

# CP2000™ Case Preparation System Assembly and User Instructions

Dillon Precision, Inc.

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## DILLON PRECISION DISCLAIMER, EXPLANATION OF SAFETY WARNINGS, DILLON CONTACT INFORMATION

### DISCLAIMER

The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice. Dillon Precision Inc. makes no representations or warranties with respect to this manual. Dillon Precision Inc. shall not be liable for any damages, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the use of or the inability to use the products described herein. Read this manual before using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Keep this manual in a safe location for future reference.

### EXPLANATION OF SAFETY WARNINGS

**DANGER!** Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury

**WARNING!** Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

**CAUTION!** Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

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#### Document Revisions

| Date     | Version Number | Document Changes          |
|----------|----------------|---------------------------|
| 11-1-19  | 0              | Initial Release           |
| 12-18-19 | 1              | Conversion Box to Die Box |
|          |                |                           |

## **1 OVERALL CP2000 DESIGN AND USAGE SAFETY**

- Dillon Precision Products has designed the CP2000 with user safety in mind to make the use of the CP2000 as safe as possible.

## **2 MANDATORY CP2000 USER SAFETY MINIMUM REQUIREMENTS**

- **THE CP2000 IS NOT A RELOADING SYSTEM. DO NOT USE IT FOR RELOADING!**
- **CAUTION!** Never operate the CP2000 without eye and ear protection.
- **WARNING!** Do not remove any safety device(s) from the CP2000 or modify it in any way.
- **DANGER!** Never attempt to deprime a cartridge case with a live primer. Depriming live primers can cause serious injury or death!

## **3 CP2000 LIMITED WARRANTY--Dillon Precision warrants the CP2000 for one year from the date of shipment against defects in material and workmanship. The following items are also warranted against defects in material and workmanship for one year from date of shipment:**

- Dies and Die Parts,
- Shellplate,
- Casefeed Assembly, Casefeed Parts and Motor,
- Swage Rod and Backup Swage Rods,
- Index Pawl

Dillon Precision Inc. will either repair or replace any part(s) that prove defective. Repaired or replacement products/parts will be provided at Dillon's choice on an exchange basis. This limited warranty does not cover any damage to the product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair or modification. This limited warranty shall not apply if: (i) the CP2000 was not used in accordance with CP2000 instructions, (ii) the CP2000 was not used for its intended function or (iii) a motor is used to cycle the CP2000, (iv) the addition of any non-authorized equipment, or (v) is used in a commercial manufacturing operation. A part(s) replaced under warranty does not restart the warranty period.

## **4 BASIC FEATURES OF THE DILLON CP2000™**

- Dillon Eccentric Drive™
- Automatic Casefeeder with Adjustable Speed
- Automatic Indexing
- Auto-Eject System
- Seven-Station Interchangeable Toolhead with 7/8" x 14 Threads
- Dual/Alternate Position, Primer Pocket Swaging Station
- Choice of Small or Large CP2000 (Small or Large Rifle Casefeed Plate and Small or Large Swage System)
- Note: Dillon Precision Size Dies, RT 1500 Case Trimmer, Trim Dies and Shellplate are NOT included but available



## 5 CP2000 SHIPPING CONTENT

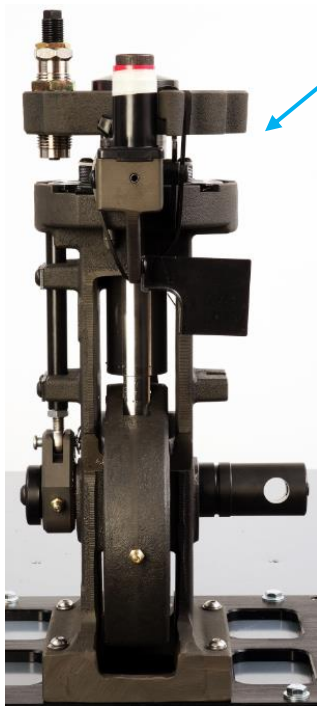
5.1 Remove the following items from the top protective foam layer of the CP2000 shipping box.

- Casefeed Tube
- Casefeed Mounting Post
- Operating Handle
- Die Storage Box—  
Parts installed on  
CP2000 Note:  
Seven Locator  
Buttons and Tabs  
shipped inside



5.2 Remove the following items from the second protective foam layer.

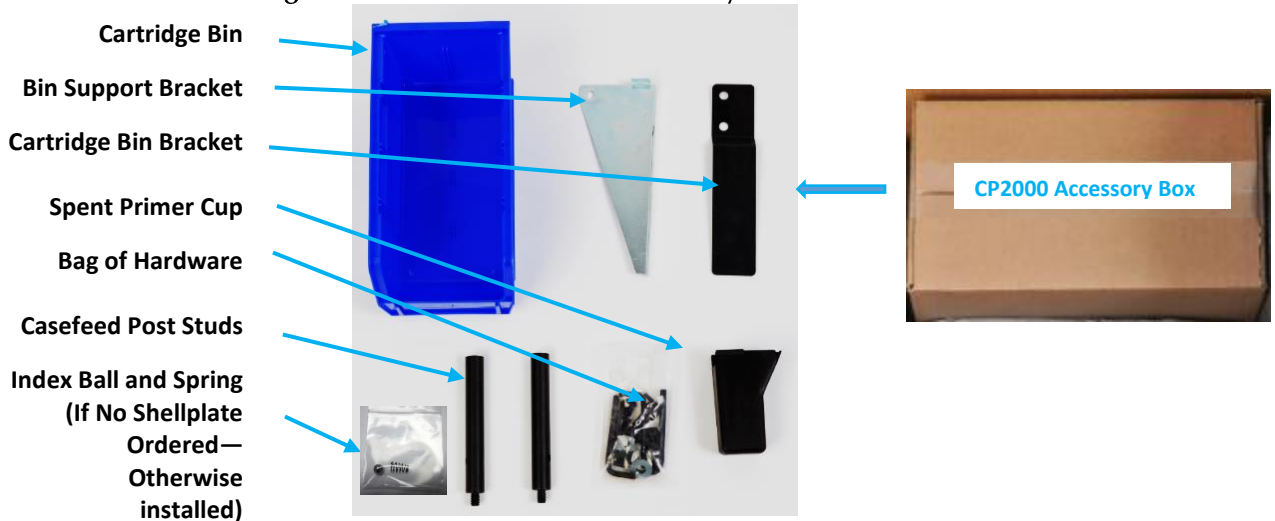
- CP2000 Accessory Box
- Variable Speed  
Casefeed system with  
Large or Small  
Casefeed plate
- CP2000 in the plastic  
bag with Large or  
Small Swage System



### 5.3 Remove the Variable Speed Casefeed Power Supply Box.

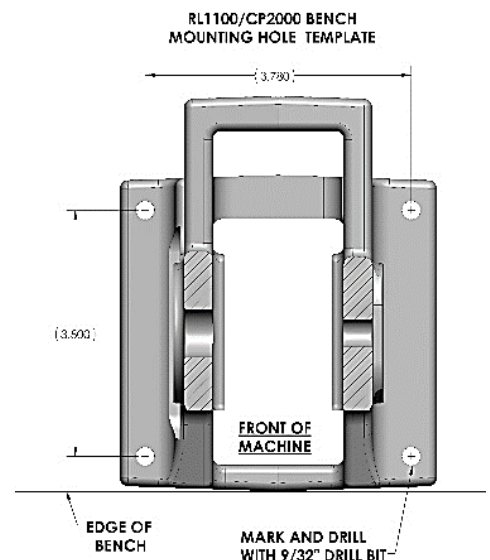
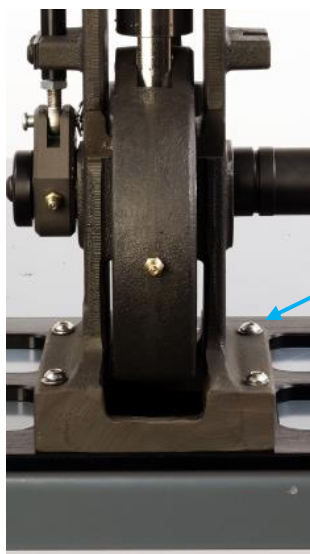


### 5.4 Remove the following items from the CP2000 Accessory box:



## 6 CP2000 ASSEMBLY GUIDE

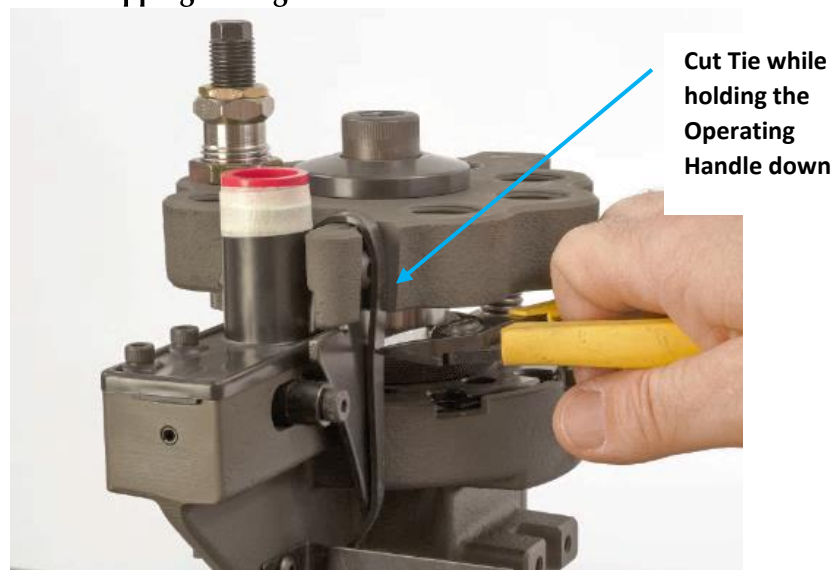
- 6.1 Mounting the CP2000--Select a clear area on your reloading bench. Be certain your bench is strong enough to support the weight and the force required to operate the CP2000. If possible, attach your bench to the wall. Remove the CP2000 Main Frame from the packaging and place it on your selected area.
- 6.2 Bring the CP2000 to the forward edge of your bench. Allow clearance for operation of the Operating Handle in the down position. Mark the four mounting holes using the CP2000 as a template or the printed template on page 55 in the back of this manual. Remove the CP2000 and drill four 9/32" holes through the bench. Replace the CP2000 and bolt it securely to your bench with 1/4" Grade 5 at a minimum hardware.



- 6.3 Install the Operating Handle to the right as shown below. There are three different positions for mounting the Operating Handle. Choose the one that feels best for you. The longer the Operating Handle the less force required for sizing but results in more travel of the Handle. Secure the Operating Handle in place with the Operating Handle Set Screw provided.



- 6.4 A plastic tie holds the Toolhead down to the Main Frame for shipping. **CAUTION! --The Toolhead is spring-loaded up.** Cut the tie while holding on to the Operating Handle so it does not spring up. Verify that the Operating Handle is moving freely up and down. If the Operating Handle is not moving freely, inspect for shipping damage.

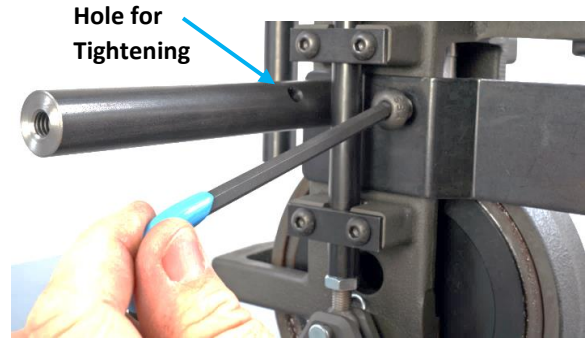


- 6.5 Install the Seven Brass Locator Button and Tabs around the Shellplate. (The Locator Buttons and Tabs are shipped in the Blue Dillon Die Box.)





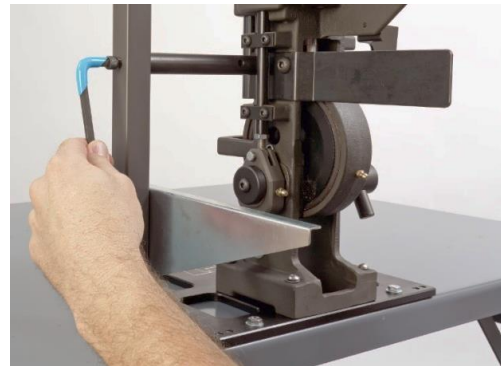
- 6.6 Screw the Cartridge Bin Bracket to the CP2000 Frame with the Upper Post Stud and the Bin Bracket Mounting Screw. Tighten the Stud as shown below with an Allen Wrench through the hole in the Post Stud.



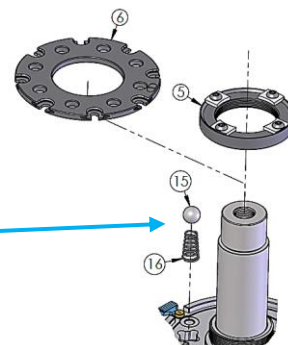
- 6.7 Screw the Lower Post Stud and a 5/16" Washer to the Lower Mounting Hole in the Frame. Tighten with Allen Wrench through the hole in Post Stud.



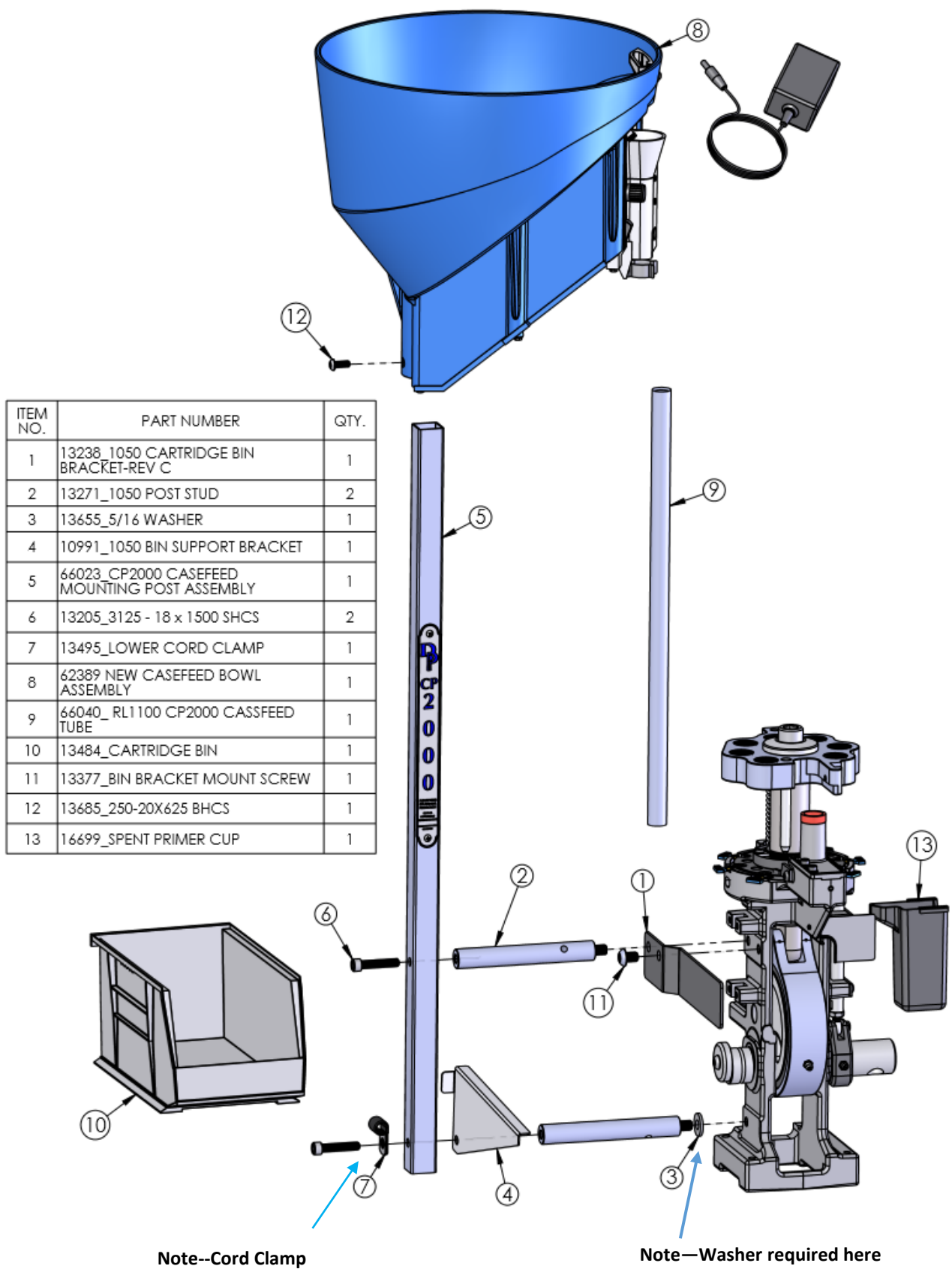
- 6.8 First, screw the Casefeed Mounting Post and the Bin Support Bracket to the Lower Post Stud using a 5/16" Socket Head Screw while supporting the Casefeed Mounting Post. Leave the 5/16" Screw loose. Install the second 5/16" Screw through the top hole into the Upper Post Stud and Tighten both 5/16" Screws with the 1/4" Allen Wrench.



- 6.9 Note--If the CP2000 is ordered without a Shellplate, refer to Section 9.2.5 for installation of a Shellplate (6) and Index Ball (15) and Spring (16). The Index Ball and Spring are shipped in the Accessory Box if no Shellplate is ordered with the CP2000.



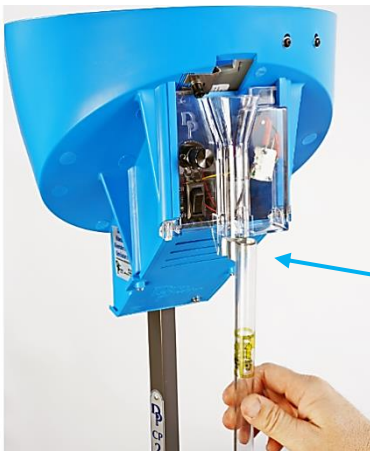
## 6.10 Reference Assembly Diagram



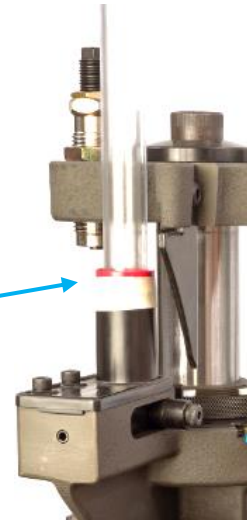
- 6.11** Install the 1/4-20 Screw into the side of the Casefeed Bowl. Slide the Casefeed Bowl over the Casefeed Mounting Post Assembly and gently tighten the 1/4-20 Screw with a 5/32" hex wrench to 5-7 inch-pounds securing the Casefeed Bowl to the Casefeed Mounting Post Assembly.



- 6.12** Place the Casefeed Tube into the Casefeed Adapter then snap the Casefeed Tube into the Clamp on the Casefeed Funnel. One end of the Casefeed Tube is beveled on the inside and must be installed with the Dillon decal lettering and bevel facing up.



Insert bottom of  
Casefeed Tube into  
Casefeed Adapter  
and then snap it  
into the Casefeed  
Tube Spring Clamp

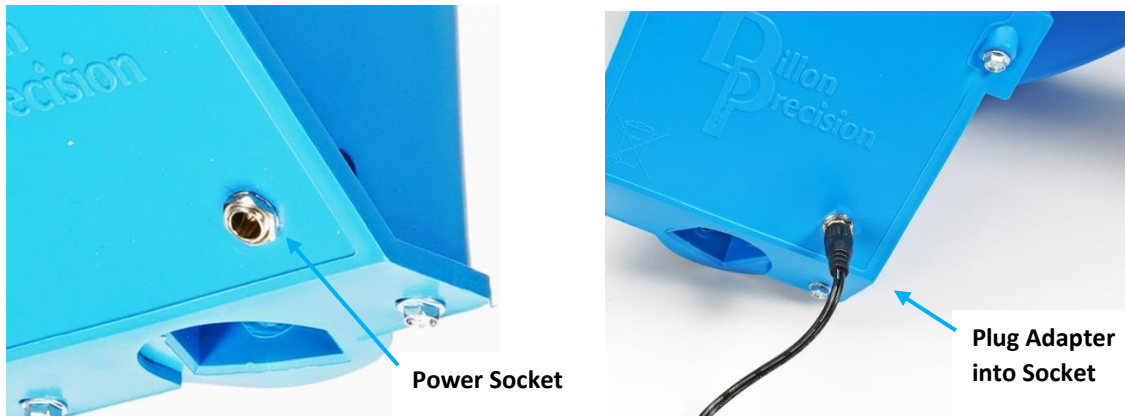


- 6.13** The new Variable Speed Casefeeder utilizes a Universal Power Supply that works on 110-240V AC 50/60 Hz and comes with several Wall Socket Adaptors. Choose the Adaptor for the utility power in your area. Install the Adaptor into the Power Supply, by inserting the side with the raised edge opposite the sliding latch and press into the pocket until the latch locks in place (120V AC Adaptor pictured).

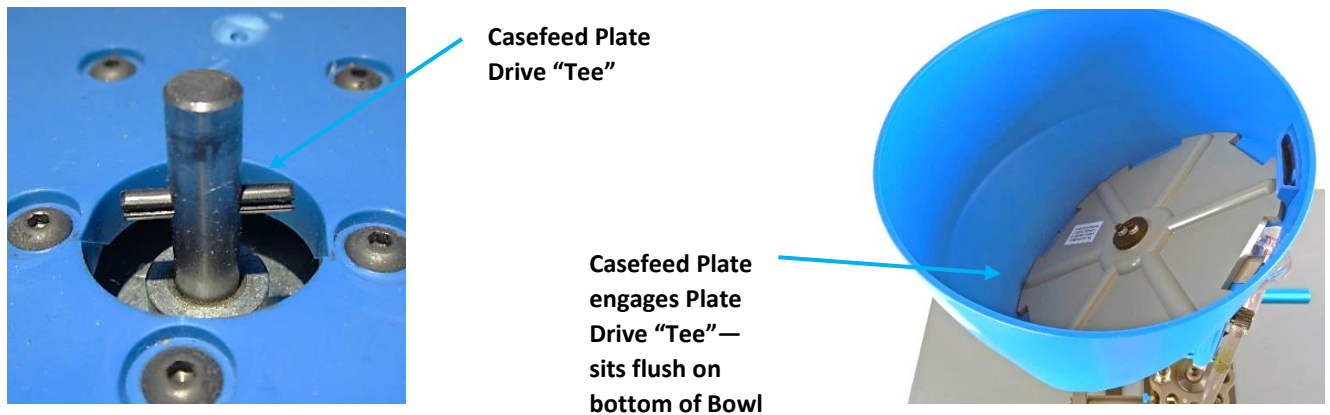




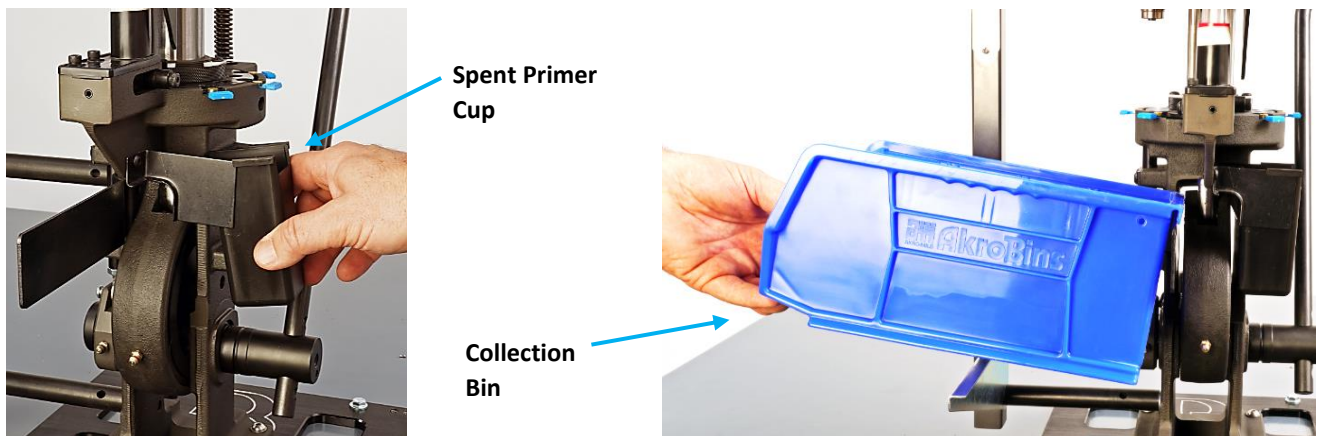
- 6.14 Connect the Power Supply Power Cord to the Casefeeder by pushing the small Barrel Plug Adaptor into the Socket on the bottom face of the Casefeeder. Now plug in the Power Supply to an AC source.



