

OWNER'S MANUAL



 **BIGHAM**

**G C X S E R I E S
G R A I N C A R T**

- Gearbox filled with oil
- All fittings lubricated
- All shields in place and in good condition
- All fasteners torqued to specifications on chart
- Tires inflated to proper pressure according to chart
- Remove clevis attachment from hitch before field operation
- Check jack stand for proper stability
- All decals in place and readable
- Operator's manual has been delivered to owner and the owner has been instructed on safe and proper use of the cart

Dealer's Signature _____

Customer's Signature _____

This Checklist is to remain in the Owner's Manual

It is the responsibility of the dealer to complete the procedures listed above before the delivery of this cart to the new owner.

To the Owner

THIS OPERATOR'S MANUAL IS TO BE KEPT WITH THIS CART REGARDLESS OF OWNERSHIP.

The BIGHAM grain cart represents the latest in farm equipment technology. It has been continually redeveloped and improved over the last sixty years to better serve grain farmers all over the country.

The BIGHAM grain cart is designed to be used with all types of grains without any modification required on the cart. Grains most commonly used in the cart are wheat, corn, rice, and soybeans.

The BIGHAM grain cart is designed to be towed by a tractor. The size of the tractor required depends on the capacity of the cart and the field conditions. The tractor must be equipped with a PTO for the PTO model cart. The tractor also must have an adequate hydraulic system. Two remote hydraulic connections are required for the PTO models and four remotes for the hydraulic drive models at (2500 psi & 22 gpm).

Please take the time to read this manual, especially the section on safety. If after reading the manual you have any questions that your dealer can't answer, please feel free to call or write:

Bigham Ag
1220 East Durkee Street
Carlisle, AR 72024
Phone: (870) 552-7517
Fax: (870) 552-3303
E-Mail: Sales@bighamag.com
Visit our web site at www.bighamag.com

Initial Use

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT

All BIGHAM carts are shipped field ready; however, before initial use the following items should be checked:

1. All wheel lug nuts should be torqued to 275-280 ft-lbs of torque prior to initial use and should be checked periodically.
2. Tires should be inflated properly, see table on page 30.
4. Close dump door on bottom auger tube (Leave this door open when not in use to allow for water drainage).
7. Make sure sufficient counter-weights are used on tractor front-end.
8. Move tractor draw bar to shortest position.
9. Hitch cart to your tractor. The hitch used on the GCX Series Carts requires a clevis type drawbar. If your tractor is not equipped with such, please contact your dealer. **DO NOT USE** clevis attachment for field use or when cart is loaded. It is for transporting empty cart only.
10. Connect hydraulic hoses and PTO shaft if equipped. Make sure the PTO shaft can telescope both inward and outward at least 3" when in shortest position.
11. Test grain door inside cart to ensure smooth operation and proper functioning of indicator. Look into cart and make sure that the grain door hoses have not been damaged in shipment and that they are not leaking.

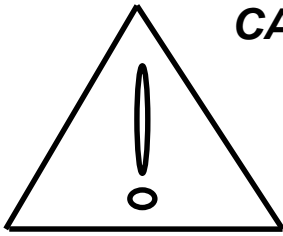


CAUTION!

- i. BEFORE TESTING THE AUGER MAKE SURE NO ONE IS NEAR THE AUGER ASSEMBLY.

12. Fold the top auger to full upright position and engage the auger drive, slowly turning the auger. If auger turns freely, then slowly increase the RPM to proper operating speed. (**DO NOT** Exceed 750 RPM on PTO). Slowly decrease the RPM, disengage the auger drive, stopping rotation of the auger. Then slowly return the auger to the transport position. If the auger seems to fold too fast, the flow control valves must be adjusted to match your tractor's hydraulic system (see details in auger section).

Operator's Responsibility



CAUTION

Operator's Responsibility:

Most accidents are caused because of neglect or carelessness. Avoid needless accidents by following all of the safety precautions listed below.

The user is responsible for inspecting the cart before each use and for having necessary repairs done to prevent further damage to the cart or possible safety hazards.

It is the responsibility of the user to read the owner's manual and understand the safe and correct operating procedures for his grain cart.

- The operator of this cart must read and understand the material contained in this manual.
- The cart should be operated by those responsible and authorized by the owner to do so.
- Only a qualified operator should be permitted on the tractor when cart is in operation. No riders should be allowed on the cart.
- Make certain everyone is clear before folding or unfolding the auger.
- Never allow anyone inside the hopper for any reason while tractor is running or when hopper contains grain.
- The tongue jack is designed to support an unloaded cart. DO NOT use jack to support a loaded cart. When jacking up a cart, use caution to make sure all wheels are blocked. Inspection of the jack and related parts should be done frequently to detect any possible damages that could cause the jack or related parts to fail. The main cause of jack failure is the operator moving the cart with the jack still down. If this happens the jack may be unsafe to use. Replace or repair as needed. It is the owner/operators responsibility to ensure the jack and related parts are in a safe working order. Use caution when jacking the grain cart; make sure everything and everyone is out of the way.
- The safety chain should remain on the grain cart and be attached to tractor or truck during transport. The grain cart should never be pulled by the safety chain alone.
- Do not transport cart on a public road unless the auger is in the transport position (folded back into the saddle). Also, ensure that the slow moving vehicle emblem is in place during daylight and with approved warning lights at night and other periods of poor visibility.
- Do not transport cart on a public road if fully loaded.
- Carefully maintain control of the grain cart when traveling on roads. Avoid speeds over 8 MPH when loaded.
- Stop the tractor engine before doing any maintenance or repairs to the cart.
- Use caution when working with the hydraulic system. Hydraulic fluid can be under extreme pressure and can cause infection or other serious personal injury.
- Make sure all guards are kept in place.
- Avoid using near electrical lines with the auger extended. Serious injury or death can result from contact with electrical lines. USE EXTREME CARE!
- Make sure your tractor front end is adequately counter-weighted.
- Use caution when crossing ditches, levees, etc., or when using on uneven terrain.
- Never allow anyone to play inside or around the grain cart. GRAIN CAN SUFFOCATE!

Operating Instructions

- NEVER allow anyone to ride or play on the grain cart.
- NEVER enter the grain cart with the PTO or hydraulic motor running or when it contains grain.
- Make sure all guards are in place.
- Grease auger hinge pin and U-Joints DAILY.
- The grain flow control door (inside slide door) and the clean out door should **both be closed** when loading the cart or transporting the cart when filled with grain.
- Extend the auger. Use care when folding and unfolding the auger. Make sure no one is close to the auger. DO NOT extend auger when close to any electrical lines. DO NOT try to extend or fold the auger while it is running.
- If equipped with a PTO drive, slowly engage the PTO at a low RPM, and then slowly increase to desired tractor RPM. Do not run the cart empty. Recommended PTO speed is between 540 and 750 RPM. Do not exceed 750 RPM on PTO.
- If equipped with a hydraulic drive, set tractor RPM to 1700 RPM. Snap open hydraulic valve in tractor. DO NOT slowly open valve. After auger is turning, increase tractor to approximately 2200 RPM.
- Slowly open grain flow door after auger is up to speed. Door fully open allows maximum flow. Use “Clean Out” setting to best empty all the grain from the cart.
- Use the door to slow grain flow if necessary. DO NOT run auger at slow speed. DO NOT start auger with the grain flow door open.
- Unload the cart.
- DO NOT disengage the auger while unloading without **first closing the grain flow door**.
- It is advisable to return the tractor to idle before disengaging the auger.
- If you must return to the field or otherwise halt the unloading with a partial load of grain, then **close the grain flow door** and let the auger finish emptying the grain left in the auger tubing. DO NOT return with a partial load and the grain flow door open.
- It is recommended to transport the grain cart in the field with auger in the folded position, then extend when unloading the cart.
- DO NOT transport cart with auger in the extended position.
- **WARNING!** Flow Control Valves for raising and lowering top auger are pre-set at the factory. Incorrect setting could result in damage to the grain cart. Consult your authorized BIGHAM dealer before adjusting.

Electrical

Your cart is equipped with a factory installed lighting kit, which includes two tail lights and two work lights for the auger discharge.

A single switch is provided to control the two work lights.

