



25P Eliminator Bushing Field Installation Manual 25 SERIES OPENERS



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 an eliminator bushing update kit. Order and install either narrow or wide bushings to match with the type (narrow or wide) opener arm on the implement. It takes two of the same kit to update one opener:

Kit	Kit Description
498-254V	25P Narrow Bushing Installation Kit
498-256V	25P Wide Bushing Installation Kit

Tools Required

- basic hand tools

Work Location

Move the implement to a flat location for installation.



Sharp Object Hazard:

Be careful working near opener discs. Disc edges may be sharp.

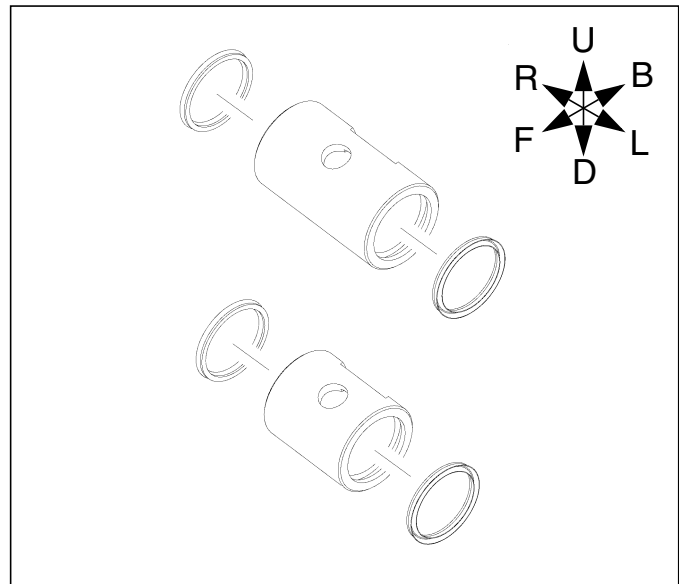
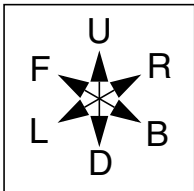


Figure 1
25P Bushing Installation Kit
Wide (top), Narrow (bottom)

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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.

Call-Outs

- ⑪ to ⑭ Two-digit callouts in the range 11 to 14 reference new parts from the list on page 6.

Remove Old Bushing and Seals

Refer to Figure 2

1. Remove pivot bolt (28). Save to reuse.
2. Remove hex adjuster (32). Save to reuse.
3. Loosen nut (38), remove hex-head bolt (36). Save both to reuse.
4. Slide arm (34) off.
5. Remove inner bushing (25) from bushing pack. Clean up bushing (25). Save to reuse.
6. Discard two old seals (39) and old outer bushing (40).

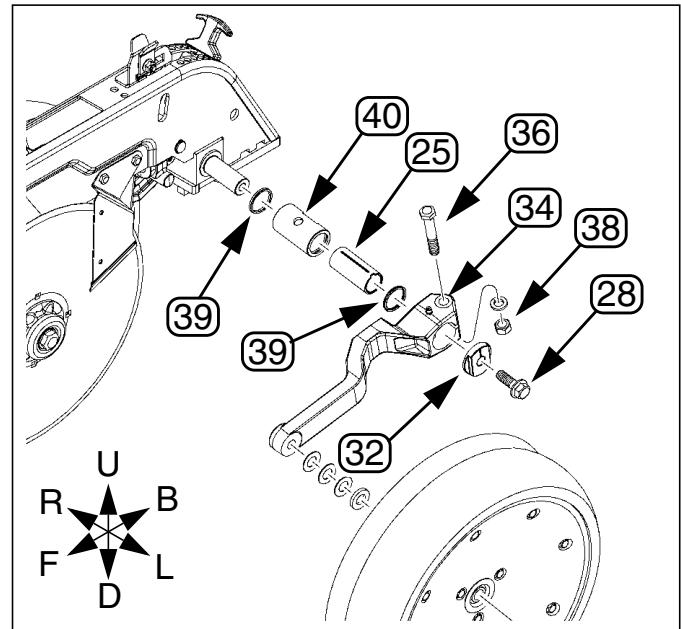


Figure 2
Remove Current Bushing

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Replace with New Bushing and Seals

Refer to Figure 3 and Figure 4

Select New Outer Bushing

7. Select new outer bushing either:
 Narrow:
 ① 198-360D OUTER BUSHING INNER CUP SEAL
 or
 Wide:
 ⑭ 404-214D 25P O-RING BUSHING

Insert U-type Seals

Note: Do NOT damage the new seals by inserting them in the wrong direction. If these instructions are followed the seals will not be damaged. When the inner bushing passes through the inside of the outer bushing it must not cut against the sealing edge.

