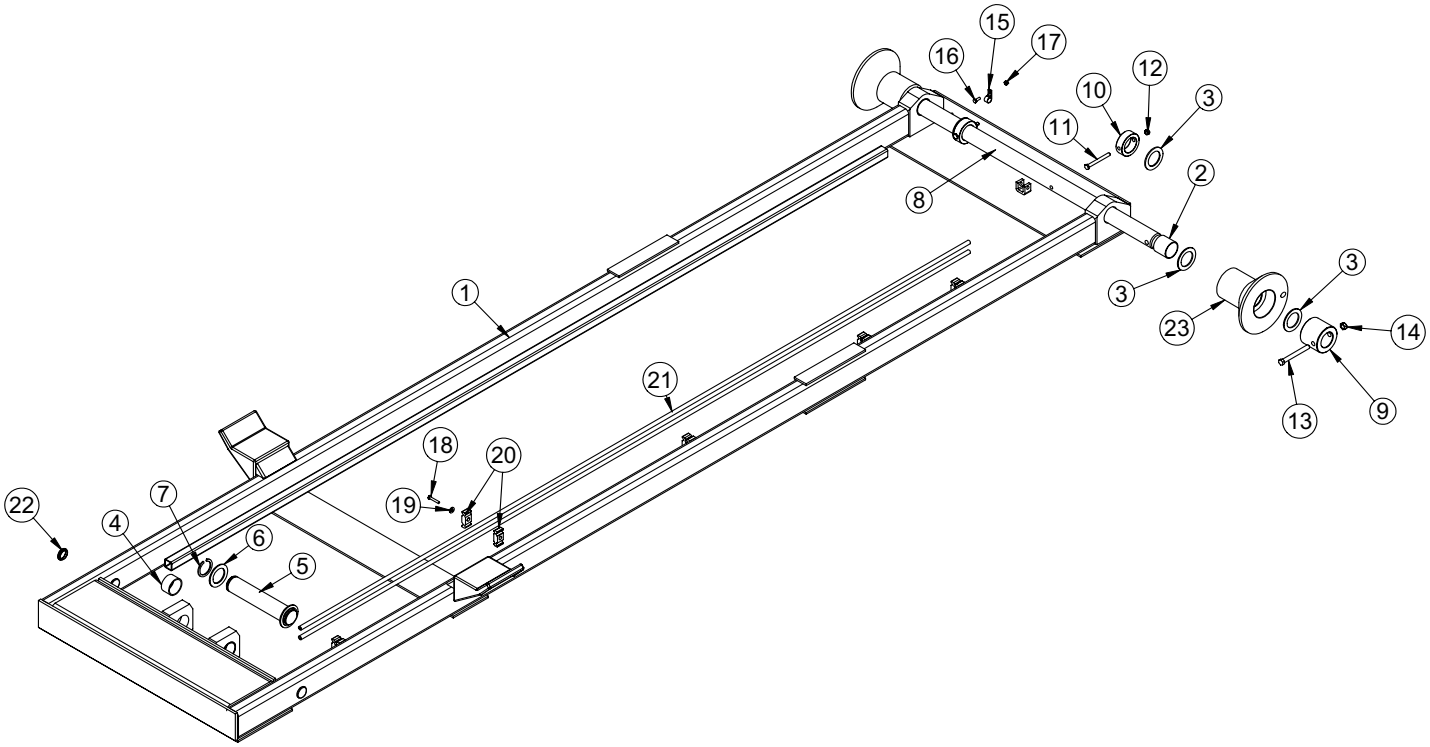


PN 41826

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	33338	BASE 84-10 FLEX 36	1	10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	2	11	0532	CAP SCR 0.38-16X3.75 HHGR5	2
3	1546	THRUST WASHER 2.01DIA UHMW .12THK	6	12	0347	NUT 0.38-16 HH NYLOC	2
4	41774	PIN 2.00X49.88	1	13	C0078	HOSE CLAMP #8 RUBBER COATED	1
5	23699	BUSHING 32DXR20 2.00X1.25	2	14	0479	CAP SCR 0.25-20X0.75 HHGR5	1
6	33741	PIN 2.00X10.19 SR	1	15	0333	NUT 0.25-20 HHGR5 NYLOC	1
7	0015	COLLAR 2.01X3.50X2.88	2	16	0427	MACHY WASHER 2.00ID 10GA	2
8	22764	COLLAR 2.01X3.00X1.00	2	17	0108	SNAP RING 2.00 7200-200	2
9	0507	CAP SCR 0.50-13X4.50 HHGR5	2	18	8622	CLAMP HOSE/TUBE AG-2	8

ITEM	PART	DESCRIPTION	QTY.
19	34418	TUBE ASM 0.50X87.00	2
20	0340	WASHER 0.25 FLAT	4
21	0220	CAP SCR 0.25-20 X 1.50 HHGR5	4
22	19112	PLUG PLASTIC CCF1.50-10-14	4
23	41776PC	ROLLER 4.00 WIDE FLANGE PWDRCT YEL	2

Base Assembly (108-12) - PN 41827

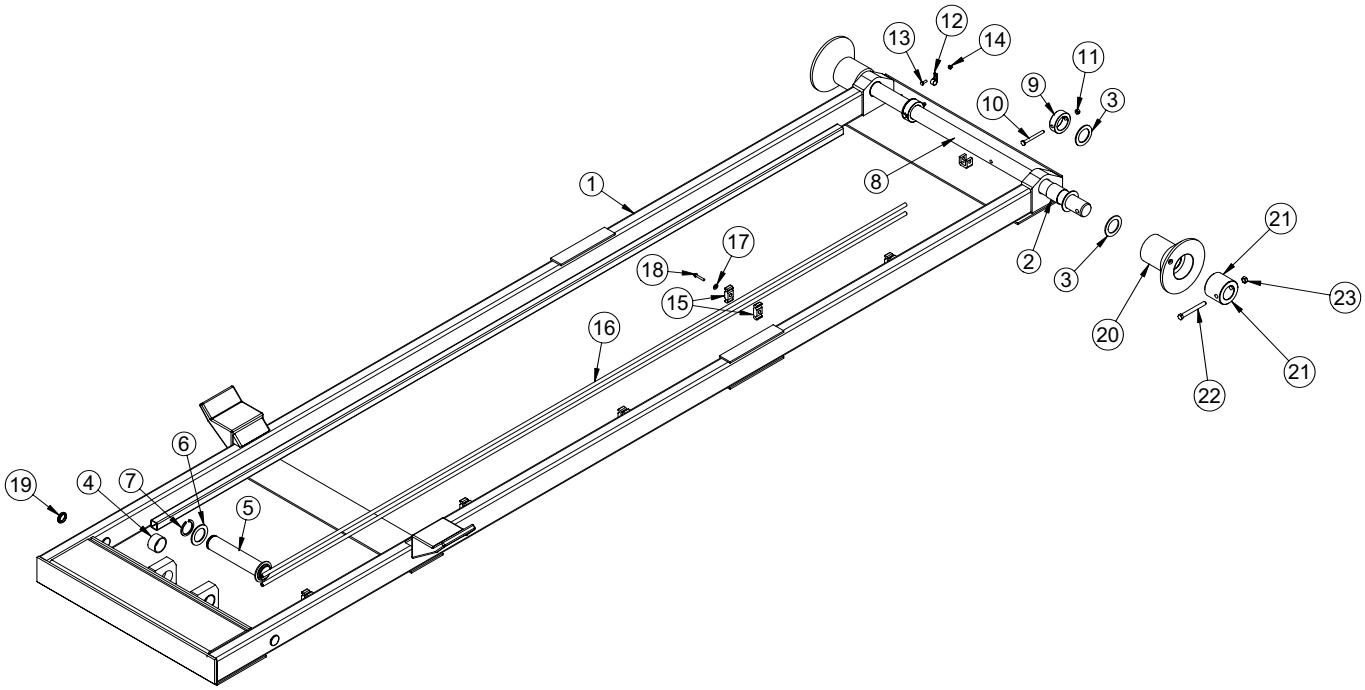


PN 41827

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	34246	BASE 108-12 FLEX 36	1	10	22764	COLLAR 2.01X3.00X1.00	2
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	2	11	0532	CAP SCR 0.38-16X3.75 HHGR5	2
3	1546	THRUST WASHER 2.01DIA UHMW .12THK	6	12	0347	NUT 0.38-16 HH NYLOC	2
4	23699	BUSHING 32DXR20 2.00X1.25	2	13	0507	CAP SCR 0.50-13X4.50 HHGR5	2
5	33741	PIN 2.00X10.19 SR	1	14	C6106	NUT 0.50-13 HHGR5 NYLOC	2
6	0427	MACHY WASHER 2.00ID 10GA	2	15	C0078	HOSE CLAMP #8 RUBBER COATED	1
7	0108	SNAP RING 2.00 7200-200	2	16	0479	CAP SCR 0.25-20X0.75 HHGR5	1
8	41774	PIN 2.00X49.88	1	17	0333	NUT 0.25-20 HHGR5 NYLOC	1
9	0015	COLLAR 2.01X3.50X2.88	2	18	0220	CAP SCR 0.25-20 X 1.50 HHGR5	5

ITEM	PART	DESCRIPTION	QTY.
19	0340	WASHER 0.25 FLAT	5
20	8622	CLAMP HOSE/TUBE AG-2	10
21	34641	TUBE ASM 0.50X114.50	2
22	19112	PLUG PLASTIC CCF1.50-10-14	4
23	41776PC	ROLLER 4.00 WIDE FLANGE PWDRCT YEL	2

