



ASSEMBLY/OPERATORS MANUAL

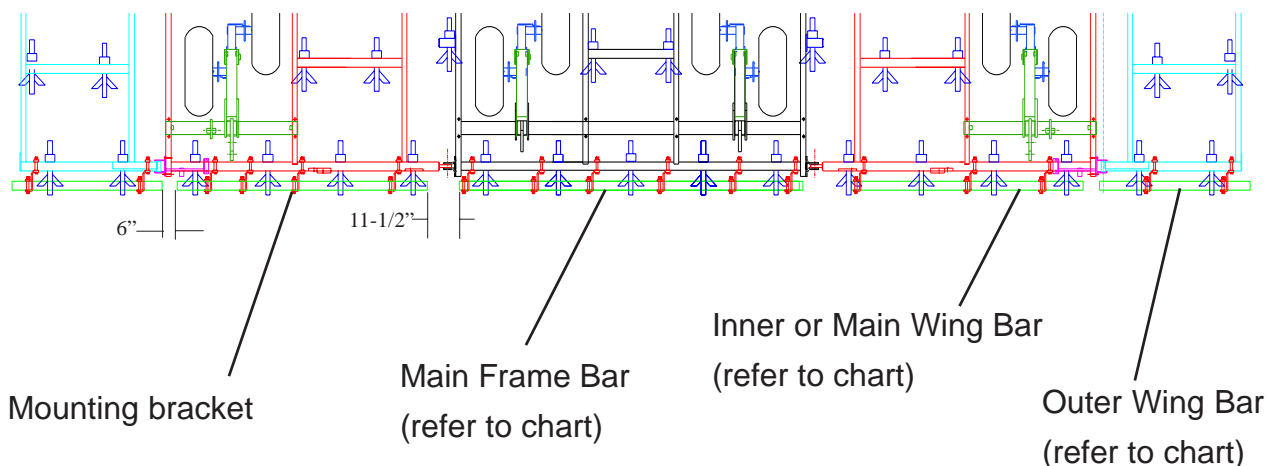
COIL TINE HARROW WITH BASKET



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QUADX/EXCEL/DCIII HARROW/BASKET MTG INSTRUCTION (79291) 3/07

QUADX/EXCEL/DCIII CULTIVATOR COIL TINE HARROW/BASKET ARM MNTG INSTRUCTION



Mounting - Harrow basket rear bar

Before mounting the rear bar make certain the main unit is completely assembled to include all shanks and hydraulics. Locate the appropriate mounting bars for the required main frame/wing combinations (see tube position chart) Position the mounting bracket, tie plates and required hardware in the approximate positions shown. (see arm/basket arm assembly for instructions on bracket orientation) Loosely position and mount the brackets to the rear of the main frame and wing tubes.

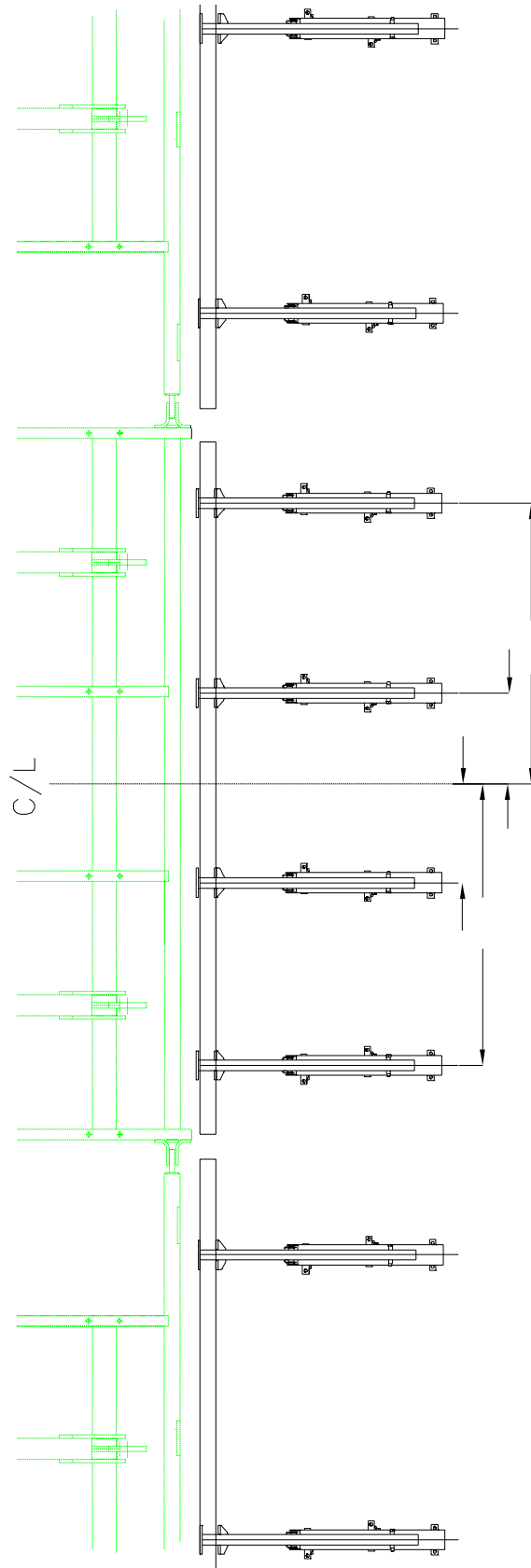
NOTE: Position the mount brackets as close to the ends of the rear bars as possible. Also position the mount brackets as close to the front to rear cultivator frame members as possible.

Beginning with the main frame tube, slide the noted tube into the brackets, centering the tube on the main frame. Slide the wing tubes into the brackets from the outside. Loosely secure the rear bar tubes to the brackets with the plates and hardware provided.

NOTE: Tubes need to be positioned far enough apart laterally at the hinges to allow the wings to fold. Approximate distance between tube ends is shown above.

