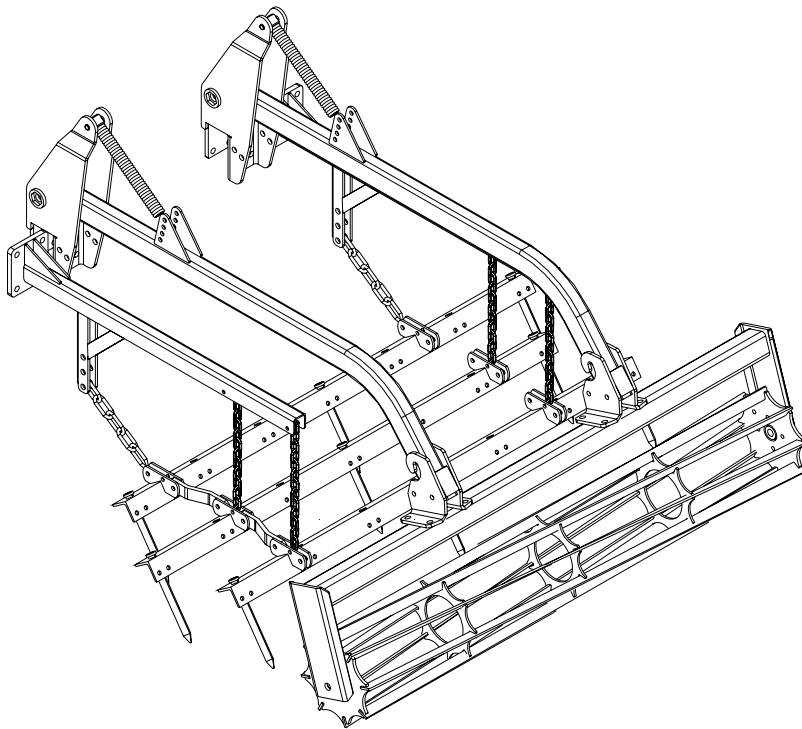




ASSEMBLY/OPERATORS MANUAL



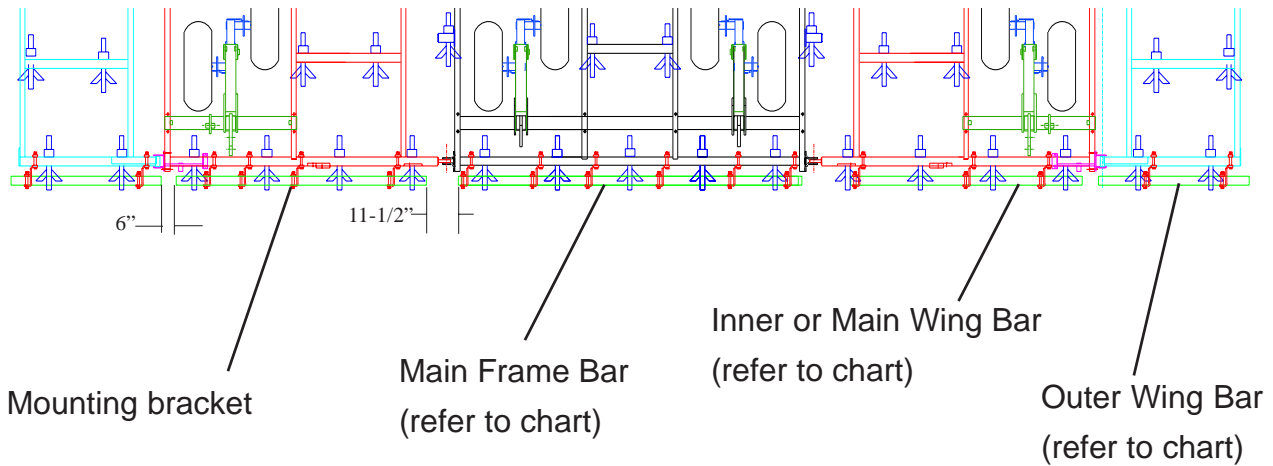
SPIKE TOOTH HARROW W/BASKET

 **WIL-RICH**

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HARROW/BASKET ASSEMBLY INSTRUCTION (74300) 7/08

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.

