

## 1.1 Introduction

<b>Installation Instructions</b> 2510 / 2530 Three-row HD Coil Tine	Publication number SN9971429A April 2014 (English) © 2014 AGCO Corporation
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These instructions apply to the following models.

Model	Serial number
2510	All
2530	All

Your model number may not be listed if these instructions were published before your machine was manufactured.

### Shipping damage and missing parts

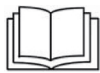
Inspect the machine and parts carefully for possible damage that occurred during shipping. Contact the shipping company immediately if damage is found.

Order any missing parts (see the bill of material in these instructions).

## 1.2 Important safety information



This is the safety alert symbol. It means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! It will direct your attention to information that concerns your safety.



Read and understand all safety information in the machine operator's manual before continuing with these instructions.

Most personal injuries are the result of failure to observe basic safety rules and precautions. In most cases, an injury can be avoided by recognizing hazardous situations before an injury occurs and taking appropriate action to remove or avoid the hazard.

The person installing this kit must have the necessary training, skills, and tools.



### **WARNING:**

**To avoid personal injury and/or machine damage, do the following before starting to install this kit:**

- Use personal safety equipment appropriate to the task such as:
  - Protective eye wear
  - Gloves
  - Steel-toed shoes
  - Hearing protection
- Park the machine on a solid level surface.
- Disengage the PTO.
- Put the transmission in the parking position and apply the parking brake.
- Turn off the control console.
- Stop the engine and take the key with you.
- Look and Listen! Make sure all moving parts have stopped.
- Put blocks in front of and behind the machine wheels before working on or under the machine.
- Remove or relieve all sources of stored energy such as:
  - Disconnect the battery
  - Relieve hydraulic or fuel pressure
  - Relieve air pressure
  - Relieve or block mechanical spring pressure
  - Properly block or lock pivoting joints
- Clean oil, dirt, and crop material from the area on the machine where the work is to be done.

### **Illustrations**

The illustrations used will not always be identical to your specific model or configuration. However, the procedure shown is the same unless otherwise noted.

### **Direction references**

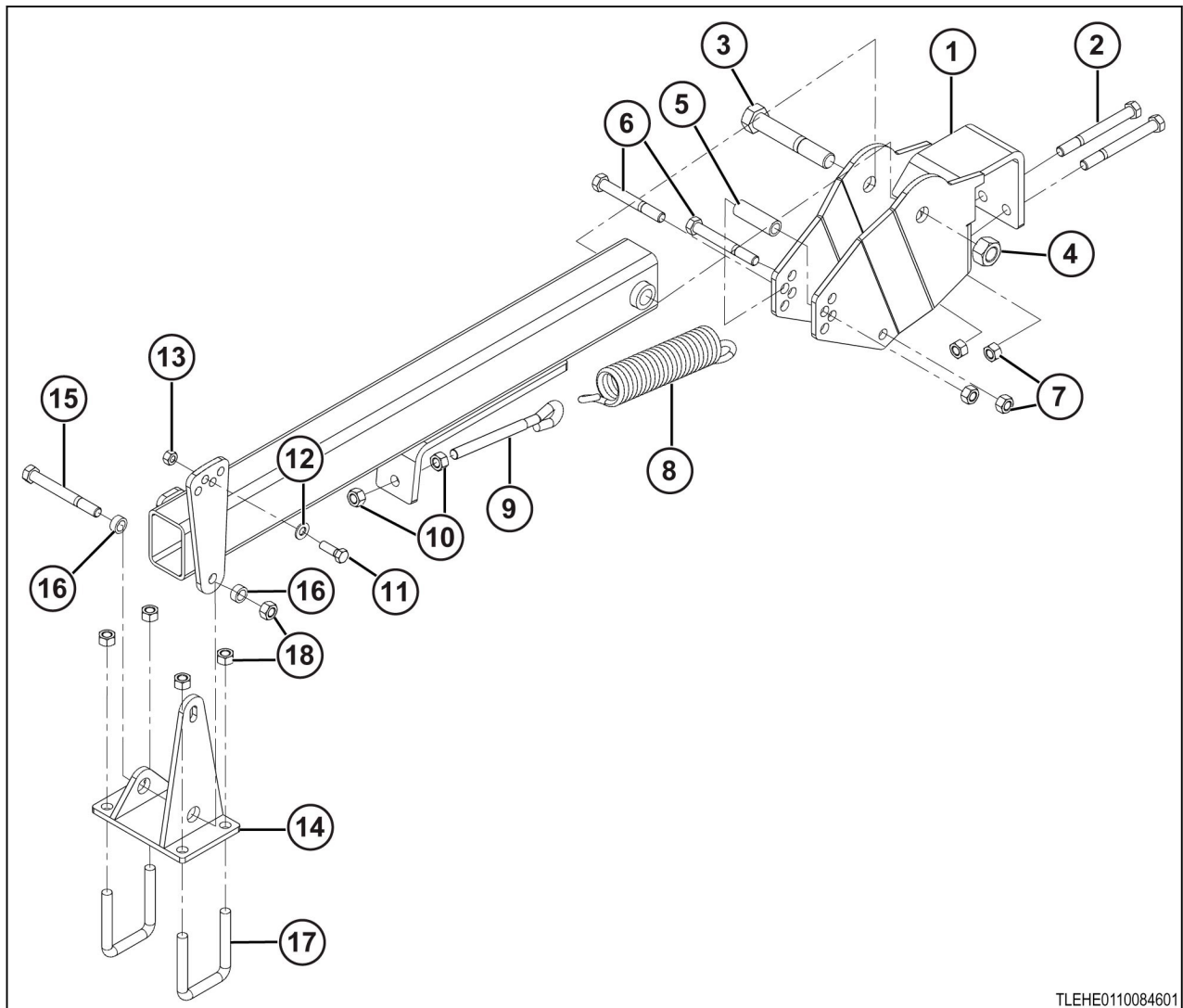
Right-hand and left-hand, as used in these installation instructions, are determined by facing the direction the machine will travel when in use.

