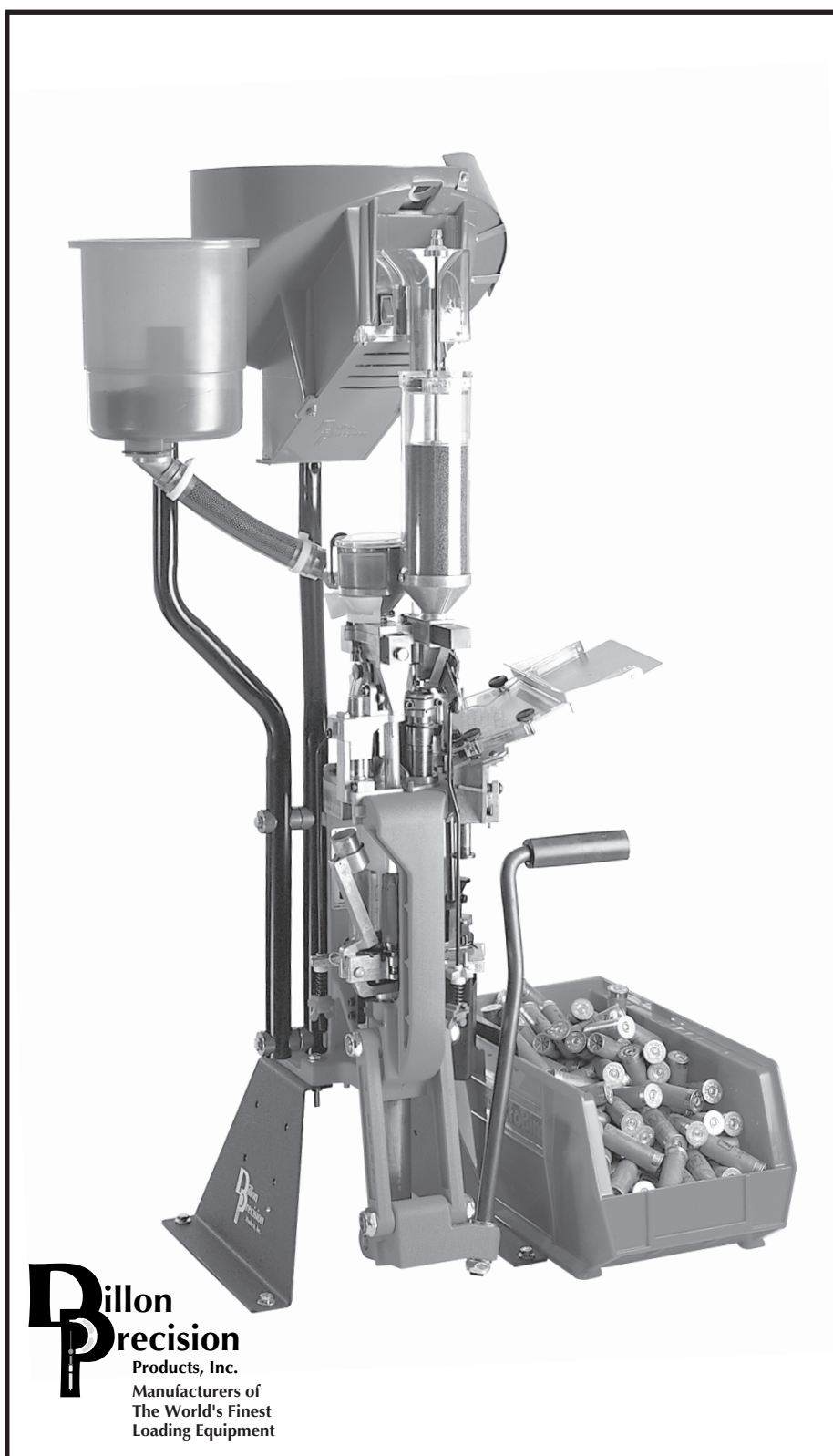


# Dillon SL 900

## Instruction Manual

May 2007



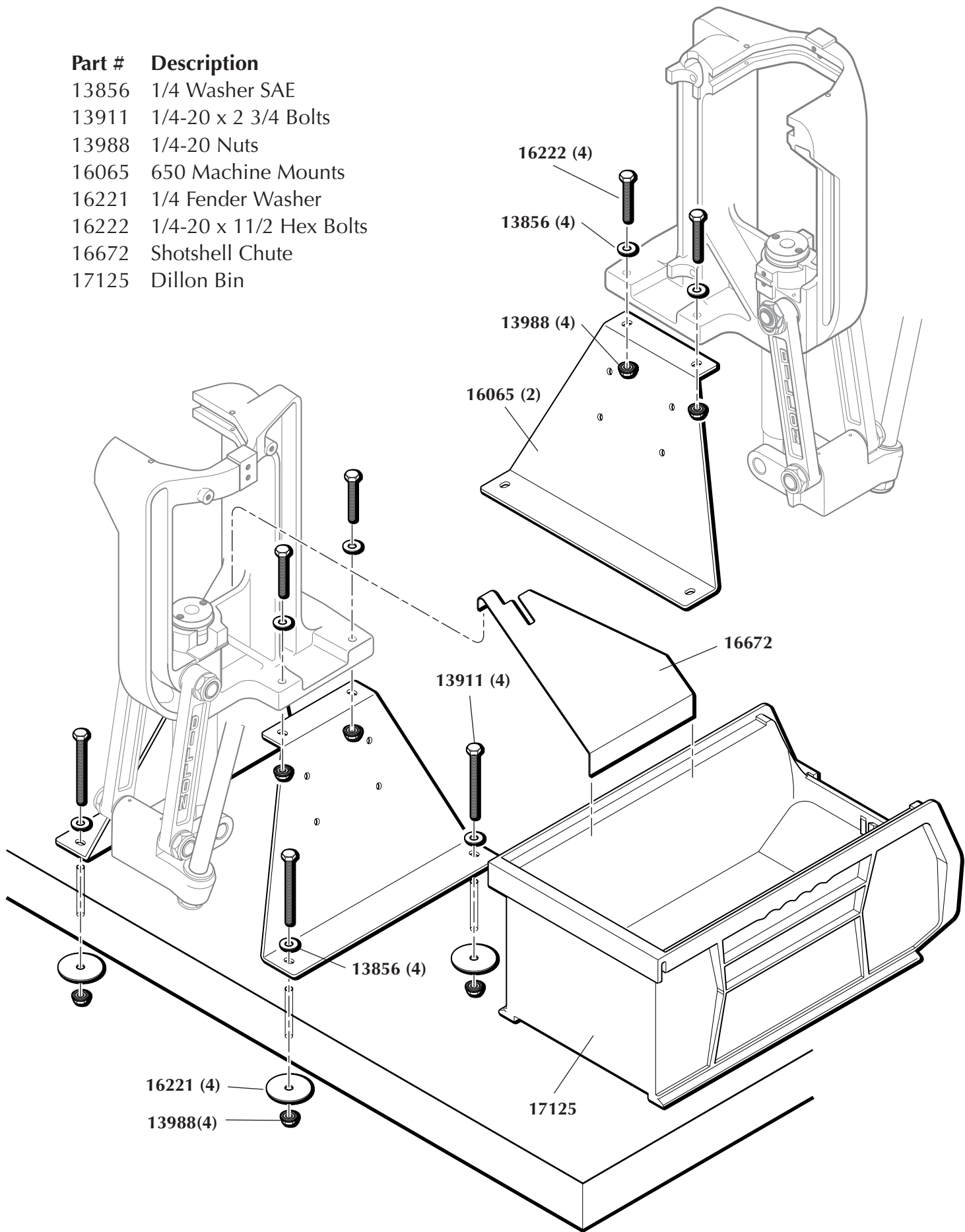
**Dillon**  
**Precision**  
Products, Inc.  
Manufacturers of  
The World's Finest  
Loading Equipment