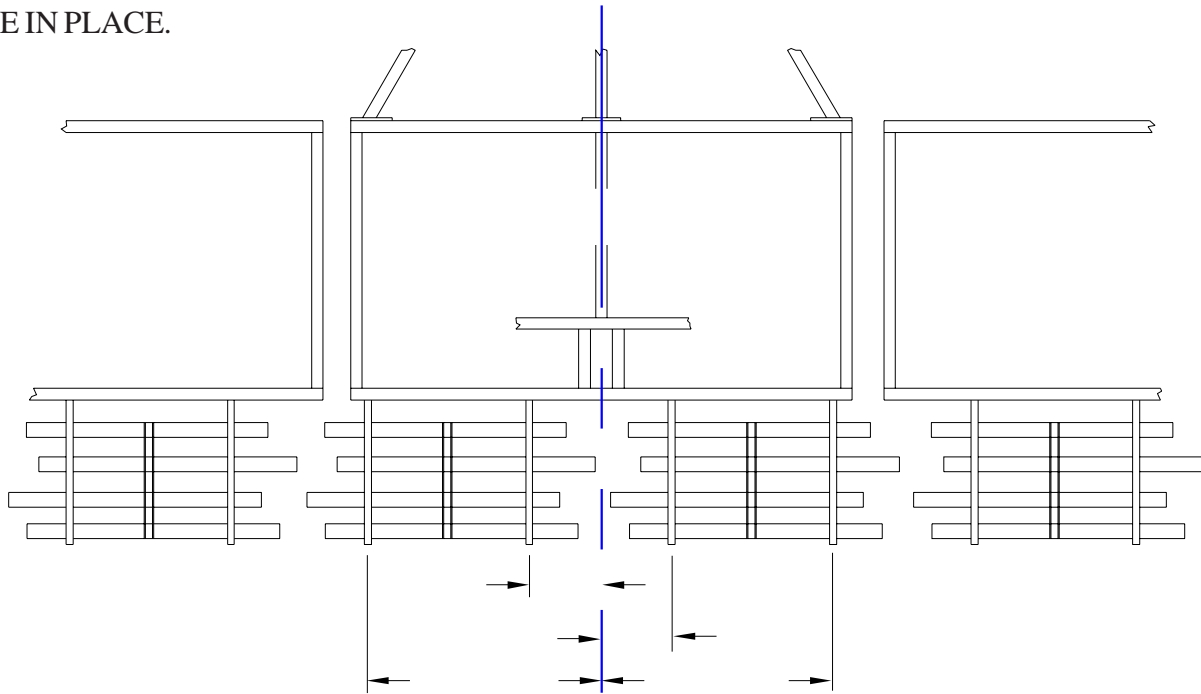
Beginning with the main frame tube, slide the noted tube into the brackets, centering the tube on the main frame. Slide the wing tubes into the brackets from the outside. Loosely secure the rear bar tubes to the brackets with the plates and hardware provided.

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"
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 XL² 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.