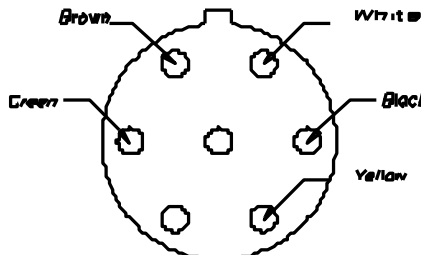
The connector provided should fit all modern tractors. It is an SAE JS60A seven-point socket. The schematic below shows the color-coded wiring diagram for this connector.

The adjustable downspout comes with a remote control for in-tractor use.

A separate wiring system is provided for the downspout and requires a female 12V DC plug-in. The male plug-in contains a 20 amp fuse and can be replaced when necessary.

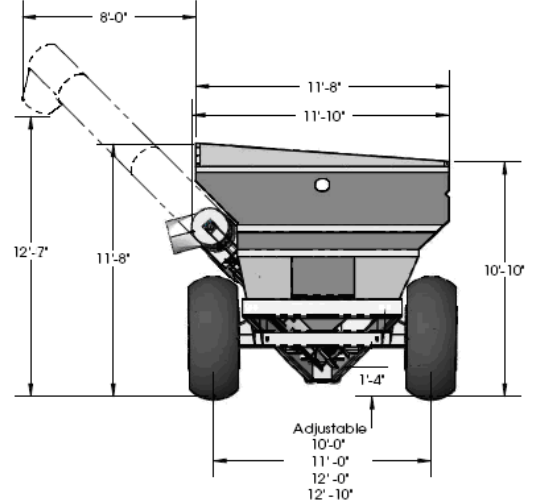
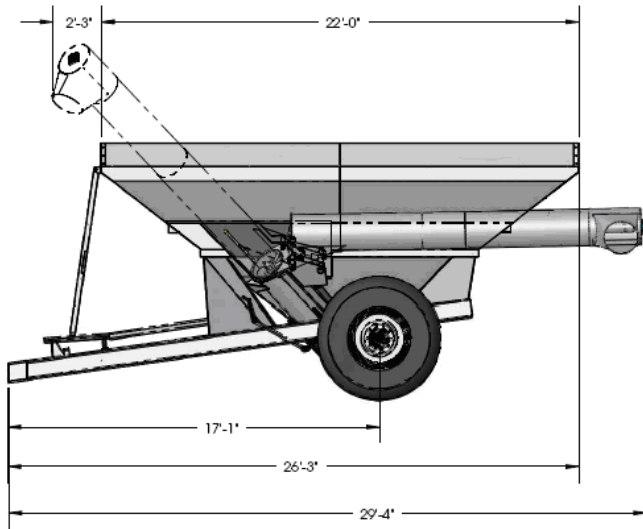
Wiring Harness

White ---- Ground
Brown --- Amber Flashing
Yellow --- Left Taillight
Green --- Right Taillight
Black ---- Work Lights



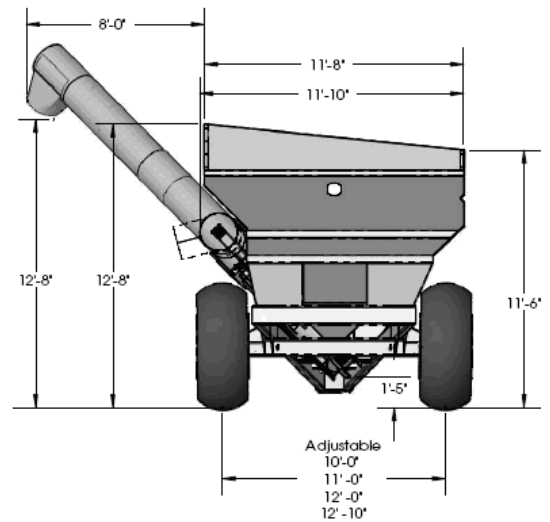
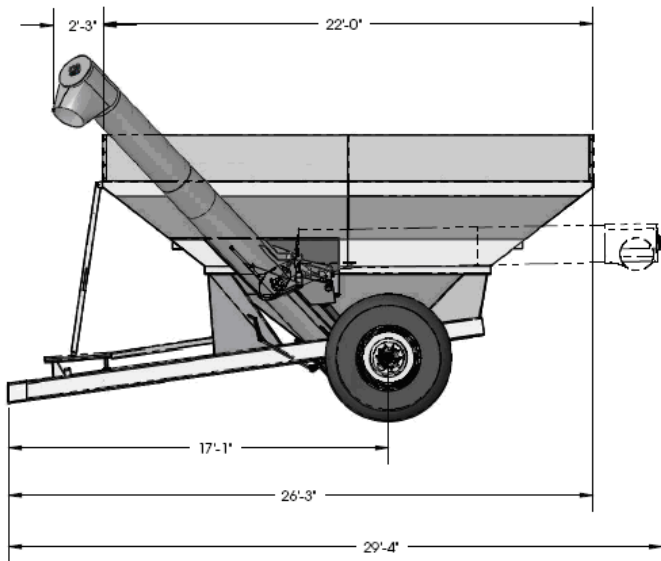
GCX850 Dimensions

Model #	Approx. Capacity	Spindle Size	Empty Weight	Est. Loaded Tongue Weight
GCX700	700 Bu.	4.5	11,450	5,725#
GCX850	850 Bu.	4.5	11,800	5,900#



GCX1050 Dimensions

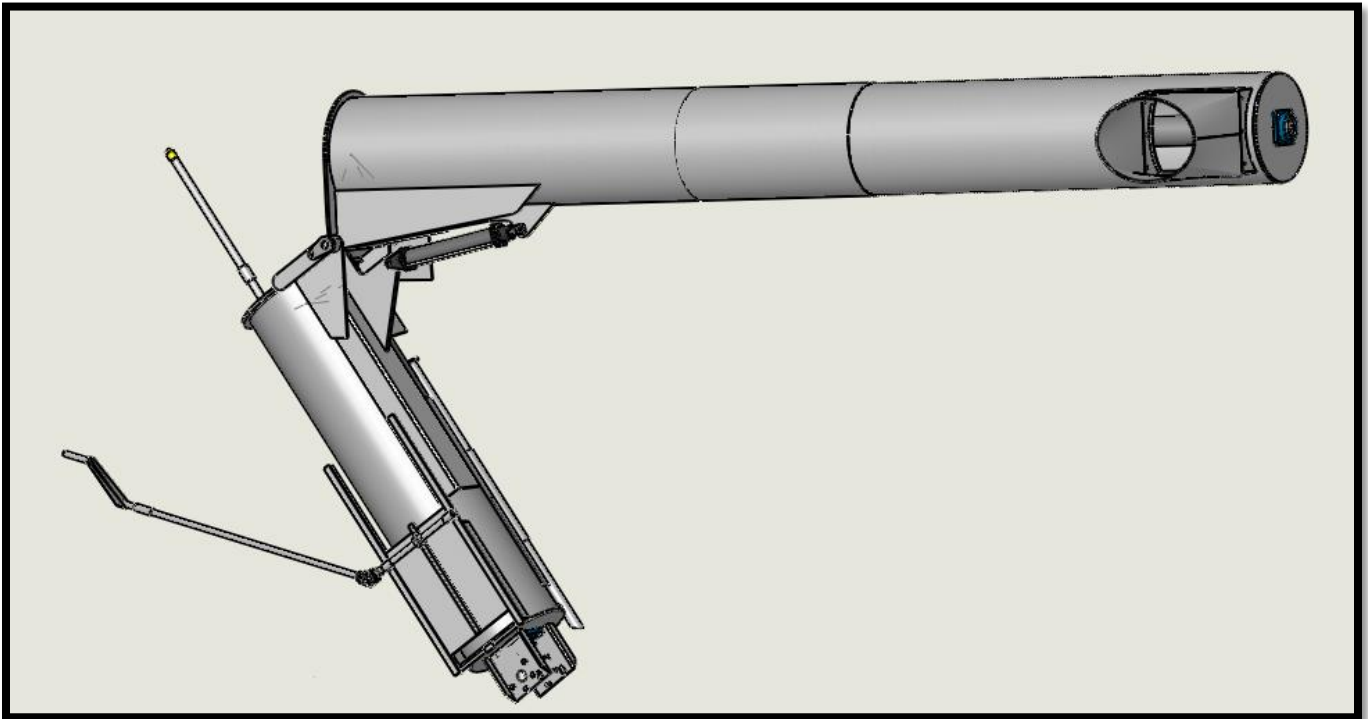
Model #	Approx. Capacity	Spindle Size	Empty Weight	Loaded Tongue Weight
GCX1050	1,050 Bu.	4.5	12,300	6,700#



Auger System

General

The GCX series grain cart auger systems consist of a 19" diameter Super Edge™ R.H. auger flighting mounted on 5" std. pipe. The auger housing is a 20" diameter tube. All carts employ a hydraulic folding auger. Therefore, each cart has a bottom auger and a top auger. The auger is driven by either a PTO or hydraulic motor and can easily be interchanged. It is important to remember to engage the auger slowly and be careful to allow adequate distance between auger and trailer while the auger is extended.



