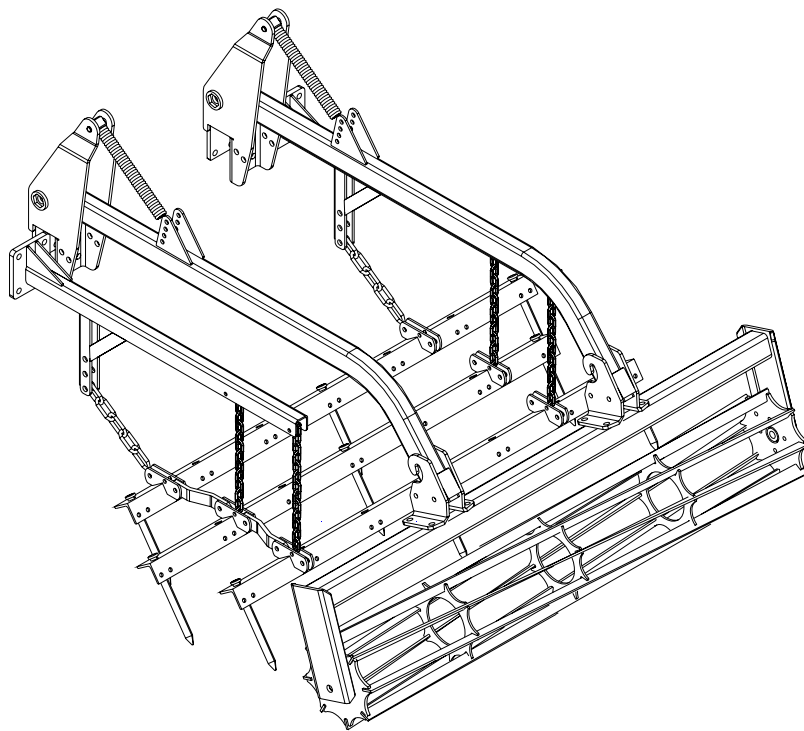




ASSEMBLY/OPERATORS MANUAL



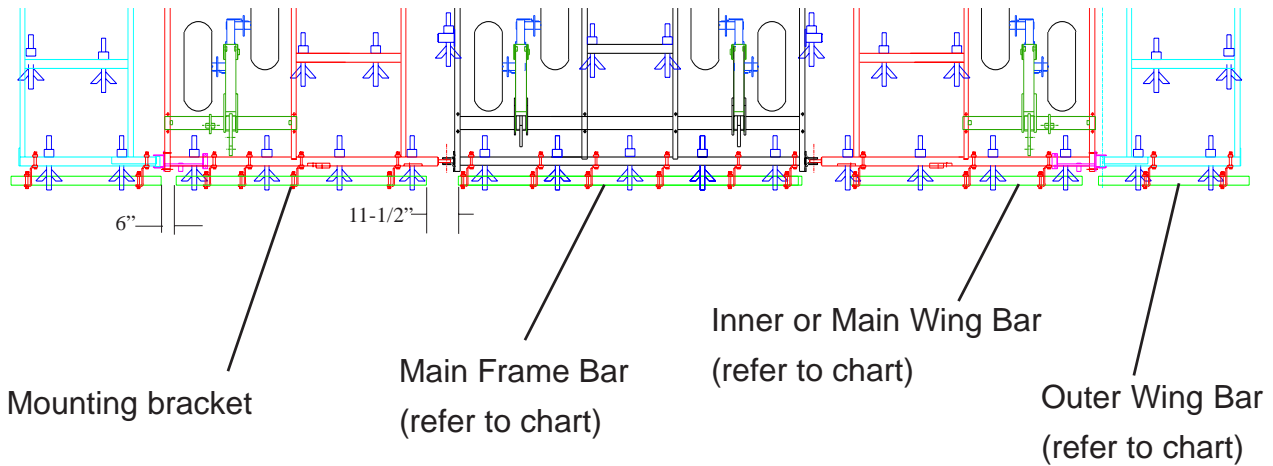
SPIKE TOOTH HARROW W/BASKET

 **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.

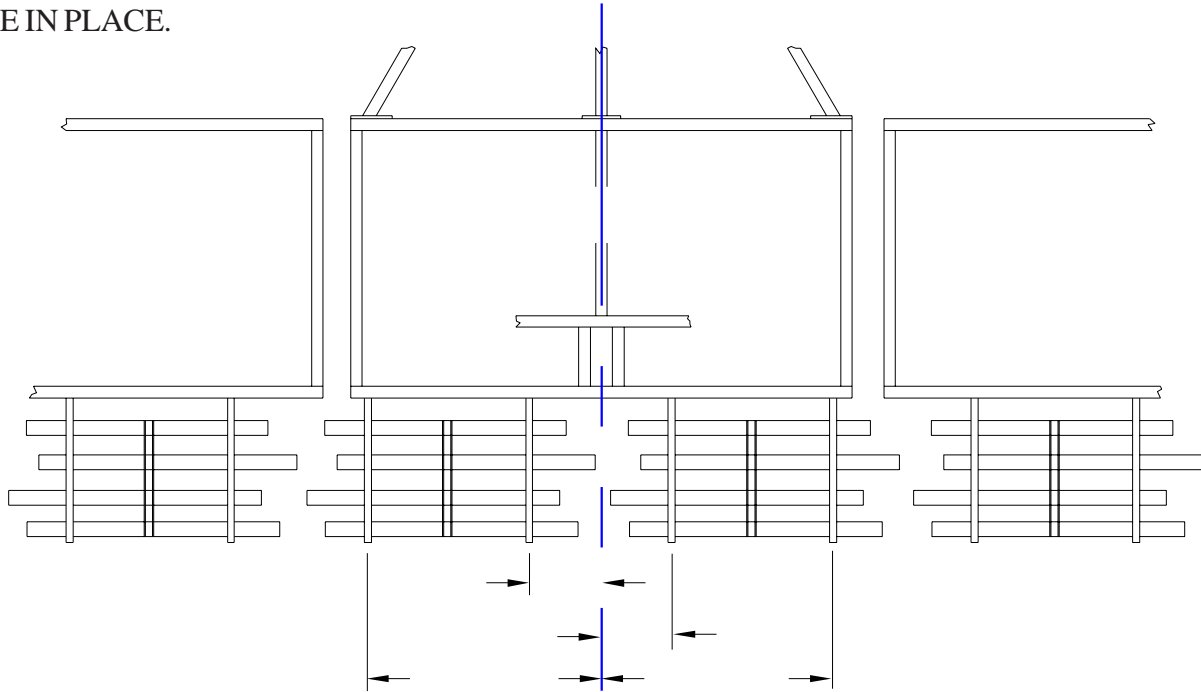
Beginning with the main frame tube, slide the noted tube into the brackets, centering the tube on the main frame. Slide the wing tubes into the brackets from the outside. Loosely secure the rear bar tubes to the brackets with the plates and hardware provided.

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.

