

Hornady

APEX 3.0™

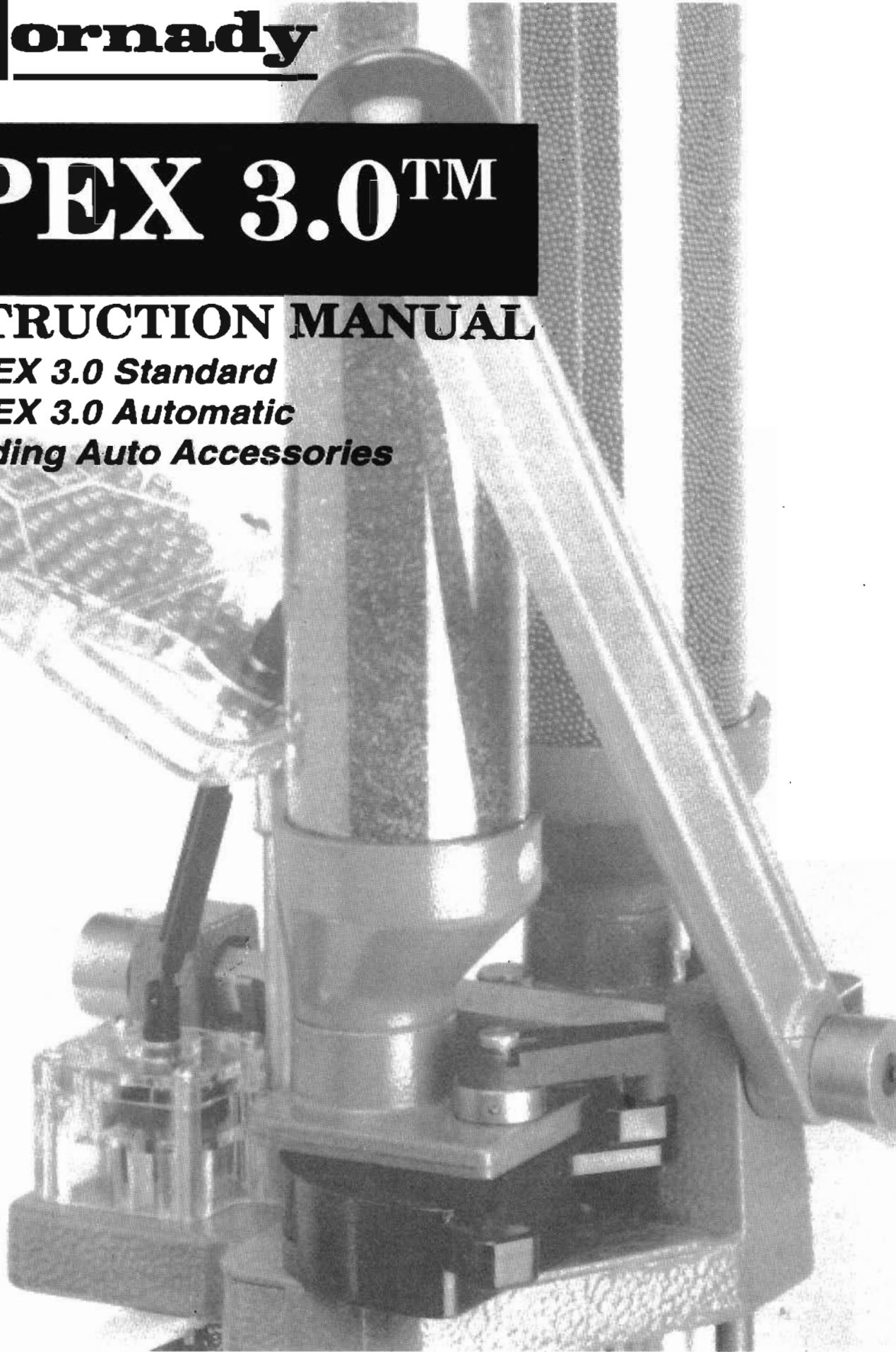
INSTRUCTION MANUAL

APEX 3.0 Standard

APEX 3.0 Automatic

Adding Auto Accessories

NOTICE
PRICES AND/OR SPECIFICATIONS
ARE SUBJECT TO CHANGE WITHOUT
NOTICE. CALL: 800-338-3220



NEW!