- 6.15 Place the Casefeed Plate into the Casefeed Bowl engaging the Casefeed Plate Drive ("Tee") on the Motor.



- 6.16 Slide the Spent Primer Cup onto the Bracket on the right side as shown and hook the Collection Bin onto the Bin Support Bracket.

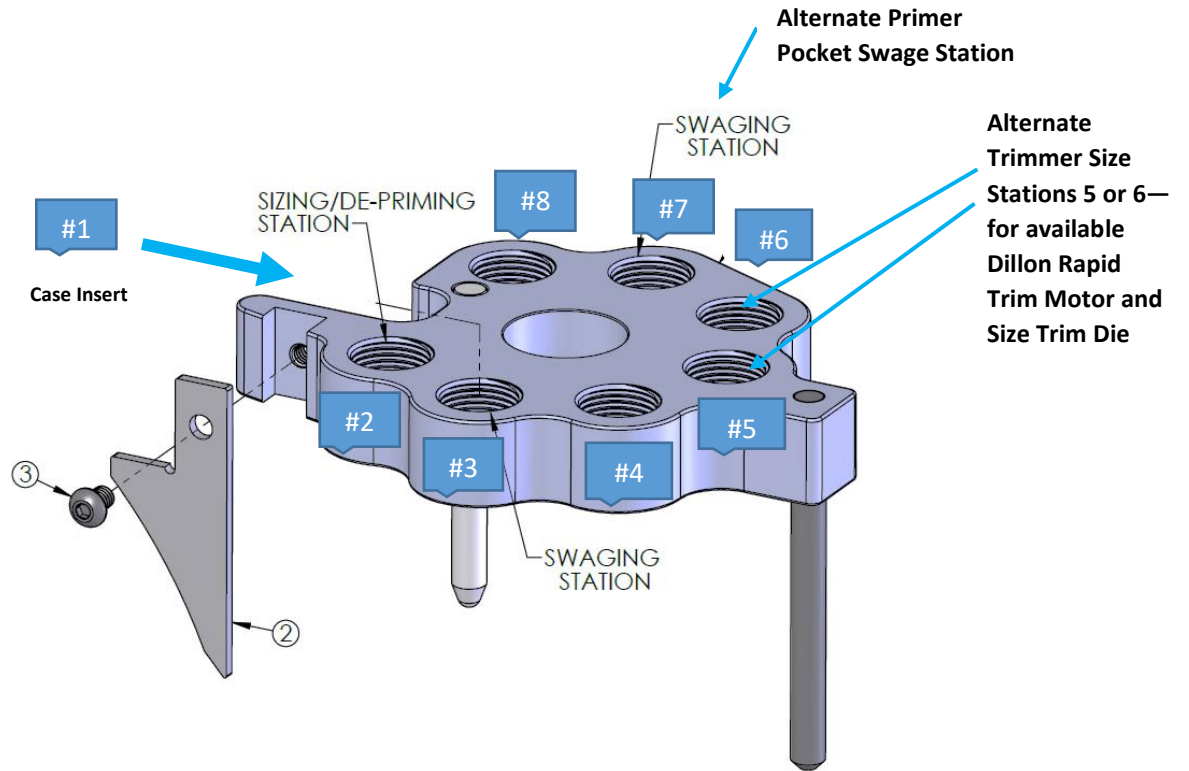


- 6.17 At this point your assembly is complete. Pull the Operating Handle towards you and make a full stroke to the bottom and up again. The Shellplate should index smoothly. The Casefeed Plunger should travel forward to the Shellplate and back without resistance.
- 6.18 Activate the Casefeed Motor Switch. The Casefeed Plate should turn smoothly within the Casefeed Bowl. Tie-wrap the Casefeed Cord appropriately to the Casefeed Mounting Post.

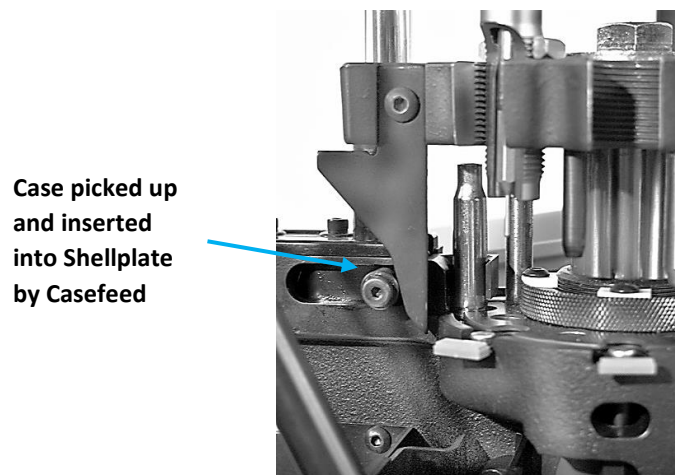
## 7 THE CP2000--STATIONS, CONFIGURATIONS AND PROCESS

## 7.1 CP2000 Station Process and Station Descriptions:

- 7.1.1 Clean brass.
- 7.1.2 Lubricate Brass with Dillon Case Lube.
- 7.1.3 Place Brass in Dillon CP2000 Casefeeder and turn on Casefeed Motor.



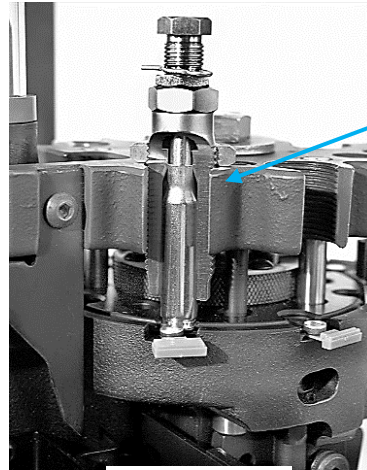
**7.1.4 Station 1--Inserts the brass case into the Shellplate on the upstroke of the Operating Handle.**



## Station 1



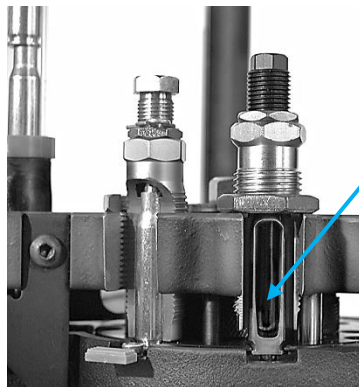
- 7.1.5 Station 2—Deprime and Resize Cases—Note-- there are different processes for Pistol and Rifle Brass:
- Pistol--Deprime and Size pistol/straight wall cases
  - Rifle--Deprime and Pre-size the bottleneck brass case in this station with no Expander Ball. Size the case to ~"90% sized" utilizing the Dillon Rifle Headspace Gauge--this means, the case should stick up ~ .020" above the top of the case gauge. Final size the case in the Size Trim Die in Station 5 or 6. This provides a more precise sizing by minimizing the "spring-back" of the brass.



Deprime and Size

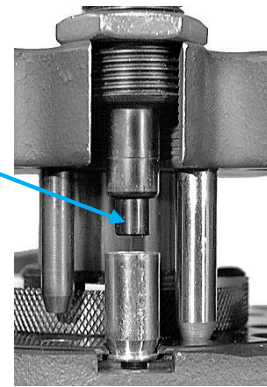
Station 2

- 7.1.6 Station 3--Optional Swage Station—The primer pocket is swaged in this station (military crimp removed) and the case mouth is expanded as the Swage Back-Up Rod inside the case simultaneously contacts the inside of the web of the case. Setup the Swager and Backup Expander as described in section 8.6. below. This applies to pistol as well as rifle brass since some pistol cases have crimped primer pockets.



Backup Rod/Support for Swaging Process

Station 3--Rifle



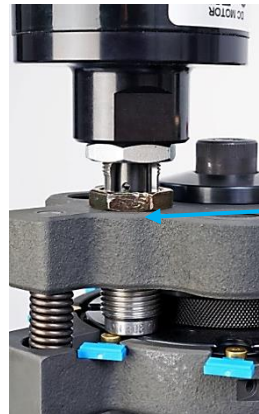
Station 3--Pistol



Backup Expander to contact inside bottom of case (web) when Operating Handle reaches the bottom of its stroke

**7.1.7 Station 4--Open.**

**7.1.8 Station 5--Size and Trim Station for Rifle Brass--Open for Pistol Brass--Final size and trim rifle cases to the proper length in this station utilizing the Dillon Rapid Trim 1500 Motor and Dillon Size Trim Die shown below. Note the Size and Trim Die is caliber specific and only for bottleneck cases.**



**Trim Station 5**

**Station 5**

**7.1.9 Station 6--Open--Alternate Size and Trim Station 6 can be used instead of using Station 5. Verify that the Trimmer Motor will not interfere with any dies in Station 7.**



**Alternate Trim Station 6**

**Station 6--Alternate Trim Station**

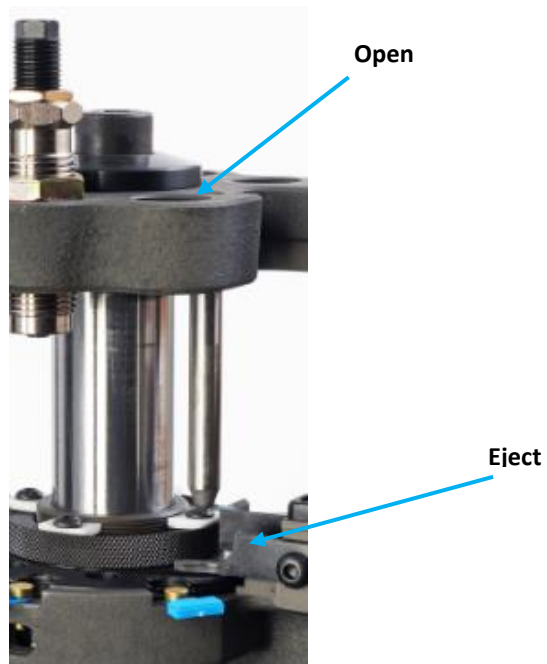
**7.1.10 Station 7--Open--(This is an alternate Primer Pocket Swage Station) --Again, the primer pocket is swaged (military crimp removed) and the case mouth is expanded as the Backup Expander inside the case simultaneously contacts the inside of the web of the case base. Setup the Swager and Backup Rod as described in section 8.6. below.**



**Alternate Swage Station 7**

**Station 7--Alternate Swage Station**

**7.1.11 Station 8--Open/Eject processed case.**



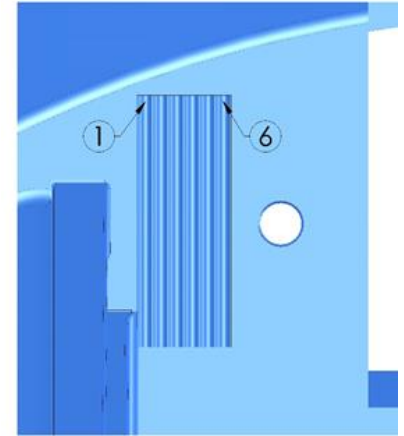
**Station 8--Open/Eject**

## 8 SETUP PROCEDURES FOR CP2000—WARNING! CHECK ALL STATIONS FOR PROPER ADJUSTMENTS FOR THE CARTRIDGE CASE BEING PROCESSED. IT IS ABSOLUTELY ESSENTIAL THAT YOU READ THESE INSTRUCTIONS. IF THERE IS SOMETHING YOU DON'T UNDERSTAND, CALL (800) 223-4570 FOR TECHNICAL ASSISTANCE.

### 8.1 Casefeeder Adjustment

#### Casefeed Plate Selection, Casefeed Window Cuff Position and Case Deflector Block Adjustment Chart

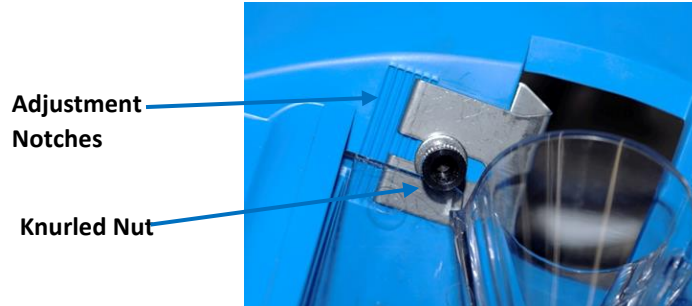
The chart below outlines the recommended Casefeed Plate and starting positions for the Casefeed Window opening position and Case Deflector Block position. Adjustment to the window position and Case Deflector may be necessary dependent upon the variation of your setup. The illustration at right shows the Casefeed Window opening positions from 1 to 6 as listed below. Start with the Variable Speed Control Knob at its mid position and adjust up or down to match the CP2000 cycle rate.



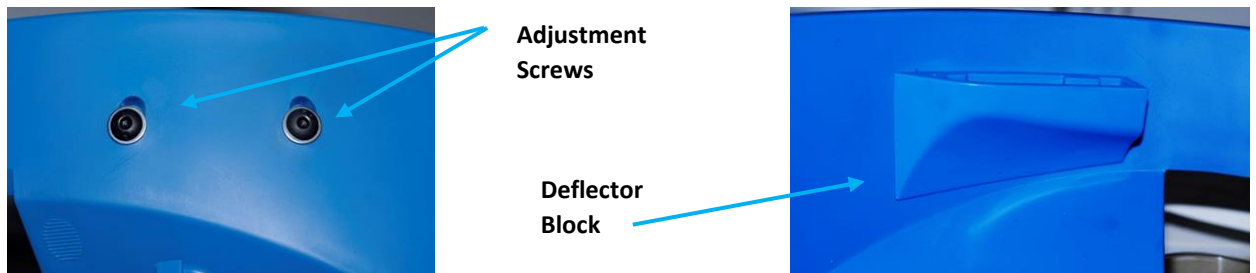
| CALIBER                    | CASEFEED PLATE | WINDOW POSITION | DEFLECTOR POSITION | CALIBER               | CASEFEED PLATE | WINDOW POSITION | DEFLECTOR POSITION | CALIBER                 | CASEFEED PLATE | WINDOW POSITION | DEFLECTOR POSITION |
|----------------------------|----------------|-----------------|--------------------|-----------------------|----------------|-----------------|--------------------|-------------------------|----------------|-----------------|--------------------|
| .30 Luger, .30 Mauser      | SMALL PISTOL   | #3              | DOWN               | .22 Remington Jet     | LARGE PISTOL   | #3              | DOWN               | 7.62x54                 | LARGE RIFLE    | #1              | UP                 |
| .32 ACP, 7.65MM            | SMALL PISTOL   | #3              | DOWN               | .218 Bee              | LARGE PISTOL   | #3              | DOWN               | .30 AR                  | LARGE RIFLE    | #6              | DOWN               |
| .32 Short Colt             | SMALL PISTOL   | #3              | DOWN               | .220 Swift            | LARGE RIFLE    | #3              | DOWN               | .30M1 Carbine           | SMALL RIFLE    | #6              | DOWN               |
| .32 S&W                    | SMALL PISTOL   | #3              | DOWN               | .222 Remington Magnum | SMALL RIFLE    | #3              | DOWN               | .300 Blackout           | SMALL RIFLE    | #6              | DOWN               |
| .32 H&R Magnum             | SMALL PISTOL   | #3              | DOWN               | .22-250               | LARGE RIFLE    | #3              | DOWN               | .300 Wby./Win. Mag.     | MAGNUM RIFLE   | #1              | UP                 |
| .327 Federal Magnum        | SMALL PISTOL   | #3              | DOWN               | .25-20 Winchester     | SMALL PISTOL   | #3              | DOWN               | .300 WSM/RSAUM          | MAGNUM RIFLE   | #3              | UP                 |
| 7mm TCU                    | SMALL PISTOL   | #3              | DOWN               | .223 Win./5.56x45mm   | SMALL RIFLE    | #3              | DOWN               | .300 Rem. Ultra Mag.    | MAGNUM RIFLE   | #1              | UP                 |
| 9mm, 9x21, .38 Super       | SMALL PISTOL   | #3              | DOWN               | .223 WSSM             | LARGE RIFLE    | #3              | DOWN               | .300H&H/.308 Norma Mag. | MAGNUM RIFLE   | #1              | UP                 |
| 9x18 Makarov               | SMALL PISTOL   | #3              | DOWN               | .224 Wby. Mag.        | SMALL RIFLE    | #3              | DOWN               | .32-20 Winchester       | SMALL PISTOL   | #3              | DOWN               |
| 9x25 Dillon                | SMALL PISTOL   | #3              | DOWN               | .243 Win./6mm Rem.    | LARGE RIFLE    | #3              | DOWN               | .303 British            | LARGE RIFLE    | #1              | UP                 |
| .380 ACP                   | SMALL PISTOL   | #3              | DOWN               | .243 WSSM             | LARGE RIFLE    | #4              | DOWN               | .30-30 Winchester       | LARGE RIFLE    | #1              | UP                 |
| .38 Super Comp             | SMALL PISTOL   | #3              | DOWN               | .25-06, .257 Roberts  | LARGE RIFLE    | #3              | DOWN               | .308 Marlin Express     | LARGE RIFLE    | #1              | UP                 |
| .38 Special,               | LARGE PISTOL   | #3              | DOWN               | .25 WSSM              | LARGE RIFLE    | #4              | DOWN               | .308 Win.               | LARGE RIFLE    | #1              | UP                 |
| .357 Magnum                | LARGE PISTOL*  | #3              | DOWN               | .256 Win. Mag.        | LARGE PISTOL   | #3              | DOWN               | .30-06                  | LARGE RIFLE    | #1              | UP                 |
| .357 SIG                   | LARGE PISTOL   | #3              | DOWN               | .257 Ack. Imp.        | LARGE RIFLE    | #3              | DOWN               | .30 T/C                 | LARGE RIFLE    | #1              | UP                 |
| 10mm                       | LARGE PISTOL   | #3              | DOWN               | .257 Wby. Mag.        | LARGE RIFLE    | #3              | DOWN               | .325 WSM                | MAGNUM RIFLE   | #4              | UP                 |
| .40 S&W                    | LARGE PISTOL   | #3              | DOWN               | 6.5 Creedmoor         | LARGE RIFLE    | #5              | DOWN               | .338 Win., .340 Wby.    | MAGNUM RIFLE   | #1              | UP                 |
| .41 Mag.                   | LARGE PISTOL   | #3              | DOWN               | 6.5 Grendel           | SMALL RIFLE    | #6              | DOWN               | .338 Rem. Ultra Mag.    | MAGNUM RIFLE   | #1              | UP                 |
| .44 Special, .44 Magnum    | LARGE PISTOL   | #3              | DOWN               | 6.5 Rem. Mag.         | LARGE RIFLE    | #3              | DOWN               | .350 Rem. Mag.          | LARGE RIFLE    | #1              | UP                 |
| .45 ACP                    | LARGE PISTOL   | #3              | DOWN               | 6.5x55                | LARGE RIFLE    | #3              | DOWN               | 8x57 Mauser             | LARGE RIFLE    | #1              | UP                 |
| .45 GAP                    | LARGE PISTOL   | #3              | DOWN               | .264 Win. Mag.        | LARGE RIFLE    | #3              | DOWN               | .375 H&H Mag.           | MAGNUM RIFLE   | #1              | UP                 |
| .45 Auto Rim               | LARGE PISTOL   | #3              | DOWN               | 6.8mm SPC             | SMALL RIFLE    | #6              | DOWN               | .375 Rem. Ultra Mag.    | MAGNUM RIFLE   | #1              | UP                 |
| .45 Colt/S&W, .454 Casull  | LARGE PISTOL   | #3              | DOWN               | 7mm TCU               | SMALL RIFLE    | #3              | DOWN               | .38-40 Win.             | LARGE PISTOL   | #3              | DOWN               |
| .45 Win. Mag.              | LARGE PISTOL   | #3              | DOWN               | .270 Winchester       | LARGE RIFLE    | #1              | UP                 | .444 Marlin             | LARGE RIFLE    | #1              | DOWN               |
| .460 S&W                   | LARGE PISTOL   | #3              | DOWN               | .270 Wby. Mag.        | LARGE RIFLE    | #1              | UP                 | .44-40 Win.             | LARGE PISTOL   | #3              | DOWN               |
| .475 Linebaugh, .480 Ruger | LARGE PISTOL   | #3              | DOWN               | 7mm Dakota            | MAGNUM RIFLE   | #1              | UP                 | .458 Bushmaster         | LARGE RIFLE    | #6              | DOWN               |
| .500 S&W Magnum            | LARGE RIFLE    | #6              | DOWN               | 7mm Rem./Wby. Mag.    | MAGNUM RIFLE   | #1              | UP                 | .458 SOCOM              | LARGE RIFLE    | #6              | DOWN               |
| .50 AE                     | LARGE PISTOL   | #3              | DOWN               | 7mm. Ult. Mag.        | MAGNUM RIFLE   | #1              | UP                 | .458 Win. Mag.          | MAGNUM RIFLE   | #1              | UP                 |
| .17 Remington              | SMALL RIFLE    | #3              | DOWN               | 7mm Rem. SAUM         | MAGNUM RIFLE   | #1              | UP                 | .45-70 Government       | MAGNUM RIFLE   | #1              | DOWN               |
| .204 Ruger                 | SMALL RIFLE    | #3              | DOWN               | 7MM STW               | MAGNUM RIFLE   | #1              | UP                 |                         |                |                 |                    |
| .221 Remington Fireball    | SMALL RIFLE    | #3              | DOWN               | 7mm WSM, .270 WSM     | MAGNUM RIFLE   | #1              | UP                 |                         |                |                 |                    |
| .22 Hornet                 | SMALL PISTOL   | #3              | DOWN               | 7.62x39               | LARGE RIFLE    | #6              | DOWN               |                         |                |                 |                    |

ITEMS WITH "\*" REQUIRE THE SPACER WASHER (PART# 13703) BETWEEN THE CLUTCH AND PLATE

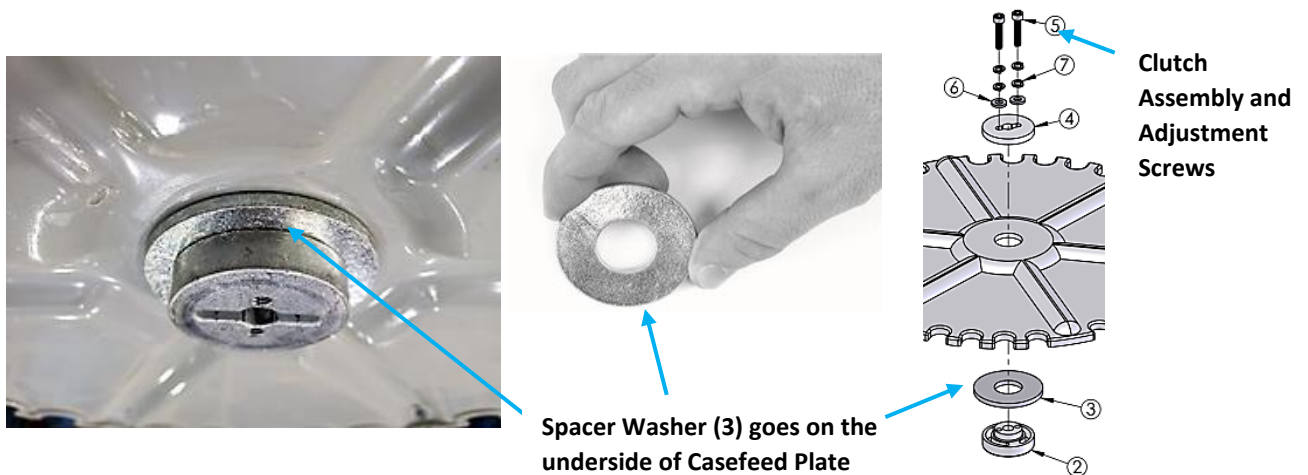
- 8.1.1 Casefeed Port Cuff--**The Casefeed Window Cuff is adjustable. This provides faster and more reliable Case feeding. The Window has six positions. The third position from the left is the standard opening width of the previous unit. This position should work for all pistol and most standard rifle cartridges. The Window adjusted to the full left position (fully open) allows for faster case feeding of rifle calibers. The Window adjusted to the full right position allows for case feeding of shorter bottleneck rifle cases utilizing standard rifle Casefeed Plates. Adjust the cuff by loosening the black knurled nut, which incorporates a 3/16" socket hex. Slide the Cuff into the desired position, making sure the Tab on the Cuff is locked into the appropriate Adjustment Notch. Retighten the nut to no more than 10-12 in.-lbs. to lock the Cuff in position.