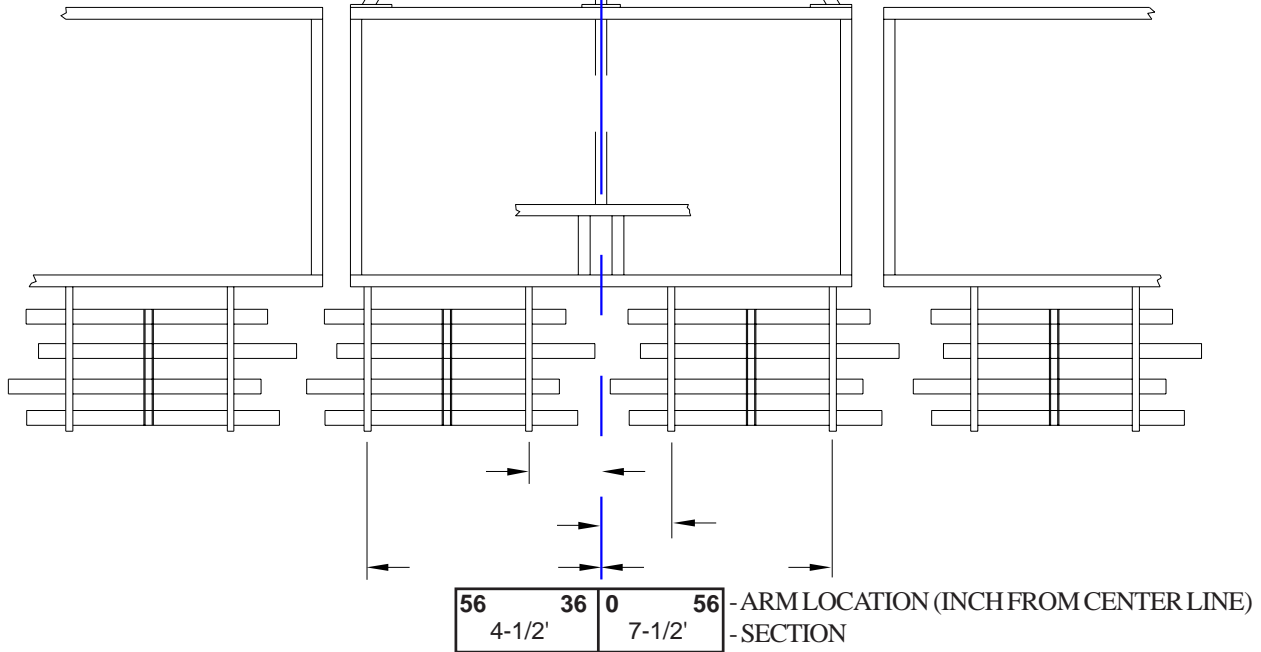


56	36	0	56	- ARM LOCATION (INCH FROM CENTER LINE) - SECTION
4-1/2'			7-1/2'	

	WING'S				MAIN FRAME				WING'S					
11 XL 19-22	119	98	4-1/2'		62	10	32	62	7-1/2'	6'	98	119	4-1/2'	
11 XL 25	144	90	7-1/2'		52	21	22	52	6'	6'	94	146	7-1/2'	
11 XL 25 - 27	148	98	7-1/2'		62	10	32	62	7-1/2'	6'	98	148	7-1/2'	
11 XL 25 - 30	176	156	122	96	62	14	22	62	4-1/2'	4-1/2'	94	120	146	174
11 XL 30	174	152	124	98	62	14	22	62	4-1/2'	4-1/2'	94	120	146	172
11 XL 30 - 32	184	152	122	98	62	12	24	64	4-1/2'	6'	94	118	152	184
11 XL 30 - 36	210	188	150	98	62	12	24	62	6'	6'	102	154	186	208
11 XL 30 - 39	228	188	150	98	62	12	24	62	6'	7-1/2'	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

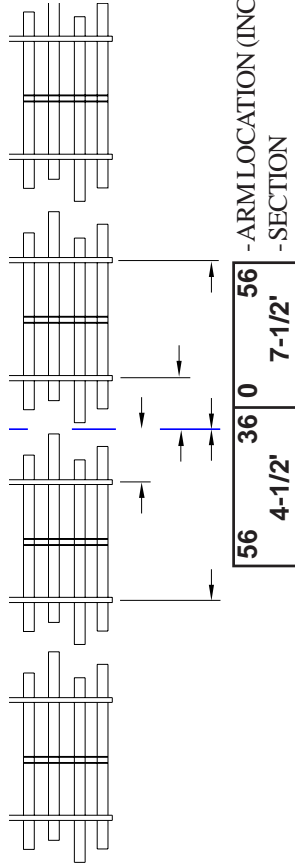
NOTE: EXACT ARM LOCATION COULD VARY EITHER DIRECTION, DEPENDENT ON IMPLEMENT ACCESSORIES. DO NOT TIGHTEN ARMS COMPLETELY UNTIL ALL SECTIONS ARE IN PLACE.



