



# *Super Duty Disc Bedder—High Flow*

## **Operator's & Repair Parts Manual**

<b>Models:</b>	<b>830-706</b>	<b>Disc Gang Kit; 6 Row High Flow Super Duty</b>
	<b>830-708</b>	<b>Disc Gang Kit; 8 Row High Flow Super Duty</b>
	<b>830-712</b>	<b>Disc Gang Kit; 12 Row High Flow Super Duty</b>
	<b>830-716</b>	<b>Disc Gang Kit; 16 Row High Flow Super Duty</b>



**Do Not Use or Operate this Equipment**



**Until you have Read and Understood this Manual**

The purpose of this manual is to explain maintenance requirements and adjustments which are necessary for the most efficient operation of the machine. Read this manual thoroughly and completely before using your machine. Keep this manual handy for reference when questions arise.

Should you have questions or difficulties which your dealer or representative are unable to answer, please call or write:

**Bigham Brothers, Inc. 705 E. Slaton Rd. P.O. Box 3338 Lubbock, TX 79452**  
**Telephone: (806) 745-0384 Fax: (806) 745-1082**



**SAFETY FIRST**  
**PREVENT ACCIDENTS BY "THINKING SAFETY"**  
**IN UNLOADING, SETTING UP, MOVING, STORAGE**  
**AND OPERATING ALL EQUIPMENT.**

**BB BIGHAM BROTHERS, INC.**  
806-745-0384 • 705 E. Slaton Road • P.O. Box 3338 • Lubbock, Texas 79452

# **BIGHAM BROTHERS, INC.**

## **A MESSAGE TO THE OWNER AND OPERATOR:**

This machine was carefully designed and manufactured to give you dependable service. To keep it running efficiently, read the instructions in this Operator's Manual. Check each item and acquaint yourself with the adjustments required to obtain efficient operation and maximum performance. Remember, the machine's performance depends on how you operate and care for it.

After the operating season, thoroughly clean your machine and inspect it. Preventive maintenance saves time and pays dividends. Your dealer has original equipment parts which assure proper fit and best performance. Record the model number, serial number and date of purchase in the space provided on this page. Your dealer needs this information to give you efficient service when you order parts or attachments. The model number and serial number appear on the identification plate on the front left side of the tool bar mast.

The Warranty on your machine is included with this manual. Your dealer will review both this manual and the warranty with you when you take delivery of your machine.

## **WARRANTY**

Bigham Brothers, Inc. warrants all products of its manufacture to be free from defects in materials and workmanship for a period of six months from date of delivery to the retail purchaser. Parts assumed to be defective must be returned F.O.B. Lubbock, Texas for our inspection or inspected in the field by our authorized representative. Our obligation under this warranty is limited to replacement or repair of the defective part and does not cover other damages to persons or property. Other than the aforesaid, no warranties of merchantability or fitness for a particular purpose will apply. We do not assume liability for altered or remanufactured components or machines or applications beyond their intended use. Some states do not allow limitation of how long an implied warranty lasts, or exclusions of, or limitations on relief such as incidental or consequential damages, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Warranty does not cover damage due to abuse, neglect, collision, towing, pulling, normal wear and tear or any other factor beyond the control of the manufacturer. Tool bars that are bent, bowed or that have been welded on or modified in any way are specifically excluded from any warranties.

## **LIMITED LIFETIME WARRANTY ON TOOL BAR CLAMPS**

Bigham Brothers, Inc. will replace any ductile iron clamp body that breaks or cracks under normal use for as long as the original purchaser owns them. This includes all replaceable bolt ductile iron clamps sold by Bigham Brothers, Inc. after December 31, 1987.

Clamps that fail should be returned to Bigham Brothers, Inc. freight prepaid along with caps, bolts, set screws and nuts for evaluation. If found to have failed under normal operating conditions, a new clamp body will be returned along with your old caps, bolts, set screws and nuts. Only clamps that have been used with Grade 2 bolts of the proper size will be replaced. All other provisions of the above warranty apply.

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**Be alert when you see this symbol in the instructions.  
It warns of a hazard which might lead to injury.**



**It means: “Attention! Become alert! Your Safety Is Involved!”**

## **Before Use:**



**DO NOT operate this equipment until this  
manual has been read and understood.**



- \* Assure operators have read and are familiar with the instructions contained in the Operator’s Manual
- \* If working on the Disc Bedder, make sure it is level and stable. Proper stands should be lowered and secured. Use support blocks when necessary. The work area should be on a level, load bearing surface, e.g. concrete floor. NEVER, NEVER work under a Disc Bedder while it is supported by only the tractor’s hydraulics.
- \* Consult the “Tractor Manufacturers Manual” for instructions on safe mounting of implements and operating methods.
- \* Never stand between the Disc Bedder and tractor with engine running.