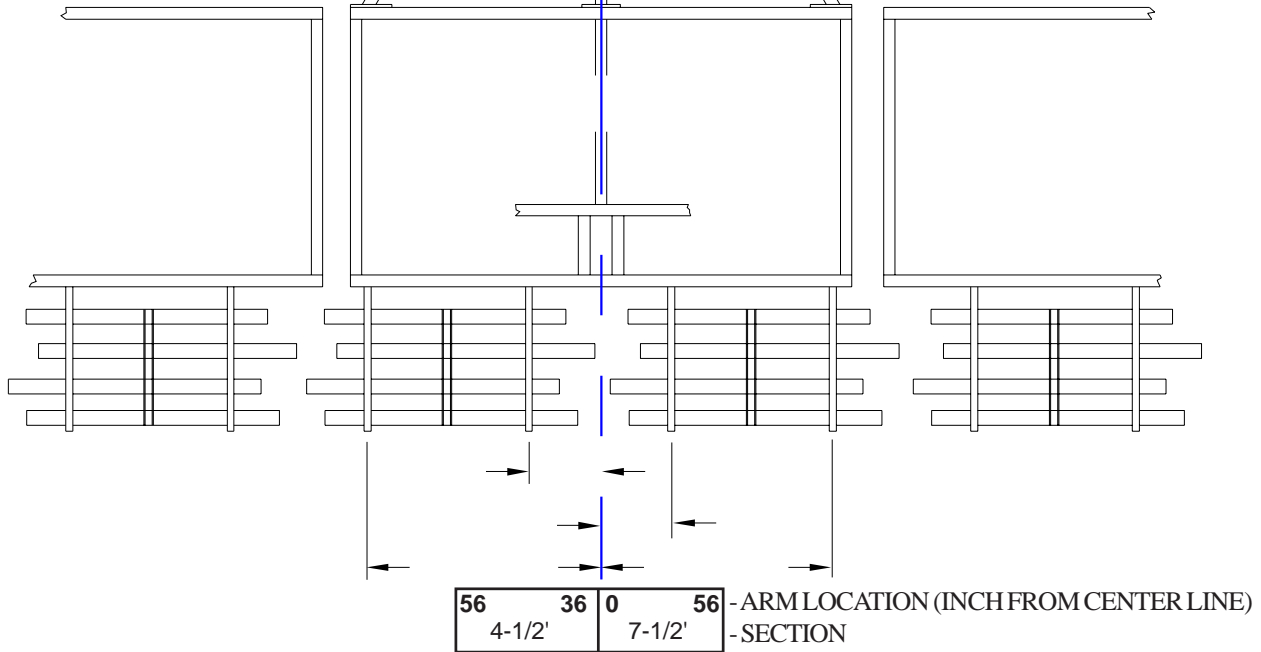
56	36	0	56
4-1/2'	7-1/2'		

 - ARM LOCATION (INCH FROM CENTER LINE)
 - SECTION

	WING'S				MAIN FRAME				WING'S			
11 XL 19-22	119	98			62	10	32	62	98	119		
	4-1/2'				7-1/2' 6'				4-1/2'			
11 XL 25	144	90			52	21	22	52	94	146		
	7-1/2'				6' 6'				7-1/2'			
11 XL 25 - 27	148	98			62	10	32	62	98	148		
	7-1/2'				7-1/2' 6'				7-1/2'			
11 XL 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'			
11 XL 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'			
11 XL 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'			
11 XL 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'			
11 XL 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'			

13' MF XL²/QX² CULTIVATOR COIL TINE HARROW W/BASKET

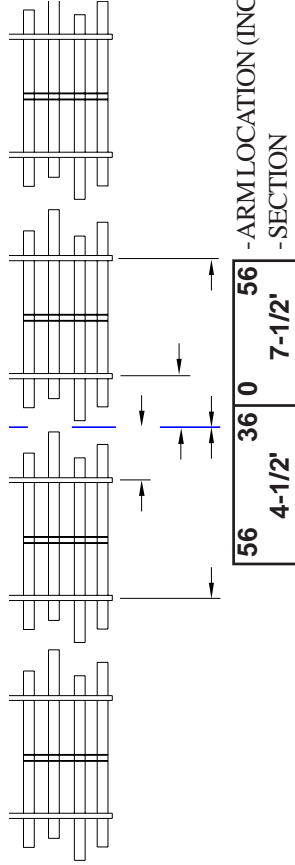
NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.



	WING'S				MAIN FRAME				WING'S							
13 XL/QX 32	189	169	141	110	70	13	20	70	110	141	169	189				
	4-1/2'		6'		7-1/2'		6'		6'		4-1/2'					
13 XL/QX 32-34	189	169	140	110	70	20	20	70	110	141	169	189				
	4-1/2'		6'		7-1/2'		7-1/2'		6'		4-1/2'					
13 XL/QX 32-37	218	176	148	110	70	20	20	70	110	148	176	218				
	6'		6'		7-1/2'		7-1/2'		6'		6'					
13 XL/QX 32-42	244	214	186	160	130	110	70	20	20	70	110	130	160	186	214	244
	6'		4-1/2'		4-1/2'		7-1/2'		7-1/2'		4-1/2'		4-1/2'		6'	
13 XL/QX 32-45	268	232	186	160	130	106	70	20	20	70	110	130	160	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'	
13 XL/QX 37	218	176	148	110	70	20	20	70	110	148	176	218				
	6'		6'		7-1/2'		7-1/2'		6'		6'					
13 XL/QX 37-42	250	230	200	160	130	110	70	20	20	70	110	130	160	200	230	250
	4-1/2'		6'		4-1/2'		7-1/2'		7-1/2'		4-1/2'		6'		4-1/2'	
13 XL/QX 37-47	268	238	200	186	150	110	70	13	20	70	110	150	186	200	238	268
	6'		4-1/2'		7-1/2'		7-1/2'		6'		7-1/2'		4-1/2'		6'	
13 XL/QX 37-50	288	250	200	178	140	110	70	20	20	70	110	140	178	200	250	288
	6'		6'		6'		7-1/2'		7-1/2'		6'		6'		6'	