## SL 900 Parts List

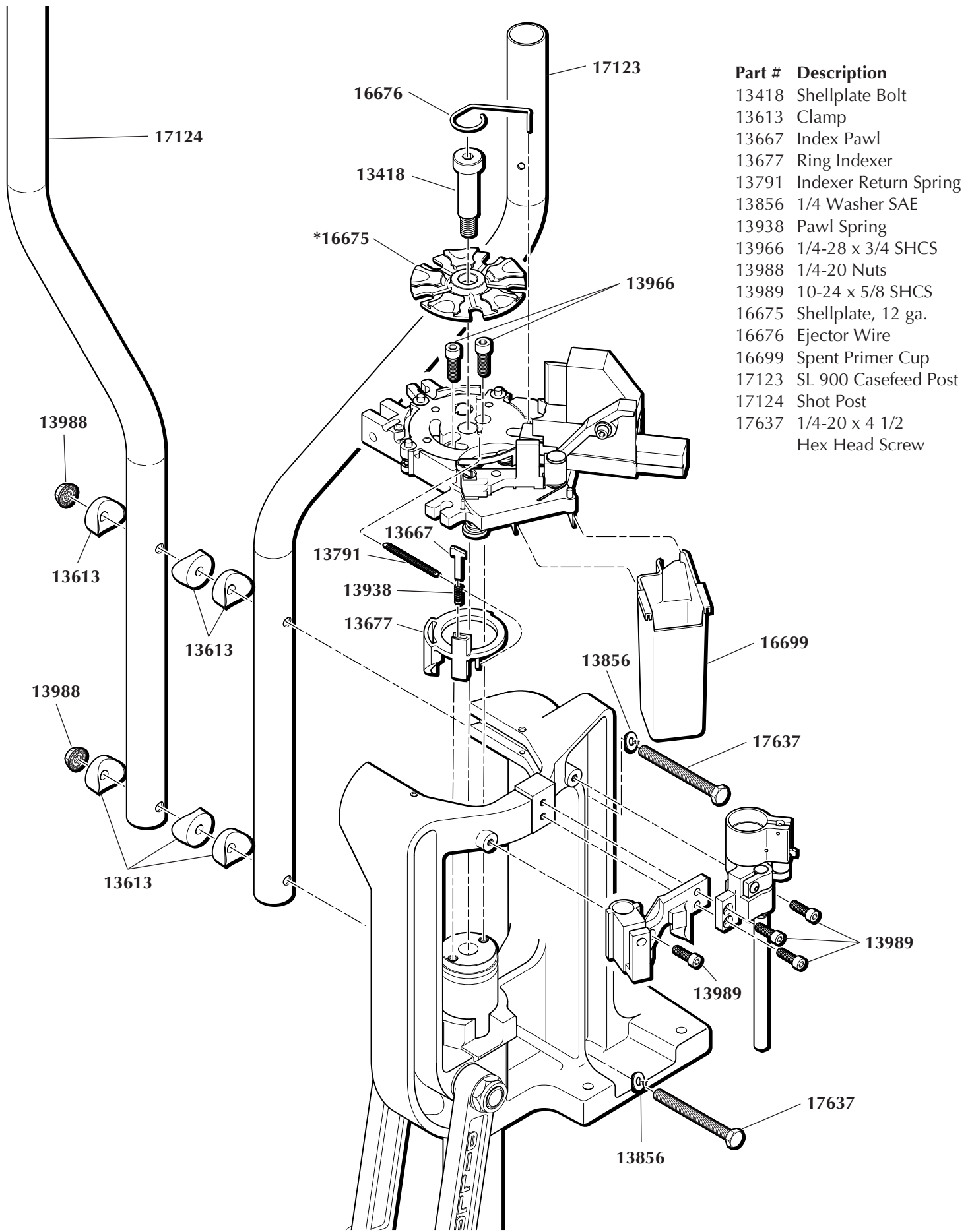
| Part # | Description                    |
|--------|--------------------------------|
| 10641  | Body Collar Adjustment Screw   |
| 10716  | Primer Spring Cap              |
| 12000  | Final Crimp Die                |
| 12577  | 1/2-20 Jam Nut                 |
| 13311  | Spring Pin                     |
| 13418  | Shellplate Bolt                |
| 13485  | Mainshaft                      |
| 13613  | Clamp                          |
| 13667  | Index Pawl                     |
| 13677  | Ring Indexer                   |
| 13700  | Link Arm Shoulder Pin          |
| 13701  | 3/32x3/8 Dowel Pin             |
| 13738  | 10 Stainless Washers           |
| 13742  | 1/2 E-Clip                     |
| 13773  | 8-32 Nut                       |
| 13789  | 1/4-28 Set Screw               |
| 13791  | Indexer Return Spring          |
| 13793  | Collar Roller                  |
| 13799  | Blue Wing Nut                  |
| 13801  | Tinnerman Nut                  |
| 13830  | Mainshaft Pivot Pin            |
| 13837  | 1/4 E-Clip                     |
| 13840  | Hitch Pin Clip                 |
| 13841  | Nylock Nuts                    |
| 13848  | Bellcrank Bushing              |
| 13856  | 1/4 Washer SAE                 |
| 13858  | Rod Compression Spring         |
| 13871  | Bellcrank Cube                 |
| 13891  | 3/8 Index Ball                 |
| 13895  | 10-24x3/8 BHCS                 |
| 13896  | 1/4-20 x 3/8 BHCS              |
| 13901  | 3/8x24 Cam Pin Jam Nut         |
| 13911  | 1/4-20 x 2 3/4 Bolts           |
| 13923  | 1/4-28 Brass Tip Set Screw     |
| 13937  | Slide Return Spring            |
| 13938  | Pawl Spring                    |
| 13943  | 1/4-28 Adjustment Bolt         |
| 13958  | 1/4 Washer                     |
| 13966  | 1/4-28 x 3/4 SHCS              |
| 13988  | 1/4-20 Nuts                    |
| 13989  | 10-24 x 5/8 SHCS               |
| 13996  | 10-32 Set Screw                |
| 13997  | Index Ball Spring              |
| 14008  | Toolhead Pins                  |
| 14013  | 8-32x3/8 SHCS                  |
| 14023  | 8-32 x 3/4 BHCS                |
| 14026  | 8-32 x 1/2 BHCS                |
| 14037  | 10-24 x 3/4 SHCS               |
| 14041  | 1/4 Wave Washer                |
| 14574  | Case Insert Slide Spring Cap   |
| 14689  | 8-32 x 1/4 BHCS                |
| 14808  | Collar Roller Bushing          |
| 14922  | Link Arms                      |
| 16065  | 650 Machine Mounts             |
| 16209  | Spent Primer Cup Bracket       |
| 16221  | 1/4 Fender Washer              |
| 16222  | 1/4-20 x 11/2 Hex Bolts        |
| 16340  | 10-32 Nylock Nut               |
| 16667  | Toolhead                       |
| 16668  | Toolhead Die Lockplate         |
| 16670  | SL Crank                       |
| 16671  | Indexing Block                 |
| 16672  | Shotshell Chute                |
| 16675  | Shellplate, 12 ga.             |
| 16676  | Ejector Wire                   |
| 16677  | Wad Swing Arm                  |
| 16678  | Wad Guide Sleeve               |
| 16679  | Sleeve Compression Spring      |
| 16680  | 1/16 x 1/2 Roll Pin            |
| 16681  | Wad Guide                      |
| 16682  | Swing Arm Torsion Spring       |
| 16683  | Case Insert Slide              |
| 16684  | Slide Block                    |
| 16691  | Primer Transfer Arm            |
| 16692  | Arm Pivot Pin                  |
| 16693  | Transfer Arm Spring            |
| 16694  | Station Two Locator            |
| 16695  | Locator Pivot Screw            |
| 16696  | Locator Torsion Spring         |
| 16697  | Case Insert Ramp               |
| 16698  | SL Platform                    |
| 16699  | Spent Primer Cup               |
| 16700  | Primer Seater Pin              |
| 16701  | Bushing                        |
| 16702  | Primer Seater Spring           |
| 16707  | Phish Compression Spring       |
| 16708  | Casefeed Phish                 |
| 16709  | Camming Pin                    |
| 16711  | Primer Feedplate               |
| 16714  | Slide/Bellcrank Spring         |
| 16717  | Primer Feed Cam                |
| 16721  | Tray Mounting Bracket          |
| 16723  | Primer Feed Body               |
| 16724  | Shot Dispenser                 |
| 16725  | Shot Dispenser Body            |
| 16726  | Shot Drop Tube, 12 ga.         |
| 16727  | Shot Dispenser Bellcrank       |
| 16731  | Spring (Bellcrank Assembly)    |
| 16732  | Pivot Pin                      |
| 16733  | Shot Bar Return Rod            |
| 16735  | Shot Body Collar               |
| 16737  | Collar Guide/Clamp             |
| 16738  | Shot Bar                       |
| 16739  | Shot Bar Insert                |
| 16740  | 3/8-16 Half Dog Set Screw      |
| 16741  | Depriming Pin                  |
| 16742  | SL Sizer Collet Sleeve         |
| 16743  | Collet Sizer Die, 12 Ga.       |
| 16744  | SL Powder Die                  |
| 16746  | Expander Powder Funnel         |
| 10640  | Starter Crimp Die              |
| 16748  | Dillon Starter Crimp Insert-1  |
| 16753  | Locator Buttons                |
| 16904  | 1 1/2-10/32 SHCS               |
| 17123  | SL 900 Casefeed Post           |
| 17124  | Shot Post                      |
| 17125  | Dillon Bin                     |
| 17126  | Locator Button Spring          |
| 17130  | Casefeed Sleeve, 12 Ga.        |
| 17131  | Casefeed Body                  |
| 17132  | Primer Drop Tube               |
| 17134  | Primer Bellcrank               |
| 17138  | Clear Dispenser Lid            |
| 17139  | Shot Dispenser Fitting         |
| 17140  | Pin (Bellcrank Assembly)       |
| 17141  | 1/4 Hardened Washer            |
| 17142  | Dispenser Top                  |
| 17143  | Dispenser Top Clear Lens       |
| 17146  | Rubber Insert                  |
| 17147  | Powder Die E-Clip              |
| 17148  | 1 1/4 Die Lock Ring            |
| 17149  | 1.0 Die Lock Ring              |
| 17153  | Manual                         |
| 17182  | SL Frame Machined              |
| 17202  | Shot Fitting E-Clip            |
| 17350  | Powder Bar Return Rod          |
| 17351  | Die Lock Bolt                  |
| 17352  | Spring Button                  |
| 17353  | Phish Spring Socket            |
| 17354  | Gate 3                         |
| 17472  | #8 Washer .032 Thick           |
| 17474  | 10-32 x 5/8 Tray Cover Screw   |
| 17476  | Shot Drain                     |
| 17477  | Collet Sizer Spring            |
| 17479  | Clear Industrial Vinyl Tubing  |
| 17509  | Box                            |
| 17573  | Shot Drain Ext. Spring         |
| 17601  | Washer .100 Thick              |
| 17603  | Black Knob                     |
| 17604  | Clevis Pin                     |
| 17637  | 1/4-20 x 4 1/2 Hex Head Screw  |
| 17639  | .175 dia. x 1/4-20 Post        |
| 17812  | Primer Seater Assembly         |
| 17815  | Clear Primer Tray Cover        |
| 17816  | SL Primer Slide Upper          |
| 17837  | Tyton Clamp                    |
| 17838  | P/M Lock Link                  |
| 17839  | P/M Slotted Bellcrank          |
| 17843  | SL 900 Foam Insert Set         |
| 17899  | Stem Screw                     |
| 17909  | Eight Star Crimp               |
| 18086  | Rod Bushing                    |
| 17817  | SL900 Powder Measure Assy      |
| 19201  | Primer Feed System Assembly    |
| 20536  | SL Casefeed Tube - white label |
| 22134  | Shot Dispenser Assy - 12 ga.   |
| 22140  | 1/2-1 oz. Shot Bar Assembly    |
| 22183  | Roller Handle Assembly         |
| 22292  | Magnetic Pick-Up Wand          |
| 97037  | 12 Ga. Casefeeder - 110v       |
| 97120  | Red Flag                       |
| N/A    | Lock Link                      |
| N/A    | Lock Link Torsion Spring       |
| N/A    | Pivot Pin                      |
| N/A    | Return Spring Pin              |
| N/A    | Shot Bellcrank Rivet           |
| N/A    | SL Bellcrank Stud              |
| N/A    | Spare Parts Bag                |