Flighting Wear

(302590 Flighting) Auger flighting wears with use and will need replacing. The auger flighting when new is 5-3/4" wide (20" system). When the flighting has worn 1/2", it needs repairing. The augers will wear more at the feed end (bottom end). The augers are computer balanced at the factory and MUST be balanced by a qualified technician when reflighted. Failure to do so can cause bearing damage and unsatisfactory operation.

Auger Removal

To remove either auger, the top auger must be in the transport position (resting in the transport saddle). The bottom auger is removed by first unbolting the hanger bearing then sliding the auger upward and out of the housing tube. The bottom auger is NOT attached in any way and should easily lift out of the cart. To remove top auger, the indicator rod must be removed, then remove the bolt in the center of the top shaft. Remove the retaining washer on the top of the auger. The top auger should then slide forward to the front of the cart and out of the housing tube.

Auger Installation

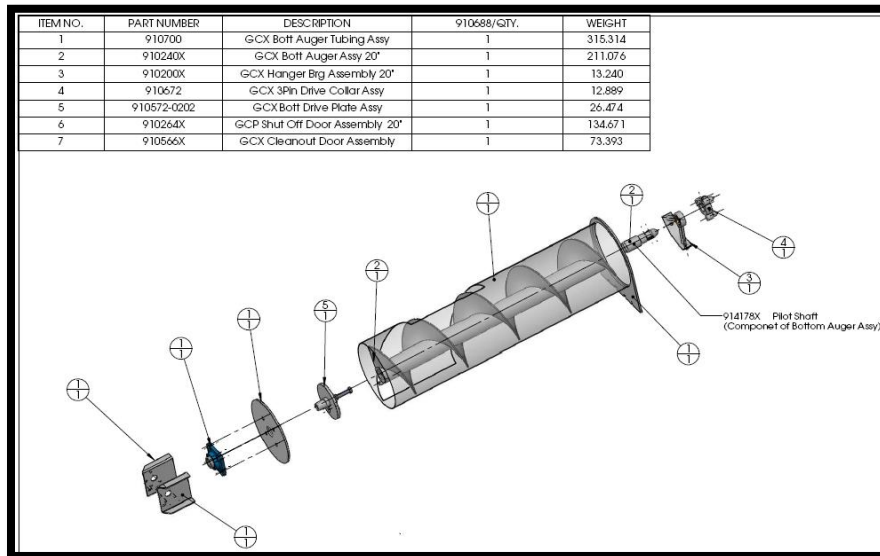
The top auger must be in the transport position resting in the transport saddle in order to be installed.

Bottom Auger

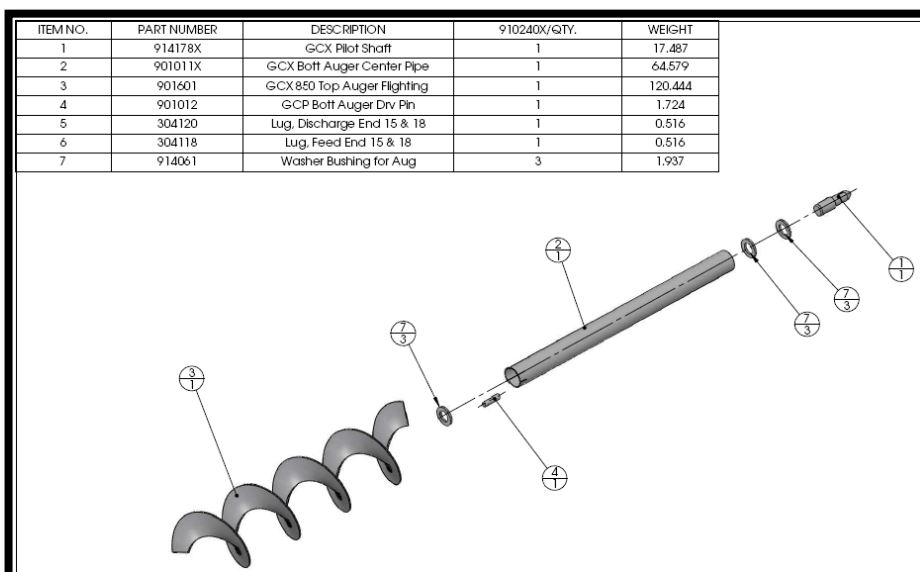
(910240X Assy.) The bottom auger is replaced by sliding the auger downward through the housing tube. The auger may need to be turned to align the bottom drive pin with the matching holes in the bottom drive plate. Make sure the bottom drive pin is completely engaged in the bottom drive plate. Replace the hanger bearing. Make sure it is reinstalled as it was originally and that it does not bind on the auger pilot shaft. There should be approximately 1/4" clearance between the bearing and the drive collar

NOTE: It is **NOT** necessary to remove the bottom drive plate to remove the bottom auger.

910688CC (Below)



910240X (Below)



Bottom Drive Plate

(Patented) (910572-0202 Assy.) See previous page.

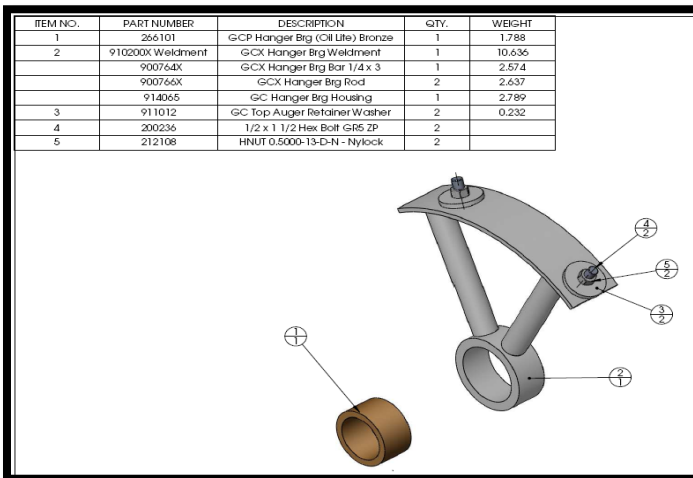
The bottom drive plate installs on the gearbox output shaft by means of a special splined bushing that is welded to the plate. It rests on the bottom bearing so the weight of the auger does not rest on the gearbox itself. There should be approx. 1/4" space between the bottom drive plate and the boot plate on the bottom of the auger housing.

The drive plate must be removed to change seals on the gearbox or do other repairs to the gearbox. To remove the bottom drive plate first raise the bottom auger off the drive plate. There is a stainless steel bolt located on top of the drive plate bushing. After releasing the installed jam nut screwing this bolt in will push the bottom drive plate off the gearbox shaft. When reinstalling, screw the bolt out within 1" of the end. Tighten the jam nut. Make sure the bolt is secure with the jam nut before replacing the bottom auger. DO NOT screw bolt in so far that it pushes on the gearbox output shaft.

Hanger Bearing

(266101 Insert, 910200X Assy.)

The hanger bearing in your cart is a 2-1/4" bronze bearing. The bronze bearing is self-lubricating and also has a grease fitting installed to add additional grease if necessary. Grease daily when in use.