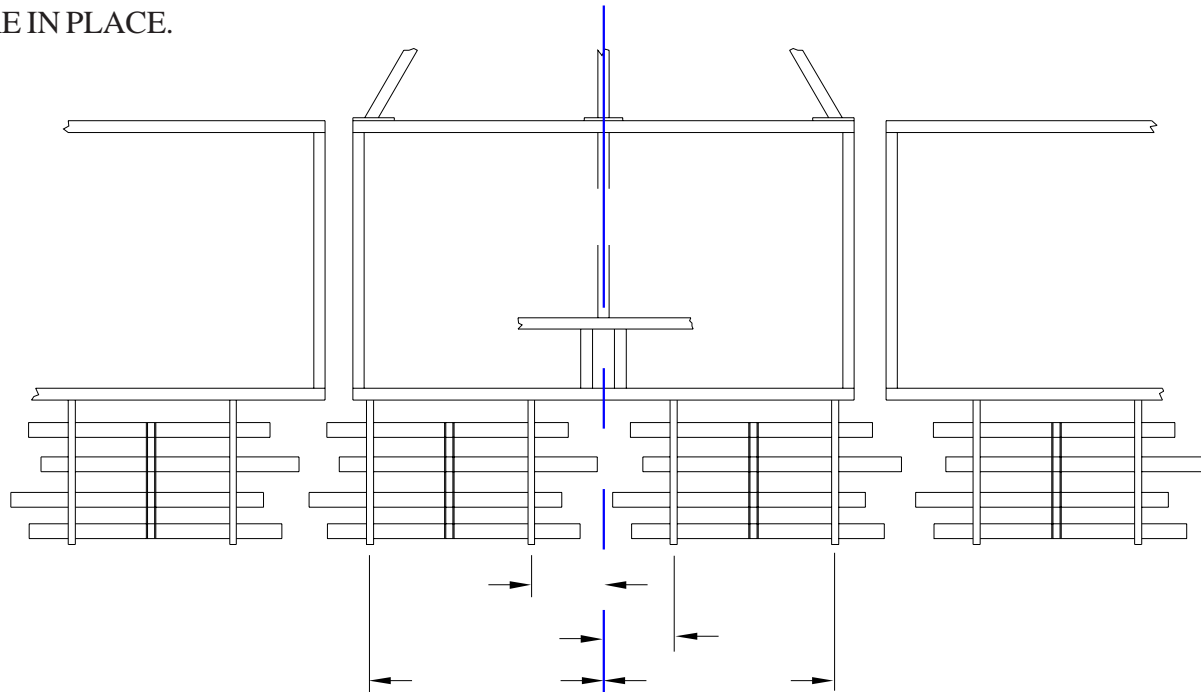
TUBE POSITION CHART

Frame/Wing Size	Rear Bar Part #	Rear Bar Length (in)
11' Main Frame	234866	128"
13' Main Frame	234865	156"
16' Main Frame	234863	184"
7' Inner Wing	234868	68"
9'4" Inner Wing	234867	96"
11'8" Inner Wing	234862	124"
3' Outer Wing	234869	36"
5' Outer Wing	234864	50"
7' Outer Wing	234870	72"



11' MF EXCEL CULTIVATOR COIL TINE HARROW W/BASKET

NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.

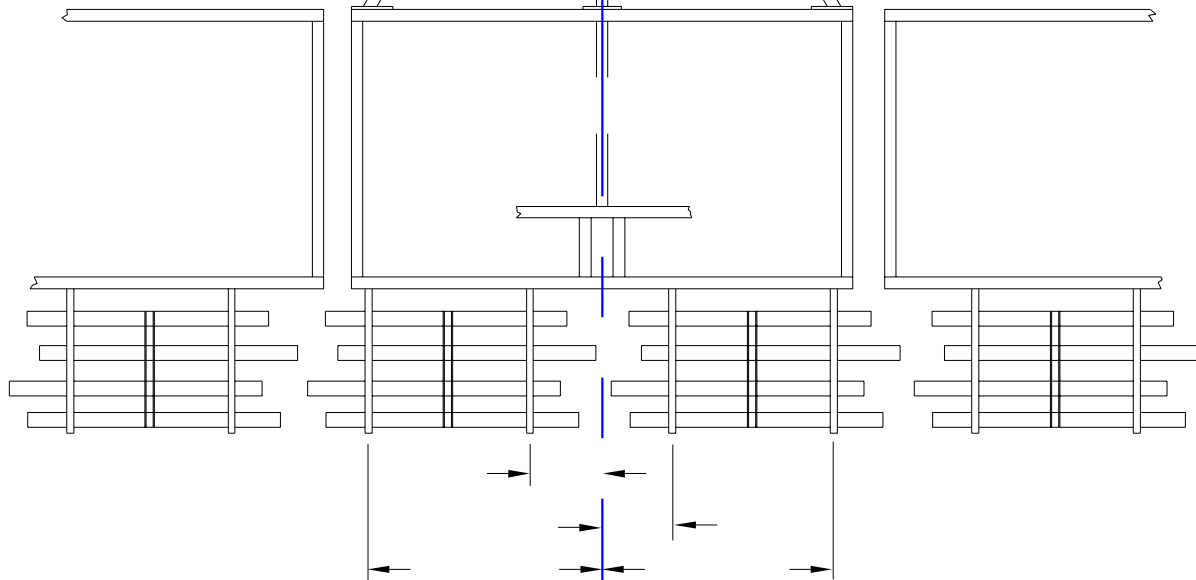


56 36 0 56 - ARM LOCATION (INCH FROM CENTER LINE)
4-1/2' 7-1/2' - SECTION

WING'S					MAIN FRAME				WING'S			
11EXC 19-20		113	89		60	35	4	55		89	113	
		4-1/2'			4-1/2'		7-1/2'			4-1/2'		
11EXC 19-22		119	98		62	10	32	62		98	119	
		4-1/2'			7-1/2'		6'			4-1/2'		
11EXC 25		144	90		52	21	22	52		94	146	
		7-1/2'			6'		6'			7-1/2'		
11EXC 25 - 26		148	98		62	10	32	62		98	148	
		7-1/2'			7-1/2'		6'			7-1/2'		
11EXC 25 - 27		148	98		62	10	32	62		98	148	
		7-1/2'			7-1/2'		6'			7-1/2'		
11EXC 25 - 30		176	156	122 96	62	14	22	62		94	120	146 174
		4-1/2'		4-1/2'	7-1/2'		6'			4-1/2'		4-1/2'
11EXC 30		174	152	124 98	62	14	22	62		94	120	146 172
		4-1/2'		4-1/2'	7-1/2'		6'			4-1/2'		4-1/2'
11EXC 30 - 31		174	144	106 90	58	18	14	54		90	108	140 174
		6'		4-1/2'	6'		6'			4-1/2'		6'
11EXC 30 - 32		184	152	122 98	62	12	24	64		94	118	152 184
		4-1/2'		6'	7-1/2'		6'			6'		4-1/2'
11EXC 30 - 34		202	160	128 92	50	14	14	50		92	128	160 202
		6'		6'	6'		6'			6'		6'
11EXC 30 - 36		210	188	150 98	62	12	24	62		102	154	186 208
		4-1/2'		7-1/2'	7-1/2'		6'			7-1/2'		4-1/2'
11EXC 30 - 39		228	188	150 98	62	12	24	62		102	154	188 228
		6'		7-1/2'	7-1/2'		6'			7-1/2'		6'
11EXC 30 - 40	230	196	160	146 106 76	50	14	14	50	92	106	146	160 202 230
	6'		4-1/2'	4-1/2'	6'		6'		4-1/2'		4-1/2'	6'

13' MF EXC/QX CULTIVATOR COIL TINE HARROW W/BASKET

NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.