## **During Use:**

- \* Check and tighten all bolts after 30 minutes of initial operation and after adjustments have been made.
- \* Assure the Disc Bedder is correctly attached to the tractor.
- \* Be alert to underground obstructions, e.g. large stones, tree roots, cables, pipe lines, etc. Should an obstruction be encountered, **STOP IMMEDIATELY AND INVESTIGATE.**

** NOTIFY THE APPROPRIATE AUTHORITY IF BURIED CABLES OR PIPELINES ARE SUSPECTED.** Non-hazardous obstructions should be removed before continuing operation.

- \* Keep operating speeds at a safe level.
- \* Never allow anyone to ride on the Disc Bedder during operation.
- \* Never travel in reverse with the Disc Bedder in the operating position.
- \* Never carry out adjustments or repairs to a mounted Disc Bedder unless the tractor engine is stopped and the Disc Bedder is firmly supported or lowered to the ground.
- \* Inspect the Disc Bedder for wear or damage on a regular basis.
- \* Check all nuts, bolts and other fasteners for tightness on a regular basis. Replace worn fasteners as needed.
- \* Carry out maintenance and lubrication procedures as detailed in this manual.
- \* When disconnecting the Disc Bedder do so on a level, hard surface. Assure it is left in a stable position with proper stands in the correct position.

## **Always:**

- \* Wear gloves and safety footwear when handling worn parts with sharp edges.
- \* Assure the Disc Bedder is not operated by untrained persons.
- \* Use the Disc Bedder only for the purpose for which it was designed and tested, and always according to the instructions contained in this manual.
- \* Reduce speed when transporting over uneven or rough terrain.
- \* Place a “Slow Moving Vehicle” emblem on the rear of the unit before driving on open roads.
- \* Keep hands, feet and clothing away from all moving parts.
- \* Exercise care when adjusting gangs, clamps, markers, or gauge wheels. The assemblies are heavy and may have sharp edges.

“Left” and “Right” of the machine refers to the side when standing behind the Disc Bedder and facing the tractor. Left and right leg refers to direction to which dirt is thrown when standing behind the unit; not on which side it is located.





**BE A SAFE OPERATOR, THINK BEFORE OPERATING.  
READ ALL INSTRUCTIONS BEFORE  
ASSEMBLY OR OPERATION OF THE DISC BEDDER!**



*Picture 1- P/N 830-712 Twelve Row Super duty Disc Bedder gang kit on 802-678 Stack Fold Tool Bar*

## INTRODUCTION:

The Bigham Brothers Super Duty High Flow Disc Bedder for Double Bar Mount is specifically designed for high residue bedding operations. We construct the Super Duty Disc Bedder with ultra-heavy duty components. All-new mounting arms are fabricated from heavy-wall tube. This gang mounting arm arrangement is perfect for our Low Profile Series III Stack Fold Tool Bar, Double 7x7" Over Fold Tool Bar, or Rigid Double 7x7" Tool Bar.

The Bigham Brothers Disc Bedder pulls lighter and operates at higher speeds than conventional buster type listers. This Bedder throws up uniform rows with less clodding or slabbing in virtually all soil types at speeds up to 6 or 7 MPH. Component design allows adjustment of gangs to virtually any row width. Conversions can be made in the field with no extra parts required.

P/N	Description	Number Of Rows	Qty Disc Gang	Approx. Ship Wt.
830-706	Disc Gang Kit; 6 Row High Flow Super Duty	6	12	1950 Lbs.
830-708	Disc Gang Kit; 8 Row High Flow Super Duty	8	16	2600 Lbs.
830-712	Disc Gang Kit; 12 Row High Flow Super Duty	12	24	3900 Lbs.
830-716	Disc Gang Kit; 16 Row High Flow Super Duty	16	32	5200 Lbs.
830-105	Scraper Assy. Super Duty Disc Bedder	1		20 Lbs.
<i>Disc Bedder Gang Kits include: Quantities of disc gangs as listed with mounting arms and all required hardware. Gangs with 18 &amp; 20" blades are standard equipment. Gang assemblies with 20 &amp; 22" blades are optional and may be substituted on gang kits. Scraper kits may be ordered as optional equipment. ** Please specify row spacing for folding tool bars. All units are priced unassembled, F.O.B. Lubbock, Texas.</i>				

## **General Setup and Maintenance Instructions**

### **Disc Bedder Gang Units**

#### **Setup:**

1. Mark tool bar and place clamp assemblies at desired row spacings. See common row spacing chart in figure 1.
2. Place gang assemblies with brackets centered on markings from step 1.
3. Attach scrapers and shields (if desired) as shown in figure 1 and photos 4-6.

Disc gangs are normally set up in an **opposed** arrangement. Install the left and right gangs of each pair on the *same bar*. Alternate gang pairs for each row from left to right between the front and rear bars. See figure 1 for disc gang layout. For disc gang parts breakdown and assembly order see figure 2. Photos 1-6 show installed gangs.

**CAUTION: The gangs and brackets are heavy, so if possible utilize two men and do not rush.**

#### **Maintenance:**

Make a visual inspection of each gang and clamp assembly daily. Keep all fasteners tight, especially clamp u-bolts. Repair or replacement of worn parts will save time and money (bearings, castings, blades, etc.).