	WING'S	MAIN FRAME	WING'S
13 XL/QX 32	189 169 141 110 4-1/2' 6'	70 13 20 70 7-1/2' 6'	110 141 169 189 6' 4-1/2'
13 XL/QX 32-34	189 169 140 110 4-1/2' 6'	70 20 20 70 7-1/2' 7-1/2'	110 141 169 189 6' 4-1/2'
13 XL/QX 32-37	218 176 148 110 6' 6'	70 20 20 70 7-1/2' 7-1/2'	110 148 176 218 6' 6'
13 XL/QX 32-42	244 214 186 160 130 110 6' 4-1/2' 4-1/2'	70 20 20 70 7-1/2' 7-1/2'	110 130 160 186 214 244 4-1/2' 4-1/2' 6'
13 XL/QX 32-45	268 232 186 160 130 106 7-1/2' 4-1/2' 4-1/2'	70 20 20 70 7-1/2' 7-1/2'	110 130 160 186 232 268 4-1/2' 4-1/2' 7-1/2'
13 XL/QX 37	218 176 148 110 6' 6'	70 20 20 70 7-1/2' 7-1/2'	110 148 176 218 6' 6'
13 XL/QX 37-42	250 230 200 160 130 110 4-1/2' 6' 4-1/2'	70 20 20 70 7-1/2' 7-1/2'	110 130 160 200 230 250 4-1/2' 6' 4-1/2'
13 XL/QX 37-47	268 238 200 186 150 110 6' 4-1/2' 7-1/2'	70 13 20 70 7-1/2' 6'	110 150 186 200 238 268 7-1/2' 4-1/2' 6'
13 XL/QX 37-50	288 250 200 178 140 110 6' 6' 6'	70 20 20 70 7-1/2' 7-1/2'	110 140 178 200 250 288 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 4-1/2'	178 4-1/2'	147 4-1/2'	129 4-1/2'	95 4-1/2'	67 6'	22 7-1/2'	20 7-1/2'	65 7-1/2'	95 4-1/2'	1129 4-1/2'	147 4-1/2'	178 4-1/2'	215 7-1/2'	264 7-1/2'	
13 5SECT 46-48	283 7-1/2'	224 7-1/2'	189 4-1/2'	160 4-1/2'	139 6'	100 6'	67 6'	22 7-1/2'	20 7-1/2'	65 7-1/2'	100 6'	139 4-1/2'	160 4-1/2'	189 7-1/2'	224 7-1/2'	283 7-1/2'	
13 5SECT 56-50	289 4-1/2'	265 6'	240 6'	200 6'	165 7-1/2'	110 7-1/2'	67 7-1/2'	22 7-1/2'	22 7-1/2'	67 7-1/2'	110 7-1/2'	165 7-1/2'	200 6'	240 6'	265 4-1/2'	289 4-1/2'	
13 5SECT 50	298 7-1/2'	244 7-1/2'	206 6'	177 6'	131 6'	110 6'	65 4-1/2'	38 4-1/2'	13 4-1/2'	65 4-1/2'	110 6'	131 6'	177 6'	206 6'	244 7-1/2'	298 7-1/2'	
13 5SECT 50-53	312 7-1/2'	264 7-1/2'	217 7-1/2'	177 6'	131 6'	110 6'	65 4-1/2'	38 6'	20 6'	65 4-1/2'	110 6'	131 7-1/2'	177 7-1/2'	217 7-1/2'	264 7-1/2'	312 7-1/2'	
13 5SECT 55	327 4-1/2'	301 4-1/2'	271 6'	253 6'	217 6'	145 6'	110 4-1/2'	49 4-1/2'	20 6'	75 4-1/2'	110 6'	145 6'	177 6'	217 6'	253 4-1/2'	301 4-1/2'	327 4-1/2'
13 5SECT 55-58	342 4-1/2'	332 6'	287 6'	253 6'	217 6'	145 6'	110 4-1/2'	49 4-1/2'	20 6'	75 4-1/2'	110 6'	145 6'	177 6'	217 6'	253 6'	287 4-1/2'	342 4-1/2'

DCIII DISK CULTIVATOR COIL TINE HARROW/BASKET ARM MOUNING LOCATIONS

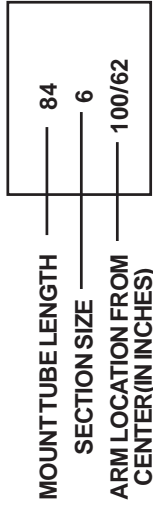
42	22	27	60
4-1/2'		7-1/2'	