- 8.1.2 Case Deflector--**The Casefeed utilizes an adjustable Case Deflector Block inside on the side of the Bowl. The Deflector has two positions for operation, fully lowered for pistol and fully raised for rifle cases. The Block can be adjusted by loosening the two #8 Screws with a 3/32" hex wrench, slide the Block to the desired position based on a pistol or rifle case and tightening the two Screw to no more than 5-7 in.-lbs. to lock it in position.



- 8.1.3 Casefeed Plate Spacer Washer--**Some calibers require a Spacer under the Casefeed plate. Refer to the caliber conversion chart for application on page 16. Installation of this Washer raises the plate up to make the feeder function with longer pistol cases. To install the Washer, remove the Casefeed Plate from the Casefeeder. Disassemble the Casefeed Plate Clutch by removing the two Clutch Screws. Be careful to keep the Washers together on the Screws during disassembly. Install the Spacer Washer between the Lower Clutch and the Casefeed Plate and reassemble the Clutch. Adjust the Clutch tension as follows in section 8.1.4 below.



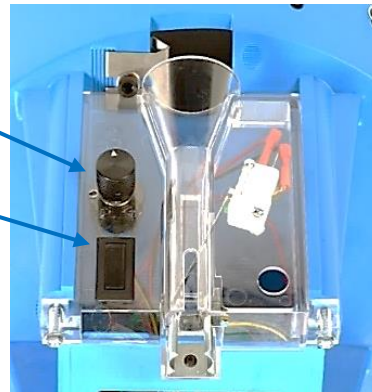


8.1.4 Clutch Adjustment/Bowl Capacity--The Clutch comes factory adjusted. If you are experiencing a problem with feeding or have added the Optional Spacer Washer, use the following steps to adjust the Clutch. Fill the Casefeed Bowl no more than half-full of brass. If it is fully loaded it will not function reliably. The two Socket-Head Screws (5 above) are the “clutch” adjustment screws. They should be just tight enough for the Clutch to drive the Casefeed Plate under a normal load of brass (half- full only). Note! --With the Casefeeder half full of brass you should be able to cause the Clutch to slip, using moderate finger pressure on the Casefeed Plate, without stalling the Motor. Alternately tighten or loosen the two Screws evenly, observing the effect on the holding power of the Clutch. The correct setting will stall the Plate before stalling the Motor, yet not slip when the Casefeed Bowl is no more than half-full of brass.

8.1.5 The Casefeeder’s speed is adjustable up to 8 rpm. Rotating the Dial fully counterclockwise will set the Motor at the lowest speed and rotating fully clockwise will set the Motor at full speed. Start with the Dial in the middle of its rotation (about 4 rpm). Turn the Power Switch to the on position. Fine-tune the motor speed as needed, for more or less RPM to optimize case feeding.

Variable Speed Control

On-Off Switch



8.2 Cleaning Brass--There are many methods for cleaning brass, but the “tried and true” method is tumbling brass in a Dillon Vibratory Tumbler with ground corn cob or walnut shell media with 2-3 of caps-full of Dillon Case Polish. Putting a “Clothes Dryer Sheet” in with the media helps control dust.



Dillon PN13804



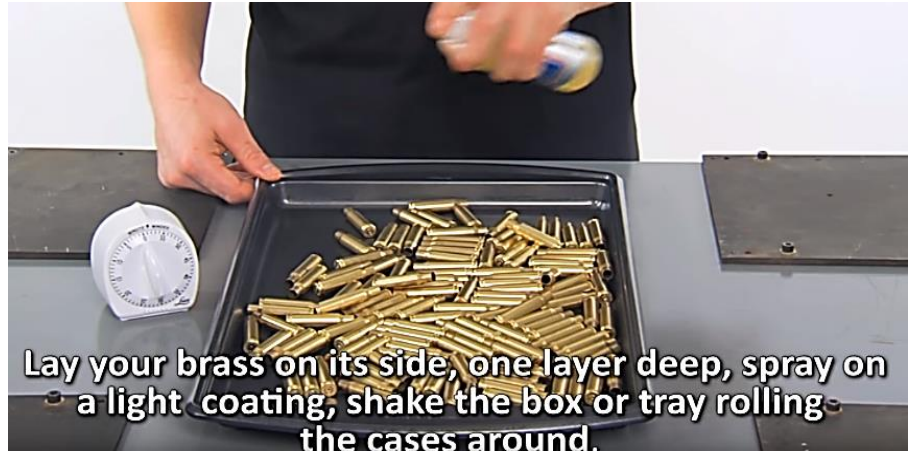
Dillon PN20439

### 8.3 Lubricating Brass

- 8.3.1 Pistol Brass--pistol brass should be lightly lubricated before sizing even if you are using a carbide size die. The most effective lubricant for cases is lanolin-based, as in the Dillon Case Lube.
- 8.3.2 Rifle Brass--all bottleneck cases must be lubricated, even when using carbide dies.
- 8.3.3 Lubricate your clean cases by laying the brass flat on their sides in a shallow box or "cookie tray." Pump four to six sprays on the cases and shake the box so the cases tumble and roll. Repeat this process making sure that the lubricant is well distributed over the cases. Let the cases dry for about 3-4 minutes before placing them in the Casefeeder Bowl



Dillon PN13733



- 8.3.4 Over lubricating brass can cause hydraulically formed "lube dents" in the cases during resizing. This also can be caused by not waiting for the alcohol in the Case Lube to dry before sizing. Corrective action is to disassemble the Die and clean out the Die with a swab. Use enough lube to ensure the case will easily enter the Resizing Die. If the case is resistant to going in, stop and re-lube. Without adequate lubricant, the case will stick in the Die and the Shell Plate will "rip" the rim off the case when you try to remove it from the Die. "Lube dents" will straighten out during the firing process.



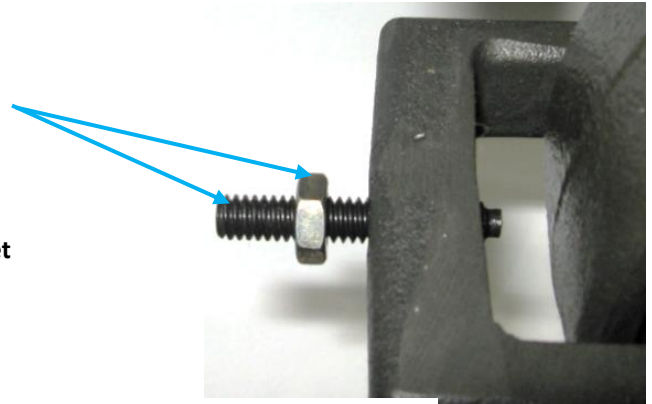
Case  
Lube  
Dents



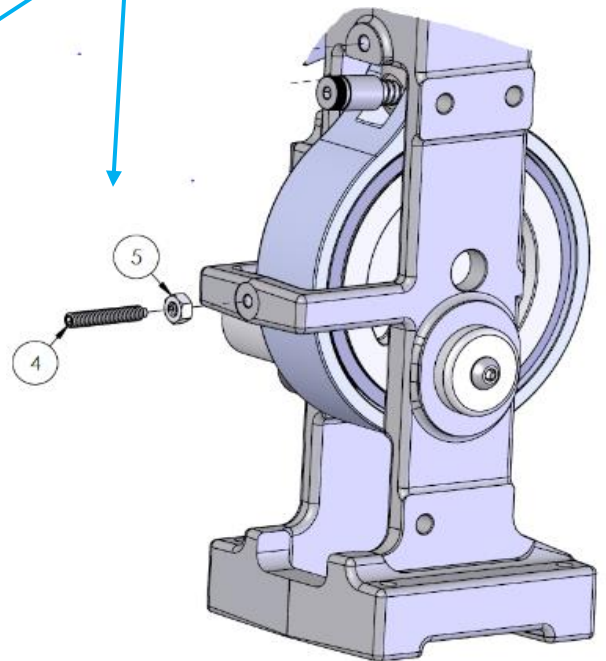
Courtesy of  
Western Powder

**8.4 Dillon Eccentric Drive™/Stop--the upper travel limit for the Dillon Eccentric Drive has been factory set and should not require adjustment. This adjustment also controls the indexing of the Shell Plate. If necessary adjust the travel limit screw as follows:**

- Loosen the 7/16" hex lock nut from the back of the frame--item 5 below. Turn item 4 the travel stop set screw with a 1/8" Allen Wrench at least 2 full turns out.
- Raise the Operating Handle to its upper travel limit.
- Gently push back on the Handle and adjust the Set Screw CW until it contacts the Eccentric Drive Housing.
- Turn the Set Screw in one more turn and tighten the 7/16" Lock Nut with 7/16" End Wrench.
- Verify the Shellplate indexes properly by very lightly holding pressure on the Shellplate with your thumb while operating the Operating Handle fully up and down.
- If the Shellplate under indexes, back off the Set Screw stop 1/4 of a turn CCW at a time until indexing is correct.



Adjusting Set Screw-Stop position and Lock Nut

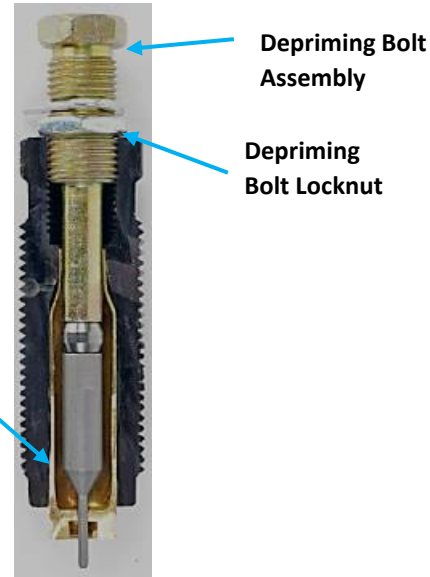




**8.5 Station 2--Adjust The Deprime/Size Die As Described Below: *Special die procedural note: Always final tighten any Die-Body Locking Ring i.e. Size and Swage Die Body Lock Rings with the appropriately processed case fully inside the Die with Handle all the way down. This promotes better alignment of the Die and Shellplate.***

- 8.5.1 Bottleneck Cartridge Deprime Assembly Adjustment--**With a deprimed case in this station, screw the Deprime Assembly down while partially cycling the Handle up and down until the shoulder of the Depriming Pin just contacts the flash hole inside the case. See below. Raise the Deprime Bolt up 1 and ½ turns from contact.

Screw Depriming Bolt Assembly down until the shoulder of the depriming pin shoulder just touches the top of flash hole, then back it up 1 ½ turns.



- 8.5.2 Note—the Pistol Depriming Assembly is not adjustable—no setup is required. It is spring-loaded to assist in removing the used primer from the depriming pin.**

Pistol Depriming Assembly—it is non-adjustable and spring-loaded



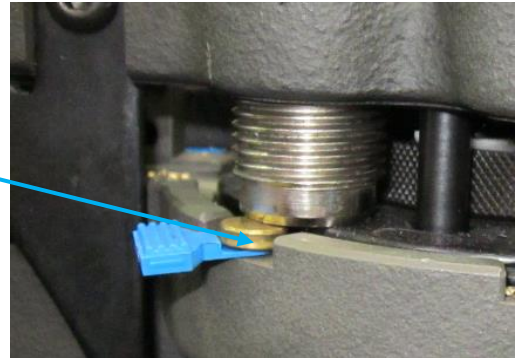
**8.5.3 Size Die Adjustment--Bottleneck Cartridges:**

- Lower the Operating Handle which also lowers the Toolhead all the way down.
- Screw the Sizing Die into Station 2 until it just touches the Shellplate and back it up two turns. Tighten the Die Lock Ring finger tight.
- Loosen the Rifle Depriming Assembly Locknut and raise the Depriming Bolt Assembly up 3 turns.
- Raise the Handle up.
- Insert a lubricated case into Station 2 with the Locator Button and Blue tab removed.
- Cycle the Handle all the way down.
- Raise the Handle and remove the case. The case is sized initially. Final sizing will be accomplished in the Size Trim Die in Station 5 or 6 whichever is used,
- Verify the case is properly sized and the headspace is correct by using a Dillon Head Space Gauge and adjust the Die as necessary.

#### 8.5.4 Size Die Adjustment-Pistol Cartridges:

- Cycle the Tool Head all the way down. Screw the Pistol Size Die (Clockwise) down until it just touches the Shellplate, back the Die up 1/16 of a turn or less.
- Tighten the Die Lock Ring with a 1" Dillon Bench Wrench using 7/8" wrench to hold the Die Body again, with a sized case fully up in the Size Die with Handle all the way down.
- Note--the Pistol Depriming Assembly is not adjustable but spring-loaded to assist in removing used primers from the tip of the Depriming Pin.
- It is a good idea to check the sized pistol case in a Dillon Pistol Case Gauge.

Pistol Size Die just touching Shellplate to 1/16 of a turn up from touching the Shellplate



Pistol

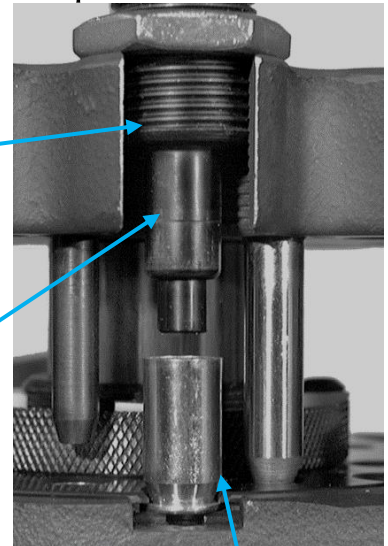
**8.6 Station 3--Adjusting The Primer Pocket Swager And Rifle Or Pistol Backup Expander--This station is unique and performs multiple parallel functions related to crimped primer pockets in military or other crimped primer pocket brass case as well as expanding the case mouths. The crimped primer case can be deprimed, but unless the crimp on the primer pocket is removed or swaged it will be difficult to prime and could cause the new primer to be crushed.**

**8.6.1 Pistol brass--**The case is supported from the inside by the Backup Expander which also expands the mouth of the case. Simultaneously, the Adjustable Swage Rod is pushed into the primer pocket from below to swage the crimped primer pocket such as on .45 ACP, .38 Special, 9mm, etc. When the pistol Backup Expander is properly adjusted the pistol case mouth will go past the Expanding Line and the Backup Expander will contact the bottom of the case as the Operating Handle reaches the bottom of its stroke. Continue partially cycling the Handle up and down at the bottom of the stroke while adjusting the Backup Expander down until slight resistance is felt in the Operating Handle. The Operating Handle should have some slight pressure/resistance "cam-over" once the Backup Expander is properly set. Tighten the Backup Expander Lock Nut with the Handle down with the processed case in the Station.



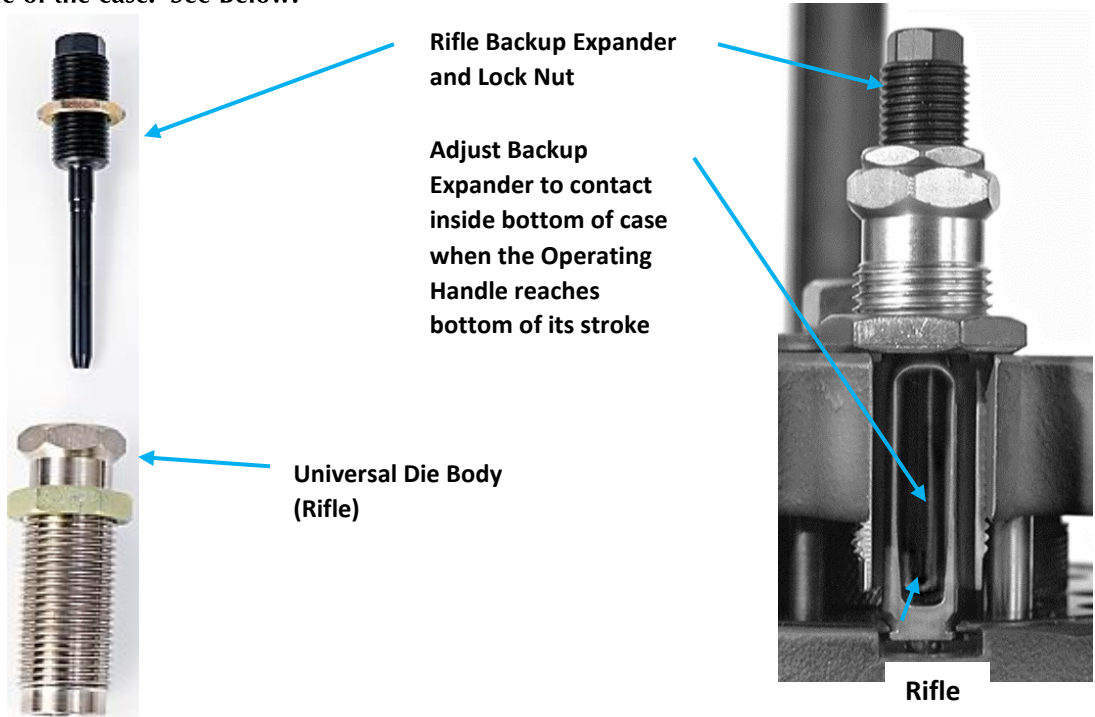
Pistol Backup Expander and Lock Nut

Pistol Expanding Line



Pistol

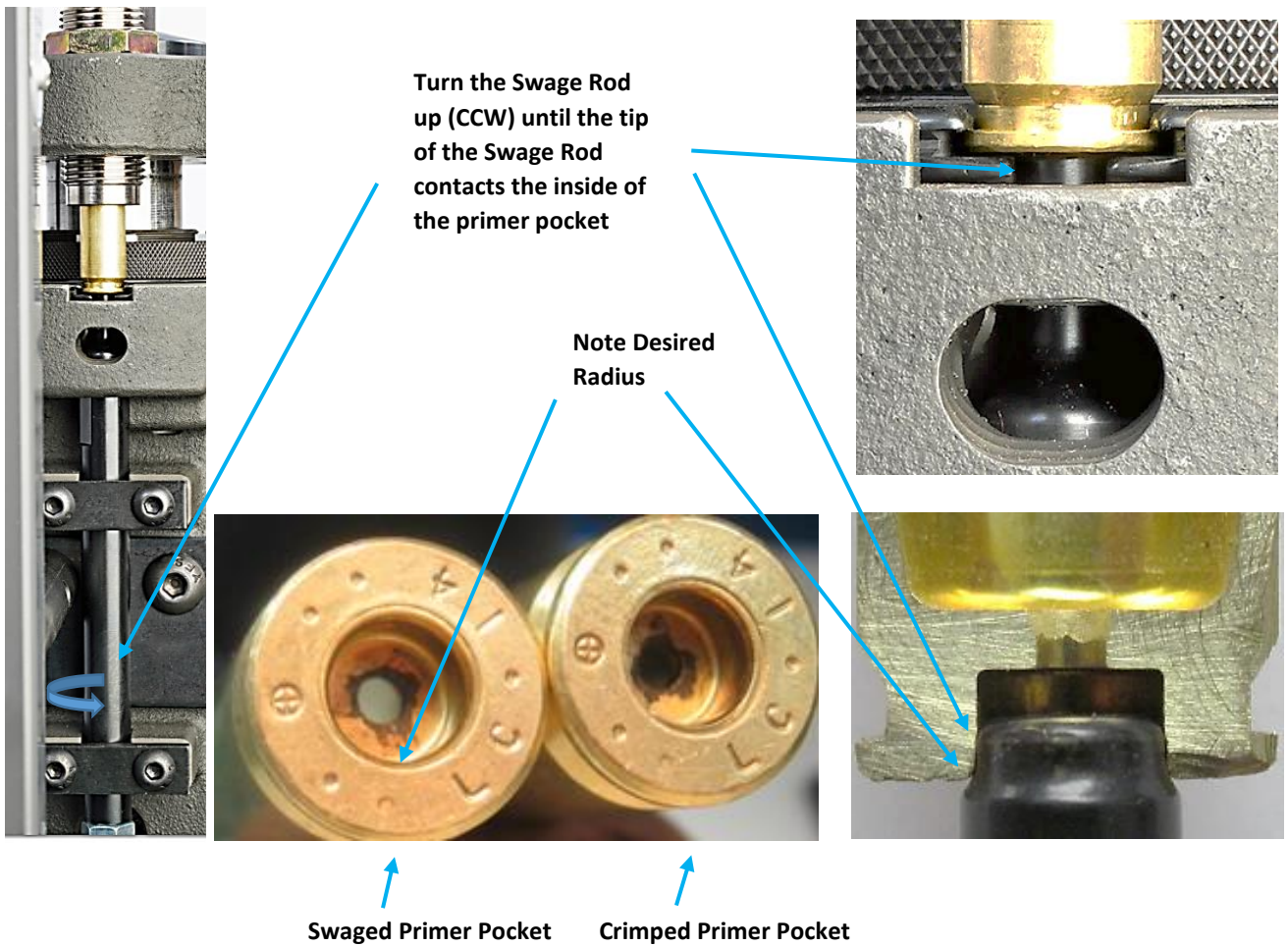
- 8.6.2 **Rifle brass**--The case is supported from the inside and the case mouth is expanded by the Rifle Backup Expander from the inside of the case. The properly adjusted, Swage Rod tip is pushed into the primer pocket from the bottom and swages the crimped primer pocket on military or other crimped primer cases as the Operating Handle reaches the bottom of its stroke and the Backup Expander contacts the inside of the case. See Below:



- 8.6.3 **Adjusting the Backup Expander**—Insert the previously sized and deprimed case in station 3. Gently cycle the Operating Handle up and down at the bottom of the stroke while adjusting the Rifle Backup Expander down until it just contacts the inside web of the case as the Operating Handle reaches the bottom of its stroke. Continue partially cycling the Handle up and down while adjusting the Backup Expander down until slight resistance is felt in the Operating Handle. The Operating Handle should have some slight pressure/resistance “cam-over” once the Backup Expander is properly set. Tighten the Backup Expander Lock Nut with the Handle down and the processed case in the Station.