# SL 900 Mounting Assembly

| Part # | Description              |
|--------|--------------------------|
| 13856  | 1/4 Washer SAE           |
| 13911  | 1/4-20 x 2 3/4 Bolts     |
| 13988  | 1/4-20 Nuts              |
| 16065  | 650 Machine Mounts       |
| 16221  | 1/4 Fender Washer        |
| 16222  | 1/4-20 x 1 1/2 Hex Bolts |
| 16672  | Shotshell Chute          |
| 17125  | Dillon Bin               |



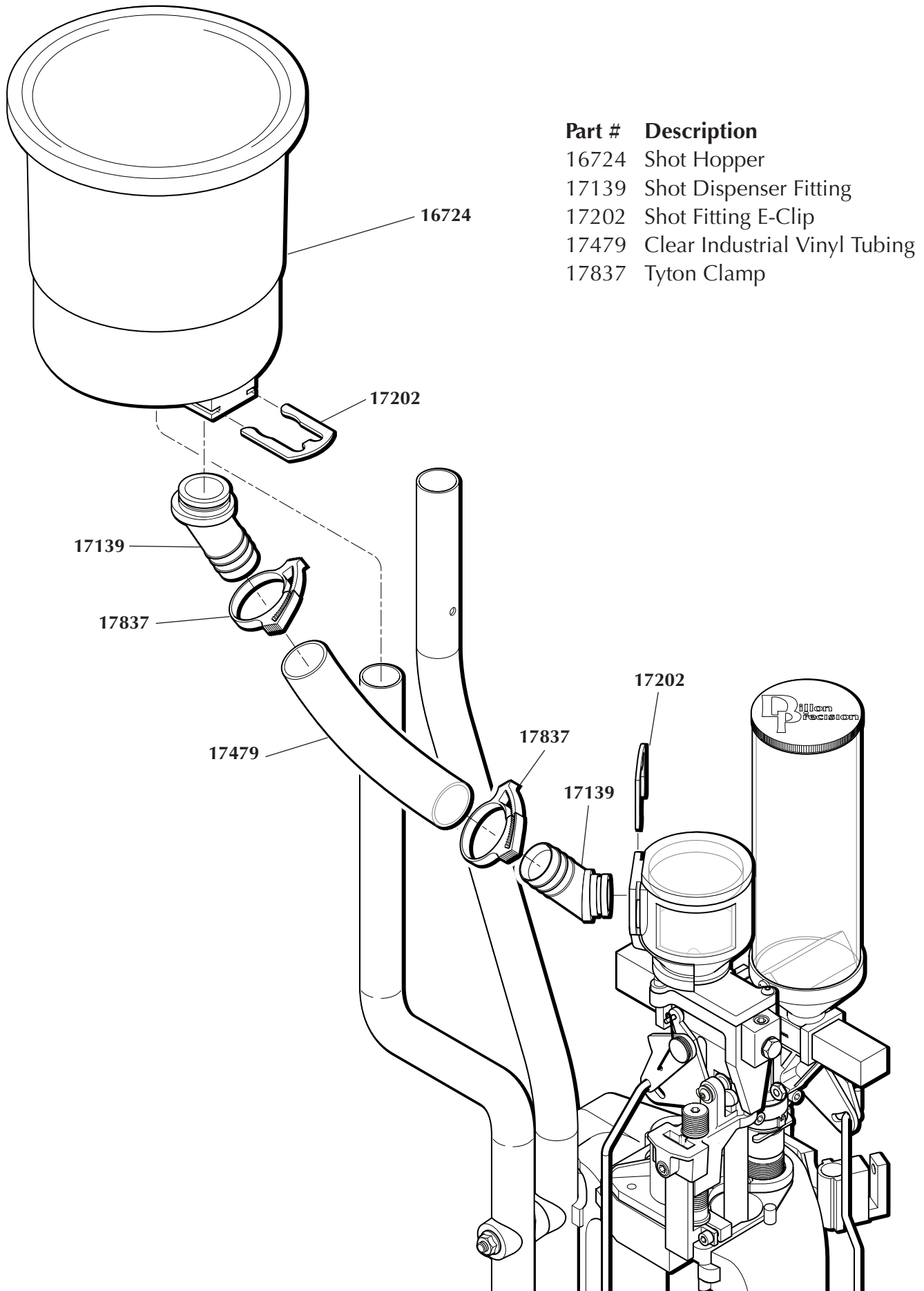
# Upper Machine Assembly



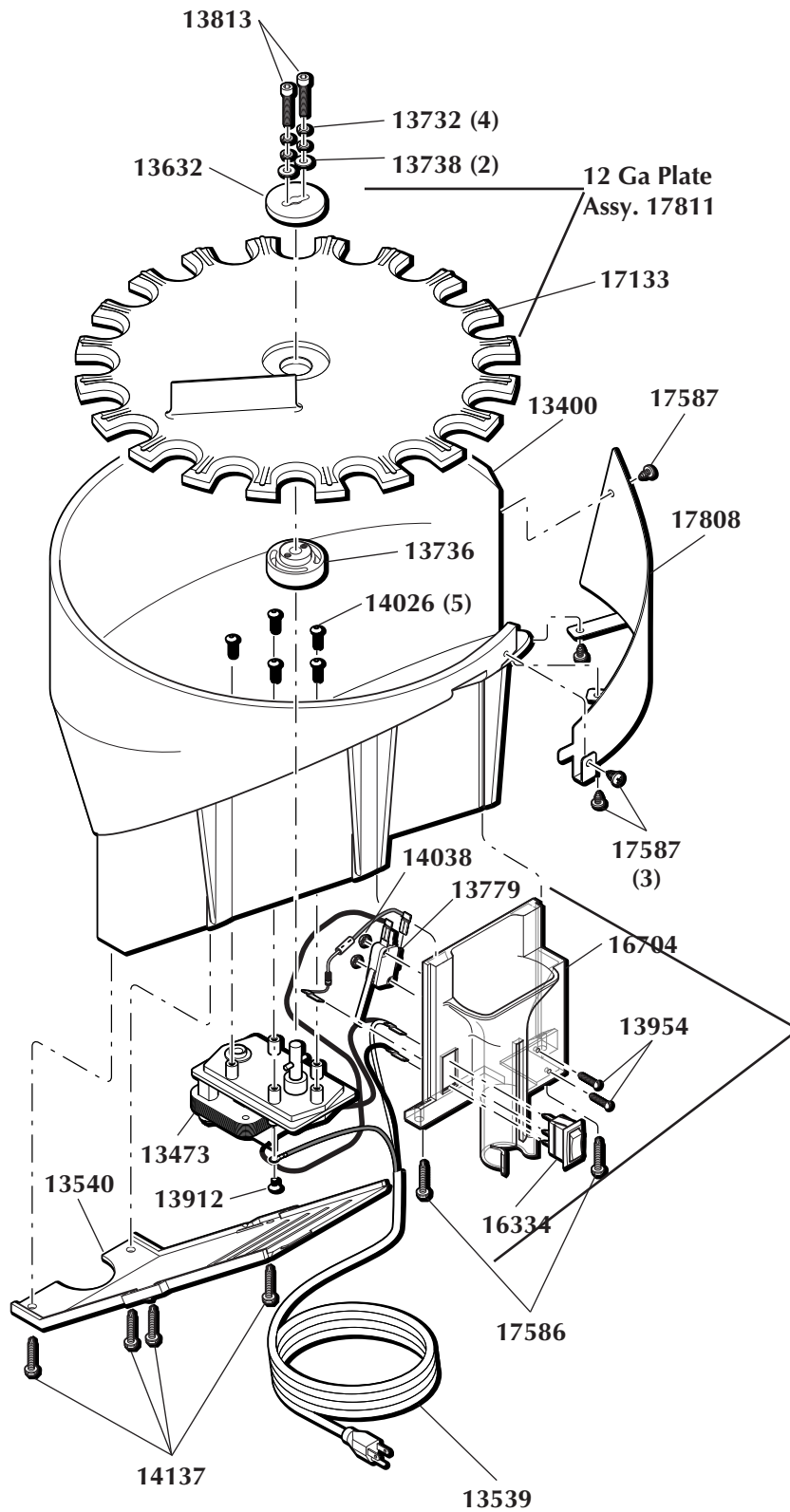
| Part # | Description                   |
|--------|-------------------------------|
| 13418  | Shellplate Bolt               |
| 13613  | Clamp                         |
| 13667  | Index Pawl                    |
| 13677  | Ring Indexer                  |
| 13791  | Indexer Return Spring         |
| 13856  | 1/4 Washer SAE                |
| 13938  | Pawl Spring                   |
| 13966  | 1/4-28 x 3/4 SHCS             |
| 13988  | 1/4-20 Nuts                   |
| 13989  | 10-24 x 5/8 SHCS              |
| 16675  | Shellplate, 12 ga.            |
| 16676  | Ejector Wire                  |
| 16699  | Spent Primer Cup              |
| 17123  | SL 900 Casefeed Post          |
| 17124  | Shot Post                     |
| 17637  | 1/4-20 x 4 1/2 Hex Head Screw |