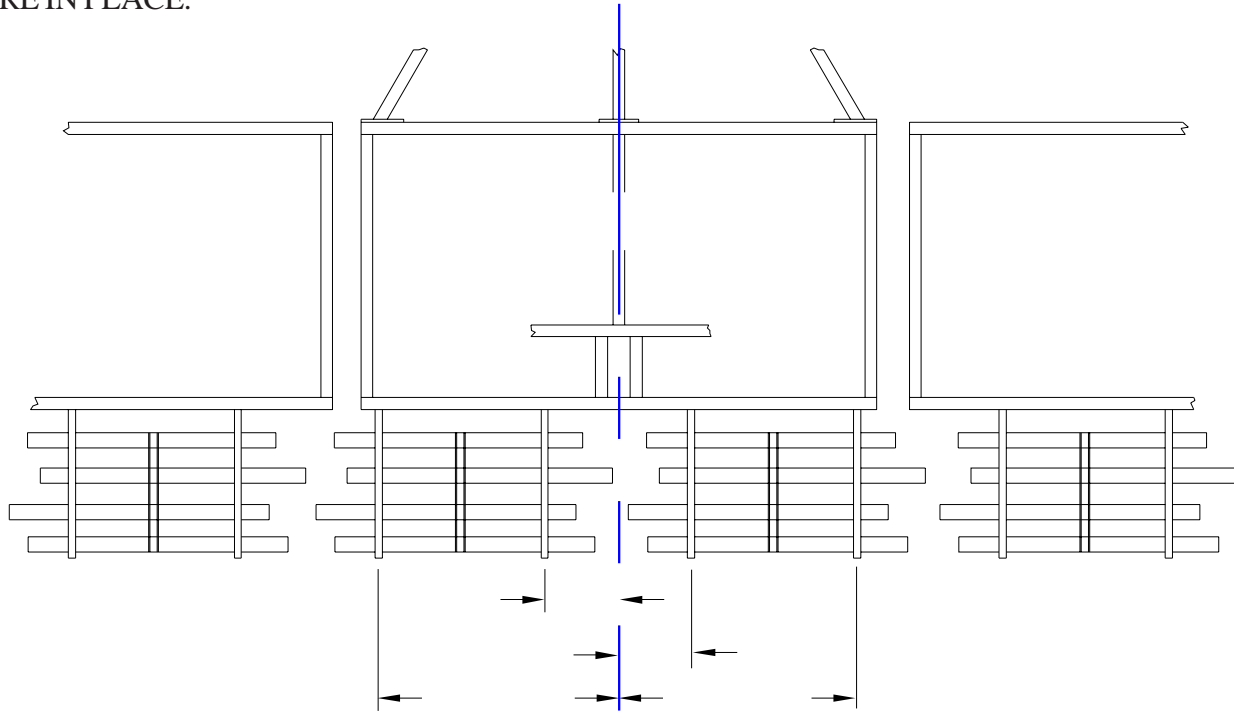


56 36 0 56 - ARM LOCATION (INCH FROM CENTER LINE)
4-1/2' 7-1/2' - SECTION

WING'S				MAIN FRAME				WING'S			
13EXC/QX 32	188	169	140 104	60	8	23	61	104	141	169 189	
	4-1/2'		6'		7-1/2'		6'		6'	4-1/2'	
13EXC/QX 32 - 33	186	168	138 102	58	6	26	66	108	144	168 190	
	4-1/2'		6'		7-1/2'		6'		6'	4-1/2'	
13EXC/QX 32 - 34	199	176	147 111	75	17	17	76	110	147	177 199	
	4-1/2'		6'		7-1/2'		7-1/2'		6'	4-1/2'	
13EXC/QX 32 - 37	218	176	148 106	64	20	22	76	106	148	176 218	
	6'		6'		7-1/2'		7-1/2'		6'	6'	
13EXC/QX 32 - 38	222	202	172 148 118 90	58	8	26	66	96	120	150 174 204 226	
	4-1/2'		4-1/2' 4-1/2'		7-1/2'		6'		4-1/2'	4-1/2' 4-1/2'	
13EXC/QX 32 - 41	242	202	172 148 118 90	58	8	26	66	96	120	150 174 206 246	
	6'		4-1/2' 4-1/2'		7-1/2'		6'		4-1/2'	4-1/2' 6'	
13EXC/QX 32 - 42	244	214	186 160 130 106	64	20	22	76	104	122	158 186 218 244	
	6'		4-1/2' 4-1/2'		7-1/2'		7-1/2'		4-1/2'	4-1/2' 6'	
13EXC/QX 32 - 45	268	232	186 160 130 106	64	20	22	76	104	122	158 186 232 268	
	7-1/2'		4-1/2' 4-1/2'		7-1/2'		7-1/2'		4-1/2'	4-1/2' 7-1/2'	
13EXC/QX 37	218	176	146 106	64	20	22	76	106	46	76 218	
	6'		6'		7-1/2'		7-1/2'		6'	6'	
13EXC/QX 37 - 38	214	174	136 104	60	10	26	66	98	134	174 218	
	7-1/2'		6'		7-1/2'		6'		6'	7-1/2'	
13EXC/QX 37 - 39	224	188	152 98	60	10	26	66	98	152	190 226	
	6'		7-1/2'		7-1/2'		6'		7-1/2'	6'	
13EXC/QX 37 - 42	250	230	200 160 132 106	64	20	22	76	104	132	160 200 228 250	
	4-1/2'		6' 4-1/2'		7-1/2'		7-1/2'		4-1/2'	6' 4-1/2'	
13EXC/QX 37 - 46	274	250	218 176 146 106	64	20	22	76	106	146	176 218 246 272	
	4-1/2'		6' 6'		7-1/2'		7-1/2'		6'	6' 4-1/2'	
13EXC/QX 37 - 47	268	248	202 186 150 105	60	11	23	66	104	150	185 201 248 268	
	6'		4-1/2' 7-1/2'		7-1/2'		6'		7-1/2'	4-1/2' 6'	
13EXC/QX 37 - 50	287	251	202 178 140 112	75	20	20	75	112	140	178 202 251 287	
	6'		6' 6'		7-1/2'		7-1/2'		6'	6' 6'	

16' MF EXC/QX CULTIVATOR COIL TINE HARROW W/BASKET

NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.