- 8.6.4 **Adjusting the Swage Rod**--Using the same sized and deprimed case as above again in station 3, gently cycle the Operating Handle to the bottom of the stroke. Adjust the Swage Rod (CCW) up until the Swage Rod Tip contacts the Primer Pocket. Cycle the handle up just enough to be able to turn the Swage Rod up 1/8 of a turn. Cycle the Handle all the way down. Raise the Handle, remove the case and look at the primer pocket. If it looks like the picture below with a radius on the edge, re-insert the case and tighten the Backup Rod Lock Nut. If not, put the case back in the Swage Station and keep cycling the Operating Handle while turning the Swage Rod up 1/8 turn at a time until the desired radius on the primer pocket edge is achieved. Place this case back in the Station 3 and cycle the Handle down and Tighten the Swage Rod Lock Nut with a case in place. —Note: cases with different headstamps (different brass manufacturers) may require different adjustments of the Backup Expander and Swager Rod. Sort brass by headstamp for best swaging results. *Note: There are pistol cases such as the 9mm, 38 Special, .45 ACP, etc. that also have crimped primers.*



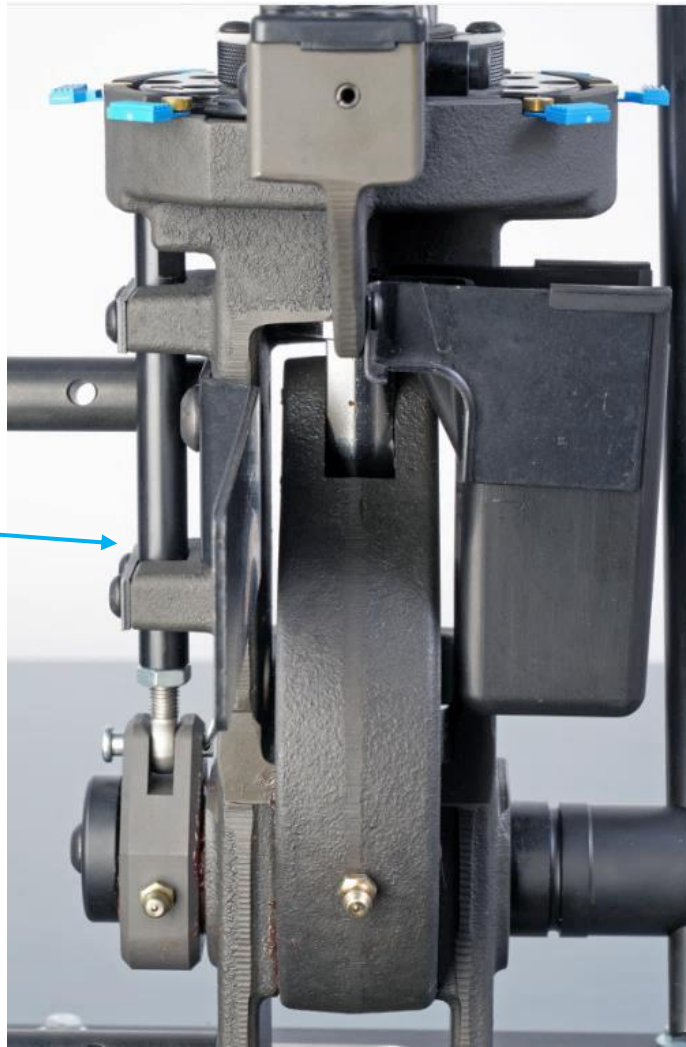
#### 8.6.5 Swaging Components





### 8.6.6 Swage Assembly Installed in Alternate Position 7 (Left Side)

Alternate  
Swage  
Position 7

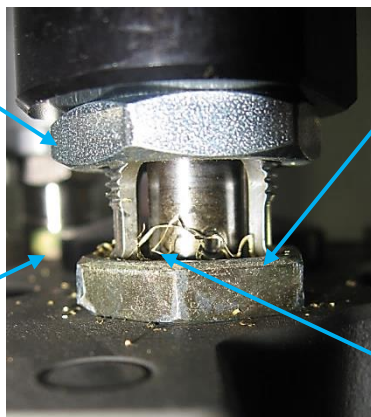


## 8.7 Station 5 Or 6--Adjusting The Dillon Rapid Trim 1500 Size And Trim Die

8.7.1 With the Toolhead in the down position, install the optional Dillon Size and Trim Die in Station 5 or 6 by threading the 7/8-14 die into the Toolhead until it touches the Shellplate. Back the die up (CCW) one full turn and lightly snug The Die Lock Ring down against the top or bottom of the Toolhead—Lock Nut location depends on the caliber and length of the Trim Die to maximize the Window openings in the Trim Die for the most effective removal of the trimmed brass chips through the Exhaust Collar.

Trim  
Length  
Lock nut

Note: chip  
removal  
opening is  
somewhat  
restricted –put  
Size Lock Nut  
on bottom of  
Toolhead as  
shown to the  
right

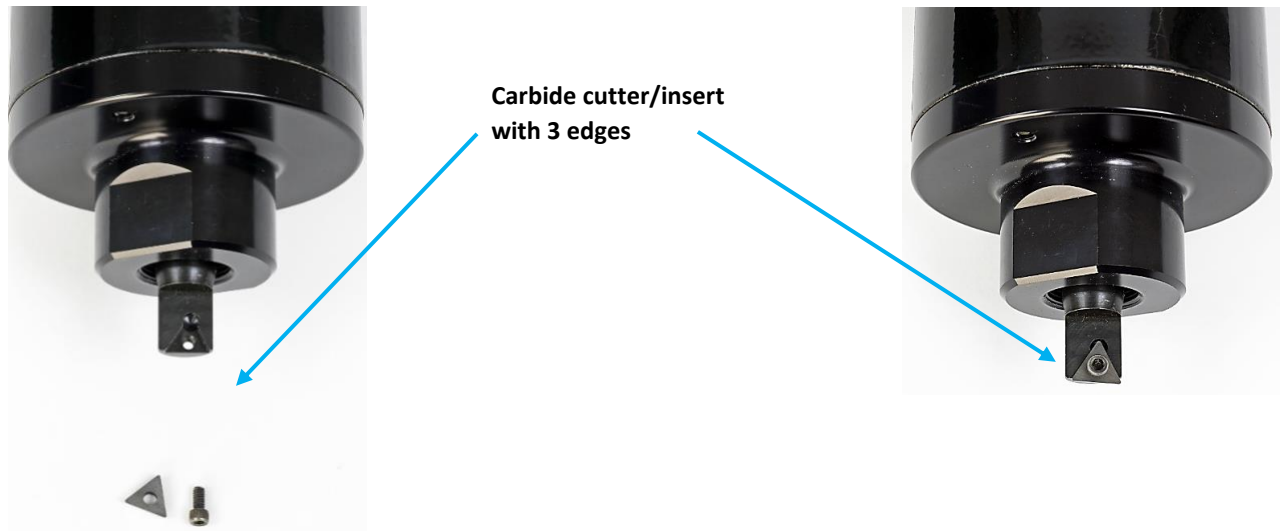


Install Die Lock Ring  
on the top or the  
bottom of the  
Toolhead to  
maximize the  
opening in the Trim  
Die Body for chip  
removal

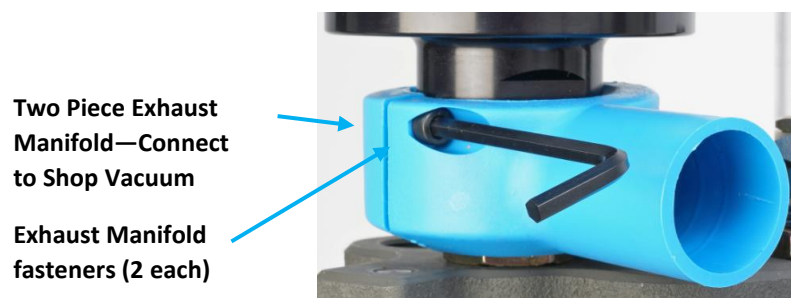
Typical case trim  
chips



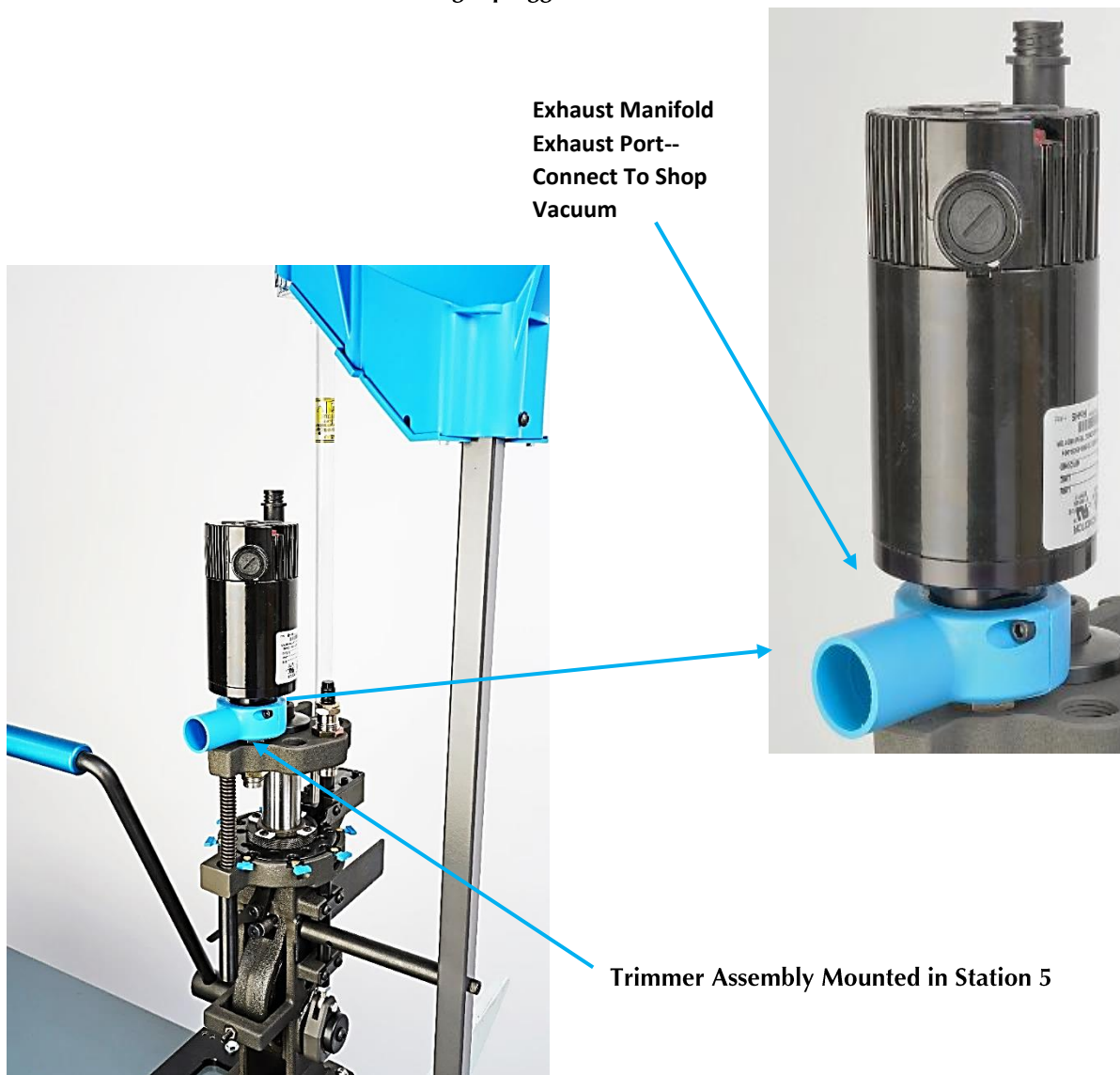
- 8.7.2 Cycle a lubricated case through the Trim Size Die and adjust as necessary up or down to get the proper headspace using a Headspace Case Gauge.
- 8.7.3 Carefully thread the Dillon Rapid Trim™ Motor onto the Trim Die with the Carbide Cutter installed. Place a sized case with the proper headspace in the Size Trim Die with the Operating Handle all the way down; thread the Rapid Trim Motor/Cutter assembly down until the Cutter touches the neck and tighten the Locknut. Turn on the Rapid Trim Motor briefly. Remove the case and check the overall length. Adjust the Rapid Trim Motor/Cutter Assembly in small increments of  $\frac{1}{8}$  of a turn, up or down as needed for proper overall case length. ( $\frac{1}{8}$  of a turn is approximately .006".) Tighten the Trim locknut firmly against the Dillon Rapid Trim™ Motor. (Note--Motor starting torque can rotate the Trim Motor if it is not locked securely.) Do not allow the cutter to contact the interior of the Size Trim Die. Doing so will damage the Die and Carbide Trim Cutter. The Carbide Cutter is brittle and can be damaged if dropped or impacted against a hard surface. Note--there are 3 cutting edges on the Cutter. The Cutter can be rotated to a fresh edge if one is damaged or worn.



- 8.7.4 Install the Exhaust Trimmer Manifold around the Size Trim Die and the lower portion of Dillon Rapid Trimmer Motor with the two Screws provided.



- 8.7.5 Connect the exhaust port to an appropriate exhaust source such as a Shop Vacuum and turn it on. Frequently inspect the vacuum line and Trimmer Manifold for brass chips and clean out as necessary-- the vacuum line and manifold will get plugged!



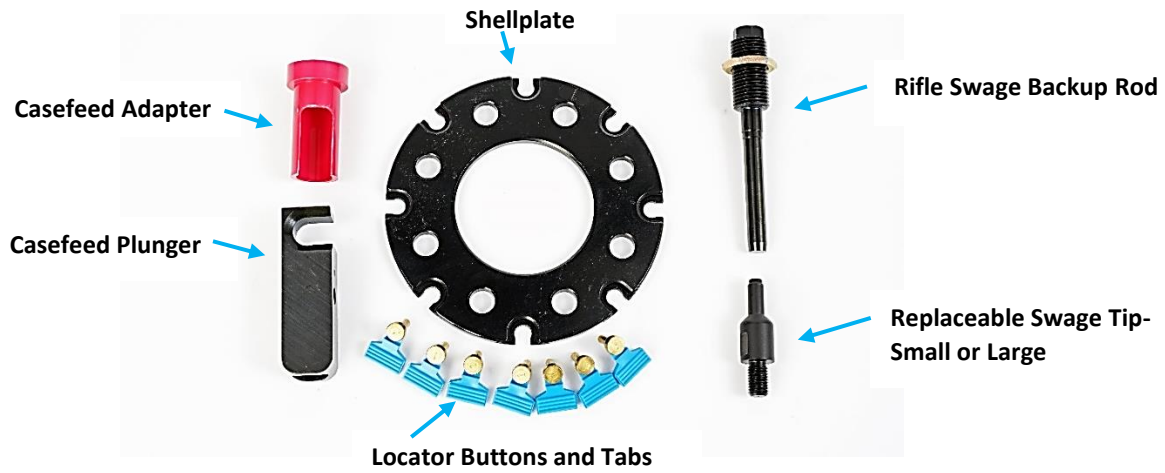
Backside of CP2000

## 9 CONVERSION LIST AND METHODS

### 9.1 CP2000 Conversion List

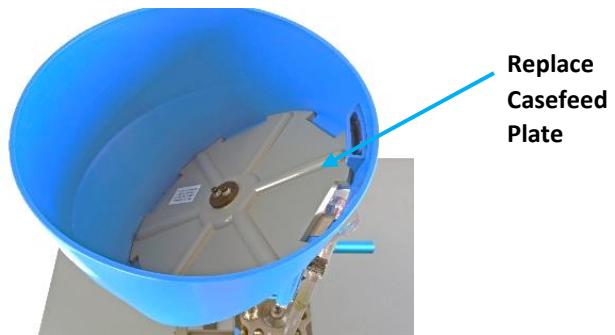
| P/N   | Caliber                                       | Casefeed Adapter | Casefeed Plunger | Expander            | Shellplate | Pins-7ea  | Swage Rod Tips | Note |
|-------|---|------------------|------------------|---------------------|------------|-----------|----------------|------|
| 20485 | .223 REM                                      | White (12146)    | Small (13306)    | 223 (13332)         | 3 (12441)  | 3 (14060) | Small (62309)  | 1,2  |
| 21049 | .308 WIN                                      | 308 Win (11005)  | Medium (13098)   | 308 / 30-30 (12074) | 1 (12999)  | 1 (13930) | Large (62310)  | 1,2  |
| Note  | Includes/Requires:                            |                  |                  |                     |            |           |                |      |
| 1     | 7 each (13569 ) Blue Tabs                     |                  |                  |                     |            |           |                |      |
| 2     | Swage Die (12184), 9/16 x 18 Lock Nut (13483) |                  |                  |                     |            |           |                |      |

## 9.2 Typical Conversion Kit

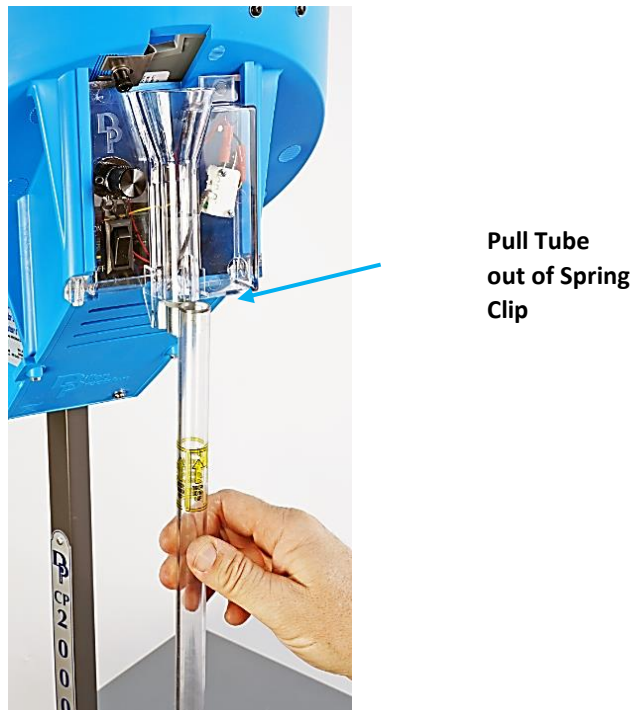


## 9.3 Caliber Conversion Procedure

9.3.1 Replace Casefeed Plate inside Casefeed Bowl if required. Adjust Casefeeder as specified in Casefeed Setup Section

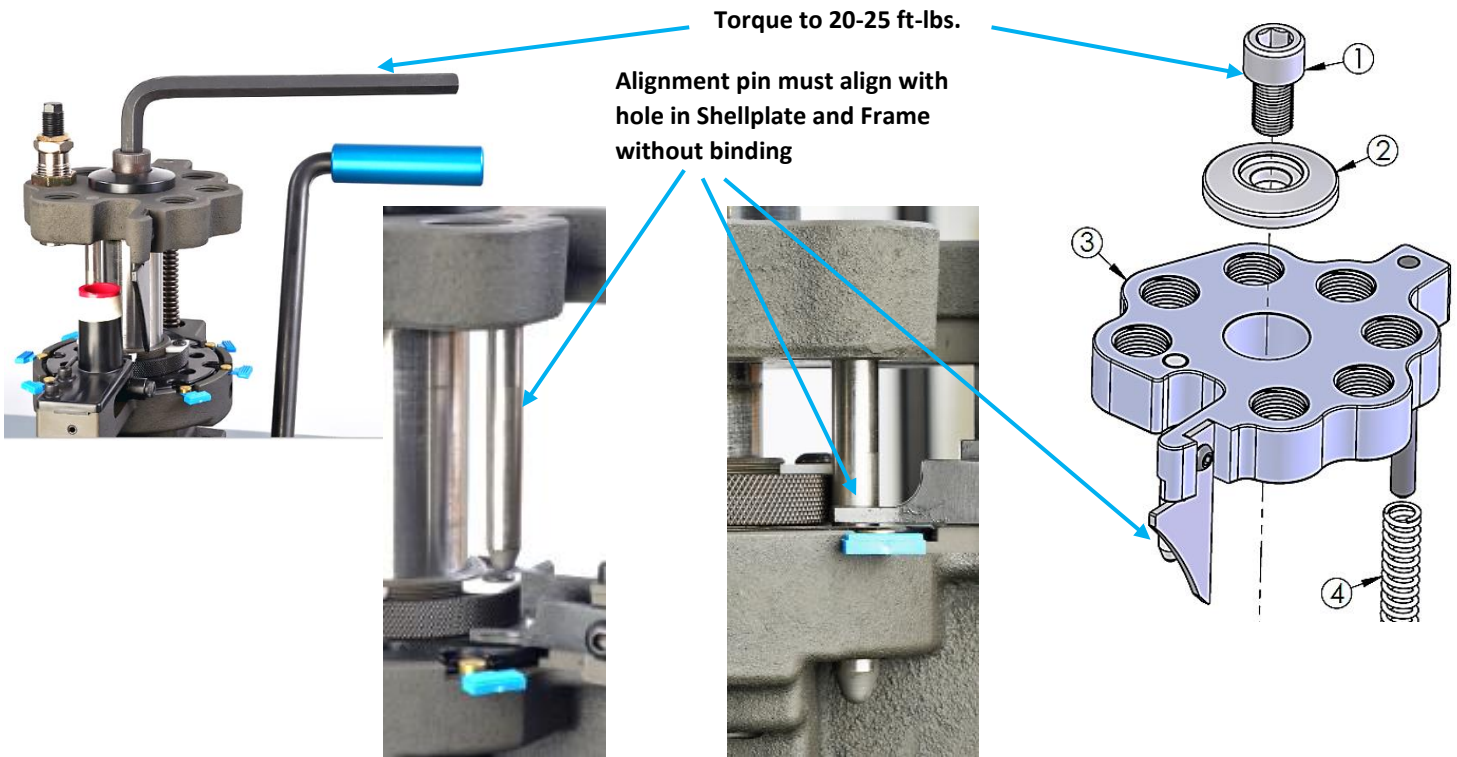


9.3.2 Remove Casefeed Tube.

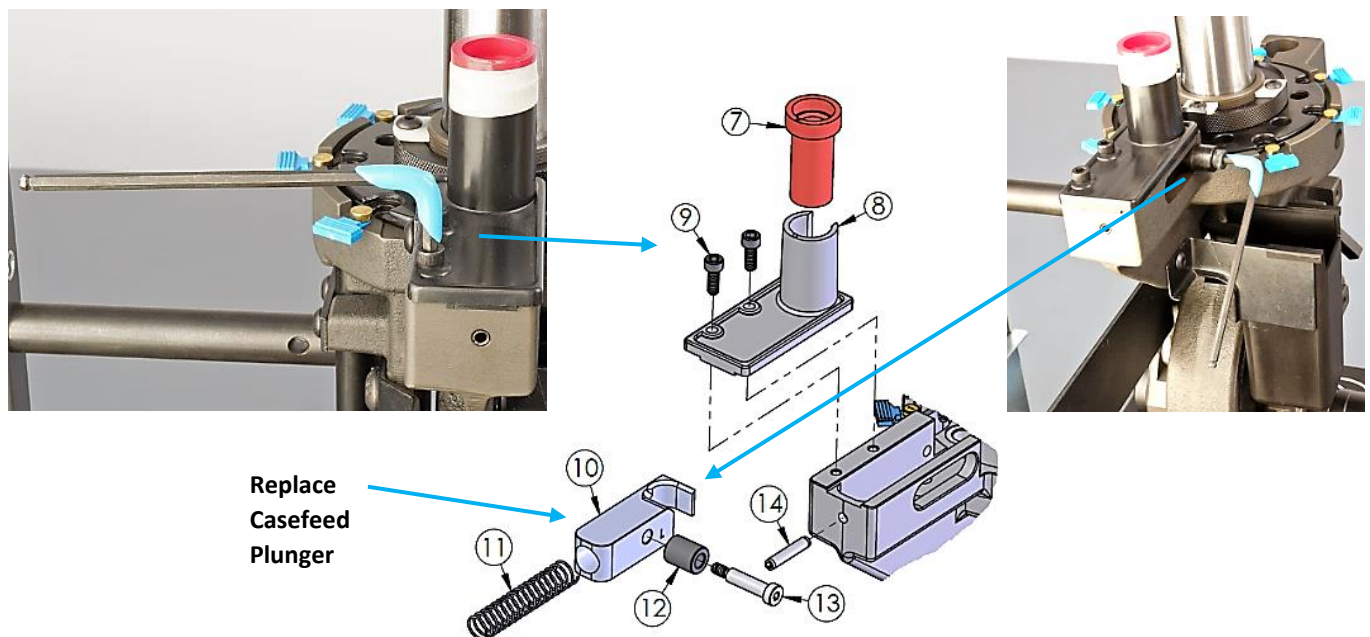




- 9.3.3 Remove and Replace the Toolhead—Raise the operating Handle to the full-up position. **Warning! The Toolhead is spring-loaded up by Spring (4).** Remove the Toolhead Bolt and Washer (1) and (2) below and carefully Slide the Toolhead (3) up and off the Main Shaft. When re-installing the Tool head (3) and Toolhead Socket Head Bolt (1), lightly snug the Toolhead Bolt against the Toolhead. Cycle the Operating Handle and Toolhead up and down. Torque the Socket Head Bolt with an Allen wrench to 20-25 ft-lbs. Cycle the Handle up and down verifying correct “pin alignment” with no binding of the Alignment Pins with the hole in the Shellplate and the hole in the Frame. Adjust as necessary by loosening and re-tightening Toolhead Bolt. Note--The CP2000 Toolhead is a dedicated Toolhead for the CP2000 System only.