Base Assembly (120-14) - PN 41773

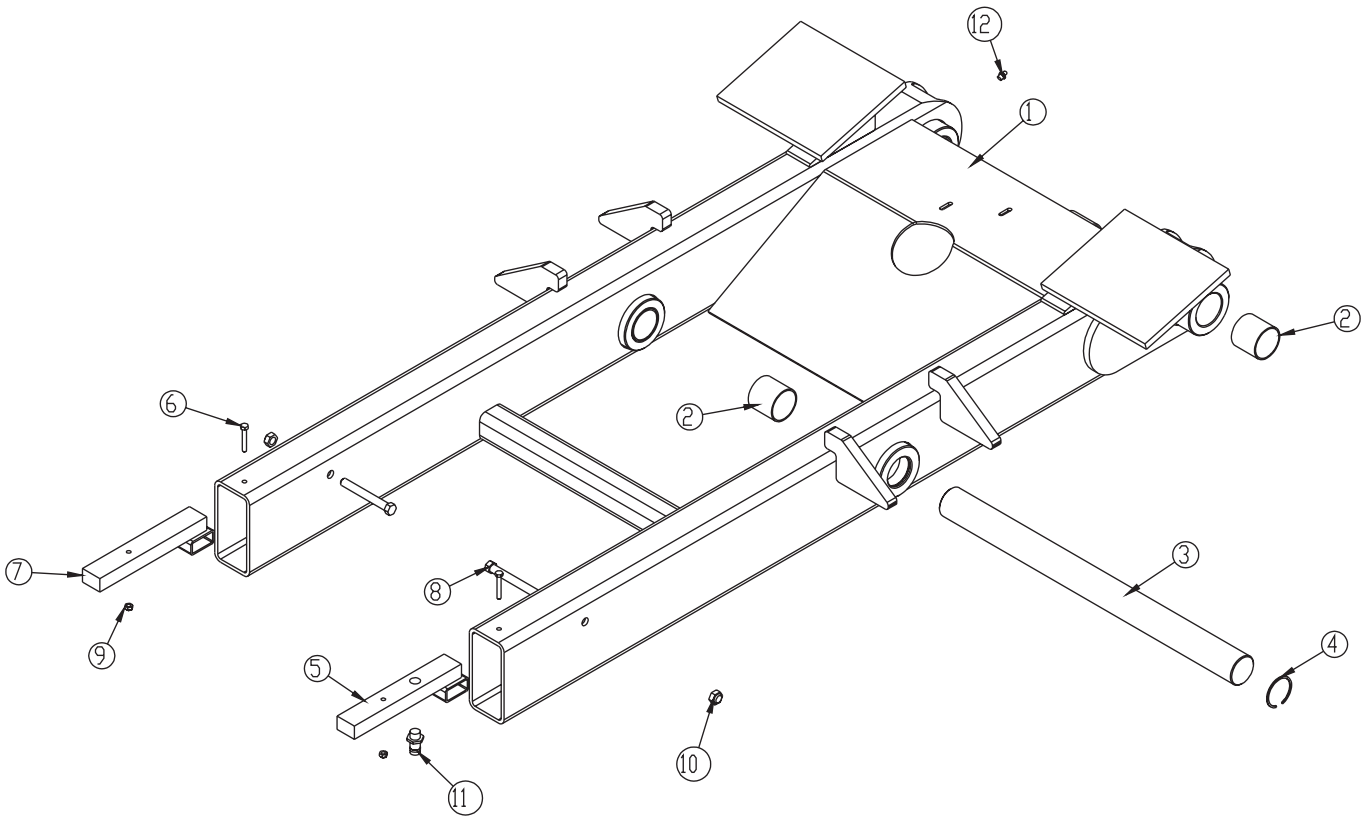


PN 41773

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	33418	BASE 120-14 FLEX 36	1	10	0532	CAP SCR 0.38-16X3.75 HHGR5	2
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	2	11	0347	NUT 0.38-16 HH NYLOC	2
3	1546	THRUST WASHER 2.01DIA UHMW .12THK	6	12	C0078	HOSE CLAMP #8 RUBBER COATED	1
4	23699	BUSHING 32DXR20 2.00X1.25	2	13	0479	CAP SCR 0.25-20X0.75 HHGR5	1
5	33741	PIN 2.00X10.19 SR	1	14	0333	NUT 0.25-20 HHGR5 NYLOC	1
6	0427	MACHY WASHER 2.00ID 10GA	2	15	8622	CLAMP HOSE/TUBE AG-2	10
7	0108	SNAP RING 2.00 7200-200	2	16	34413	TUBE ASM 0.50X122.00	2
8	41774	PIN 2.00X49.88	1	17	0340	WASHER 0.25 FLAT	5
9	22764	COLLAR 2.01X3.00X1.00	2	18	0220	CAP SCR 0.25-20 X 1.50 HHGR5	5

ITEM	PART	DESCRIPTION	QTY.
19	19112	PLUG PLASTIC CCF1.50-10-14	4
20	41776PC	ROLLER 4.00 WIDE FLANGE PWDRCT YEL	2
21	0015	COLLAR 2.01X3.50X2.88	2
22	0507	CAP SCR 0.50-13X4.50 HHGR5	2
23	C6106	NUT 0.50-13 HHGR5 NYLOC	2

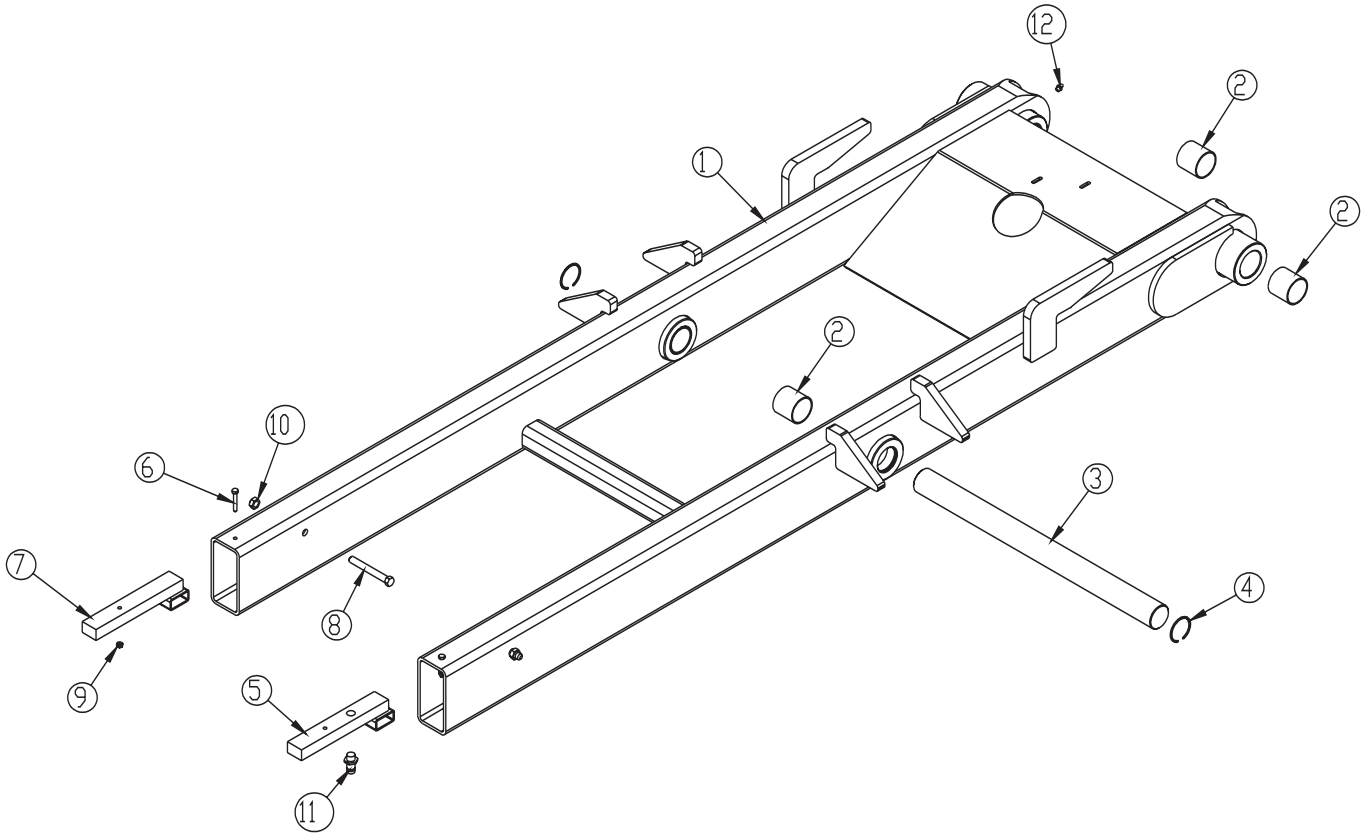
Dump Assembly (60-8) - PN 31824



PN 31824

ITEM	PART	DESCRIPTION	QTY.
1	31822	DUMP WLDMT 60-8 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	22227	PIN 2.00X25.25	1
4	2257	SNAP RING INSIDE 2.00	2
5	33062	TAB LOADER WLDMT BREAK AWAY	1
6	0332	CAP SCR 0.31-18X1.75 HHGR5	2
7	23301	TAB LOADER BREAK AWAY	1
8	0506	CAP SCR 0.50-13X4.00 HHGR5	2
9	0333	NUT 0.25-20 HHGR5 NYLOC	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	26287	SWITCH PROXIMITY CARLO GAVAZZI	1
12	c1592	ZERK 1/8 NPT STRAIGHT	2