### **Bolt torques**

Always replace hardware with the same grade or class. Tighten all hardware according to torque values listed in the machine service manual unless otherwise specified in these instructions.

### 1.3 Assembling the harrow arm and pivot bracket

#### Procedure



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Fig. 1

Install the harrow arm and pivot bracket as shown.

(1)	235253	Harrow mount bracket
(2)	88265	5/8 x 6 bolt
(3)	88264	1 x 6 hex bolt
(4)	89075	1 nut
(5)	236185	Spacer tube
(6)	88395	5/8 x 5 hex bolt
(7)	88627	5/8 nut
(8)	23122	Spring
(9)	23123	5/8 eye bolt
(10)	88126	5/8 hex nut
(11)	88475	1/2 x 1 1/2 hex bolt
(12)	88347	1/2 washer

(13)	88363	1/2 lock nut
(14)	236033	Pivot bracket
(15)	88633	5/8 x 5 1/2 hex bolt
(16)	222562	Bushing - 7/16
(17)	89327	11 x 3 x 4 1/2 U-bolt
(18)	88627	5/8 nut

## 1.4 Assembling the harrow sections

### Procedure

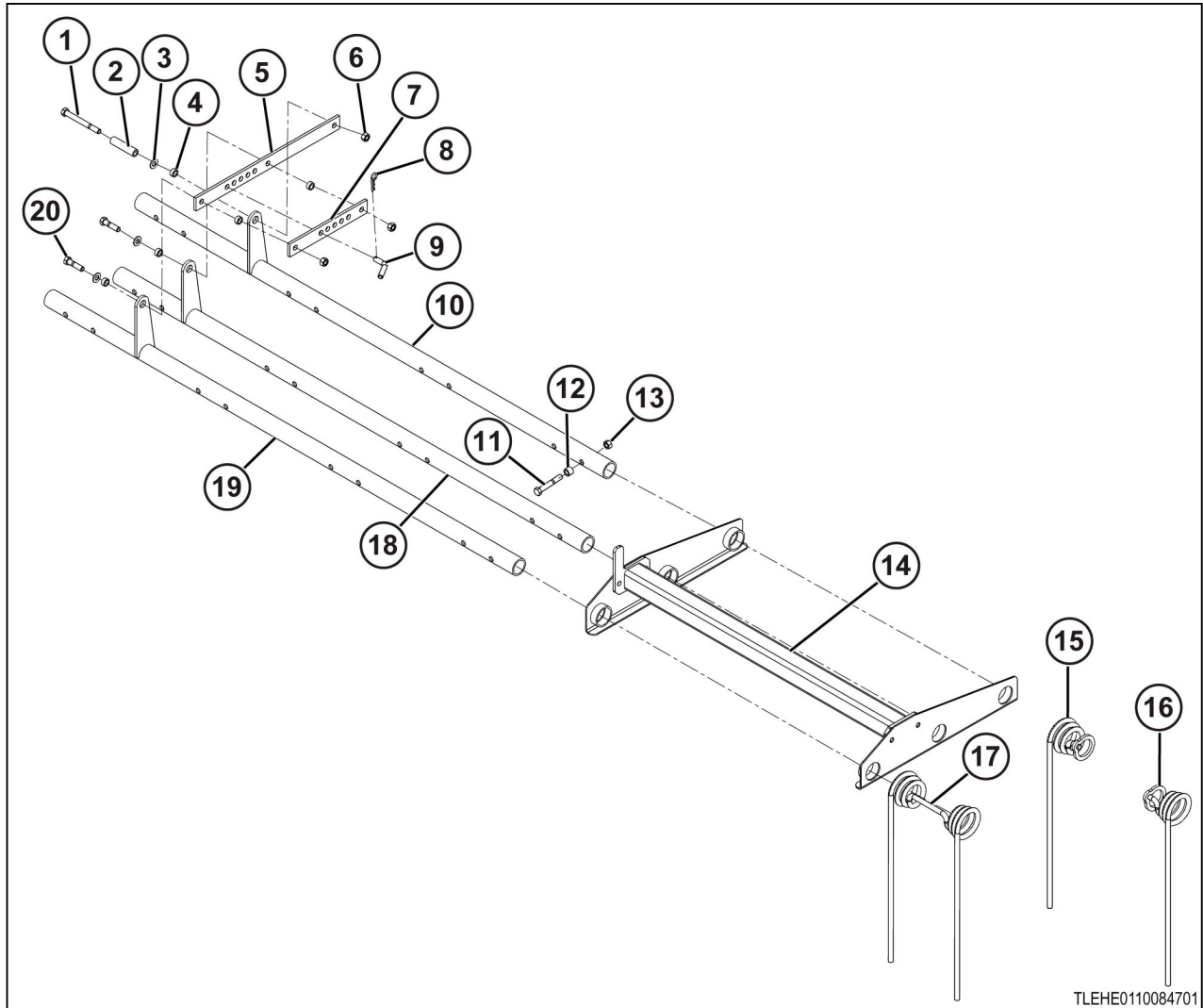


Fig. 2