Check all gang bolts daily. Tighten if necessary.

**NOTE:** Check and tighten gang bolts after the **first 50 acres of operation**. Failure to do so may cause bearing or housing failure.

### **Changing Row Spacing**

Refer to Figure 1 for gang locations and desired row spacing. Row spacings can be changed, but require considerable loosening and tightening of bolts. An air or electric wrench is recommended.

Mark new locations from tool bar center to center of the disc gang bracket. The two u-bolts that attach each gang to the tool bar must be loosened before the gang position can be changed. Loosen the nuts on each u-bolt to allow the bracket to slide laterally along the

tool bar. Gang position can be changed easily this way unless the desired leg position will 'jump' across a tool bar stringer (brace) or hinge on a folding bar. Start with the center gangs and work to the outside. Move gauge wheels in a similar manner.

When adjustments have been made, ensure all bolts and nuts are tight. After gang repositioning, inspect all bolts after placing the unit back into service for about 15 minutes. Retighten bolts if necessary. Note: Since placement of gangs on different spacings than delivered may not be possible due to interference from stringers or hinges, please indicate the possibility of change at time of order or before placing unit into service so substitutions can be made.

## **Hitch Assembly:**

### **Setup:**

If pull points and top link are not integrated into the tool bar (e.g. on stack fold tool bar) place pull points and top link on tool bar as shown in photo 7. Securely tighten bolts.

### **Maintenance:**

Keep bolts tight on all components. Replace worn pins as needed.

## **Gauge Wheels:**

### **Setup:**

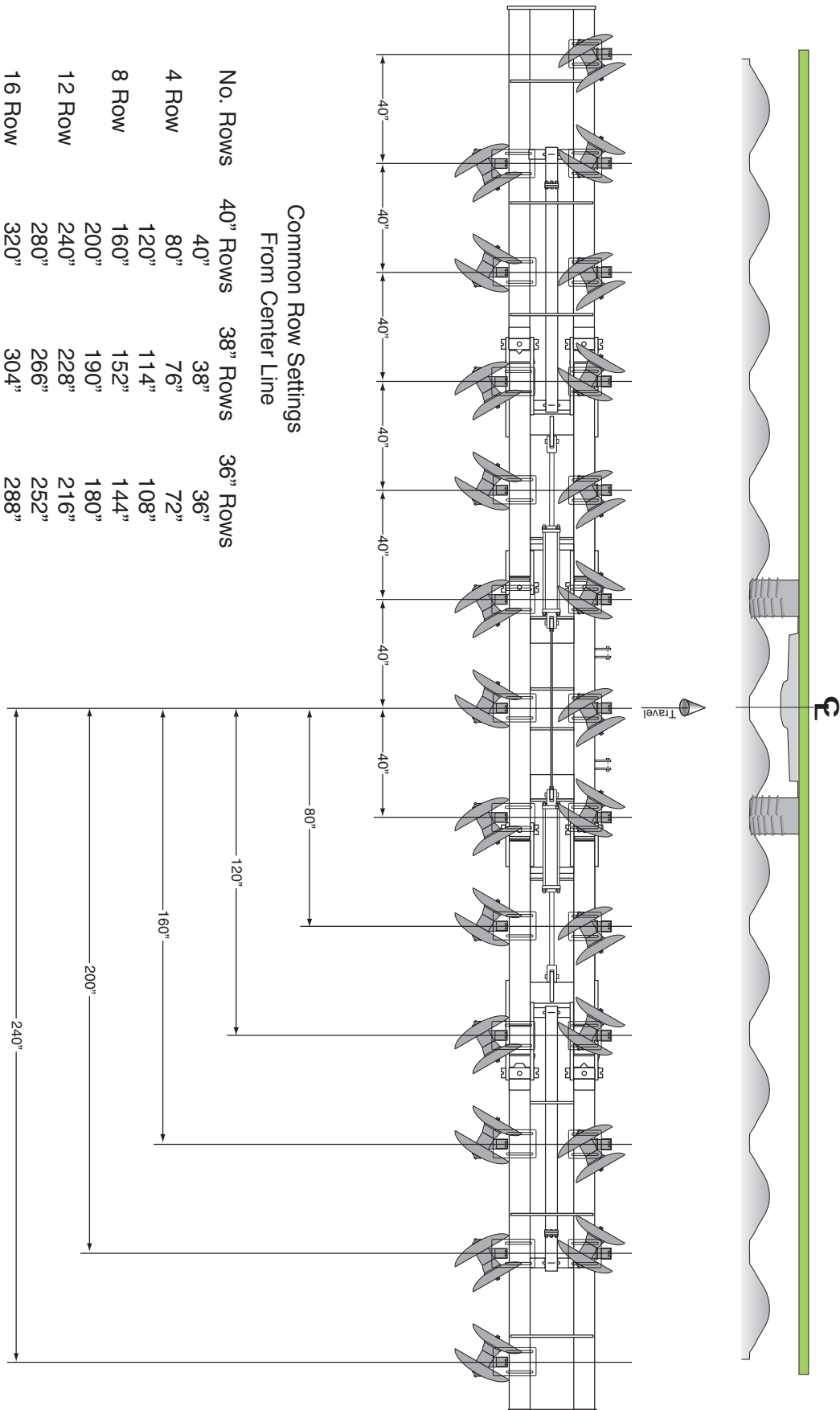
1. Place mount assemblies on tool bar as shown in photo 3. Refer to figure 3 for parts and assembly diagrams.
2. Insert shank and hub assembly into lower position of mount assembly and place bolt through pivot point.
3. Attach screw jack to upper mount assembly with pivot bolt through screw jack busing. Pin lower jack end to the shank and hub assembly.
4. Place wheel and tire assembly on hub and secure with lug bolts provided.
5. You may leave pivot bolts loose until first checking field adjustment. After field height adjustment has been made, tighten bolts.