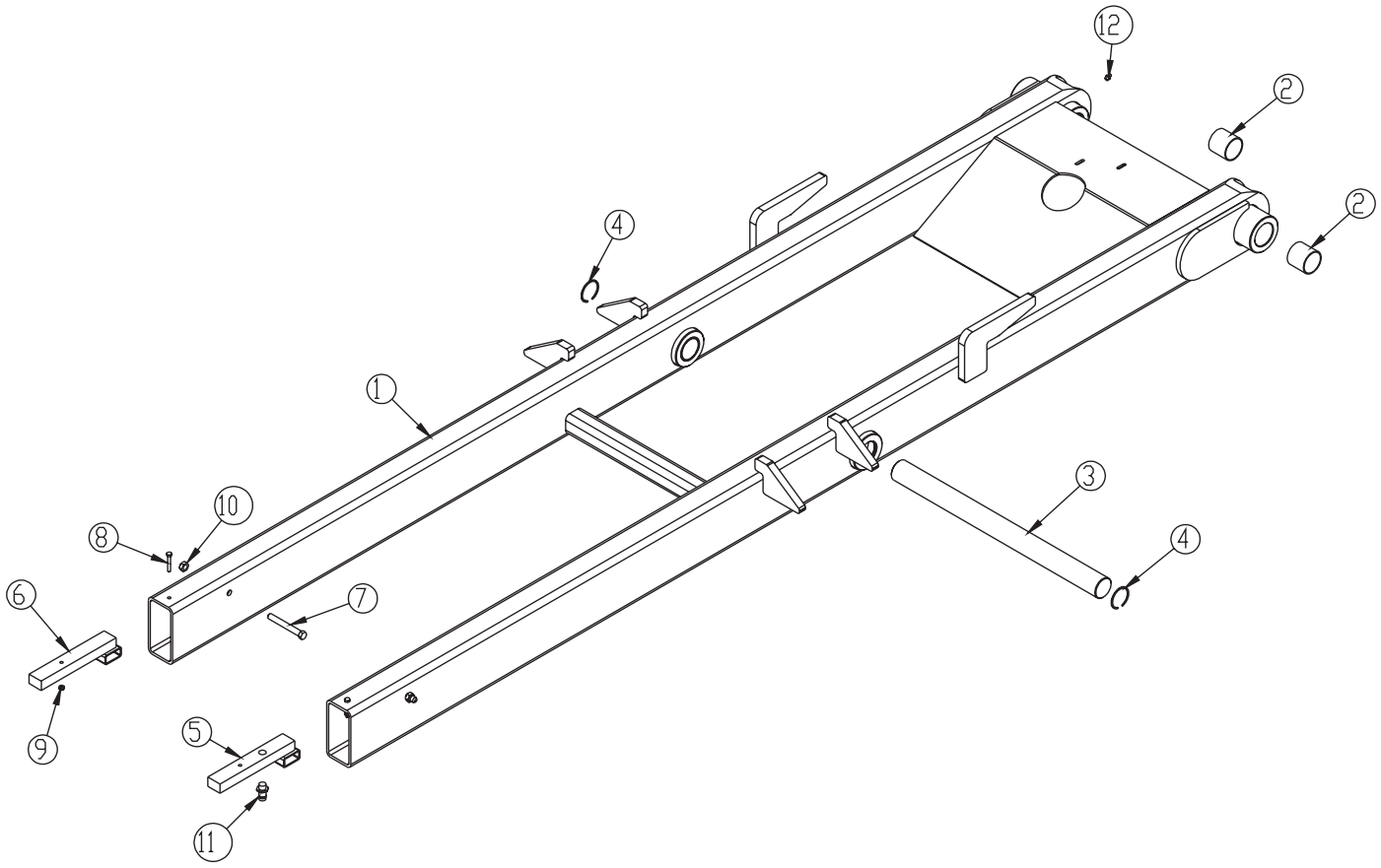
Dump Assembly (84-10) - PN 33339



PN 33339

ITEM	PART	DESCRIPTION	QTY.
1	33340	DUMP WLDMT 84-10 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	22227	PIN 2.00X25.25	1
4	2257	SNAP RING INSIDE 2.00	2
5	33062	TAB LOADER WLDMT BREAK AWAY	1
6	0332	CAP SCR 0.31-18X1.75 HHGR5	2
7	23301	TAB LOADER BREAK AWAY	1
8	0506	CAP SCR 0.50-13X4.00 HHGR5	2
9	0333	NUT 0.25-20 HHGR5 NYLOC	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	26287	SWITCH PROXIMITY CARLO GAVAZZI	1
12	c1592	ZERK 1/8 NPT STRAIGHT	2

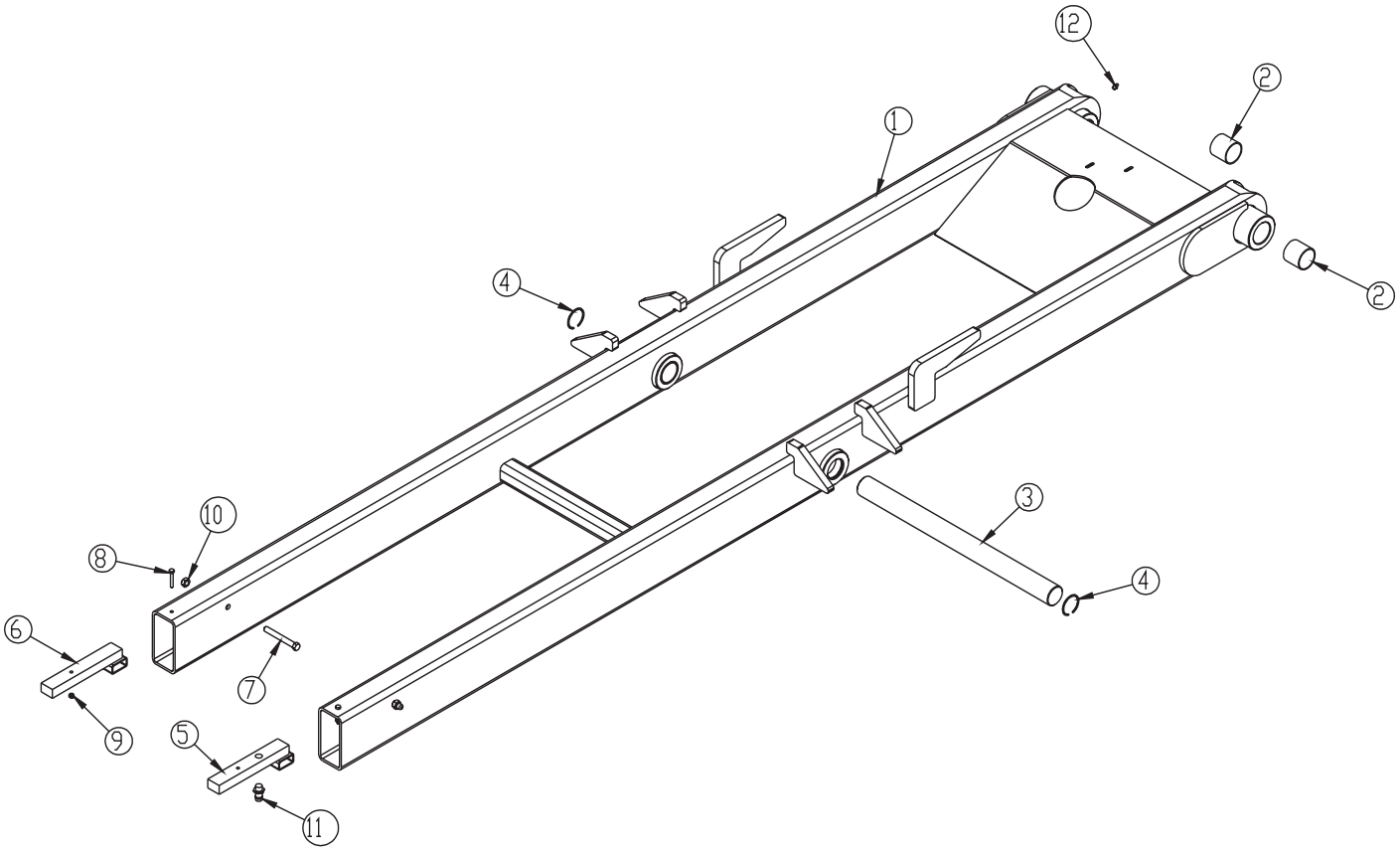
Dump Assembly (108-12) - PN 34247



PN 34247

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	34248	DUMP WLDMT 108-12 FLEX36	1	7	0506	CAP SCR 0.50-13X4.00 HHGR5	2
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6	8	0332	CAP SCR 0.31-18X1.75 HHGR5	2
3	22227	PIN 2.00X25.25	1	9	0333	NUT 0.25-20 HHGR5 NYLOC	2
4	2257	SNAP RING INSIDE 2.00	2	10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
5	33062	TAB LOADER WLDMT BREAK AWAY	1	11	26287	SWITCH PROXIMITY CARLO GAVAZZI	1
6	23301	TAB LOADER BREAK AWAY	1	12	c1592	ZERK 1/8 NPT STRAIGHT	2

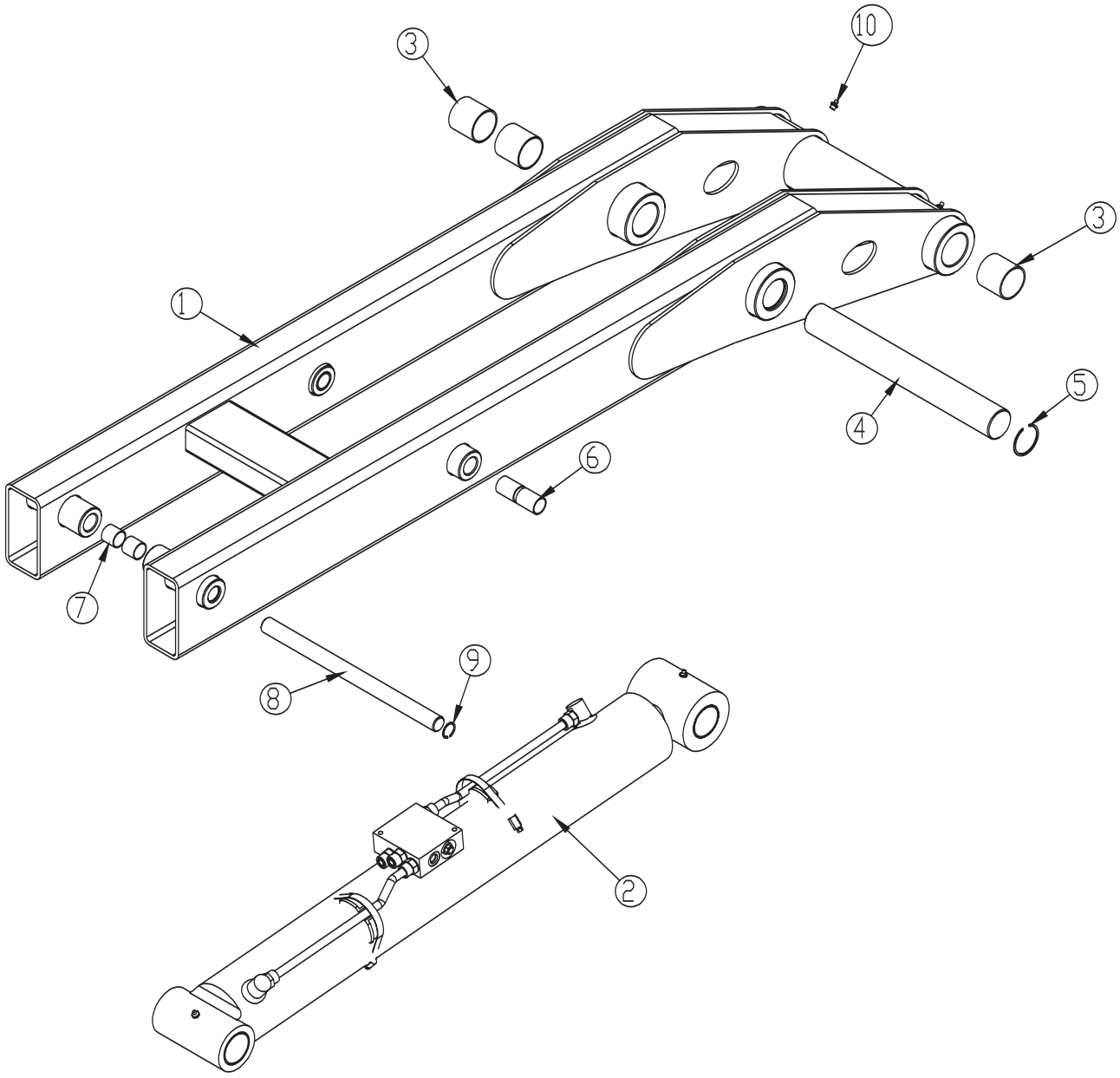
Dump Assembly (120-14) - PN 33417



PN 33417

ITEM	PART	DESCRIPTION	QTY.
1	33416	DUMP WLDMT 120-14 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	22227	PIN 2.00X25.25	1
4	2257	SNAP RING INSIDE 2.00	2
5	33062	TAB LOADER WLDMT BREAK AWAY	1
6	23301	TAB LOADER BREAK AWAY	1
7	0506	CAP SCR 0.50-13X4.00 HHGR5	2
8	0332	CAP SCR 0.31-18X1.75 HHGR5	2
9	0333	NUT 0.25-20 HHGR5 NYLOC	2
10	C6106	NUT 0.50-13 HHGR5 NYLOC	2
11	26287	SWITCH PROXIMITY CARLO GAVAZZI	1
12	c1592	ZERK 1/8 NPT STRAIGHT	2

