# 2730 Combination Ripper Quick Reference Guide

# Machine Preparation Checklist

- Verify that all tire pressures are correct.
- Adjust fore/aft level using turnbuckle (A) as necessary.
- Rephase cylinders by raising machine for 30 seconds and releasing the SCV lever. Do not leave the SCV in continuous position.
- Verify that main frame is level side-to-side. Lower machine until points are 25 mm (1 in) off the ground.
   Measure from the bottom edge of the frame to axle spindle.
  - Measurements should be within 7 mm (1/4 in).
- Level Wings-Folding Machines—stand behind machine and survey across gang tubes for levelness.
   Level Front Wings—use shims (B) as required.
   Level Rear Wings—adjust turnbuckles (C).



There are four independent systems on the 2730 Combination Ripper (rippers, front disks, closing disks, and finishing attachment). Each system requires its own setting in order to achieve the desired field finish.

To set each system use the following procedure:

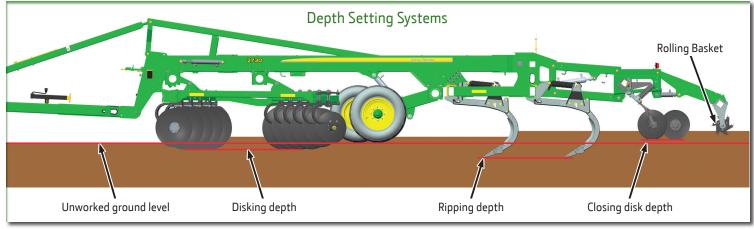
Use the soil probe to determine soil compaction depth and choose a ripper setting of 25.4 to 50.8 mm (1 to 2 in) below the compacted layer. Front disk depth can be adjusted to achieve the desired residue sizing and incorporation. Closing disk depth adjustments allow the operator to customize the finished soil profile.











### System Depth Setting Procedure (continued)

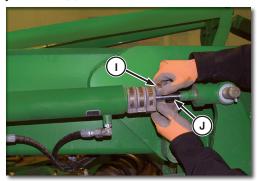
- 1. Select appropriate ripper shank setting: Shallow (F), Middle (G), or Deep (H). Adjust the ripper shank by installing the shank hardware in the corresponding holes. Determine the desired ripper point depth. Using the chart, determine the amount of Depth Control Rod Exposed (E, chart) when rippers are at the desired depth. To set the exposed rod to the desired amount, adjust Single Point Depth Control (D). (See the previous photo.)
- 2. Use the Desired Ripper Point Depth chart to set rippers to desired depth. Find corresponding exposed rod length on the depth control cylinder (E, picture). Exposed rod length is then used to find desired front disk and closing disk settings.



**Example:** With ripper shank in middle setting and 254 mm (10 in) desired ripper point depth, depth control rod exposed would be 165 mm (6-1/2 in). (See bold values shown on the chart.)

### Set Front Disk Depth

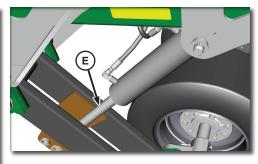
3. Determine the desired front disk depth. Use the Desired Front Disk Depth chart to determine the number of cylinder stops (I) required to install on the two disk gang depth cylinders. Find the value at the intersection of the rod exposed on main frame depth control rods (E, chart) and the desired front disk depth. Install correct thickness of cylinder stops on each disk gang cylinder rod (J).

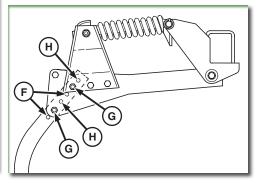


**Example:** With 165 mm (6-1/2 in) depth control rod exposed and 127 mm (5 in) desired front disk depth, cylinder stops required would be 64 mm (2-1/2 in). (See bold values shown on the chart.)

**NOTE:** In typical conditions, the values in green provide optimal machine performance. While attainable, the values in yellow may negatively affect machine performance and reliability.