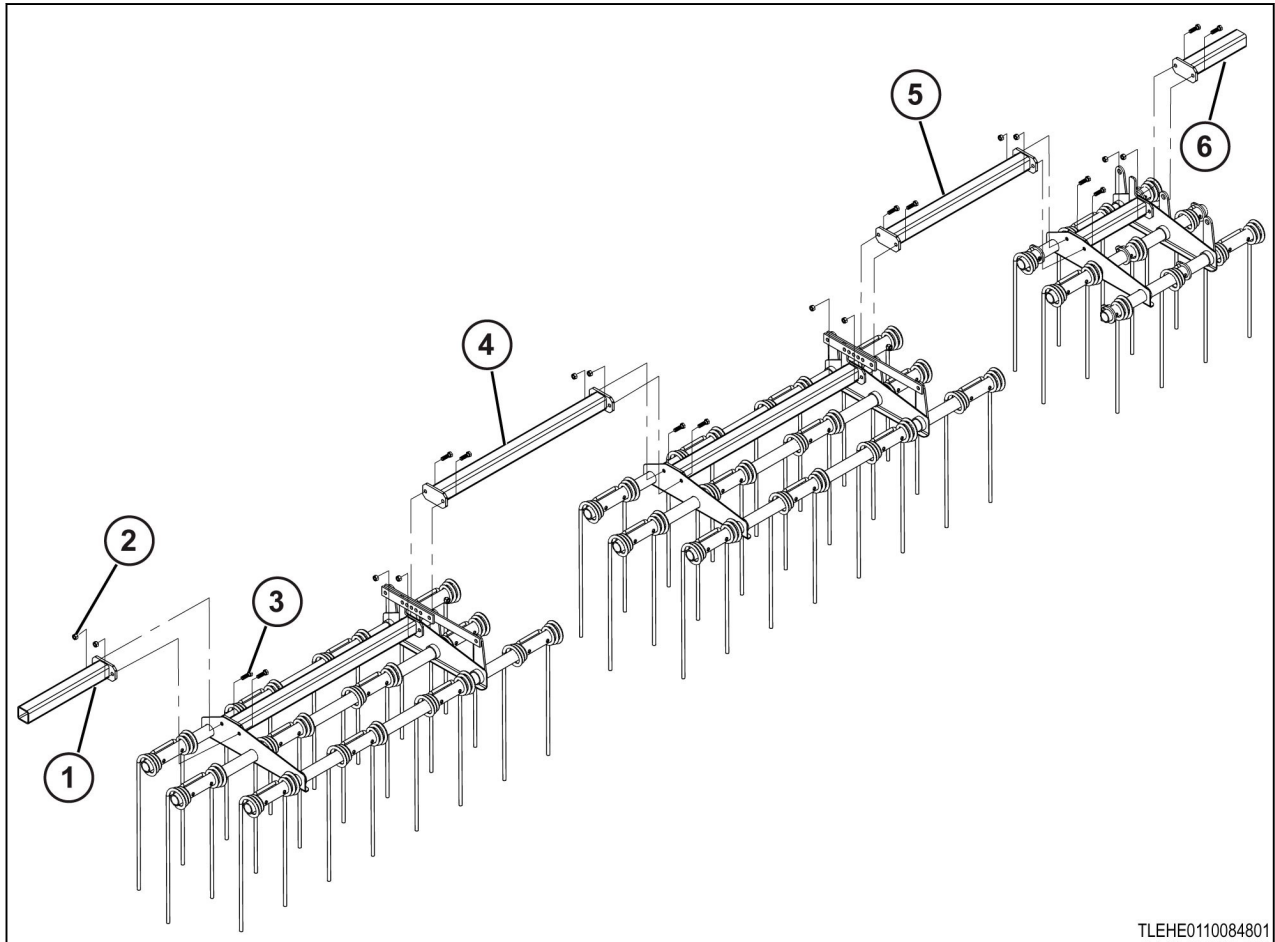
Install the harrow sections as shown.

(1)	88295	5/8 x 6 hex bolt
(2)	22521	Spacer tube - 1OD
(3)	88277	5/8 washer
(4)	222562	Bushing - 7/16
(5)	222570	Adjust bar
(6)	88627	5/8 nut
(7)	222575	Inner adjust bar
(8)	23039	Hairpin
(9)	32871	Bent hitch pin - 5/8 x 1 3/8
(10)	222574	Rear harrow tube - 8 ft
	222569	Rear harrow tube - 6 ft
	236027	Rear harrow tube - 4 ft

(11)	88298	5/8 x 4 hex bolt
(12)	200479	Bushing
(13)	88845	5/8 lock nut
(14)	236195	Harrow mount - 8 ft section
	236198	Harrow mount - 6 ft section
	236028	Harrow mount - 4 ft section
(15)	236021	Right-hand single harrow tooth
(16)	236020	Left-hand single harrow tooth
(17)	236087	Harrow tooth
(18)	222573	Center harrow tube - 8 ft
	222568	Center harrow tube - 6 ft
	236026	Center harrow tube - 4 ft
(19)	222572	Front harrow tube - 8 ft
	222567	Front harrow tube - 6 ft
	236024	Front harrow tube - 4 ft
(20)	88409	5/8 x 2 1/2 hex bolt