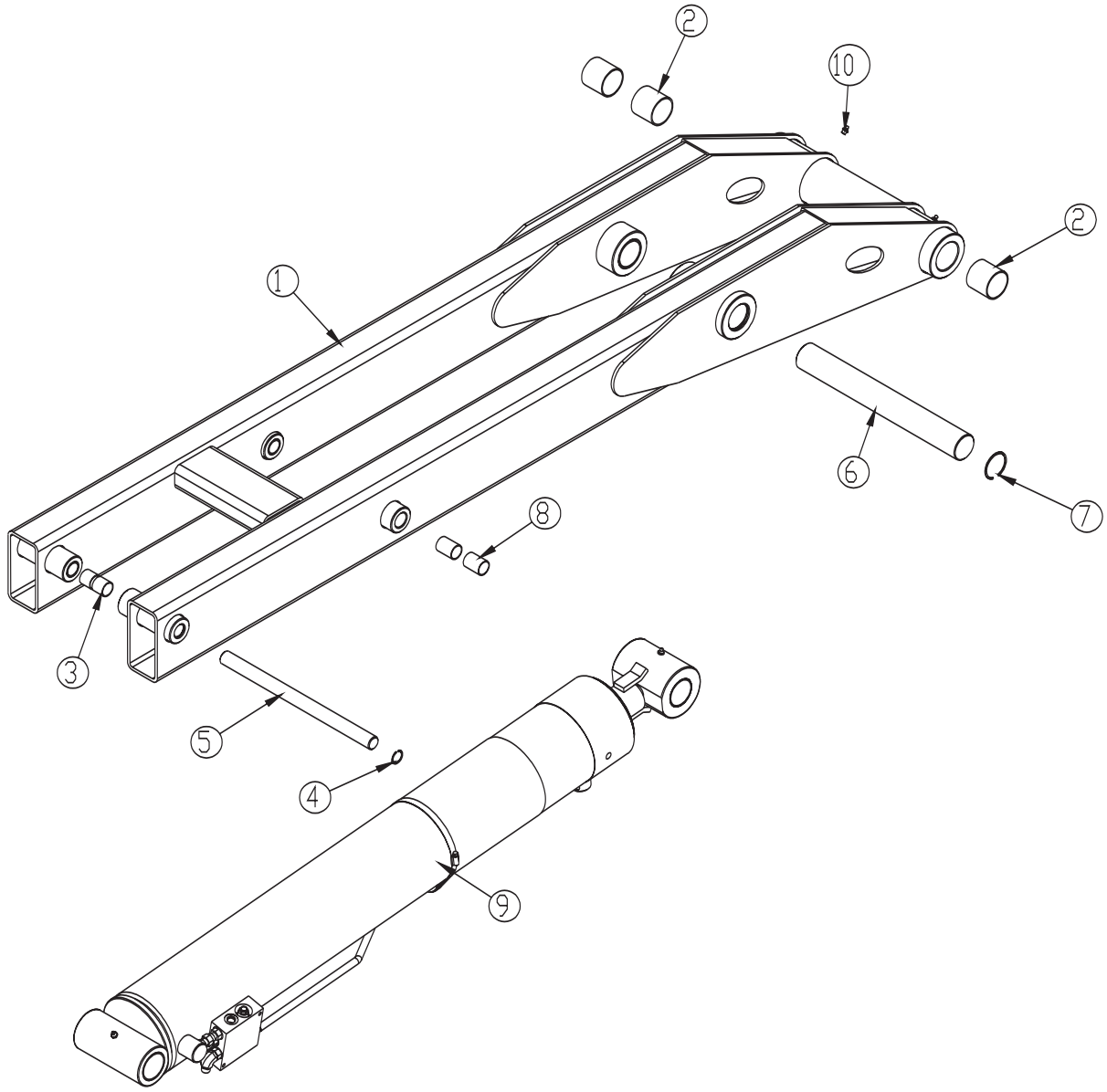
Secondary Assembly (60-8) - PN 33047



PN 33047

ITEM	PART	DESCRIPTION	QTY.
1	33048	SECONDARY WLDMT 60-8 FLEX36	1
2	27116	CYLINDER ASM 27020 4.00X29.63	1
3	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
4	22286	PIN 2.00X16.00	1
5	2257	SNAP RING INSIDE 2.00	2
6	0068	BUSHING QSI-1618-24	4
7	0069	BUSHING QSI-1618-16	4
8	22285	PIN 1.00X15.00	1
9	3875	SNAP RING 1.00 INTERNAL	2
10	c1592	ZERK 1/8 NPT STRAIGHT	2

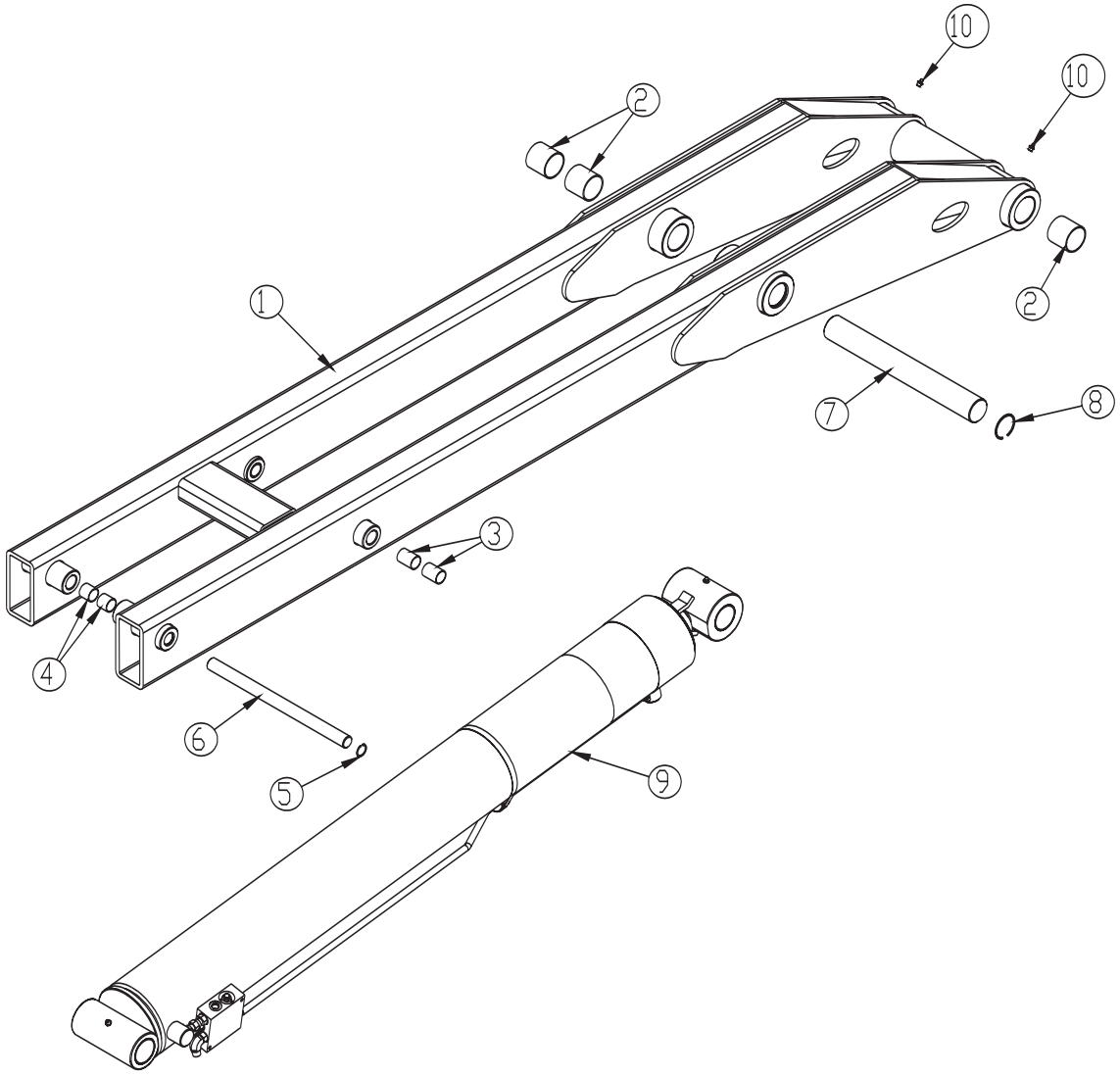
Secondary Assembly (84-10) - PN 33341



PN 33341

ITEM	PART	DESCRIPTION	QTY.
1	33342	SECONDARY WLDMT 84-10 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	0069	BUSHING QSI-1618-16	4
4	3875	SNAP RING 1.00 INTERNAL	2
5	22285	PIN 1.00X15.00	1
6	22286	PIN 2.00X16.00	1
7	2257	SNAP RING INSIDE 2.00	2
8	0068	BUSHING QSI-1618-24	4
9	33404	CYLINDER ASM 5.50X40.00	1
10	c1592	ZERK 1/8 NPT STRAIGHT	2