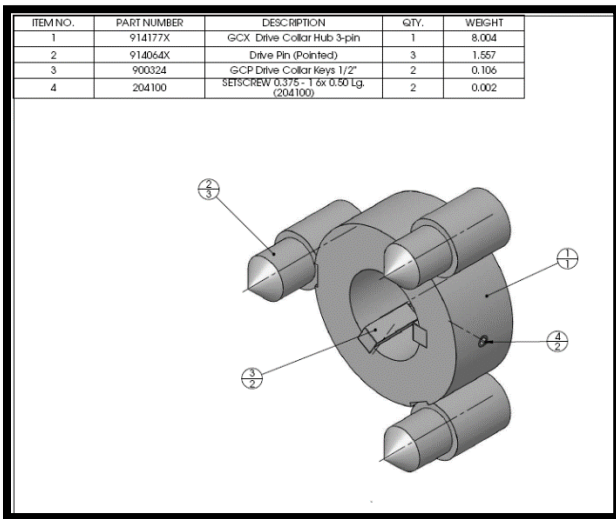


Drive Collar

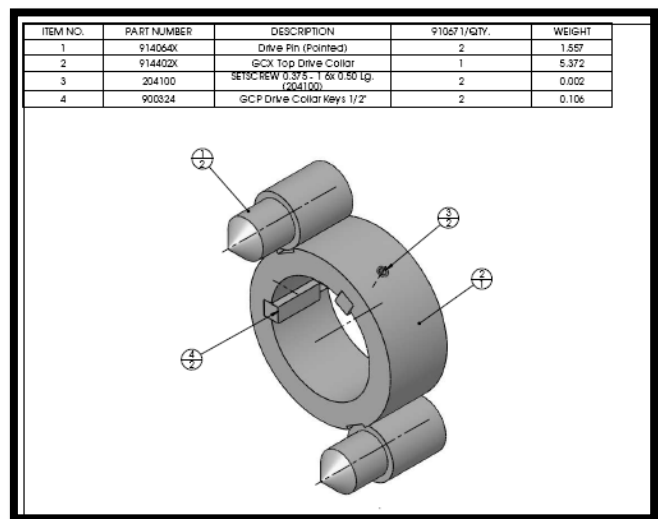
(Patent Pending) (910671 Top Drive Collar Assy, 910672 Bottom Drive Collar Assy, 914064X Pin Only)
 The top and bottom drive collars are made specifically to work together. The drive pins may become worn or damaged in time and may need to be replaced. The drive pins can be purchased separately and replaced by welding it in place. Care should be taken to align it as it was originally. The pins should be welded with low hydrogen welding rods.

If the augers seem to bind when locking together in the upright position, then check the inside of top drive bushing. Sometimes it may become burred, as may the pilot shaft. Smoothing the burred surfaces should correct the problem. The three pin drive collar is attached to the pilot shaft using two keys and set bolts. Set bolts should be securely tightened to 20 ft-lb using non-hardening Loctite.

DO NOT fold or unfold the augers while they are turning. This will cause damage to the drive collar.



910672 Bottom Drive Collar

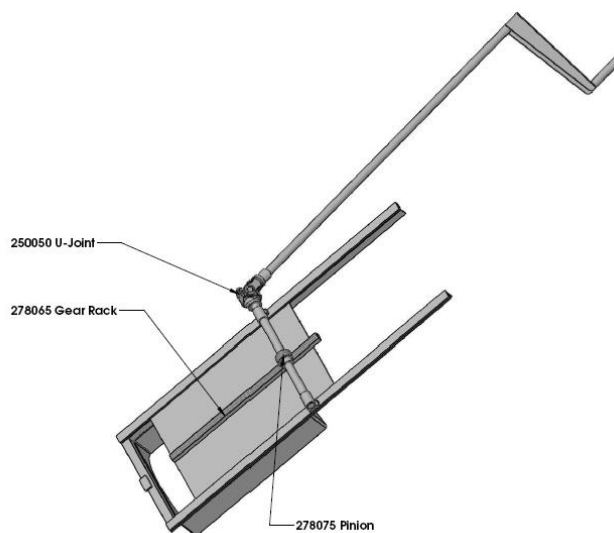


910671 Top Drive Collar

Clean Out Door

For grain pit dumping--
 Also allows easy access to auger drive plate and bottom of auger. The crank in front of the cart allows opening and closing of door.

Always have door closed while using in the field.



KEEP HANDS OUT WHEN TRACTOR IS RUNNING.

Top Auger

(Patented) (910242X Assy.)

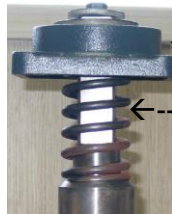
The top auger is replaced by sliding the auger downward through the housing tube. Before doing so make sure you replace the single auger spring (Patented) by sliding it over the top shaft. The top shaft of the auger will slide through the top bearing. Replace the top retainer washer and top retainer bolt. No adjusting is required. Test the augers by very carefully unfolding them into the operating (upright) position.

Top Bearing

(266214)

The top bearing is a 1-1/2" square four bolt sealed flange bearing. Be careful not to over-grease the bearing and ruin the seals.

Top Spring Assembly



←----- 266214 Top Bearing

←----- 460122 Spring



Auger Fold Assembly



Grease daily.

GCX Adjustable Downspout Assembly

The GCX adjustable downspout assembly (910720) consists of a metal downspout that has an extendable and retractable motion.

The motion is provided by the electronic actuator that connects the auger tube to the metal side piece of the downspout. There is a 6" travel range which allows the grain cart user to project grain to both sides of the truck hopper for equal distribution. The actuator should be in the retracted position when not in use.

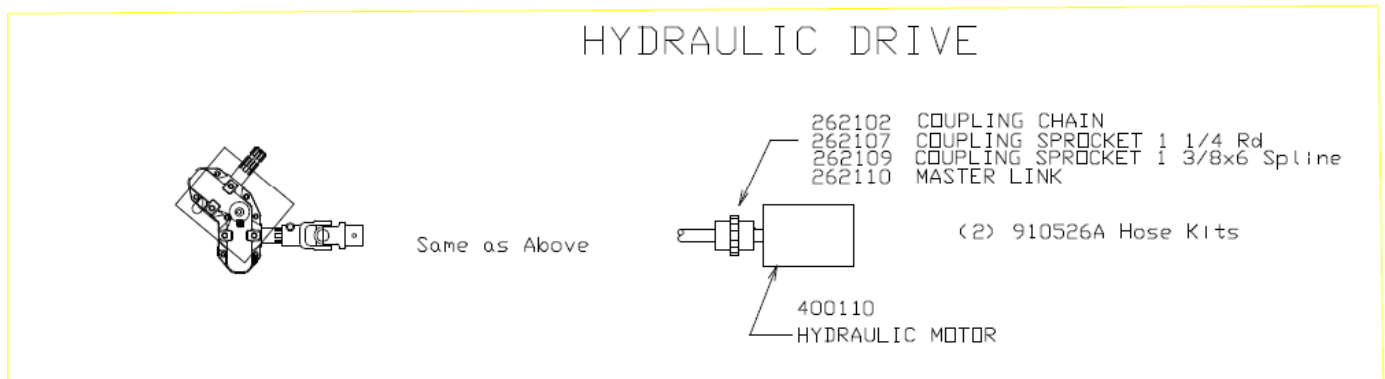
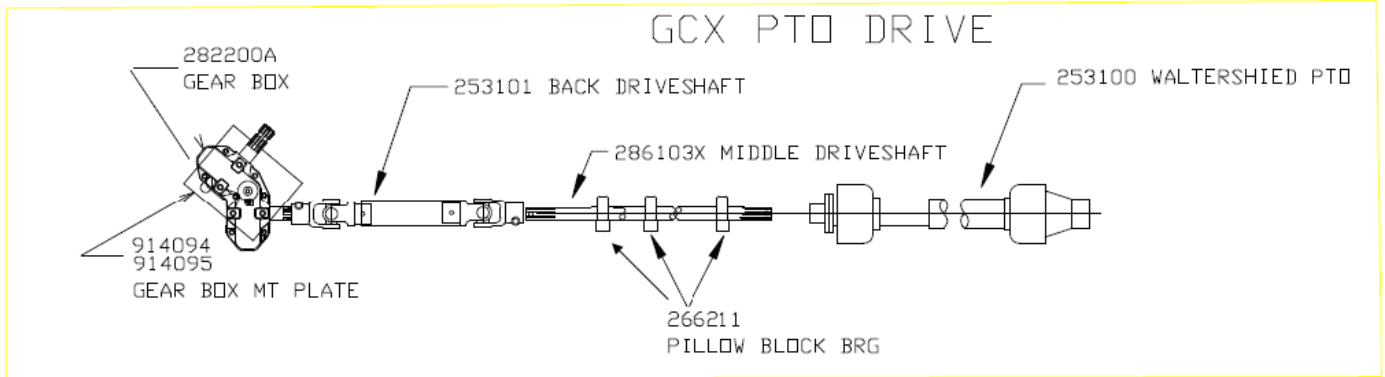
The remote control included with the electronic actuator enables the grain cart driver to extend or retract the downspout with a two-way remote push button system.