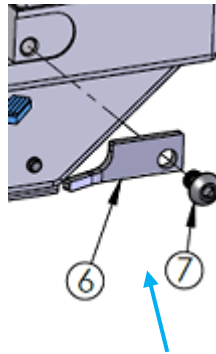
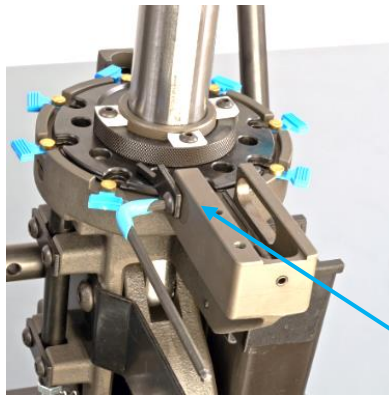


- 9.3.4 Remove Casefeed Housing Screws (9) Casefeed Housing (8) and Roller (12) and Shoulder Bolt (13). Remove and replace Casefeed Plunger (10) and Casefeed Adapter (7).

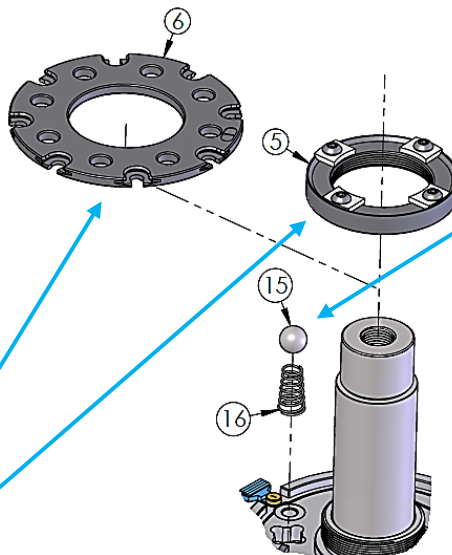


### 9.3.5 Remove and Replace the Shellplate:

- Loosen the Bolt (7) attaching the Casefeed Ejector Tab (6) and rotate the Ejector Tab out of the way.
- Loosen 4 Lock Ring Insert Screws (23), unthread and remove the Shellplate Lock Ring (21) and remove the Shellplate.
- Check Index Ball and Spring for debris—clean and replace.
- Replace Shellplate--tighten Shellplate Lock Ring (21) down tight and then back it up  $\frac{1}{8}$  of a turn to allow Shellplate to rotate without dragging and minimal up and down clearance.
- Re-tighten 4 Lock Ring Insert Screws (23).
- Remove/Replace Blue Tabs and Retainer Buttons.
- Position the Ejector Tab so that it just clears the Shellplate ( $\sim 1/16''$ ) and retighten the Ejector Tab Screw (7).



Loosen the Bolt attaching Casefeed Ejector Tab and rotate Ejector Tab Clockwise—to the right



Make sure the Index Ball and Spring stay in position as shown and the Ball, Spring and hole are clean and free of any debris

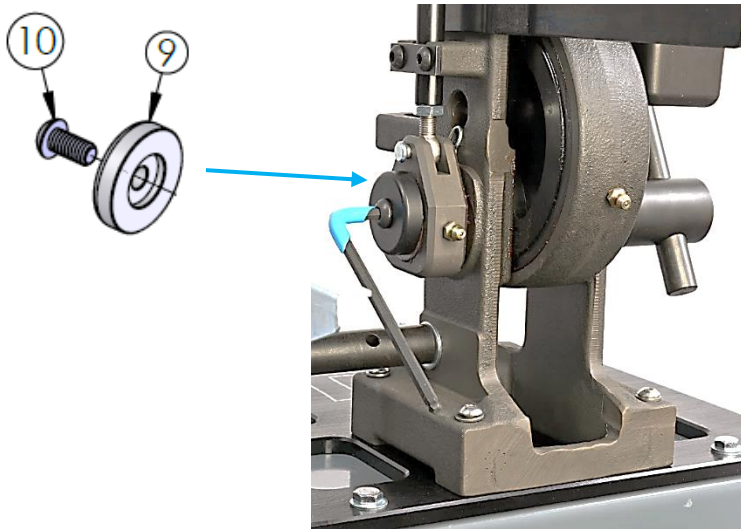
Loosen 4 Lock Ring Insert Screws, unthread and remove Shellplate Lock Ring (5) and Shellplate (6)

Re-position Ejector Tab to just clear the Shellplate  $\sim 1/16''$  and re-tighten Ejector Tab Screw

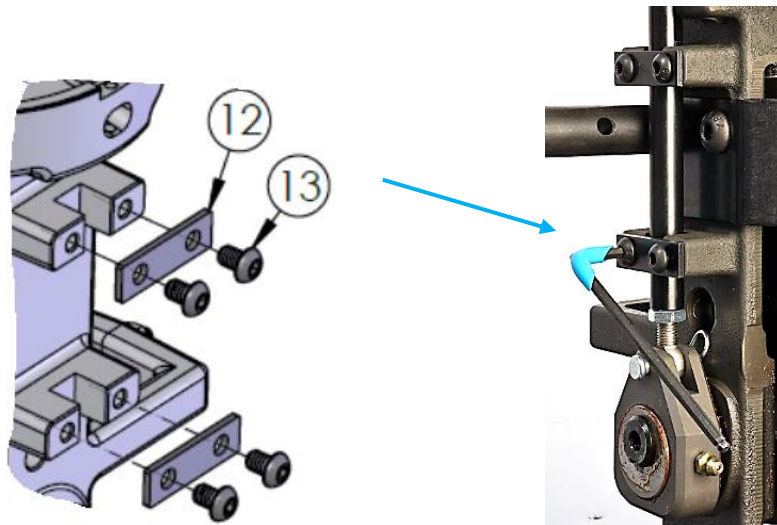


### 9.3.6 Swage Rod Conversion:

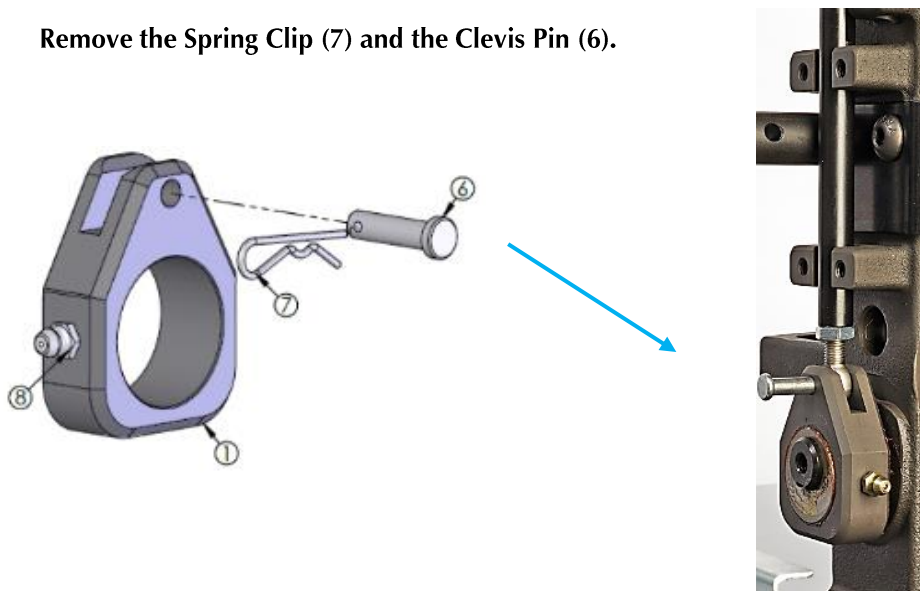
- Remove the Bearing Cap Screw (10) and the Bearing Cap (9).



- Remove the 4 Screws (13) and the 2 Swager Cover Plates (12).



- Remove the Spring Clip (7) and the Clevis Pin (6).

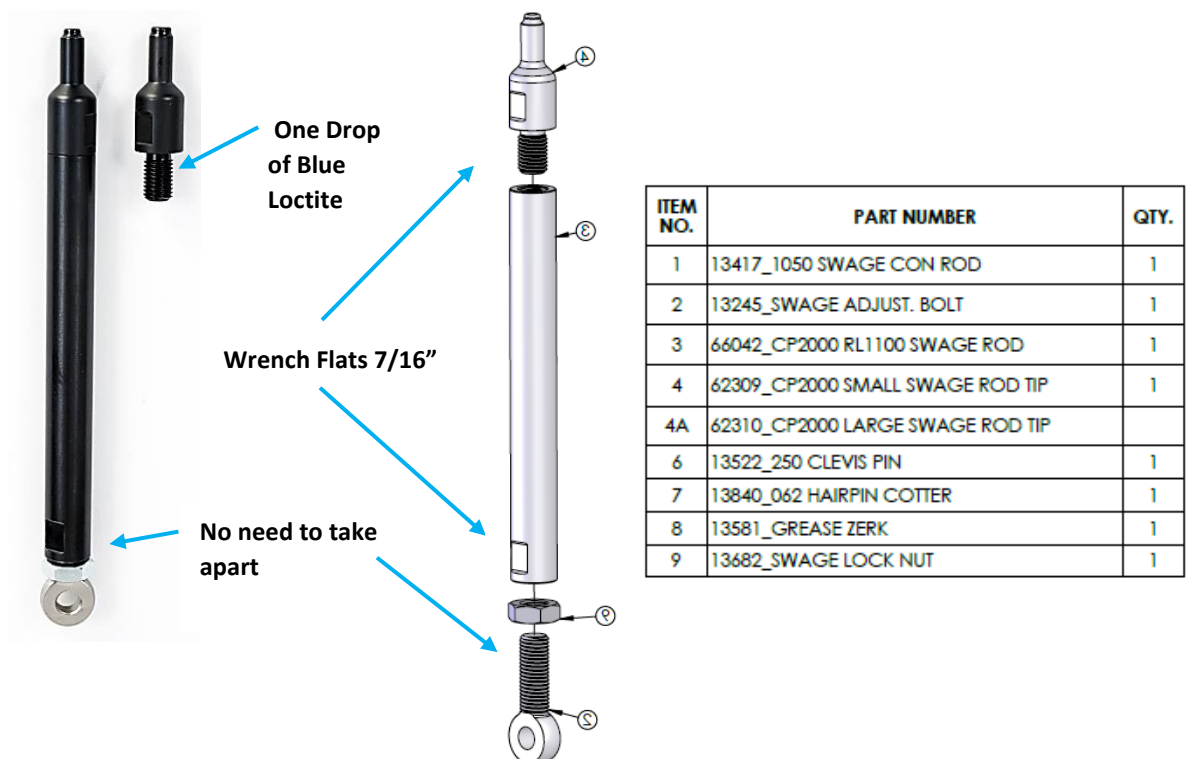




- Remove or rotate the Swage Connecting Rod sideways. Remove the Swage Rod Assembly.



- Remove the Swage Rod Assembly and replace the Swage Rod Tip (4 or 4a) using two 7/16" end wrenches on the wrench flats on the Swage Rod and the Tip. A small drop of Blue Loctite on the Tip thread is recommended when re-assembling.



- Replace the Swage Rod Assembly.



Re-install the Swage Rod Assembly in CP2000  
Reinstall two Swager Cover Plates with four Screws  
Reinstall the Clevis Pin and the Spring Clip  
Reinstall the Bearing Cap and Screw

- Replace the Backup Expander for the appropriate Caliber Conversion.



Rifle Backup Expander Assembly Shown

- **IMPORTANT!** --Verify the Swage and Swage Backup Rod are properly adjusted as prescribed in Section 8.6.

# 10 TROUBLESHOOTING GUIDE

| No. | Category        | Issue   | Corrective Action   |
|-----|-----------------|---|---|
| 1.  | Cleanliness     | The case prep process is inherently "dirty" due to residue from used primers, leftover corn cobb from tumbling, metal shavings from trimming and leftover case lube | <ol style="list-style-type: none"> <li>1.Compressed air or a "can of air" and a 1" paintbrush are the reloader's "best friends." At the end of a case prep session, blow out the Toolhead and Shellplate areas.</li> <li>2.Periodically clean out the Size and Size/Trim Die with alcohol and swabs. They will get "gooey" over time.</li> </ol>  |
| 2.  | Casefeed Issues | 9mm cases may flip sideways in the Casefeed Tube  | <ol style="list-style-type: none"> <li>1.Adjust the Casefeed Window as described in the Casefeeder Setup Section 8.1.</li> <li>2.Lower the speed of the Casefeed Motor.</li> </ol>  |
|     |                 | Cases are having trouble being inserted into the Shellplate Station 1-- Cases having trouble entering the slot in the Shellplate                                    | <ol style="list-style-type: none"> <li>1. Tighten/minimize the clearance between the Shellplate, the Shellplate Lock Ring and the Frame. Test by pushing down on the edge of the Shellplate. If there is excessive clearance (feels springy), tighten the Shellplate Lock Ring and secure Lock Ring Insert screws.</li> <li>2.Verify there are no corn cobb particles in the Shellplate Pockets or under Shellplate left over from cleaning the cases.</li> <li>3.Verify the correct Casefeed Adapter and Casefeed Plunger are being used</li> <li>4.Slow down the cycle rate.</li> <li>5.Damaged Shellplate. --Replace</li> <li>6. Dirty, wrong, worn or damaged Casefeed Plunger. --Clean and or replace.</li> <li>7.Check that the Shellplate is not over or under indexing.</li> <li>8.Wrong Shellplate.</li> </ol>                       |
|     |                 | Casefeeder is on but Casefeed Plate doesn't rotate  | <ol style="list-style-type: none"> <li>1.Brass may be caught under the Casefeed Plate or in the Casefeed window.</li> <li>2.Casefeed Bowl is over full.</li> <li>3.Casefeed Plate is not fully seated on the Drive Motor Shaft.</li> <li>4.Bad Microswitch or Microswitch Lever caught on the inside of the Tube.</li> <li>5.The Clutch is slipping. --Adjust clutch per Casefeeder Instructions.</li> </ol>  |
|     |                 | Cases are falling upside down.  | <ol style="list-style-type: none"> <li>1.Using the wrong Casefeed Plate for that caliber.</li> <li>2.Window Port Cuff is open too wide. See Casefeeder instructions.</li> <li>3.Casefeed is too full.</li> <li>4.CP2000 not secured properly or bench not stable.</li> </ol>  |
|     |                 | Cases are hanging up on the Microswitch Lever in the Casefeed Funnel  | <ol style="list-style-type: none"> <li>1.Check the angle of the switch lever and adjust as needed by gently bending it.</li> </ol>  |
|     |                 | The case doesn't drop into Casefeed Plunger   | <ol style="list-style-type: none"> <li>1.Wrong Casefeed Plunger or Casefeed Adapter</li> <li>2.Cases jammed in Casefeed Tube/Funnel.</li> <li>3.Tumbling media in Casefeed Tube.</li> <li>4.Case upside down, wrong caliber case mixed in.</li> <li>5.Casefeed Assembly is not adjusted properly.</li> </ol>  |
|     |                 | Shellplate Indexing is "off"  | <ol style="list-style-type: none"> <li>1.Clean and lubricate the Index Lever, Roller and Bolt. Readjust as specified in Section 8.4.</li> <li>2.Check Index Pawl tip for excessive wear. —Replace.</li> </ol>   |
| 3.  | Indexing        | Erratic /Incomplete Indexing  | <ol style="list-style-type: none"> <li>1.Shellplate Lock Ring adjusted too tight. —Loosen up no more than 1/8 of a turn.</li> <li>2.Shellplate Lock Ring loosens when Shellplate turns. — Tighten Shellplate Lock Ring Insert screws</li> <li>3.Wrong size Locator Buttons.</li> <li>4.Index Pawl bent, worn, or Pawl Spring missing or broken—Replace.</li> <li>5.Index Ball and or Ball Index Spring missing or broken or dirty. — Clean and or replace.</li> <li>6.Sticky material/debris under the Shellplate. --Remove the Shellplate, clean with solvent and lightly lubricate Shellplate bore.</li> <li>7.Damaged or worn Shellplate. —Replace.</li> <li>8.Check Index Lever and Roller. —Remove Roller, Check Spring, Clean and tube roller.</li> <li>9.Re-adjust Eccentric Drive Stop as described in Section 8.4 Page 20</li> </ol> |
|     |                 | Shellplate over-traveling or "jumping backward" after indexing  | <ol style="list-style-type: none"> <li>1.Index Ball and Spring stuck down by "gunk" or debris. --Remove Shellplate and clean top of Frame and Index Ball, Spring and Shellplate.</li> <li>2.Not taking a full stroke on the Handle.</li> <li>3.Indexer Ring Pawl is worn or Index Stop needs adjusting</li> <li>4.Index Lever Return Spring damaged or missing.</li> </ol>  |

|    |  |  |  |
|----|--|--|--|
|    |  |  | 5.Index Block out of adjustment.   |
|    |  | Shellplate over/under indexes  | 1.Adjust the Dillon Eccentric Drive™ Stop position locking Set Screw Stop on the back of the Frame. The upper travel limit for the drive has been factory adjusted and should not require adjustment. This adjustment also controls the indexing of the Shellplate. If necessary adjust the travel limit screw as described in section 8.4   |
|    |  | Crushing cases during insertion into Station 1   | 1.Incomplete case insertion. Make a full stroke of the Operating Handle on every cycle of the Handle.<br>2.Not enough radius on Size Die entrance—Use Dillon Dies where available.<br>3.Cycling Operating Handle too rapidly.  |
| 4. | Sizing Issues                                    | Case mouth hits the edge of the Size Die in Station 2 damaging the case  | 1.Loosen the Die Lock Ring with a case in Station 2. Cycle the Handle all the way down with the case in the Size Die and retighten the Die Lock Ring. This centers the die in the Toolhead.  |
|    |  | Dents in the case during sizing  | 1.Excessive Case lubrication during the resizing process can hydraulically form dents in the case. Disassemble and clean out the size die with a swab. Use enough lube on the cases to ensure they easily enter the sizing die. If the case is resistant to going into the die, stop and re-lube. Without adequate lubricant, the case will stick in the die and the Shellplate can rip the rim off the case.<br>2.This can also be caused by debris in the die.   |
|    |  | Scratched Cases  | 1.Brass residue will build up in the Size Die (even carbide) over extended periods especially if the brass cases are not cleaned well. This very hard brass residue will leave vertical scratches on the case. Remove any hardened brass buildup in the size die with Red 3M Scotch Brite wrapped around a wood mandrel. Chuck the mandrel in a drill motor and run it gently back and forth inside the size die to remove hardened brass buildup. Also, you can use Sweets 7.62 Solvent.<br>2.Dirty Brass.<br>3.New Brass has burrs. Tumble in corn cobb.   |
|    |  | Case sticking in Size Die  | 1.Insufficient Lube on the case.<br>2.Overpressure/" blown-out" case—out of spec/oversize.<br>3.Alcohol from Dillon Case Lube not given time to evaporate.   |
|    |  | Case stuck in Size Die   | 1.Remove die—remove stuck case—Re-lube cases with Dillon Case Lube.<br>2.Use the stuck case removal feature in the Dillon Rifle Size Die. Some stuck cases may require the usage of a "Stuck Case Remover" available from RCBS.  |
| 5. | Depriming Failure" Primer Pull Back" Station 2   | Primers at times may stick on the end of the Depriming Pin and may be pulled back up into the primer pocket. The Swager Rod then crushes the primer. | 1.With rifle cases, place a deprimed case in station 2 with the Operating Handle down. Adjust the Rifle Depriming Bolt down until it stops on the inside of the cartridge flash hole and then back the Depriming Bolt up 1 and ½ turns and lock it in place.<br>2.Depriming pin tip is damaged or bent—Replace.<br>3.Polish the tip of the Depriming pin so the taper is gone. This gives a wider tip and the primer's anvil is less likely to get jammed onto it.<br>4.In the case of pistol depriming issues, make sure there are no burrs on the end of the Depriming Pin. Polish if necessary and make sure that the spring-loaded Depriming Assembly is intact, especially the "E" clip on top of the Depriming Bolt. |
|    |  | Bending or breaking Depriming Pins   | 1.Berdan case.<br>2.Smaller case inside the larger case.<br>3.Debris in case.<br>4.Cycling Handle to fast—Case is still wiggling hitting the De-priming Pin.   |
| 6. | Improper Swaging and Neck Expanding in Station 3 | Case mouth hits the edge of the Expander/Backup Rod damaging the case in Station 3   | 1.Slow down the cycling speed and smoothly operate the Handle. Check that the Shellplate is not over or under indexing. Re-align Expander Rod with Case.   |
|    |  | Swage Rod sticking in the Primer Pocket  | 1.Re-adjust the Swage Rod—See Section 8.5.5 for adjustment procedure   |
|    |  | Over Swaging   | 1.Re-adjust the Swage Rod—See Section 8.5.5 for adjustment procedure   |

## 11 CLEANING AND LUBRICATING THE CP2000—Circumstances will dictate the frequency of required lubrication.

11.1 CP2000 lubricating points should be cleaned and lubed after every 10,000 rounds of operation. Use a high-grade, conventional “moly” wheel bearing grease - do not use oil except as indicated below. The lubricants to be used are Chassis lube such as Schaeffer High-Performance Grease NAGL#1-#229 High Moly Content or equivalent and Supreme 7000 Synthetic Plus 30W or equivalent.

