# THE FIELD FLOATER

## High Capacity Grain Carts

1250 Bushels


1500 Bushels


BALZER INC.

STEWARDS FOR AG ENVIRONMENTS

# USER MANUAL

# To the Purchaser

This is the safety alert symbol. It is used to alert the operator to an instruction concerning the personal safety and risk factor of this equipment. Always observe and heed these very important instructions to promote a safe operation with good preventive maintenance habits.

This new Balzer Inc. product is designed and manufactured to give years of very dependable service when used for the purpose for which it is intended, and when properly maintained.

**NEVER OPERATE THIS EQUIPMENT UNTIL USER FULLY UNDERSTANDS THE COMPLETE CONTENTS OF THIS MANUAL. FOR OWNERS WHO DO NOT OPERATE THIS EQUIPMENT, IT IS THE OWNER'S RESPONSIBILITY THAT THE USER IS PROPERLY INSTRUCTED AND IS FULLY AWARE OF THIS MANUAL'S CONTENTS.**

This is important in the safe handling of this equipment and promoting an efficient operation. If there are any questions about areas in this manual, it is important to contact your dealer for clarification.

This machine is warranted as stated on the next page. A registration card is to be filled in by your dealer with your name and address, and promptly returned to the factory. The card provides a ready reference to help you in securing warranty and in answering questions that you may have at some later date.

Operating instructions and parts book are shipped with this machine. If parts of this book are missing or become unreadable, contact your dealer for a new set.

The serial number and identification tag is located to the front of the frame. Please refer to these numbers when parts or warranty communication is necessary.

**PLEASE FILL IN THE FOLLOWING INFORMATION FOR YOUR RECORDS:**

Date of purchase _____

Owner's name _____

Dealer's name _____

Serial # Identification # _____

# Warranty

***WARRANTY MANUFACTURER***

Dealer or Distributor understands and agrees that the Manufacturer extends only the following Warranty to customers. In the event Dealer or Distributor extends any additional warranty (such as by enlarging the scope or period of warranty or undertaking a warranty of merchantability or fitness for any particular purpose) or any other obligation whatsoever, Dealer or Distributor shall: (1) be solely responsible therefore (2) have no recourse against Manufacturer thereof and (3) defend, indemnify and hold Manufacturer harmless against any claim or cause of action whatsoever arising out of, or occasioned by, Dealer or Distributor's extension of said additional warranty or obligation.

***CERTIFICATE OF GENERAL EQUIPMENT WARRANTY***

Balzer Inc. warrants new Products sold by it to be free from defects in material or workmanship for a period of one (1) year after date of delivery to the first user and subject to the following conditions. Balzer Inc.'s obligation and liability under this Warranty is expressly limited to repairing or replacing at Balzer Inc.'s option, any parts which appear to Balzer Inc. upon inspection to have been defective in material or workmanship. Such parts shall be provided at no cost to user, at the business establishment of the authorized Balzer Inc. dealer or distributor of the Product during regular working hours. This Warranty shall not apply to component parts or accessories of Products not manufactured by Balzer Inc. and which carry the warranty of the manufacturer thereof, or to normal maintenance (such as tune-up) or normal maintenance parts (such as oil filters). Replacement or repair parts installed in this Product covered by this Warranty are warranted only for the remainder of this Warranty as if such parts were original components of said Product. **BALZER INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.**

Balzer Inc.'s obligation under this Warranty shall not include any transportation charges, cost of installation, duty taxes or any other charges whatsoever, or any liability for direct, indirect, incidental or consequential damage or delay. If requested by Balzer Inc. products or parts for which a warranty claim is made are to be returned transportation prepaid to Balzer Inc. Any improper use, including operation after discovery of defective or worn parts, operation beyond rated capacity, substitution or parts not approved by Balzer Inc. company or any alteration or repair by others in such manner as in Balzer Inc. company's judgment affects the Products materially and adversely, shall void this Warranty.

**"NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY AN OFFICER OF BALZER INC. AT ITS HOME OFFICE."**

***LIABILITY FOR DELAYS***

No liability shall attach to Manufacturer direct, or indirect, incidental or consequential damages or expenses due to loss, damage, detention of delay in delivery of Products resulting from acts or delays beyond its control.

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# Section A

The following Safety Alert Symbols mean ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! They stress an attitude of "Heads Up for Safety" and can be found throughout this Operator's Manual and on the machine itself.

BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING SAFETY INFORMATION. IN ADDITION, MAKE SURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT, WHETHER FAMILY MEMBER OR EMPLOYEE, IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.

Our Company ALWAYS takes operator safety into consideration when designing its machinery, guards, and exposed moving parts for operator protection. However, some areas can NOT be guarded or shielded in order to assure proper operation. In addition to this Operator's Manual; decals on the machine warn of further danger and should be read and observed closely.

**DANGER** "DANGER" indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING** "WARNING" indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** "CAUTION" indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. May also alert against unsafe practices.

READ and follow the instructions on all decals.

**REMEMBER!** It is the owner's responsibility for communicating information on the safe use and proper maintenance of this machine! This includes providing understandable interpretation of these instructions for operators who are not fluent in reading English.

## MANDATORY SAFETY SHUTDOWN PROCEDURE

BEFORE cleaning, adjusting, lubricating or servicing the unit:

1. Remove the ignition key from the power unit engine.
2. Make sure that all movement of the unit has ceased.

ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedure, could lead to death or serious bodily injury.

3.Disconnect the PTO.

### ADDITIONAL SAFETY REMINDERS

USER/OPERATOR SAFETY PRACTICES are included in this Operator's Manual and are intended to promote SAFE OPERATION of the unit.

These guidelines do not preclude the use of good judgment, care, and common sense as may be indicated by the particular job site work conditions.

It is essential that operators be physically and mentally free of mind altering drugs and chemicals and thoroughly trained in the safe operation of the unit. Such training should be presented completely to all new operators and not condensed for those claiming previous experience.

Some photographs used in this manual may show Doors, Guards, and Shields open or removed for illustration purposes ONLY. BE SURE that all Doors, Guards, and Shields are in their proper operating positions BEFORE operating the unit. NEVER operate this unit with any guards or shields not in place. Replace any missing or damaged ones.

Keep hands and feet away from all moving parts.

The operator MUST know the capabilities and work applications for the machine, and operate it at speeds slow enough to insure complete control at all times. When working on uneven ground or near the edge of roadbeds, there is no substitute for good judgment and only operators with sufficient experience should attempt such work.

NEVER assume that everybody is as safety conscious as you are.

Be alert and avoid loose or soft surface conditions that could cause tipping or loss of control. Avoid side hill travel when possible by driving up or down the slope.

ALWAYS check the job site for terrain hazards, obstructions, and bystanders.

DO NOT allow minors and any unqualified personnel to operate or be near the unit unless properly supervised. NEVER allow anyone to ride on the unit at anytime.

NEVER leave the unit running unattended.

ALWAYS wear appropriate personal safety gear as called for by the job or working conditions! NEVER wear loose clothing while working around moving parts.

ALWAYS be aware of pinch point areas on the unit.

Before loading, make sure that the unit does not have any foreign objects or material in it that can cause equipment damage or personal injury.

Safety grates inside box protect users from accidental contact with augers and help prevent possible suffocation from grain. Never operate this equipment with these grates missing. Rotating augers can cause serious injury or death!

The max speed of the towing tractor is 25 mph. Be sure the rear of the unit has a clean SMV emblem properly displayed if towing at less than 25 MPH on any public roadway. At night, proper warning and running lights are necessary as required by state law. Improper electrical connection between the tow vehicle and the trailer will result in inoperable lights and electric brakes, and can lead to collision. Before each tow:

- Check that the taillights, brake lights and turn signals work.
- Check that the electric brakes work by operating the brake controller inside the tow vehicle.

Stopping distance increases with speed and weight of towed loads, and on slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control. Consider the total weight

Observe these recommended maximum road speeds, or local speed limits which may be lower.

The tractor must be heavy and powerful enough with adequate braking power for the towed load. Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

DO NOT exceed the maximum weight carrying capacity of the grain cart or the tractor manufacturers maximum towing capacity; whichever is lower.

ALWAYS use a hitch pin that has a safety clip pin.

DO NOT smoke while working on hydraulic systems!

NEVER use your hands to search for hydraulic fluid leaks; escaping fluid under pressure can be invisible and can penetrate the skin and cause a serious injury! If any fluid is injected into your skin, see a doctor at once! Injected fluid MUST BE surgically removed by a doctor familiar with this type of injury or gangrene may result!

DO NOT attempt to loosen or disconnect ANY Hydraulic Lines, Hoses, or Fittings without first relieving hydraulic circuit pressure. Also, be careful NOT to touch any hydraulic components that have been in recent operation because they can be extremely HOT!

Always move cart with a farm tractor only. The max speed anytime is 25 mph.

**SAFETY SIGNS ARE IMPORTANT**
Safety signs or decals provide very important information and instructions designed to alert you to dangers and hazards that can be present during operation of this equipment. However, safety sign instructions must be read, understood and followed to be effective.

**REPLACEMENT OF SAFETY SIGNS**
Safety signs or decals must be kept clean and readable. If they become unreadable for any reason, they must be replaced with an identical replacement decal. Safety decals must also be replaced if parts are repaired or replaced with new parts that do not already include the necessary safety decals.

**APPLICATION OF SAFETY DECALS**
Surface preparation is very important for safety decals to properly adhere. Grease, oil and dirt must be removed and the surface must be smooth and dry. Most decals have a split backing which is meant to be removed from the split outward. To apply the decals, follow these procedures:

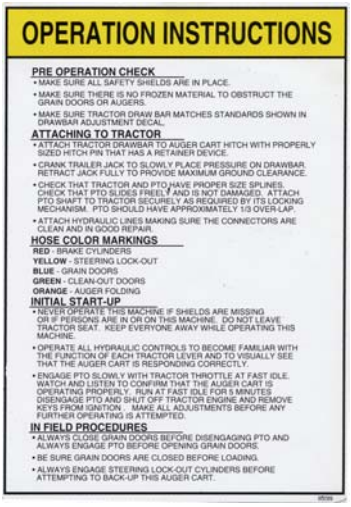
1. Position the decal in the proper location and hold firmly over the largest portion of the backing.
2. Use one hand to hold the decal in position, with the other hand, carefully roll the loose end over and peel the backing outward. When the backing is removed as described and shown (Fig. 1), with even and gradual pulling, the decal will roll onto the surface smooth and wrinkle free.
3. With the smallest portion of the decal attached, the same procedure can be applied to the other half.
4. When the decal has been attached in place, use a cloth or soft paper towel to burnish the decal onto the cleaned surface. Work gently from the middle outwards to avoid creating any wrinkles.

**REPLACEMENT DECALS**
Order replacement decals by part number through your nearest dealer. Part numbers are printed on each decal.



Fig. 1


# 90295

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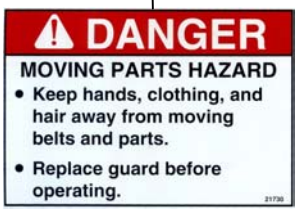


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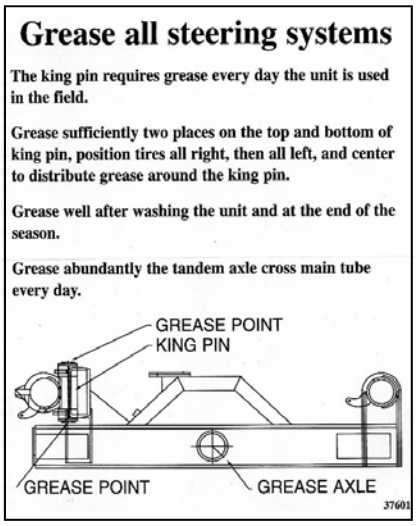


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# Section B

## PRE OPERATION CHECK

- Make sure all safety shields are in place.
- Make sure that there is no frozen or foreign material obstructing the grain doors or augers.
- Make sure the tractor draw bar matches the standards shown in the draw bar adjustment diagram.

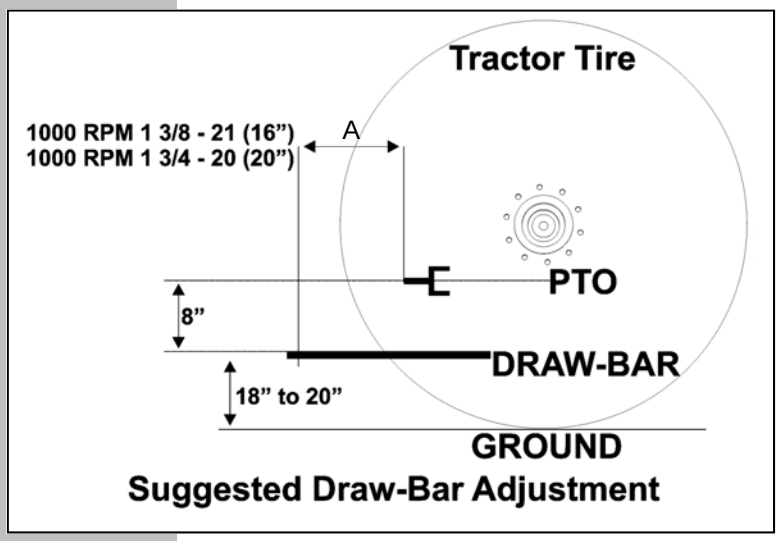
## HOSE COLOR MARKINGS

RED—Brake Cylinders
YELLOW—Steering Lock-Out
BLUE—Grain Doors
GREEN—Clean-Out Doors
ORANGE—Auger Folding
NO COLOR—Clutch

### DRAW-BAR ADJUSTMENT

| PTO STYLE | DIM "A" |
|---|---|
| 1 3/8" - 21 SPLINE | 16" |
| 1 3/4" - 20 SPLINE | 20" |

If these dimensions are not possible on your tractor, contact your Balzer dealer.



Suggested Draw-Bar Adjustment

## ATTACHING TO TRACTOR

- Attach the tractor draw bar to the auger cart hitch with a properly sized hitch pin that has a retainer device.
- Crank the trailer jack to slowly place pressure on draw bar. Move jack to storage location and secure.
- Check that the tractor and PTO have the proper size splines. Check that the PTO slides freely and is not damaged. Attach the PTO shaft to the tractor securely, as required by its locking mechanism. PTO should have approximately 1/3 over-lap.
- Attach the hydraulic lines, making sure that the connectors are clean and in good repair. See the hose color list above.

**NOTE!**

To prevent premature driveline failures, tractor turning should be limited to approximately 10 degrees when drive line is rotating

## INITIAL START-UP

- Never operate this machine if any shields are missing or if persons are in or on this machine. Do not leave the tractor seat. Keep everyone away while operating this machine.
- Operate all of the hydraulic controls to become familiar with the function of each tractor lever and to visually see that the auger cart is responding correctly.
- Engage the PTO slowly with the tractor throttle at idle.
- The PTO has 1 3/8 –21 or 1 3/4—20 tractor ends and 1 3/4—20 implement ends. The implement end provides a friction clutch or shear bolt that protects the gear box and drive from overload. The PTO must be engaged slowly, use max modulation on tractor. Do not slam engage!
- Watch and listen to confirm that the auger cart is operating properly. Run at fast idle for five (5) minutes, disengage the PTO, shut off the tractor engine and remove the keys from the ignition. Make all adjustments before any further operating is attempted.

**NOTE!** Make mental and/or physical notes concerning which way to move the lever to get the desired result!

## IN FIELD PROCEDURE

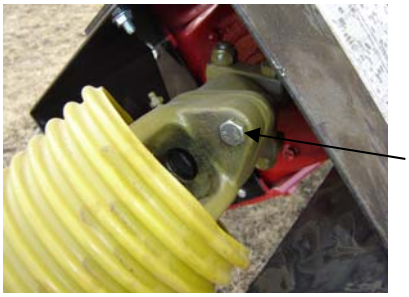
- Always close the grain doors before disengaging the PTO and always engage the PTO before opening the grain doors.
- Be sure the grain doors are closed before loading.
- Always engage the steering lock-out cylinders before attempting to back up this auger cart.
- Always load Grain Cart evenly from front to back to avoid excessive tongue overload.

**DANGER!** Never Operate without PTO Guards!

## Operation—PTO/JACK

### PTO

The PTO has 1 3/8 –21 or 1 3/4—20 tractor ends and 1 3/4—20 implement ends. The implement end provides a friction clutch or shear bolt that protects the gear box and drive from overload. The PTO must be engaged slowly, use max modulation on tractor. Do not slam engage!




### Jack Storage

The jack storage location is pictured below. This location keeps it out of the way of the tires and removes the possibility of dragging.


## Vertical Auger

The hydraulic hoses with orange band control the vertical auger folding.


**CAUTION**

Never transport with vertical auger in unloading position. Doing so may cause structural damage to the vertical auger and grain cart.

## Operation—Clean-Out

### Front Clean-Out Door

These doors are available for clean-out when needed.

**DANGER!**

Never open for clean-out until and unless all movement has stopped and the equipment is completely shut down. Do not remove or distort safety bars.

### Bottom Clean-Out Door

## Operation—Grain Doors

## Grain Doors, Hydraulic Control

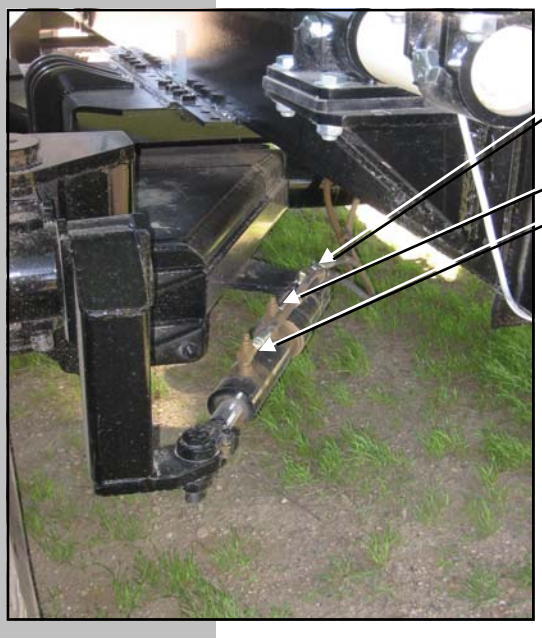
The two hydraulic hoses with the blue markings control the grain doors.
These doors are the primary means of starting, stopping and regulating grain flow to the horizontal auger. For most common grains, the doors do not need to be completely open for full capacity discharge.

**DANGER!** Keep all shields in place at all times.

## Operation—Steering
### Steering System

The hydraulic hose marked with the yellow band must be connected to a hydraulic outlet that has a float position. The hydraulic lever must be in the float position for the steering to function. Moving the lever into a position that forces oil through the hose will lock the wheels straight for backing up. The steering cylinders have two internal functions, locking the wheels straight for backing is one function and was discussed earlier. The second function is the steering. This part of the steering cylinders is connected by hydraulic hoses from one cylinder to the other, and is self contained. As one wheel turns, oil is moved through the hoses to create an identical movement in the other wheel's cylinder. The system hoses must be full of oil and no air. If oil is lost or air enters the system, it must be bled. See the next page for the proper bleeding procedure.

**NOTE** Make mental and/or physical notes concerning which way to move the lever to get the desired result!



**Bleeding Procedure And Alignment For Tandem And Tridem Steering**

Air in the system is the major cause for wheel misalignment. If the tires do not follow in parallel during forward travel, follow the steps outlined below. Have someone assist with this procedure, for both ease and safety.

**THIS IS AN EXCELLENT TIME TO GREASE KINGPINS COMPLETELY**

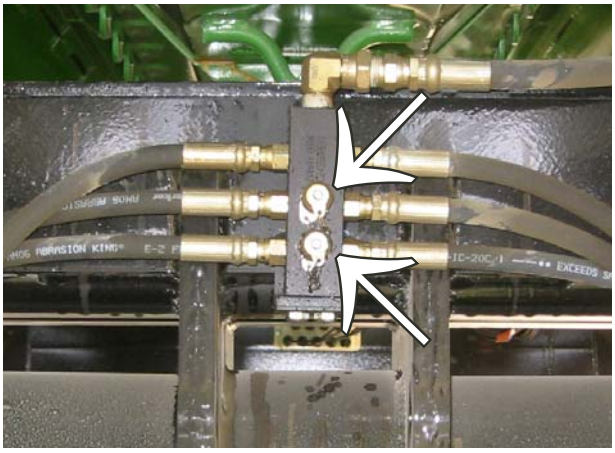
1. **Lock the steering straight.**
   A single hydraulic hose is provided to connect to a free outlet at the tractor. This line supplies hydraulic pressure to a portion of the steering cylinder which forces the wheels to steer straight. Once the wheels are completely straight, the tractor lever must be put into neutral position to hold pressure in the line.