Drive System

PTO and (optional) Hydraulic Drive Systems

The drive system on the BIGHAM GCX850 and GCX1050 consists of a gearbox (282200A) which is mounted on the bottom end of the auger and connected to the back drive shaft (253101). The back drive shaft is then connected to the 1-3/8" splined middle shaft (283103X) which runs through three 1-3/8 pillow block bearings (266211). The middle drive shaft is then connected to either the PTO shaft (253100 PTO drive models) or a chain coupling and hydraulic motor (hydraulic drive models). The drive system is then connected to the tractor by either the PTO shaft or hydraulic hoses.



IMPORTANT

The Maximum Unloading PTO Speed is
Up To 750

Exceeding Recommended Speed Could
Result In Equipment Damage.

Refer To Owner's Manual

468488

Gearbox

(282200A)

The gearbox used on all BIGHAM carts has a heavy-duty box with gears and shafts. If repairs are required, the gear case can easily be unbolted for replacing the bearings, seals, shaft/gear assembly. Often the gearbox shaft is stuck in the spline bushing of the bottom drive plate. (Refer to section on bottom drive plate. Page 13) In this case raise the bottom auger a few inches. This will expose the stainless steel bolt located on top of the bottom drive plate bushing. Screw the bolt in to push the gearbox out of the bushing. Return the bolt to its original position when finished. The gearbox shaft is NOT fastened to the spline bushing in any way. (See the gearbox drawing for part numbers.)

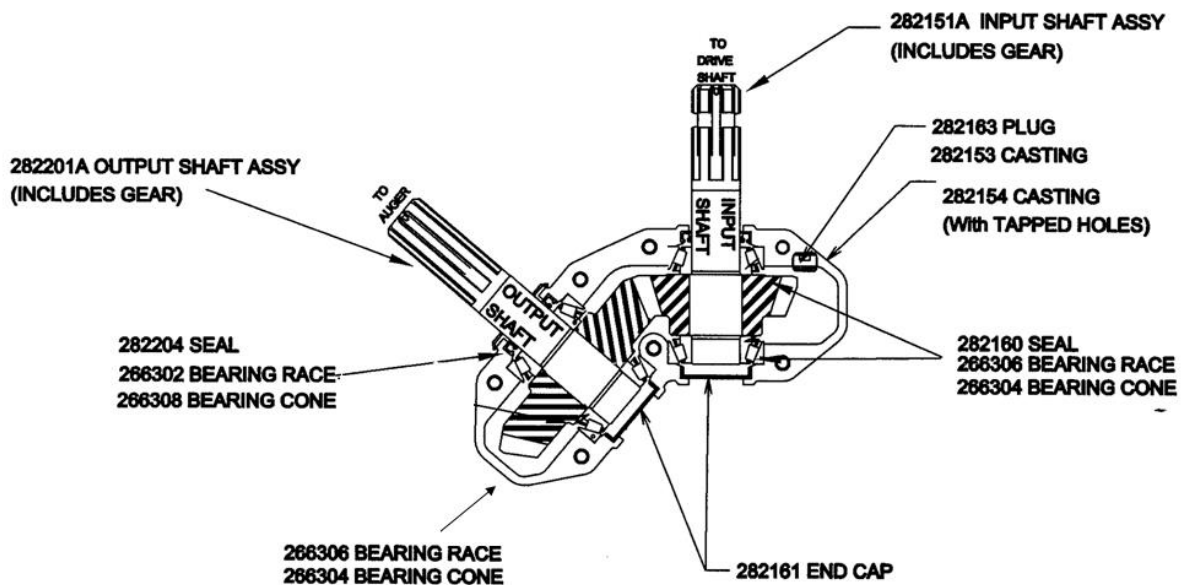
Change the oil in the gearbox every season. Check the oil level in the gearbox and for leaks daily. The check plug is located at the top rear of the gearbox while mounted in the cart. There is a special hole in the gearbox mount plate designed to allow access to the plug. DO NOT overfill the gearbox. If oil is leaking from the gearbox, then the seals are probably worn and need replacing. DO NOT run the gearbox if it is low on oil. Damage to the gearbox could be severe.

Assembling Gearbox

When bolting the case halves back together the cleaned surfaces must be primed with Loctite #19269 and coated with Loctite gasket eliminator #515. The bolts must be torqued evenly (38 to 45 LB./FT). DO NOT OVER TORQUE. Replace oil in the gearbox (SAE 90).

Gearbox Drawing

(282200A)



NOTE 1
Gear Sets In This Gear Box Are Not Compatible With Previous
Years Gear Box # 282200

Converting to PTO or Hydraulic

To convert your cart from PTO drive to a hydraulic drive, you must first purchase a hydraulic drive kit (910501X). The kit includes the hydraulic motor, hoses, mounting plate, and the chain coupling necessary for the conversion.

Remove the PTO shaft from the drive shaft. Mount the hydraulic motor to the mount plate with two bolts. The threaded bolt ends must face toward the hydraulic motor. Install the two gears and chain coupler to the hydraulic motor. Slide the hydraulic motor with mounting plate to the drive shaft. Secure the mount plate with four bolts. Carefully connect the hydraulic hoses provided with the kit to the motor and torque the fittings to 30 LB/FT. Maximum. **DO NOT OVER TORQUE.** The hydraulic hose kits provided are equipped with dual hose connections. Two hydraulic tractor remotes are required to make sure the auger turns at the appropriate speed.

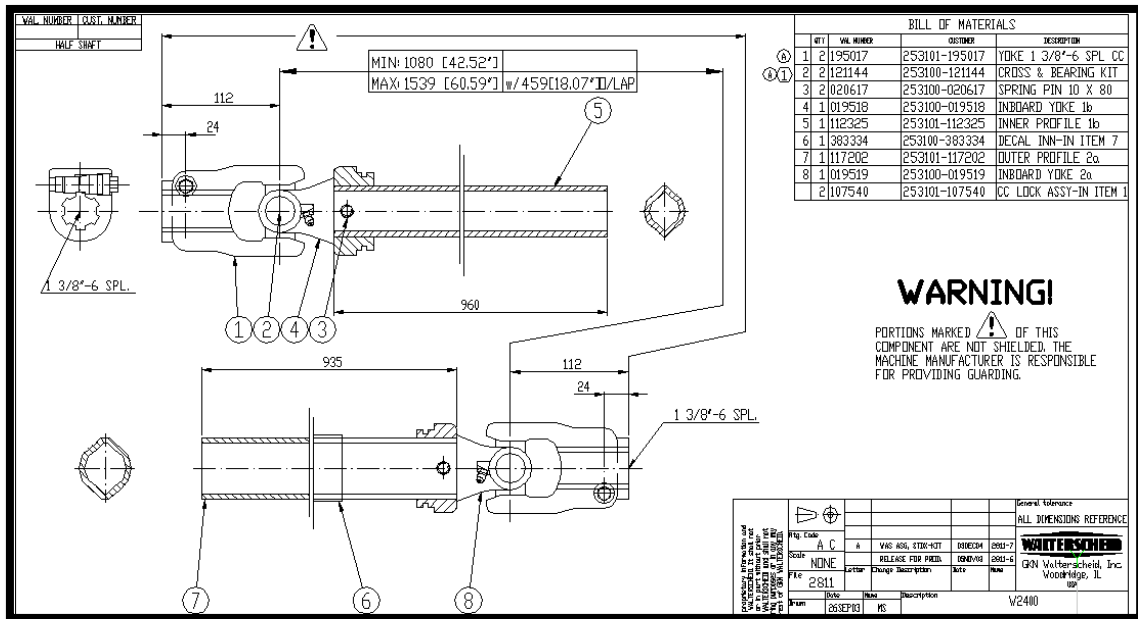
To convert from hydraulic to PTO do the opposite of the above procedure.