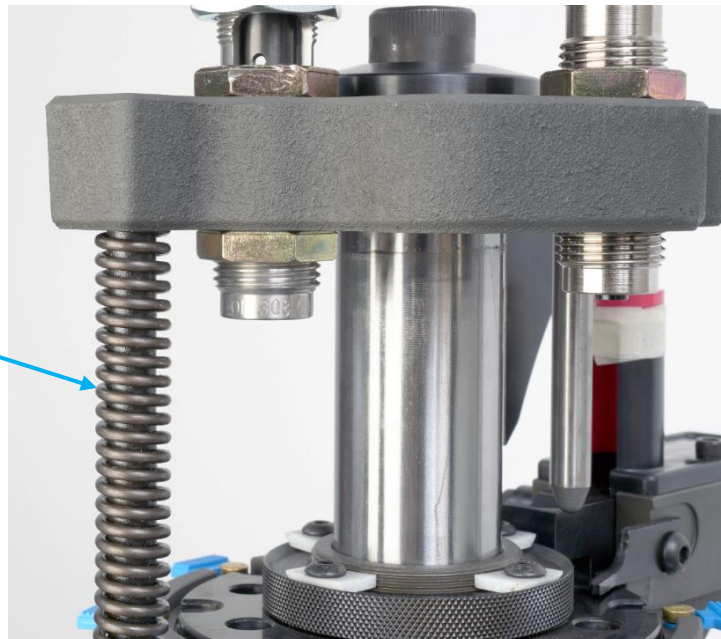
11.2 Lightly Grease Casefeed Plunger Roller and Bolt and Case Insert Cam



Grease here—Roller, Bolt and Slot and Cam

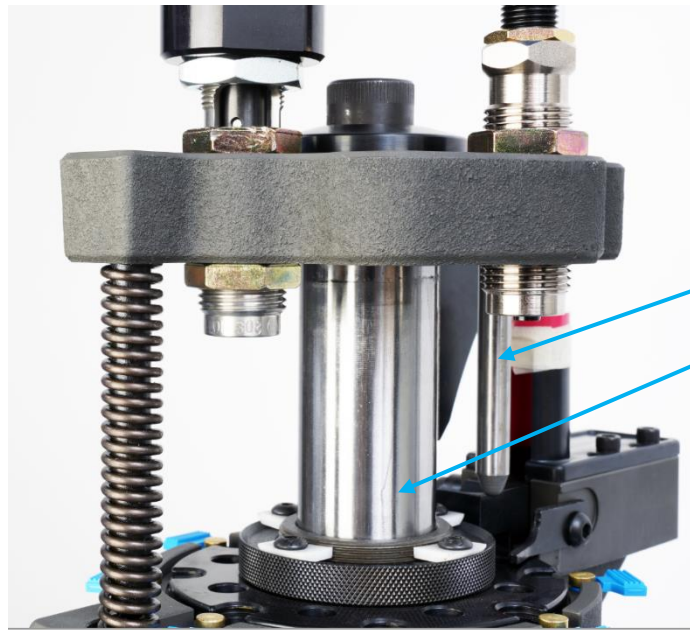
11.3 Every week or 10,000 rounds, Lightly Grease, Spring Pin, and Spring and inside Surface of Toolhead to Shaft Bore during Toolhead change out.

Grease  
Spring  
and Pin





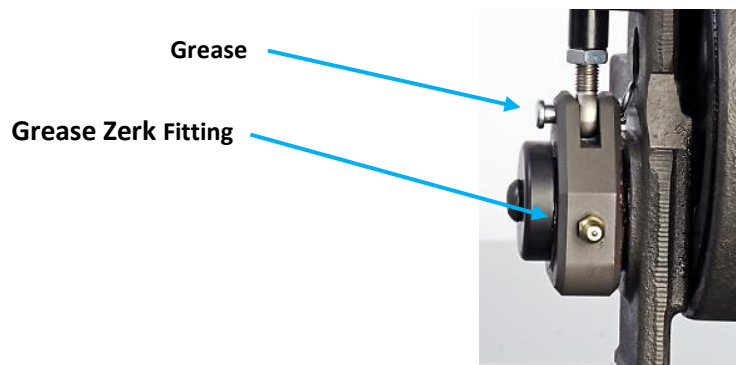
**11.4 Lightly oil Alignment Pins located under the Toolhead and Lightly Oil Mainshaft.**



**Oil –Pin**

**Use only 30 weight motor oil. DO NOT use a penetrating lubricant such as WD-40, Breakfree, etc.**

**11.5 Lightly Grease Swage Connecting Rod and Clevis Pin contact areas (Every 10,000 cycles) —wipe off excess.**



**Grease**

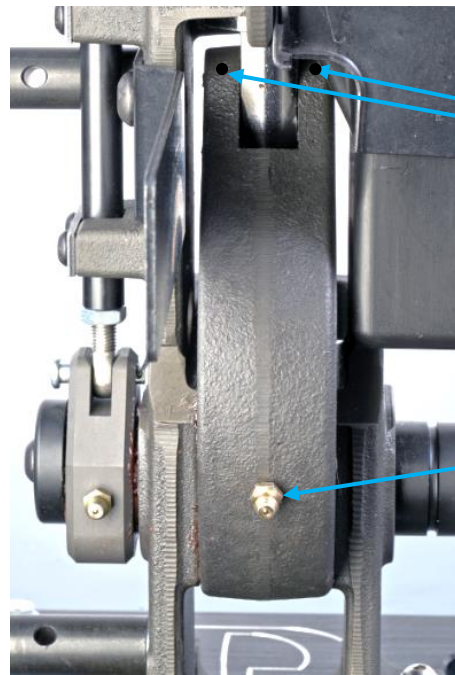
**Grease Zerk Fitting**

**11.6 Every 10,000 cycles or during a Shellplate change out, lightly Grease Shellplate Lock Ring bottom surface to Shellplate interface.**



**Lightly Grease bottom surface and Frame where the Shellplate ID contacts the OD of the Frame**

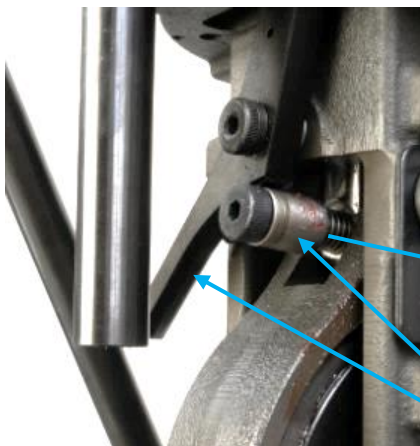
- 11.7 Grease the Eccentric Drive Zerk and Swage Zerk fittings every 10000 cases as you slowly lower and raise the Operating Handle--wipe off excess. Syringe Grease/lube the main shaft pivot pin two holes located in the Eccentric Drive "ears".



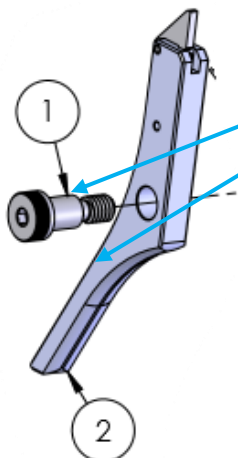
Syringe grease the port in each "ear"—1 to 2 pumps every 25,000 cycles

Zerk fitting-Grease 3-4 pumps—pump 1-2 times and cycle Handle every 25,000 cycles —wipe off excess grease

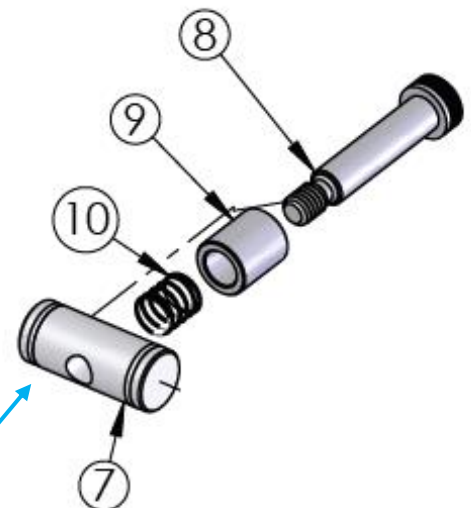
- 11.8 Lightly Grease the Indexing Lever Cam surface and Index Lever Shoulder Bolt. Lightly grease the Lever Cam surface where it comes into contact with the Index Roller (9). The Index Roller (9) and Bolt (8) also require periodic lubrication. (Every 10000 cases).



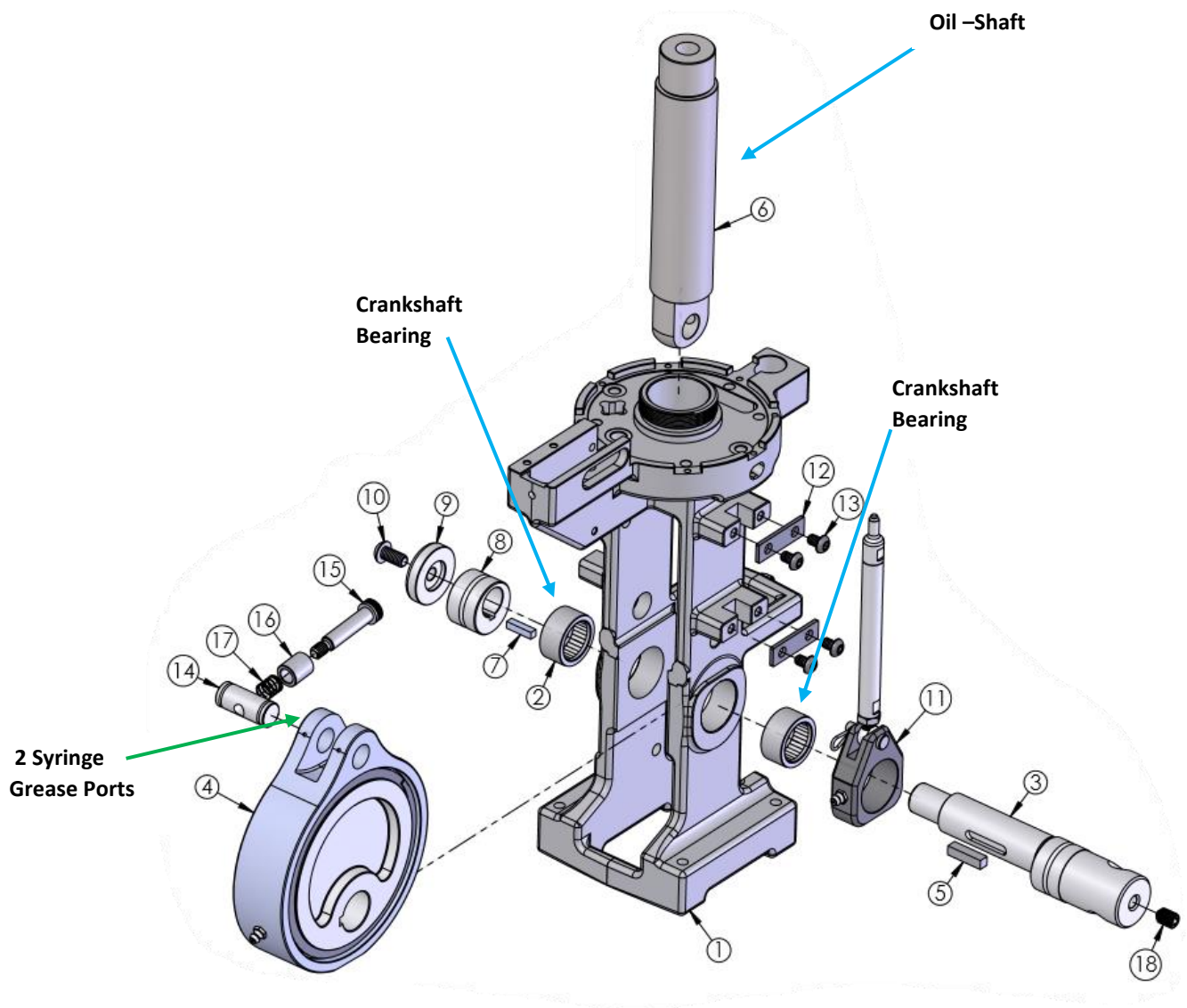
Grease bolt, roller and index lever contact surface



Remove, clean and grease Roller (9), Bolt (8) and Pin (7) and reassemble



- 11.9 Clean and lubricate both Right And Left Crankshaft Bearings below every 100,000 cycles.**
- 11.9.1** First remove the Swage Rod Assembly/Swage Connecting Rod item (13), and Operating Handle.
  - 11.9.2** On the left side of the CP2000, remove Bearing Screw item (10) and carrier cap item (9), Swage Eccentric and the Left Side Bearing item (2).
  - 11.9.3** Gently drive the Crankshaft item (3) out of the Frame left to right.
  - 11.9.4** Remove Right Side Bearing item (2).
  - 11.9.5** Clean and Grease both Roller Bearings item (2).
  - 11.9.6** Replace Bearings, Crankshaft, Swage Assembly and Operating Handle.
  - 11.9.7** Grease Swager Assembly and Eccentric Assembly Zerk fittings as previously described.
  - 11.9.8** Pull up and remove the Main Shaft item (6)—solvent clean. Lubricate Shaft with 30 wt. motor oil---Do Not use WD 40 or Break-Free, etc.



## 12 DILLON PRECISION CP2000 SUB-ASSEMBLY IDENTIFIER



**SECTION 12.1/12.2/12.3 --**  
CASEFEED BOWL, PLATE AND  
CLUTCH ASSEMBLY AND  
MOUNTING ASSEMBLY

**SECTION 13--OPTIONAL**  
DILLON RAPID TRIM 1500 CASE  
TRIMMER AND SIZE/TRIM DIE—

**SECTION 12.4--CASE INSERT**  
ASSEMBLY

**SECTION 12.5/12.6--UPPER**  
ASSEMBLY, TOOLHEAD AND  
SHELLPLATE ASSEMBLY

**SECTION 12.7--OPERATING**  
HANDLE

**SECTION 12.8--SHELLPLATE**  
INDEX ASSEMBLY (BACKSIDE)

**SECTION 12.9-- PRIMER**  
POCKET SWAGE ASSEMBLY--(2  
POSITIONS AVAILABLE)

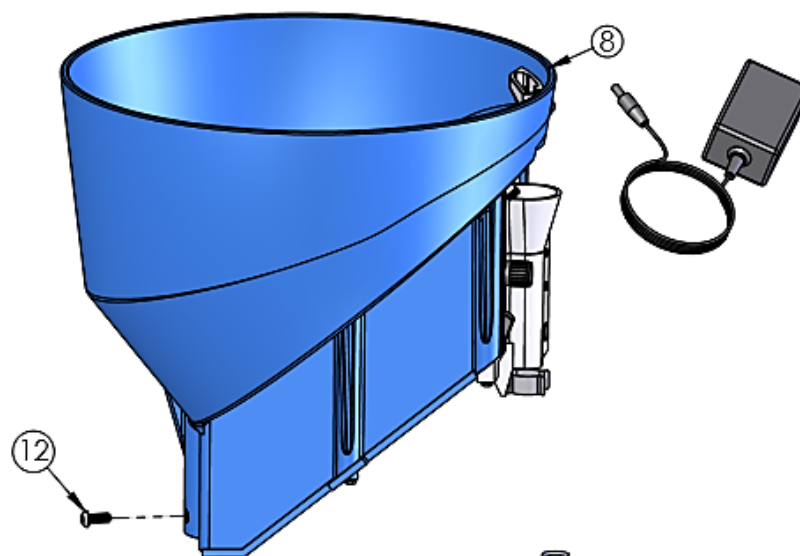
**SECTION 12.10-- Lower**  
Assembly—Dillon Eccentric  
Drive™-- ASSEMBLY, MAIN  
SHAFT AND CRANKSHAFT

**SECTION 12.11—DILLON**  
ECCENTRIC DRIVE BEARING  
ASSEMBLY

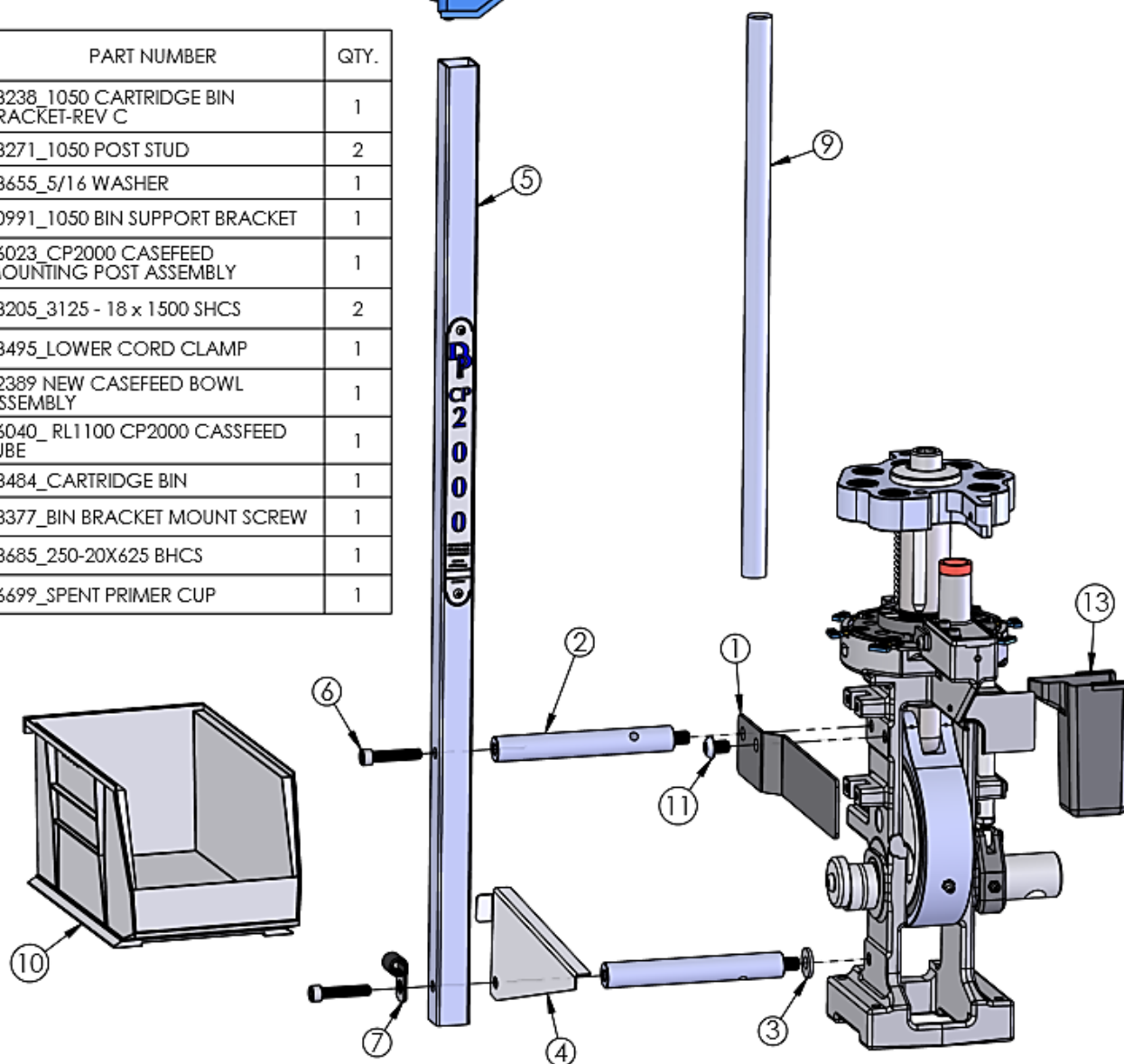
**SECTION 15—MOUNTING**  
TEMPLATE



## 12.1 Casefeed Mount—Parts Identifier

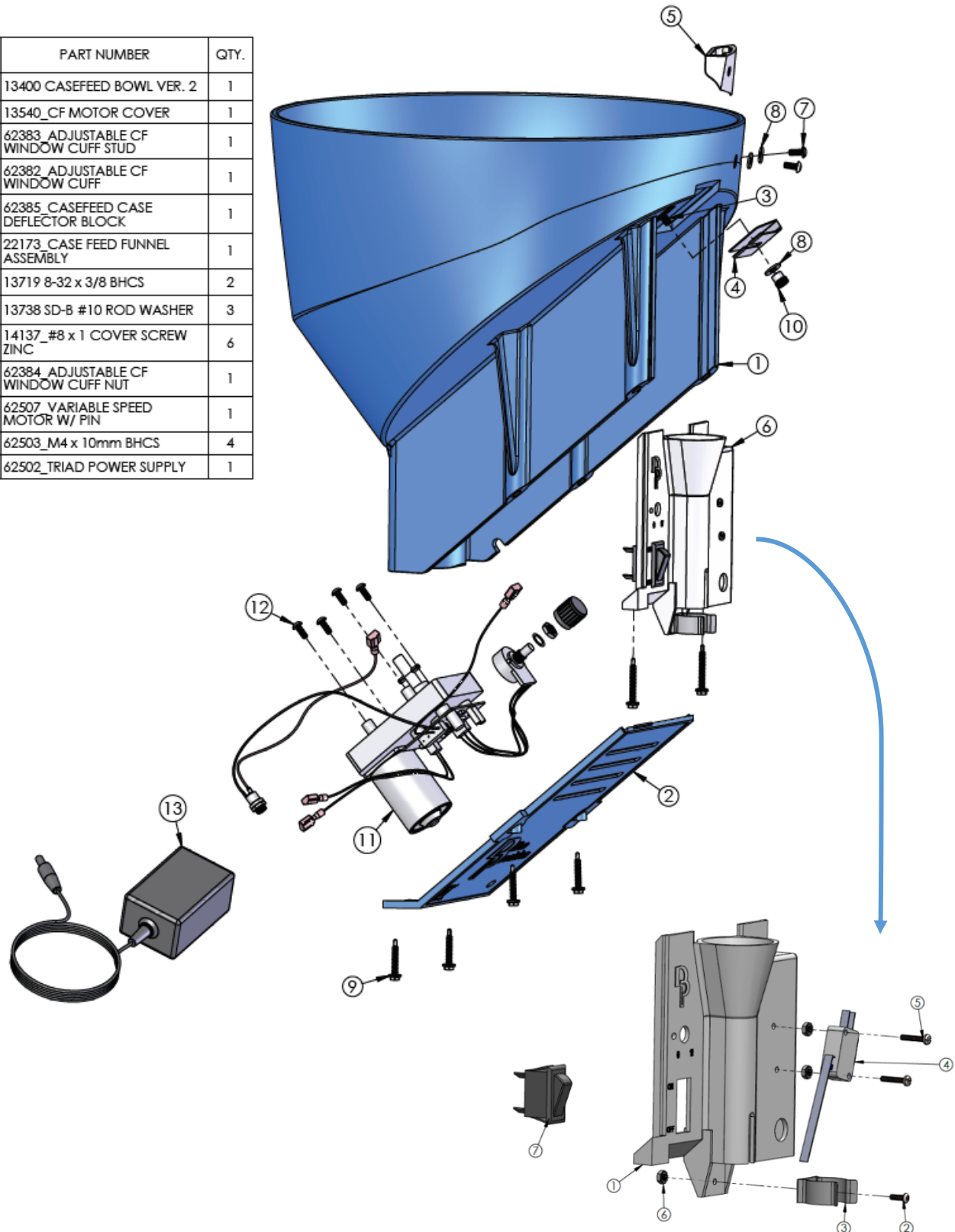


| ITEM NO. | PART NUMBER                                  | QTY. |
|----------|--|------|
| 1        | 13238_1050 CARTRIDGE BIN BRACKET-REV C       | 1    |
| 2        | 13271_1050 POST STUD                         | 2    |
| 3        | 13655_5/16 WASHER                            | 1    |
| 4        | 10991_1050 BIN SUPPORT BRACKET               | 1    |
| 5        | 66023_CP2000 CASEFEED MOUNTING POST ASSEMBLY | 1    |
| 6        | 13205_3125 - 18 x 1500 SHCS                  | 2    |
| 7        | 13495_LOWER CORD CLAMP                       | 1    |
| 8        | 62389 NEW CASEFEED BOWL ASSEMBLY             | 1    |
| 9        | 66040_RL1100 CP2000 CASSFEED TUBE            | 1    |
| 10       | 13484_CARTRIDGE BIN                          | 1    |
| 11       | 13377_BIN BRACKET MOUNT SCREW                | 1    |
| 12       | 13685_250-20X625 BHCS                        | 1    |
| 13       | 16699_SPENT PRIMER CUP                       | 1    |