2. **Jack axles or arms up until steering wheels are just off the ground.**
   Both steering tires must be off the ground, for tridems, do one axle at a time. Be extremely careful while jacking; use a bottle jack rated for at least 2 tons on each wheel. Use proper blocking and choose appropriate locations for jack placement.

3. **Connect steering distributor to tractor hydraulics.**
   If the equipment has brakes, a service port is provided close to the tee at the center between the brake hoses. If there are no brakes, a separate hose must be used to supply hydraulic pressure. Jumper hose p/n 37524 should be hooked either to the service port, if available, or to a temporary separate hose to a hydraulic outlet at the tractor. Connect the other end of the jumper hose to the steering distributor center port which is in line with the hose that runs to the middle port on the steering cylinder.

**NOTE!**

Do not open petcocks unless bleeding the system. Opening petcocks can allow air to enter the system, which will cause improper steering action.



Hose connection on steering distributor

**4. Applying pressure.**

Apply hydraulic pressure through either the brake system or through the temporary hose. After pressure is applied, open the bleeder valve in the line with the middle port on both steering cylinders. When no more oil or air is escaping, close the bleeder valve and open the other bleeder valve at the rod end of the cylinder. This last procedure will allow the steering completely. Close the rod end bleeder on both steering cylinders.
Move the tractor lever controlling flow to the service port into neutral position.

5. **Change the connection from tractor hydraulics to steering distributor.**

Disconnect the jumper hose from the steering distributor and connect it to the port just above the previous location.

6. **Applying pressure.**

Engage the tractor lever controlling the flow to the hose connected to the service port in order to provide pressure to the new location on the steering distributor. Open the rod end bleeder valve on each steering cylinder until no air is escaping and re-close. Open the middle bleeder valve, this will cause the steering cylinders to retract and the tires to return to parallel and inline with the other tires. When movement stops, close the bleeder valve, hold pressure for 20 seconds and then move tractor lever to neutral position.

7. **Change the connection from tractor hydraulics to steering distributor.**

Disconnect the jumper hose from the steering distributor and connect it to the port just below the previous location.

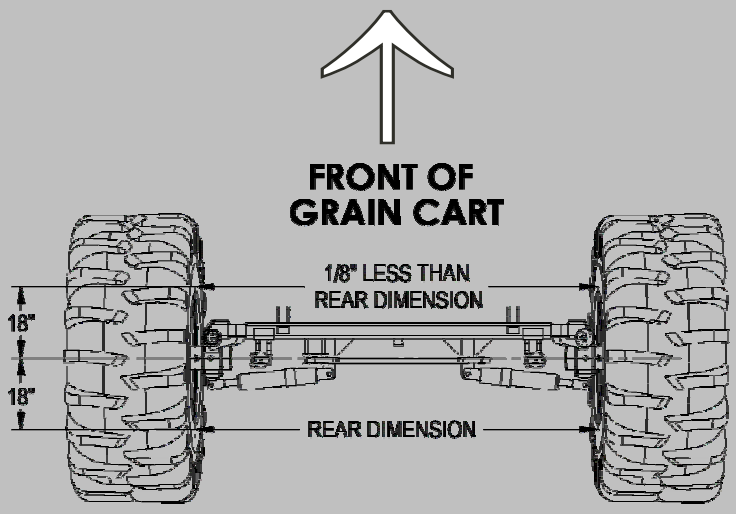
8. **Hold the pressure.**

Engage the tractor lever controlling the flow to the hose connected to the service port in order to provide pressure to the new location on the steering distributor. Hold the pressure for 20 seconds and then move tractor lever into neutral position. Remove jumper hose from steering distributor.

**NOTE!** **TRIDEM UNIT— PERFORM THIS PROCEDURE ON REMAINING AXLE.**

9. **Final alignment.**

The toe on all steering axles should be adjusted to maintain 1/8” toe-in at a distance of 18 inches from the axle center. The cylinder rod end is threaded to the clevis for adjustment. Both tandem and tridem equipment should have the same toe-in. After proper toe-in has been achieved, the jacks can be lowered and the jacks and blocks removed.




## Horizontal Auger Shut-Off Clutch

SEQUENCE OF CLUTCH OPERATION

1. Use the clutch to disengage the Horizontal Auger and run only the vertical auger for 3 to 5 seconds.
2. Engage the Horizontal Auger—now all augers are running.

**REPEAT THE SEQUENCE AT EVERY START-UP**

**NOTE!**

The hydraulic hose that controls the clutch is a 3/8” hose and has no color marking.

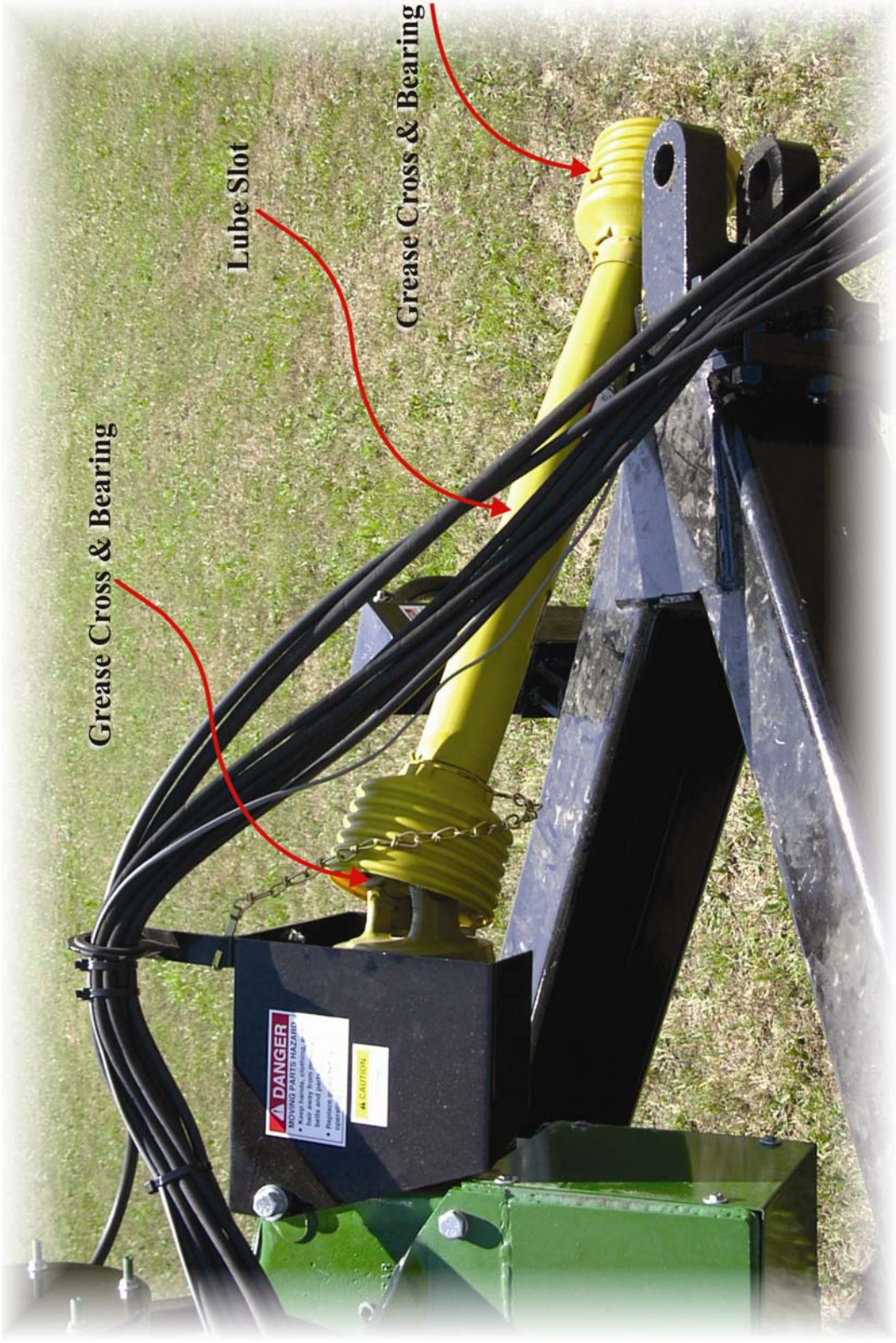
**NOTE!**

Make mental and/or physical notes concerning which way to move the lever to get the desired result!

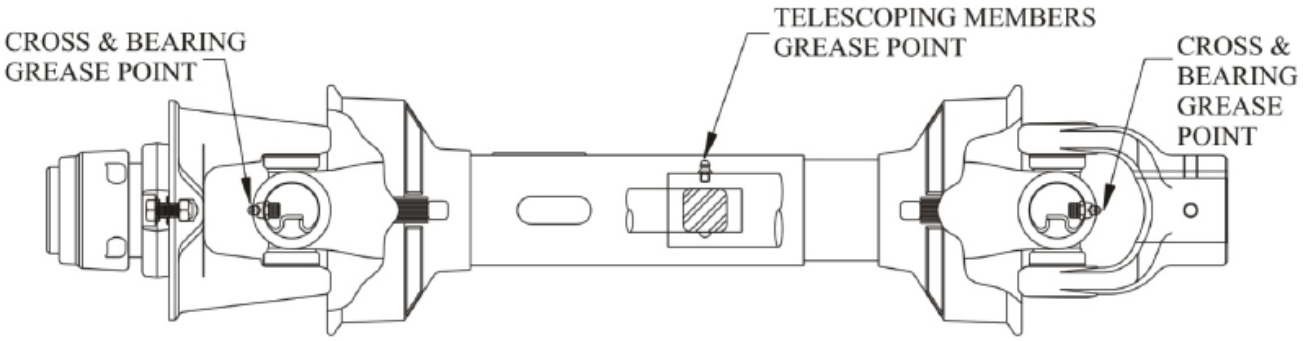
**WARNING!**

This clutch will not tolerate more than 2500 PSI oil pressure. If your tractor relief is set higher, it must be reduced or you will need to add a relief valve to the system. Contact Balzer for information on acquiring this valve and proper installation.

# Section C


Grease Cross & Bearing
Lube Slot
Grease Cross & Bearing
DANGER
MOVING PARTS HAZARD
CAUTION

# PTO Lubrication Specifications




LUBRICATE ALL FITTINGS WITH A GOOD QUALITY LITHIUM SOAP BASE E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING NO MORE THAN 1% MOLYBDENUM DISULFIDE. (EX. SHELL SUPER DUTY OR EQUIVALENT)

AN E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING 3% MOLYBDENUM DISULFIDE MAY BE SUBSTITUTED IN THE TELESCOPING MEMBERS ONLY. (EX. MOBIL OIL COMPANY, "MOBILGREASE COMPANY", SHELL OIL COMPANY, "RETINAX AM". TEXACO, "MOLYTEX EP #0 AND #2".)

## GREASE RECOMMENDATIONS

| INTERVAL | LOCATION | AMOUNT |
|---|---|---|
| 8 HRS.** | CROSS & BEARINGS | 1 PUMP |
| 8 HRS.** | TELESCOPING MEMBERS | 4-8 PUMPS |

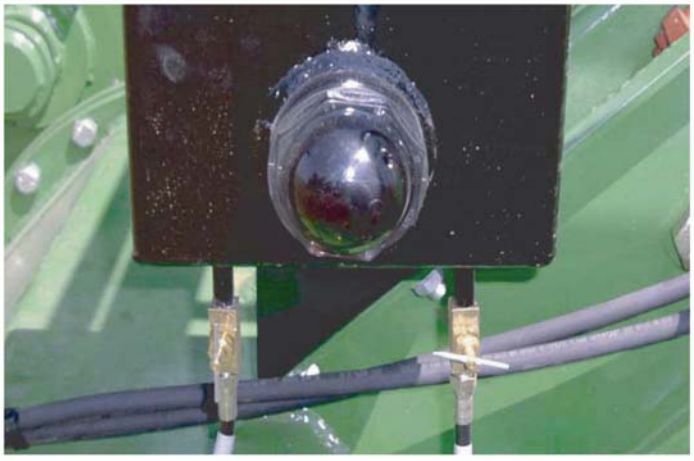
** CONSTANT ANGLE APPLICATIONS MUST HAVE A LUBE INTERVAL OF 4 HOURS.

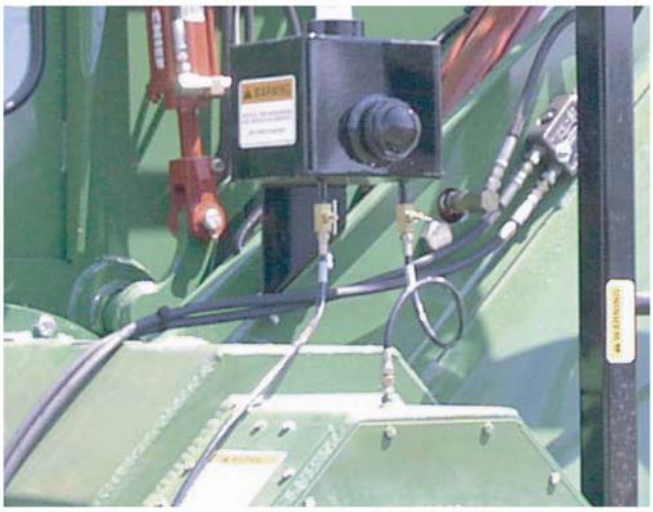
**CAUTION!! REPLACEMENT PARTS ARE NOT LUBRICATED**

REPLACEMENT PARTS MUST BE LUBRICATED AT TIME OF ASSEMBLY. USE AMOUNT LISTED ABOVE PER LOCATION THEN FOLLOW LUBE RECOMMENDATIONS OUTLINED ABOVE FOR LUBING INTERVALS.

## Lubrication—Chain Oiler

The oil reservoir to lubricate both drive chains holds about 1 gallon of fluid. Use a good lubricating oil that flows easily. To determine the amount of oil flow, it is best to unscrew one or both lines and visually see the oil flow. Frequency of lubrication should be based on current field conditions. Duration of lubrication should be based on volume of oil flowing through hoses. Under normal field and weather conditions, the chains should be lubricated with approximately 1 ounce of oil every 4 loads.

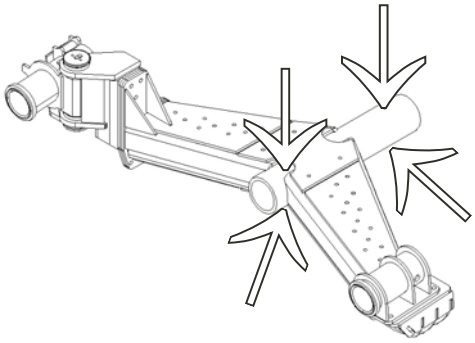



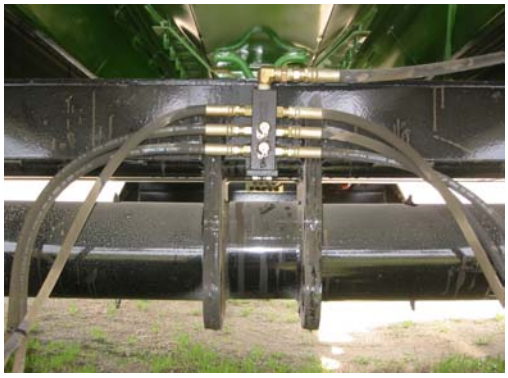
## Lubrication—Steering

There are 4 grease fittings located in 2 positions on each of the tandem arms; two at the top and two at the bottom of the round center pivot tube.

Grease each location of both arms until new grease can be seen being pushed out.

Greasing should be done daily, at a minimum, and more often as conditions warrant





Grease fittings are located at the top and bottom of the steering hinge kingpins.

To grease the hinge kingpins, it is best to have the wheels steering straight one time, to the left the next time and finally to the right. This process insures that grease is getting to all areas of the kingpin.
Proper steering is dependant upon adequate greasing.

When conditions are dry and dusty, the tandem arms and kingpins will require grease more often.

**NOTE!** Grease thoroughly before pressure washing near kingpins.

Informational and instructional decals are located above the axle on both sides of the trailer frame. These provide information that must be heeded for safe, trouble free operation.

## Hub:

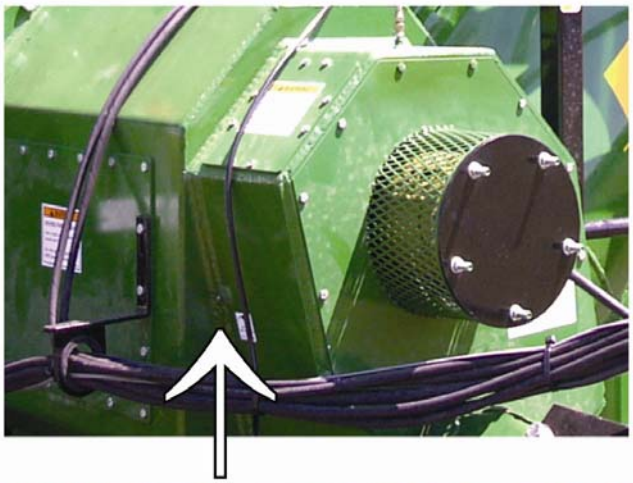
Check and pack wheel hub bearings seasonally.

## Hitch:

A grease fitting is located on top of the hitch. This should be greased every day under normal conditions.

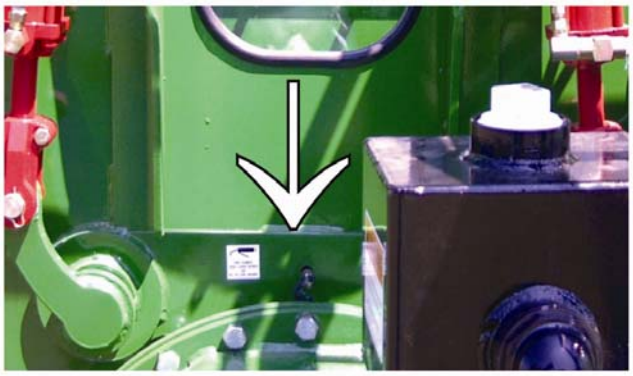
## Lubrication—Horizontal Auger

The bearing at the front end of the horizontal auger has a grease line and fitting that permits greasing externally. This location should get 1 to 2 careful pumps of grease every day of constant use.

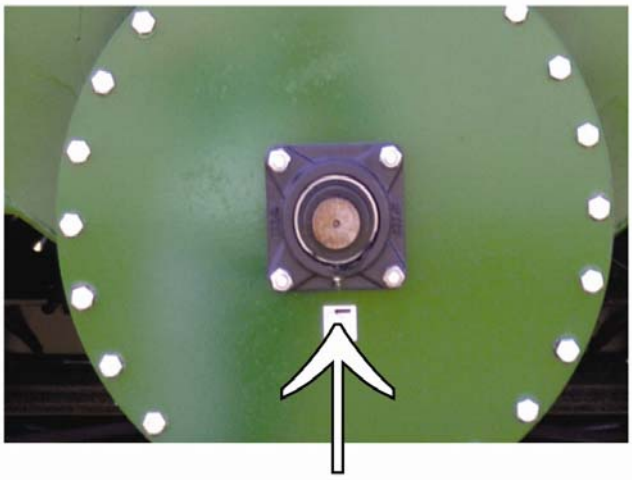


**NOTE!** Excessive pressure while applying grease can be harmful to the bearing seals.

The middle bearing for the horizontal auger has a grease line and fitting that permits greasing externally. This location should get a liberal greasing after every 3 hours of constant use in normal conditions. In dusty or dry conditions, more frequent greasing is recommended.



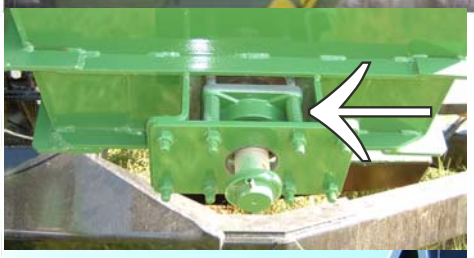
The bearing at the rear end of the horizontal auger. This location should get 1 to 2 careful pumps of grease every 2 days of constant use.



## Lubrication—Vertical Auger

Three (3) grease fittings are located on the auger folding hinge. These should be greased every day. Pump grease until old grease is visible.

The bearing located at the end of the vertical auger should get 1 to 2 careful pumps of grease every day of constant use.



The mid bearing on the vertical auger has a grease fitting that is accessible with the auger folded. Grease at this location liberally every day of operation under normal conditions and more frequently if dusty or hot.

The bearing at the bottom end of the vertical auger has a grease line and fitting that permits greasing externally. This location should get 1 to 2 careful pumps of grease every day of constant use.