APEX 3.0™

SHOTSHELL LOADER

A NEW GENERATION OF APEX

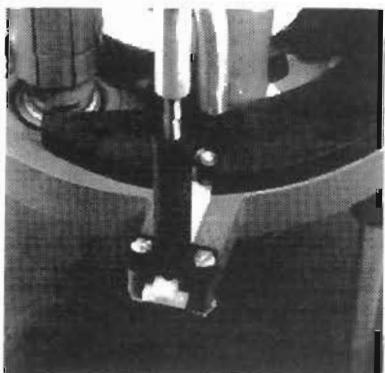
When the original APEX was introduced two years ago, it was greeted enthusiastically by reloaders who told us it was the best loader they had ever used. Not to stop there, we encouraged these new APEX owners to share their ideas on how we could possibly improve on this design. In large part, the APEX 3.0 is the result of their ideas.

What makes it better? the **new shell retaining system** gives a positive hold on shells, yet allows you to easily remove shells for inspection. The system also lifts up from the platen for easy cleanup.

The **priming system** on both the APEX 3.0 Standard and Automatic is new and improved as well. In both cases, the primer is now dropped into position outside the shellplate and slides onto the seater pad by an in-line transfer system. This system enhances positive feeding and eliminates the possibility of primers tipping or turning out of position regardless of the handle cycle speed.

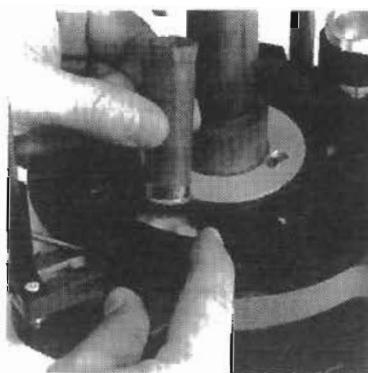
On the APEX 3.0 Automatic, the **powder and shot drop system** has been improved for more positive control. The cam positions are now located so powder or shot will drop only at the top or bottom of the stroke. And once a charge has been dropped, it's virtually impossible to drop another charge until the handle has completed its cycle with the shell moving on to the next station. By following normal loading procedures, any chance of double charging is reduced. These automatic features are available separately for the APEX 3.0 Standard.

- | | |
|---------|----------------------------|
| #310512 | APEX 3.0 Standard 12 gauge |
| #310520 | APEX 3.0 Standard 20 gauge |
| #310712 | APEX 3.0 Auto 12 gauge |
| #310720 | APEX 3.0 Auto 20 gauge |



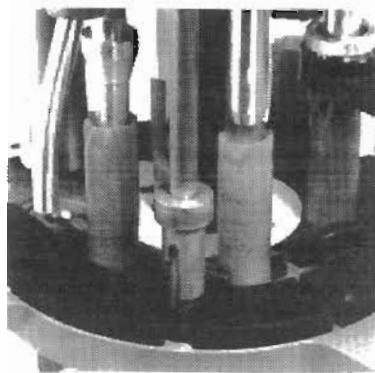
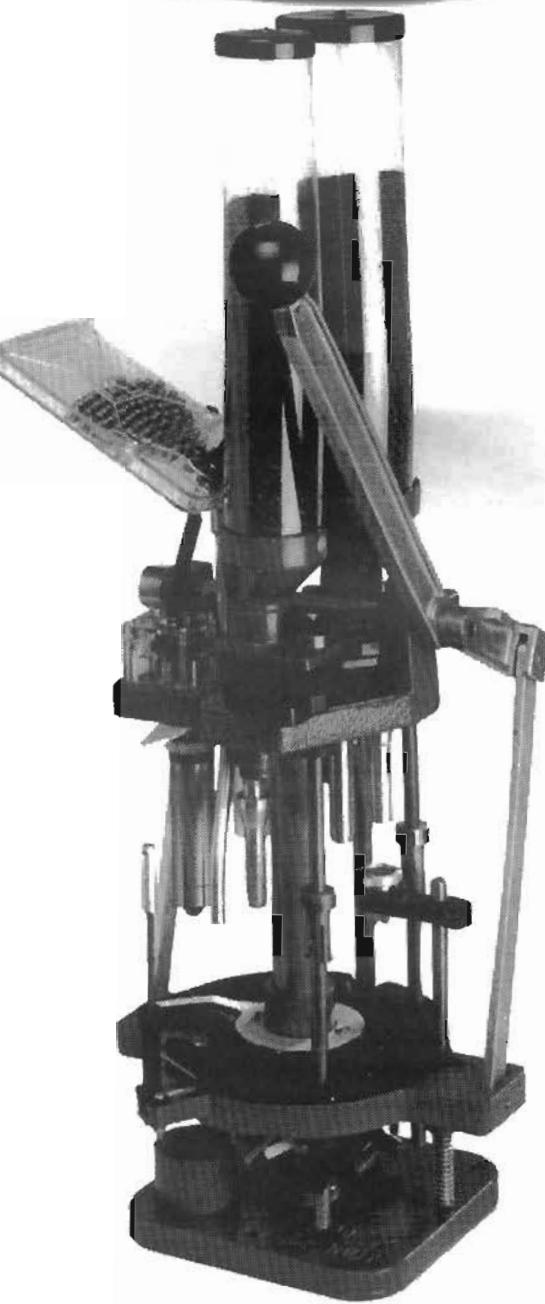
NEW PRIMING SYSTEM

