



Baffle Kit 20-Foot 16-Row Precision Drill

Used with:

- 2020P-16TR30
- 2025P-16TR30
- 2010HDP-16TR



When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

General Information

These instructions explain how to install a Baffle Kit. The baffle kit prevents seed pile-up in the gaps between pairs of meter tubes on 16-row drills.

These instructions apply to an installation of:

Kit	Kit Description
118-254A	BAFFLE KIT 20P 30TR

One kit updates one drill.

Note: This kit does not block any active rows. It does not convert a 16-row drill to an 8-row drill.

This kit is only for 20-foot 16-row drills with 10HD-Series, 20-Series or 25-Series Precision openers. For altering row count on these drills, or for different drill widths, different row spacings or fluted feed seed meters, alternate baffle kits or seed tube plugs are available.

Related Documents

Have the Operator Manual at hand for drill movements.

- 118-231M Operator, 2020P- & 2025P-16TR30
- 118-928M Operator, 2010HDP-16TR

Have the current Parts Manual at hand for parts ID.

- 118-231P Parts, 2020P- & 2025P-16TR30
- 118-928P Parts, 2010HDP-16TR

Notations and Conventions

“Left” and “Right” are facing in the direction of machine travel. An orientation rose in the line art illustrations shows the directions of Left, Right, Front, Back, Up, Down.

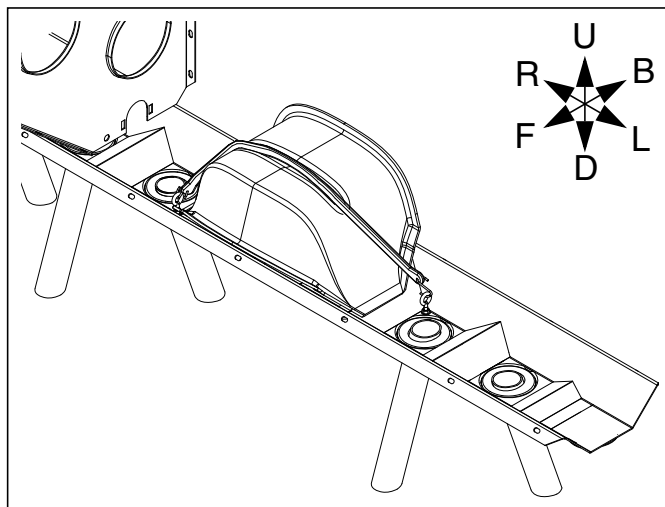
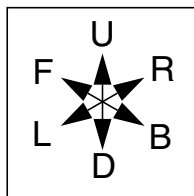


Figure 1
Baffle Strapped in Place

29558

Call-Outs

- ① to ⑨ Single-digit callouts identify components in the currently referenced Figure or Figures. These numbers may be reused for different items from page to page.
- ⑪ to ⑲ Two-digit callouts in the range 11 to 19 reference new parts from the new parts lists beginning on page 6.

Before You Start

Compatibility

Refer to Figure 2

1. Verify from the serial number plate that the drill is compatible with this kit.

Inventory

2. Make sure all parts are present (page 6).

Comprehension

3. Review these instructions. Make sure the installers understand where each part or assembly is installed, and what tools are required for the task.

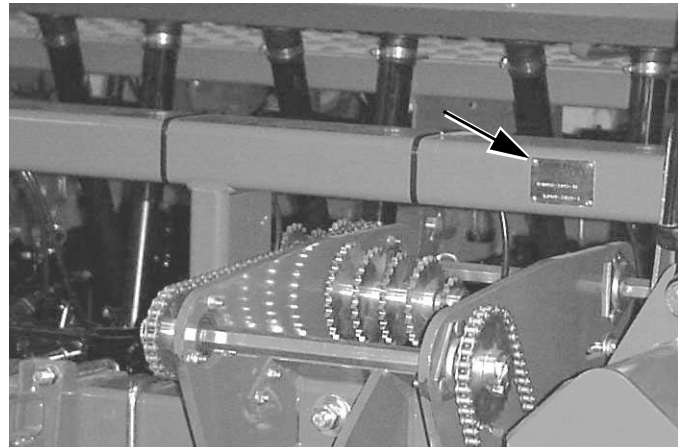


Figure 2
Serial Number Plate

18307

Pre-Assembly Preparation

Tools Required

basic hand tools, including:

- indelible marker
- center-punch
- drill bit: $\frac{9}{32}$ in (letter size K, or 7.1mm)

Work Location

4. Clean out the main seed boxes. See Operator Manual for instructions. If treated seed has been used,
 - disconnect seed tubes at meters,
 - wash out the boxes,
 - thoroughly rinse the boxes, and
 - allow them to dry.