Desired Ripper Point Depth — mm (in)										
(E) Main Frame Depth Control Rod Exposed	(F) Shallow Ripper Setting		liddle per ting	(H) Deep Ripper Setting						
108 (4-1/4)		330 (13)	368 (1 <mark>4-1/2)</mark>		406 (16)					
114 (4-1/2)		318 (12-1/2)	356	(14)	394 (15-1/2)					
121 (4-3/4)		305 (12)	343 (	3-1/2)	381 (15)					
127 (5)		292 (11-1/2)	330 (13)		368 (14-1/2)					
133 (5-1/4)	279 (11)	318 (	2-1/2)	356 (14)						
140 (5-1/2)		267 (10-1/2)	305	(12)	343 (13-1/2)					
146 (5-3/4)		254 (10)	292 (	1-1/2)	330 (13)					
152 (6)	241 (9-1/2)	279	(11)	318 (12-1/2)						
159 (6-1/4)		229 (9)	267 (10-1/2)		305 (12)					
165 (6-1/2)		216 (8-1/2)	254	(10)	292 (11-1/2)					
171 (6-3/4)		203 (8)	241 (	9-1/2)	279 (11)					
178 (7)		191 (7-1/2)	229 (9)		267 (10-1/2)					
184 (7-1/4)		178 (7)	216 (8-1/2)		254 (10)					
191 (7-1/2)		165 (6-1/2)	203 (8)		241 (9-1/2)					





(E) Main Frame Depth Control	Г	Desired Front Disk Depth — mm (in)												
Rod Exposed — mm (in)				(0)	25 (1)	51 (2)	76 (3)	102 (4)	127 (5)	152 (6)	178 (7)	203 (8)		
108 (4-1/4)		T 0	$\rightarrow$	324 (12-3/4)	298 (11-3/4)	267 (10-1/2)	235 (9-1/4)	203 (8)	1 <mark>8</mark> 4 (7- <mark>1</mark> /4)	152 (6)	127 (5)	102 (4)		
114 (4-1/2)		T A L	<b>→</b>	311 (12-1/4)	279 (11)	254 (10)	222 (8-3/4)	197 (7-3/4)	1 <mark>6</mark> 5 (6- <mark>1</mark> /2)	140 (5-1/2)	108 (4-1/4)	89 (3-1/2)		
121 (4-3/4)			<b>→</b>	298 (11-3/4)	267 (10-1/2)	235 (9-1/4)	203 (8)	184 (7-1/4)	1 <mark>5</mark> 2 (6)	127 (5)	102 (4)	70 (2-3/4)		
127 (5)		Y	<b>→</b>	279 (11)	254 (10)	222 (8-3/4)	197 (7-3/4)	165 (6-1/2)	140 (5-1/2)	108 (4-1/4)	89 (3-1/2)	64 (2-1/2)		
133 (5-1/4)		L N D E R S T	<b>→</b>	267 (10-1/2)	235 (9-1/4)	203 (8)	184 (7-1/4)	152 (6)	1 <mark>2</mark> 7 ( <b>5</b> )	102 (4)	70 (2-3/4)	44 (1-3/4)		
140 (5-1/2)			<b>→</b>	254 (10)	222 (8-3/4)	197 (7-3/4)	165 (6-1/2)	140 (5-1/2)	1 <mark>0</mark> 8 (4- <mark>1</mark> /4)	89 (3-1/2)	64 (2-1/2)	(0)		
146 (5-3/4)			<b>→</b>	235 (9-1/4)	203 (8)	184 (7-1/4)	152 (6)	127 (5)	1 <mark>0</mark> 2 (4)	70 (2-3/4)	44 (1-3/4)	N/A		
152 (6)			<b>→</b>	222 (8-3/4)	197 (7-3/4)	165 (6-1/2)	140 (5-1/2)	108 (4-1/4)	8 <mark>9</mark> (3-1/2)	64 (2-1/2)	(0)	N/A		
159 (6-1/4)		Ö P	<b>→</b>	203 (8)	184 (7-1/4)	152 (6)	127 (5)	102 (4)	70 (2- <b>3</b> /4)	44 (1-3/4)	N/A	N/A		
165 (6-1/2)		S R		197 (7-3/4)	165 (6-1/2)	140 (5-1/2)	108 (4-1/4)	89 (3-1/2)	64 (2-1/2)	(0)	N/A	N/A		
171 (6-3/4)		ΙE	<b>→</b>	184 (7-1/4)	152 (6)	127 (5)	102 (4)	70 (2-3/4)	44 (1-3/4)	N/A	N/A	N/A		
178 (7)		Q Ų	<b>→</b>	165 (6-1/2)	140 (5-1/2)	108 (4-1/4)	89 (3-1/2)	64 (2-1/2)	(0)	N/A	N/A	N/A		
184 (7-1/4)		j I R	R	<b>→</b>	152 (6)	127 (5)	102 (4)	70 (2-3/4)	44 (1-3/4)	N/A	N/A	N/A	N/A	
191 (7-1/2)		E D	<b>→</b>	140 (5-1/2)	108 (4-1/4)	89 (3-1/2)	64 (2-1/2)	(0)	N/A	N/A	N/A	N/A		