Note: The notch ⑳ on the eccentric bushing ㉕ must face down and to the outside of opener arm.

8. Select one U cup seal ⑬.
 Make sure U-shape part of seal (the open end) faces OUT and not into the groove. Insert it in one end of the new outer bushing ①. Make sure the seal is placed securely in groove.
MAKE SURE TO ONLY INSTALL ONE SEAL AT THIS TIME.
9. Before sliding the inner eccentric bushing ㉕ into the outer bushing ① put a small amount of grease over the seal ⑬ to lubricate. This makes it easier to push the bushing through so it doesn't damage the seals.
10. Take the eccentric bushing ㉕ flat end (not notched end ㉔) and slide it in the opposite end (end without the seal). Push all the way through so it extends a little past the end with the seal to allow room to get second seal in.
11. Select second U cup seal ⑬:
 Insert making sure U-shape part of seal (the open end) faces OUT and not into the bushing groove. Make sure it is securely in groove. Apply a small amount of grease over the seal ⑬ to lubricate.
12. Push inner bushing ㉕ through this seal so it is centered inside outer bushing ①.

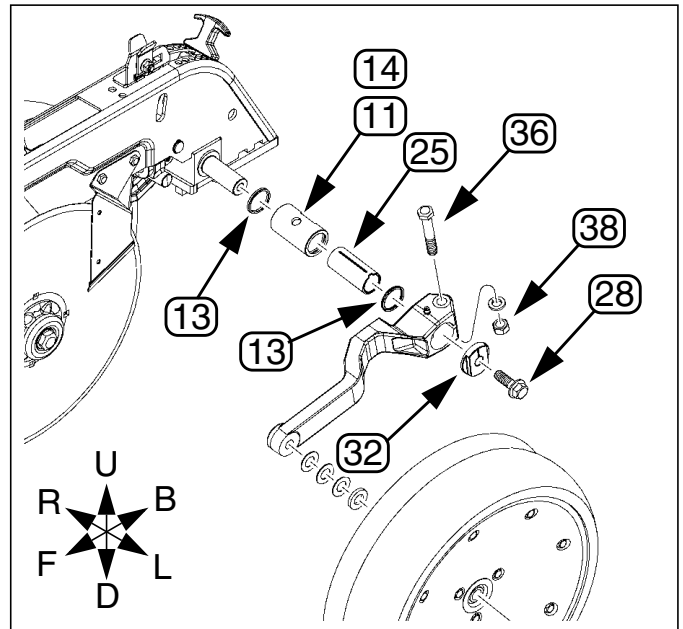


Figure 3
Replace with New Bushing

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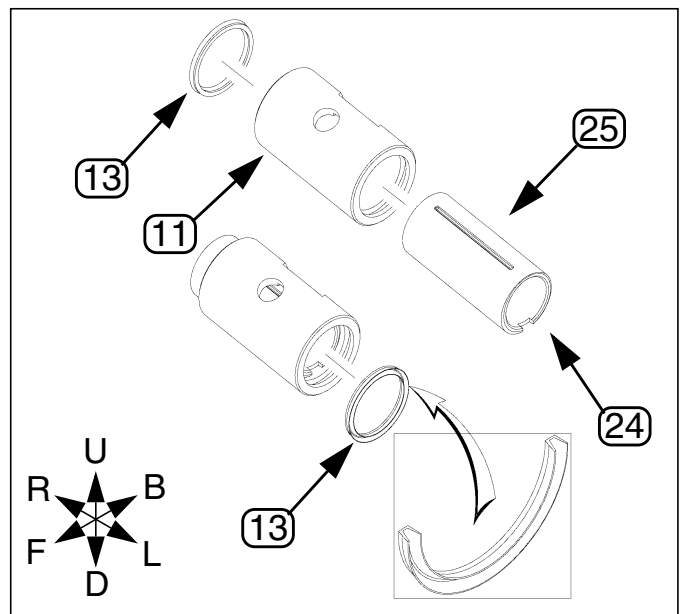


Figure 4
Inner and Outer Bushings
Disassembled (top), Joined (bottom)

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Reassemble to Guage Wheel Arm

Reassemble Bushing to Arm

Refer to Figure 5 and Figure 6

13. With bushing pack all together, make sure flat groove (10) on outer bushing (11) faces the back and notch in inner bushing (25) is to the outside of arm. Slide pack into guage wheel arm (34).
14. Put hex-head bolt (36) back through making sure it is lined up with the flat groove (10) in bushing (11).
15. Finger tighten hex-head bolt (36).
16. Put hex adjuster (32) in place.