**NOTE!** Excessive pressure while applying grease can be harmful to the bearing seals.

## Maintenance—Tire Air Pressure

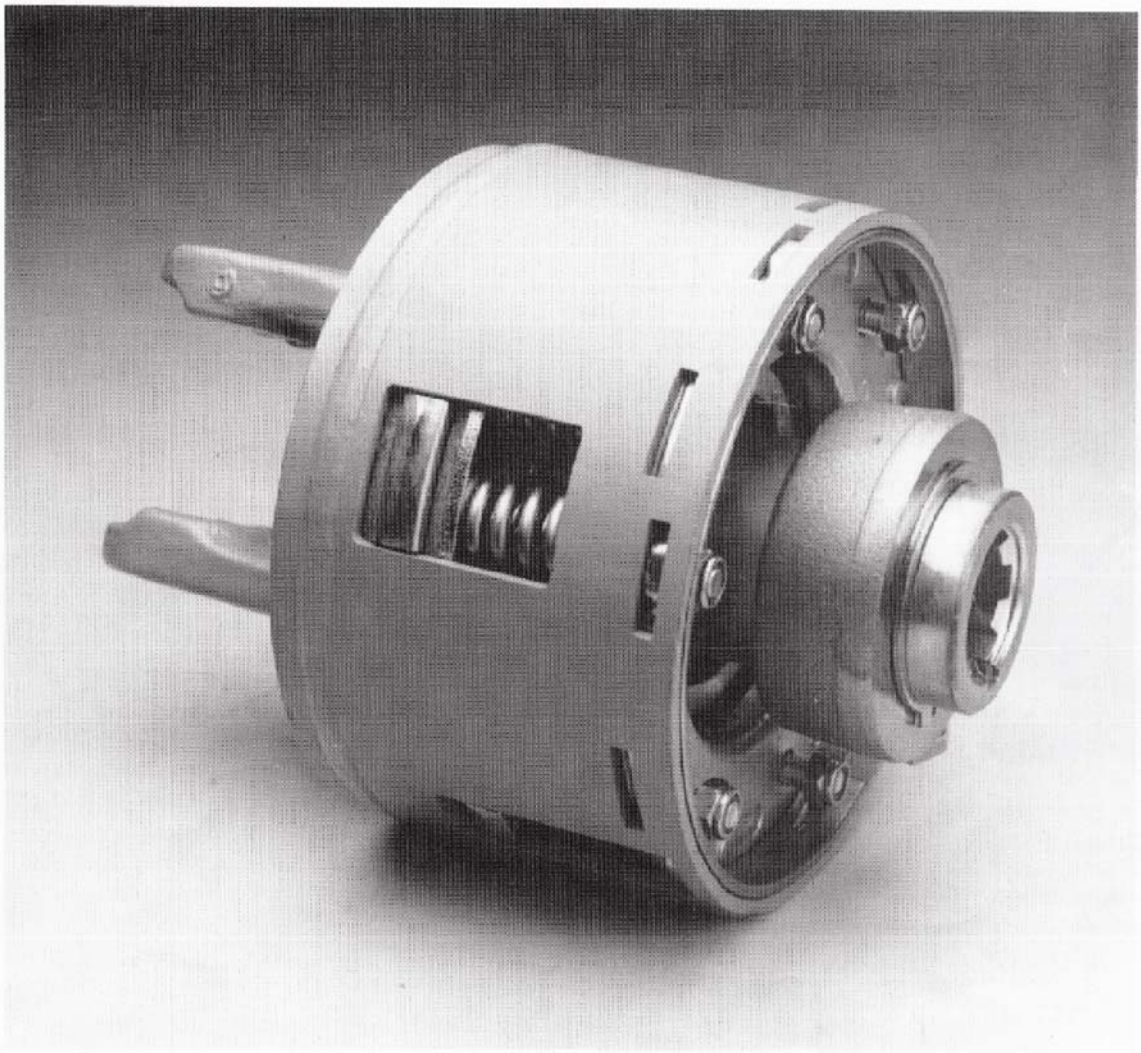
**Balzer Suggested Maximum Allowable Tire Pressure.**

| TIRE SIZE | PSI |
|---|---|
| 18.4 x 46-12 ply | 26 |
| 28L-26 R3-12 ply | 26 |
| 30.5L-32 R3-12 ply | 33 |
| 850/50-30.5-8 ply | 40 |

**WARNING!**

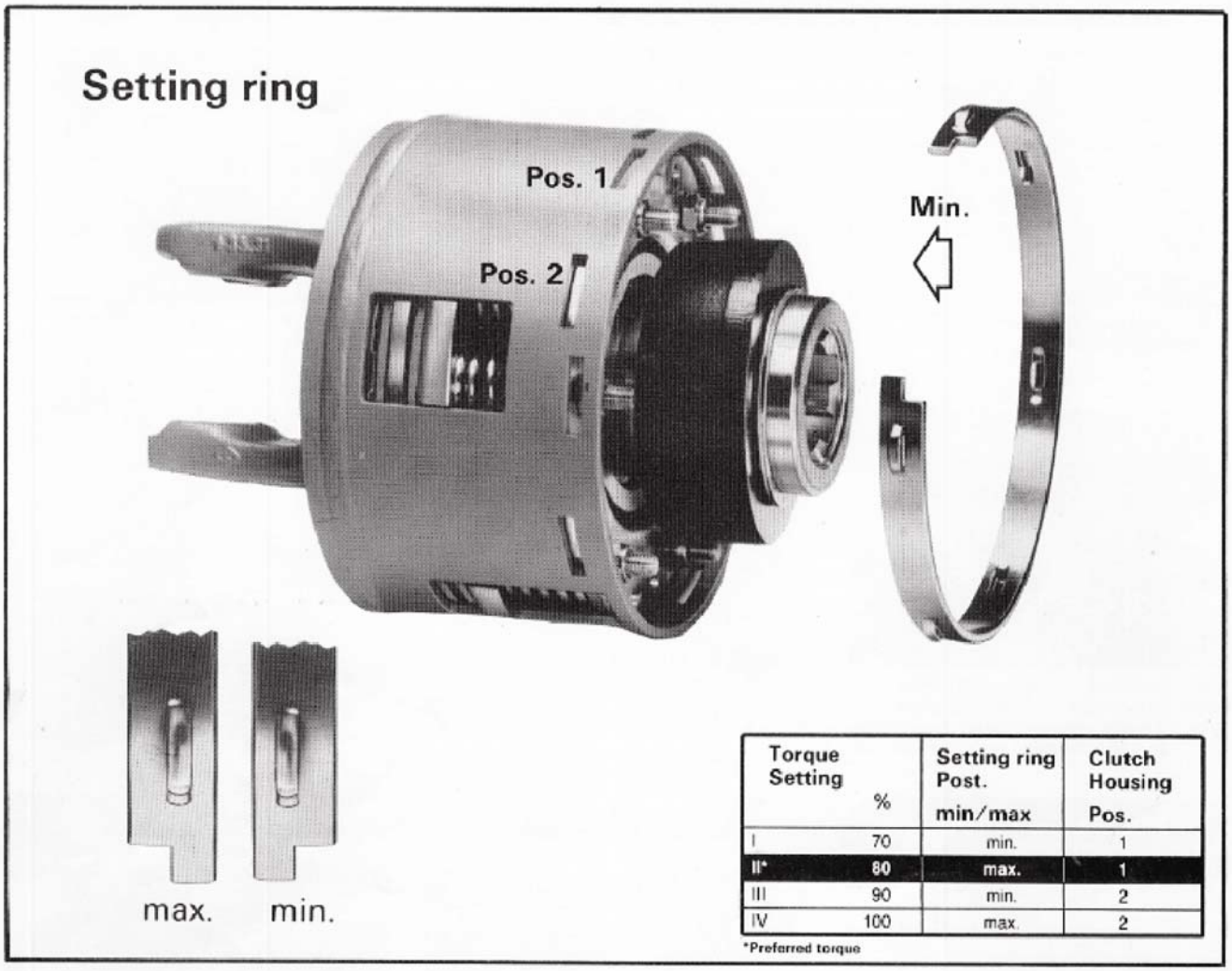
**Torque lug nuts to 420 ft./lbs.**
**Tighten lug nuts before each day's use for the first 5 days.**

## Friction clutch K96-K96/4



## Assembly/Dismantling instructions

| | | |
|---|---|---|
| ✔ | **NOTE!** | **Proper Operation of the friction clutch on this machine requires it to be set at its highest position.** |




| Torque Setting | % | Setting ring Post. min/max | Clutch Housing Pos. |
|---|---|---|---|
| I | 70 | min. | 1 |
| II* | 80 | max. | 1 |
| III | 90 | min. | 2 |
| IV | 100 | max. | 2 |

*Preferred torque

The torque setting can be modified with the aid of a setting ring and two alternative location slots in the clutch housing.

1. The setting ring provides for a **min.** position and a **max.** position.
2. The clutch housing incorporates two locating positions for the setting ring (1 and 2) which are situated at different levels.

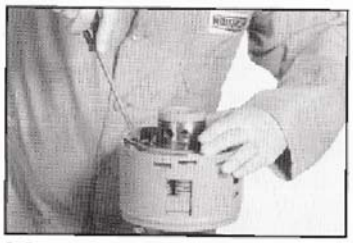
For each power pack **four** torque settings are possible (see table).

The setting ring can only be removed in relieved condition which is obtained by tightening the nuts.

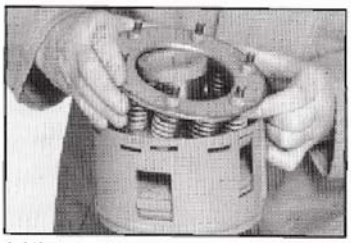
## Dismantling

1. If so equipped - remove the QD locking collars from the hub.

2. To begin dismantling - mount clutch in a vise and tighten down the 6 nuts in even sequence until the spring pack assembly is loose.



3. Remove the setting ring using a flat blade screwdriver.



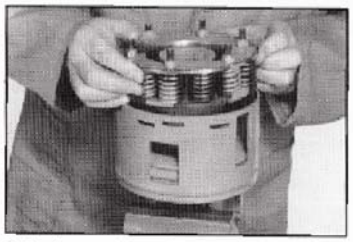
4. Lift the spring pack assembly out by tilting it up opposite the locating tab which is on the bottom plate of the spring pack. NOTE: This tab is located to the narrow slot.

5. Remove flange hub together with friction disks and drive plates. Tilt hub as illustrated and lift out.

## Assembly

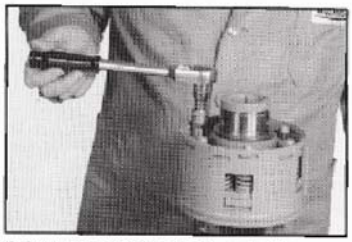
1. Fit friction disks and drive plates to flange hub in correct sequence as illustrated. One friction disk is mounted in the bottom of the clutch housing along with the fiber hub pilot bearing.

2. Insert the flange hub with friction disks and drive plates into the clutch housing - lining up the tabs of the drive plate.



3. Replace spring pack assembly.

4. Replace setting ring to proper location. Noting position window and setting ring to min./max. location.

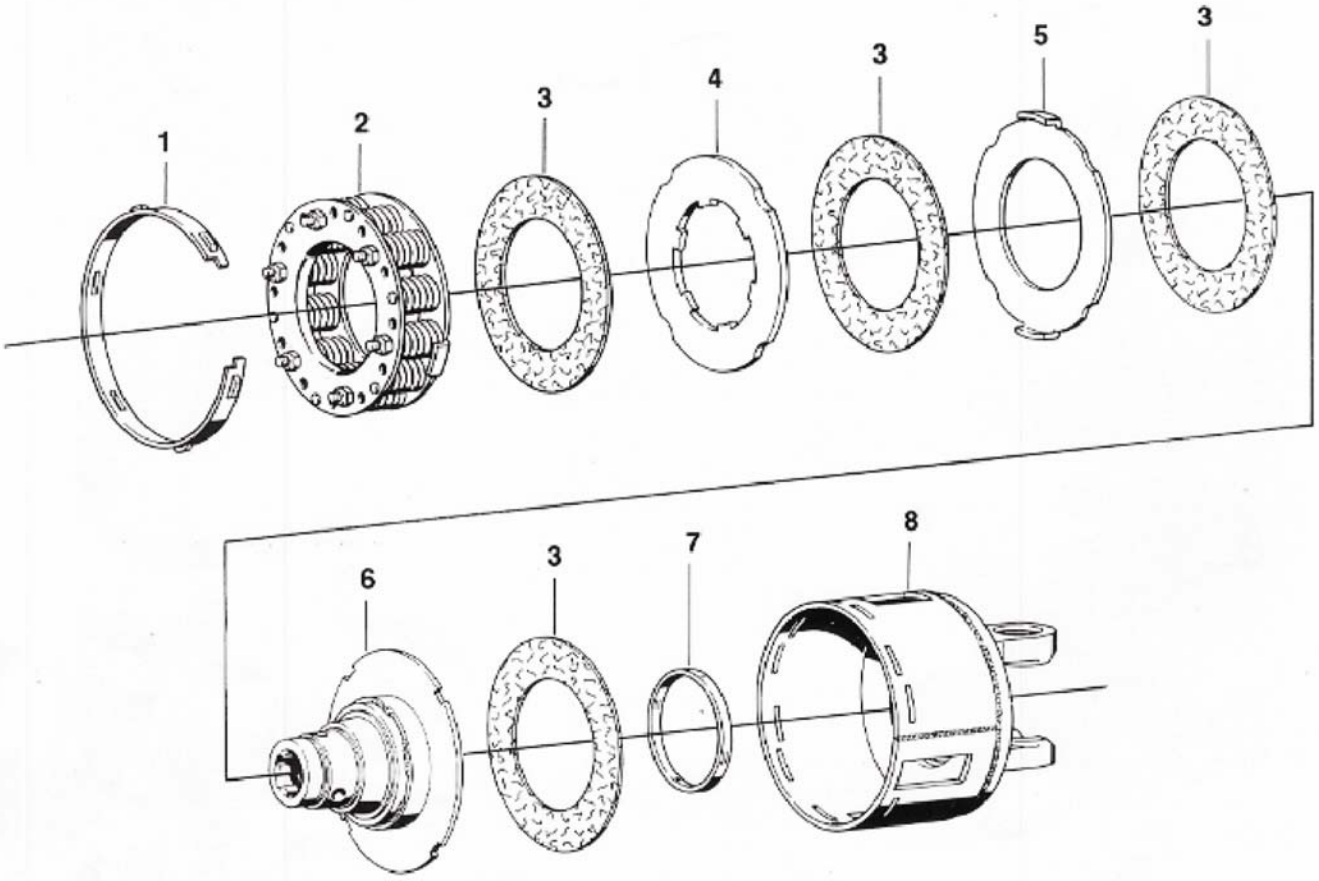


5. Back off the 6 nuts to the end of the studs. In this position the spring pack is at the pressure controlled by the location of the setting ring.

## Friction clutch K96-K96/4

(K96/4 Illustrated Below)

(For K96 having two friction disks: items 4 and 5 are not used and only two of item 3.)




| | |
|---|---|
| 1 Setting ring | 5 Drive plate |
| 2 Spring pack assembly | 6 Flange hub |
| 3 Friction disk | 7 Hug bearing ring |
| 4 Driven plate | 8 Clutch housing |

**Torque setting:**

Please take instructions at page 4 into account.

# Section D

**1) Trouble with steering of rear axles on tandem or front and rear of tridem models.**

**A)** Ensure the hydraulic line for the steering (yellow color) is in the right side of the tractor's hydraulic bank.

**B)** Grease the kingpin assemblies two (2) grease fittings on both sides in the straight position and in the turned position. This kingpin assembly must be greased daily in order for the steering system to function properly.

**C)** System may have air trapped inside resulting in a malfunction. This requires the hydraulic steering system to be bled. See Steering System bleeding instructions.

**D)** If the system is still not steering properly, call Balzer's service department at 800-795-8551 Extension 134 or 0 for the operator.

**2) Automatic chain oiler doesn't appear to let oil drain.**

**A)** Unscrew the cap of the oil reservoir and then open the valve.

**B)** If this doesn't work, call Balzer's service department at 800-795-8551 Extension 134 or 0 for the operator.

**3) Trouble figuring out which hydraulic hoses go where.**

**A)** RED marked hose = Brake Cylinders (Note: if option is available on your cart.)

**B)** YELLOW marked hose = Steering System

**C)** BLUE marked hose = Inside Grain Doors

**D)** GREEN marked hose = Underside Clean-out Doors

**E)** ORANGE marked hose = Unload Auger Fold

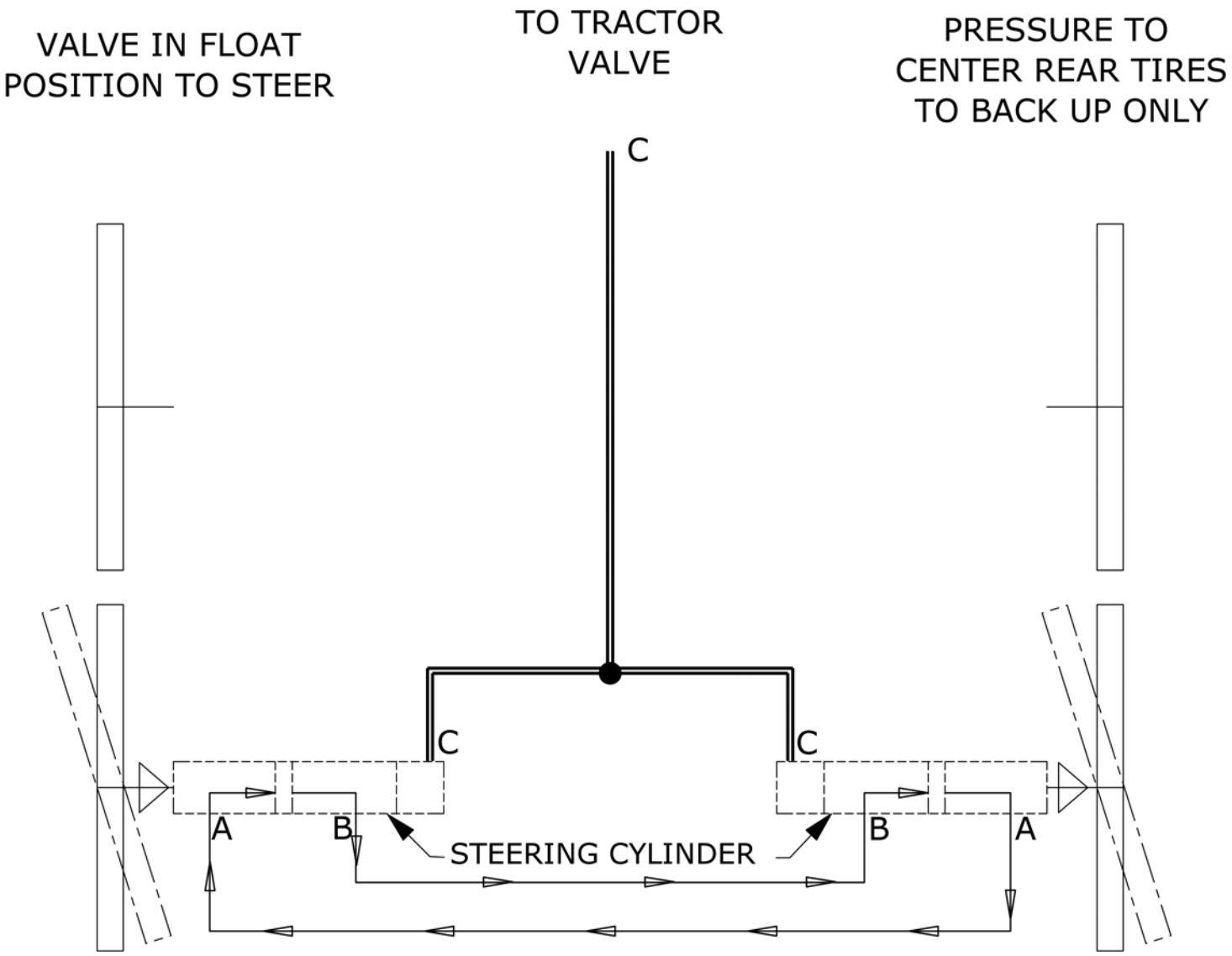
**4) Unload auger has abnormal vibration.**
**A)** Ensure the hydraulic fold is extended to the full stroke position. This is needed in order to lock the two halves together.
**B)** May require the clevis on the high end of the hydraulic cylinder to be adjusted to ensure the system is being locked when the cylinder is in the full stroke position.
**C)** Ensure the drive train tensioner has been properly adjusted to take the slack out of the chain.