## 1.5 Assembling the intermediate tubes

### Procedure



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Fig. 3

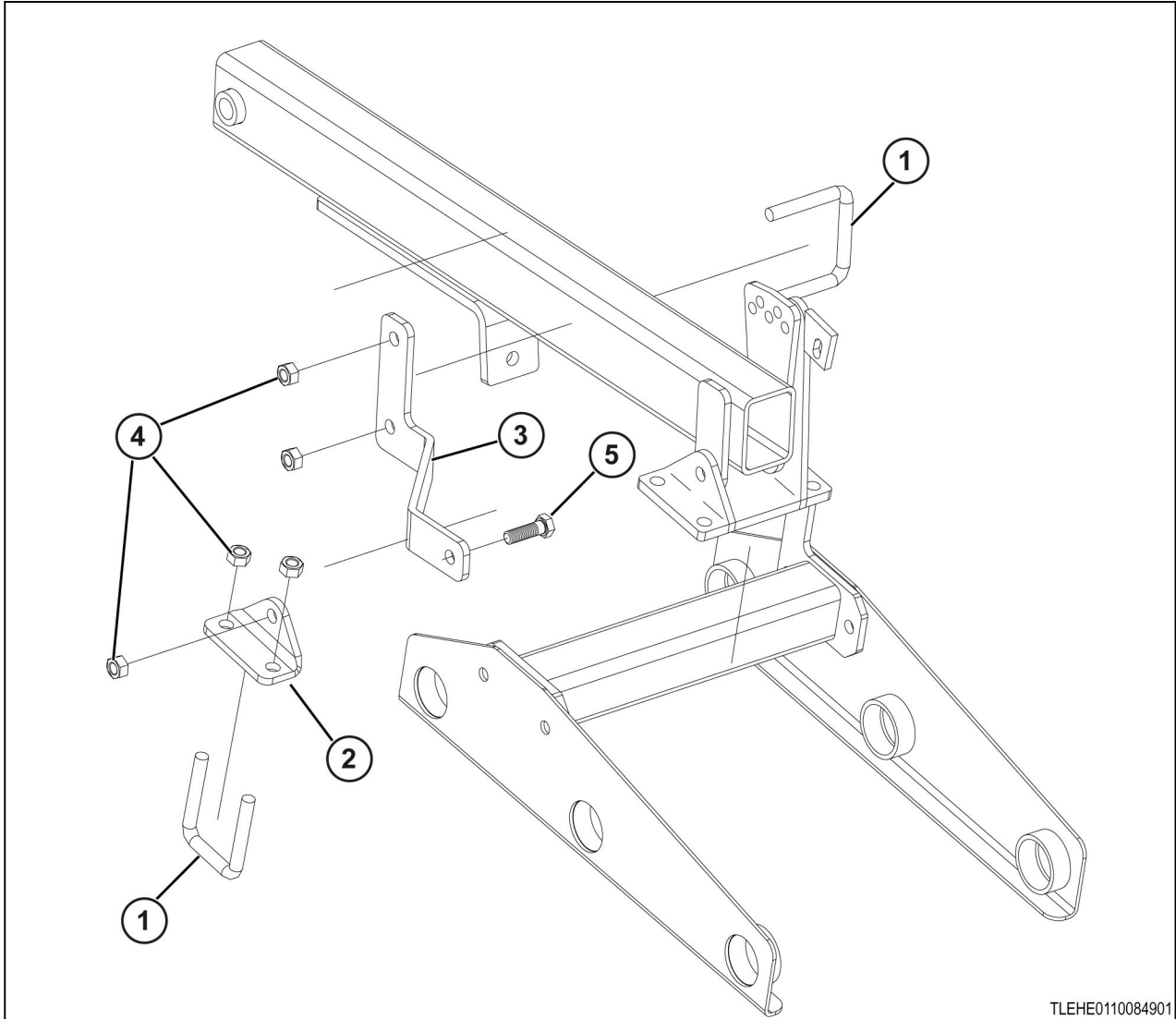
Install the intermediate tubes between the sections as shown.

**NOTE:** This is an illustration for general assembly. Section configuration can vary.

(1)	236042	Long harrow stub
(2)	88627	5/8 nut
(3)	88294	5/8 x 2 hex bolt
(4)	236189	Intermediate tube - 5 shank/762 mm (30 in)
(5)	236040	Short intermediate tube <b>NOTE:</b> For use with the 4 ft section only.
(6)	236038	Short harrow stub

## 1.6 Assembling the single harrow arm support

### Procedure



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Fig. 4

Assemble the single harrow arm support as shown.