- ARM LOCATION (INCH FROM CENTER LINE)
- SECTION

LEFT WING MAIN FRAME RIGHT WING

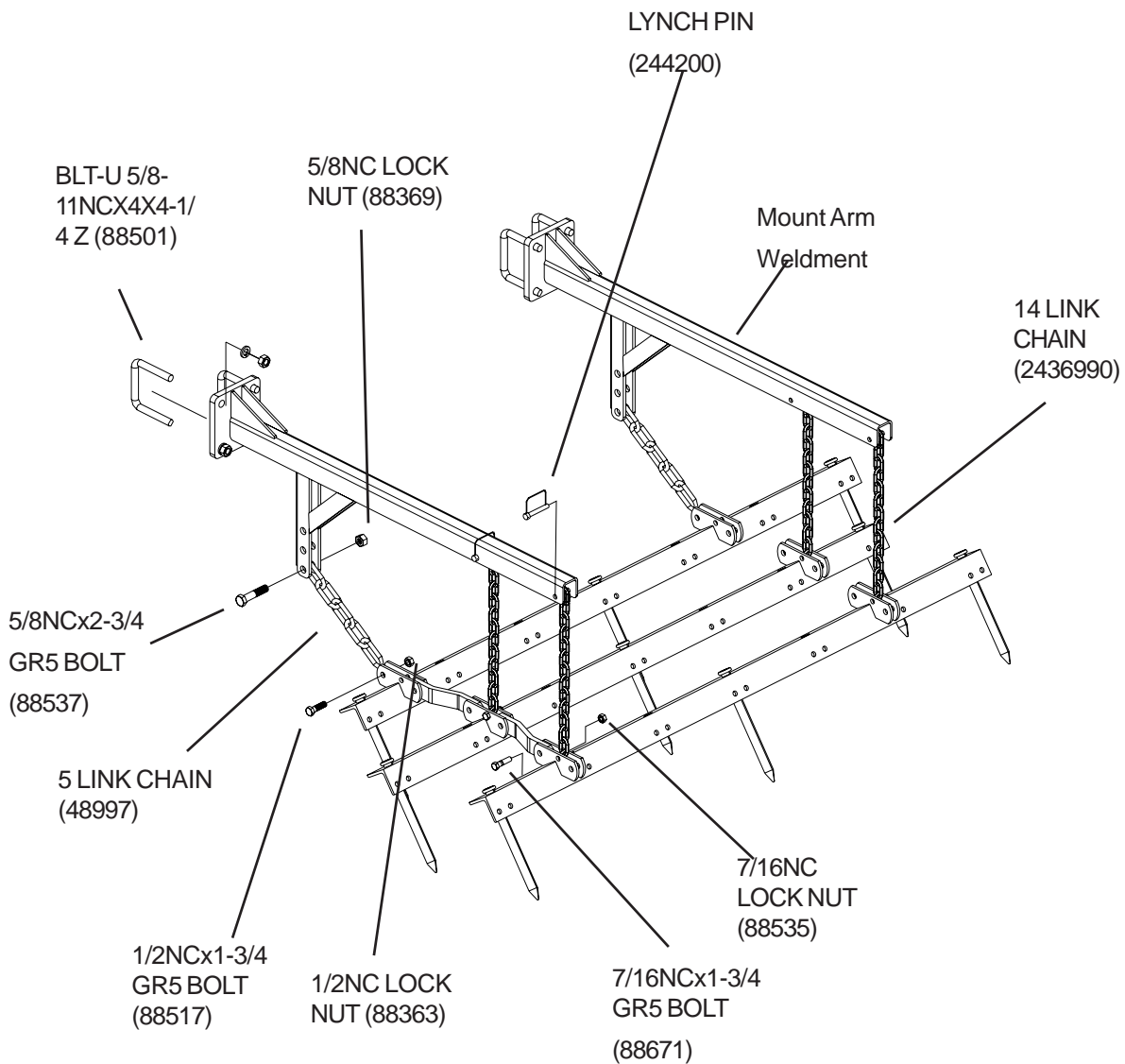
11 DC III 19	108	79	43	22	22	43	79	108
		6'		4-1/2'		4-1/2'		6'
11 DC III 19-22	108	79	43	22	22	43	79	108
		7-1/2'		4-1/2'		4-1/2'		7-1/2'
11 DC III 25	144	108	61	27	27	61	108	144
		6'		7-1/2'		7-1/2'		6'
11 DC III 25-28	148	98	62	10	32	62	98	148
		7-1/2'		7-1/2'		6'		7-1/2'
11 DC III 31	180	158	59	27	27	59	158	180
		4-1/2'		6'		6'		4-1/2'
14 DC III 34	194	167	70	32	32	70	167	194
		6'		7-1/2'		7-1/2'		6'
14 DC III 34-37	194	167	70	32	32	70	167	194
		7-1/2'		7-1/2'		7-1/2'		7-1/2'