**NOTE!**

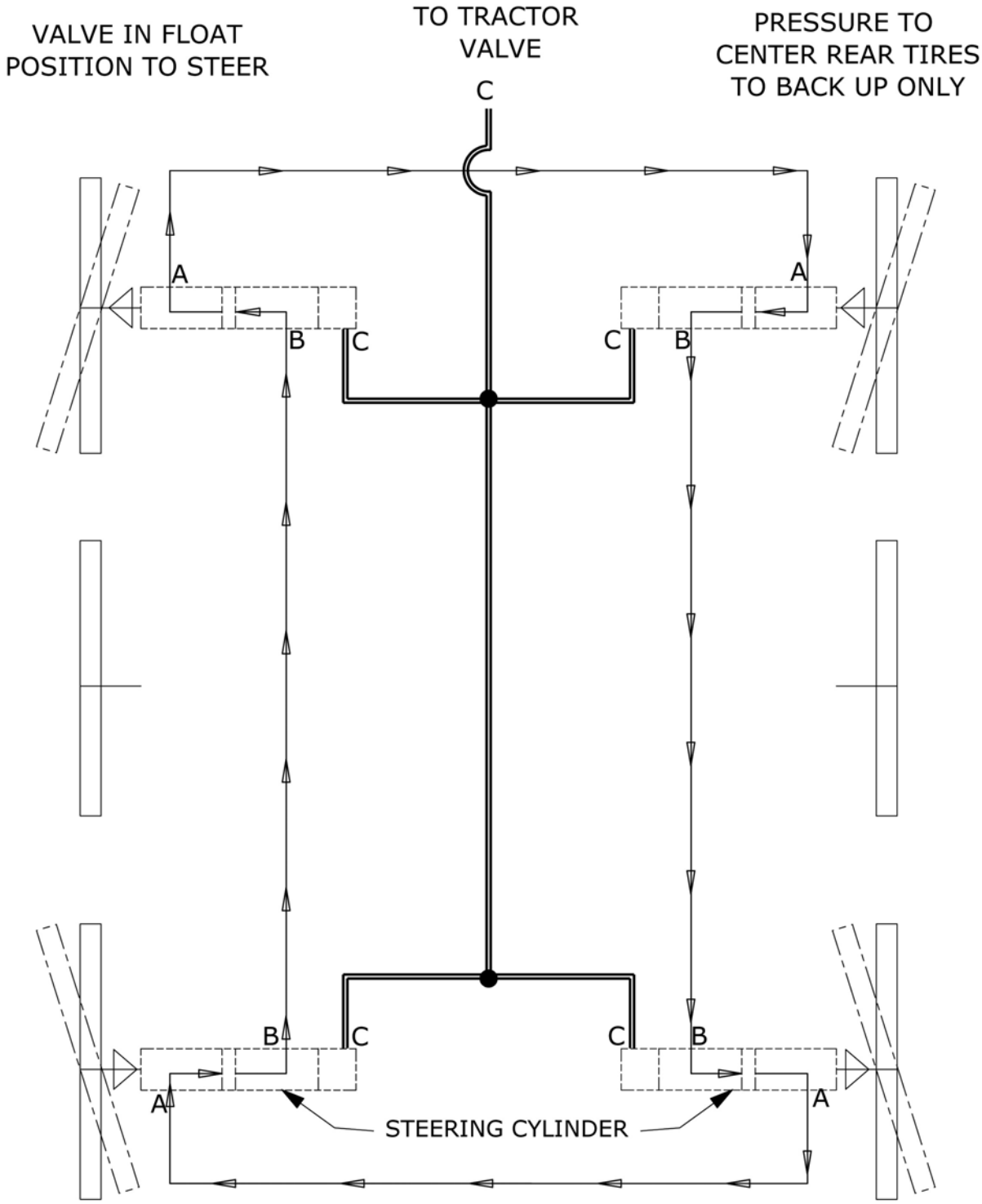
**Grain Door Timing**
In most cases, each time the grain doors are closed, they will re-open evenly. If this is not occurring and is considered a problem contact Blazer for information and help solving the situation.

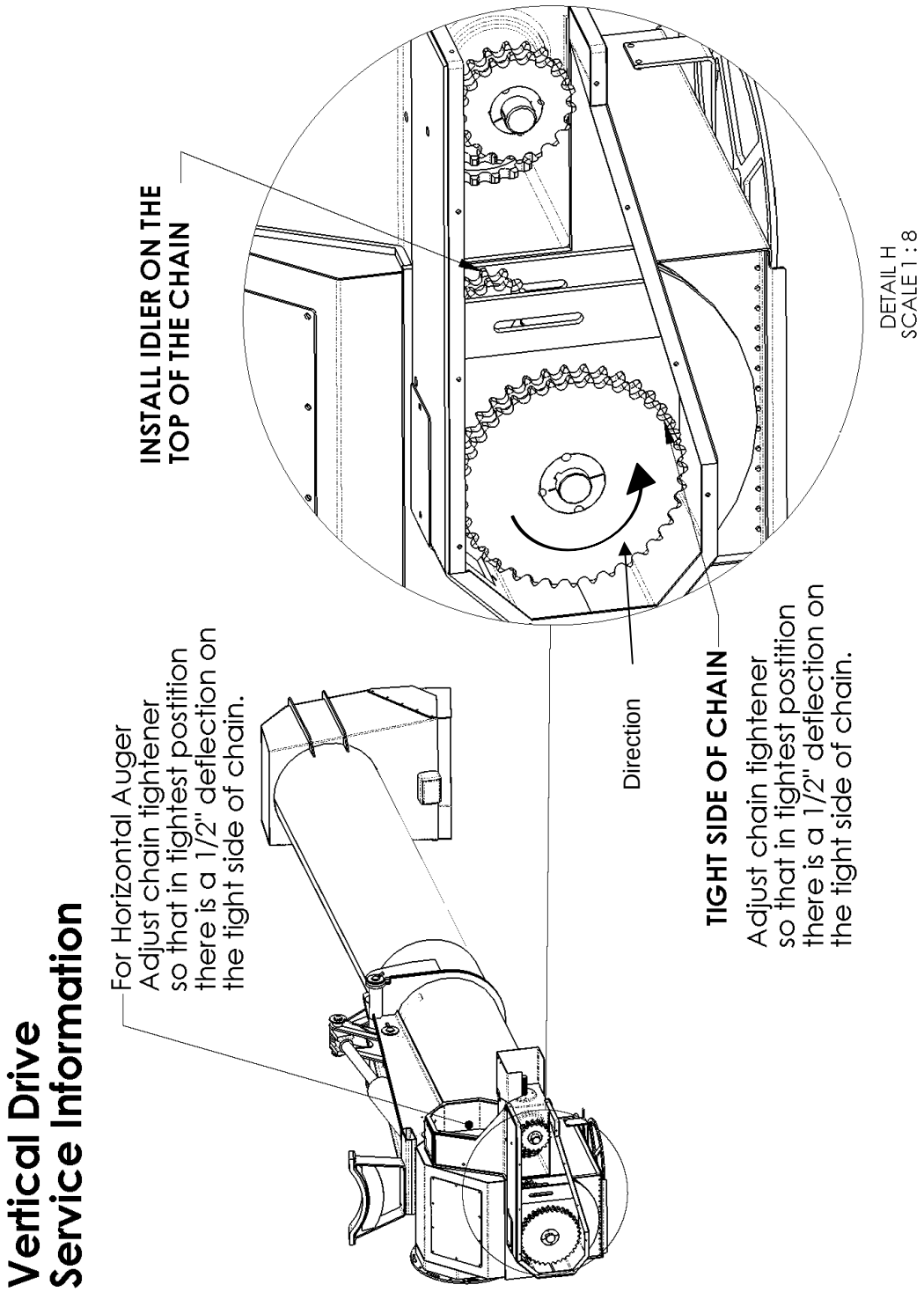
**5) Trouble backing up with steering wheels going in the wrong direction (Note: This may occur in extreme conditions such as mud, ice and/or snow.)**
**A)** Take the hydraulic line out of the float position and then move the lever to pressurize the cylinders. This will straighten the tires and then lock them.
**B)** System is still not steering properly, call Balzer's service department at 800-795-8551 Extension 134 or 0 for the operator.

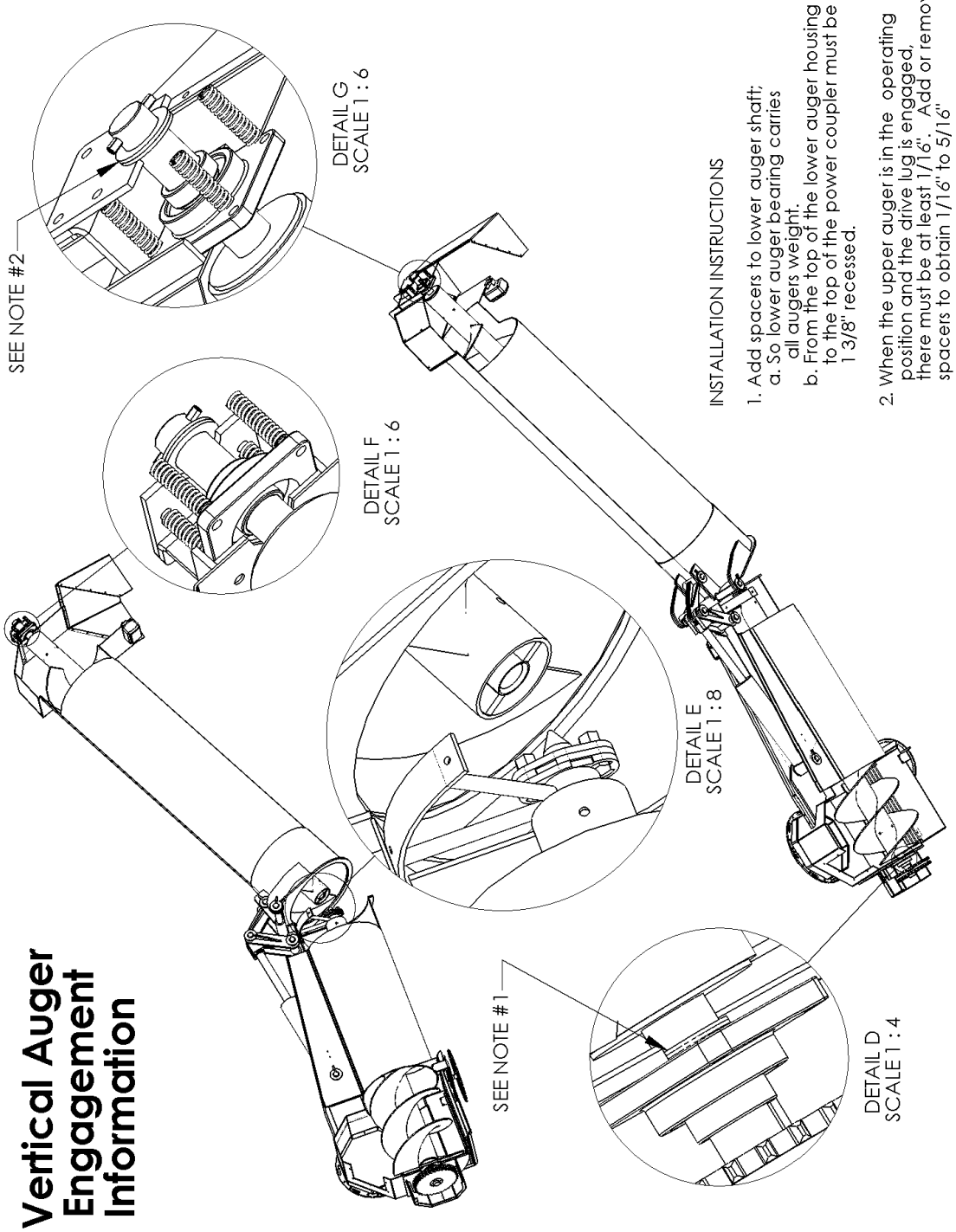
# SIMPLIFIED HYDRAULIC CIRCUIT FOR TANDEM STEERING



SIMPLIFIED HYDRAULIC CIRCUIT
FOR TRIDEM CARTS

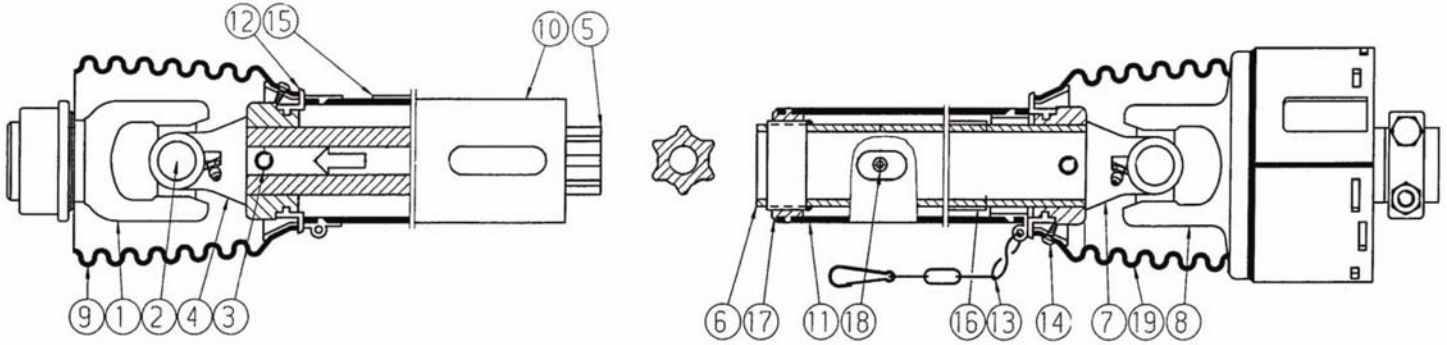



Vertical Drive
Service Information
For Horizontal Auger
Adjust chain tightener
so that in tightest postition
there is a 1/2" deflection on
the tight side of chain.
INSTALL IDLER ON THE
TOP OF THE CHAIN
Direction
TIGHT SIDE OF CHAIN
Adjust chain tightener
so that in tightest postition
there is a 1/2" deflection on
the tight side of chain.
DETAIL H
SCALE 1 : 8


Vertical Auger Engagement Information
SEE NOTE #2
DETAIL G SCALE 1 : 6
DETAIL F SCALE 1 : 6
DETAIL E SCALE 1 : 8
SEE NOTE #1
DETAIL D SCALE 1 : 4
INSTALLATION INSTRUCTIONS
1. Add spacers to lower auger shaft;
a. So lower auger bearing carries all augers weight.
b. From the top of the lower auger housing to the top of the power coupler must be 1 3/8" recessed.
2. When the upper auger is in the operating position and the drive lug is engaged, there must be at least 1/16". Add or remove spacers to obtain 1/16" to 5/16"

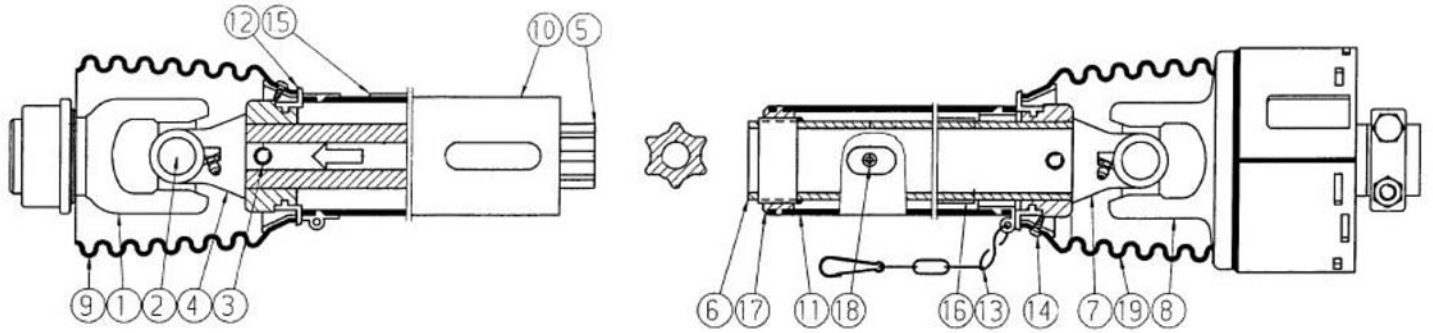
# Section E

# GRAINCART 1 3/8-1000 RPM SLIP CLUTCH PTO, PART# 25704



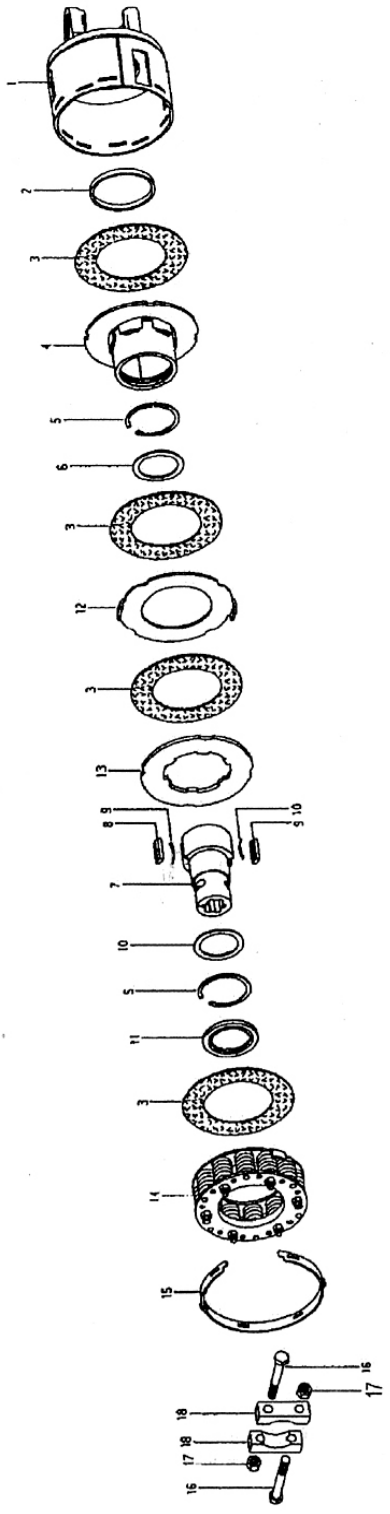

| ITEM | PART# | QTY | DESCRIPTION | ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 17479 | 1 | YOKE 1 3/8- 21SPL | 11 | 50641 | 1 | INN. SHIELD TUBE ROUND |
| 2 | 17157 | 2 | CROSS & BEARING KIT | 12 | 16814 | 2 | BEARING RING SC25 |
| 3 | 17158 | 2 | SPRING PIN 10x90 | 13 | 16815 | 1 | SAFETY CHAIN |
| 4 | 17159 | 1 | INBOARD YOKE S4 | 14 | 16818 | 2 | SCREW- IN ITEM 9 & 19 |
| 5 | 50638 | 1 | INBOARD PROFILE S4 | 15 | 16816 | 1 | DECAL OUT. FOR ITEM 10 |
| 6 | 50639 | 1 | PROFILE & SLEEVE | 16 | 16817 | 1 | DECAL INN. FOR ITEM 6 |
| 7 | 17162 | 1 | INBOARD YOKE S5 | 17 | 17171 | 1 | SUPPORT BEARING |
| 8 | 50606 | 1 | FRICTION/OVERRUNNING CLUTCH | 18 | 16820 | 1 | ZERK IN ITEM 6 |
| 9 | 17163 | 1 | SHIELD CONE 7-RIB | 19 | 50454 | 1 | SHIELD CONE, 6 RIB |
| 10 | 50640 | 1 | OUT. SHIELD TUBE OVAL | 20 | 17172 | 1 | LOCK COLLAR KIT ON ITEM 1 |

# GRAINCART 1 3/4-1000 RPM SLIP CLUTCH PTO, PART# 25705




| ITEM | PART# | QTY | DESCRIPTION | ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 17200 | 1 | YOKE 1 3/4- 20SPL | 11 | 50641 | 1 | INN. SHIELD TUBE ROUND |
| 2 | 17157 | 2 | CROSS & BEARING KIT | 12 | 16814 | 2 | BEARING RING SC25 |
| 3 | 17158 | 2 | SPRING PIN 10x90 | 13 | 16815 | 1 | SAFETY CHAIN |
| 4 | 17159 | 1 | INBOARD YOKE S4 | 14 | 16818 | 2 | SCREW- IN ITEM 9 & 19 |
| 5 | 50638 | 1 | INBOARD PROFILE S4 | 15 | 16816 | 1 | DECAL OUT. FOR ITEM 10 |
| 6 | 50639 | 1 | PROFILE & SLEEVE | 16 | 16817 | 1 | DECAL INN. FOR ITEM 6 |
| 7 | 17162 | 1 | INBOARD YOKE S5 | 17 | 17171 | 1 | SUPPORT BEARING |
| 8 | 50606 | 1 | FRICTION/OVERRUNNING CLUTCH | 18 | 16820 | 1 | ZERK IN ITEM 6 |
| 9 | 17163 | 1 | SHIELD CONE 7-RIB | 19 | 50454 | 1 | SHIELD CONE, 6 RIB |
| 10 | 50640 | 1 | OUT. SHIELD TUBE OVAL | 20 | 17173 | 1 | LOCK COLLAR KIT ON ITEM 1 |