56	36	0	56	- ARM LOCATION (INCH FROM CENTER LINE)
4-1/2'		7-1/2'		- SECTION

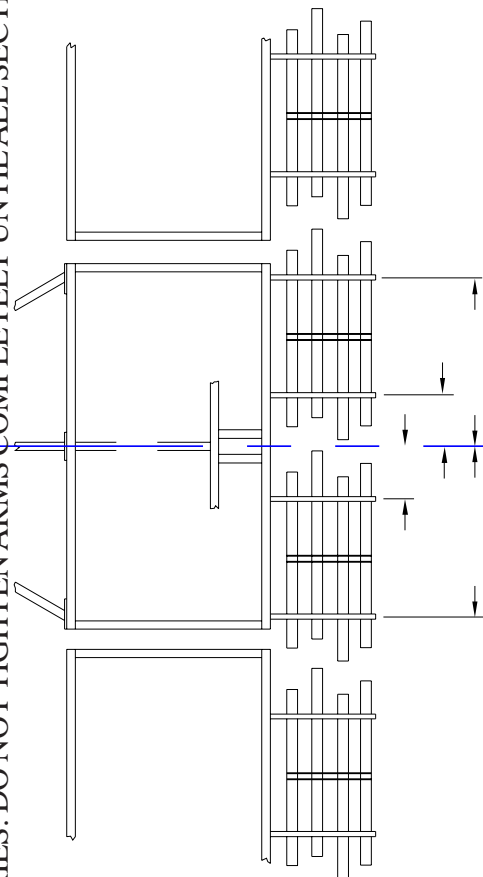
WING'S					MAIN FRAME					WING'S				
16EXC/QX 39	226 188		154 116			80 48	10	10	48 80		116 154		188 226	
16EXC/QX 39 - 40	230 202		164 124			92 50	20	20	50 92		124 164		202 230	
16EXC/QX 39 - 41	196 174		144 104			80 48	14	14	48 80		104 144		174 196	
16EXC/QX 39 - 45	266 242		212 190		154 120	80 42	14	14	42 80	120 154		190 212		242 266
16EXC/QX 39 - 46	266 246		222 196		164 124	92 50	20	20	50 92	124 164		196 222		246 266
16EXC/QX 39 - 48	286 268		230 202		154 120	80 42	14	14	42 80	120 154		202 230		268 286
16EXC/QX 39 - 50	284 264		217 201		163 124	88 52	21	21	52 88	124 163		201 217		264 284
16EXC/QX 39 - 52	284 264		217 201		163 124	88 52	21	21	52 88	124 163		201 217		264 284

NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.

QUADX/EXCEL/DCIII HARROW/BASKET MTG INSTRUCTION (79291) 3/07

16' MF 5 SECTION EXC/QX CULTIVATOR COIL TINE HARROW W/BASKET

NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.



56	36	0	56
4-1/2'	7-1/2'	7-1/2'	-SECTION

-ARM LOCATION (INCH FROM CENTER LINE)

	OUTER WINGS		INNER WINGS		MAIN FRAME		INNER WINGS		OUTER WINGS	
16 5SECT 53	313	268 7-1/2'	228	201 4-1/2'	163	134 6'	91	62 7-1/2'	62	91 6'
16 5SECT 53-54	325	274 7-1/2'	228	201 6'	154	125 6'	91	50 6'	21	50 6'
16 5SECT 53-55	325	274 7-1/2'	228	201 6'	154	125 6'	91	50 6'	21	50 6'
16 5SECT 58	342	303 6'	275	248 4-1/2'	150	125 6'	91	50 6'	21	50 6'
16 5SECT 58-59	352	314 6'	284	259 4-1/2'	159	131 4-1/2'	91	62 6'	20	62 6'
16 5SECT 58-60	352	314 6'	284	259 4-1/2'	159	131 4-1/2'	91	62 6'	20	62 6'

DCIII DISK CULTIVATOR COIL TINE HARROW/BASKET ARM MOUNING LOCATIONS

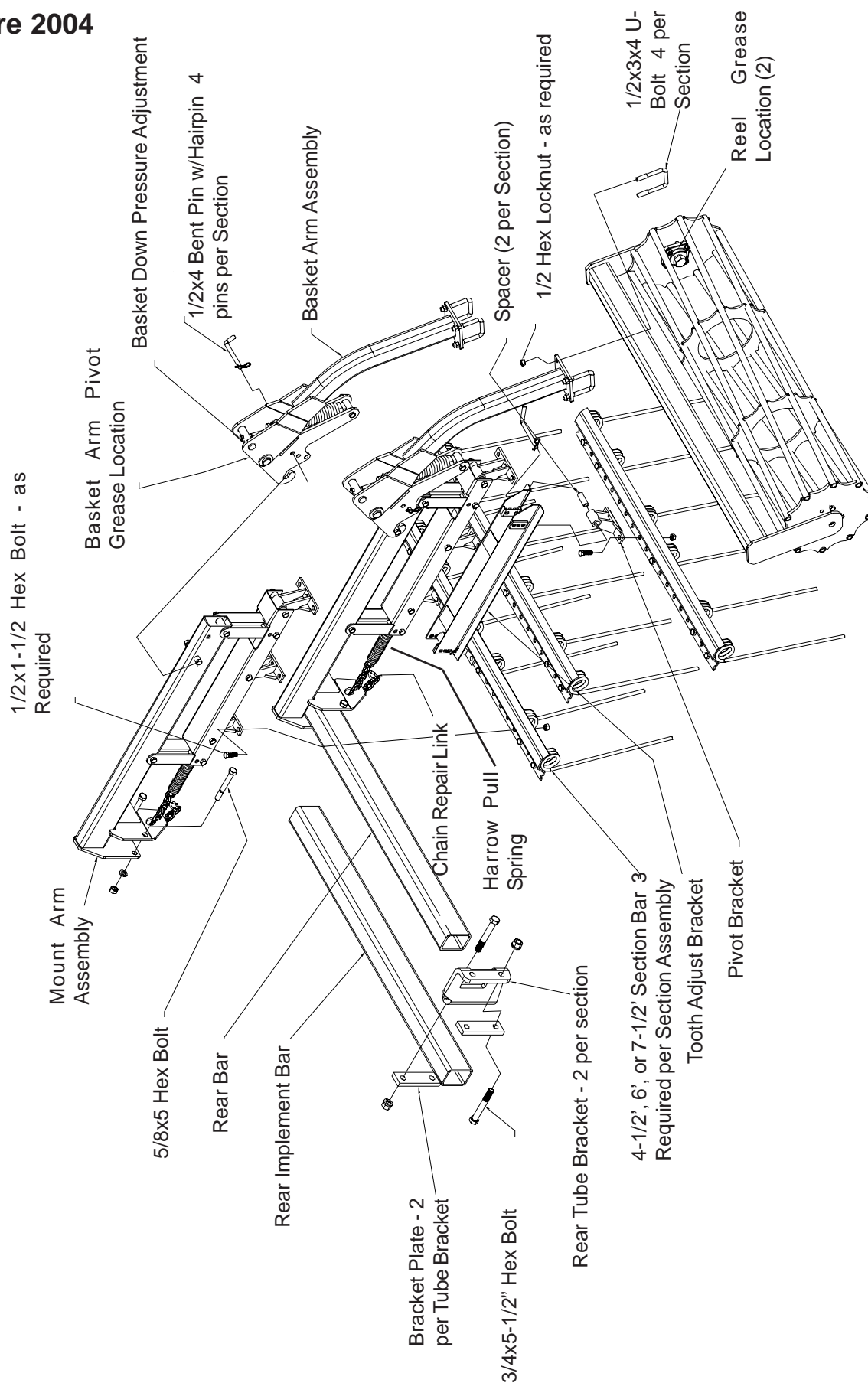
42	22	27	60	- ARM LOCATION (INCH FROM CENTER LINE)
	4-1/2'		7-1/2'	- SECTION