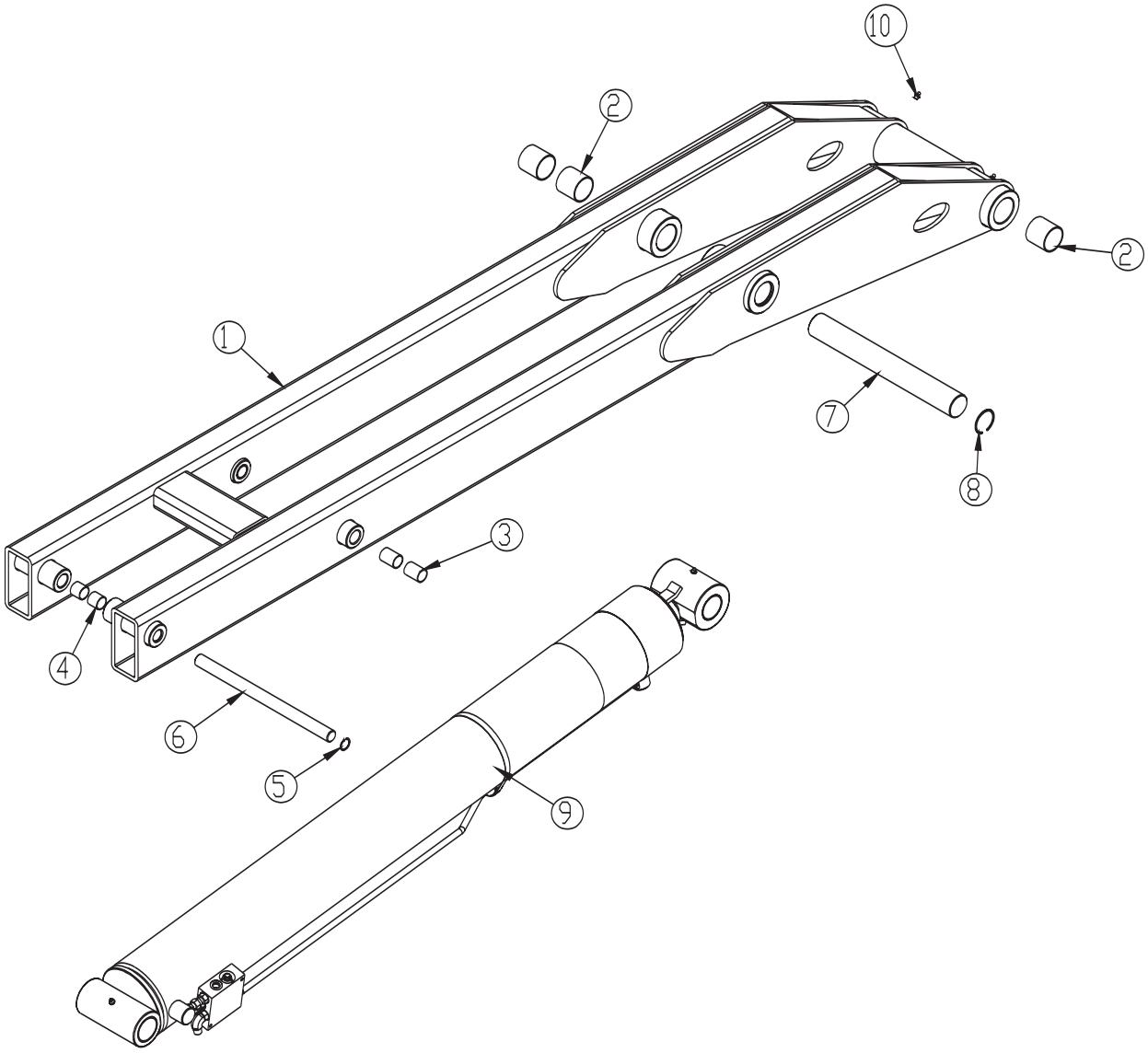
Secondary Assembly (108-12) - PN 34249



PN 34249

ITEM	PART	DESCRIPTION	QTY.
1	34250	SECONDARY WLDMT 108-12 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	0068	BUSHING QSI-1618-24	4
4	0069	BUSHING QSI-1618-16	4
5	3875	SNAP RING 1.00 INTERNAL	2
6	22285	PIN 1.00X15.00	1
7	22286	PIN 2.00X16.00	1
8	2257	SNAP RING INSIDE 2.00	2
9	33462	CYLINDER ASM 5.50X52.38	1
10	c1592	ZERK 1/8 NPT STRAIGHT	2

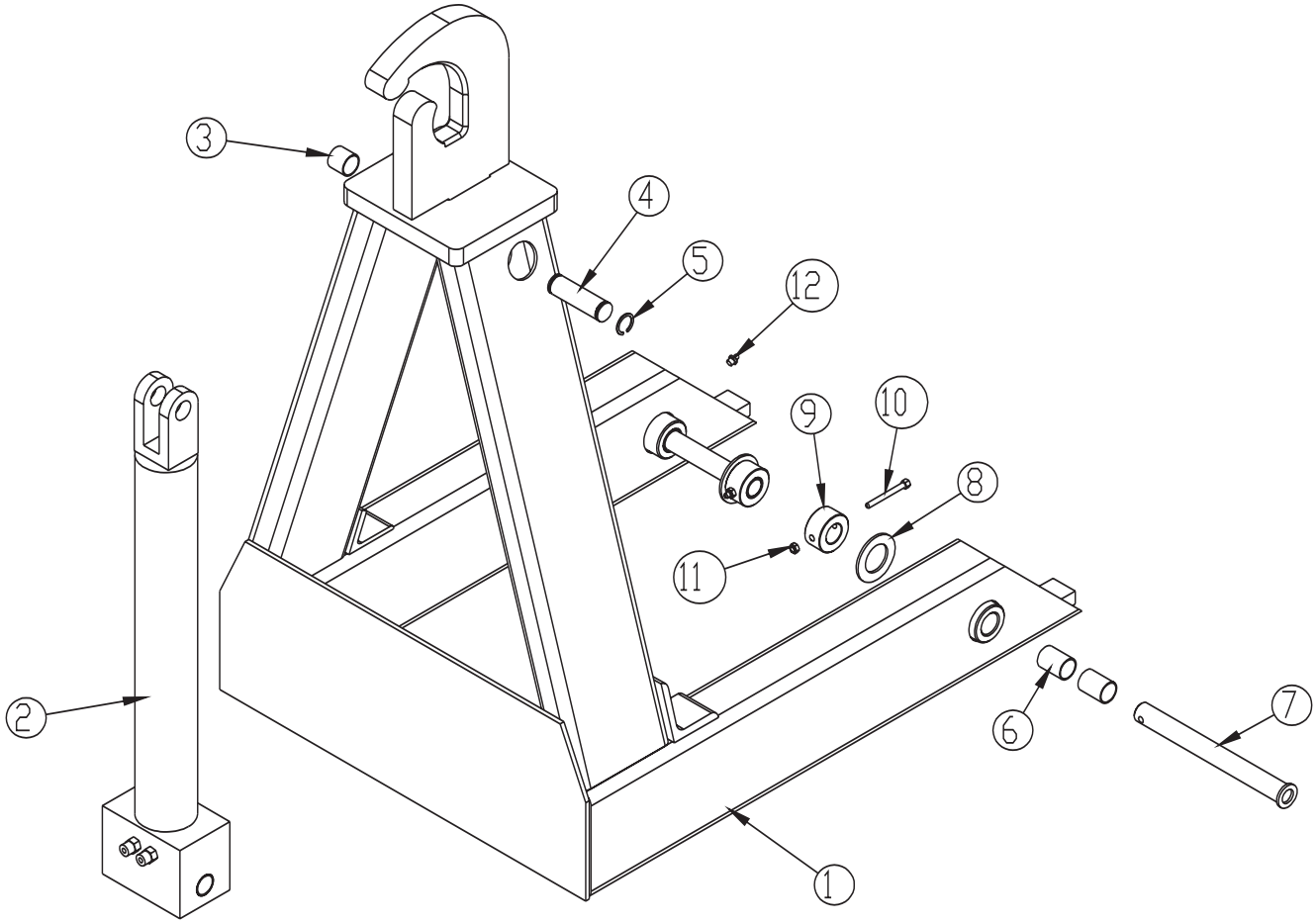
Secondary Assembly (120-14) - PN 33415



PN 33415

ITEM	PART	DESCRIPTION	QTY.
1	33414	SECONDARY WLDMT 120-14 FLEX36	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	6
3	0068	BUSHING QSI-1618-24	4
4	0069	BUSHING QSI-1618-16	4
5	3875	SNAP RING 1.00 INTERNAL	2
6	22285	PIN 1.00X15.00	1
7	22286	PIN 2.00X16.00	1
8	2257	SNAP RING INSIDE 2.00	2
9	33462	CYLINDER ASM 5.50X52.38	1
10	c1592	ZERK 1/8 NPT STRAIGHT	2