### **Maintenance:**

1. Keep all mounting, pivot, and lug bolts tight.
2. Check tire pressure and keep at 30 PSI.
3. Repack wheel bearings at least once every season, or more often under extreme conditions.

**Figure 1**

**Opposed Gang Setting  
(High Pointed Beds)**



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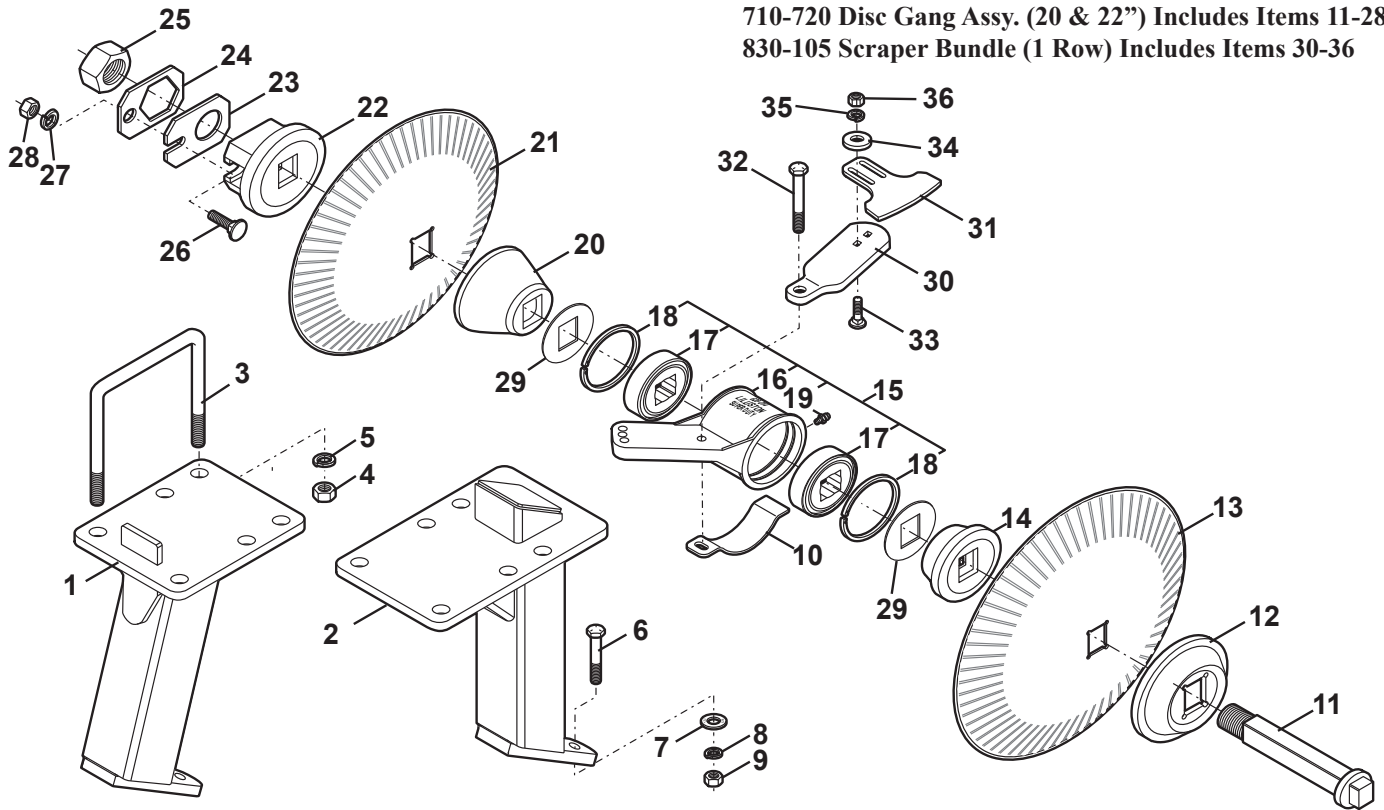
**Figure 2**