\* indicates a gauge specific part

# Shot Container Assembly

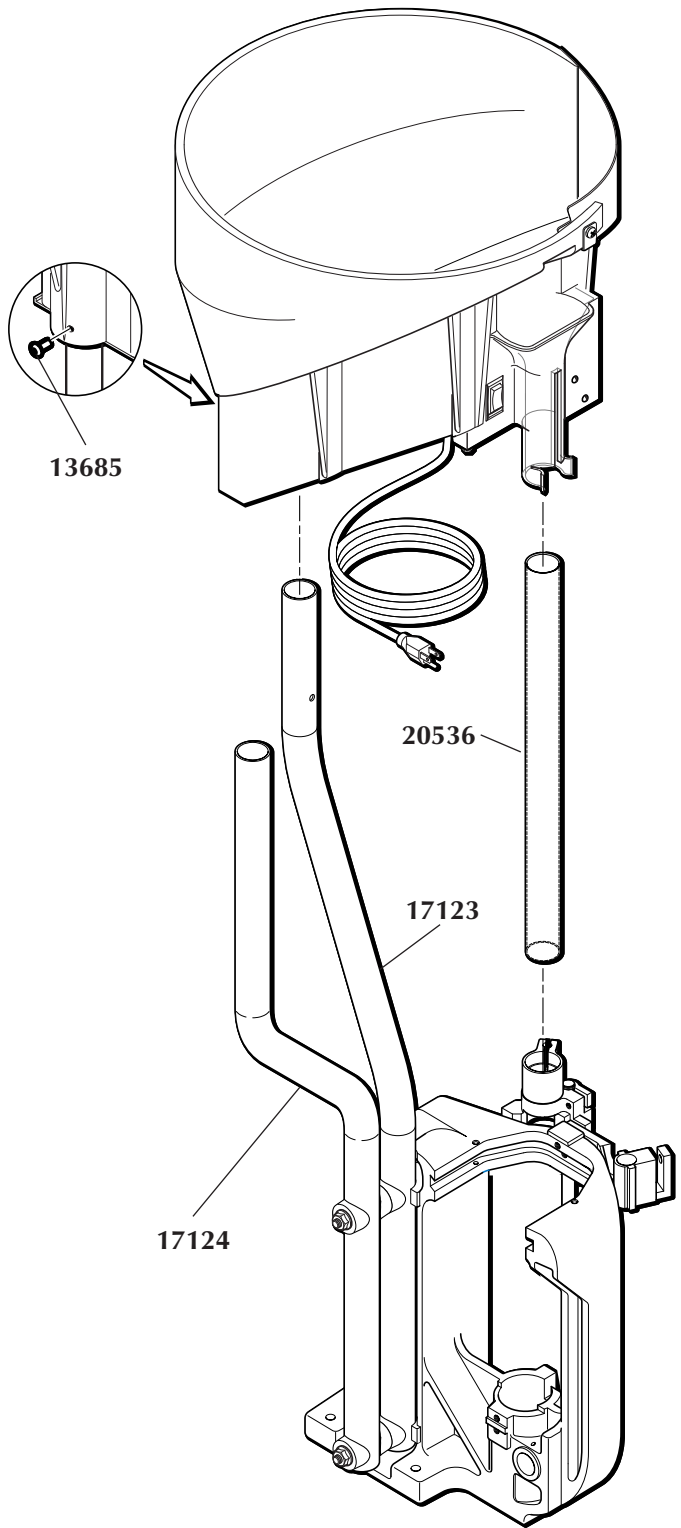


# Casefeeder Assembly



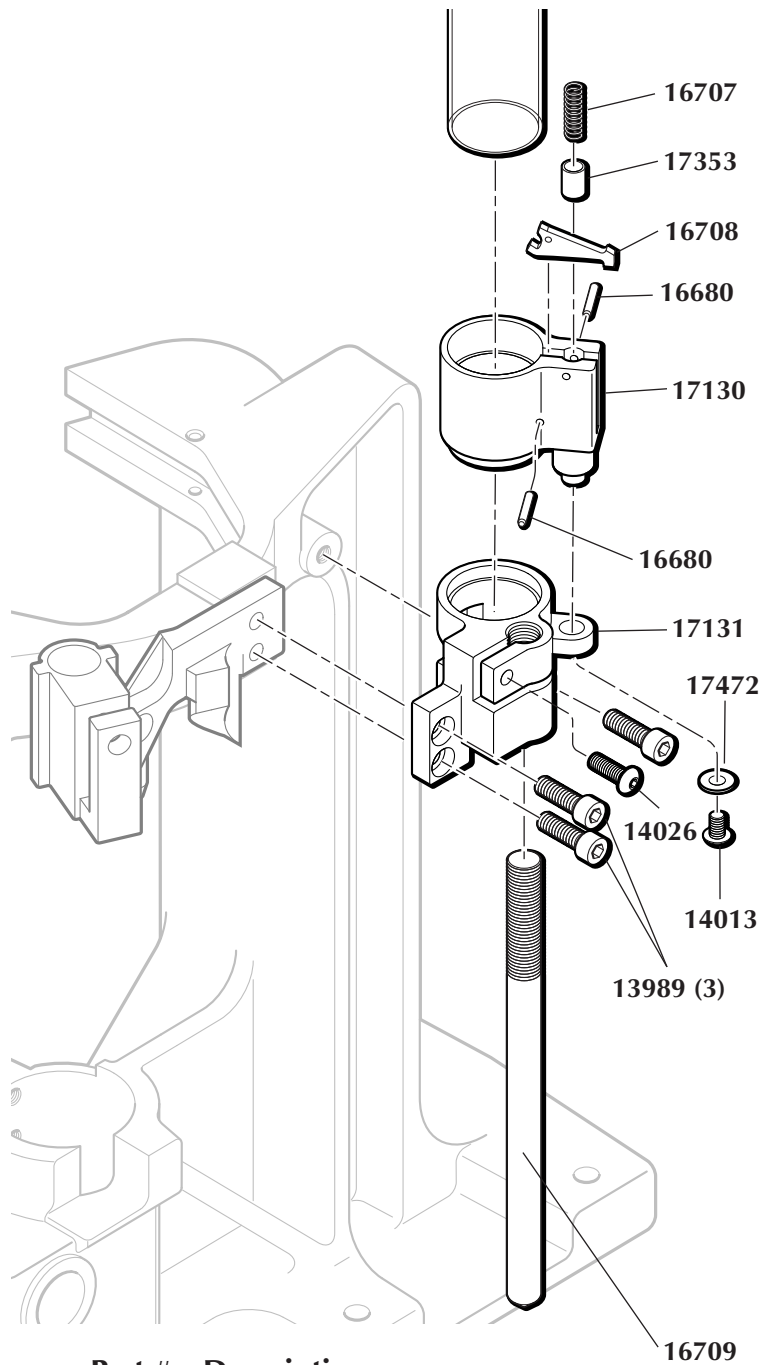
| Part #       | Description                         |
|--------------|-------------------------------------|
| 13400        | Casefeed Bowl                       |
| 13473        | Casefeed Motor - 4 RPM              |
| 13539        | Casefeed Cord Set                   |
| 13540        | Casefeed Motor Cover                |
| 13632        | Casefeed Upper Disc Clutch          |
| 13685        | 1/4-20x5/8 BHCS                     |
| 13732        | 10-32x1.00 SHCS                     |
| 13736        | Clutch                              |
| 13738        | SS Washers                          |
| 13813        | Lockwashers                         |
| 13833        | 1/4 Terminal Connector              |
| 13903        | 1/4-20 Heli Coil                    |
| 13912        | 8-32 Flat Head Screw                |
| 14025        | 1/8x3/4 Roll Pin                    |
| 14026        | Bowl/Motor Screws                   |
| 14137        | 8x1 Cover Screw Zn.                 |
| 16314        | Butt. Connector                     |
| 16336        | Red 1/4 female Insulated Connector  |
| 16337        | Blue 1/4 female Insulated Connector |
| 17133        | Shotshell Disc                      |
| 17585        | Zener Diode 1N5361B                 |
| 17587        | 8x1/4 PHL. PN. Screws               |
| 17808        | Casefeed Bowl Insert                |
| 97037        | 12 ga. Casefeed Assembly - 110v     |
| <b>97108</b> | <b>Shotshell Funnel Assembly</b>    |
| 13779        | Micro Switch                        |
| 13954        | 4-40 Screws                         |
| 14038        | 40-40 Nuts                          |
| 16334        | Lighted Rocker Switch               |
| 16704        | Shotshell Funnel                    |
| 17586        | 8x1 1/4 Funnel Screw                |