Rear PTO Driveshaft

(253101)

The rear telescoping shaft utilizes Walterscheid parts only. It is equipped with a 1 3/8 x 6 spline clamp bolt yoke on both ends. This facilitates removal in case of maintenance.

The PTO shaft should be greased daily when in use.



Tractor PTO Driveshaft

(253100)

The PTO telescoping drive shaft used on the BIGHAM GCX Series Carts have been selected for the use on this application by the Walterscheid engineers. It has a built-in friction clutch with over-running feature to help eliminate damage to the drive components by excessive torque or inertial stress from the 20" auger system.

When using your cart for the first time or when changing tractors **make sure** there is at least 3" of travel left in the PTO when connected to the tractor. If not the shaft could jam and cause severe damage.

The PTO shaft should be greased daily when in use. Every year the clutch should be checked, cleaned and repaired if necessary by your BIGHAM dealers Service Department. A Walterscheid service manual is available on request.

The PTO shaft supplied with your new cart has a 1 3/4" x 20 spline tractor end. This is standard and fits all new larger tractors.

PTO Parts

(253100)

BILL OF MATERIALS			
QTY	VAL. NUMBER	CUSTOMER	DESCRIPTION
1	362448	253100-362448	YOKE 1 3/4"-20 SPL. ASG
2	121144	253100-121144	CROSS & BEARING KIT
3	020617	253100-020617	SPRING PIN 10 X 80
4	019518	253100-019518	INBOARD YOKE 1b
5	048952	253100-048952	INNER PROFILE 1b
6	384560	253100-384560	PROFILE & SLEEVE W.A.
7	019519	253100-019519	INBOARD YOKE 2a
8	197256	253100-197256	FRICITION/OVERRUNNING CLUTCH
9	365366	253100-365366	SHIELD CONE 6 RTB
10	395709	253100-395709	OUT. SHIELD TUBE DVL.
11	384562	253100-384562	INN. SHIELD TUBE RND.
12	087276	253100-087276	BEARING RING SC25
13	044321	253100-044321	SAFETY CHAIN
14	365305	253100-365305	SCREW-IN ITEM 9
15	383333	253100-383333	DECAL OUT.-IN ITEM 10
16	383334	253100-383334	DECAL INN.-IN ITEM 6
17	355155	253100-355155	SUPPORT BEARING
18	380371	253100-380371	ZERK-IN ITEM 6
19	364916	253100-364916	ASG COL. KIT-IN ITEM 1
20	341953	253100-341953	RD FLG KIT-IN ITEM 8

Any information and dimensions not shown on this drawing are subject to change without notice. © 2008 GKN VALVESTECH, INC.	Sym. Code NONE				General tolerance ALL DIMENSIONS REFERENCE WALTSCHEID GKN Valvescheid, Inc. Woodridge, IL 604
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	File 2811				

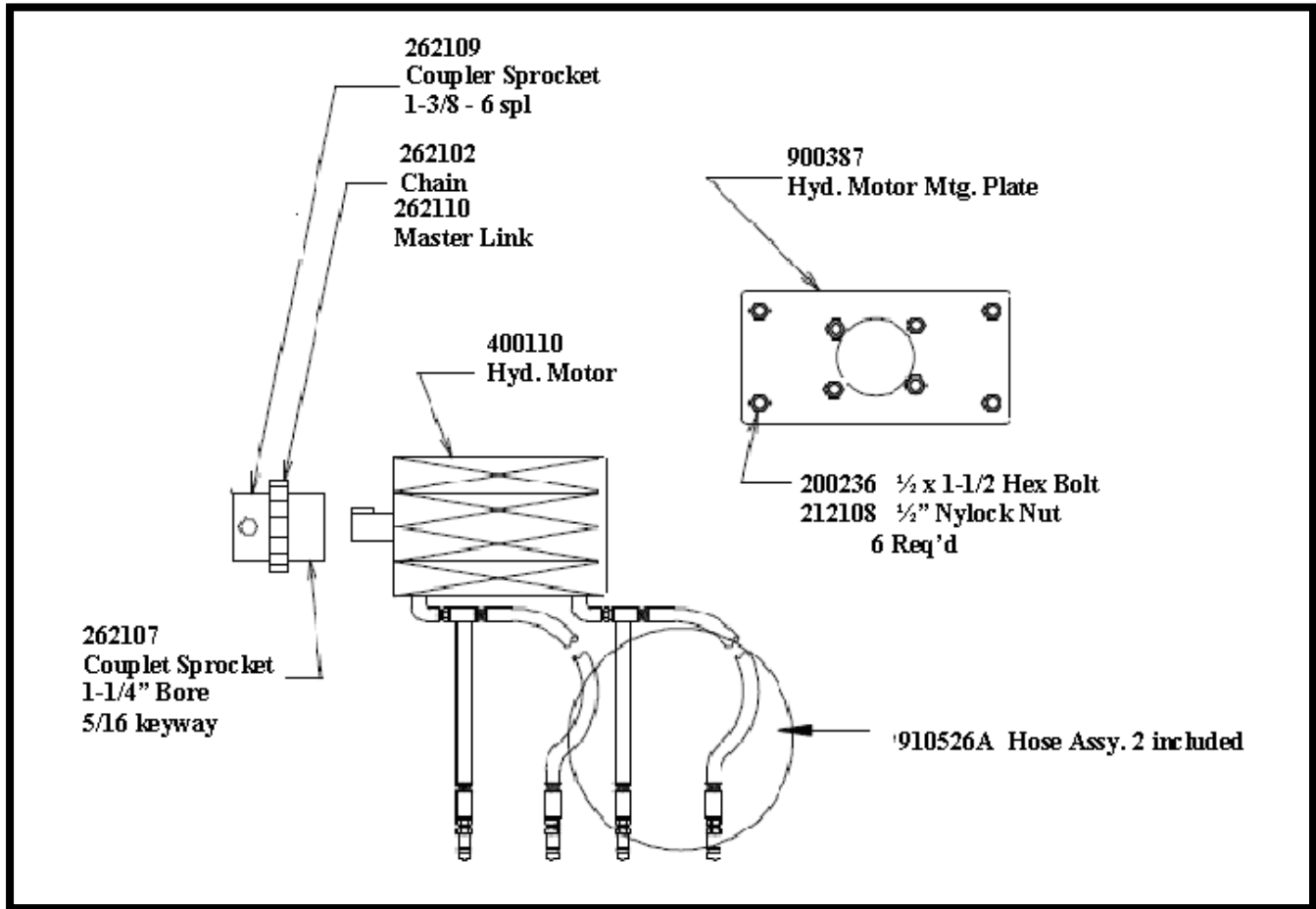
PTO Clutch

(253100-197256)

Contact Bigham for further details

Hydraulic Drive Drawing

910501X



Minimum tractor requirements for hydraulic drive: 22 gpm @ 2500 psi.

Hopper and Components

General

The hopper on the GCX Series Grain Carts is constructed of sheet metal. All carts are equipped with a grain flow control door (also referred to as a Slide Door) mounted on the bottom of the hopper. This door and the hydraulics required to operate it are considered part of the hopper assembly. In addition, the auger transport saddle and the lighting kit are considered part of the hopper.

Do not store your cart with grain or other material left in the bottom. The hopper should be cleaned before storing and the drain door located at the bottom of the auger tube should be opened to permit water drainage. Repair and paint any damaged areas on the hopper. The inside of the hopper is painted with a special paint to make the grain slide more easily. Paint is available from Bigham Ag and can be purchased through your dealer.

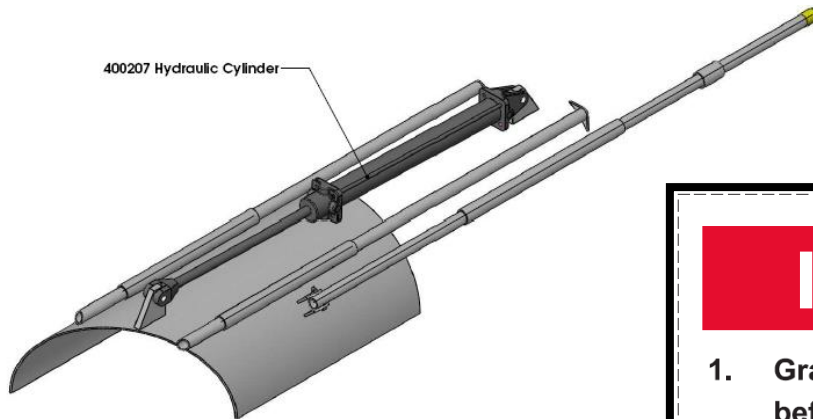
Grain Door (Slide Door)

The grain-flow control-door is hydraulically operated from the tractor. It is recommended that this door be completely closed when pulling the cart in the field. This will prevent grain from packing into the bottom of the auger. This could cause possible damage to the drive system on the PTO models or the hydraulic motor to stall on the hydraulic driven models.