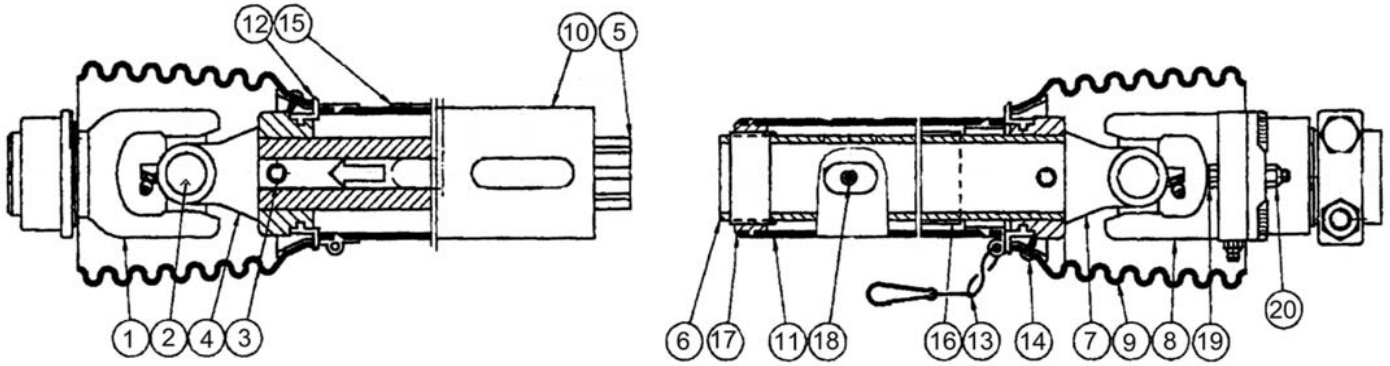
## GRAIN CART FRICTION CLUTCH, PART NUMBER 50606



| ITEM# | PART# | QTY | DESCRIPTION | ITEM# | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 50470 | 1 | CLUTCH HOUSING WITH YOKE | 10 | 50479 | 1 | SUPPORT RING |
| 2 | 50471 | 1 | WEAR RING | 11 | 50480 | 1 | SEAL RING |
| 3 | 50472 | 4 | FRICTION DISC | 12 | 50481 | 1 | DRIVE PLATE |
| 4 | 50473 | 1 | OVERRUNNING HOUSING | 13 | 50482 | 1 | DRIVE PLATE |
| 5 | 50474 | 2 | RETAINING RING | 14 | 50483 | 1 | SPRING PACK |
| 6 | 50475 | 1 | SUPPORT RING | 15 | 50484 | 1 | SETTING RING |
| 7 | 50476 | 1 | HUB | 16 | 50485 | 2 | BOLT HEX, 16mm x 110mm |
| 8 | 50477 | 2 | DRIVE KEY | 17 | 3149 | 2 | TOPLOCK NUT, HEX HD 16mm |
| 9 | 50478 | 2 | LEAF SPRING | 18 | 50486 | 1 | CLAMP BRIDGE |

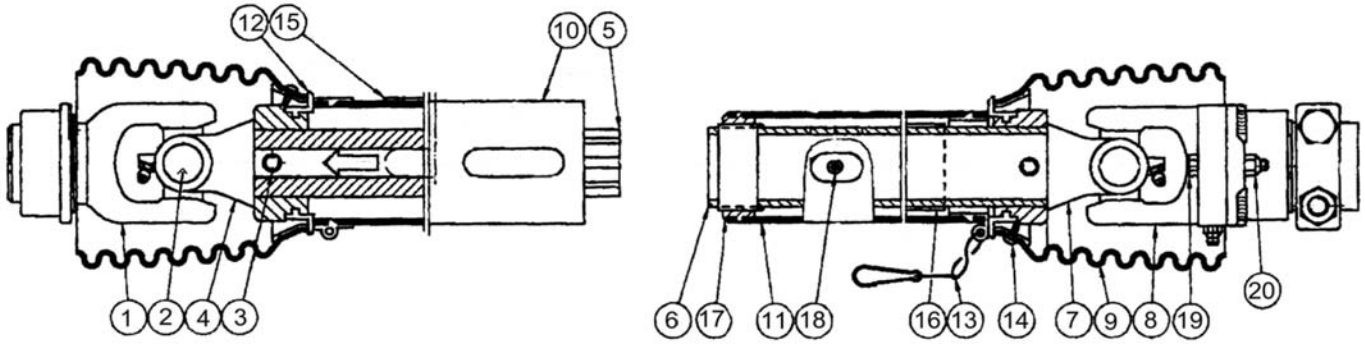
2/8/05

## GRAINCART 1 3/8-1000 RPM SHEAR YOKE PTO, PART# _____



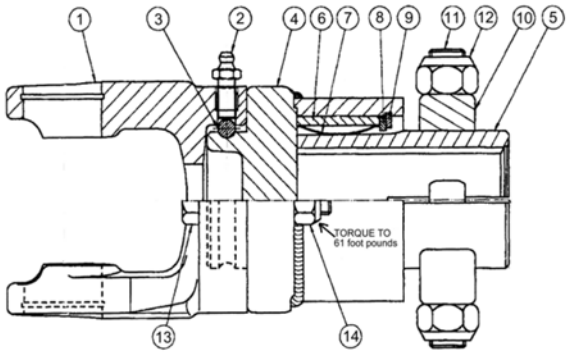

| ITEM | PART# | QTY | DESCRIPTION | ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 17149 | 1 | YOKE 1 3/8- 21SPL | 12 | 16814 | 2 | BEARING RING SC25 |
| 2 | 17157 | 2 | CROSS & BEARING KIT | 13 | 16815 | 1 | SAFETY CHAIN |
| 3 | 17158 | 2 | SPRING PIN 10x90 | 14 | 16818 | 2 | SCREW- IN ITEM 9 & 19 |
| 4 | 17159 | 1 | INBOARD YOKE S4 | 15 | 16816 | 1 | DECAL OUT. FOR ITEM 10 |
| 5 | 50638 | 1 | INBOARD PROFILE S4 | 16 | 16817 | 1 | DECAL INN. FOR ITEM 6 |
| 6 | 50639 | 1 | PROFILE & SLEEVE | 17 | 17171 | 1 | SUPPORT BEARING |
| 7 | 17162 | 1 | INBOARD YOKE S5 | 18 | 16820 | 1 | ZERK IN ITEM 6 |
| 8 | 50642 | 1 | SHEARBOLT/OVERRUNING CLUTCH | 19 | 3048 | 1 | BOLT 12mm x 60mm IN ITEM 8 |
| 9 | 17163 | 2 | SHIELD CONE 7-RIB | 20 | 17181 | 1 | NUT 12mm - IN ITEM 8 |
| 10 | 50640 | 1 | OUT. SHIELD TUBE OVAL | 21 | 17172 | 1 | LOCK COLLAR KIT ON ITE |
| 11 | 50641 | 1 | INN. SHIELD TUBE ROUND | | | | |

## GRAINCART 1 3/4-1000 RPM SHEAR YOKE PTO, PART# 91409



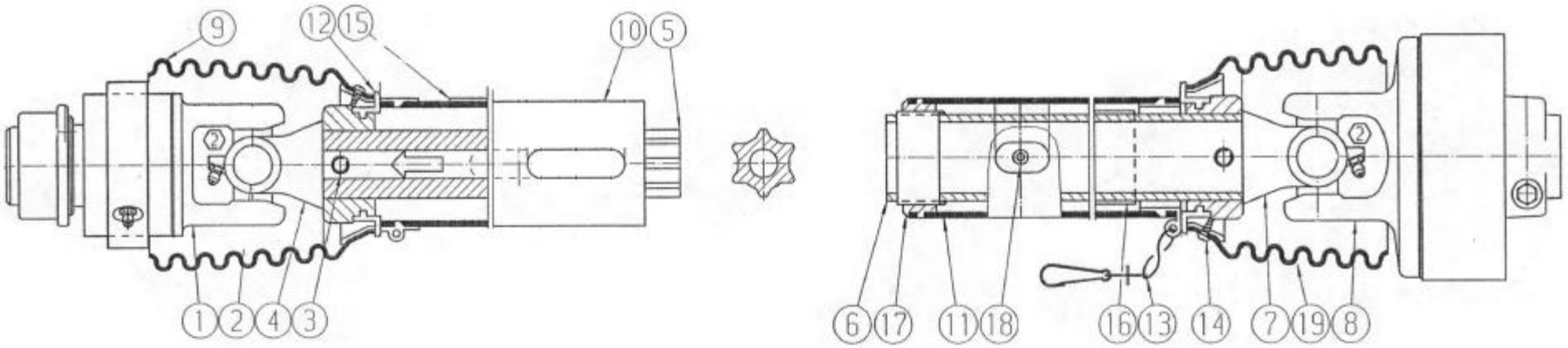

| ITEM | PART# | QTY | DESCRIPTION | ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 17200 | 1 | YOKE 1 3/4- 20SPL | 12 | 16814 | 2 | BEARING RING SC25 |
| 2 | 17157 | 2 | CROSS & BEARING KIT | 13 | 16815 | 1 | SAFETY CHAIN |
| 3 | 17158 | 2 | SPRING PIN 10x90 | 14 | 16818 | 2 | SCREW- IN ITEM 9 & 19 |
| 4 | 17159 | 1 | INBOARD YOKE S4 | 15 | 16816 | 1 | DECAL OUT. FOR ITEM 10 |
| 5 | 50638 | 1 | INBOARD PROFILE S4 | 16 | 16817 | 1 | DECAL INN. FOR ITEM 6 |
| 6 | 50639 | 1 | PROFILE & SLEEVE | 17 | 17171 | 1 | SUPPORT BEARING |
| 7 | 17162 | 1 | INBOARD YOKE S5 | 18 | 16820 | 1 | ZERK IN ITEM 6 |
| 8 | 50642 | 1 | SHEARBOLT/OVERRUNING CLUTCH | 19 | 3048 | 1 | BOLT 12mm x 60mm IN ITEM 8 |
| 9 | 17163 | 2 | SHIELD CONE 7-RIB | 20 | 17181 | 1 | NUT 12mm - IN ITEM 8 |
| 10 | 50640 | 1 | OUT. SHIELD TUBE OVAL | 21 | 17173 | 1 | LOCK COLLAR KIT ON ITEM 1 |
| 11 | 50641 | 1 | INN. SHIELD TUBE ROUND | | | | |

## GRAINCART SHEARBOLT YOKE, PART# 50642




| ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|
| 1 | 50643 | 1 | YOKE |
| 2 | 16824 | 1 | ZERK |
| 3 | 16825 | 24 | BALL |
| 4 | 50644 | 1 | HOUSING |
| 5 | 50645 | 1 | HUB |
| 6 | 50646 | 2 | KEY |
| 7 | 50647 | 2 | LEAF SPRING |
| 8 | 50648 | 1 | SUPPORTING RING |
| 9 | 50649 | 1 | RETAINING RING |
| 10 | 50486 | 2 | CLAMP BRIDGE |
| 11 | 50485 | 2 | HEX BOLT 16mm x 110mm |
| 12 | 3149 | 2 | HEX LOCK NUT 16mm |
| 13 | 3048 | 1 | HEX BOLT 12mm x 60mm |
| 14 | 3119 | 1 | HEX LOCK NUT 12mm |

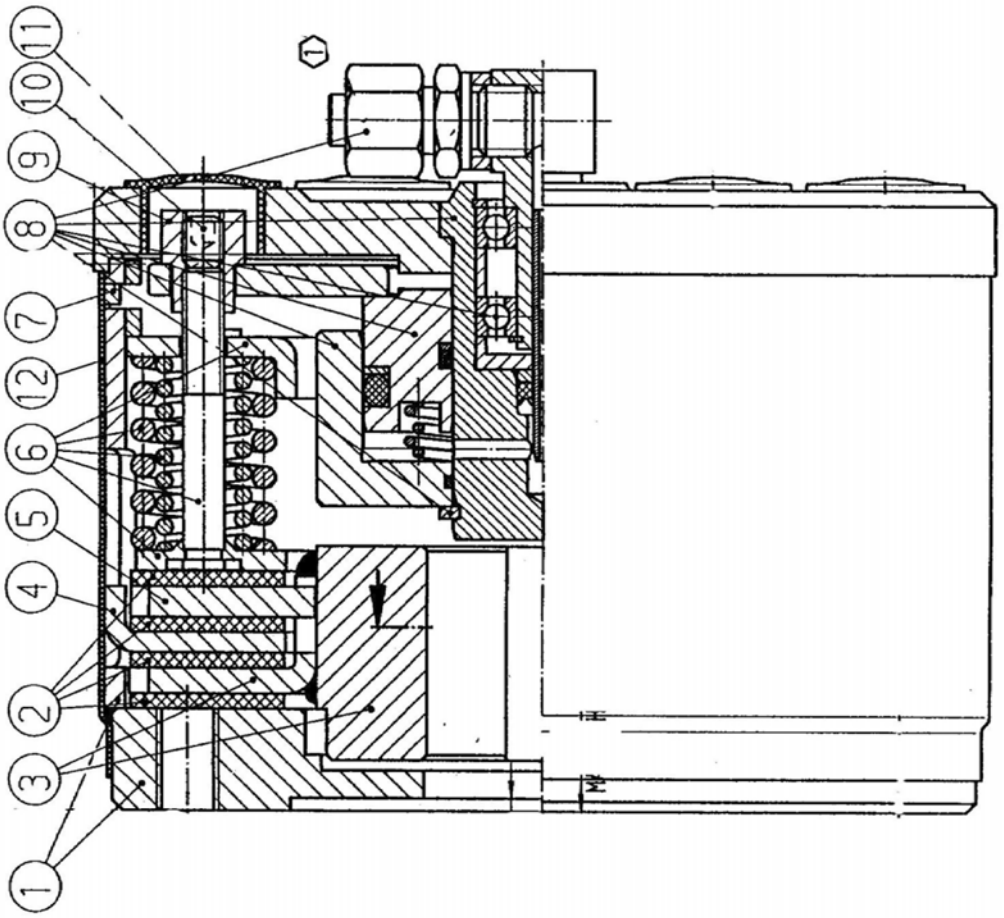
# GRAINCART 1 3/4-1000 RPM CUT-OUT CLUTCH PTO, PART# 37466




| ITEM | PART# | QTY | DESCRIPTION | ITEM | PART# | QTY | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| 1 | 52065 | 1 | YOKE 1 3/4- 20 SPL OVERRUNNING YOKE | 12 | 16814 | 2 | BEARING RING SC25 |
| 2 | 17157 | 2 | CROSS & BEARING KIT | 13 | 16815 | 1 | SAFETY CHAIN |
| 3 | 17158 | 2 | SPRING PIN 10x90 | 14 | 16818 | 2 | SCREW- IN ITEM 9 & 19 |
| 4 | 17159 | 1 | INBOARD YOKE S4 | 15 | 16816 | 1 | DECAL OUT. FOR ITEM 10 |
| 5 | 52066 | 1 | INBOARD PROFILE S4 | 16 | 16817 | 1 | DECAL INN. FOR ITEM 6 |
| 6 | 50639 | 1 | PROFILE & SLEEVE | 17 | 17171 | 1 | SUPPORT BEARING |
| 7 | 17162 | 1 | INBOARD YOKE S5 | 18 | 16820 | 1 | ZERK IN ITEM 6 |
| 8 | 52067 | 1 | CUTOUT CLUTCH | 19 | 50454 | 1 | SHIELD CONE 6-RIB |
| 9 | 17163 | 1 | SHIELD CONE 7-RIB | 20 | 17173 | 1 | LOCK COLLAR KIT ON ITEM 1 |
| 10 | 50640 | 1 | OUT. SHIELD TUBE OVAL | 21 | 52068 | 1 | LOCK COLLAR KIT ON ITEM 8 |
| 11 | 50641 | 1 | INN. SHIELD TUBE ROUND | | | | |

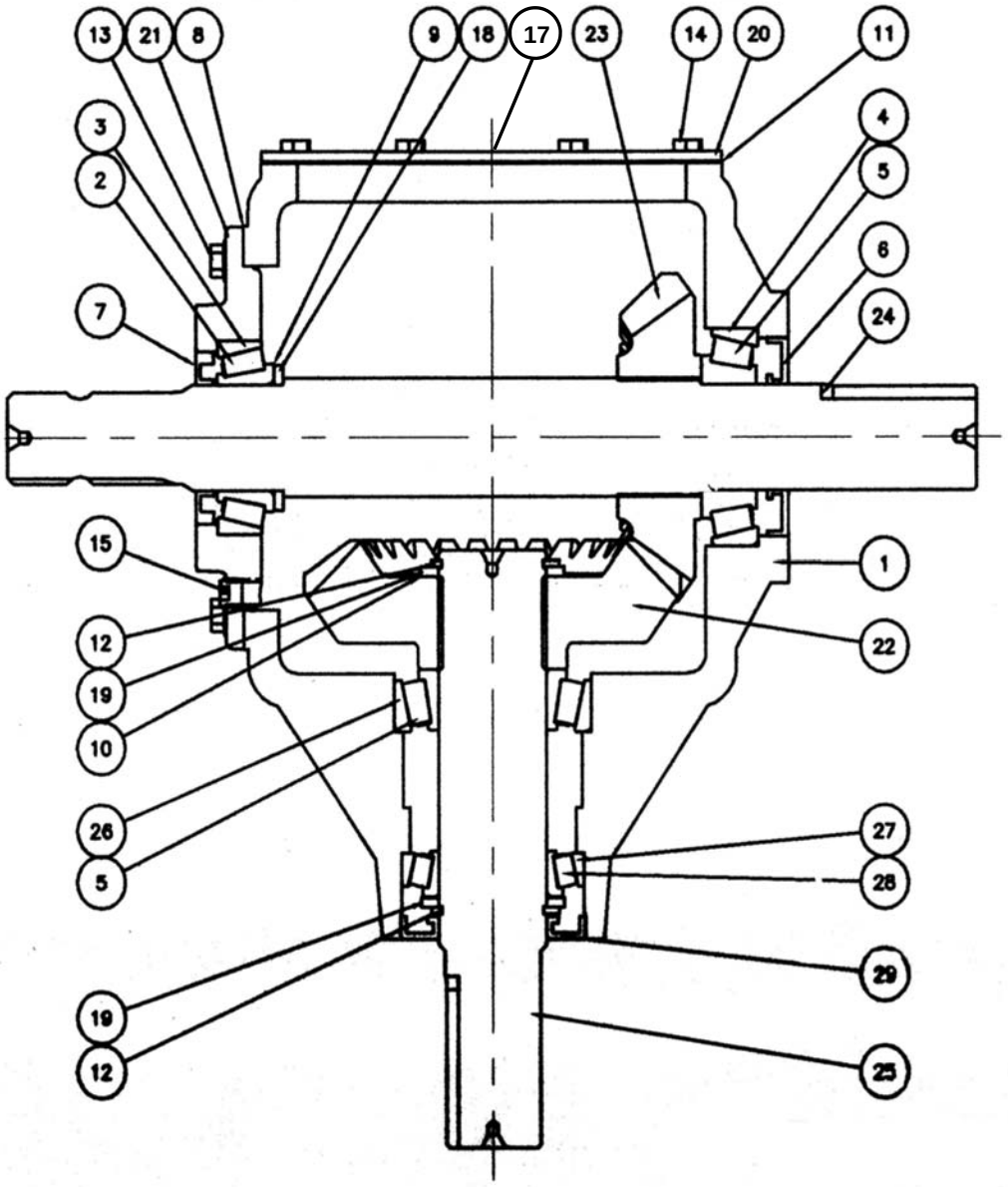
## COMPLETE HYDRAULIC OVERRUNNING CLUTCH, P/N 90886

| ITEM# | QTY | PART# | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | | HOUSING |
| 2 | 4 | 50472 | FRICTION DISK |
| 3 | 1 | | HUB, 45mm ROUND |
| 4 | 1 | 50481 | DRIVE PLATE |
| 5 | 1 | 50482 | DRIVE PLATE |
| 6 | 1 | 50483 | SPRING PACK |
| 7 | 1 | 50484 | SETTING RING |
| 8 | 1 | | HYDRAULIC UNIT |
| 9 | 6 | | HEX NUT |
| 10 | 6 | | SET SCREW |
| 11 | 6 | | PLUG |