## 12.2 Casefeed Bowl, Controls and Feed Funnel--Parts Identifier

| ITEM NO. | PART NUMBER                          | QTY. |
|----------|--------------------------------------|------|
| 1        | 13400 CASEFEED BOWL VER. 2           | 1    |
| 2        | 13540_CF MOTOR COVER                 | 1    |
| 3        | 62383_ADJUSTABLE CF WINDOW CUFF STUD | 1    |
| 4        | 62382_ADJUSTABLE CF WINDOW CUFF      | 1    |
| 5        | 62385_CASEFEED CASE DEFLECTOR BLOCK  | 1    |
| 6        | 22173_CASE FEED FUNNEL ASSEMBLY      | 1    |
| 7        | 13719 8-32 x 3/8 BHCS                | 2    |
| 8        | 13738 SD-B #10 ROD WASHER            | 3    |
| 9        | 14137_#8 x 1 COVER SCREW ZINC        | 6    |
| 10       | 62384_ADJUSTABLE CF WINDOW CUFF NUT  | 1    |
| 11       | 62507_VARIABLE SPEED MOTOR W/ PIN    | 1    |
| 12       | 62503_M4 x 10mm BHCS                 | 4    |
| 13       | 62502_TRIAD POWER SUPPLY             | 1    |

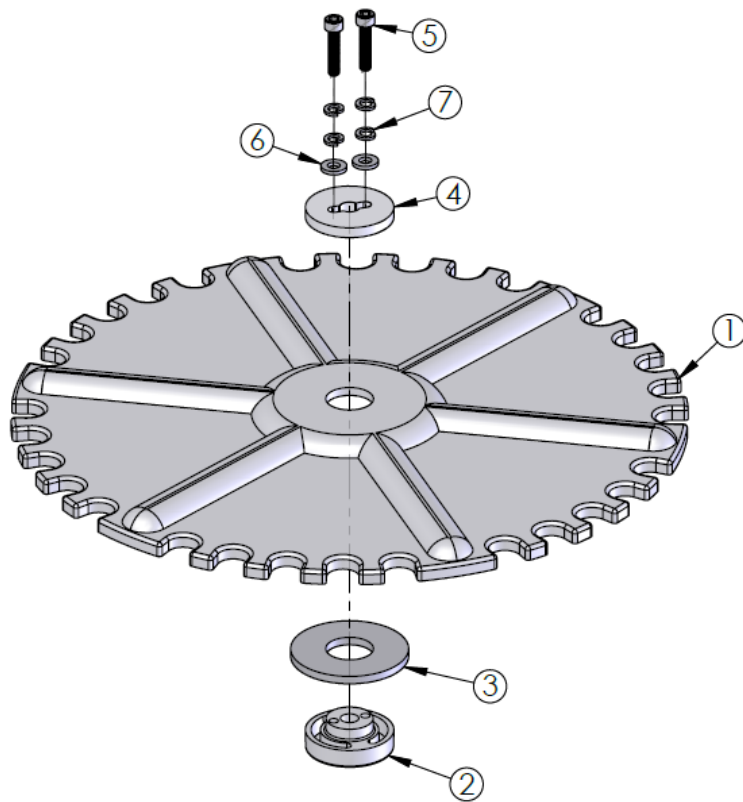


| ITEM NO. | PART NUMBER                         | QTY. |
|----------|-------------------------------------|------|
| 1        | 11423 NEW CASE FEED FUNNEL V2       | 1    |
| 2        | 18918 550CF 4-40 x 3/8 BHCS         | 1    |
| 3        | 13859 CF TUBE CLIP                  | 1    |
| 4        | 13779_MICRO SWITCH                  | 1    |
| 5        | 13954 4-40 x 5/8 PAN HEAD SCREW     | 2    |
| 6        | 14038 4-40 KEPSNUT                  | 3    |
| 7        | 62505_ON-OFF ROCKER SWITCH C1500ARB | 1    |

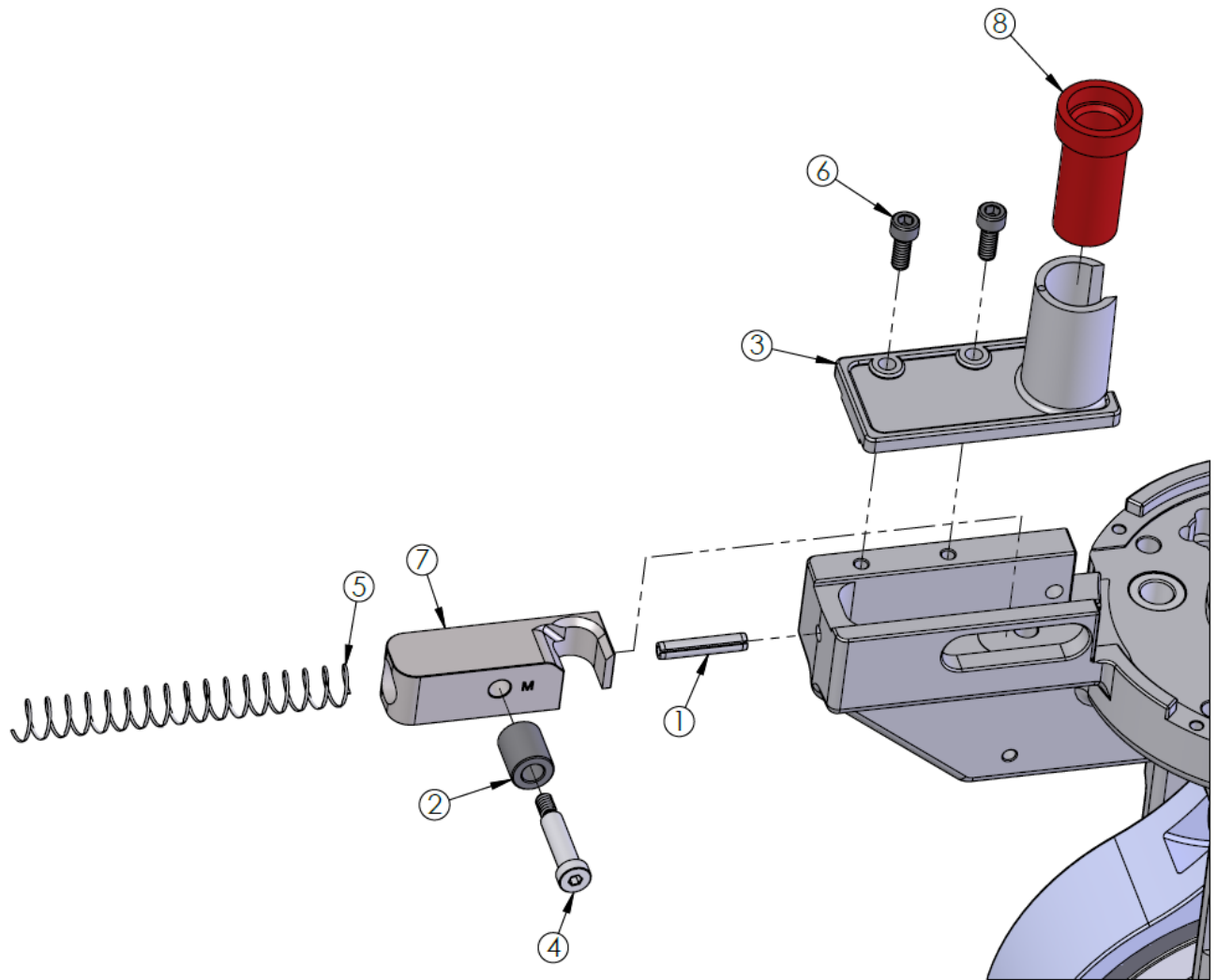
### 12.3 Casefeed Bowl, Plate and Clutch Assembly and Mounting Assembly—Parts Identifier

| ITEM NO. | PART NUMBER                        | QTY. |
|----------|------------------------------------|------|
| 1        | 13402_LARGE PISTOL CASEFEED PLATE  | 1    |
| 1A       | 13465_SMALL PISTOL CASEFEED PLATE  |      |
| 1B       | 13533_SMALL RIFLE CASEFEED PLATE   |      |
| 1C       | 13290_LARGE RIFLE CASEFEED PLATE   |      |
| 2        | 13736_CF LOWER CLUTCH              | 1    |
| 3        | 13703_CF SPACER                    | 1    |
| 4        | 13632_CLUTCH DISC UPPER            | 1    |
| 5        | 18866_1032 x 875 SHCS CLUTCH SCREW | 2    |
| 6        | 13738_SD-B #10 ROD WASHER          | 2    |
| 7        | 13813_CLUTCH SPRING WASHER         | 4    |

| DESCRIPTION                                |  |
|--|--|
| 21072_LARGE PISTOL CASEFEED PLATE ASSEMBLY | SEE CONVERSION CHART FOR APPLICABLE SIZE |
| 21073_SMALL PISTOL CASEFEED PLATE ASSEMBLY |  |
| 21074_SMALL RIFLE CASEFEED PLATE ASSEMBLY  |  |
| 21075_LARGE RIFLE CASEFEED PLATE ASSEMBLY  |  |



## 12.4 Case Insert Assembly--Parts Identifier

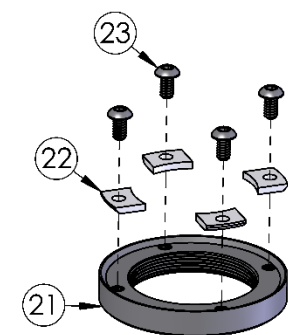
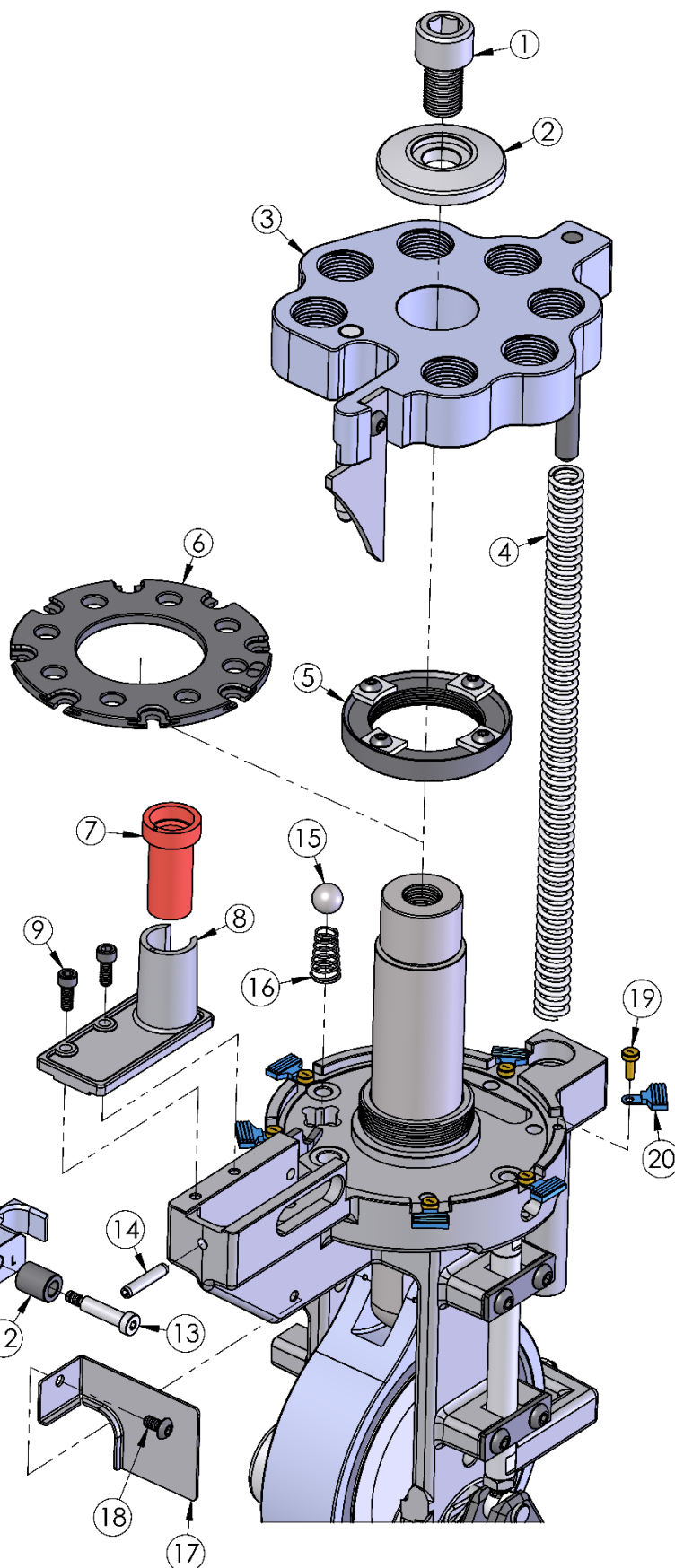


| ITEM NO. | PART NUMBER  | QTY. |
|----------|--|------|
| 1        | 13972_316 ROLL PIN   | 1    |
| 2        | 13498_PLUNGER ROLLER   | 1    |
| 3        | 11006_1050S CASEFEED HOUSING                                 | 1    |
| 4        | 62212_250 x 875 SHOULDER BOLT                                | 1    |
| 5        | 13567_CASE INSERT PLUNGER SPRING                             | 1    |
| 6        | 13815_10-24x500 SHCS   | 2    |
| 7        | CASEFEED PLUNGER - SEE CONVERSION CHART FOR APPLICABLE SIZE. | 1    |
| 8        | CASEFEED ADAPTOR - SEE CONVERSION FOR APPLICABLE SIZE.       | 1    |



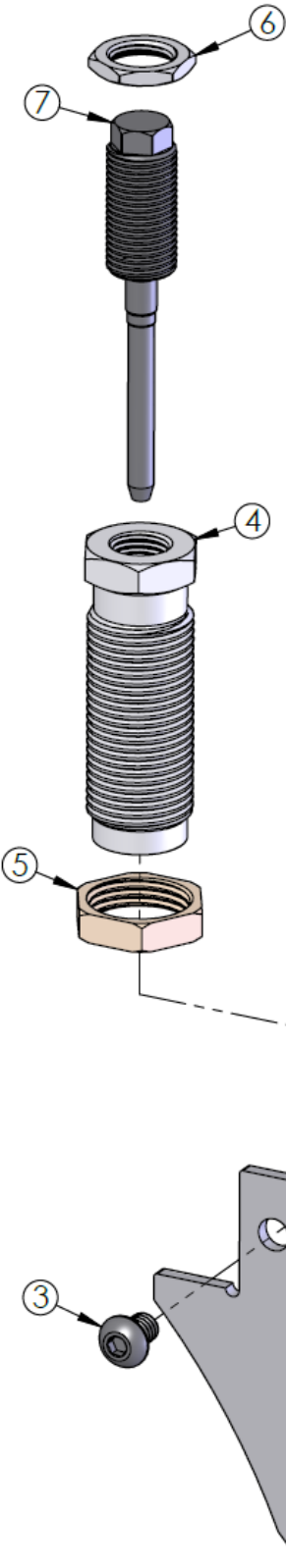
## 12.5 Upper Assembly--Toolhead and Shellplate Assembly--Parts Identifier

| ITEM NO. | PART NUMBER  | QTY. |
|----------|--|------|
| 1        | 62354_CP RL1100 TOOLHEAD BOLT                                    | 1    |
| 2        | 62353_CP2000-RL1100 TOOL HEAD WASHER                             | 1    |
| 3        | 62342_CP2000 TOOLHEAD COMPLETE                                   | 1    |
| 4        | 62308_CP2000 TOOLHEAD SPRING                                     | 1    |
| 5        | 20311_1050 RL CP LOCKRING ASSEMBLY                               | 1    |
| 6        | SHELLPLATE-SEE CONVERSION CHART FOR APPLICABLE SIZE              | 1    |
| 7        | 1050 CF ADAPTOR - SEE CONVERSION CHART FOR APPLICABLE SIZE       | 1    |
| 8        | 11006_1050S CASEFEED HOUSING                                     | 1    |
| 9        | 13815_10-24x500 SHCS   | 2    |
| 10       | 1050 CASEFEED PLUNGER - SEE CONVERSION CHART FOR APPLICABLE SIZE | 1    |
| 11       | 13567_480x3875x032 1050 CASEFEED PLUNGER SPRING                  | 1    |
| 12       | 13498_PLUNGER ROLLER   | 1    |
| 13       | 62212_250 x 875 SHOULDER BOLT                                    | 1    |
| 14       | 13972_316 ROLL PIN   | 1    |
| 15       | 13508_1050 INDEX BALL  | 1    |
| 16       | 13525_1050 INDEX BALL SPRING                                     | 1    |
| 17       | 10993_1050 SPENT PRIMER CUP BRACKET                              | 1    |
| 18       | 13895_10-24x375 BHCS   | 1    |
| 19       | LOCATOR BUTTON - SEE CONVERSION CHART FOR APPLICABLE SIZE        | 7    |
| 20       | 13569_1050 BLUE LOCATOR TAB LONG                                 | 7    |

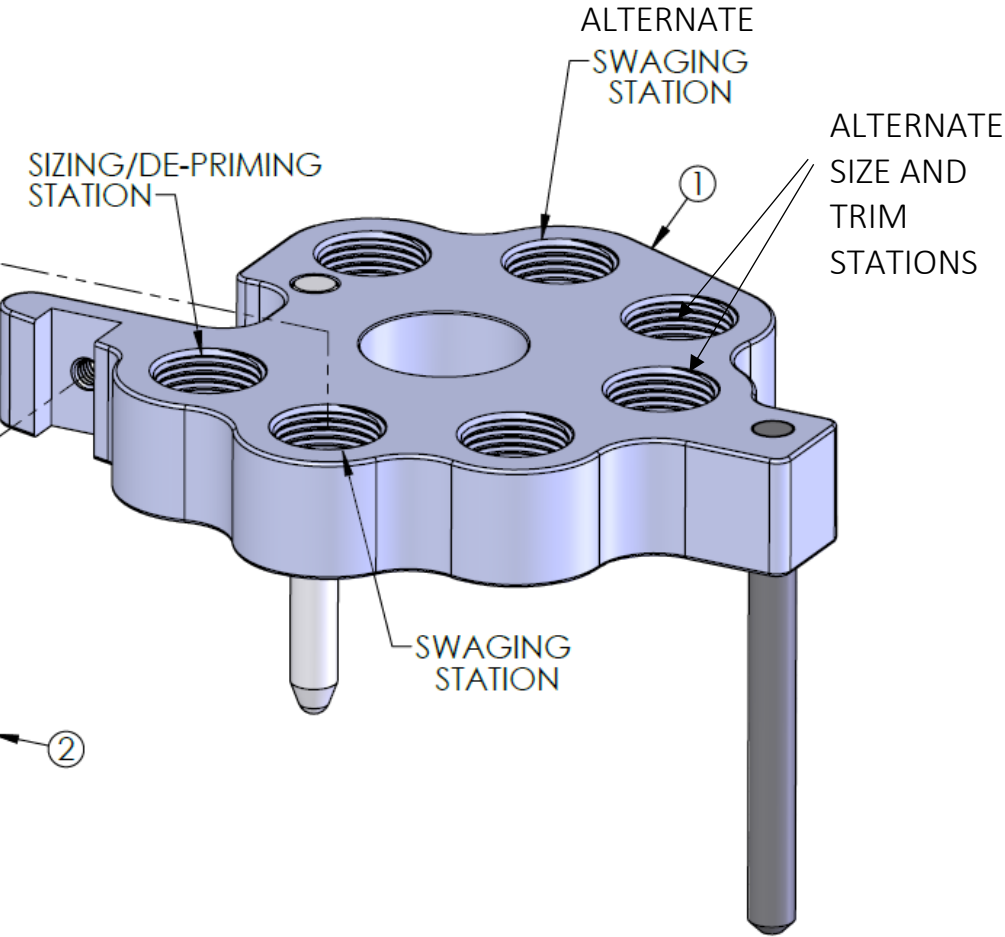


| ITEM NO. | PART NUMBER                | QTY. |
|----------|----------------------------|------|
| 21       | 13425_SHELLPLATE LOCK RING | 1    |
| 22       | 13561_LOCK RING INSERT     | 4    |
| 23       | 13895_10-24x375 BHCS       | 4    |

12.6 CP2000 Toolhead Assembly--Parts Identifier

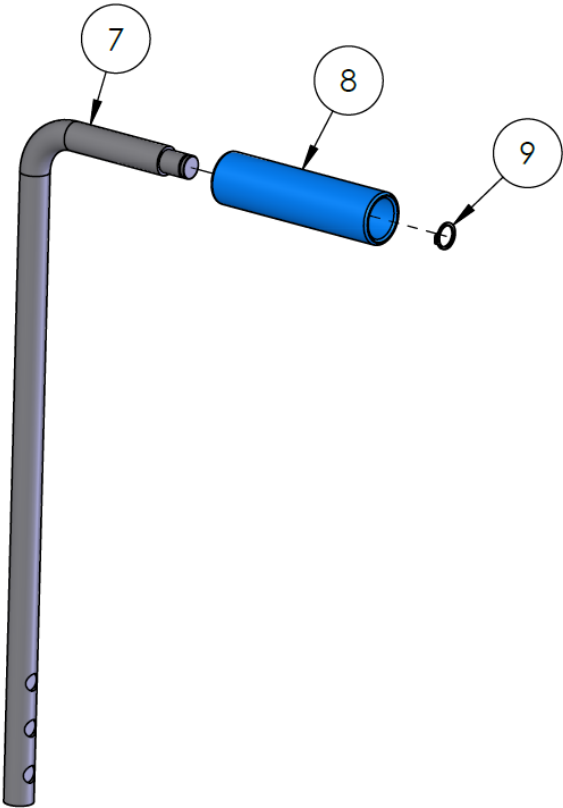


| ITEM NO. | PART NUMBER   | QTY. |
|----------|---|------|
| 1        | 62342_CP2000 TOOLHEAD COMPLETE  | 1    |
| 2        | 13161_CASEFEED CAM VER 2  | 1    |
| 3        | 13896_250-20 BHCS   | 1    |
| 4        | 12184_SWAGER BODY   | 1    |
| 5        | 14067_DIE LOCK RING   | 1    |
| 6        | 13483_OLD STYLE PANEL NUT   | 1    |
| 7        | EXPANDER/BACK-UP SWAGE ROD - SEE CONVERSION CAHRT FOR APPLICABLE SIZE | 1    |