## Super Duty Disc Bedder-High Flow Gang (Parts Breakdown)

710-717 Disc Gang Assy. (18 & 20") Includes Items 11-28

710-720 Disc Gang Assy. (20 & 22") Includes Items 11-28

830-105 Scraper Bundle (1 Row) Includes Items 30-36



Ref.	P/N	Description	Qty. Req. Per Gang	Ref.	P/N	Description	Qty. Req. Per Gang
1.	710-155	Gang Bkt. Hi-Flow 2 Bar Front	A/R	19.	617-009	Fitting, Grease 1/4"-28 UNF	1
2.	710-156	Gang Bkt. Hi-Flow 2 Bar Rear	A/R	20.	628-026	Spool, S.D. Dsc. Bdr. 3-5/8"	1
3.	610-0047	U-Bolt, 7/8" For 7x7" GR5 ZP	2	21.	630-021D	Disc, Conc 20"x6mm 1.5 Sqr.DF	1
4.	611-1401Z	Hex Nut 7/8"	4		630-022D	Disc, Conc 22"x6mm 1.5 Sqr.DF	1
5.	615-1400	Lockwasher 7/8"	6	22.	628-027	Front Plate	1
6.	602-1012Z	Capscrew 5/8" x 3"GR5 ZP	2	23.	636-858	Nut Retainer w/Round Hole	1
7.	L1050018	Washer, 5/8" F436 Hard ZP	1	24.	636-857	Nut Retainer w/Hex Hole	1
8.	615-1000Z	Lockwasher 5/8"	2	25.	611-2402Z	Nut, Hex ZP 1-1/2"-12 N.F.	1
9.	611-1001Z	Hex Nut 5/8"	2	26.	604-0807Z	Carriage Bolt 1/2" x 1-3/4" Gr.5	1
10.	636-851	Shield, Housing/Zerk	1	27.	615-0800Z	Lockwasher 1/2"	1
11.	610-0066	Gang Bolt, 1-1/2x14-3/8"	1	28.	611-0801Z	Hex Nut 1/2"	1
12.	636-855	Spring Washer, 7" O.D.; 1-1/2" Sqr.	1	29.	310-946	Shield, Bearing S.D. Disc Bedder	2
13.	630-019D	Disc, Conc 18"x6mm 1.5 Sqr.DF	1	30.	636-886	Plate, Scraper Mount	A/R
	630-021D	Disc, Conc 20"x6mm 1.5 Sqr.DF	1	31.	636-887	Blade, Scraper Univ.	A/R
14.	628-025	Spool, S.D. Dsc. Bdr. 2-7/32"	1	32.	602-1014Z	Capscrew, 5/8" x 3-1/2"GR5 ZP	A/R
15.	710-730	Bearing Housing w/Brg. Univ.	1	33.	604-0605Z	Carriage Bolt, 3/8"x1-1/4" GR5	A/R
16.	628-014	Housing, DB Super Duty	1	34.	616-0600Z	Washer, Flat 3/8"ZP	A/R
17.	622-062	Bearing, 1-1/2" Sq.	2	35.	615-0600Z	Lockwasher 3/8"	A/R
18.	627-015	Snap Ring	2	36.	611-0601Z	Hex Nut 3/8"	A/R