LEFT WING MAIN FRAME RIGHT WING

11 DC III 19	108 79 6'	43 22 22 43 4-1/2'	79 108 6'
11 DC III 19-22	108 79 7-1/2'	43 22 22 43 4-1/2'	79 108 7-1/2'
11 DC III 25	144 108 6'	61 27 27 61 7-1/2'	108 144 6'
11 DC III 25-28	148 98 7-1/2'	62 10 32 62 7-1/2'	98 148 7-1/2'
11 DC III 31	180 158 131 99 4-1/2' 6'	59 27 27 59 6'	99 131 158 180 6' 4-1/2'
14 DC III 34	194 167 131 108 6' 4-1/2'	60 32 32 60 7-1/2'	108 131 167 194 4-1/2' 6'
14 DC III 34-37	194 167 131 108 7-1/2' 4-1/2'	60 32 32 60 7-1/2'	108 131 167 194 4-1/2' 7-1/2'

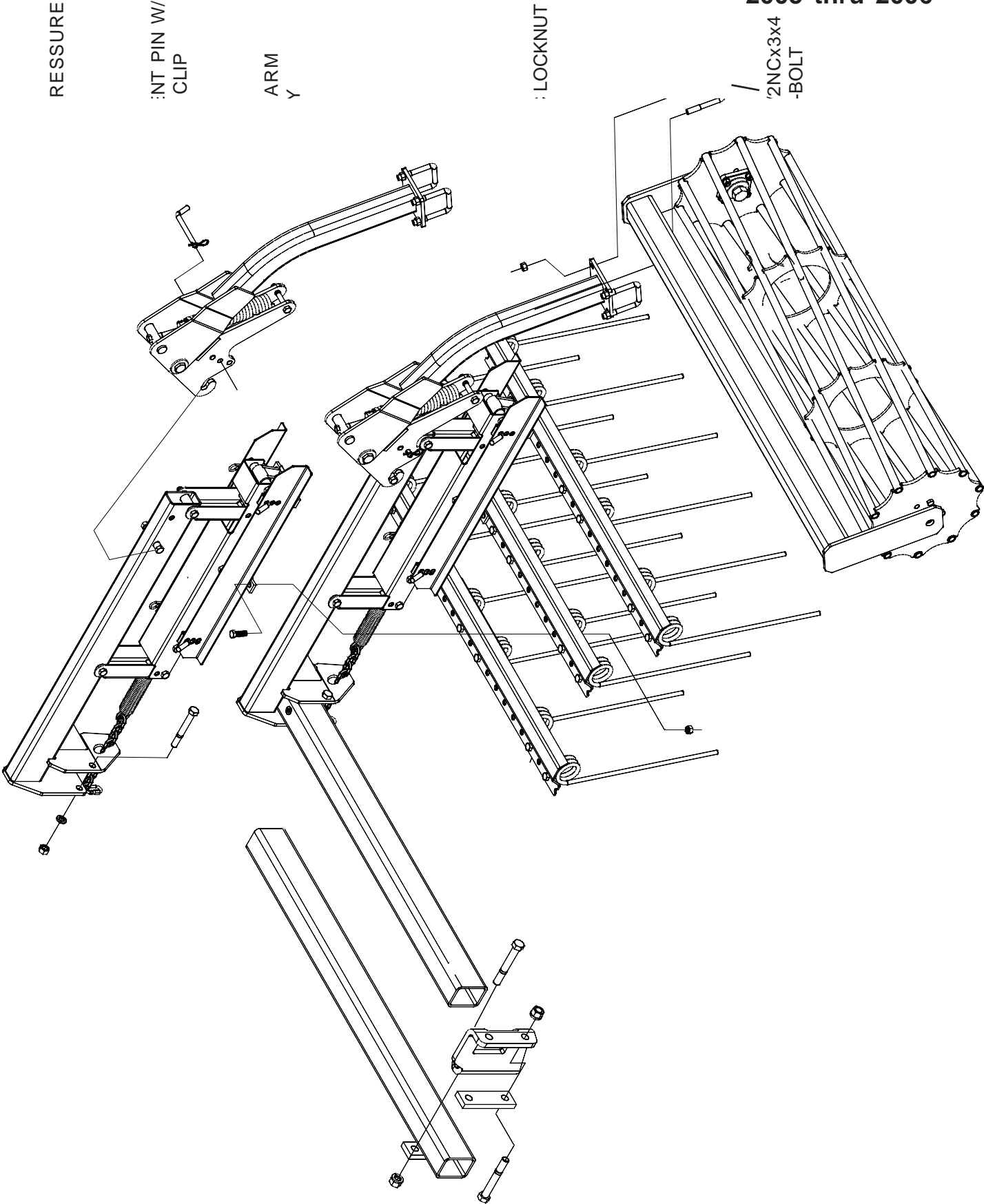
Arm/Basket Arm Assembly

Pre 2004



Arm /Basket Arm Assembly

2005 thru 2006

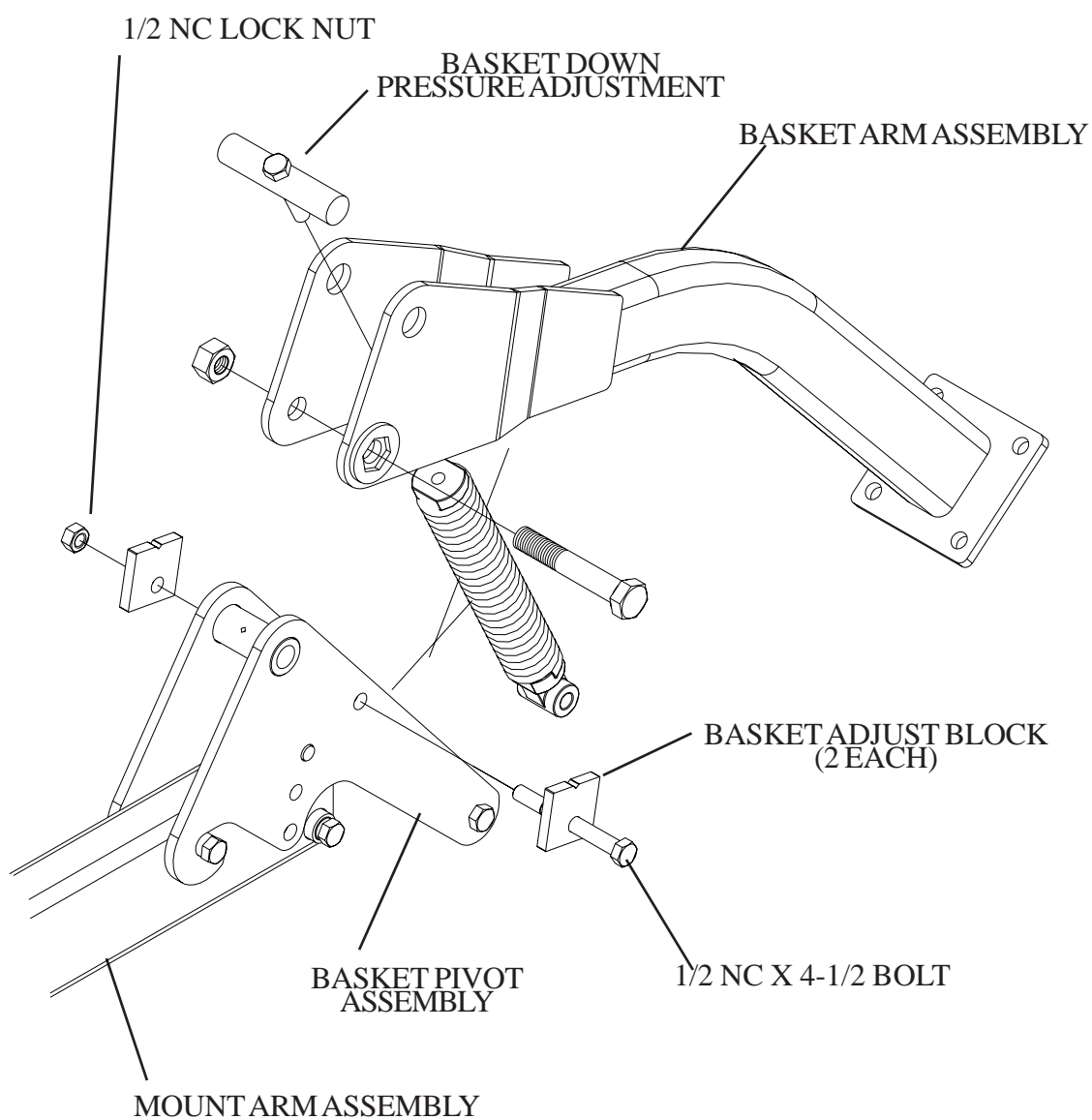


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Basket Arm Assembly

2007 & UP

Refer to page 11 for information on the assembly of the complete Harrow Basket.

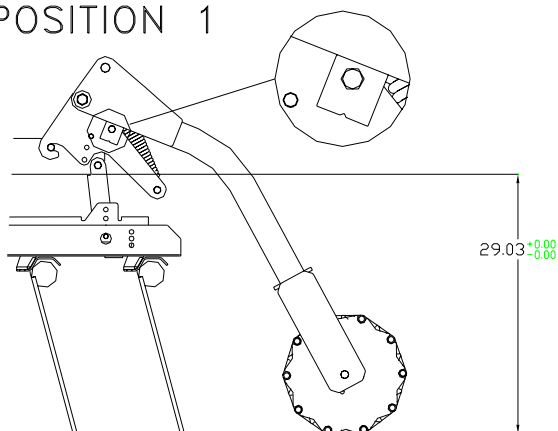


Rear Basket Adjustments

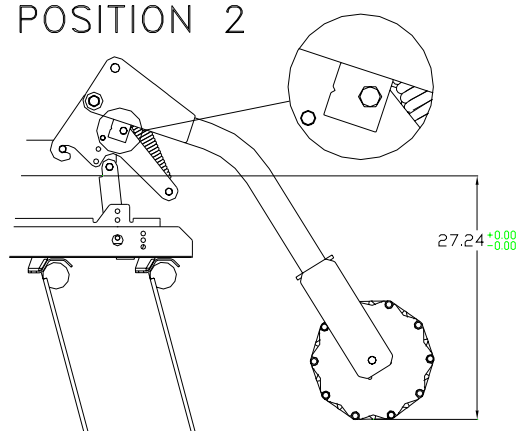
The illustration below shows the four (4) different settings that control the position of the rear basket assembly when utilizing the basket adjust block settings. These are relative positions of the basket to the lower edge of the basket mount tube. As shown, Position 1 locates the basket approximately 29 inches below the basket mount tube, Position 2 sets the basket at approximately 27.25 inches below the mount tube, etc. The positions are set by rotating the adjustment block to control the vertical location of the basket arm and basket. Note the location notch on the adjust block, blocks on both sides of the arm mount need to be the same. Loosen the lock nut, rotate the block to the desired position and retighten the locknut.

This basket adjustment is designed to hold the rear basket at the desired height. This adjustment does not affect the settings or function of the harrow. The basket can be set to provide clearance in transport but still allow proper operating depth and function. When operating at shallow tillage depths and in higher trash conditions it is possible to rotate the harrow teeth rearward to allow better trash flow. This may require that the basket be set to a higher position to provide transport clearance.