## Casefeeder Bowl Mount



| Part # | Description                        |
|--------|------------------------------------|
| 13685  | 1/4x20x5/8 Screw                   |
| 17123  | SL 900 Casefeed Post               |
| 17124  | Shot Post                          |
| 20536  | SL 900 Casefeed Tube - white label |

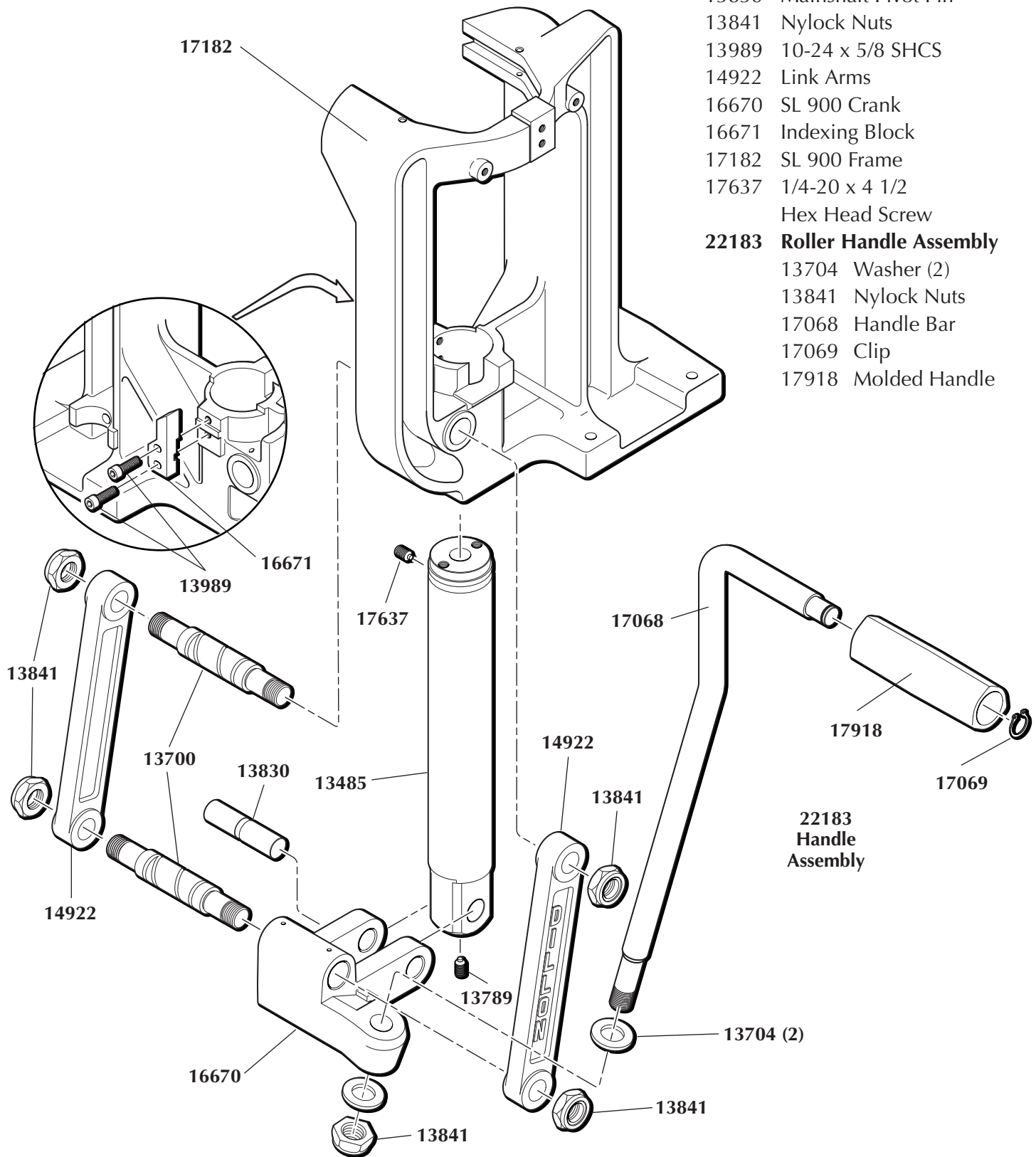
## Casefeed Assembly to Frame



| Part # | Description              |
|--------|--------------------------|
| 13989  | 10-24 x 5/8 SHCS         |
| 14013  | 8-32x3/8 SHCS            |
| 14026  | 8-32 x 1/2 BHCS          |
| 16680  | 1/16 x 1/2 Roll Pin      |
| 16707  | Phish Compression Spring |
| 16708  | Casefeed Phish           |
| 16709  | Camming Pin              |
| 17130  | Casefeed Sleeve, 12 Ga.  |
| 17131  | Casefeed Body            |
| 17353  | Phish Spring Socket      |
| 17472  | #8 Washer .032 Thick     |

# Lower Machine Assembly

| Part #       | Description                      |
|--------------|----------------------------------|
| 13485        | Mainshaft                        |
| 13700        | Link Arm Shoulder Pin            |
| 13789        | 1/4-28 Set Screw                 |
| 13830        | Mainshaft Pivot Pin              |
| 13841        | Nylock Nuts                      |
| 13989        | 10-24 x 5/8 SHCS                 |
| 14922        | Link Arms                        |
| 16670        | SL 900 Crank                     |
| 16671        | Indexing Block                   |
| 17182        | SL 900 Frame                     |
| 17637        | 1/4-20 x 4 1/2<br>Hex Head Screw |
| <b>22183</b> | <b>Roller Handle Assembly</b>    |
| 13704        | Washer (2)                       |
| 13841        | Nylock Nuts                      |
| 17068        | Handle Bar                       |
| 17069        | Clip                             |
| 17918        | Molded Handle                    |