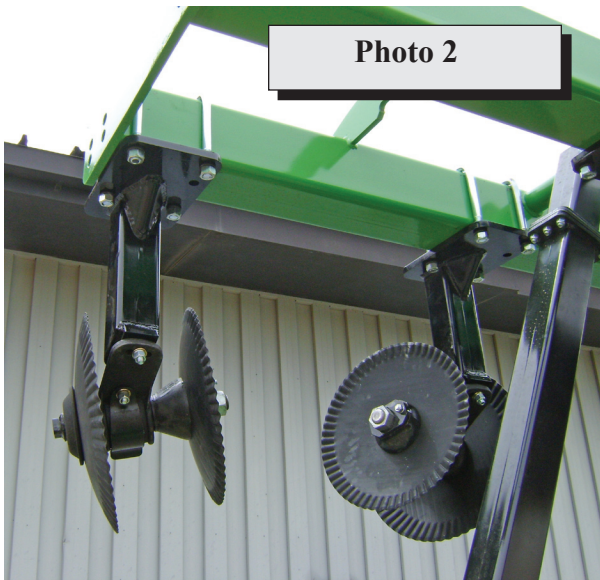


## Setup Examples



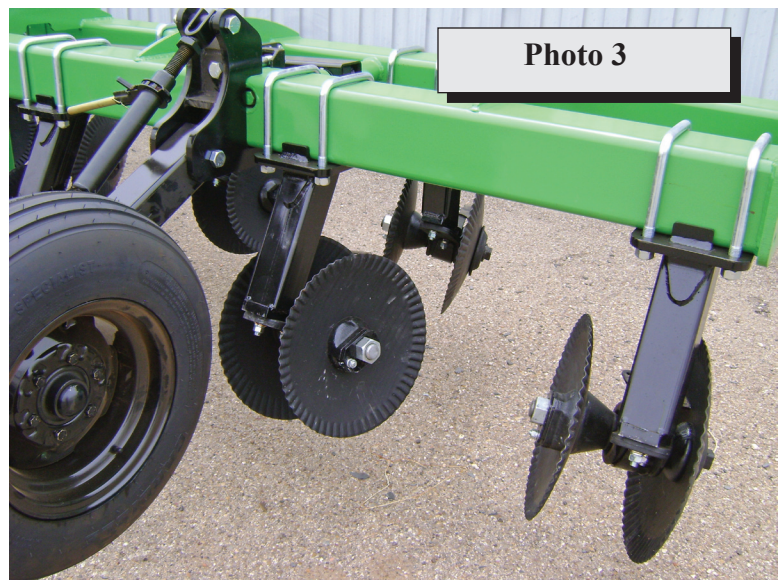
**Photo 1**

12 Row Disc Bedder on Stack Fold Tool Bar



**Photo 2**

Rear Gangs



**Photo 3**

Front Gangs

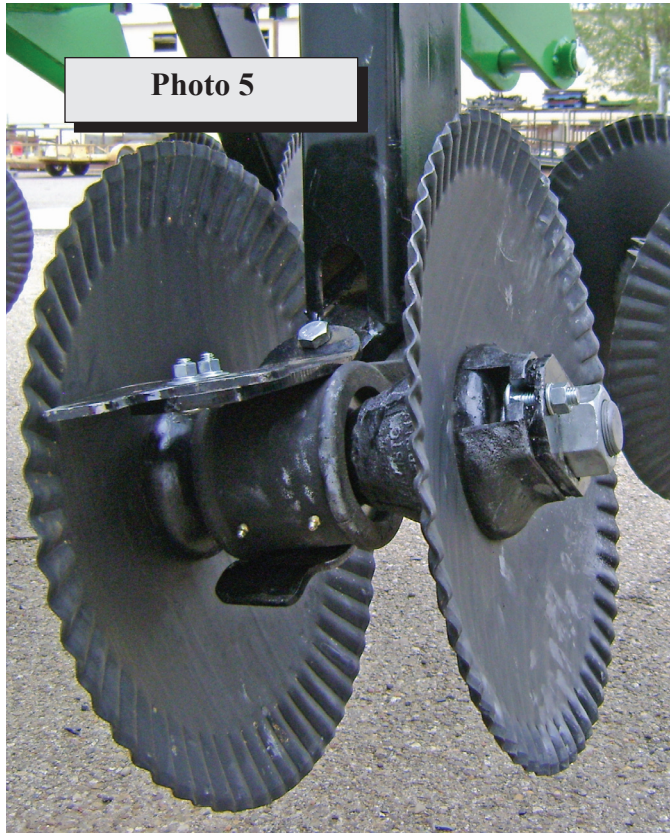


**Photo 4**



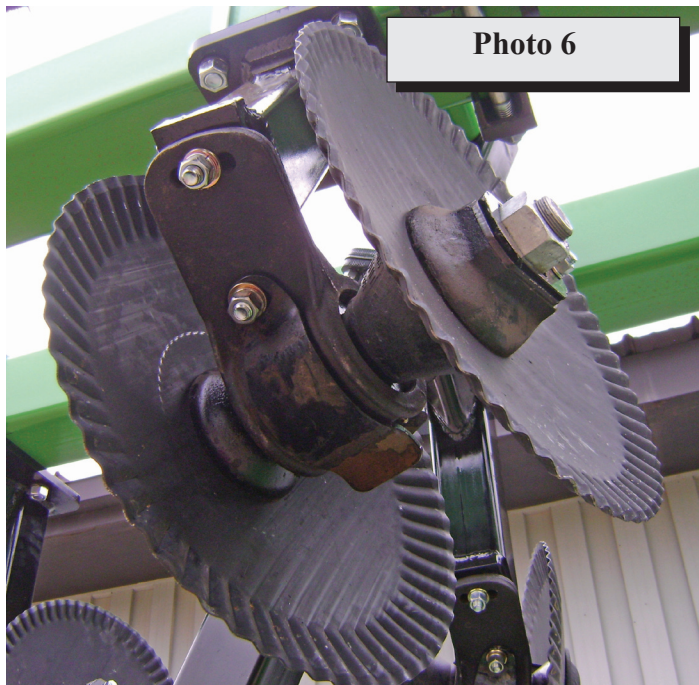