#### Set Closing Disk Depth

4. Determine the desired closing disk depth. Use the Desired Closing Disk Depth chart to determine the thickness of cylinder stops (K) required on each closing disk cylinder. Find the total stop thickness required in the chart at the intersection of the exposed main frame depth control rod (E, chart) and the desired closing disk depth.

**NOTE:** To determine if the mounding is adequate to place enough loosened soil back over the ripper trench, make closing disk adjustments with finishing attachments raised.



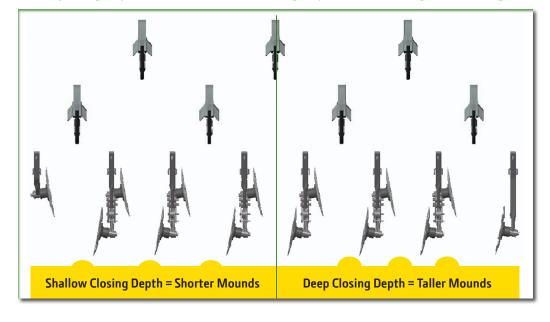
Closing disk depths reference unworked ground level. Actual operating depth is deeper due to worked soil at the rear of the machine.

**Example:** With 165 mm (6-1/2 in) depth control rod exposed and 13 mm (1/2 in) desired closing disk depth, cylinder stops required would be 38 mm (1-1/2 in). (See bold values shown on the chart.)

**NOTE:** In typical conditions, the values in green provide optimal machine performance. While attainable, the values in yellow may negatively affect machine performance and reliability. In conditions with lighter and more mellow soils, shallower settings may yield better machine performance.