(1)	88501	5/8 x 4 x 4 1/2 U-bolt
(2)	238377	Formed mount
(3)	238375	Left-hand formed plate
	238376	Right-hand formed plate
(4)	88627	5/8 nut
(5)	88294	5/8 x 2 hex bolt

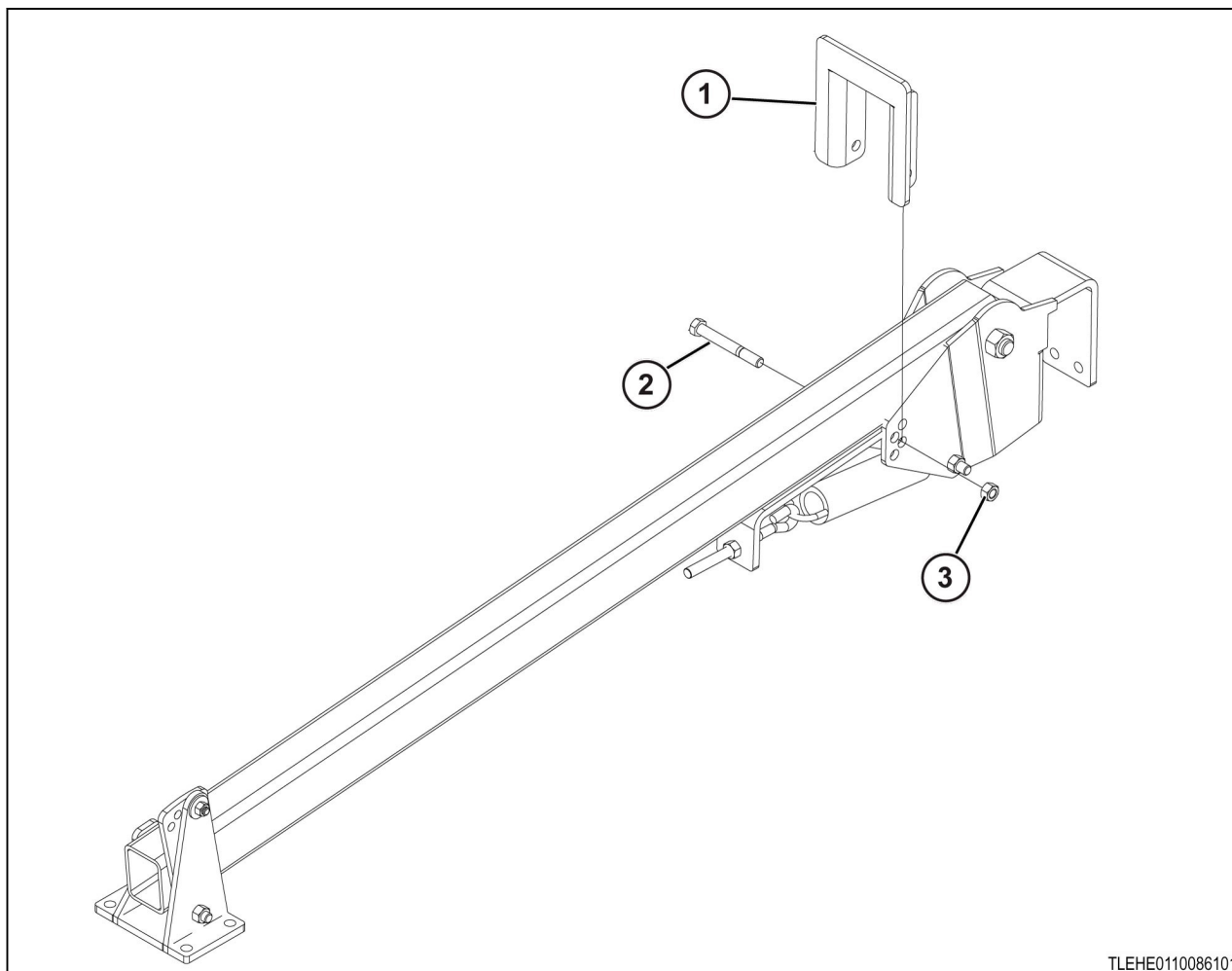
**NOTE:**

*The single arm support is for a harrow section supported by only one arm. The harrow section is most commonly the 4-foot section on the outer wings of the machine.*



## 1.7 Assembling the harrow stop

### Procedure



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Fig. 5

1. Install the harrow stop as shown.

(1)	240361	Harrow stop
(2)	88633	5/8 x 5 1/2 hex bolt
(3)	88627	5/8 nut

2. Replace the existing 5/8 x 5 hex bolt with the supplied 5/8 x 5 1/2 bolt.

## 1.8 Adjusting the harrow depth

### Before starting the procedure

The machine must be connected to a tractor that is the correct size for operation. See the information for the minimum tow vehicle weight.

The wheels of the machine must always be in contact with the ground during field operation to operate correctly.

### Procedure

1. Find a solid, level surface large enough for the machine when unfolded.
2. Unfold the machine and fully raise the machine. Continue holding the hydraulic lever to let the oil cycle through the lift system.
3. Hold the lift cylinder hydraulic lever in the raised position for one to five minutes to make sure all cylinders are bled of air and fully extended.
4. Put the machine in the operating position.
5. Stop the tractor engine, apply the park brake, and take the key with you.
6. Remove the transport locks.
7. Move the depth adjustment bolt (1) on each section to one of the four positions (2).

Each section must be set to operate between 76 to 127 mm (3 to 5 in) when in the operating position.

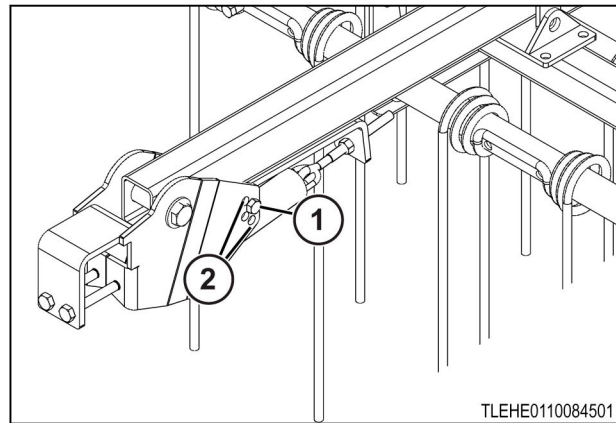


Fig. 6

## 1.9 Leveling the harrow front to rear

### Before starting the procedure

The machine must be connected to a tractor that is the correct size for operation. See the information for the minimum tow vehicle weight.