MINIMUM OIL PRESSURE=1175psi
MAXIMUM OIL PRESSURE=2573psi

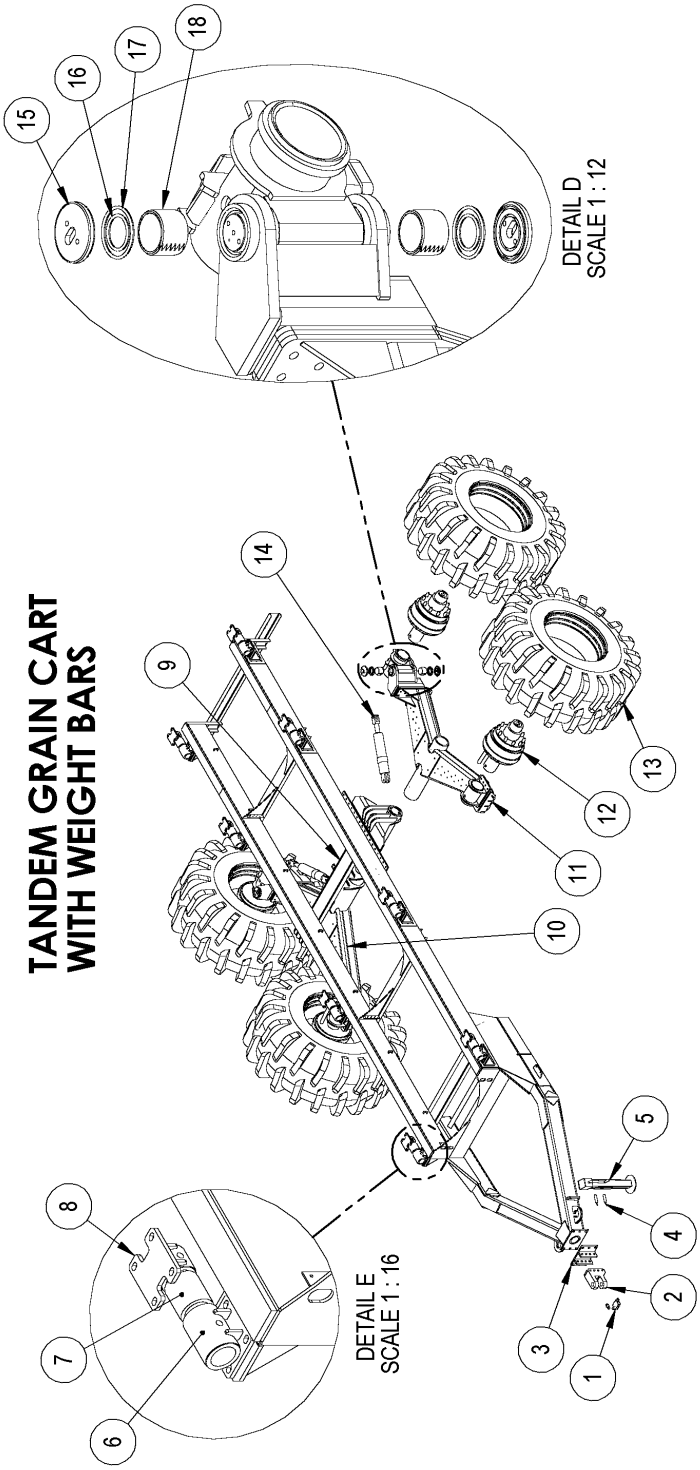
## Graincart Gearbox, Part# 80500



## Graincart Gearbox, Part# 80500

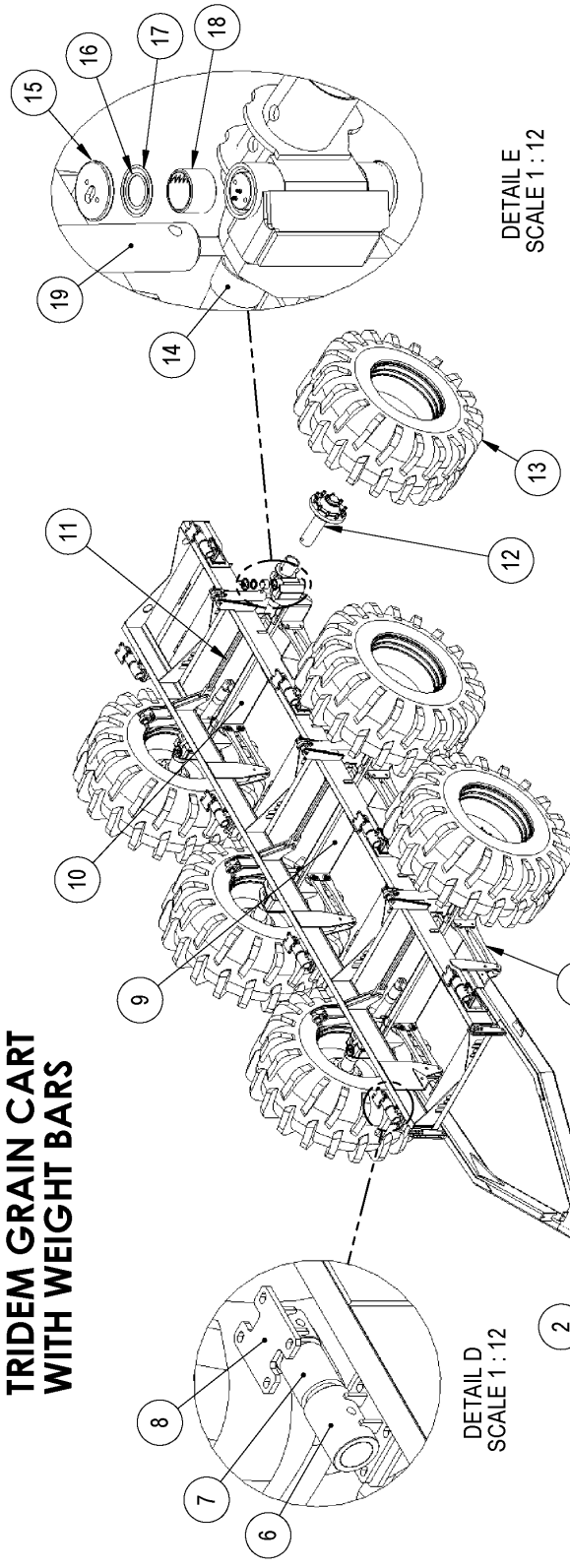
| Item# | Qty | Part# | Description |
|---|---|---|---|
| 1 | 1 | 50767 | HOUSING GEARBOX - 1000 GRAIN CART GEARBOX |
| 2 | 1 | 22602 | BEARING CUP |
| 3 | 1 | 50768 | BEARING CONE GRAIN CART GEARBOX |
| 4 | 1 | 50769 | BEARING CONE GRAIN CART GERABOX |
| 5 | 2 | 50770 | BEARING CUP GRAIN CART GEARBOX |
| 6 | 1 | 50771 | SEAL OIL GRAIN CART GEARBOX |
| 7 | 1 | 50524 | SEAL PRAIRIE #1499SHREDDER GEARBOX 1000 RPM2" ID FOR INPUT SHAFT |
| 8 | 1 | 22604 | SHIM .007 (COVER) PRAIRIE #1544 |
| 9 | 1 | 50781 | SHIM 2"ID X .007 THK GRAIN CART GEARBOX |
| 10 | 1 | 50782 | SHIM 2.25" ID GRAIN CART GEARBOX |
| 11 | 1 | 50780 | GASKET, COVER PLATE GRAIN CART GEARBOX |
| 12 | 2 | 50783 | SNAP RING GRAIN CART GEARBOX |
| 13 | 8 | 1206 | BOLT.37 X 1 HEXHEAD GRADE 5 Z.P. |
| 14 | 8 | 1204 | BOLT.37 X .75 HEXHEAD GRADE 5 Z.P. |
| 15 | 1 | 6997 | PLUG DRAIN HEX SOC .25 NPT |
| 16 | 1 | 8907 | PIPE PLUG .50-14 NPTF SQ HD |
| 17 | 1 | 50785 | VENT 1/2" NPT GRAIN CART GEARBOX |
| 18 | 1 | 50417 | WASHER 2"ID X .179 OUTPUT SHAFTPUMP VERTICAL LAGOON |
| 19 | 2 | 50784 | WASHER 2.25"ID X .179 GRAIN CART GEARBOX |
| 20 | 1 | 50778 | PLATE COVER GRAIN CART GEARBOX |
| 21 | 1 | 50779 | COVER OPEN GRAIN CART GEARBOX |
| 22 | 1 | 50774 | GEAR 27T GRAIN CART GEARBOX |
| 23 | 1 | 50775 | PINION 20T GRAIN CART GEARBOX |
| 24 | 1 | 50776 | SHAFT THRU GRAIN CART GEARBOX |
| 25 | 1 | 50777 | SHAFT QUILL GRAIN CART GERABOX |
| 26 | 1 | 50772 | BEARING CONE GRAIN CART GEARBOX |
| 27 | 1 | 13149 | BEARING CUP INNER 382A 8 BOLT HVY |
| 28 | 1 | 13150 | BEARING CONE INNER |
| 29 | 1 | 50773 | SEAL OIL GRAIN CART GERABOX2.25" ID X 3.876" OD |

# Section E




| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 81025 | PRESSURE REDUCING VALVE ASBY |
| 2 | 1 | 28388 | HITCH DOUBLE TANG |
| 3 | 1 | 90472 | HITCH MOUNT 4200 - 7500 |
| 4 | 1 | 90646 | PIN & CHAIN .63x3 WORKING |
| 5 | 1 | 83338 | SIMOL CRANK JACK W/BRACKET |
| 6 | 8 | 90633 | MOUNTING BRACKET, LONG SHAFT |
| 7 | 8 | 90631 | WEIGH BAR |
| 8 | 8 | 90632 | MOUNTING BRACKET, SHORT SHAFT |
| 9 | 1 | 82475 | AXLE WELDMENT HEAVY 60" FRAME |
| 10 | 1 | - | BUTTERFLY ARM RH (SEE HUB & SPINDLE CHART) |
| 11 | 1 | - | BUTTERFLY ARM LH (SEE HUB & SPINDLE CHART) |
| 12 | 4 | - | HUB (SEE HUB & SPINDLE CHART) |
| 13 | 4 | - | TIRE ASSEMBLY (SEE HUB SPINDLE CHART) |
| 14 | 2 | 40761 | CYLINDER, HYD |
| 15 | 4 | 80592 | COVER, KING PIN TOP |
| 16 | 4 | 80594 | O-RING 3 3/4" ID |
| 17 | 4 | 80595 | O-RING 2 1/2" ID |
| 18 | 4 | 28089 | BUSHING TENSION |

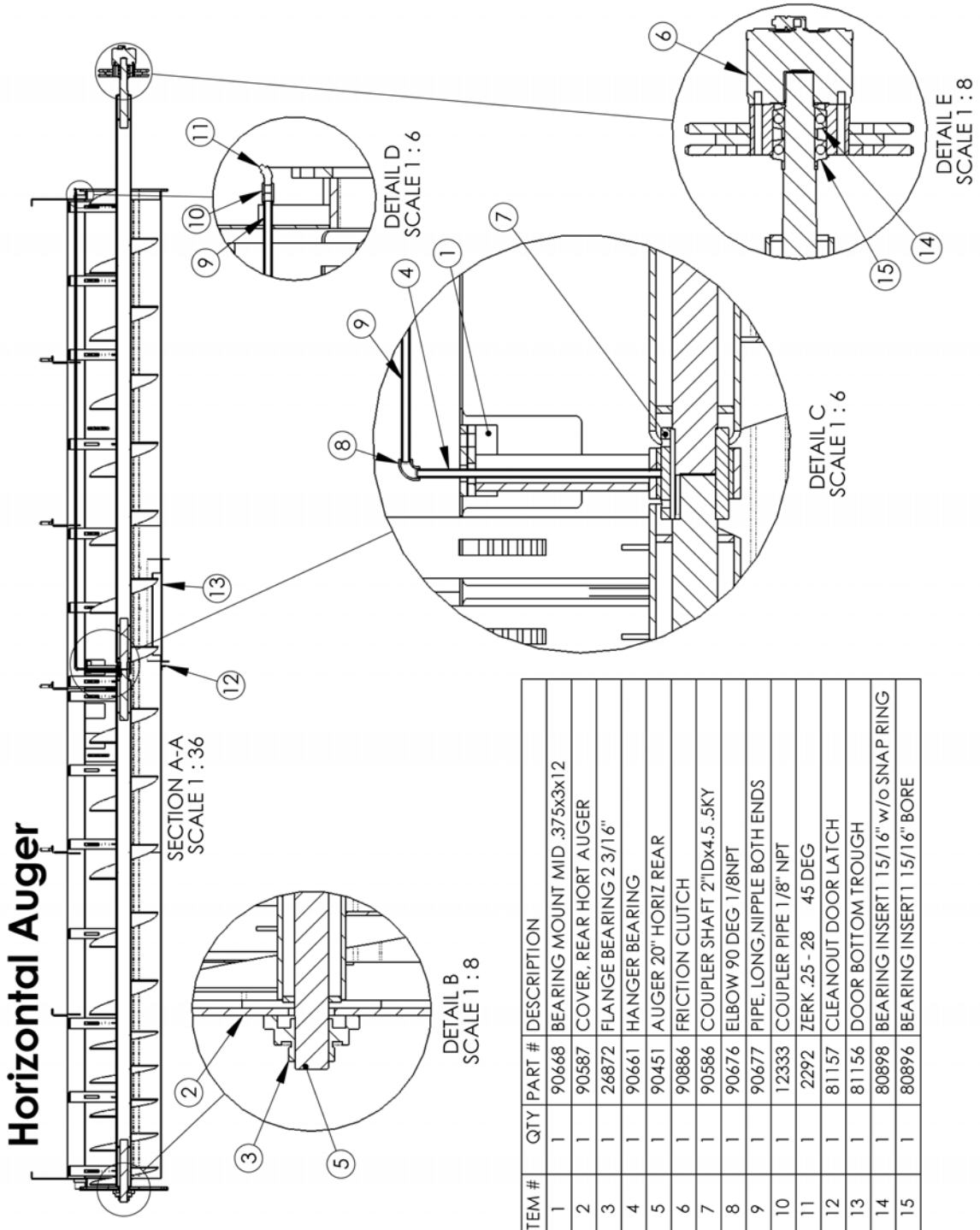
## TRIDEM GRAIN CART WITH WEIGHT BARS




| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 81025 | PRESSURE REDUCING VALVE ASBY |
| 2 | 1 | 91774 | PIN WELD SWIVEL PINTLE 2.25" |
| 3 | 2 | 91779 | HITCH RETAINING PLATE |
| 4 | 1 | 90646 | PIN & CHAIN .63x3 WORKING |
| 5 | 1 | 83338 | SIMOL CRANK JACK W/BRACKET |
| 6 | 8 | 90633 | MOUNTING BRACKET, LONG SHAFT |
| 7 | 8 | 90631 | WEIGH BAR |
| 8 | 8 | 90632 | MOUNTING BRACKET, SHORT SHAFT |
| 9 | 1 | 90701 | AXLE ASBY FIXED |
| 10 | 2 | 90702 | AXLE ASBY 5" STEER |
| 11 | 3 | 82484 | SWAY BAR - GRAIN CART TRIDEM |
| 12 | 6 | - | HUB (SEE HUB & SPINDLE CHART) |
| 13 | 6 | - | TIRE ASSEMBLY (SEE HUB SPINDLE CHART) |
| 14 | 6 | 40761 | CYLINDER, HYD |
| 15 | 12 | 80592 | COVER, KING PIN TOP |
| 16 | 12 | 80594 | O-RING 3 3/4" ID |
| 17 | 12 | 80595 | O-RING 2 1/2" ID |
| 18 | 12 | 28089 | BUSHING TENSION |
| 19 | 6 | 41571 | CYLINDER HYD 3.5 x 16 |
| 20 | 12 | 41193 | LINKAGE BAR WELDMENT |

## Grain Cart Hub Spindles

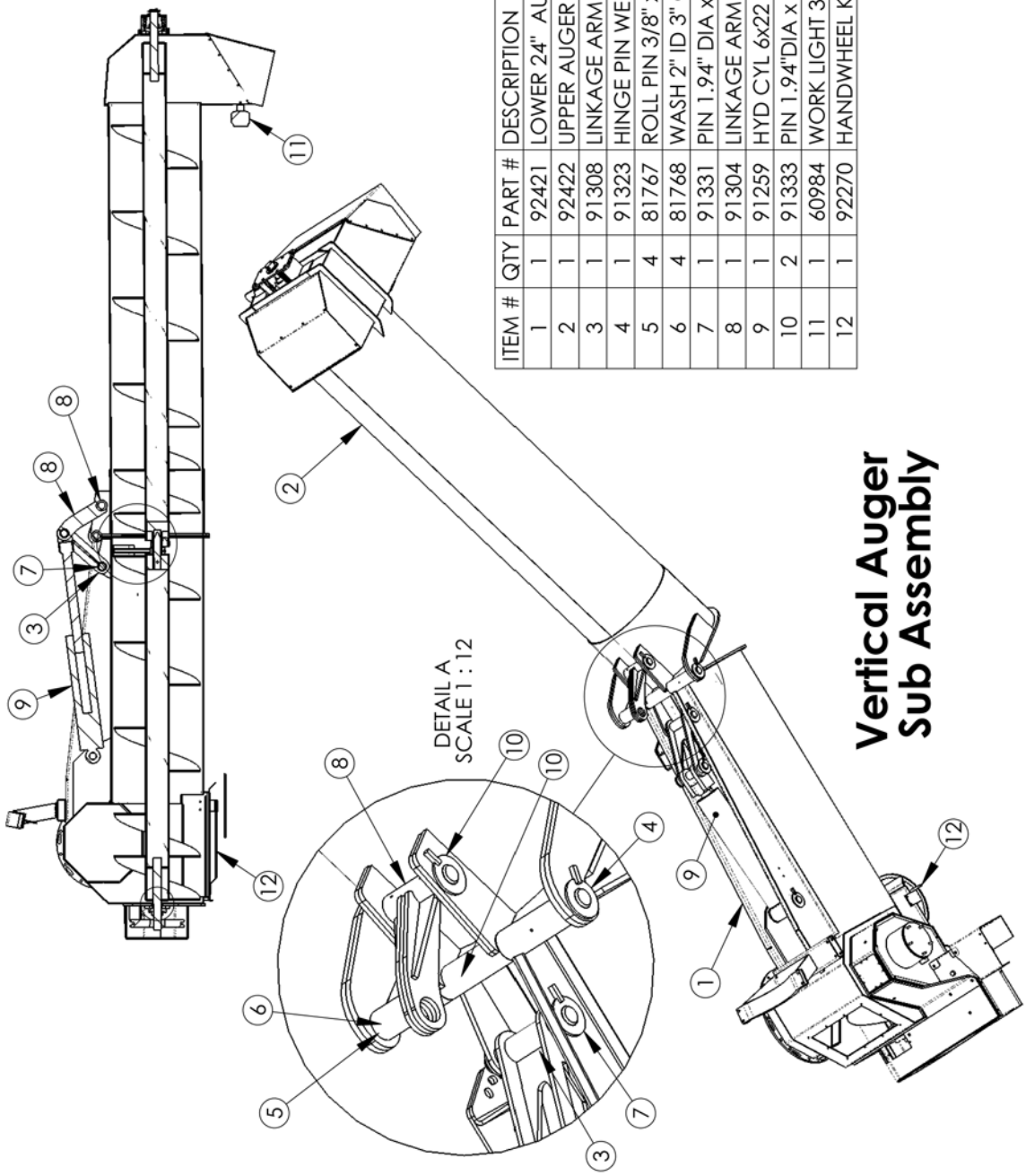
| HUB & SPINDLES | 10-BOLT 5"SLD 13.18" B.C. W/O BRK | 10-BOLT 5" SLD 13.18" B.C. W/2 WHL BRK | 10-BOLT 5" TRK 13.18" B.C. W/O BRK | 10-BOLT 6" SLD 13.18" B.C. W/4 WHL BRK | 10-BOLT 6" SLD 13.18" B.C. W/2 WHL BRK |
|---|---|---|---|---|---|
| TANDEM BUTTERFFLY ARMS | 82471 | 82343 | 82471 | 83181 | 82341 |
| | 82470 | 82342 | 82470 | 83180 | 82340 |
| TRIDEM AXLE FIXED | 90701 | 90701 | 90701 | NOT AVAIL | NOT AVAIL |
| TRIDEM AXLE STEERING | 90702 | 92840 | 90702 | NOT AVAIL | NOT AVAIL |
| | | | | | |
| LUG TIRES 30.5x32 R1 12PLY | 90029 | 90029 | 90029 | | 90029 |
| LUG TIRES 800/65R32 R1 | 82335 | | 82335 | | |
| LUG TIRES 900/60-32 R1 | 91900 | | 91900 | 91900 | |
| | | | | | |
| TURF TIRES 18.4x26 R3 | 28205 | 28205 | 28205 | | 28205 |
| TURF TIRES 28Lx26 R3 | 28386 | 28386 | 28386 | | |
| TURF TIRES 30.5x32 R3 12PLY | 27674 | 27674 | 27674 | | 27674 |
| TURF TIRES 30.5R32 R3 12PLY | 92640 | 92640 | 92640 | | 92640 |
| TURF TIRES 30.5x32 R3 16PLY | 91590 | 91590 | 91590 | | 91590 |
| TURF TIRES 35.5x32 R3 12PLY | | | | 83355 | |
| | | | | | |
| HUB SPINDLE, NO BRAKE | 91854 | 91854 | 92072 | 91855 | 91855 |
| HUB SPINDLE, LH | | 82189 | 92071 | 82192 | 82192 |
| HUB SPINDLE, RH | | 82189 | 92070 | 82192 | 82192 |
| COMPLETE HUB ASSY | 91850 | 91850 | | 91851 | 91851 |
| HUB W/CUPS & STUDS | 50814 | 50814 | 50799 | 50818 | 50818 |
| INNER CUP | 21651 | 21651 | 21651 | 50819 | 50819 |
| OUTER CUP | 21652 | 21652 | 21652 | 50820 | 50820 |
| STUDS OR BOLTS | 50400 | 50400 | 50400 | 50400 | 50400 |
| WHEEL NUT | 91849 | 91849 | 91489 | 91849 | 91849 |
| WHEEL NUT WASHER | | | | | |
| INNER CONE | 21622 | 21622 | 21622 | 50821 | 50821 |
| OUTER CONE | 21621 | 21621 | 21621 | 50822 | 50822 |
| HUB CAP | 17149 | 17149 | 21630 | 50823 | 50823 |
| HUB CAP GASKET | 17147 | 17147 | 21629 | 50824 | 50824 |
| HUB CAP BOLTS | 1181 | 1181 | 1183 | 1181 | 1181 |
| SEAL | 50815 | 50815 | 21620 | 50825 | 50825 |
| GREASE ZERK | 2291 | 2291 | | 2291 | 2291 |
| COMPLETE SPINDLE | 91856 | 91856 | | 91875 | 91875 |
| SPINDLE | 50816 | 50816 | 21641 | 50829 | 50829 |
| CASTLE NUT | 50817 | 50817 | | 50827 | 50827 |
| COTTER PIN/ROLL PIN | 81767 | 81767 | | 1953 | 1953 |
| FLAT WASHER | 11814 | 11814 | | 50828 | 50828 |
| SPINDLE LOCKWASHER | | | 21624 | | |
| SPINDLE STARWASHER | | | 21623 | | |
| INNER SPINDLE NUT | | | 21626 | | |
| OUTER SPINDLE NUT | | | 21625 | | |
| BRAKE DRUM OR BRAKE ROTOR | 91859 | 91859 | | 91858 | 91858 |
| BRAKE CALIPER | 91853 | 91853 | | 91853 | 91853 |
| STUD BOLTS CENTER TO CENTE | 13.2" | 13.2" | 13.2" | 13.2" | 13.2" |
| BRAKE MNTG. PAT. | 10-11BC | 10-11BC | | 10-11BC | 10-11BC |
| WHEEL PILOT WHOLE | 11.25" | 11.25" | 11.25" | 11.25" | 11.25" |




| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 90668 | BEARING MOUNT MID .375x3x12 |
| 2 | 1 | 90587 | COVER, REAR HORT AUGER |
| 3 | 1 | 26872 | FLANGE BEARING 2 3/16" |
| 3 | 1 | 90661 | HANGER BEARING |
| 4 | 1 | 90451 | AUGER 20" HORIZ REAR |
| 5 | 1 | 90886 | FRICTION CLUTCH |
| 6 | 1 | 90586 | COUPLER SHAFT 2"IDx4.5 .5KY |
| 7 | 1 | 90676 | ELBOW 90 DEG 1/8NPT |
| 8 | 1 | 90677 | PIPE, LONG,NIPPLE BOTH ENDS |
| 9 | 1 | 12333 | COUPLER PIPE 1/8" NPT |
| 10 | 1 | 2292 | ZERK .25 - 28 45 DEG |
| 11 | 1 | 81157 | CLEANOUT DOOR LATCH |
| 12 | 1 | 81156 | DOOR BOTTOM TROUGH |
| 13 | 1 | 80898 | BEARING INSERT1 15/16" w/o SNAP RING |
| 14 | 1 | 80896 | BEARING INSERT1 15/16" BORE |
| 15 | 1 | | |

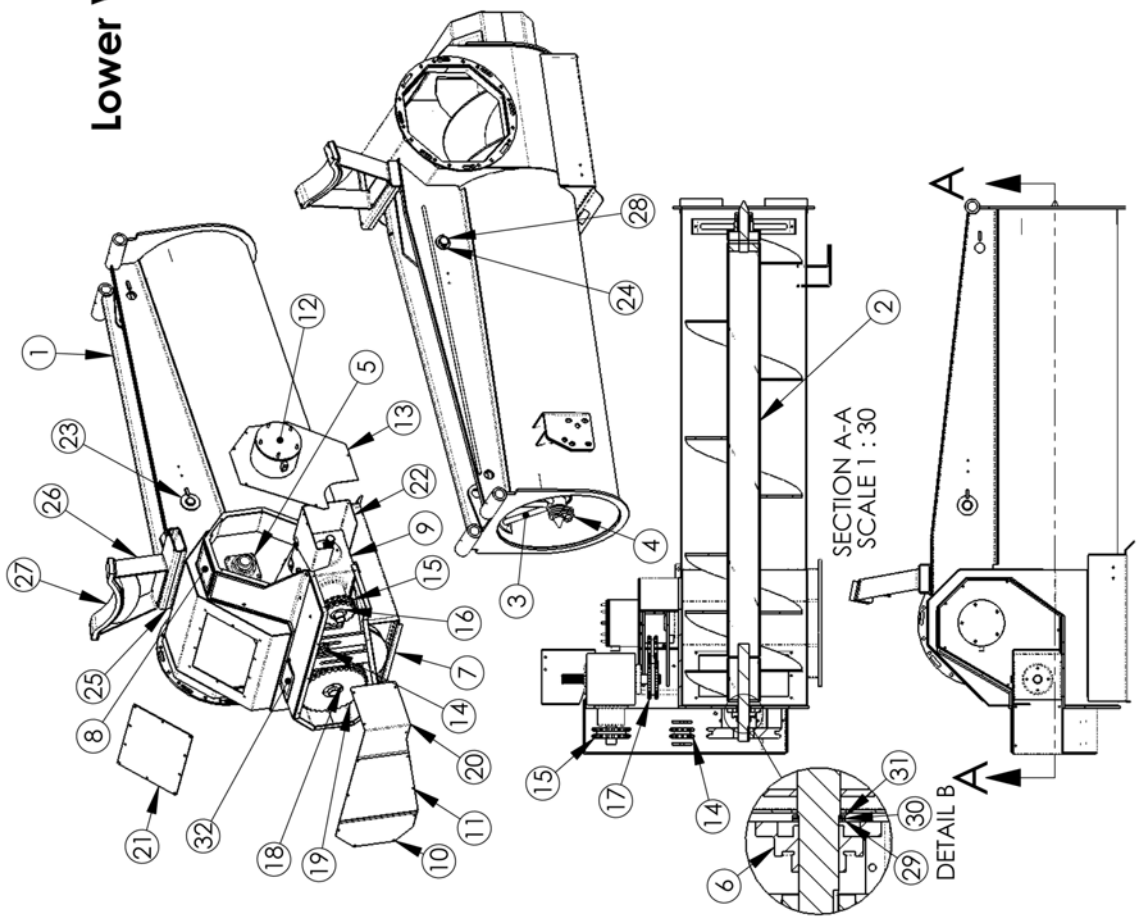
# Section E

| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 92421 | LOWER 24" AUGER ASBY 04-05 |
| 2 | 1 | 92422 | UPPER AUGER 24" ASBY 04-05 |
| 3 | 1 | 91308 | LINKAGE ARM LOWER WELD |
| 4 | 1 | 91323 | HINGE PIN WELDMENT |
| 5 | 4 | 81767 | ROLL PIN 3/8" x 3" LONG |
| 6 | 4 | 81768 | WASH 2" ID 3" OD |
| 7 | 1 | 91331 | PIN 1.94" DIA x 10.13" WELD |
| 8 | 1 | 91304 | LINKAGE ARM UPPER PIVOT |
| 9 | 1 | 91259 | HYD CYL 6x22 SOFT LANDING |
| 10 | 2 | 91333 | PIN 1.94"DIA x 9.13" WELD |
| 11 | 1 | 60984 | WORK LIGHT 3x5 HALOGEN |
| 12 | 1 | 92270 | HANDWHEEL KIT |

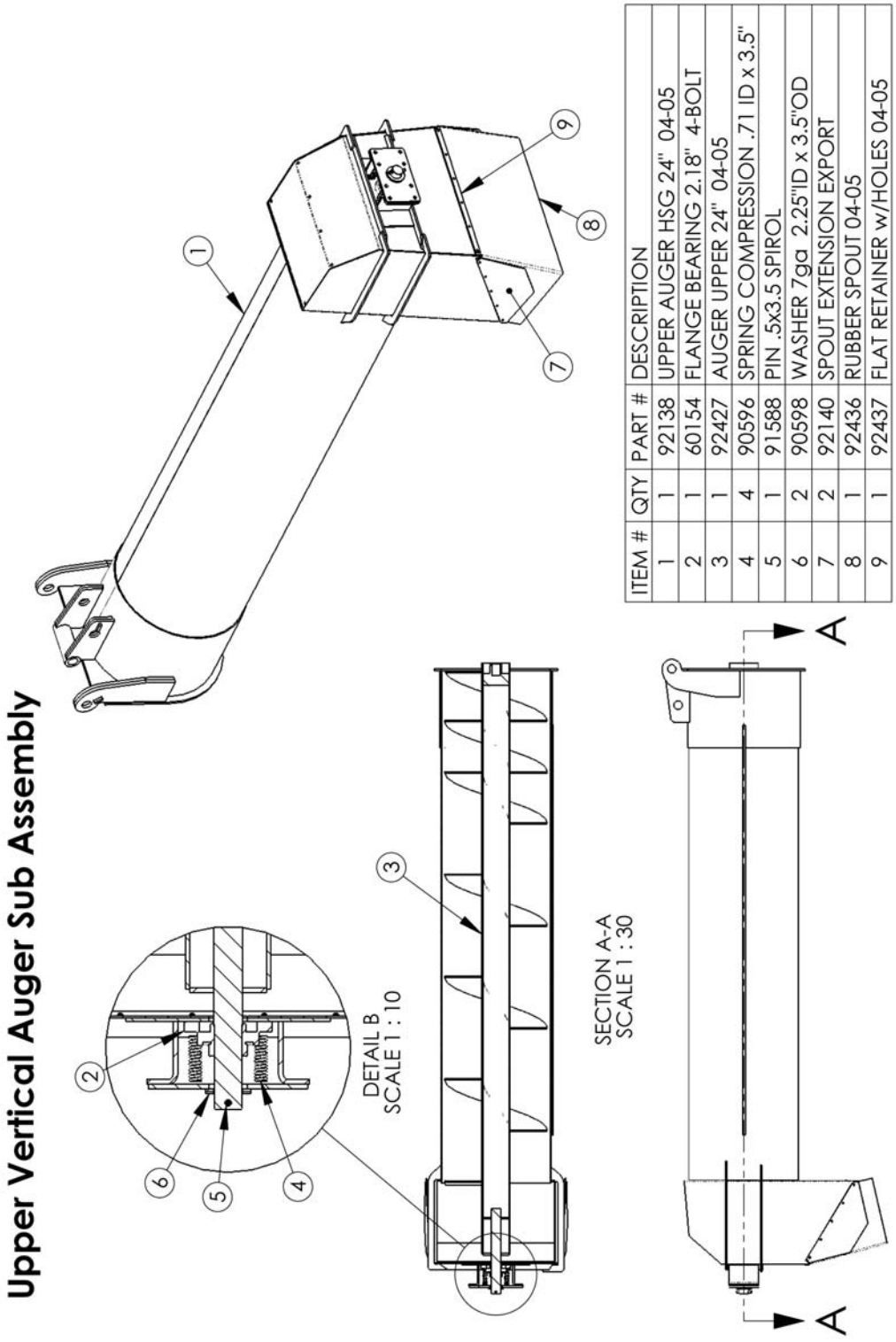


## Lower Vertical Auger Sub Assembly

| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 92137 | AUGER HSG LOWER 24" 04-05 |
| 2 | 1 | 91275 | AUGER 24" LOWER - WELDMENT |
| 3 | 1 | 90575 | Mid Bearing Weld |
| 4 | 1 | 92423 | POWER TRANSFER COUPLER 04-05 |
| 5 | 1 | 26872 | FLANGE BEARING 2 3/16" |
| 6 | 1 | 60154 | FLANGE BEARING 2.18" 4-BOLT |
| 7 | 1 | 80414 | CLEANOUT DOOR |
| 8 | 1 | 41704 | COVER, ACCESS HOLE |
| 9 | 1 | 80500 | GEAR BOX |
| 10 | 1 | 91322 | SHIELD LOWER DRIVE REAR |
| 11 | 1 | 91321 | SHIELD LOWER DRIVE MIDDLE |
| 12 | 1 | 17354 | PLATE, COVER (CLEAN OUT) |
| 13 | 1 | 41729 | FRONT COVER VERT AUGER |
| 14 | 2 | 80508 | SPROCKET, IDLER DOUBLE |
| 15 | 1 | 80504 | SPROCKET, D100ATL18-2517 |
| 16 | 2 | 80511 | BUSHING TAPERLOCK 2517 x 2" |
| 17 | 1 | 80505 | SPROCKET D100A18 |
| 18 | 1 | 80512 | BUSHINGTAPERLOCK 3020 |
| 19 | 1 | 80506 | SPROCKET D100ATL36-3020 |
| 20 | 1 | 91320 | SHIELD LOWER DRIVE FRONT |
| 21 | 1 | 90588 | COVER CLEAN OUT 24" AUGER |
| 22 | 1 | 90738 | SHIELD GEARBOX 24' AUGER |
| 23 | 1 | 91331 | PIN 1.94" DIA x 10.13" WELD |
| 24 | 1 | 81767 | ROLL PIN 3/8" x 3" LONG |
| 25 | 1 | 91376 | SPACER WELD |
| 26 | 1 | 91256 | AUGER STORAGE BRACKET WELD |
| 27 | 1 | 91257 | RUBBER BELTING 1x4x25 |
| 28 | 1 | 81768 | WASH 2" ID 3" OD |
| 29 | 1 | 92413 | SPACER 1/8 X 2 3/16"ID X 2 7/8" OD |
| 30 | 1 | 92414 | SPACER 3/8 X 2 3/16"ID X 2 7/8" OD |
| 31 | 1 | 92415 | SPACER 1/4X 2 3/16"ID X 2 7/8" OD |
| 32 | 1 | 83313 | PLATE COVER 5" X 16" X 12 GA. |

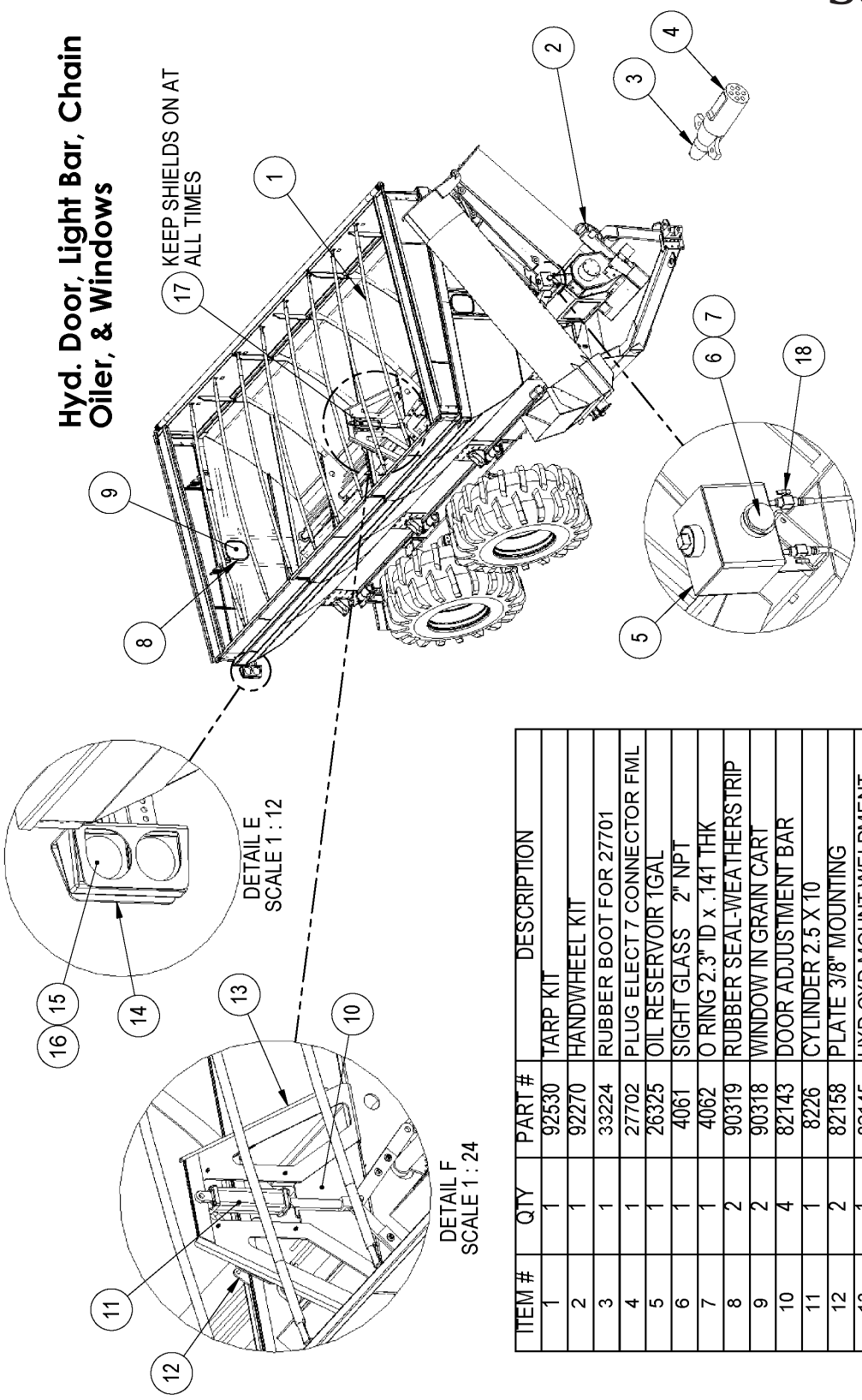


## Upper Vertical Auger Sub Assembly




| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 92138 | UPPER AUGER HSG 24" 04-05 |
| 2 | 1 | 60154 | FLANGE BEARING 2.18" 4-BOLT |
| 3 | 1 | 92427 | AUGER UPPER 24" 04-05 |
| 4 | 4 | 90596 | SPRING COMPRESSION .71 ID x 3.5" |
| 5 | 1 | 91588 | PIN .5x3.5 SPIROL |
| 6 | 2 | 90598 | WASHER 7ga 2.25"ID x 3.5"OD |
| 7 | 2 | 92140 | SPOUT EXTENSION EXPORT |
| 8 | 1 | 92436 | RUBBER SPOUT 04-05 |
| 9 | 1 | 92437 | FLAT RETAINER w/HOLES 04-05 |