Line up notch on hex adjuster nut (32) with notch in eccentric bushing (25).
17. Reusing pivot bolt (28) tighten finger tight.
18. Make sure bushing notch (24) is on the bottom, this is your starting point.

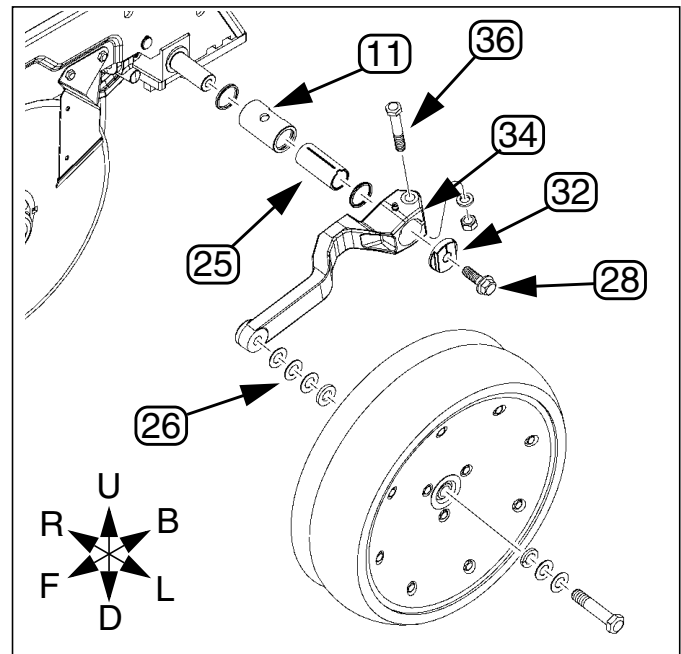


Figure 5
Bushings and Guage Wheel Arm

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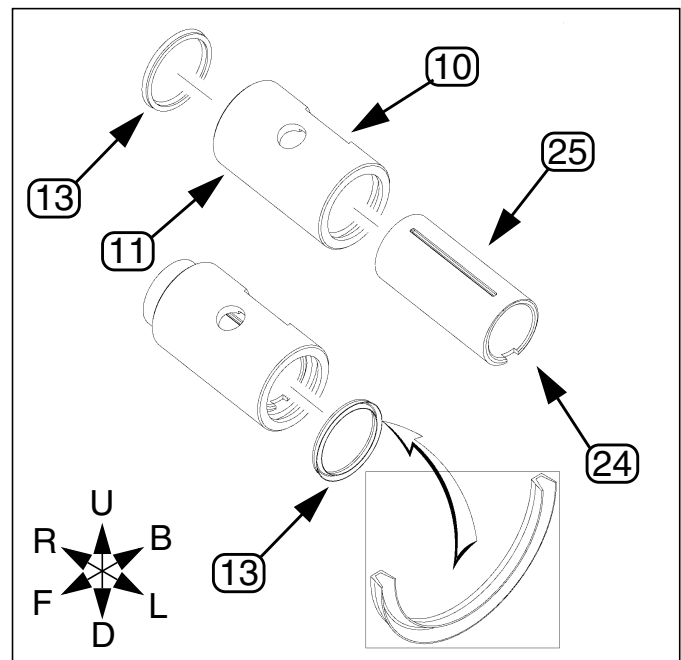


Figure 6
Inner and Outer Bushings
Disassembled (top), Joined (bottom)

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Adjust Wheel to Disc

Adjusting Wheel to Disc

Refer to Figure 7 and Figure 8

Hex Head Adjuster

Check tire to disc contact location. Wheel should hit disc at bottom of tire. At top of tire it should have $\frac{3}{8}$ gap away from disc. Adjust hex adjuster (32) to obtain correct contact location.

19. Move wheel arm in so side gauge wheel contacts row unit disc at bottom. Tighten hex-head bolt (36) to clamp arm around bushing and shank.

Wheel and disc should touch but not be so tight there is pressure. Pressure will cause it to bind up. Allow for enough movement. Check wheel-to-disc contact at 2in (5cm) planting depth. Lift wheel 2in (5cm) and release. When let go, wheel should fall freely.