The improved priming system smoothly slides each primer into the seating position. This system keeps primers in the proper upright position regardless of handle speed—making the loader's operation smoother and easier. (APEX 3.0 Auto Photo)



NEW SHELL RETAINER

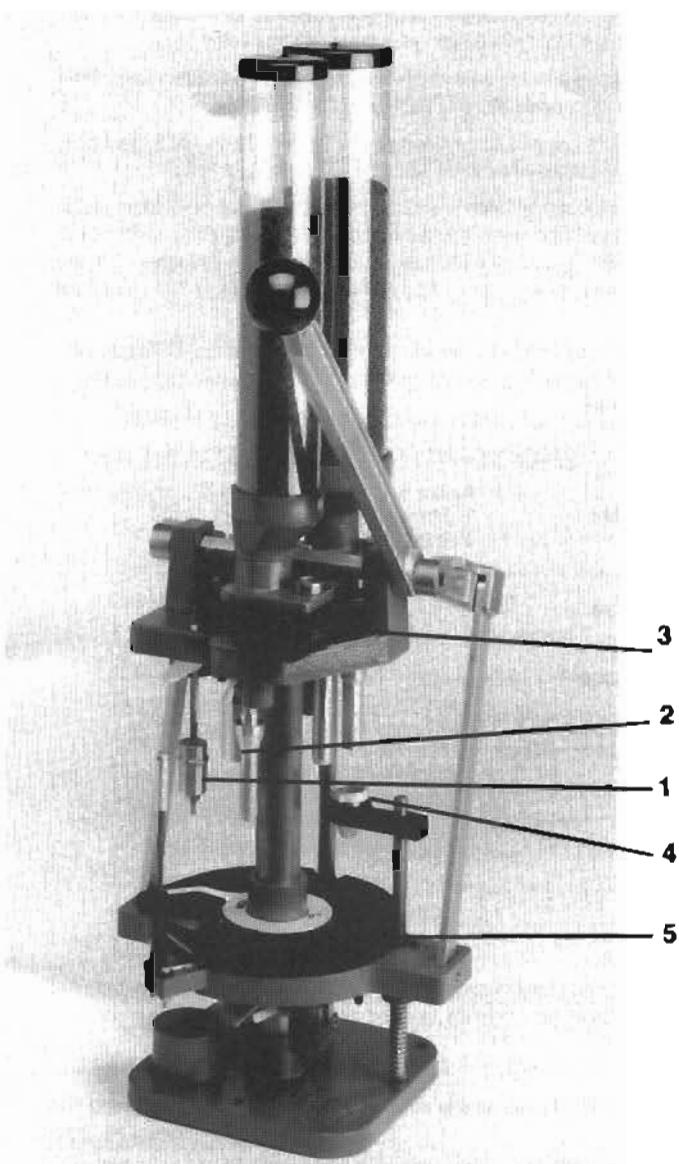
The shell retainer holds each shell straight and without wobble as it passes through each loading operation, and lets you remove shells easily for inspection. The retainer is designed to be removed for easy cleanup of the platen.