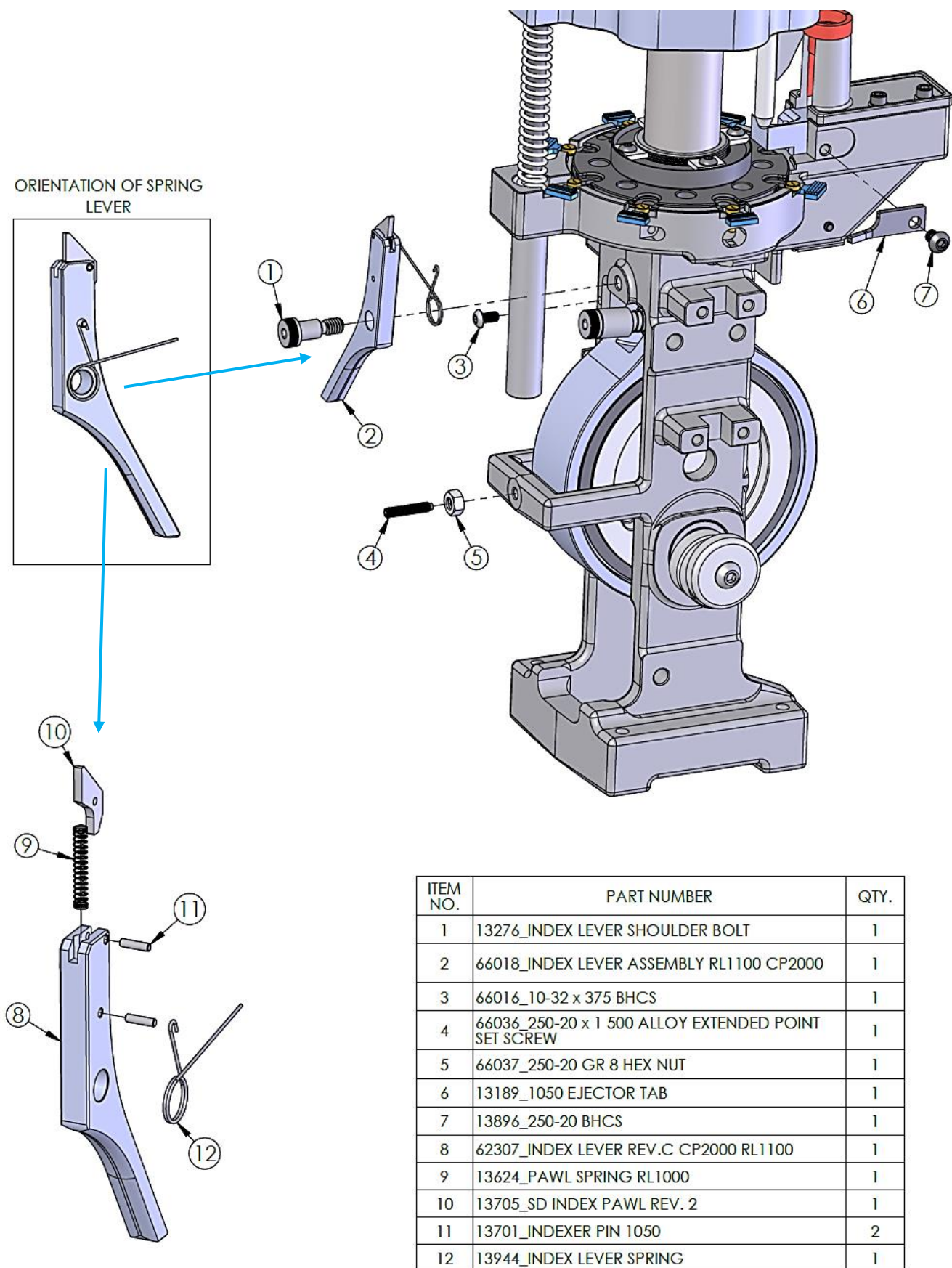


12.7 Operating Handle Assembly--Parts Identifier

| ITEM NO. | PART NUMBER              | QTY. |
|----------|--------------------------|------|
| 7        | 12727_1050 ROLLER HANDLE | 1    |
| 8        | 17070_HANDLE ROLLER      | 1    |
| 9        | 17069_500 SNAP RING      | 1    |

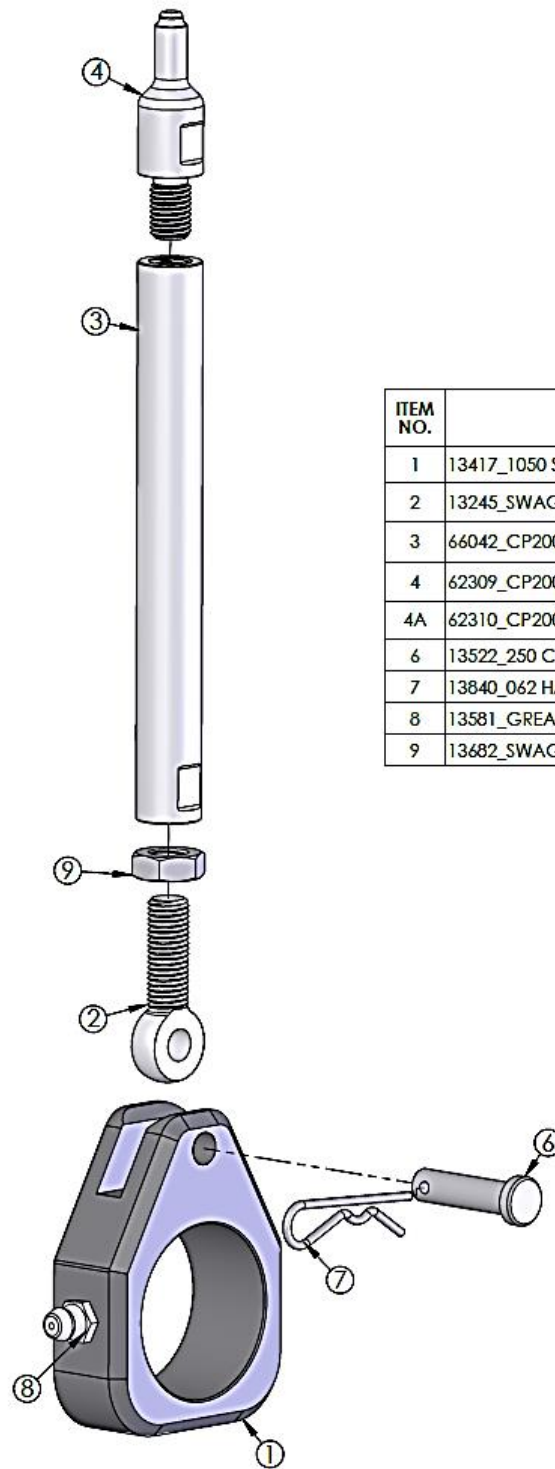


## 12.8 Shellplate Index Assembly-- Parts Identifier





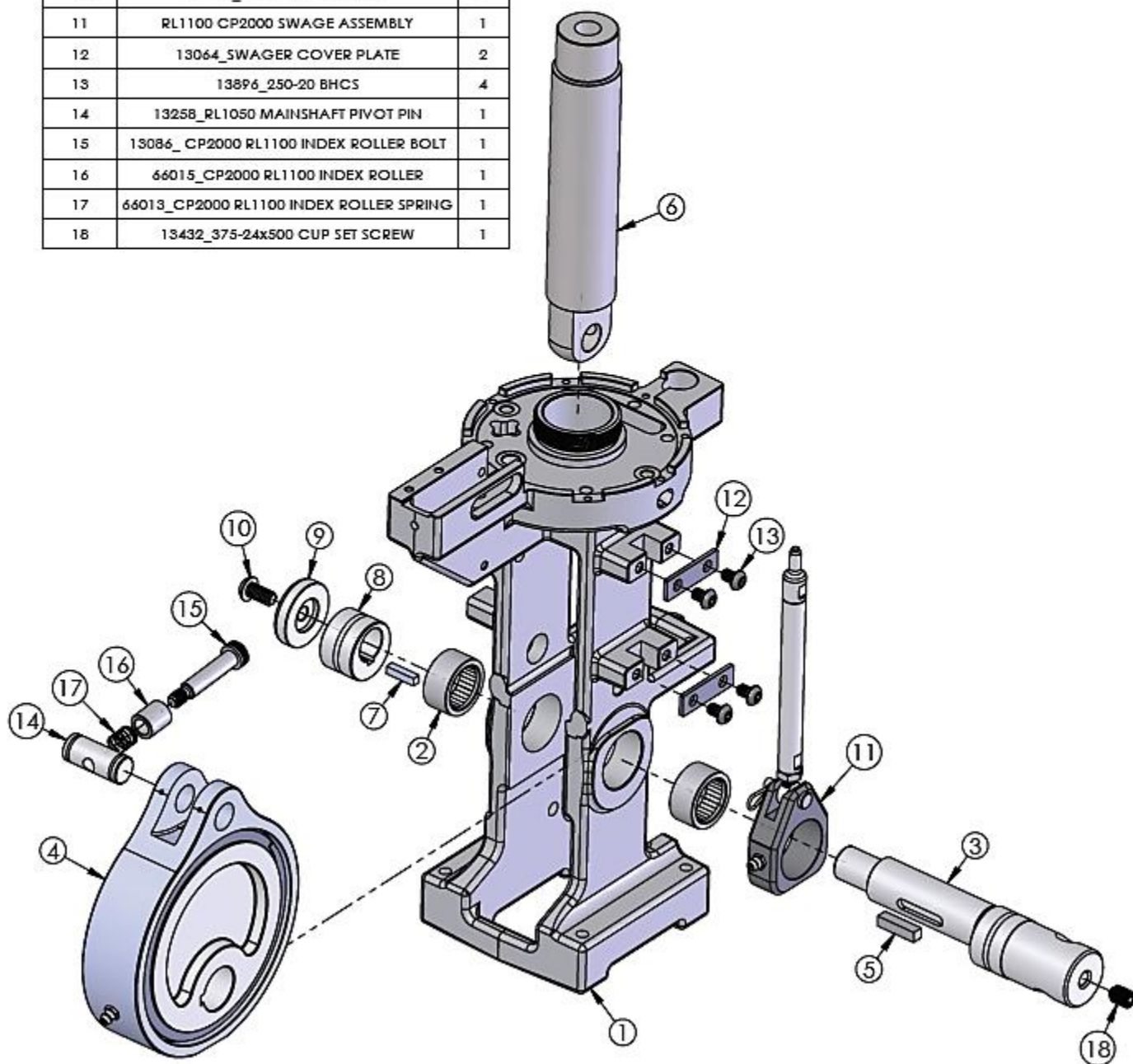
### 12.9 Pocket Swage Assembly Station 3 or 7-- Parts Identifier



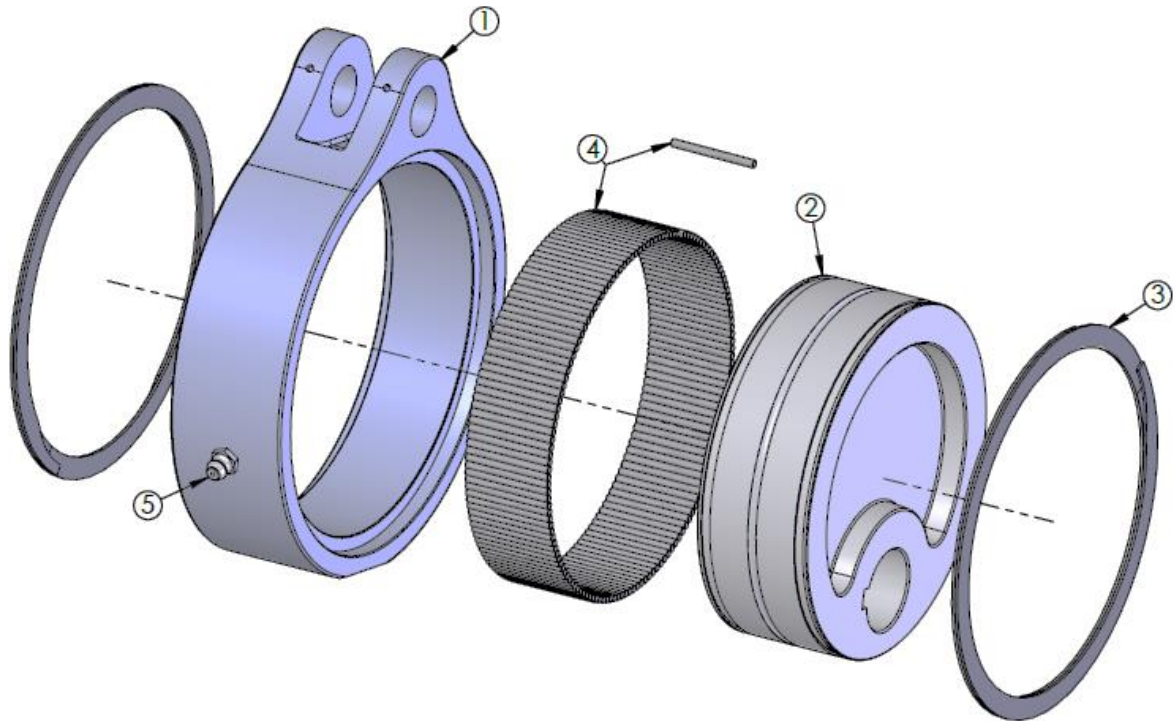
| ITEM NO. | PART NUMBER                      | QTY. |
|----------|----------------------------------|------|
| 1        | 13417_1050 SWAGE CON ROD         | 1    |
| 2        | 13245_SWAGE ADJUST. BOLT         | 1    |
| 3        | 66042_CP2000 RL1100 SWAGE ROD    | 1    |
| 4        | 62309_CP2000 SMALL SWAGE ROD TIP | 1    |
| 4A       | 62310_CP2000 LARGE SWAGE ROD TIP |      |
| 6        | 13522_250 CLEVIS PIN             | 1    |
| 7        | 13840_062 HAIRPIN COTTER         | 1    |
| 8        | 13581_GREASE ZERK                | 1    |
| 9        | 13682_SWAGE LOCK NUT             | 1    |

## 12.10 Lower Assembly—Dillon Eccentric Drive™--Parts Identifier

| ITEM NO. | PART NUMBER                             | QTY. |
|----------|---|------|
| 1        | 62301_CP2000 FRAME - MACHINING          | 1    |
| 2        | 11008_BH-1610 ROLLER BEARING            | 2    |
| 3        | 62305_CP2000 CRANK SHAFT                | 1    |
| 4        | CP2000 RL1100 LOWER BEARING ASSEMBLY    | 1    |
| 5        | 13475_250x1000 JOURNAL KEY              | 1    |
| 6        | 62306_CP2000 MAINSHAFT                  | 1    |
| 7        | 66035_316 x 750 KEY                     | 1    |
| 8        | 62351_CP2000 SWAGE ECENTRIC             | 1    |
| 9        | 62311_CP2000 BEARING CAP                | 1    |
| 10       | 62352_BEARING CAP BOLT                  | 1    |
| 11       | RL1100 CP2000 SWAGE ASSEMBLY            | 1    |
| 12       | 13064_SWAGER COVER PLATE                | 2    |
| 13       | 13896_250-20 BHCS                       | 4    |
| 14       | 13258_RL1050 MAINSHAFT PIVOT PIN        | 1    |
| 15       | 13086_CP2000 RL1100 INDEX ROLLER BOLT   | 1    |
| 16       | 66015_CP2000 RL1100 INDEX ROLLER        | 1    |
| 17       | 66013_CP2000 RL1100 INDEX ROLLER SPRING | 1    |
| 18       | 13432_375-24x500 CUP SET SCREW          | 1    |

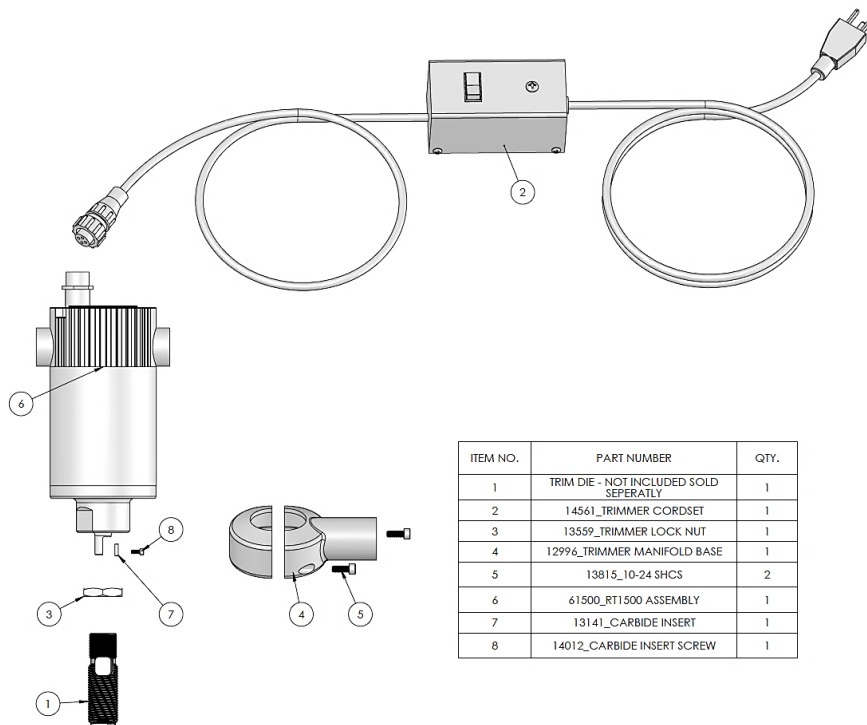


## 12.11 Lower Dillon Eccentric Drive™ Bearing Assembly-- Parts Identifier



| ITEM NO. | PART NUMBER                         | QTY. |
|----------|-------------------------------------|------|
| 1        | 62304_CP2000 CONNECTING ROD PM      | 1    |
| 2        | 62303_CP2000 CRANK JOURNAL PM       | 1    |
| 3        | 62313_CP2000 BEARING RETAINING RING | 2    |
| 4        | 62312_CP2000 BEARING DOWEL PIN      | 148  |
| 5        | 13581_GREASE ZERK                   | 1    |

# 13 AVAILABLE DILLON RAPID TRIM™ ASSEMBLY, DILLON SIZE/TRIM DIES AND SHORT TOOLHEAD



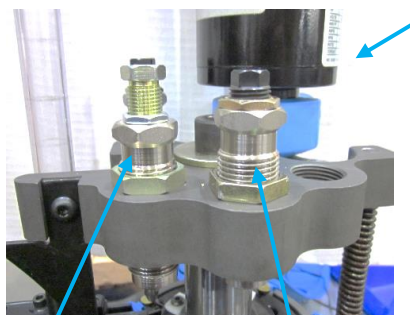
## Available Dillon Trim Dies and Special Toolheads

| PART NO. | DILLON TRIM DIE   |
|----------|-------------------|
| 21028    | .204 Ruger        |
| 21363    | .222 Rem.         |
| 20107    | .223 Rem.         |
| 19797    | .223 Rem. Carbide |
| 21364    | 220 Swift         |
| 20110    | .22-250 Rem.      |
| 20109    | .243 Win.         |
| 62290    | 6.5 Creedmoor     |
| 21495    | 6.5x55mm          |
| 21029    | .300 WSM          |

| PART NO.     | DILLON TRIM DIE                                 |
|--------------|---|
| 20111        | .30-30 Win.                                     |
| 21765        | .303 British                                    |
| 20106        | .308 Win.                                       |
| 62126        | .308 Win. Carbide                               |
| 62140        | .300 BLK Carbide*                               |
| 62238        | 6.8 SPC*  |
| 62237        | 7.62 x 39*                                      |
| 66026        | CP2000 Short Trim Die Toolhead--Complete        |
| <b>62164</b> | <b>RT1500 Rapid Case Trimmer Motor Assembly</b> |

\* Requires Short Trim Die Toolhead 66026

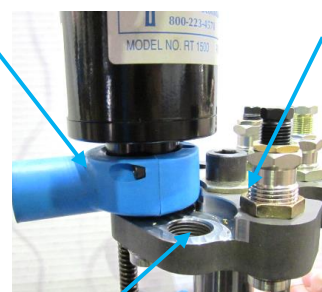
## 13.1 Short Trim Die Toolhead Setup Example



**Station 2--  
Depriming .223  
Case---**.223 Depriming Bolt (13182), Locknut (12577) and Depriming Pin (13278)—without an Expander Ball in a Universal Die Body (17583) with a Die Lock Ring (14067)

**Station 3--  
Swaging the Primer  
Pocket ---**.223 Backup expander (13332) and Locknut (12577) in a Universal Die Body (17583) with a Die Lock Ring (14067)

**Station 6--  
Forming and  
Trimming the  
.300 Blackout  
Case in one  
pass---**.300 Blackout Size and Trim Die with RT 1500 Case Trimmer and Exhaust Manifold—(Part No. above)



**Station 8 --  
Expanding the  
Neck --**.300 Blackout Neck Expander (62372) and Locknut (12577) in a Universal Die Body (17583) with a Die Lock Ring (14067)

**Note---**CP2000 Short Trim Die Toolhead--complete (66026)

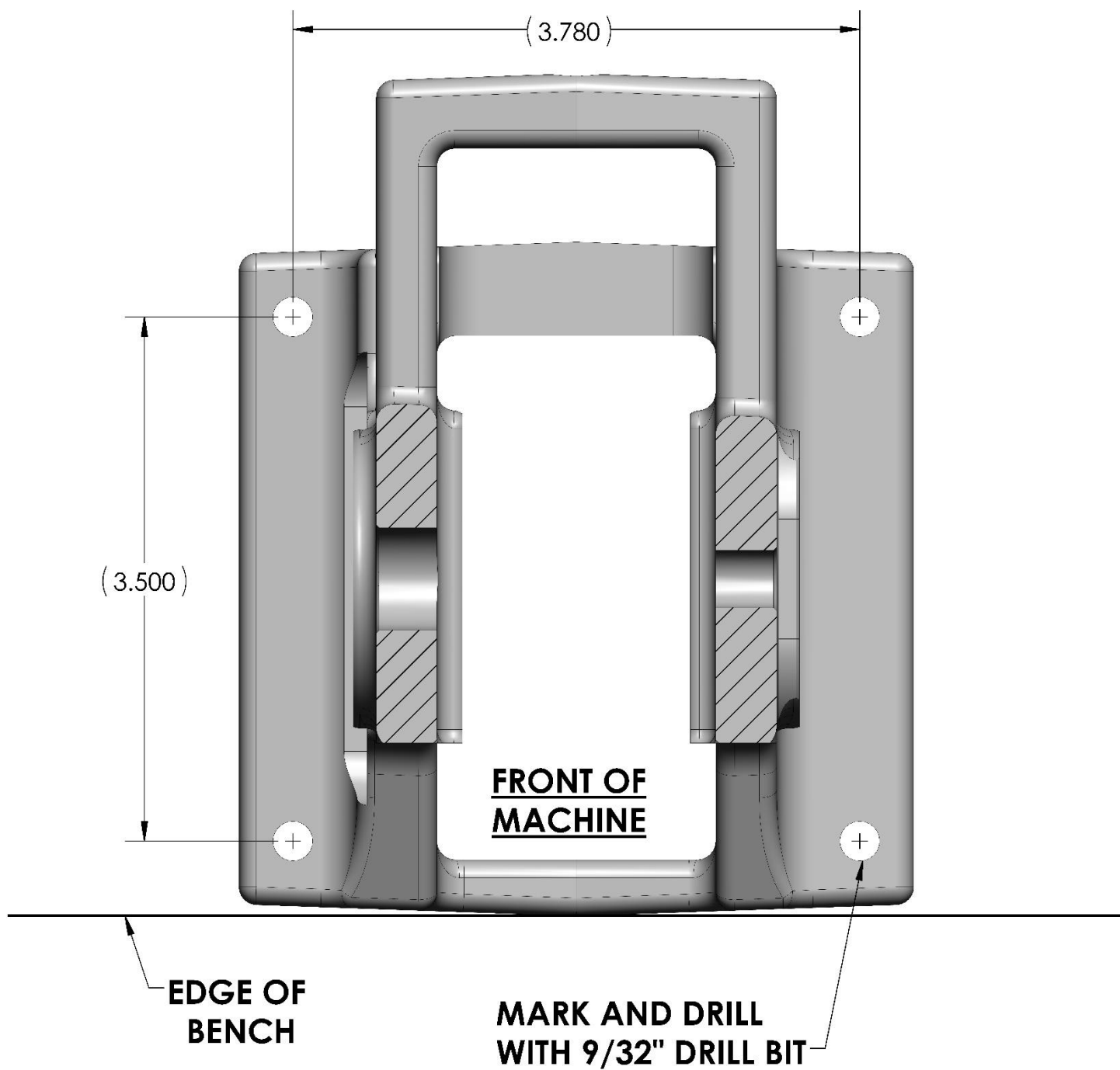




## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

NOTES:

**RL1100/CP2000 BENCH  
MOUNTING HOLE TEMPLATE**



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