The wheels of the machine must always be in contact with the ground during field operation to operate correctly.

### Procedure

1. Find a solid, level surface large enough for the machine when unfolded.
2. Unfold the machine and fully raise the machine. Continue holding the hydraulic lever to let the oil cycle through the lift system.
3. Hold the lift cylinder hydraulic lever in the raised position for one to five minutes to make sure all cylinders are bled of air and fully extended.
4. Stop the tractor engine, apply the park brake, and take the key with you.
5. Remove the transport locks.
6. Measure and record the harrow height at the front corners from the ground to the bottom of the frame tube.
7. Measure and record the harrow height at the rear corners from the ground to the of the frame tube.
8. Compare the front and rear measurements.
9. Remove the bolt (1) and other hardware from the arm/pivot bracket on each side of the machine.
10. Move each section to another of the four positions (2) until the section is level.
11. Install the bolts and other hardware and then tighten.

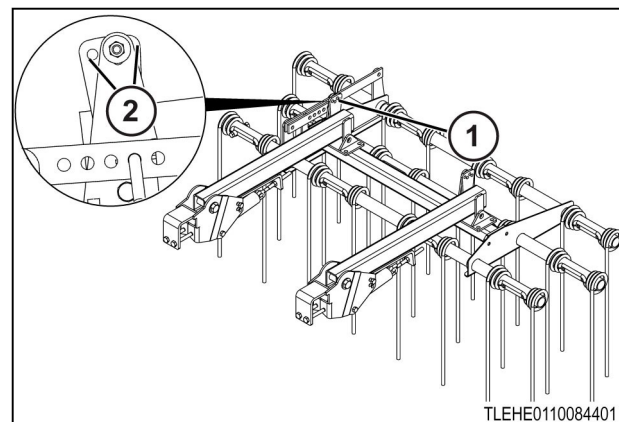
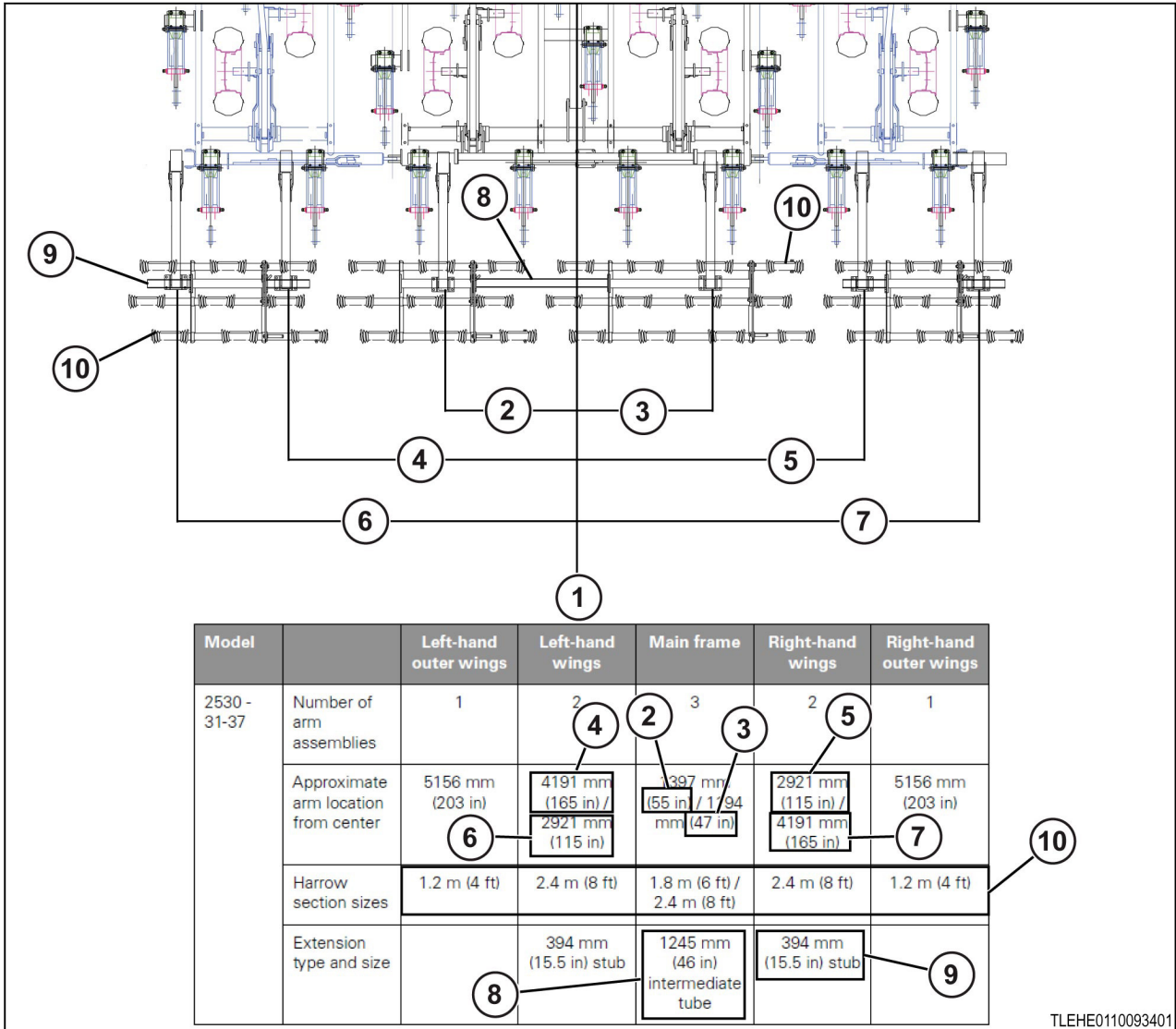