**Gang with Scaper**

**Photo 5**



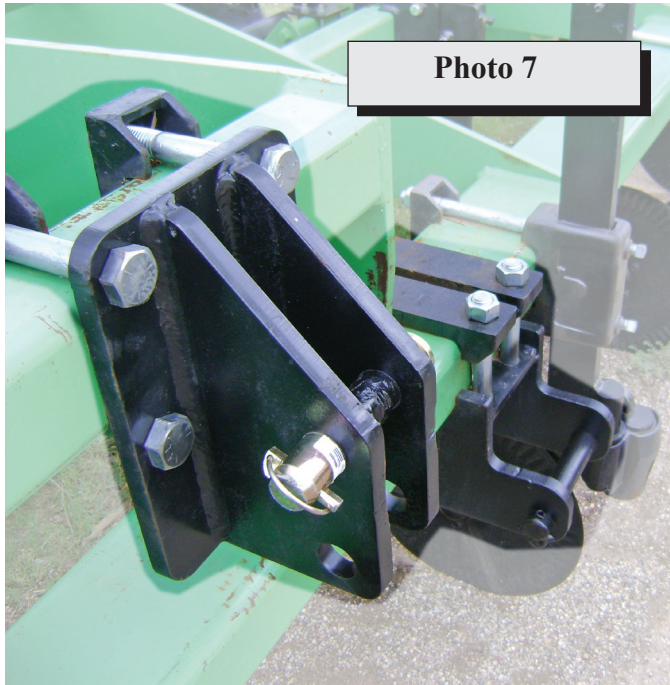
**Gang Assembly**

**Photo 6**



**Gang with Shield**

**Photo 7**

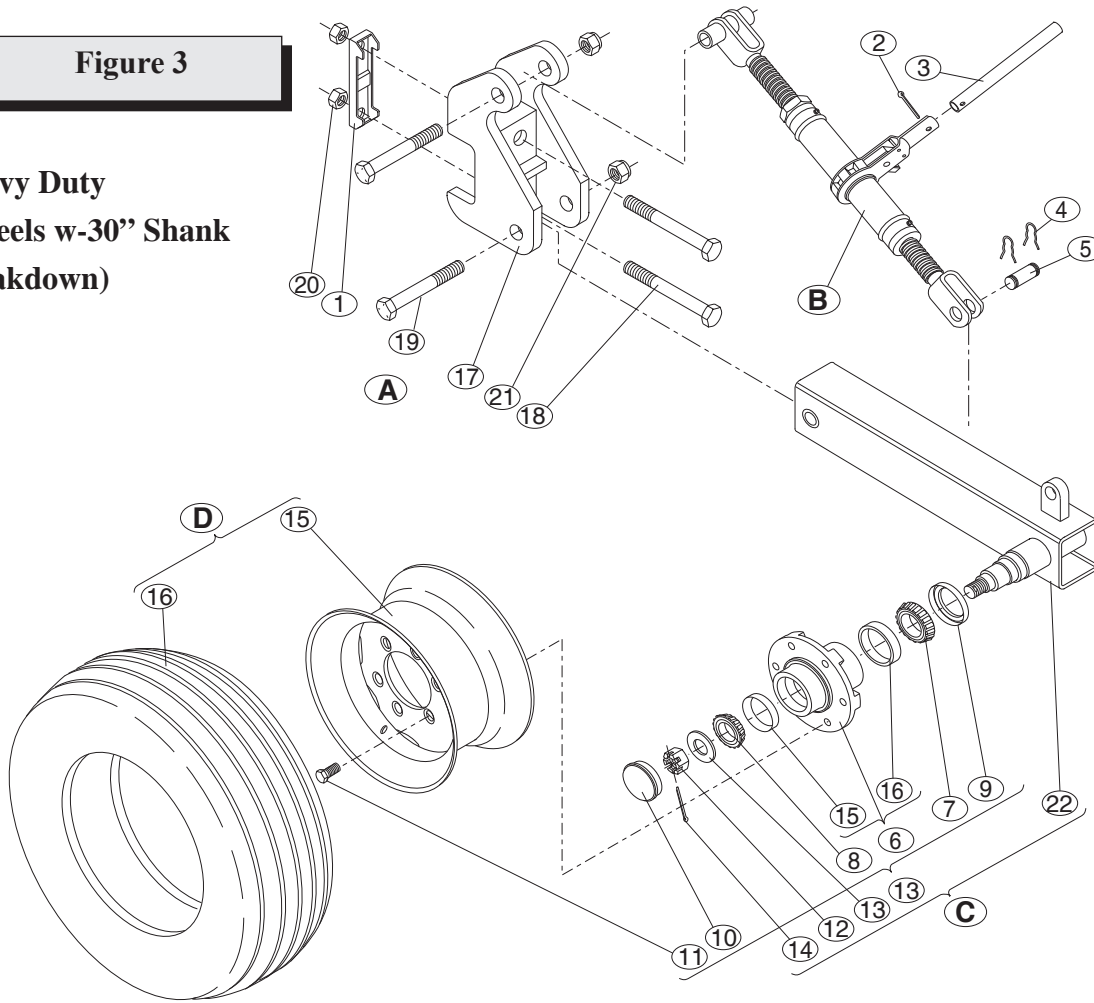


**Bolt-On Hitch**

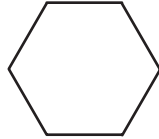


**Figure 3**

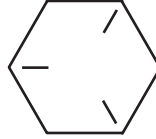
**Extra Heavy Duty  
Gauge Wheels w-30" Shank  
(Parts Breakdown)**