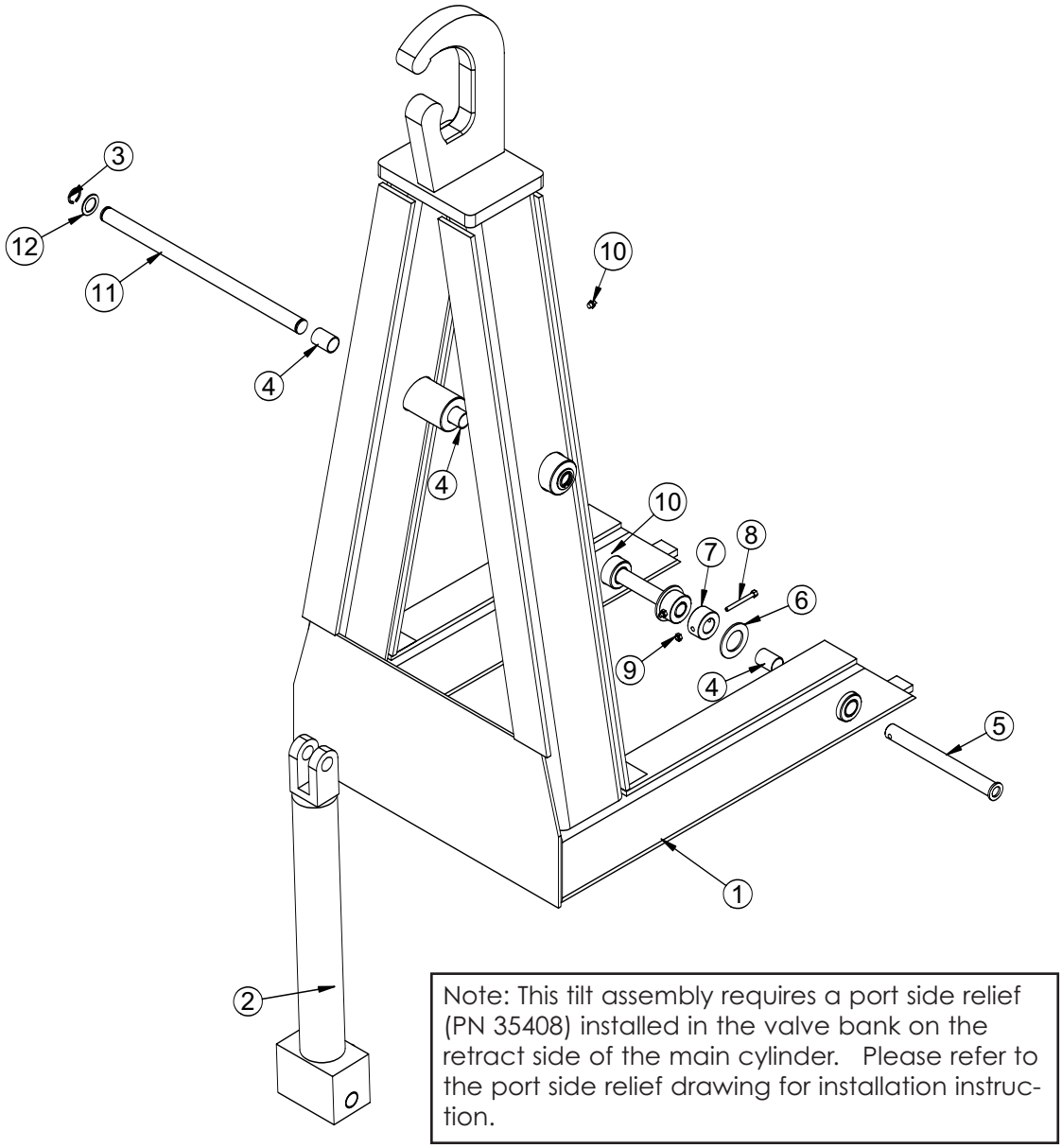
Tilt Assembly (All Flex36 Models) - PN 33049



PN 33049

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	33050	TILT WLDMT FLEX36	1	7	33103	PIN WLDMT 1.00X10.50	2
2	23460	CYLINDER ASM 3.00X17.00	1	8	D0419	THRUST WASHER	2
3	0069	BUSHING QSI-1618-16	1	9	33104	COLLAR 1.03X2.00X1.00	2
4	0064	PIN 1.00X3.38	1	10	0339	CAP SCR 0.25-20X2.50 HHGR5	2
5	0110	SNAP RING 1.00 ID 7200-100	2	11	0333	NUT 0.25-20 HHGR5 NYLOC	2
6	0068	BUSHING QSI-1618-24	4	12	c1592	ZERK 1/8 NPT STRAIGHT	2

Tilt Assembly (Optional Tall Tilt) - PN 35032

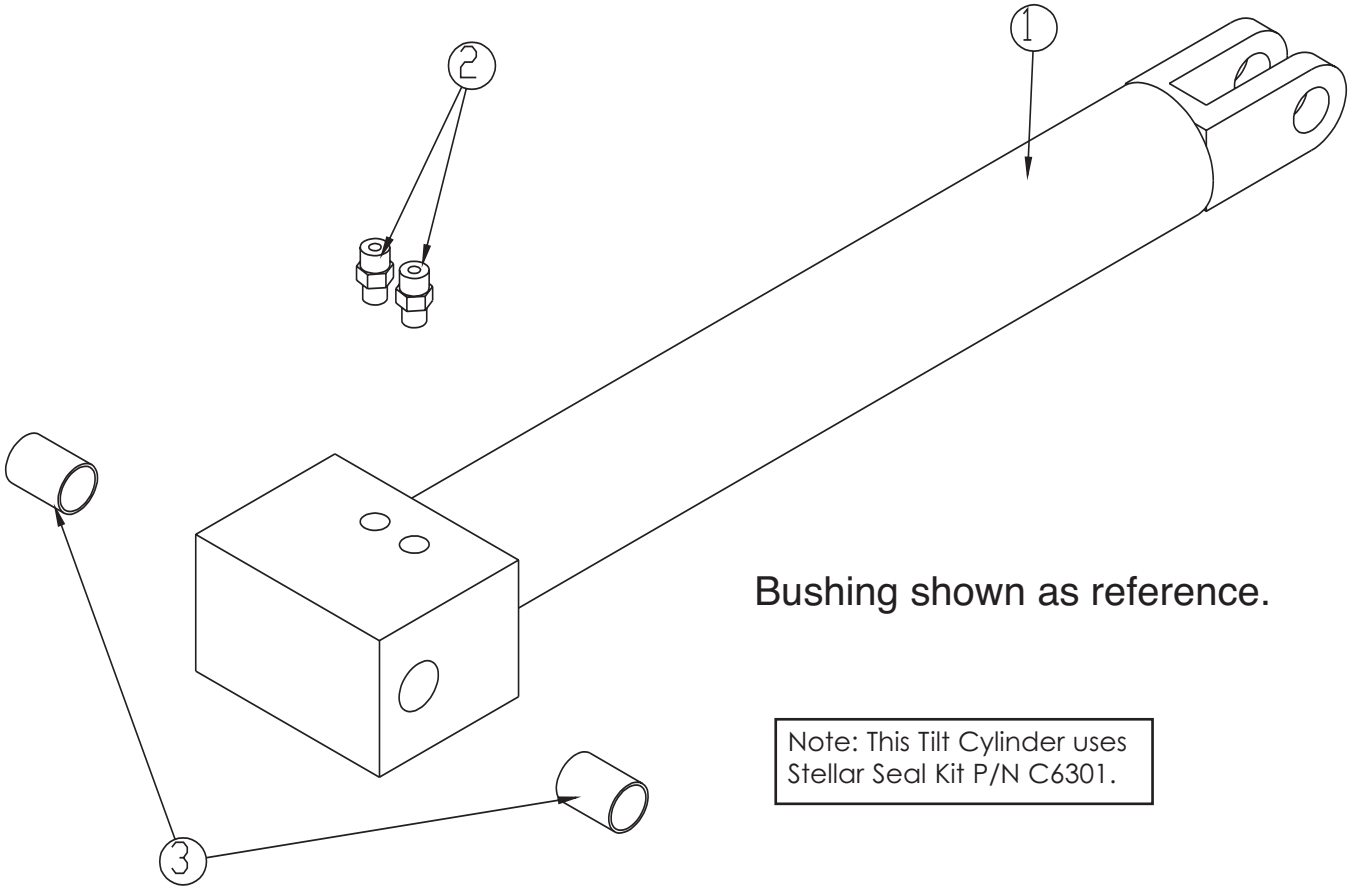


Note: This tilt assembly requires a port side relief (PN 35408) installed in the valve bank on the retract side of the main cylinder. Please refer to the port side relief drawing for installation instruction.

PN 35032

ITEM	PART	DESCRIPTION	QTY.
1	35033	TILT FLEX 36 54HH	1
2	35169	CYLINDER ASM 3.00X10.00	1
3	0110	SNAP RING 1.00 ID 7200-100	2
4	0068	BUSHING QSI-1618-24	8
5	33103	PIN WLDMT 1.00X10.50	2
6	D0419	THRUST WASHER	2
7	33104	COLLAR 1.03X2.00X1.00	2
8	0339	CAP SCR 0.25-20X2.50 HHGR5	2
9	0333	NUT 0.25-20 HHGR5 NYLOC	2
10	c1592	ZERK 1/8 NPT STRAIGHT	4
11	35066	PIN 1.00X18.38 SR	1
12	0867	MACHY WASHER 1.00ID 14GA	2

Tilt Cylinder Assembly (All Flex36 Models) - PN 23460



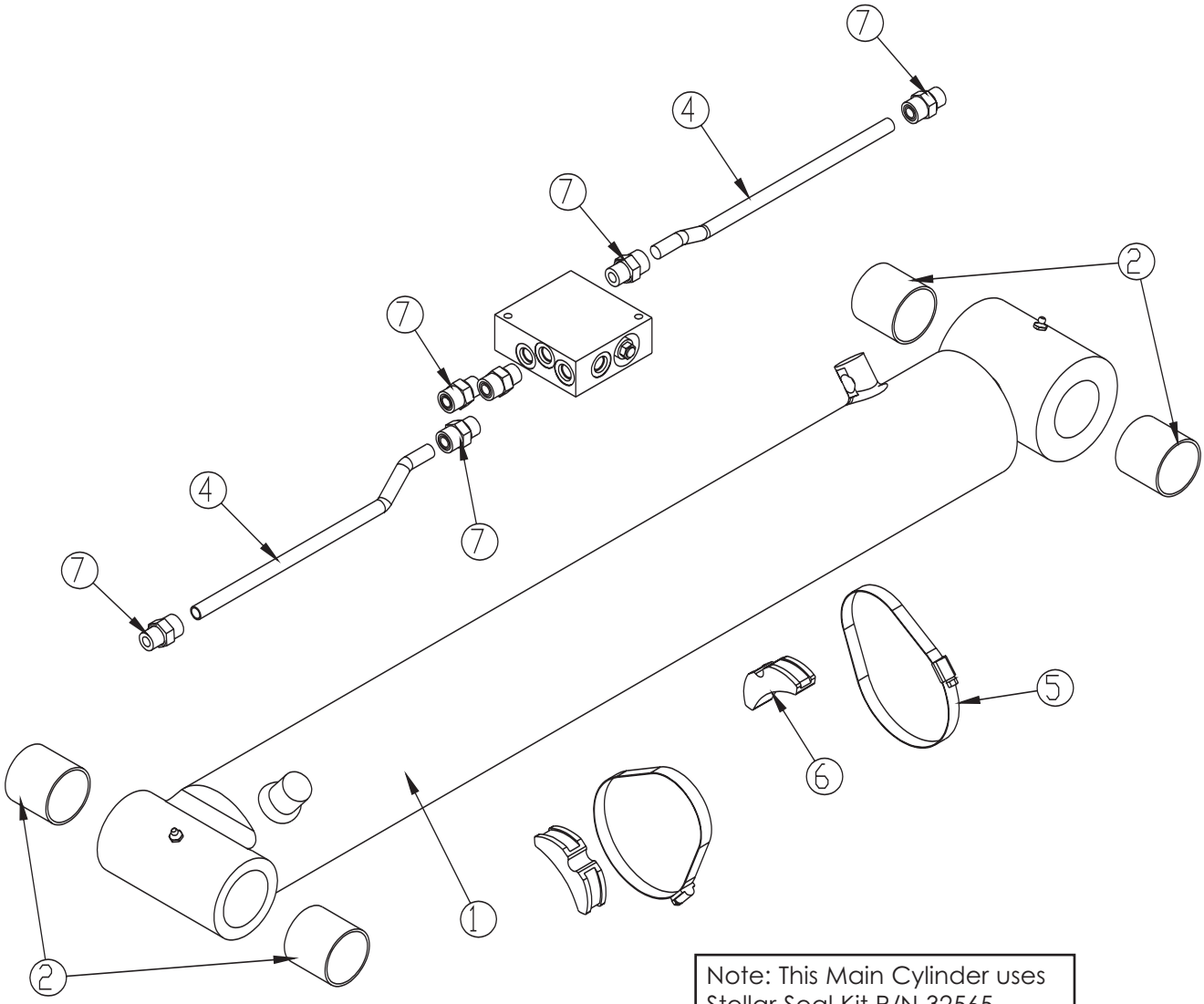
Bushing shown as reference.