13' MF 5 SECTION XL²/QX² CULTIVATOR COIL TINE HARROW W/BASKET

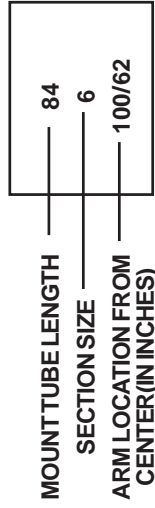
NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.



OUTER WINGS INNER WINGS MAIN FRAME INNER WINGS OUTER WINGS

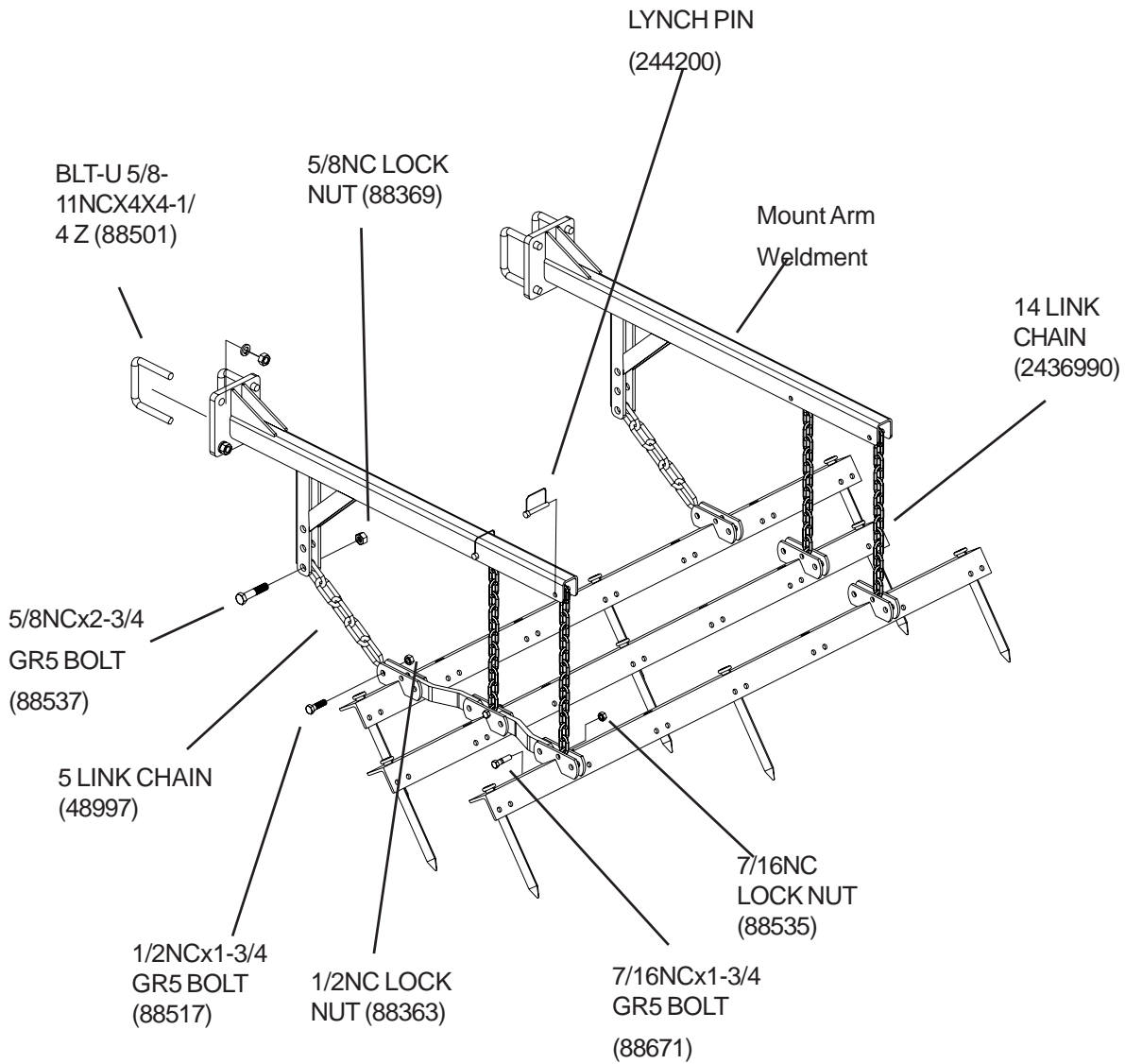
13 5SECT 46	264 7-1/2'	215	178 4-1/2'	147 4-1/2'	129 4-1/2'	95	67 6'	22	20 7-1/2'	65	95 4-1/2'	1129 4-1/2'	147 4-1/2'	178 7-1/2'	215 7-1/2'	264		
13 5SECT 46-48	283 7-1/2'	224	189 4-1/2'	160 4-1/2'	139 6'	100	67 6'	22 6'	20 7-1/2'	65	100 6'	139 4-1/2'	160 4-1/2'	189 7-1/2'	224 6'	283		
13 5SECT 56-50	289 4-1/2'	265 6'	200	165 7-1/2'	110	67	67 7-1/2'	22 7-1/2'	22 7-1/2'	67	110 7-1/2'	165	110 7-1/2'	165	200 6'	240 4-1/2'	265 4-1/2'	289
13 5SECT 50	298 7-1/2'	244	206 6'	177 6'	131 6'	110	65 4-1/2'	38 4-1/2'	13 4-1/2'	65	110 6'	131 6'	177 6'	206 6'	244 7-1/2'	298		
13 5SECT 50-53	312 7-1/2'	264	217 7-1/2'	177 6'	131 6'	110	65 4-1/2'	38 6'	20 6'	65	110 6'	131 6'	177 7-1/2'	217 7-1/2'	264 7-1/2'	312		
13 5SECT 55	327 4-1/2'	301 4-1/2'	253	217 6'	177 6'	145	110 4-1/2'	20 6'	20 6'	49	110 6'	145 6'	177 6'	217 6'	253 4-1/2'	271 4-1/2'	301 4-1/2'	327
13 5SECT 55-58	342 4-1/2'	332 6'	287	217 6'	177 6'	145	110 4-1/2'	20 6'	20 6'	49	110 4-1/2'	145 6'	177 6'	217 6'	253 6'	287 6'	332 4-1/2'	342 4-1/2'