Do this in a suitable location other than where the installation work is to be performed.

5. Move the drill to a location with:
 - a solid surface to prevent tipping,
 - adequate illumination, and;
 - clear surface beneath for recovery of any falling or dropped parts - if the surface is not clear, have a tarp or drop cloth available.

Prepare Drill

6. Install any parking stands and lower the drill.



Chemical Hazard

This installation requires contact with interior components of the main seed boxes. If treated seed has ever been used in the boxes, follow chemical supplier instructions for protective equipment and cleaning residue from the seed boxes.

Prepare Tie Point Holes

Identify Baffle Locations

Baffles are symmetrical left-to-right, but are shaped for a specific front-to-back orientation.

Refer to Figure 3

7. Select four (4) new:

⑰ 817-466C TWIN ROW METER COVER

Temporarily position these wider covers ⑰ over the unused meter wells in between the three inner pairs of seed tubes in each box.

8. Select two (2) new:

⑱ 817-807C 25FT 7 1/2 TO 30TR SPAC COVER

Note that these baffles have "807" molded in.

Temporarily position these narrower covers ⑱ over the unused meter wells in between the two outside pairs of seed tubes in each box.

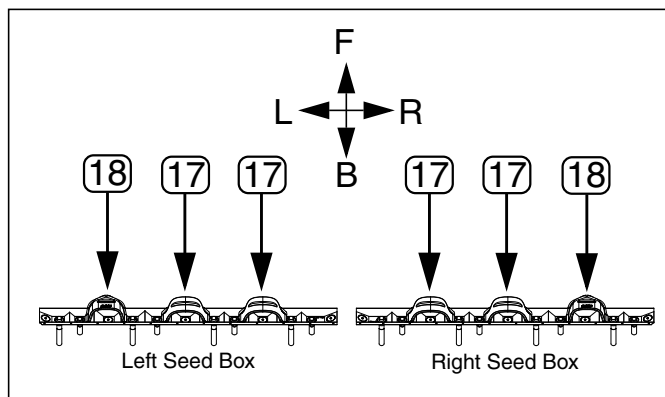


Figure 3
Baffle Locations

29559

Identify Eyebolt Locations

Refer to Figure 4 (showing both suitable eyebolt locations on one side of a baffle - only one eyebolt per side is installed)

9. Select one (1) new:

⑮ 804-007C WASHER FLAT 1/4 SAE PLT

This is used as a template for marking holes.

For use, prepared baffles (⑰, ⑱) are held in place by straps which take a diagonal path across the top of the baffle (the dotted double-arrow line in the Figure). They attach to eyebolts supplied in this kit, which are installed in the nearest corners (①, ⑮) of the adjacent seed box wells.

Depending on vintage, your drill may or may not have bolts ① in suitable locations. If it does, these bolts may be replaced with the eyebolts in this kit (holes are drilled otherwise).

10. Check the seed tube wells immediately adjacent to the baffles. Suitable hole locations are in the corners closest (①, ⑮) to the baffle. Do not use the outside corners ② (this can cause the strap to interfere with the sliding seed tube, as well as obstruct seed flow).

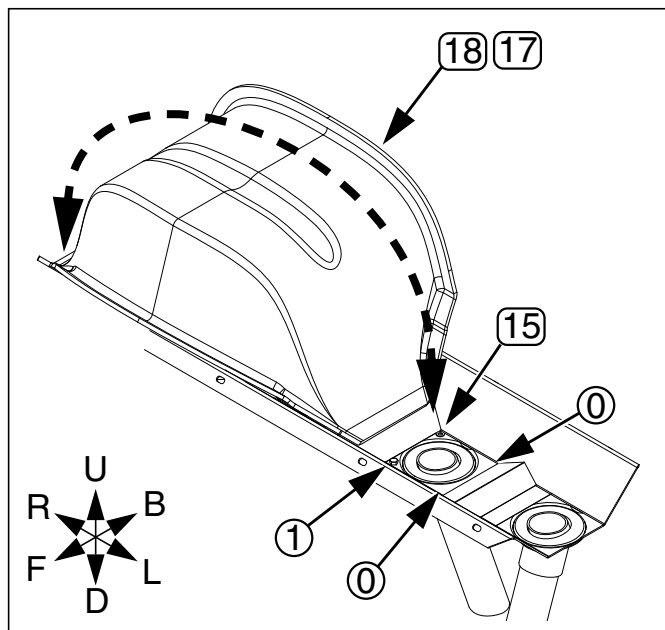


Figure 4
Bolt Hole Requirement

29556

① Mark any bolt heads at suitable locations. At the diagonally opposite location, mark any bolt head there, or use the washer to mark a hole location.