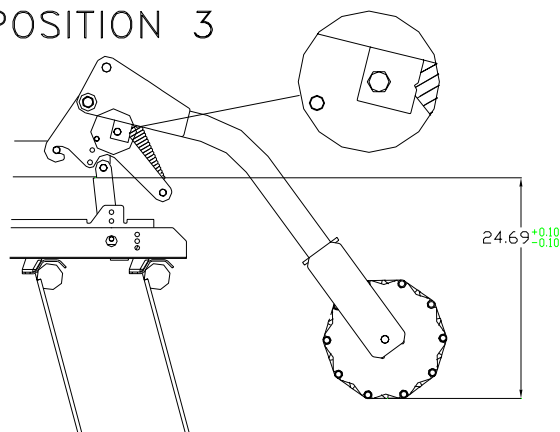
POSITION 1



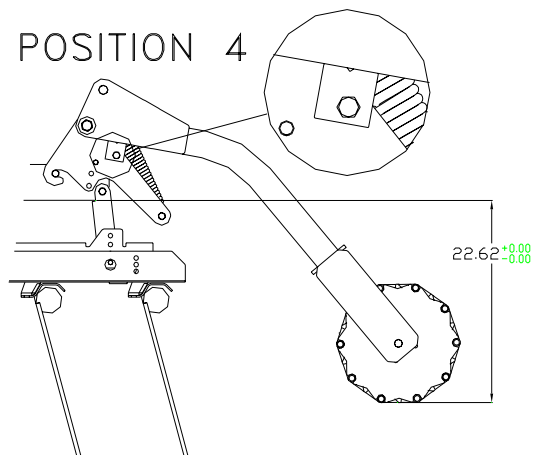
POSITION 2



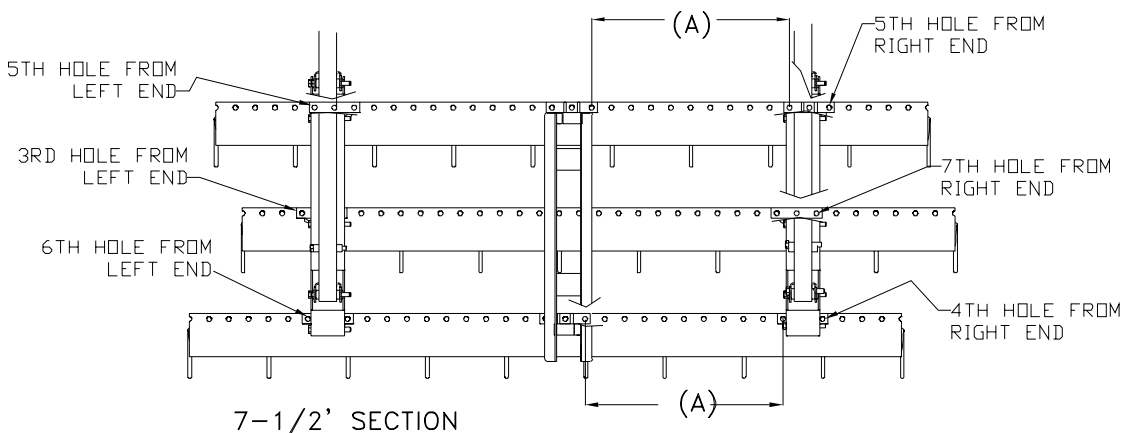
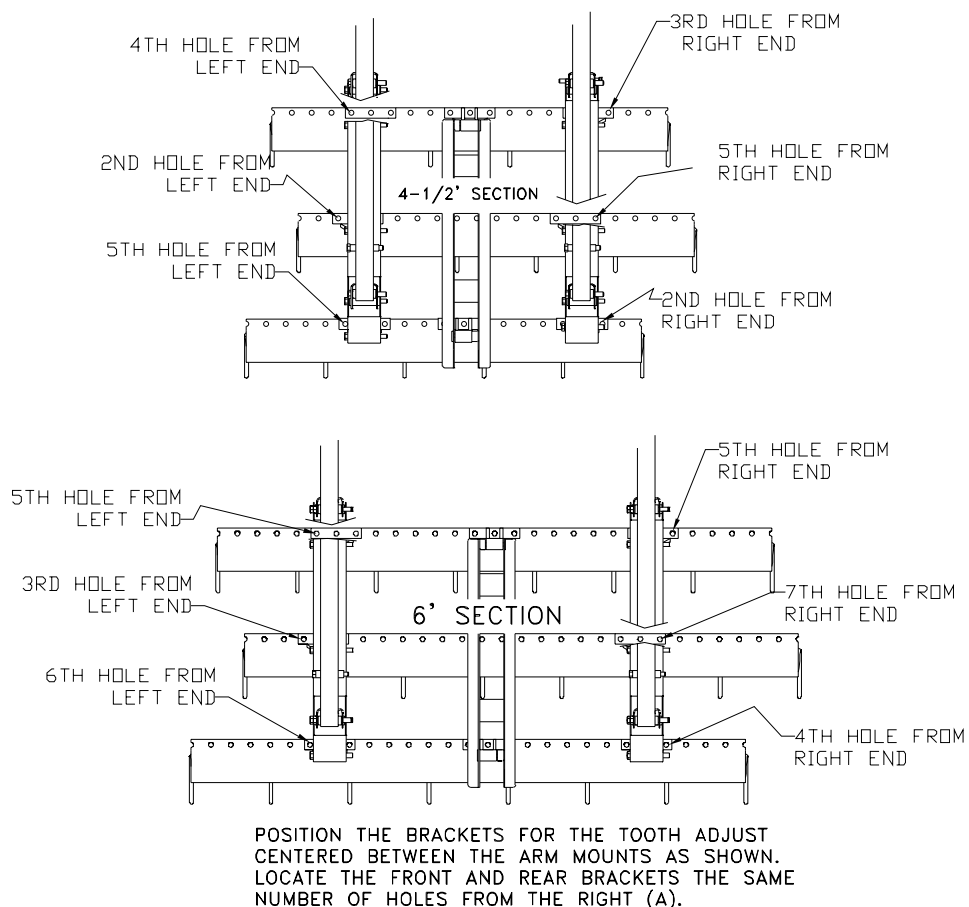
POSITION 3



POSITION 4



HARROW SECTION BAR MOUNTING

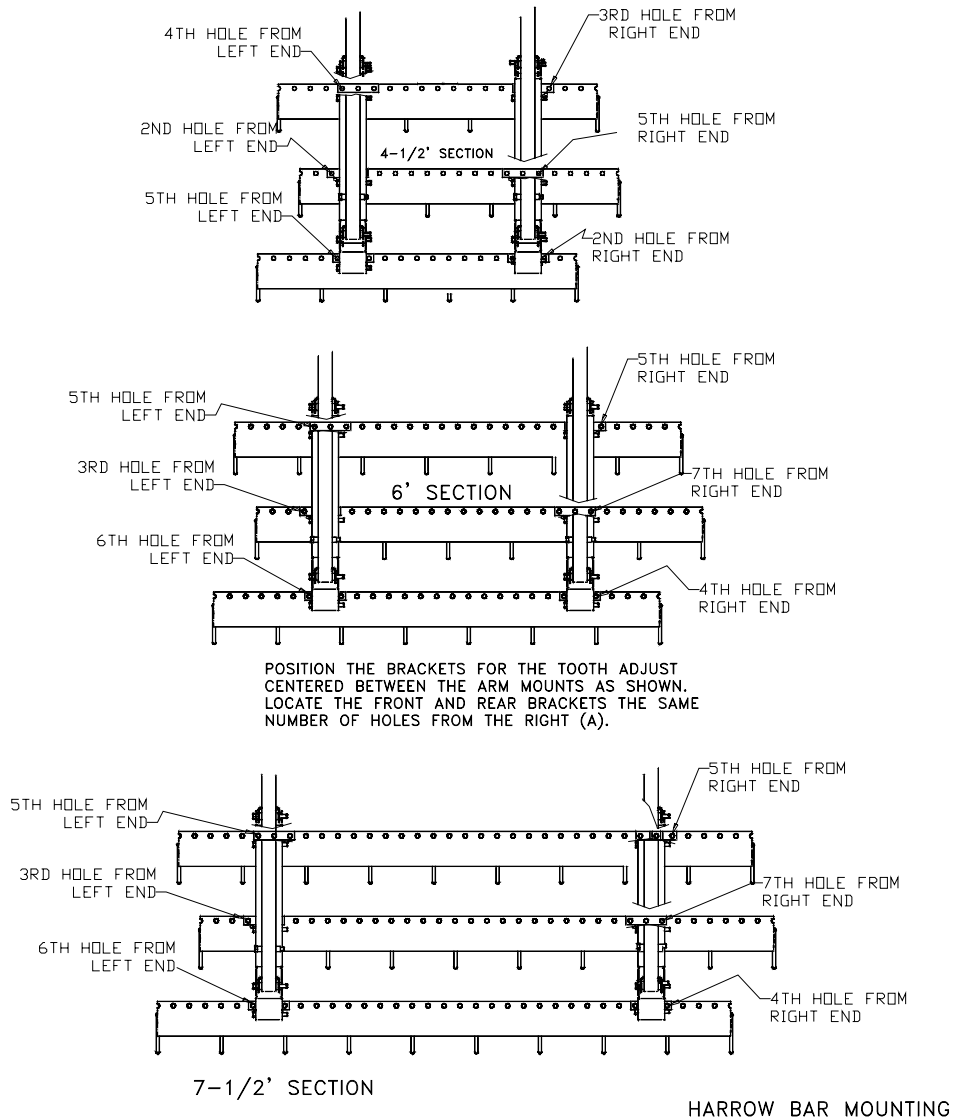


HARROW BAR MOUNTING

Assemble the section bars to the mount arm assemblies as shown above. Hardware (1/2x1-1/2 hex bolts) are provided in the hardware kit. Existing hardware that mounts the tine brackets may need to be removed and replaced with the longer bolts. The harrow mounting arm locations on the mounting arm location chart are based on the assembly of the harrow bars as shown above.