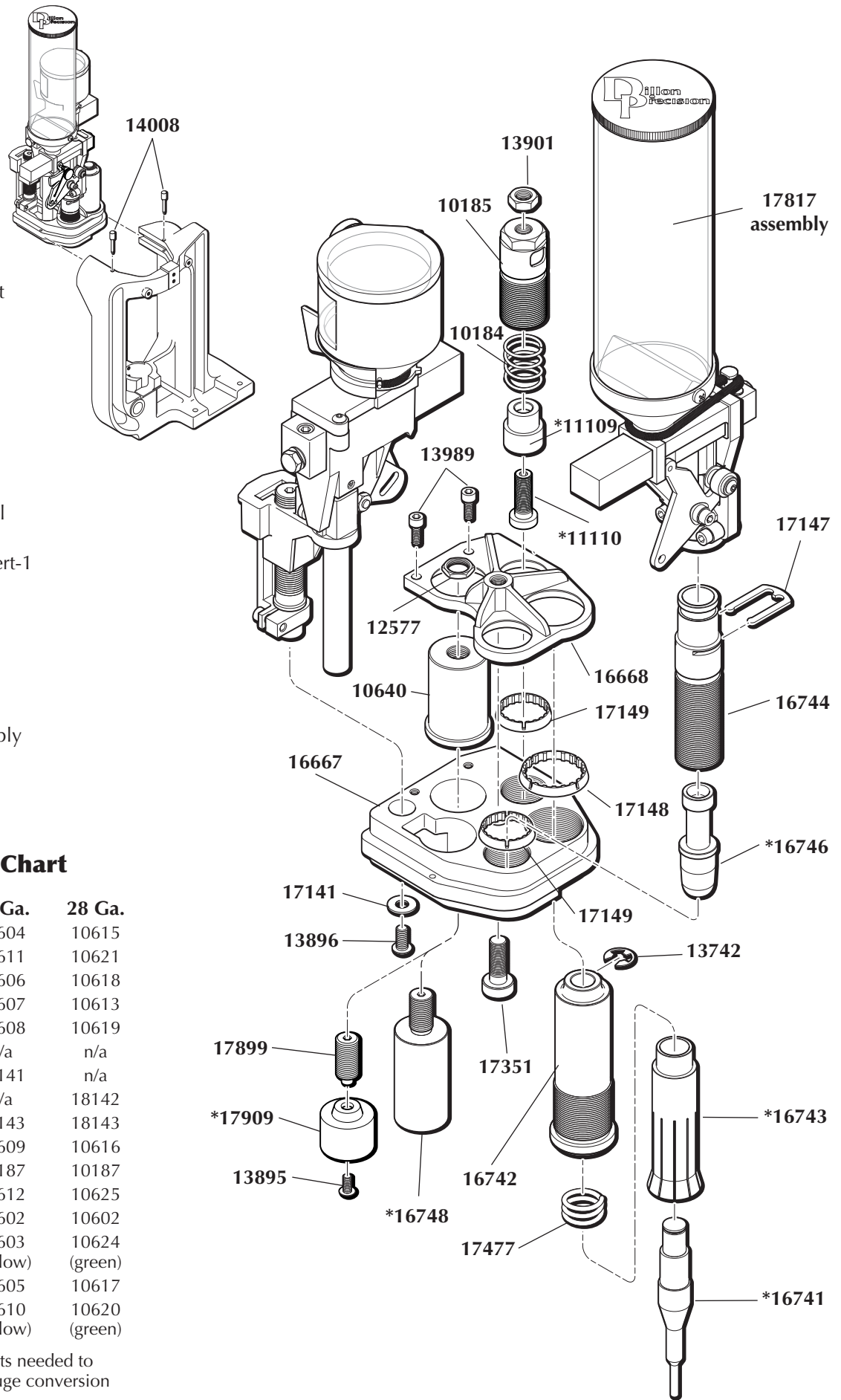
# Toolhead Assembly

- | Part # | Description                   |
|--------|-------------------------------|
| 10184  | Crimp Die Spring              |
| 10185  | Crimp Die Sleeve              |
| 11109  | 12 ga. Crimp Die              |
| 11110  | 12 ga. Seat Plug              |
| 12577  | 1/2-20 Jam Nut                |
| 13742  | 1/2 E-Clip                    |
| 13895  | 10-24x3/8 BHCS                |
| 13896  | 1/4-20 x 3/8 BHCS             |
| 13901  | 3/8x24 Cam Pin Jam Nut        |
| 13989  | 10-24 x 5/8 SHCS              |
| 14008  | Toolhead Pins                 |
| 16667  | Toolhead                      |
| 16668  | Toolhead Die Lockplate        |
| 16741  | Depriming Pin                 |
| 16742  | SL Sizer Collet Sleeve        |
| 16743  | Collet Sizer Die, 12 Ga.      |
| 16744  | SL Powder Die                 |
| 16746  | Expander Powder Funnel        |
| 10640  | Starter Crimp Die             |
| 16748  | Dillon Starter Crimp Insert-1 |
| 17141  | 1/4 Hardened Washer           |
| 17147  | Powder Die E-Clip             |
| 17148  | 1 1/4 Die Lock Ring           |
| 17149  | 1.0 Die Lock Ring             |
| 17351  | Die Lock Bolt                 |
| 17477  | Collet Sizer Spring           |
| 17817  | Powder Measure Assembly       |
| 17899  | Stem Screw                    |
| 17909  | Eight Star Crimp              |
| 18140  | Six Star Crimp                |

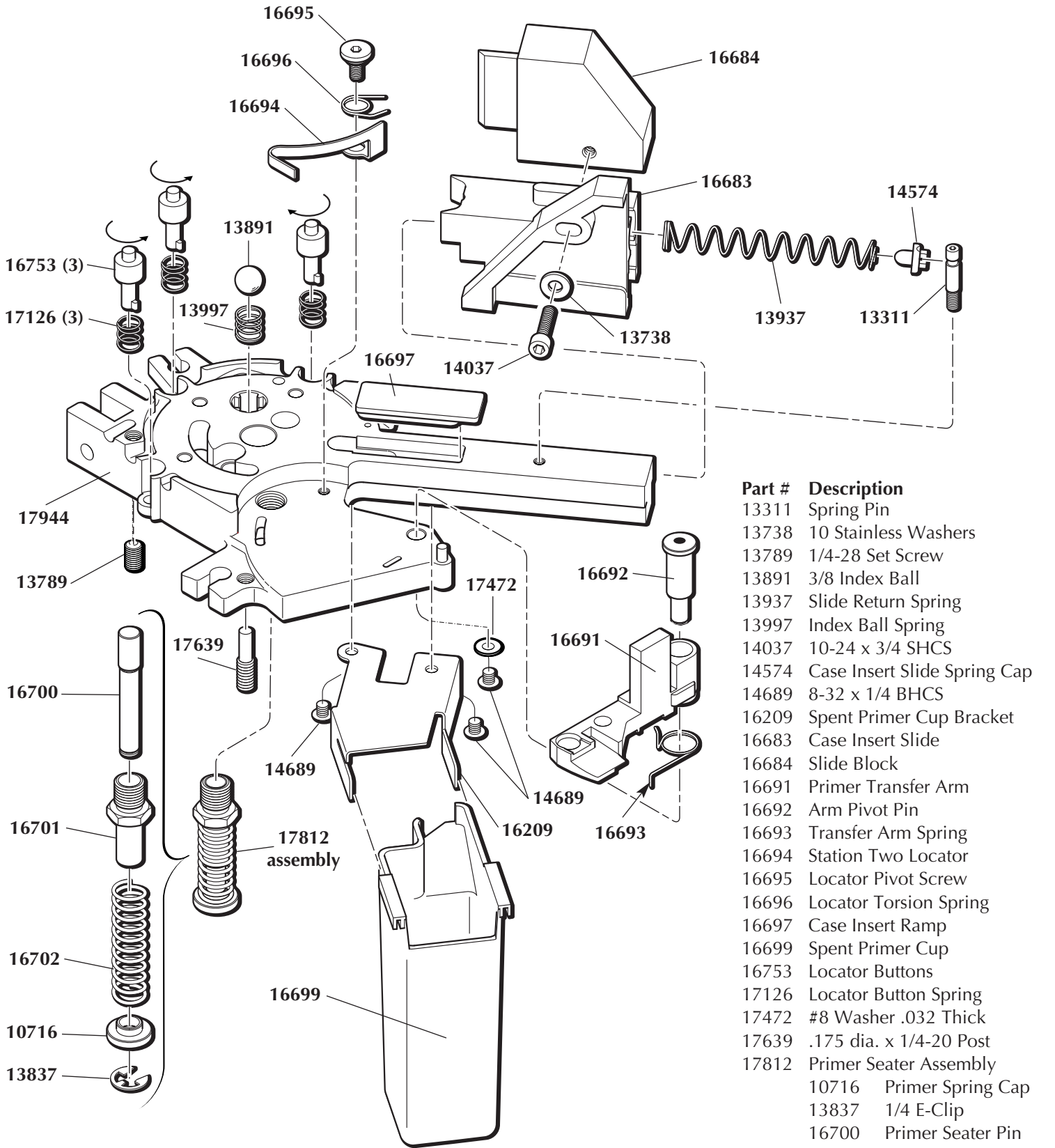
## Gauge Conversion Chart

| part description      | 12 Ga.         | 20 Ga.            | 28 Ga.           |
|-----------------------|----------------|-------------------|------------------|
| Crimp Die             | 11109          | 10604             | 10615            |
| Seat Plug             | 11110          | 10611             | 10621            |
| Collet Sizer          | 16743          | 10606             | 10618            |
| Decap Pin             | 16741          | 10607             | 10613            |
| Powder Funnel         | 16746          | 10608             | 10619            |
| Star Crimp Insert     | 16748          | n/a               | n/a              |
| Starter Crimp, 8-star | 17909          | 18141             | n/a              |
| Starter Crimp, 6-star | 18140          | n/a               | 18142            |
| Threaded Screw        | 17899          | 18143             | 18143            |
| Shot Drop Tube        | 16726          | 10609             | 10616            |
| Shot Bar Insert       | 16739          | 10187             | 10187            |
| Shellplate            | 16675          | 10612             | 10625            |
| Locator Button        | 16753          | 10602             | 10602            |
| Locator Insert        | n/a            | 10603<br>(yellow) | 10624<br>(green) |
| Casefeed Sleeve       | 17130          | 10605             | 10617            |
| Wad Guide             | 16681<br>(red) | 10610<br>(yellow) | 10620<br>(green) |

This chart does not detail **ALL** the parts needed to convert to another gauge. See the gauge conversion sections of this manual.