⑮ If there are no suitable existing holes on a side, chose a location. Slide the washer ⑮ into the corner. Use the washer hole as a template to mark the hole location.

11. Remove all baffles ⑰ and ⑱.
Save the washer ⑮.

Prepare Baffles

Apply Initial Foam Seals

Refer to Figure 5

12. Select all baffles (17, 18).

Clean, de-grease and dry the lower flanged edges of each baffle. This edge is the surface that will be against the seed box walls and well dividers when in use.

13. Select both rolls of the new:
 19 890-750C FOAM SEAL 1/2 X 3/4 X 204
14. Apply a single continuous layer of foam seal to the flanged edges.

Test Fit Baffles

Refer to Figure 3 on page 3

15. Place each baffle in the same locations used for determining the hole locations at step 7 and step 8.
16. Press down firmly and check the entire flange for gaps.
17. Mark the first foam layer at any regions showing gaps.

Apply Additional Foam Seal (As Needed)

Refer to Figure 6

18. Cut and apply additional foam seal 19 at marked regions 2.
19. Place baffle at its assigned location in the seed box, and re-check seal seating.
20. Mark baffles (on foam) with numbers of adjacent rows. Unless all baffles with the same part number received identical foam application, baffles are now customized to specific locations in the seed boxes.

Prepare Eyebolt Locations

21. Use a punch to make a detent at the center of any locations, marked at step 10, where a hole needs to be drilled.
22. Use the $\frac{9}{32}$ in drill to make holes at all marked locations.
23. Remove all marked bolts. These bolts, washers and nuts are not re-used. No precautions need to be taken to secure parts held together by removed bolts.