Ref.	P/N	Description	Qty. Req. Per Gang * As Required	Ref.	P/N	Description	Qty. Req. Per Gang * As Required
<b>A.</b>	<b>805-177</b>	<b>MOUNT ASSY., XHD 7 x 7"</b>		<b>C.</b>	<b>760-710</b>	<b>SHANK/HUB ASSY., LH (XHD)</b>	<b>1*</b>
<b>B.</b>	<b>705-083</b>	<b>SCREW JACK (RATCHET) XHD</b>	<b>2</b>		<b>760-711</b>	<b>SHANK/HUB ASSY., RH (PICT.)</b>	<b>1*</b>
				<b>D.</b>	<b>705-002</b>	<b>WHEEL &amp; TIRE 6 HOLE (9.5L x 15")</b>	<b>2*</b>
1	628-308	CAP, 7" CAST	2*	13	616-1400	BUSHING, MACH. 7/8" x 14 GA.	
2	617-026	PIN, COTTER 1/4 x 2"	2	14	617-020	PIN, COTTER 5/32 x 1-1/2"	
3	617-110	TUBE, 7/8 x 12" (JACK HANDLE)	2	15	627-460	WHEEL, 6 HOLE (15 x 8LB)	2*
4	617-107	HAIRPIN, 3/16 x 2" 1" I.D.	4	16	627-569	TIRE, 9.5L x 15"	
5	617-160	PIN, CLEVIS ZP 1 x 2" USBL	2	17	705-063	MOUNT BKT., 7" XHD	2*
6	627-159	HUB/CUPS, 6 HOLE Q888		18	609-1640Z	BOLT, HMB ZP 1 x 10"	4*
7	622-009	BEARING, TAPER #69349				(FOR 4 x 7, 5 x 7 & 7 x 7 MOUNT)	
8	622-007	BEARING, TAPER (LM67048)		19	602-1628Z	BOLT, HCS ZP GR5 1 x 7"	4
9	623-002	SEAL, Q888 HUB (16289)		20	611-1601Z	NUT, HEX ZP 1"	4
10	627-560	CAP, DIRT Q888 HUB		21	613-1600Z	NUT, HEX NYLOCK ZP 1"	4
11	607-0805P	BOLT, LUG 1/2X1-1/4 (13/16 HD)		22	760-700	SHK/SPINDLE XHD GW LH 30"SHK	
12	614-1407	NUT, HEX SLOTTED 7/8" N.F.			760-701	SHK/SPINDLE XHD GW LH (PICTURED)	



**GRADE 2**  
**No Marks**



**GRADE 5**  
**3 Lines on**  
**Bolt Head**

## RECOMMENDED ASSEMBLY TORQUES FOR HEXAGON HEAD CAP SCREWS

Based on dry assembly. Variables such as lubrication, plating etc. may reduce the values listed below as much as 20%, and must be taken into consideration.

	Bright Cap Screws 1018 <b>Grade 2</b>			Heat Treated 1038 Hexagon Head Cap Screws, <b>SAE Grade 5</b>			
Cap Screw Diam.	Yield Strength PSI Min.	Recommended Torque (Ft. Lbs.)		Yield Strength PSI Min.	Tensile Strength PSI Min.	Recommended Torque (Ft. Lbs.)	
		UNC	UNF			UNC	UNF
1/4"	58,000	6	7	90,000	120,000	11	13
5/16"	58,000	13	14	90,000	120,000	21	23
<b>3/8"</b>	58,000	<b>23</b>	26	90,000	120,000	<b>38</b>	40
<b>7/16"</b>	58,000	<b>37</b>	41	90,000	120,000	<b>55</b>	60
<b>1/2"</b>	58,000	<b>57</b>	64	90,000	120,000	<b>85</b>	95
<b>5/8"</b>	55,000	<b>111</b>	128	90,000	120,000	<b>175</b>	210
<b>3/4"</b>	55,000	<b>200</b>	223	90,000	120,000	<b>300</b>	330
<b>7/8"</b>	55,000	<b>315</b>	340	81,000	115,000	<b>450</b>	490
<b>1"</b>	50,000	<b>400</b>	460	81,000	115,000	<b>680</b>	715
<b>1-1/8"</b>	50,000	<b>570</b>	635	77,000	105,000	<b>885</b>	990

General Formula for calculating Torque is as follows:

Torque in Inch Lbs. = .2 x Nominal Diameter of Screw x Load in Lbs., where Load = 80% of Yield Strength, expressed in Lbs., not pounds per square inch.

The tension induced in a cap screw may be checked by measuring overall length before torquing and then under torque load. The screw stretches .001" per inch of screw length for each 30,000# P.S.I. induced tension. Applies only to loads below the yield point.

***BIGHAM BROTHERS, INC.***

**Notes:** \_\_\_\_\_