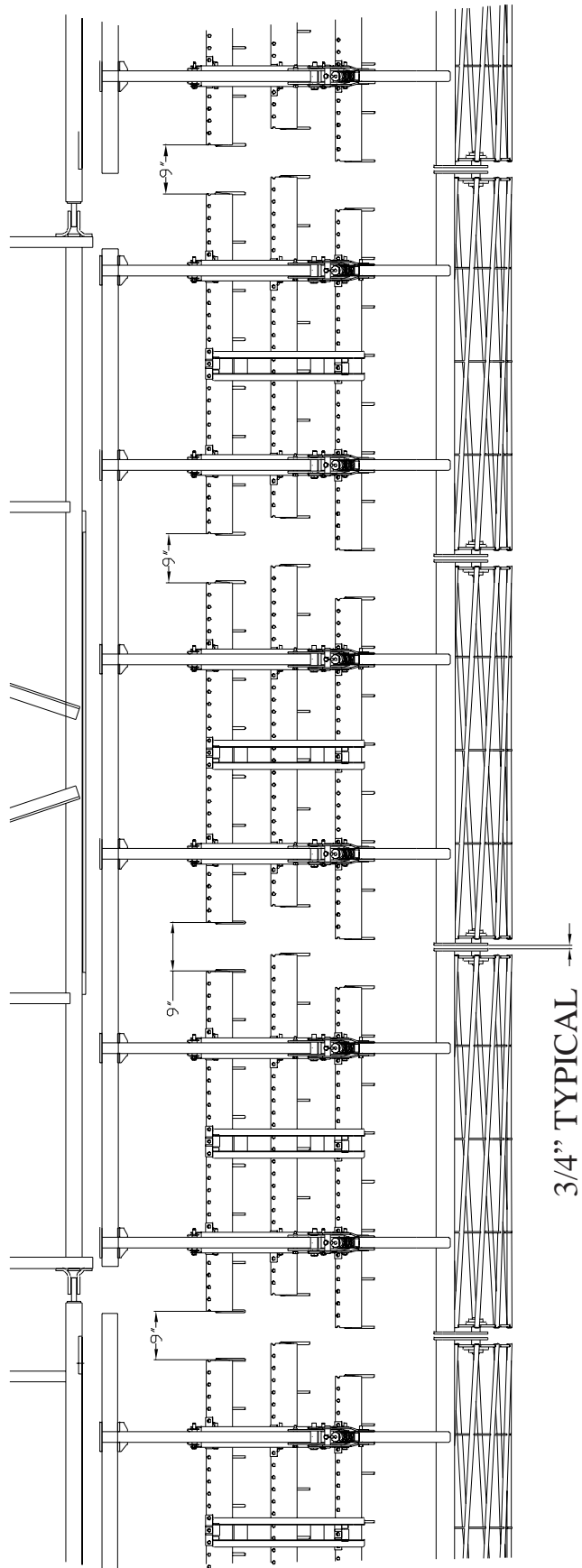
NOTE: Because of changing mounting conditions it may be necessary to move the complete basket arm laterally. In these situations you will need to shift the harrow bars accordingly, move each bar the same number of holes to ensure the correct spacing of the tines. Once section bars have been set, locate the pivot brackets that mount the tooth adjust bracket as shown and secure the tooth adjust bracket as shown on the arm/basket assembly.

HARROW SECTION BAR MOUNTING



Assemble the section bars to the mount arm assemblies as shown above. Hardware (1/2x1-1/2 hex bolts) are provided in the hardware kit. Existing hardware that mounts the tine brackets may need to be removed and replaced with the longer bolts. The harrow mounting arm locations on the mounting arm location chart are based on the assembly of the harrow bars as shown above.

NOTE: Because of changing mounting conditions it may be necessary to move the complete basket arm laterally. In this situation you will need to shift the harrow bars accordingly, move each bar the same number of holes to ensure the correct spacing of the tines.



OPERATION INFORMATION

After all section bars have been mounted, measure to ensure that the main frame sections are centered on the complete main frame. Move the mount arms laterally as required to center the sections and maintain the 9" dimension as shown above.

Once the mount arm assemblies and harrow section bars have been positioned (see page 2-3) on the rear bar the basket arm assemblies can be attached.

Hook the basket arm assembly over the bushing on the mount arm assembly and secure with the 1/2" bent pin and hairpin as shown on the arm/basket arm assembly illustration.

Position the matching basket assembly behind the harrows and loosely mount the baskets with the hardware shown.

Center the main frame baskets behind the harrow sections, leaving approximately 3/4" between the harrow sections as shown.

Once all sections are in position all the mounting hardware can be tightened securely, including the arm and basket mounts.

Once all sections have been securely mounted to the unit slowly fold the wings, making certain that there is not interference between parts of the sections assemblies or parts of the frame. This is most likely to occur at the hinge points where the mount arms from the wing may fold into the main frame arms. If there is a potential interference, one of the interfering mount arm assembly on either the wing or main frame will need to be shifted laterally. Loosen the components of the arm you need to reposition and remove the hardware that attaches the section bars to that arm. Move the arm/basket arm assembly as needed and reattach the section bars.

Fold the unit, check for interference and adjust as required.

On units with outer wings which fold over center, it will be necessary to attach a float limiting bracket to the basket arm assemblies as shown. This bracket will restrict the extension of the basket springs when the wing folds over center, limiting contact with other parts of the basket assemblies.

HARROW/BASKET SETTINGS

There is limited adjustments required to this product, consisting of harrow tool angle and down pressure position and basket down pressure.

The harrow pull spring can be changed by removing the repair link (see page 10 & 11) and moving the pull chain to another link locations. Changing the chain pull position increases or decreases the spring pull pressure on the harrow sections. The mount arm assemblies are shipped with the chain snug and the link arms vertical. By lengthening the chain the section will swing back, but maintain a level position. This position will raise the section somewhat to allow better trash flow but the best levelling is maintained with the factory chain setting.

The tooth angle adjustment can be used to set the harrow tine angle. By moving the tooth angle bracket the front tine angle can be set to one of three positions. To clear trash the front tines can be set in a less vertical position with the rear tines set more vertical. Set the front and rear settings as desired by moving the adjustment pin to the appropriate hole.

The rear basket down pressure can be controlled by adjusting the spring adjust bolt. Tighten the bolt for more downpressure or loosen to allow more vertical float.

MAINTENANCE REQUIREMENTS

Check the tightness of the hardware components on a regular basis to ensure that components have not worked loose. Tighten as required.

GREASING REQUIREMENTS

There are two places which will require limited greasing, the basket arm pivots and the basket bearings. The basket arm pivots should be lubricated with a quality grease upon initial use and periodically after. One or two shots of grease every 30-40 hours of use should be adequate. Do not overgrease, once grease appears at the pivot point stop greasing. The basket bearings are sealed and should not be overgreased. Give these bearings 1-2 shots of grease upon initial set-up and 1-2 shots every 30-40 hours of use. **DO NOT OVER GREASE THESE BEARINGS AS THE SEALS CAN BE DAMAGED.** If the baskets turn rough or seem noisy it is probably time to grease, again 1-2 shots.