# Section E



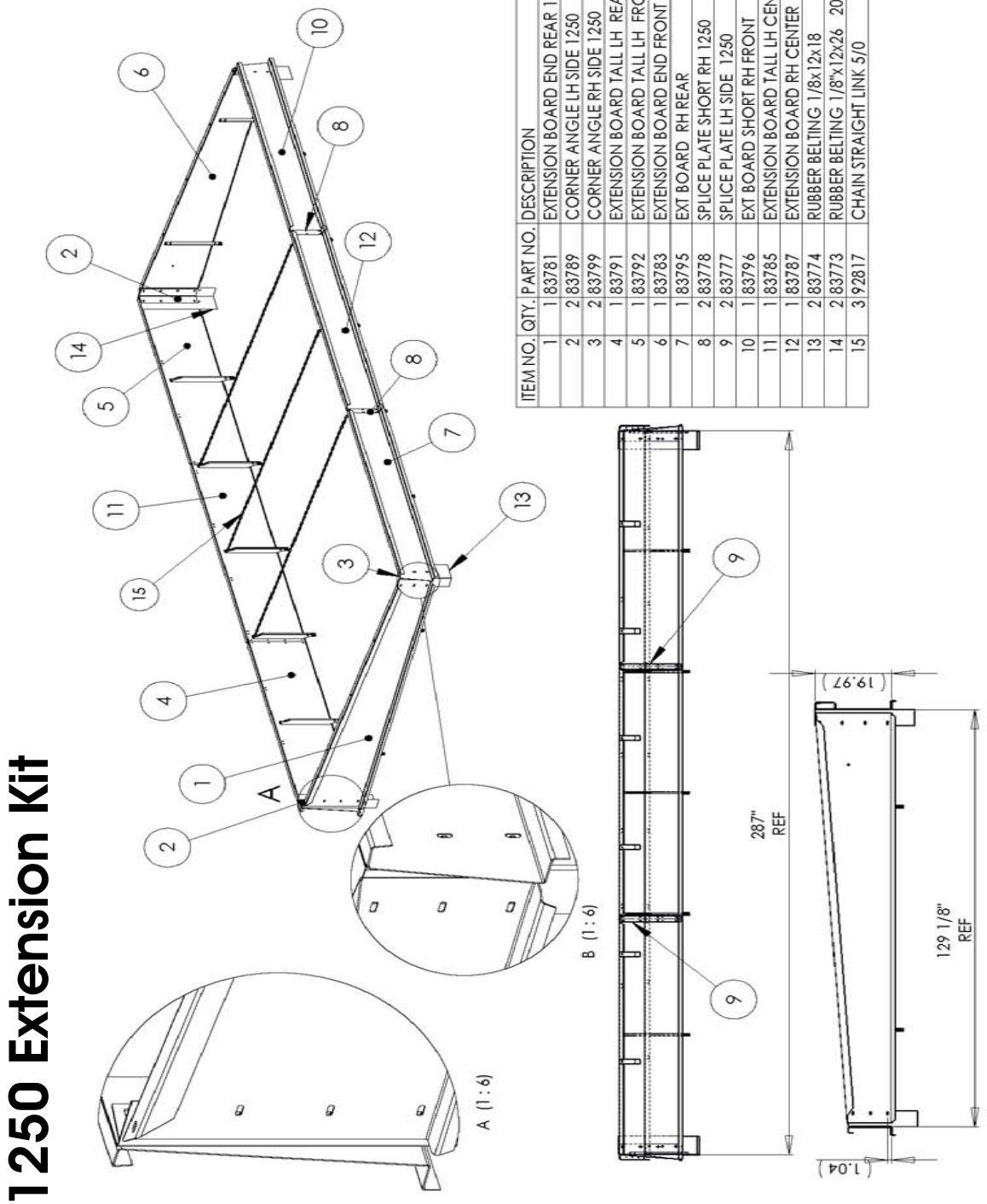

| ITEM # | QTY | PART # | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 92530 | TARP KIT |
| 2 | 1 | 92270 | HANDWHEEL KIT |
| 3 | 1 | 33224 | RUBBER BOOT FOR 27701 |
| 4 | 1 | 27702 | PLUG ELECT 7 CONNECTOR FML |
| 5 | 1 | 26325 | OIL RESERVOIR 1GAL |
| 6 | 1 | 4061 | SIGHT GLASS 2" NPT |
| 7 | 1 | 4062 | O RING 2.3" ID x .141 THK |
| 8 | 2 | 90319 | RUBBER SEAL-WEATHERSTRIP |
| 9 | 2 | 90318 | WINDOW IN GRAIN CART |
| 10 | 4 | 82143 | DOOR ADJUSTMENT BAR |
| 11 | 1 | 8226 | CYLINDER 2.5 X 10 |
| 12 | 2 | 82158 | PLATE 3/8" MOUNTING |
| 13 | 1 | 82145 | HYD CYD MOUNT WELDMENT |
| 14 | 2 | 91352 | LIGHT BRACKET WELD |
| 15 | 1 | 40762 | RT LIGHT |
| 16 | 1 | 40763 | LT LIGHT |
| 17 | 2 | 82153 | SHIELD WELDMENT HYD DOORS |
| 18 | 2 | 90247 | VALVE 1/8" FPT x 1/8" FPT |

BALZER INC.

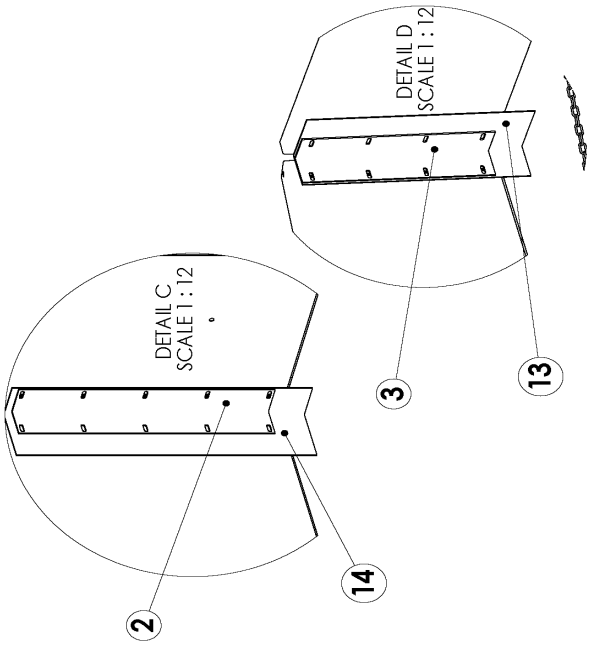
# Section E

## 1250 Extension Kit

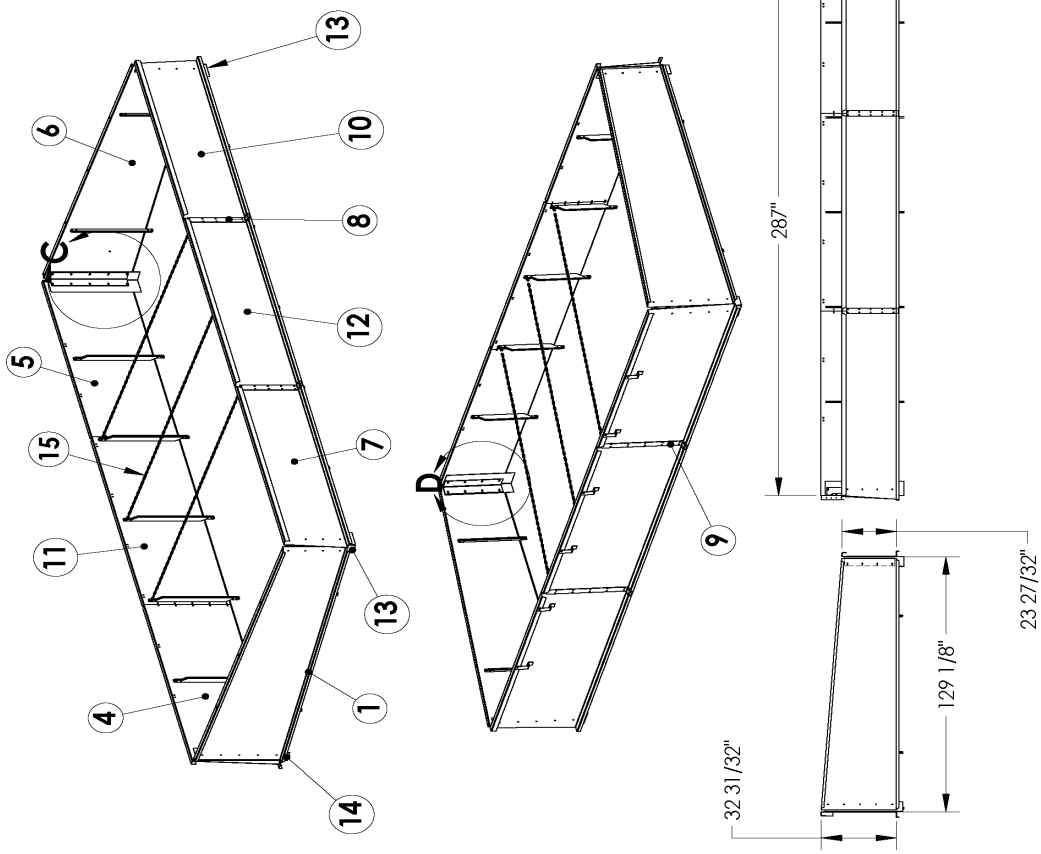
| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 83781 | EXTENSION BOARD END REAR 1250 |
| 2 | 2 | 83789 | CORNER ANGLE LH SIDE 1250 |
| 3 | 2 | 83799 | CORNER ANGLE RH SIDE 1250 |
| 4 | 1 | 83791 | EXTENSION BOARD TALL LH REAR |
| 5 | 1 | 83792 | EXTENSION BOARD TALL LH FRONT |
| 6 | 1 | 83783 | EXTENSION BOARD END FRONT |
| 7 | 1 | 83795 | EXT BOARD RH REAR |
| 8 | 2 | 83778 | SPLICE PLATE SHORT RH 1250 |
| 9 | 2 | 83777 | SPLICE PLATE LH SIDE 1250 |
| 10 | 1 | 83796 | EXT BOARD SHORT RH FRONT |
| 11 | 1 | 83785 | EXTENSION BOARD TALL LH CENTER |
| 12 | 1 | 83787 | EXTENSION BOARD RH CENTER |
| 13 | 2 | 83774 | RUBBER BELTING 1/8x12x18 |
| 14 | 2 | 83773 | RUBBER BELTING 1/8"x12x26 2005 |
| 15 | 3 | 92817 | CHAIN STRAIGHT LINK 5/0 |

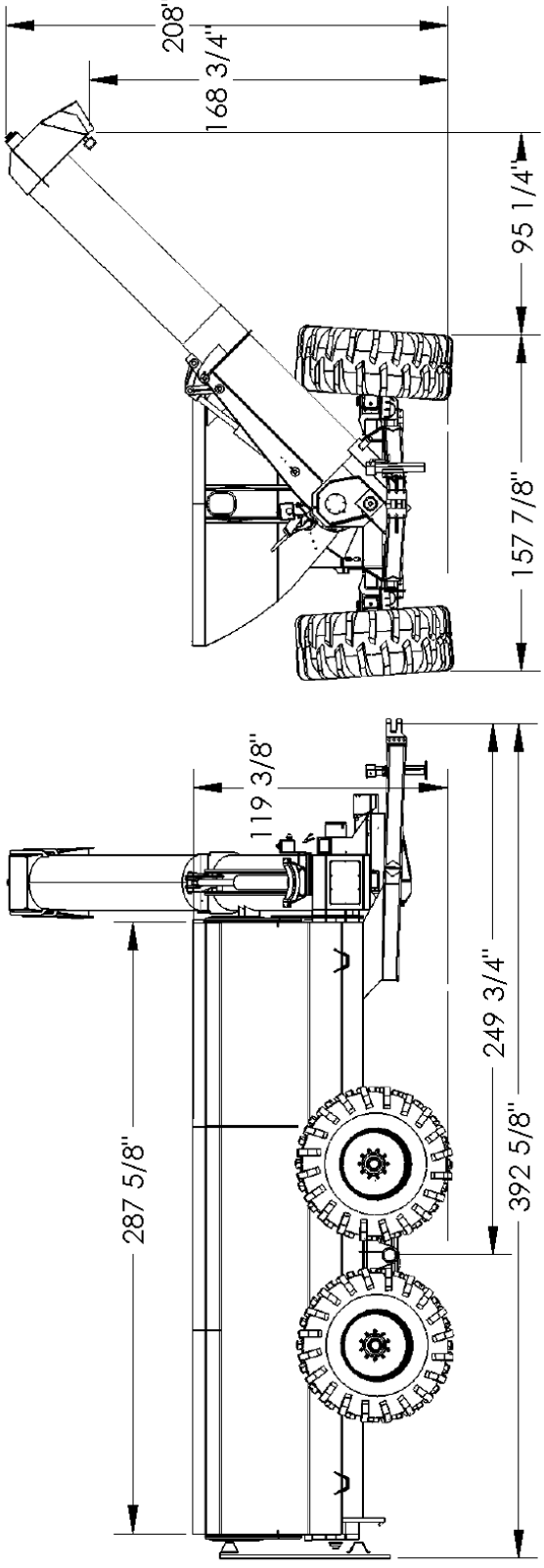


# 1500 Extension Kit

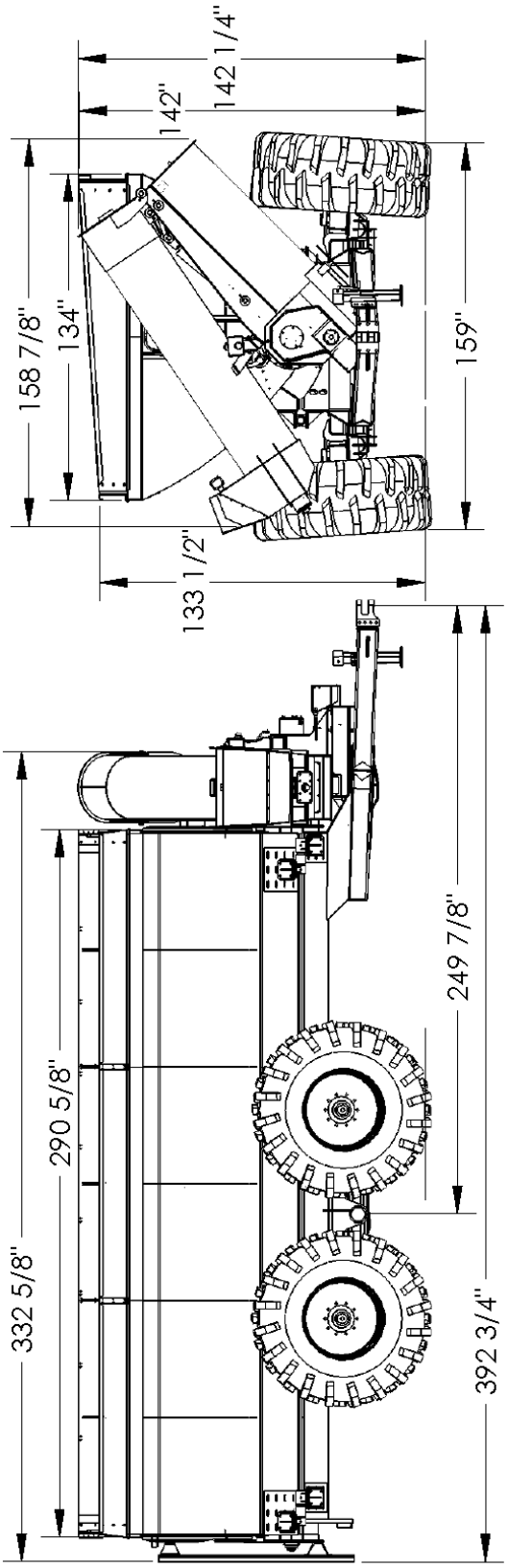



| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 1 | 92791 | EXTENSION BOARD END REAR |
| 2 | 2 | 92811 | CORNER ANGLE LH TALL 1500 |
| 3 | 2 | 92812 | CORNER ANGLE RH SHORT 1500 |
| 4 | 1 | 92797 | EXTENSION BOARD TALL LH REAR |
| 5 | 1 | 92799 | EXTENSION BOARD TALL LH FRONT |
| 6 | 1 | 92795 | EXTENSION BOARD END FRONT |
| 7 | 1 | 92804 | EXT BOARD RH REAR 1500 |
| 8 | 2 | 92813 | SPLICE PLATE SHORT RH 1500 |
| 9 | 2 | 92814 | SPLICE PLATE LH SIDE 1500 |
| 10 | 1 | 92807 | EXT BOARD SHORT RH FRONT |
| 11 | 1 | 92802 | EXTENSION BOARD TALL LH CENTER |
| 12 | 1 | 92809 | EXTENSION BOARD RH CENTER |
| 13 | 2 | 83773 | RUBBER BELTING 1/8"x12x26 2005 |
| 14 | 2 | 92816 | RUBBER BELTING 1/8"x12x34 |
| 15 | 3 | 92817 | CHAIN STRAIGHT LINK 5/0 |

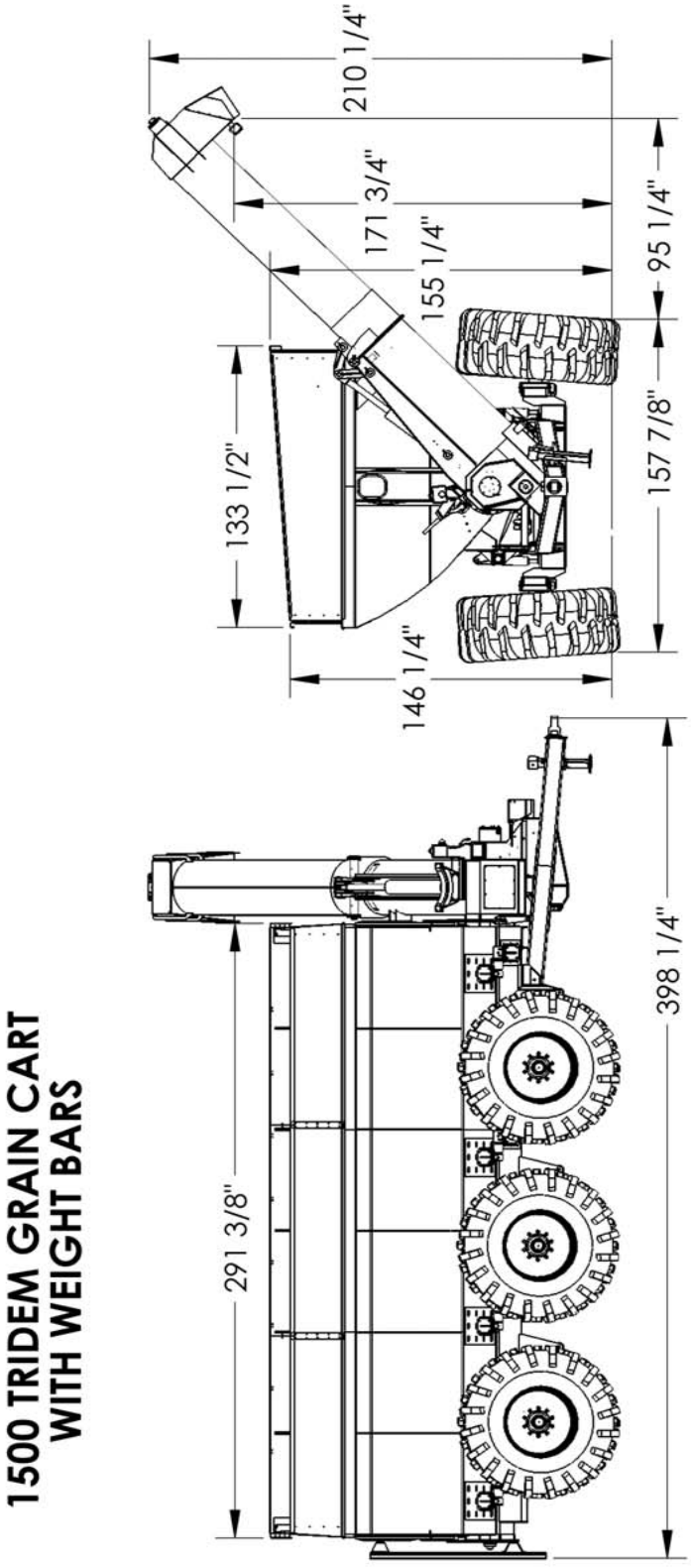





1000 TANDEM GRAIN CART




1250 TANDEM GRAIN CART
WITH WEIGHT BARS




1500 TRIDEM GRAIN CART
WITH WEIGHT BARS

**IT IS THE POLICY OF BALZER COMPANY TO CONSTANTLY IMPROVE ITS PRODUCTS WHENEVER IT IS PRACTICAL TO DO SO. THEREFORE, BALZER COMPANY RESERVES THE RIGHT TO REDESIGN OR CHANGE ITS EQUIPMENT OR COMPONENT PARTS THEREOF WITHOUT INCURRING THE OBLIGATION TO INSTALL OR FURNISH SUCH CHANGES ON EQUIPMENT PREVIOUSLY DELIVERED.**

## INSTRUCTIONS FOR ORDERING PARTS

To enable our customer service department to provide you with the correct replacement parts promptly and accurately, follow the ordering instructions as listed below.

Identify your equipment by serial number whenever possible.

Use part numbers and descriptions from the illustration drawings furnished to assist in identifying the needed parts.

Owners, order all parts through your local dealer.

Dealers must indicate company name, shipping point and mailing address for notification if different from shipping point. State whether freight, express, parcel or other handling is desired.

Send all parts to:

**BALZER INC.**

**County Road 27 Box 458**

**Mountain Lake, MN 56159**

## INSTRUCTIONS FOR RETURNING PARTS FOR ADJUSTMENT

Dealers should inspect all parts when received. Shortages or damage should be noted by the carrier agent at the time the parts are accepted. Shippers responsibility ceases upon delivery of shipment to customer in good order. Claims for damage, loss, or malfunction are to be reported within thirty (30) days for warranty considerations.

All returned parts must have return authorization, a copy of the original packing list and transportation prepaid.

For replacement parts contact:

| | |
|---|---|
| Ken Classen | Extension 104 |
| Doug Wellman | Extension 108 |

For service contact Dave Bennet at Extension 134 or at his mobile number: (612) 839-9968

**Phone Number:** (800) 795-8551
(800) 727-3133
**Main:** (507) 427-3133
**Fax Number:** (507) 427-3640
**Website:** http://www.balzerinc.com

# Service Record

# Service Record