If wheel does not contact disc at bottom to area where blade leaves contact with soil, move hex adjuster until wheel is angled for proper contact with disc.

20. *If wheel does not fall freely*, loosen hex-head bolt (36) and slide wheel arm out just until wheel and arm move freely. Retighten hex-head bolt (36) per grade:
 - $\frac{1}{2}$ in Grade 5 bolt, 76 ft-lbs (105 N-m).
 - $\frac{1}{2}$ in Grade 8 bolt, 110 ft-lbs (150 N-m).
21. Keep turning hex adjuster and moving wheel arm until the wheel is adjusted properly. When satisfied, tighten pivot bolt (28) to 110 ft-lbs.

Shims

22. If wheel does not contact blade when arm is slid into end of bushing, then adjust the shims (26). Remove shim from behind wheel to move tire closer to blade.
23. Retain removed shims by placing them on the outer side of the gauge wheel bolt so there is always access to them for any future adjustments.

Finish

24. Tighten the hex-head bolt (36).
25. Then tighten pivot bolt (28) (roughly $\frac{1}{4}$ in gap at top of wheel).

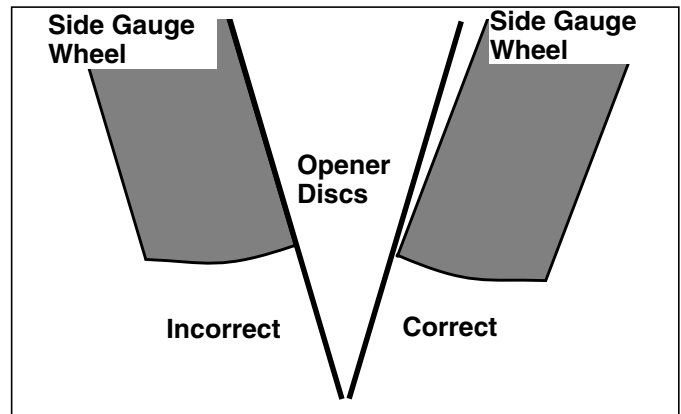


Figure 7
Disc/Gauge Wheel Alignment

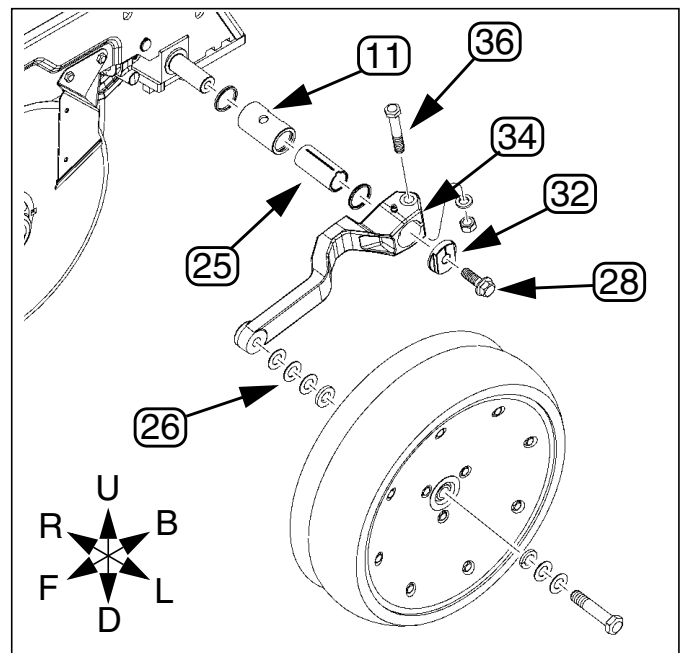


Figure 8
Bushings and Gauge Wheel Arm

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Appendix

Part Lists

New Parts

The part call-out numbers in this list match all Figures in these installation instructions. Part descriptions match those in your updated Parts Manual. Quantities are units (“ea”).

Kit Contents

498-254V 25P Narrow Bushing Installation Kit

Callout	Quantity	Part Number	Part Description
11	1	198-360D	OUTER BUSHING INNER CUP SEAL
12	1	498-255M	25P BUSHNG INSTALLATION MANUAL
13	2	816-686C	U CUP SEAL

Kit Contents

498-256V 25P Wide Bushing Installation Kit

Callout	Quantity	Part Number	Part Description
14	1	404-214D	25P O-RING BUSHING
15	1	498-255M	25P BUSHNG INSTALLATION MANUAL
16	2	816-686C	U CUP SEAL

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