There is an indicator located on the front of the auger to show whether the door is opened or closed.

The door can also be used to close off, control and regulate the amount of grain going to the auger. This may be useful when loading grain drills or other containers where only a limited amount of grain is needed. In such cases DO NOT simply run the auger slower as this could cause damage to the drive system. Instead, use the grain-flow control-door.

Before using your cart for the first time, make sure this door is opening and closing properly. If it is not, you will be unable to unload the cart.



IMPORTANT

1. Grain Control Door must be fully closed before filling cart.
2. Make sure auger is free & clear of grain before engaging.
3. Then open Grain Control Door accordingly until desired flow is achieved.

468487

Auger Saddle

The auger transport saddle is located on the left-back side of the cart. Always fold the auger back into the saddle when transporting the cart. Make sure the auger rests firmly in the saddle.



CAUTION!

KEEP EVERYONE AND EVERYTHING CLEAR OF THE CART WHILE FOLDING OR UNFOLDING THE AUGER.



Frame & Axle

General

The frame and axle of the BIGHAM grain cart is built of different materials depending on the model of the cart. The axles on all GCX Series Carts are fully adjustable from 120" to 152".

Hitch Assembly

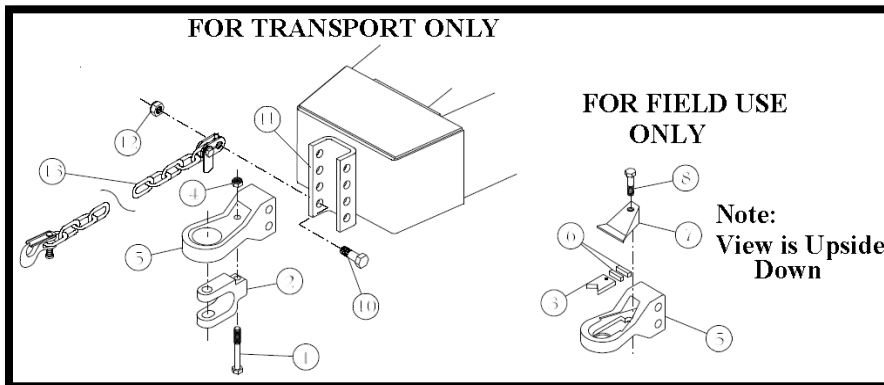
(910019-850)

YOUR TRACTOR MUST HAVE A CLEVIS TYPE DRAW-BAR!

The hitch on all GCX Series Carts is a ring type hitch. It is adjustable up and down to allow for different draw-bar heights. It also is adjustable for 1-½" or 2" hitch pin diameters. It allows for angular motions of 40 degrees, thus eliminating the need for a slotted hitch pin hole or a rotating hitch. **DO NOT SUBSTITUTE** bolts with any other grade or size.

A quick-latch safety chain has been provided to keep the cart from completely detaching from the tractor or truck during transport in case hitch pin breaks or comes out. The chain is specially designed to work with the perfect hitch system and is attached to the hitch mounting bracket with a 1" x 8" Grade 8 bolt. **DO NOT** transport cart by chain only. The safety chain must be attached to tractor or truck at all times during transport.

The clevis attachment furnished is for transporting empty cart only. DO NOT USE CLEVIS FOR FIELD USE. (not pictured)



Key:

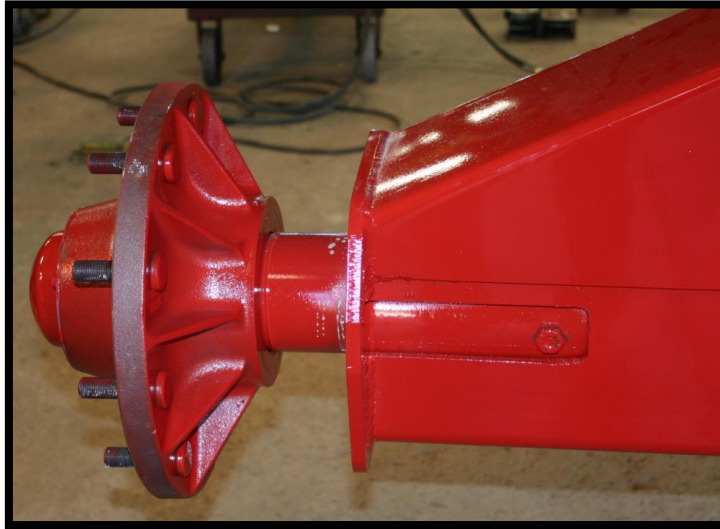
- | | | |
|--|-------------------------------|----------------------------------|
| 1. 200300--¾ x 6 Hex Bolt Gr 8 Bolt | 2. 450220C—Towing Clevis | 3. 450220C-302V—V Block |
| 4. 200300—¾ Nylock Nut | 5. 450220—Cat 4 Spade Hitch | 6. 450220C-205H—Neoprene Cushion |
| 7. 450220-203VR—Wedge Piece (2/hitch) | 8. 200300—¾ x 3 Gr 5 Hex Bolt | 9. No Item |
| 10. 200300—1 x 8 hex bolt Gr 8 (3/hitch) | 11. 450221—Mounting Bracket | 12. 212118—1" Nylock Nut |
| 13. 480180—GCX Safety Chain | | |

Axle

The GCX carts are all equipped with an adjustable axle. This enables the farmer to set the tire track to match the row spacing of his crops. The axle settings are from 120" to 152".

GCX Axle Adjustment

The axle is shipped in the 120" setting. To extend the axle, block up one side of the cart off the ground, being very careful that the blocks used are sufficient enough to support the weight of the cart and are safely placed. Loosen the bolts running through the axle and remove them. Pull the axle to the next hole setting and replace bolt. Make sure the bolt is torqued to specifications. (See torque chart.) Repeat procedure for the other side of the cart.



Optional Weightronix Package

If equipped with the optional Weightronix package, axle adjustment is not recommended. If axles must be moved, use extreme care while moving spindles to prevent damage to wiring system.



CAUTION!

DO NOT weld on the cart if the Weightronix package is installed.

If display is installed inside tractor, allow enough slack in the hitch cable to alleviate stress while the tractor is turning.

Wheels and Tires

The standard tire on the GCX700 is a 30.5 x 32 R1, the GCX850 has an 800/65R32 Radial and the GCX1050 is equipped with a 900/60R32 Radial.

In case of warranty claims see your local Goodyear dealer. If you don't get satisfaction call your BIGHAM dealer.

Several tire and wheel options are offered for each style of cart. We do NOT recommend or condone using "used" wheels or tires. This will void the warranty on the hubs, spindles, and axle of the cart as certain offsets may overload the bearings and hubs. The 881 wheel is standard for all GCX Series Carts.

KEEP LUG NUTS TIGHT! The recommended wheel nut torque is 275-280 ft-lbs. Torque should not exceed 335 ft-lbs.