# Platform Assembly



| Part # | Description                  |
|--------|------------------------------|
| 13311  | Spring Pin                   |
| 13738  | 10 Stainless Washers         |
| 13789  | 1/4-28 Set Screw             |
| 13891  | 3/8 Index Ball               |
| 13937  | Slide Return Spring          |
| 13997  | Index Ball Spring            |
| 14037  | 10-24 x 3/4 SHCS             |
| 14574  | Case Insert Slide Spring Cap |
| 14689  | 8-32 x 1/4 BHCS              |
| 16209  | Spent Primer Cup Bracket     |
| 16683  | Case Insert Slide            |
| 16684  | Slide Block                  |
| 16691  | Primer Transfer Arm          |
| 16692  | Arm Pivot Pin                |
| 16693  | Transfer Arm Spring          |
| 16694  | Station Two Locator          |
| 16695  | Locator Pivot Screw          |
| 16696  | Locator Torsion Spring       |
| 16697  | Case Insert Ramp             |
| 16699  | Spent Primer Cup             |
| 16753  | Locator Buttons              |
| 17126  | Locator Button Spring        |
| 17472  | #8 Washer .032 Thick         |
| 17639  | .175 dia. x 1/4-20 Post      |
| 17812  | Primer Seater Assembly       |
| 10716  | Primer Spring Cap            |
| 13837  | 1/4 E-Clip                   |
| 16700  | Primer Seater Pin            |
| 16701  | Bushing                      |
| 16702  | Primer Seater Spring         |
| 17944  | SL 900 Platform              |

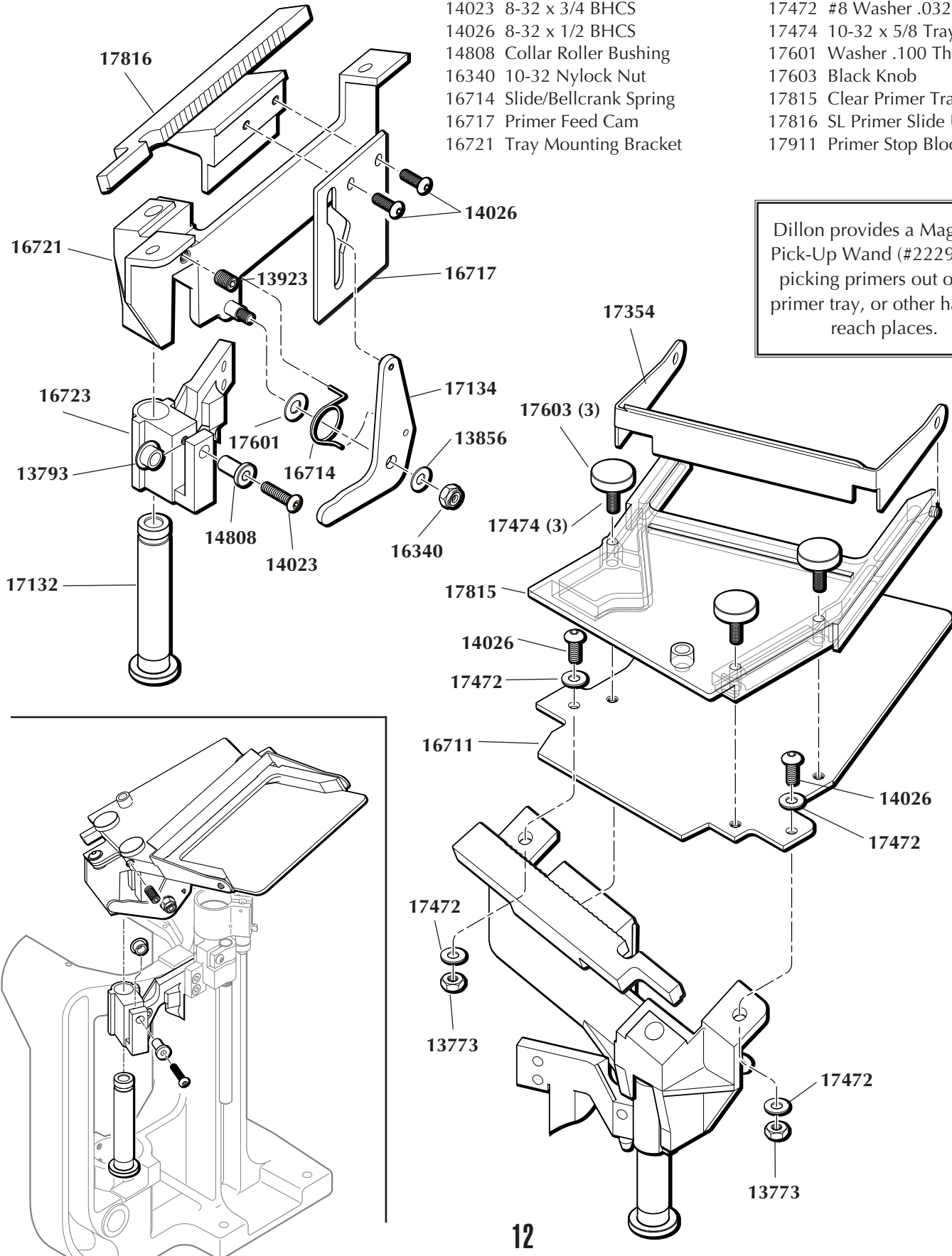
# Primer Feed System Assembly - #19201

**Part # Description**

- 13773 8-32 Nut
- 13793 Collar Roller
- 13856 1/4 Washer SAE
- 13923 1/4-28 Brass Tip Set Screw
- 14023 8-32 x 3/4 BHCS
- 14026 8-32 x 1/2 BHCS
- 14808 Collar Roller Bushing
- 16340 10-32 Nylock Nut
- 16714 Slide/Bellcrank Spring
- 16717 Primer Feed Cam
- 16721 Tray Mounting Bracket

**Part # Description**

- 16723 Primer Feed Body
- 17132 Primer Drop Tube
- 17134 Primer Bellcrank
- 17354 Gate 3
- 17472 #8 Washer .032 Thick
- 17474 10-32 x 5/8 Tray Cover Screw
- 17601 Washer .100 Thick
- 17603 Black Knob
- 17815 Clear Primer Tray Cover
- 17816 SL Primer Slide Upper
- 17911 Primer Stop Block (with flag)



Dillon provides a Magnetic Pick-Up Wand (#22292) for picking primers out of the primer tray, or other hard to reach places.

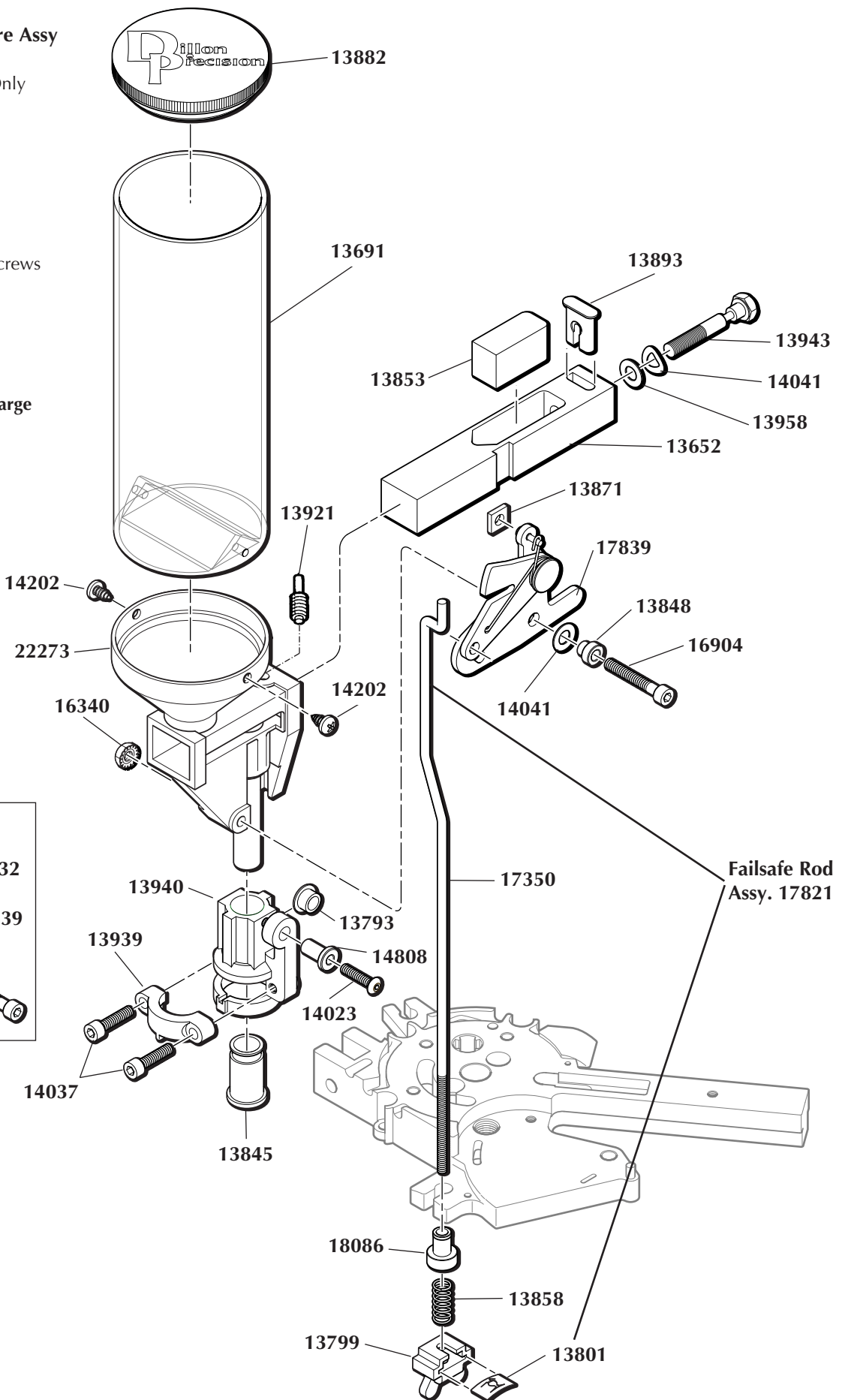
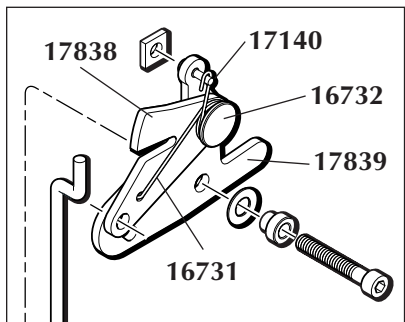
# Automatic Powder Measure Assembly - #17817