614NT DISC COIL TINE HARROW/BASKET ARM MOUNTING LOCATIONS



17FT4IN 614NT		84 6 100/62	7-1/2 28/28	84 6 62/100	
23FT8IN 614NT	70 7-1/2 136/82	4-1/2 48/24	102 6 5/48	70 7-1/2 82/136	
26FT10IN 614NT	70 7-1/2 156/98	7-1/2 63/7	132 6 24/63	70 7-1/2 98/156	
30FT 614NT	102 6 166/133	4-1/2 103/80	102 4-1/2 48/24 6 5/48	102 4-1/2 80/103 6 133/166	
33FT2IN 614NT	120 6 188/152	6 116/79	102 4-1/2 48/24 6 5/48	120 6 79/116 6 152/188	
36FT4IN 614NT	120 6 213/173	6 140/100	132 7-1/2 63/7 6 24/63	120 6 100/140 6 173/213	

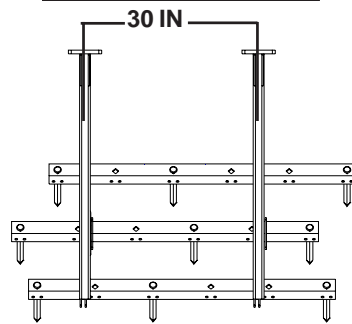
Spike Harrow and Mounts



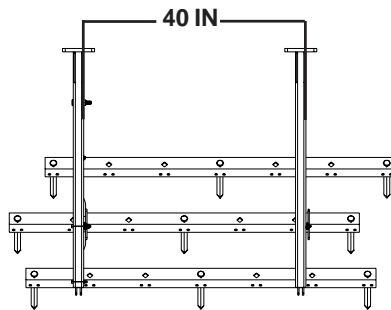
In order for the spike tooth harrow to function properly the harrow mount arms must be spaced correctly. The proper spacing for the harrow arms is shown below.