Fig. 7

### 1.10 Coil tine mounting chart



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Fig. 8

- (1) Center of the machine - all measurements start at this position.
- (2) Distance from the center of the machine to the left-hand side arm on the main frame
- (3) Distance from the center of the machine to the right-hand side arm on the main frame
- (4) Distance from the center of the machine to the left-hand wing arm
- (5) Distance from the center of the machine to the right-hand wing arm
- (6) Distance from the center of the machine to the outside of the left-hand outer wing arm
- (7) Distance from the center of the machine to the outside of the right-hand outer wing arm
- (8) Size and type of extension for center frame
- (9) Size and type of the extension for the wing
- (10) Size of each harrow section

Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
2510 - 13	Number of arm assemblies			2		
	Approximate arm location from center			1067 mm (42 in) / 1067 mm (42 in)		
	Harrow section sizes			1.8 m (6 ft) / 1.2 m (4 ft)		
	Extension type and size			991 mm (39 in) intermediate tube		
2510 - 13-15	Number of arm assemblies			2		
	Approximate arm location from center			1067 mm (42 in) / 1067 mm (42 in)		
	Harrow section sizes			2.4 m (8 ft) / 2.4 m (8 ft)		
	Extension type and size			1245 mm (46 in) intermediate tube		
2510 - 13-17	Number of arm assemblies			3		
	Approximate arm location from center			1422 mm (56 in) / 76 mm (3 in) / 1422 mm (56 in)		
	Harrow section sizes			1.83 m (6 ft) / 1.83 m (6 ft) / 1.83 m (6 ft)		
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 19	Number of arm assemblies		1	2	1	
	Approximate arm location from center		2438 mm (96 in)	1067 mm (42 in) / 1067 mm (42 in)	2438 mm (96 in)	
	Harrow section sizes		1.2 m (4 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.2 m (4 ft)	
	Extension type and size			1245 mm (46 in)		

Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
				intermediate tube		
2530 - 19-21	Number of arm assemblies		1	2	1	
	Approximate arm location from center		2438 mm (96 in)	1067 mm (42 in) / 1067 mm (42 in)	2438 mm (96 in)	
	Harrow section sizes		1.2 m (4 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	1.2 m (4 ft)	
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 19-23	Number of arm assemblies		2	2	2	
	Approximate arm location from center		3048 mm (120 in) / 2438 mm (96 in)	1067 mm (42 in) / 1067 mm (42 in)	2438 mm (96 in) / 3048 mm (120 in)	
	Harrow section sizes		1.8 m (6 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft)	
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 25	Number of arm assemblies		2	3	2	
	Approximate arm location from center		3429 mm (135 in) / 2438 mm (96 in)	1067 mm (42 in) / 1067 mm (42 in)	2438 mm (96 in) / 3429 mm (135 in)	
	Harrow section sizes		1.8 m (6 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	1.8 m (6 ft)	
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 25-27	Number of arm assemblies		2	3	2	
	Approximate arm location from center		3429 mm (135 in) / 2438 mm (96 in)	1067 mm (42 in) / 1067 mm (42 in)	2438 mm (96 in) / 3429 mm (135 in)	
	Harrow section sizes		1.8 m (6 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	1.8 m (6 ft)	

Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 25-29	Number of arm assemblies		2	3	2	
	Approximate arm location from center		3429 mm (135 in) / 2921 mm (115 in)	1067 mm (42 in) / 1067 mm (42 in)	2921 mm (115 in) / 3429 mm (135 in)	
	Harrow section sizes		2.4 m (8 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	2.4 m (8 ft)	
	Extension type and size			1245 mm (46 in) intermediate tube		
2530 - 31	Number of arm assemblies		2	3	2	
	Approximate arm location from center		4140 mm (163 in) / 3226 mm (127 in)	1651 mm (65 in) / 1448 mm (57 in)	3226 mm (127 in) / 4140 mm (163 in)	
	Harrow section sizes		2.4 m (8 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	2.4 m (8 ft)	
	Extension type and size		991 mm (39 in) intermediate tube / 394 mm (15.5 in) stub	1245 mm (46 in) intermediate tube	394 mm (15.5 in) stub / 991 mm (39 in) intermediate tube	
2530 - 31-33	Number of arm assemblies		2	3	2	
	Approximate arm location from center		4191 mm (165 in) / 89 in	1397 mm (55 in) / 1194 mm (47 in)	89 in / 4191 mm (165 in)	
	Harrow section sizes		1.2 m (4 ft) / 1.8 m (6 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	1.8 m (6 ft) / 1.2 m (4 ft)	
	Extension type and size		991 mm (39 in) intermediate tube	1245 mm (46 in) intermediate tube	991 mm (39 in) intermediate tube	
2530 - 31-35	Number of arm assemblies		2	3	2	
	Approximate arm location from center		4877 mm (192 in) / 3277 mm (129 in)	1651 mm (65 in) / 1448 mm (57 in)	3277 mm (129 in) / 4877 mm (192 in)	

Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
	Harrow section sizes		1.8 m (6 ft) / 1.2 m (4 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	1.2 m (4 ft) / 1.8 m (6 ft)	
	Extension type and size		991 mm (39 in) intermediate tube	1245 mm (46 in) intermediate tube	991 mm (39 in) intermediate tube	
2530 - 31-37	Number of arm assemblies	1	2	3	2	1
	Approximate arm location from center	5156 mm (203 in)	4191 mm (165 in) / 2921 mm (115 in)	1397 mm (55 in) / 1194 mm (47 in)	2921 mm (115 in) / 4191 mm (165 in)	5156 mm (203 in)
	Harrow section sizes	1.2 m (4 ft)	2.4 m (8 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	2.4 m (8 ft)	1.2 m (4 ft)
	Extension type and size		394 mm (15.5 in) stub	1245 mm (46 in) intermediate tube	394 mm (15.5 in) stub	
2530 - 31-39	Number of arm assemblies	1	2	3	2	1
	Approximate arm location from center	5359 mm (211 in)	4166 mm (164 in) / 3251 mm (128 in)	1651 mm (65 in) / 1448 mm (57 in)	3251 mm (128 in) / 4166 mm (164 in)	5359 mm (211 in)
	Harrow section sizes	1.2 m (4 ft)	2.4 m (8 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	2.4 m (8 ft)	1.2 m (4 ft)
	Extension type and size		394 mm (15.5 in) stub	1245 mm (46 in) intermediate tube	394 mm (15.5 in) stub	
2530 - 31-41	Number of arm assemblies	2	2	3	2	2
	Approximate arm location from center	5715 mm (225 in) / 5156 mm (203 in)	4191 mm (165 in) / 2921 mm (115 in)	1397 mm (55 in) / 1194 mm (47 in)	2921 mm (115 in) / 4191 mm (165 in)	5156 mm (203 in) / 5715 mm (225 in)
	Harrow section sizes	1.8 m (6 ft)	2.4 m (8 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	2.4 m (8 ft)	1.8 m (6 ft)
	Extension type and size		394 mm (15.5 in) stub	1245 mm (46 in) intermediate tube	394 mm (15.5 in) stub	
2530 - 37	Number of arm assemblies		3	3	3	
	Approximate arm location from center		4953 mm (195 in) / 3810 mm (150 in) /	1397 mm (55 in) / 203 mm	2921 mm (115 in) / 3810 mm (150 in) /	



Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
			2921 mm (115 in)	(8 in) / 1194 mm (47 in)	4953 mm (195 in)	
	Harrow section sizes		1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	
	Extension type and size		1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	
2530 - 37-39	Number of arm assemblies		3	3	3	
	Approximate arm location from center		5258 mm (207 in) / 3988 mm (157 in) / 3251 mm (128 in)	1651 mm (65 in) / 203 mm (8 in) / 1448 mm (57 in)	3251 mm (128 in) / 3988 mm (157 in) / 5258 mm (207 in)	
	Harrow section sizes		1.8 m (6 ft) / 1.8 m (6 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	
	Extension type and size		1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	
2530 - 37-43	Number of arm assemblies	2	2	3	2	2
	Approximate arm location from center	6121 mm (241 in)	4724 mm (186 in) / 2921 mm (115 in)	1651 mm (65 in) / 203 mm (8 in) / 1448 mm (57 in)	2921 mm (115 in) / 4724 mm (186 in)	6121 mm (241 in)
	Harrow section sizes	1.2 m (4 ft)	1.2 m (4 ft) / 1.8 m (6 ft)	2.4 m (8 ft) / 2.4 m (8 ft)	1.8 m (6 ft) / 1.2 m (4 ft)	1.2 m (4 ft)
	Extension type and size		991 mm (39 in) intermediate tube	1245 mm (46 in) intermediate tube	991 mm (39 in) intermediate tube	
2530 - 37-45	Number of arm assemblies	2	2	3	2	2
	Approximate arm location from center	6248 mm (246 in)	4953 mm (195 in) / 2921 mm (115 in)	1397 mm (55 in) / 203 mm (8 in) / 1194 mm (47 in)	2921 mm (115 in) / 4953 mm (195 in)	6248 mm (246 in)
	Harrow section sizes	1.2 m (4 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft) / 2.4 m (8 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.2 m (4 ft)
	Extension type and size		1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	

Model		Left-hand outer wings	Left-hand wings	Main frame	Right-hand wings	Right-hand outer wings
2530 - 37-47	Number of arm assemblies	2	3	3	3	2
	Approximate arm location from center	6706 mm (264 in) / 6096 mm (240 in)	5207 mm (205 in) / 3937 mm (155 in) / 3099 mm (122 in)	1651 mm (65 in) / 203 mm (8 in) / 1448 mm (57 in)	3099 mm (122 in) / 3937 mm (155 in) / 5207 mm (205 in)	6096 mm (240 in) / 6706 mm (264 in)
	Harrow section sizes	1.8 m (6 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft) / 1.8 m (6 ft)	1.8 m (6 ft)
	Extension type and size		1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	1245 mm (46 in) intermediate tube	