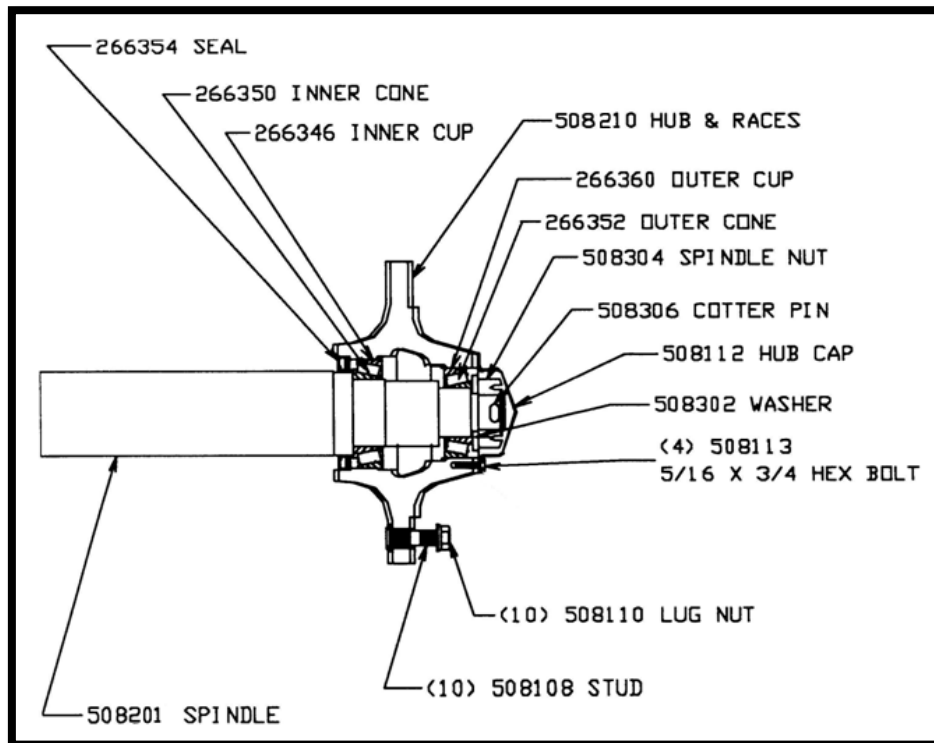
GCX Series Hub and Spindle

(508210) (508201)

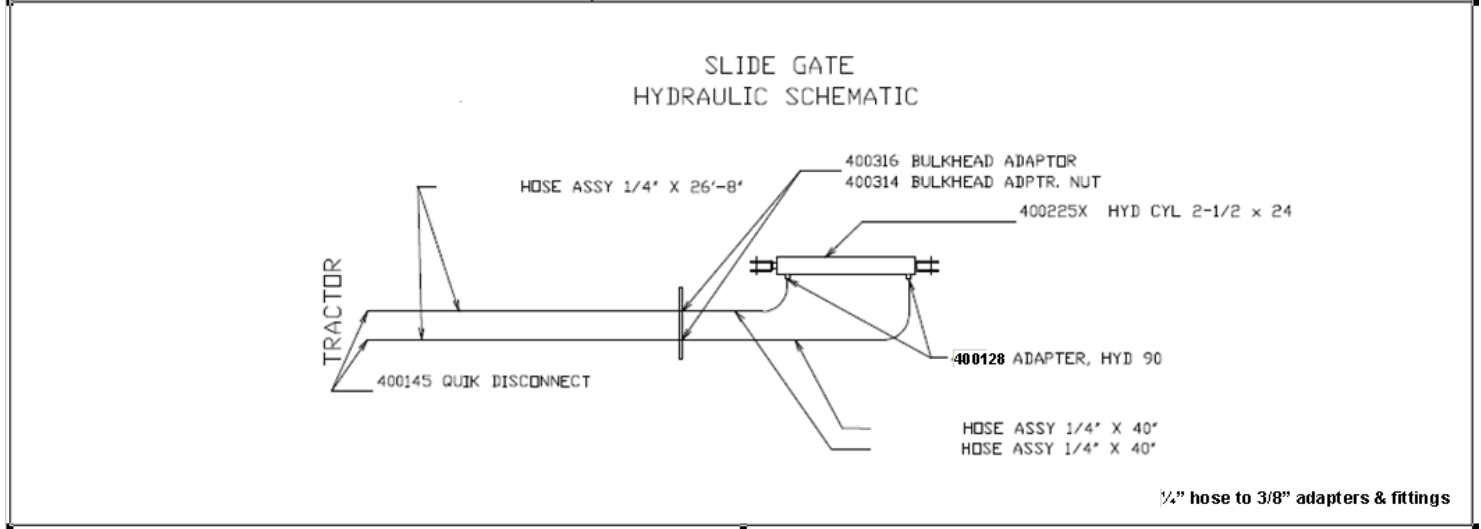
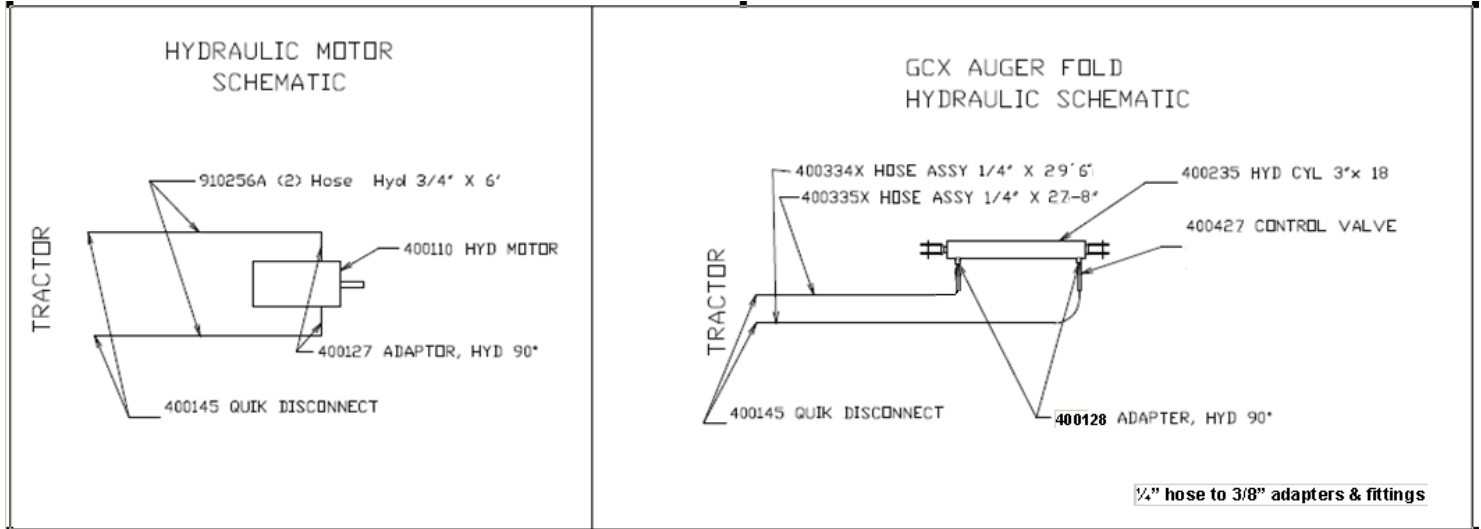
All BIGHAM GCX Series carts use a 981 hub and spindle. The 10-hole hub is mounted on a 4-1/2" Diameter spindle. The 981 hubs use the same component parts as previous year models.

Be sure to keep spindle nut tight and repack bearings with grease each season.

981 10 Bolt Hub, 13.19" Diameter Bolt Circle, 11.05" Diameter Pilot



Grain Cart Hydraulic Schematic Drawing



WARNING! Flow Control Valve for raising and lowering top auger is pre-set at the factory. Incorrect setting could result in damage to the grain cart and void warranty. Consult your authorized BIGHAM dealer before adjusting.

Engineering Specifications

Standard Torque Data for Nuts & Bolts

Bolt Dia. Inches	Grade 2		Grade 5		Grade 8	
	Min	Max	Min	Max	Min	Max
3/8	6	7	9	10	13	14
1/2	52	59	80	90	115	130
5/8	104	117	160	180	225	255
3/4	185	205	285	320	400	450
7/8	180	200	460	575	645	725
1	265	300	685	720	970	1090
1-1/4	535	600	1200	1350	1940	2180

Tire Inflation Table

Tire Size	Factory Setup & Transport PSI	In Field Cyclic Load PSI
11L x 15	25	32
18.4 x 42	16	32
20.8 x 42	16	22
23.1 x 26	16	24
24.5 x 32	16	32
30.5 x 32	16	26
800/65R 32	35	41
900/60R 32	35	41

Standard Torque Data for Hydraulic Fittings

Hyd. Fitting Size	Pound/Feet	
	Min	Max
#4 7/16-20	6	10
#5 1/2-20	10	15
#6 9/16-18	15	20
#8 3/4-16	25	30
#10 7/8-14	35	40
#12 1-1/16-12	60	70