First mount the spike tooth portion of the harrow basket, locating the mount arms as shown below. The basket portion of the harrow has more freedom for mounting the arm. They should be place as to not interfere with the spike tooth portion.

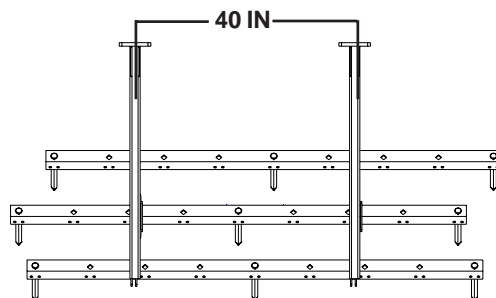
4-1/2' SECTION



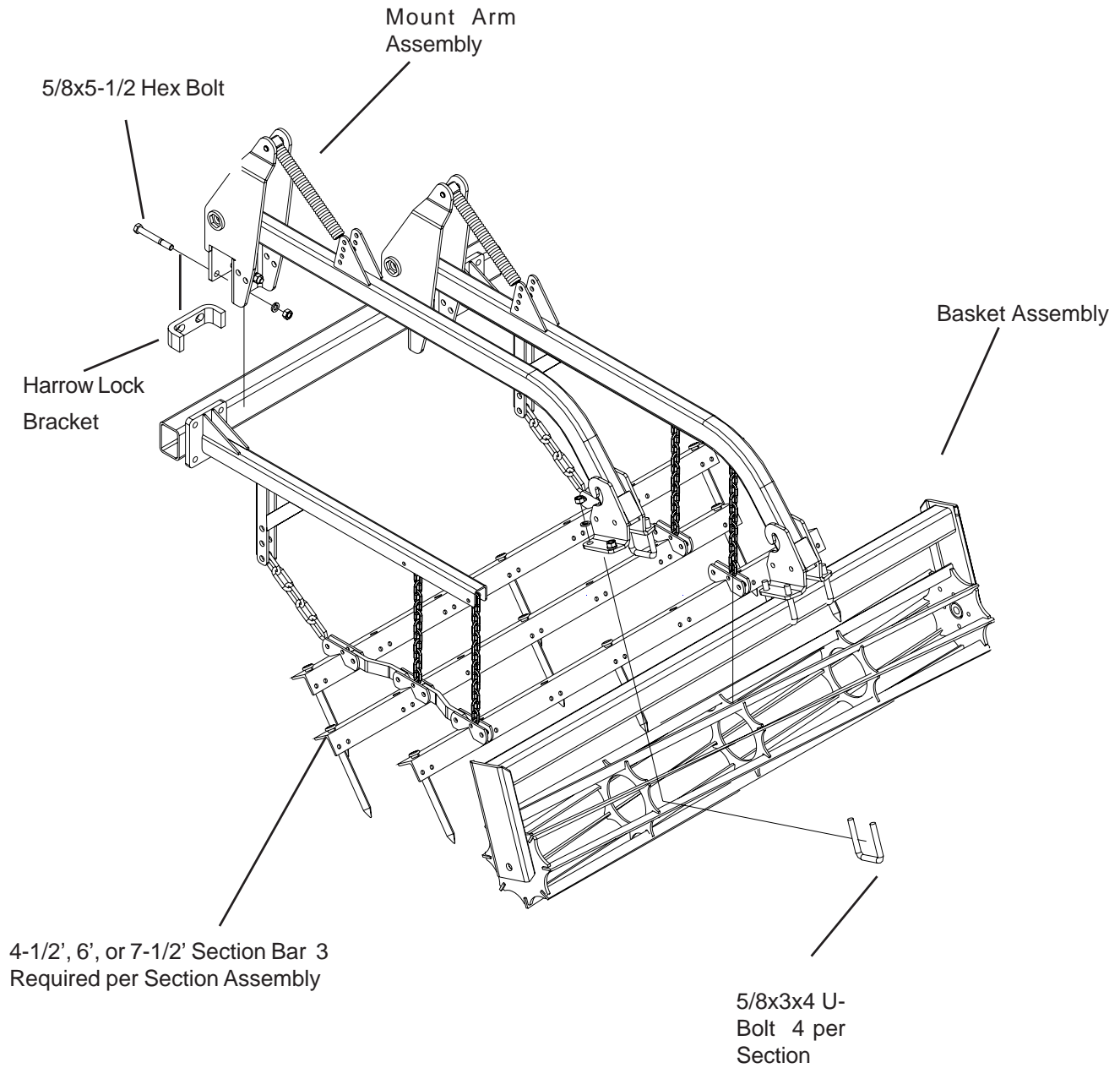