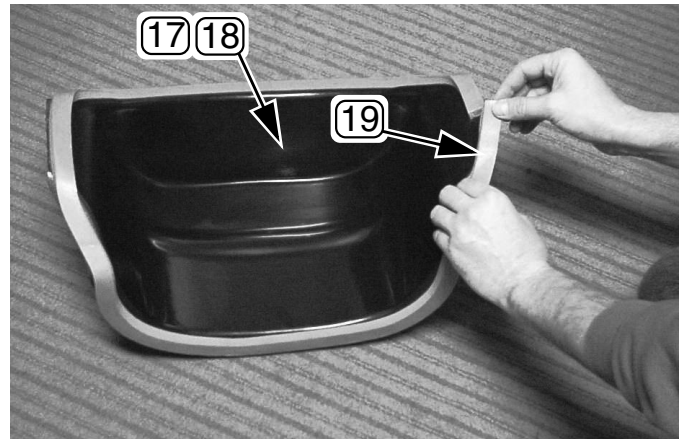


Figure 5
First Layer of Foam Seal

19253

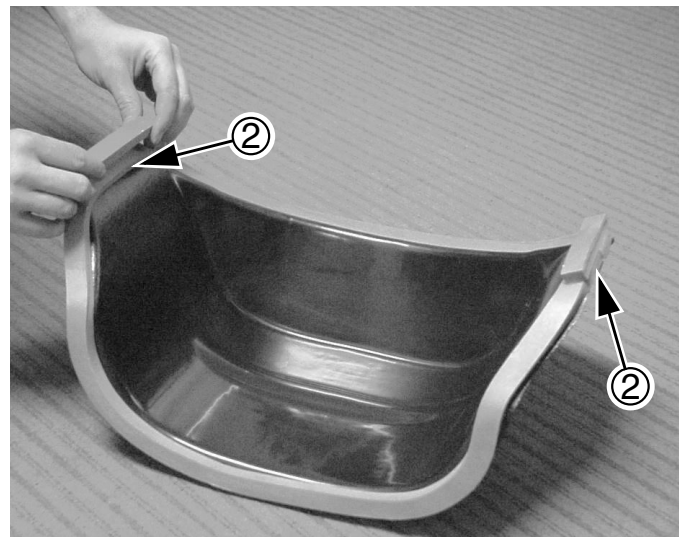


Figure 6
Second Layer of Foam Seal

19254

Install Eyebolts

Refer to Figure 7

24. Working from drill left to right, select one (1) set:
 - ⑫ 802-233C SP EYE 1/4-20X2 3/4
 - ⑭ 804-006C WASHER LOCK SPRING 1/4 PLT
 and two (2) sets:
 - ⑮ 804-007C WASHER FLAT 1/4 SAE PLT
 - ⑬ 803-006C NUT HEX 1/4-20 PLT
25. Spin one nut ⑬ fully onto the eyebolt ⑫. Add a flat washer ⑮.
26. Insert this eyebolt assembly into a strap hole ③.
27. From beneath the drill add another flat washer ⑮, lock washer ⑭, and secure with second nut ⑬. There is no preferred orientation for the eye of the eyebolt.
28. Repeat for all 12 eyebolt locations ③.

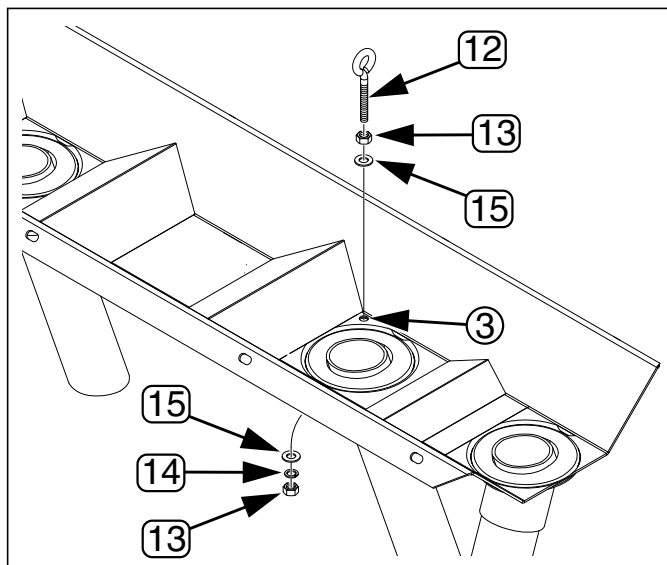


Figure 7
Eyebolt Installation 29557

Install Baffles

Refer to Figure 8

29. Place all baffles (⑰, ⑱) in their assigned positions.
30. Select six (6) new:
 - ⑰ 816-169C TARP STRAP 15 WITH HOOKS
 Secure each baffle by hooking strap ⑰ to eyebolts ⑫.
31. Re-check seal seating with strap in place. Apply additional foam seal ⑲ as required.
32. Select all remaining foam seal ⑲. Store it under the left-most baffle.

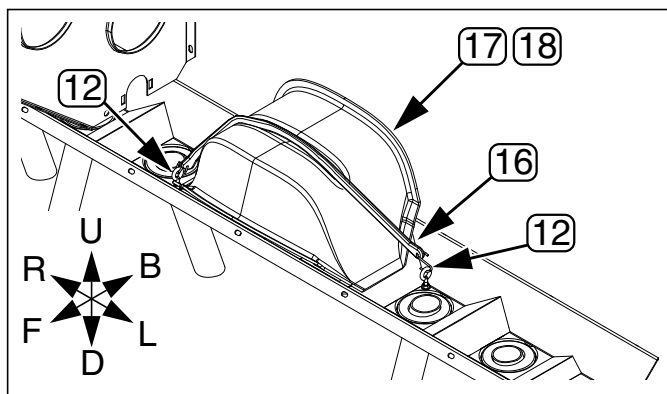


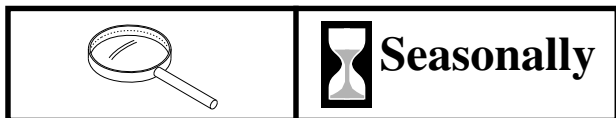
Figure 8
Install Baffle 29558

Baffle Operation

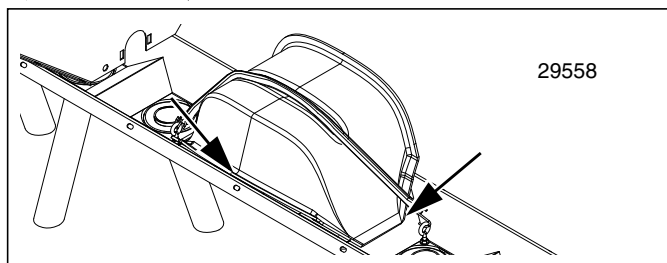
Baffles slightly reduce the raw capacity of the seed boxes (the usable capacity remains about the same). There are no other operational considerations.