(E) Main Frame Depth Control		Desired Closing Disk Depth — mm (in)										
Rod Exposed — mm (in)			-38 (-1-1/2)	-25 (-1)	-13 (-1/2)	(0)	13 (1/2)	25 (1)	38 (1-1/2)	51 (2)	64 (2-1/2)	
108 (4-1/4)		T O	$\rightarrow$	95 (3-3/4)	89 (3-1/2)	89 (3-1/2)	83 (3-1/4)	8 <mark>3</mark> (3-1/4)	76 (3)	76 (3)	70 (2-3/4)	64 (2-1/2)
114 (4-1/2)		T A	<b>→</b>	89 (3-1/2)	89 (3-1/2)	83 (3-1/4)	83 (3-1/4)	7 <mark>6</mark> (3)	76 (3)	70 (2-3/4)	64 (2-1/2)	64 (2-1/2)
121 (4-3/4)		L	<b>→</b>	89 (3-1/2)	83 (3-1/4)	76 (3)	76 (3)	7 <mark>0</mark> (2- <mark>3</mark> /4)	70 (2-3/4)	64 (2-1/2)	57 (2-1/4)	57 (2-1/4)
127 (5)		C Y	<b>→</b>	83 (3-1/4)	76 (3)	76 (3)	70 (2-3/4)	6 <mark>4</mark> (2-1/2)	64 (2-1/2)	57 (2-1/4)	57 (2-1/4)	51 (2)
133 (5-1/4)		L	<b>→</b>	76 (3)	76 (3)	70 (2-3/4)	64 (2-1/2)	6 <mark>4</mark> (2-1/2)	57 (2-1/4)	57 (2-1/4)	51 (2)	44 (1-3/4)
140 (5-1/2)		N D	<b>→</b>	70 (2-3/4)	70 (2-3/4)	64 (2-1/2)	64 (2-1/2)	57 (2-1/4)	51 (2)	51 (2)	44 (1-3/4)	44 (1-3/4)
146 (5-3/4)		D E R	<b>→</b>	64 (2-1/2)	64 (2-1/2)	57 (2-1/4)	57 (2-1/4)	5 <mark>1</mark> (2)	51 (2)	44 (1-3/4)	38 (1-1/2)	38 (1-1/2)
152 (6)		S	<b>→</b>	64 (2-1/2)	57 (2-1/4)	57 (2-1/4)	51 (2)	5 <mark>1</mark> (2)	44 (1-3/4)	38 (1-1/2)	38 (1-1/2)	32 (1-1/4)
159 (6-1/4)		Ó P	<b>→</b>	57 (2-1/4)	51 (2)	51 (2)	44 (1-3/4)	44 (1- <b>3</b> /4)	38 (1-1/2)	32 (1-1/4)	32 (1-1/4)	25 (1)
165 (6-1/2)	٦	S		51	51	44 (1-3/4)	38 (1-1/2)	38 (1-1/2)	32 (1-1/4)	32 (1-1/4)	25 (1)	25 (1)
171 (6-3/4)	١	R E	<b>→</b>	51 (2)	44 (1-3/4)	38 (1-1/2)	38 (1-1/2)	32 (1-1/4)	32 (1-1/4)	25 (1)	19 (3/4)	(0)
178 (7)		Q Ų	<b>→</b>	44 (1-3/4)	38 (1-1/2)	38 (1-1/2)	32 (1-1/4)	25 (1)	25 (1)	19 (3/4)	(0)	N/A
184 (7-1/4)		I R	<b>→</b>	38 (1-1/2)	32 (1-1/4)	32 (1-1/4)	25 (1)	25 (1)	19 (3/4)	(0)	N/A	N/A
191 (7-1/2)		Ë D	<b>→</b>	32 (1-1/4)	32 (1-1/4)	25 (1)	25 (1)	(0)	(0)	N/A	N/A	N/A

Adjusting depth of all mounds. Increasing depth results in larger mounding.

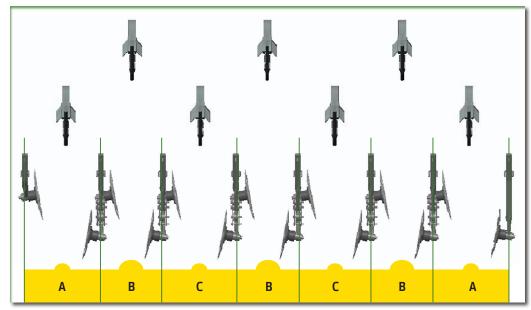


#### Set Closing Disk Depth (continued)

Adjusting side-to-side distance affects amount of soil in mounds. To maintain a level soil profile, closing disk assemblies may need to be adjusted to achieve your desired soil finish.

# Set Rolling Basket Down-Pressure

- 5. Adjust down-pressure to initial setting by rotating knob (L). Once set, lock knob in position with collar (M).
  - Make a trial pass in the field. If rolling basket operation is not satisfactory, adjust the hydraulic pressure as needed.
- Down-pressure applied: Adjust pressure applied using the manual adjustment and gauge at the machine front. Apply only enough pressure to chop and size material to the desired finish.
- Down-pressure applied with height control:
   Apply appropriate amount of down pressure with cylinder stops installed to decrease operating depth.
   This can help minimize plugging while still allow some sizing of clods in wet or sticky soils.
- Float: Allows light fluffing and moderate leveling of the soil profile and helps reduce plugging when operating across moderately wet soil conditions.
- Fully raised: Allows continued operation in harsh, muddy soil conditions or provides a more pronounced mounding pattern if desired.



Adjusting side-to-side distance affects amount of soil in mounds.



**IMPORTANT:** DO NOT use more down-pressure than necessary or excessive wear and damage to machine could result.

Too much down-pressure can lift rear of machine, causing it to become unlevel, resulting in an undesired field finish.