6' SECTION

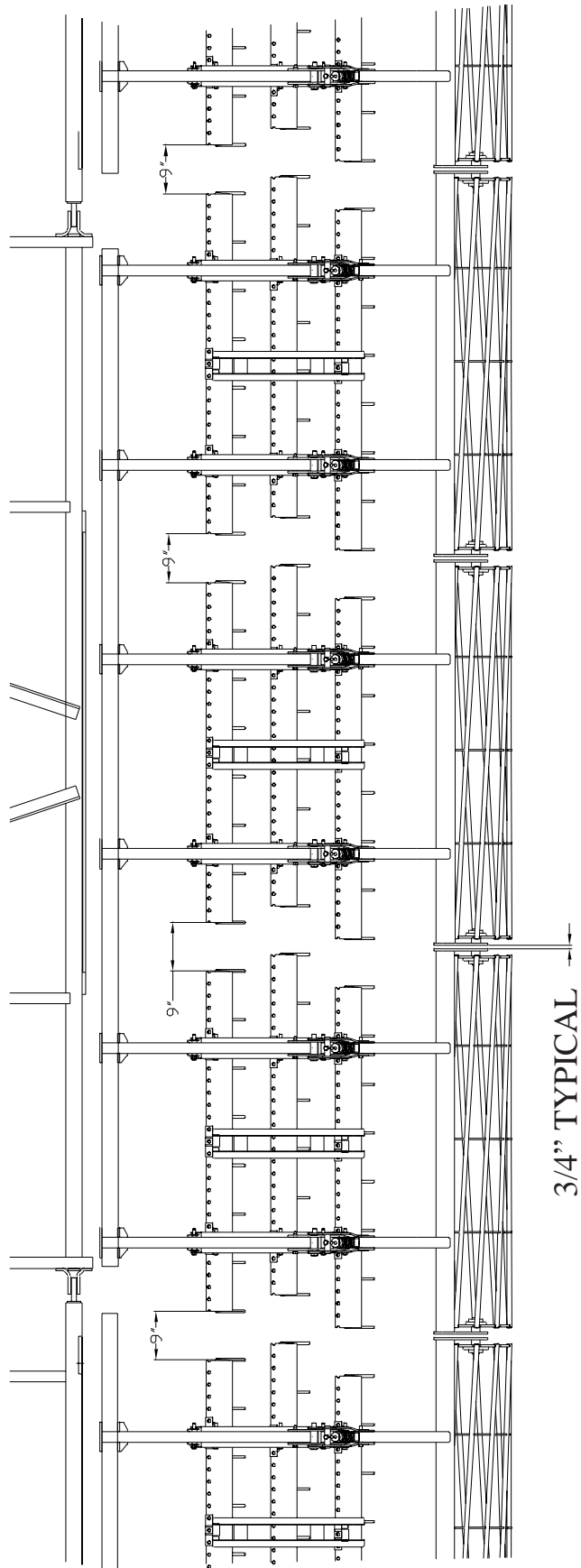


7-1/2' SECTION



Arm/Basket Arm Assembly





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 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 is one place which will require limited greasing, the basket bearings. Fill bearings with grease every 10 hours of use should be adequate.