Note: This Tilt Cylinder uses Stellar Seal Kit P/N C6301.

PN 23460

ITEM	PART	DESCRIPTION	QTY.
1	3767	CYLINDER 3.00X17.00	1
2	0279	FTG ADAPT 6-F5OLO-S	2
3	0068	BUSHING QSI-1618-24	2

Main Cylinder Assembly (60-8) - PN 27116

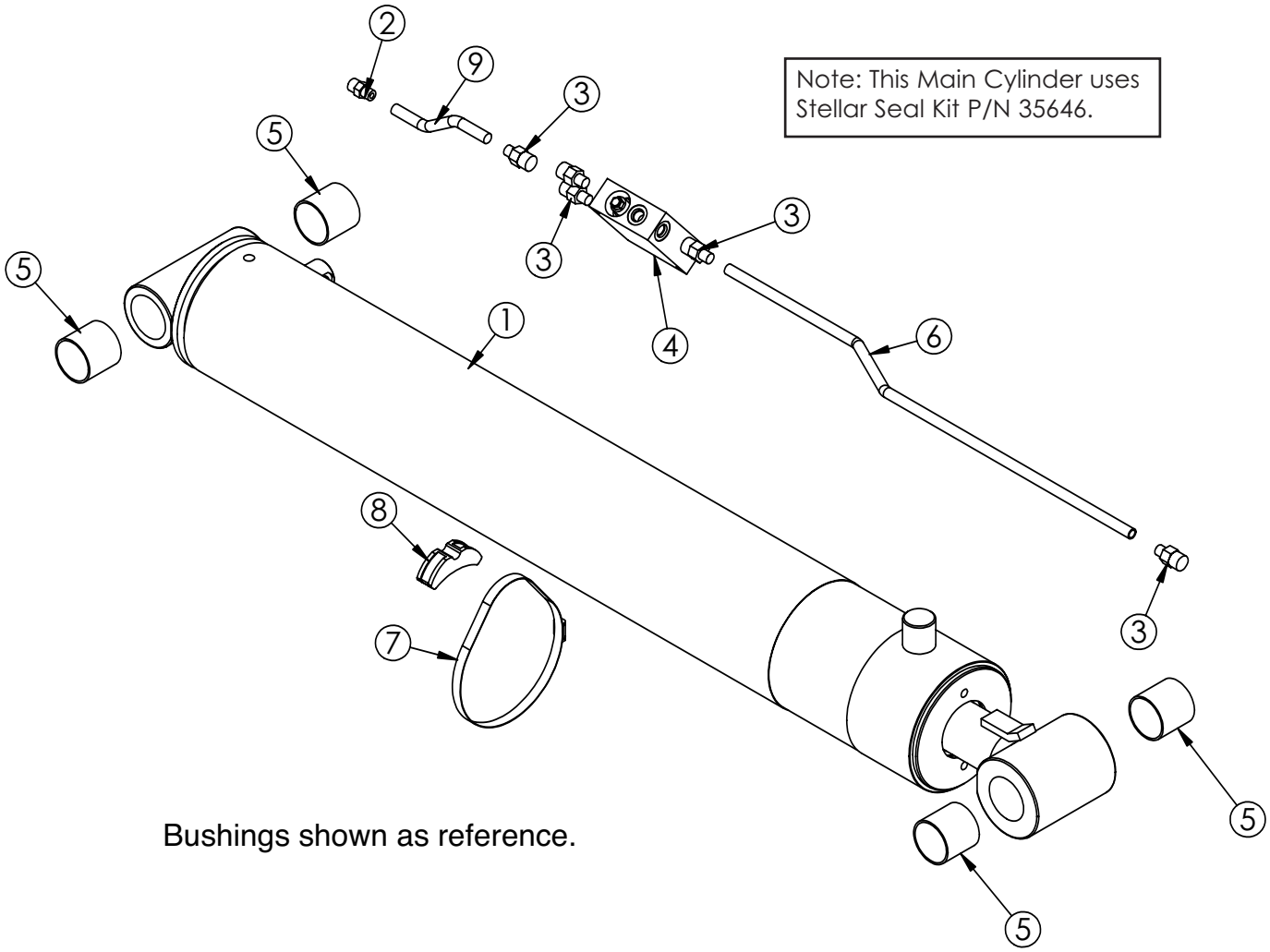


Note: This Main Cylinder uses Stellar Seal Kit P/N 32565.

PN 27116

ITEM	PART	DESCRIPTION	QTY.
1	27020	CYLINDER 4.00X29.63	1
2	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	4
3	15822	MANIFOLD DOUBLE T11A 5000 PSI	1
4	27117	TUBE ASM 0.50X11.94	2
5	19369	HOSE CLAMP 4.13-7.00 5416K38	2
6	18701	CLAMP PORT TUBE ZR518	2
7	D1290	FTG ADAPT 8-6 F5OLO-S	6

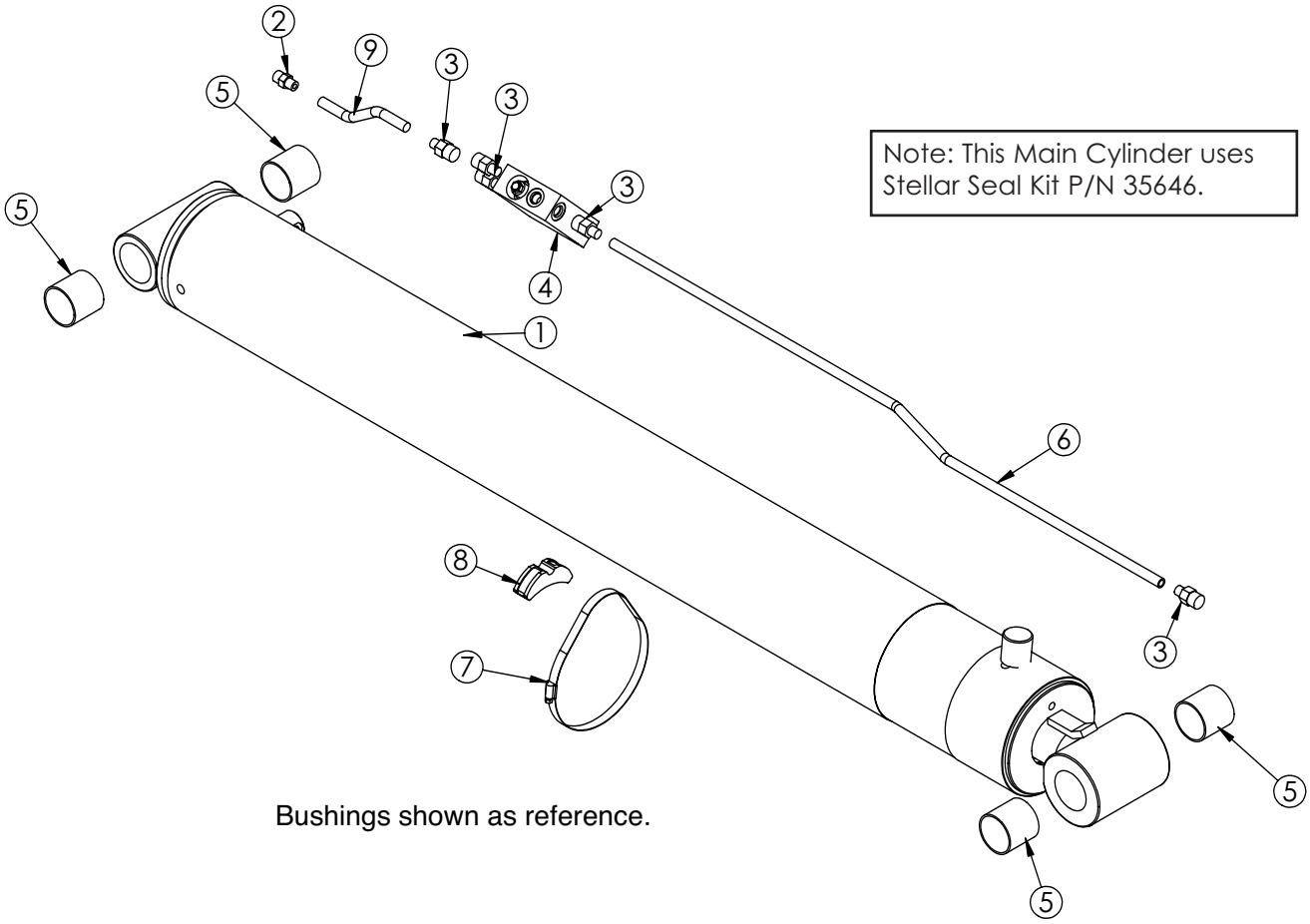
Main Cylinder Assembly (84-10)- PN 33404



PN 33404

ITEM	PART	DESCRIPTION	QTY.
1	33405	CYLINDER 5.50X40.00	1
2	0279	FTG ADAPT 6-F5OLO-S	1
3	D1290	FTG ADAPT 8-6 F5OLO-S	5
4	15822	MANIFOLD DOUBLE T11A 5000 PSI	1
5	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	4
6	33744	TUBE ASM 0.50X27.75	1
7	19369	HOSE CLAMP 4.13-7.00 5416K38	1
8	18701	CLAMP PORT TUBE ZR518	1
9	16256	TUBE ASM 0.50X6.75 MAIN CYL 60-10-8	1