Baffle Maintenance

Baffle: Seals



When cleaning out the seed box for the season, inspect the seals on each baffle, or remove the baffles and check for any seed flow under the baffle. Add foam seal as necessary (spare foam seal stored under left-most baffle).



29558

Appendix

New Parts

Quantities are units (“ea”) except for foam seal, where each of the two supplied is a 204in (518cm) roll.

The part call-out numbers in this list match all Figures in these installation instructions. Part descriptions match those in your updated Parts Manual.

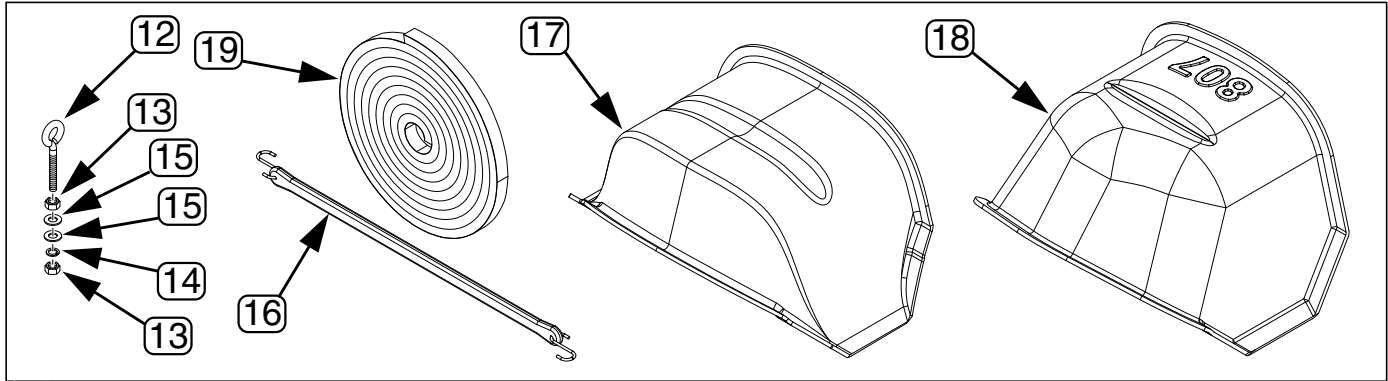


Figure 9
New Parts

29555

118-254A Kit Contents







Callout	Quantity in Kit	Part Number	Part Description
(11)	1	118-255M	MANUAL BAFFLE KIT 20P 30TR
(12)	12	802-233C	SP EYE 1/4-20X2 3/4
(13)	24	803-006C	NUT HEX 1/4-20 PLT
(14)	12	804-006C	WASHER LOCK SPRING 1/4 PLT
(15)	24	804-007C	WASHER FLAT 1/4 SAE PLT
(16)	6	816-169C	TARP STRAP 15 WITH HOOKS
(17)	4	817-466C	TWIN ROW METER COVER
(18)	2	817-807C	25FT 7 1/2 TO 30TR SPAC COVER
(19)	2	890-750C	FOAM SEAL 1/2 X 3/4 X 204

Abbreviations

20P	20 Series Precision
30TR	30 Inch Twin Row
HEX	Hexagonal
PLT	Plated

SAE	Society of Automotive Engineers (standards)
SP	Special
SPAC	Spacing
X	By

Torque Values

Bolt Size	Bolt Head Identification						Bolt Size	Bolt Head Identification					
													
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
in-tpi ¹	N-m ²	ft-lb ³	N-m	ft-lb	N-m	ft-lb	mm x pitch ⁴	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb
1/4-20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4-28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16-18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16-24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8-16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8-24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16-14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16-20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2-13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2-20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16-12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16-18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8-11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8-18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4-10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4-16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8-9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8-14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1-8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1-12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1 1/8-7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8-12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4-7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4-12	750	555	1680	1240	2730	2010							
1 3/8-6	890	655	1990	1470	3230	2380							
1 3/8-12	1010	745	2270	1670	3680	2710							
1 1/2-6	1180	870	2640	1950	4290	3160							
1 1/2-12	1330	980	2970	2190	4820	3560							

1. in-tpi = nominal thread diameter in inches-threads per inch

2. N·m = newton-meters

3. ft-lb = foot pounds

4. mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Great Plains Manufacturing, Inc.

Corporate Office P.O. Box 5060
Salina, Kansas 67402-5060 USA