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

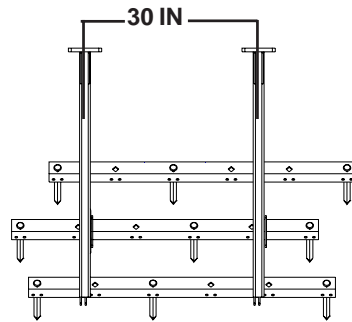
Spike Harrow and Mounts



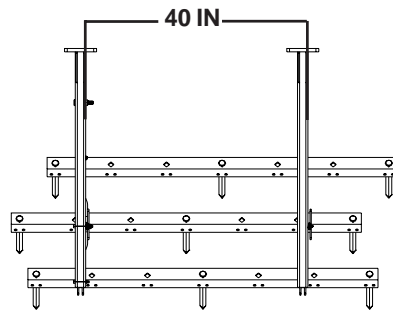
In order for the spike tooth harrow to function properly the harrow mount arms must be spaced correctly. The proper spacing for the harrow arms is shown below.

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.

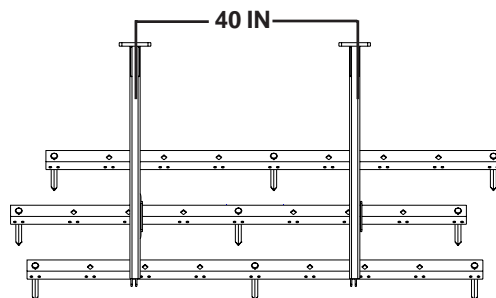
4-1/2' SECTION



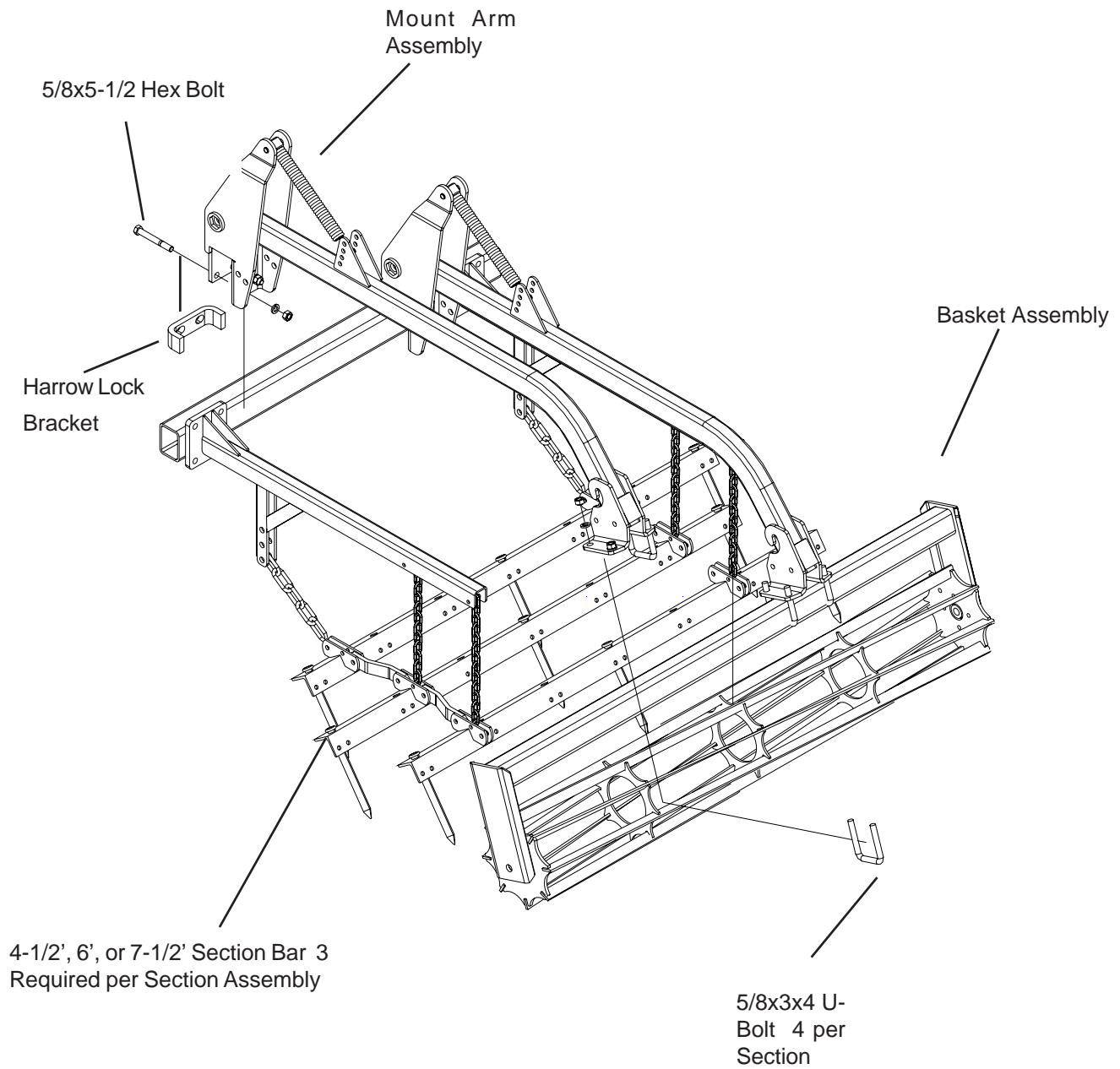
6' SECTION

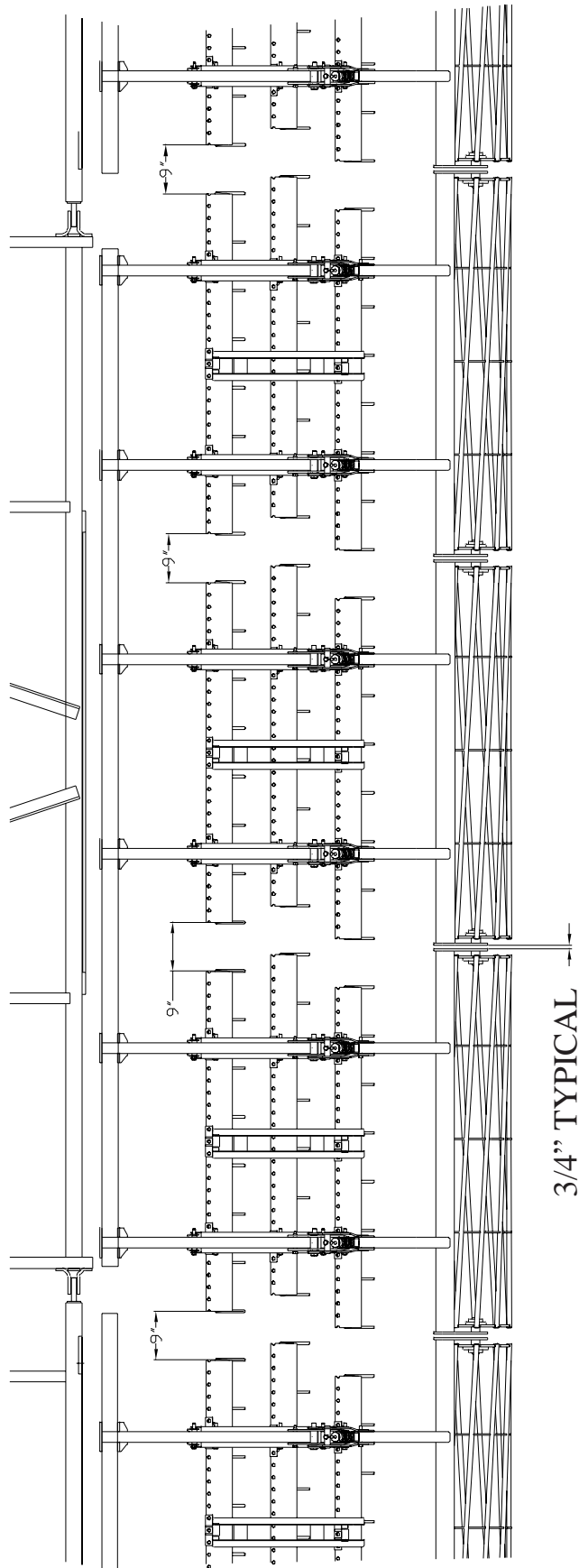


7-1/2' SECTION



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.