Main Cylinder Assembly (108-12, 120-14)- PN 33462



PN 33462

ITEM	PART	DESCRIPTION	QTY.
1	33463	CYLINDER 5.50X52.38	1
2	0279	FTG ADAPT 6-F5OLO-S	1
3	D1290	FTG ADAPT 8-6 F5OLO-S	5
4	15822	MANIFOLD DOUBLE T11A 5000 PSI	1
5	4381	BUSHING 32DXR32 2.00X2.00 GARLOCK	4
6	33750	TUBE ASM 0.50X40.13	1
7	19369	HOSE CLAMP 4.13-7.00 5416K38	1
8	18701	CLAMP PORT TUBE ZR518	1
9	16256	TUBE ASM 0.50X6.75 MAIN CYL 60-10-8	1

Chapter 8 - Replacement Parts

Part#	Description	Where Used
C6229	Hydraulic Filter	60-8 thru 120-14
C5552	Hydraulic Filter Strainer	60-8 thru 120-14
15462	Fill Cap Asm	60-8 thru 120-14
15463	Thermo Sight Gauge	60-8 thru 120-14
C2028	O Ring #6 Face Seal	60-8 thru 120-14
C2029	O Ring #8 Face Seal	60-8 thru 120-14
D1244	O Ring #12 Face Seal	60-8 thru 120-14
D1246	O Ring #6 SAE	60-8 thru 120-14
D1247	O Ring #8 SAE	60-8 thru 120-14
D1249	O Ring #12 SAE	60-8 thru 120-14
27117	Port Tube Asm (Main Cyl)	60-8
33744	Port Tube Asm (Main Cyl)	84-10
33750	Port Tube Asm (Main Cyl)	108-12/120-14
19369	Hose Clamp (Cyl)	60-8 thru 120-14
34415	Port Tube Asm (Base Cyl)	60-8
34418	Port Tube Asm (Base Cyl)	84-10
34641	Port Tube Asm (Base Cyl)	108-12
34413	Port Tube Asm (Base Cyl)	120-14
18701	Clamp Port Tube (Cyl)	60-8 thru 120-14
8622	Clamp Hose/Port Tube (Base Cyl)	60-8 thru 120-14
C6184	C-Balance Valve (Cyl)	60-8 thru 120-14
37474	Control Lever Right Bend	60-8 thru 120-14
37475	Control Lever Left Bend	60-8 thru 120-14
37470	Control Console	60-8 thru 120-14
37473	Control Cable 16'	60-8 thru 120-14
37469	Cable Hook-up Kit	60-8 thru 120-14
0108	Snap Ring 2.00" External	60-8 thru 120-14
2257	Snap Ring 2.00" Internal	60-8 thru 120-14
3875	Snap Ring 1.00" Internal	60-8 thru 120-14
C1592	Grease Zerk 1/8 NPT	60-8 thru 120-14
26031	Tab Alarm	60-8 thru 120-14
26287	Proximity Switch	60-8 thru 120-14
C6072	Bosch Relay	60-8 thru 120-14
35552	Seal Kit (Rotary Valve)	60-8 thru 120-14
C6301	Seal Kit (Tilt Cyl)	60-8 thru 120-14
32565	Seal Kit (Main Cyl)	60-8
35646	Seal Kit (Main Cyl)	84-10 thru 120-14
35556	Bushing Kit (Tilt Asm)	60-8 thru 120-14
35553	Bushing Kit (Base Asm)	60-8 thru 120-14
35554	Bushing Kit (Dump Asm)	60-8 thru 120-14
35555	Bushing Kit (Secondary Asm)	60-8 thru 120-14
35557	Bushing Kit (Complete Asm)	60-8 thru 120-14

Call 800-321-3741 to Order

Chapter 9 - Troubleshooting

This chapter will list a number of potential problems that may occur while operating the Hooklift. Most problems are easily solved using the solutions portion of this chapter. If problems persist, please contact Customer Service at Stellar Industries 1-800-321-3741.

Problem: Hooklift will not operate or operates slow.
Solutions:
• Make sure the PTO is engaged.
• Make sure the control lever/cable assembly or air actuator are shifting the spool valves on the valve section
• Make sure that the hydraulic pump is operating at its rated flow or GPMs under load. Check the flow by using a flow meter to determine the GPMs. To find the proper flow the equipment is to operate at, see Chapter 6 of the Hooklift Owner's Manual.
• Make sure the relief pressure is properly set per the specifications page of the hooklift owners manual.
• Make sure the spool valves on the valve bank are adjusted and operating smoothly.

Problem: Lift cylinder operates, but the tilt cylinder operates slow or does not operate at all.
Solutions:
• Make sure the rotary valve arm is properly adjusted. See Rotary Valve Drawing in the Installation Chapter of this manual.
• Make sure the rotary valve arm is not damaged or has become disconnected.

Problem: Cylinders drift upward or downward while hydraulics are dis-engaged.
Solutions:
• Make sure valve spools are shifting to three neutral position.
• Possible contamination keeping the holding valve open.
• Possible internal piston seals rolled or damaged.

Problem: Hydraulic system gets extremely hot.
Solutions:
• Make sure the hydraulic filter has been changed per the maintenance page of the Hooklift Owner's Manual.
• Make sure the filter strainer of the hydraulic reservoir is not plugged.
• Make sure that the hydraulic pump is operating at its rated flow or GPMs.
• Make sure the relief pressure is set properly. See Table 1.1 of Chapter 6: Installation for proper setting.

Problem: Hooklift will not lift or pickup a loaded container.
Solutions:
• Make sure the container contents are evenly distributed.
• Make sure the container and its load does not exceed the rated capacity.
• Make sure the relief pressure is properly set per Table 1.1 in the Installation Chapter of this manual.
• Make sure the hydraulic pump is operating at its rated flow or GPMs. See Chapter 4: Specifications.
• Make sure that the container is not fixed to the ground or frozen down.

Problem: Dump weldment lifts upward while picking up a container.
Solutions:
• Make sure the rear hooklift rollers spin freely and smoothly.
• Make sure the body hold down brackets are not worn or bent.

Problem: Tab alarm sounds off inside chassis cab.
Solutions:
• Break away tabs on dump weldment have broken loose. Re-install break away tabs using a Grade 5 5⁄16" bolt.

Problem: Hooklift binds at pivot points.
Solutions:
• Make sure the pivot points are lubricated.
• Make sure pivot pins are not seized to the bushing.
• Make sure the weldments or pins are not misaligned or bent.

Limited Warranty Statement

Stellar Industries, Inc. (Stellar) warrants products designed and manufactured by Stellar to be free from defects in material and workmanship under proper use and maintenance. Products must be installed and operated in accordance with Stellar's written instructions and capacities. The warranty period shall cover the following:

Twelve (12) month warranty on parts from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) months from date of manufacture,
Twelve (12) month repair labor from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) month from date of manufacture, and
Thirty-six (36) month warranty on all Stellar Crane, Hooklift Hoist, Cable Hoist, and Container Carrier structural parts from the date recorded by Stellar as the in-service date, not to extend beyond forty-eight (48) months from date of manufacture.

The in-service date will be derived from the completed warranty registration card. In the event a warranty registration card is not received by Stellar, the factory ship date will be used.

Stellar's obligation under this warranty is limited to, and the sole remedy for any such defect shall be, the repair and/or replacement (at Stellar's option) of the unaltered part and/or component in question. Stellar after-sales service personnel must be notified by telephone, fax, or letter of any warranty-applicable damage within fourteen (14) days of its occurrence. If at all possible, Stellar will ship the replacement part within 24-hours of notification by the most economical, yet expedient, means possible. Expedited freight delivery will be at the expense of the owner.

Warranty claims must be submitted and shall be processed in accordance with Stellar's established warranty claim procedure. Stellar after-sales service personnel must be contacted prior to any warranty claim. A return materials authorization (RMA) account number must be issued to the claiming party prior to the return of any warranty parts. Parts returned without prior authorization will not be recognized for warranty consideration. All damaged parts must be returned to Stellar freight prepaid; freight collect returns will be refused. Freight reimbursement of returned parts will be considered as part of the warranty claim.

Warranty service will be performed by any Stellar new equipment distributor, or by any Stellar-recognized service center authorized to service the type of product involved, or by the Stellar factory in the event of a direct sale. At the time of requesting warranty service, the owner must present evidence of date of delivery of the product. The owner shall be obligated to pay for any overtime labor requested of the servicing company by the owner, any field service call charges, and any towing and/or transportation charges associated with moving the equipment to the designated repair/service provider.

All obligations of Stellar and its authorized dealers and service providers shall be voided if someone other than an authorized Stellar dealer provides other than routine maintenance service without prior written approval from Stellar. In the case repair work is performed on a Stellar-manufactured product, original Stellar parts must be used to keep the warranty in force. The warranty may also be voided if the product is modified or altered in any way not approved, in writing, by Stellar.

The owner/operator is responsible for furnishing proof of the date of original purchase of the Stellar product in question. Warranty registration is the ultimate responsibility of the owner and may be accomplished by the completion and return of the Stellar product registration card provided with the product. If the owner is not sure of registration, he is encouraged to contact Stellar at the address below to confirm registration of the product in question. This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in Stellar's written instructions, recommendations, and specifications. Any damage resulting from owner/operator failure to perform such duties shall void the coverage of this warranty. The owner will pay the cost of labor and supplies associated with routine maintenance.

The only remedies the owner has in connection with the breach or performance of any warranty on the Stellar product specified are those set above. In no event will Stellar, the Stellar distributor/dealer, or any company affiliated with Stellar be liable for business interruptions, costs of delay, or for any special, indirect, incidental, or consequential costs or damages. Such costs may include, but are not limited to, loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, or any other incidental cost.

All products purchased by Stellar from outside vendors shall be covered by the warranty offered by that respective manufacturer only. Stellar does not participate in, or obligate itself to, any such warranty.

Stellar reserves the right to make changes in design or improvement upon its products without imposing upon itself the same upon its products theretofore manufactured.

This warranty will apply to all Stellar Hooklift Hoists, Stellar Cable Hoists, Stellar Container Carriers, Stellar Service Trucks, Stellar Truck-mounted Cranes, and Stellar Compactors shipped from Stellar's factory after March 1, 2008. The warranty is for the use of the original owner only and is not transferable without prior written permission from Stellar.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. STELLAR INDUSTRIES, INC. IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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