**17817 SL900 Powder Measure Assy**

- | Part #       | Description                       |
|--------------|-----------------------------------|
| 13691        | Powder Measure Tube Only          |
| 13793        | Roller                            |
| 13845        | Collar Sleeve                     |
| 13882        | Powder Measure Lid                |
| 13921        | Powder Measure Plug               |
| 13939        | Body Collar Clamp                 |
| 13940        | Connector Body Collar             |
| 14023        | 8-32 x 3/4 BHCS                   |
| 14037        | 10-24 x 3/4 SHCS (2)              |
| 14202        | Powder Measure Tube Screws        |
| 14808        | Collar Roller Bushing             |
| 16340        | Nylon Lock Nut                    |
| 16731        | Spring                            |
| 16732        | Pivot Pin                         |
| 17140        | Pin                               |
| 22273        | Powder Dispenser Body             |
| <b>20063</b> | <b>Powder Bar Assembly, Large</b> |
| 13652        | Powder Bar Part, Large            |
| 13853        | Powder Bar Insert, Large          |
| 13893        | Powder Bar Post, Large            |
| 13943        | Powder Bar Bolt                   |
| 13958        | Powder Bar Bolt Washer            |
| 14041        | Bowed Washer                      |

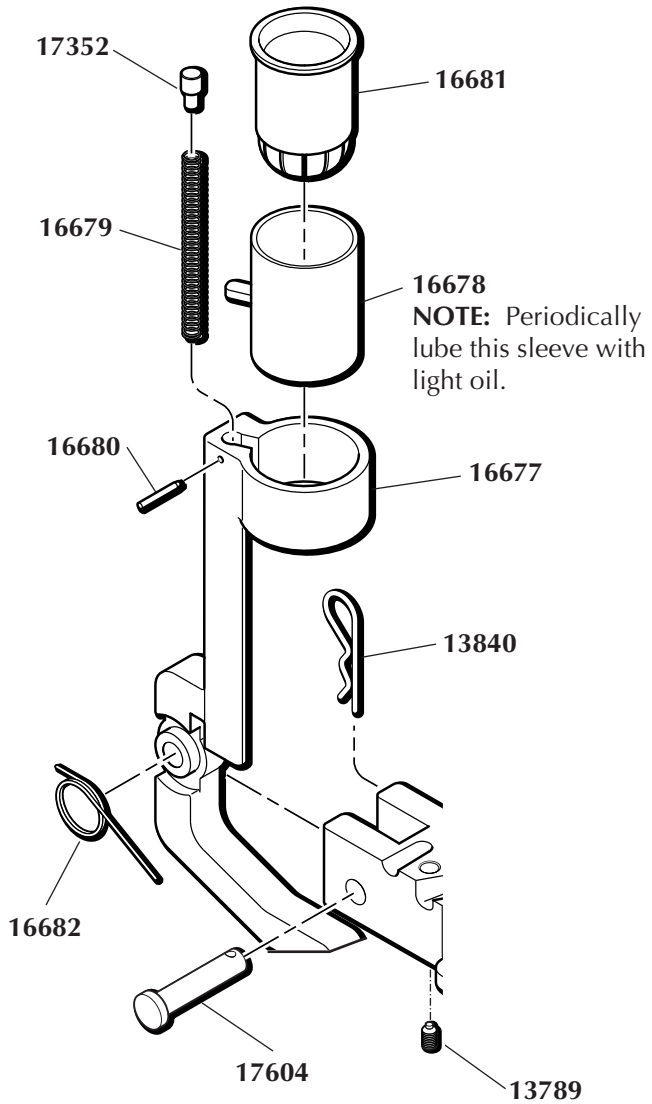
**Return Rod Assembly**

- |       |                        |
|-------|------------------------|
| 13799 | Blue Wing Nut          |
| 13801 | Tinnerman Nut          |
| 13848 | Bellcrank Bushing      |
| 13858 | Rod Compression Spring |
| 13871 | Bellcrank Cube         |
| 14041 | Bowed Washer           |
| 16904 | 10-32x1 1/2 SHCS       |
| 17350 | Powder Bar Return Rod  |
| 17838 | P/M Lock Link          |
| 17839 | P/M Slotted Bellcrank  |
| 18086 | Rod Bushing            |





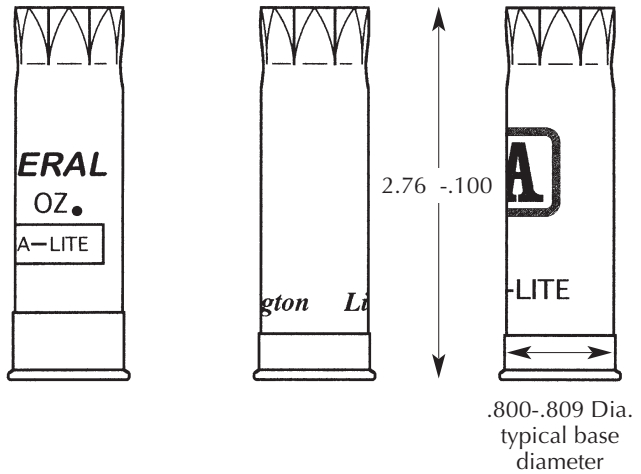
# Wad Guide/Swing Arm Assembly #16802 - 12 gauge shown



| Part # | Description               |
|--------|---------------------------|
| 13789  | 1/4-28 Set Screw          |
| 13840  | Hitch Pin Clip            |
| 16677  | Wad Swing Arm             |
| 16678  | Wad Guide Sleeve          |
| 16679  | Sleeve Compression Spring |
| 16680  | 1/16 x 1/2 Roll Pin       |
| 16681  | Wad Guide                 |
| 16682  | Swing Arm Torsion Spring  |
| 17352  | Spring Button             |
| 17604  | Clevis Pin                |

# Finished Shotshell Dimensions

Here are some dimensions of a typical 12ga. shotshell. Always use a quality dial caliper when measuring your shotshells. Length may vary dependent upon shotshell manufacturer. Dimensions shown are for maximum, uncrimped overall length. If you find it necessary to adjust the collet size die, try to shoot for a middle of the road measure of the brass base.

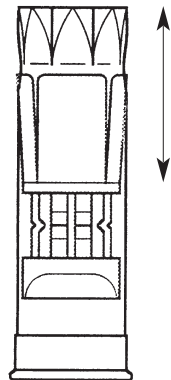


### Wad Seated Depth

When developing loads for shotshells be aware of your "wad seated depth." Here's a reference guide for the popular wad and shot weight used presently.

| Wad & Shot  | Approx. Depth |
|-------------|---------------|
| 7/8 - 1 oz. | 1.12 - 1.20   |
| 1 1/8 oz.   | 1.30 - 1.35   |
| 1 1/4 oz.   | 1.45 - 1.50   |

Example, if your loads currently use a wad for 1 1/8 oz. of shot and you decide to reduce your shot weight and switch to 7/8 of an ounce wads, readjust the shot dispenser tube via the body collar adjustment screw. Clockwise rotation raises the shot dispenser tube and decreases the depth the wad is seated into the shotshell. Counterclockwise rotation lowers the shot dispenser tube and the wad will get seated deeper into the shotshell.



### Finished Round Information

Your loaded round length will vary due to loads used, type of wads, and brand of shotshells. We found that a majority of the Winchester ammo loaded fell toward 2.30 - 2.325 length. The Remington and Federal ammo loaded measured 2.33 - 2.350 overall length. Always use a reputable loading manual when reloading shotshells.