NEW SHOT & POWDER SYSTEM

The shot and powder dropping operations take place with each top and bottom stroke of the handle. This greatly reduces the possibility of accidentally double-charging a shell. (APEX 3.0 Auto Photo)

APEX 3.0™ STANDARD



1. Deprimer - The deprimer automatically deprimes each shell and drops spent primers.

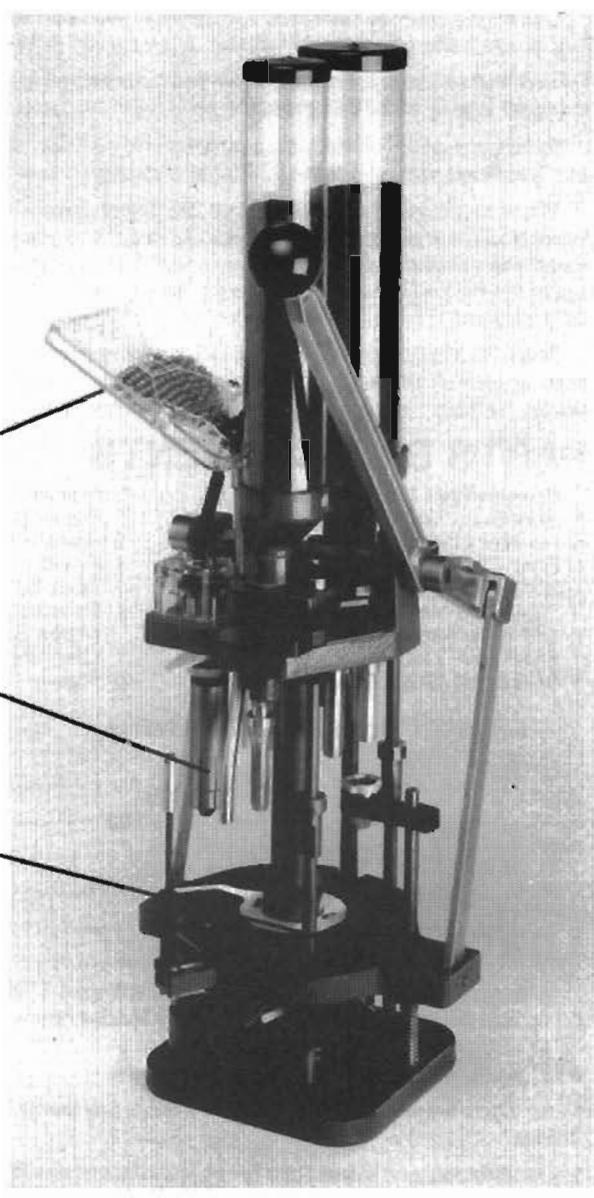
2. Primer Seater - A new and improved in-line primer feed system makes it much more convenient to feed primers into the loader. The primer seater is fully adjustable and virtually eliminates transfer hang-ups.

3. Powder-Shot Drops - Rotate the powder charge bar and powder is dropped. Rotate the shot charge bar back and shot is dropped. The bars can be set to operate together or independently.

4. Swing-Out Wad Guide - The wad guide swings out clear of the wad plunger to allow quick and easy drop-in of the wad. The guide then swings back in and wad guide fingers open the mouth of the shell as the wad is inserted.

5. Easy Access Shell Plate - The shell plate is designed so that you can back up, move ahead, or even remove and replace shells from any station at any time for inspection.

APEX 3.0™ AUTOMATIC



1. Full Length Collet Size Die - This in-line collet sizer sizes the full length of brass on each hull, for more reliable functioning in automatic and pump shotguns. The hull then automatically advances to the primer seating station, eliminating the handling of the shell and speeding the entire loading process.

2. New Shell-Actuated Automatic Primer Feed - When an empty case is placed at the first stations, it activates the primer feed which feeds a single primer down to the shell plate. This system instantly tells you whether or not a primer drops properly, and how many primers you have left in your primer tray. If there is no shell in place, the primer will not be dropped.

3. New Shell-Actuated Automatic Powder/Shot Drop Powder and shot charges are automatically dropped with each cycle of the handle only if the shell is present. Automatic shell detects drop charges only when shells are present at stations. These shell detects can be manually overridden in order to throw shot and powder charges for weighing.



APEX 3.0™

INTRODUCTION

The APEX 3.0™ is designed as the most versatile shotshell press on the market. It's the only progressive shotshell reloader that is available as a manual model, a fully automatic model or customized to be whatever you want in between.

This instruction manual will show you how easy it is to set up and operate the manually progressive APEX 3.0 Standard, how to install any or all of the available automatic features, and how to set up and operate the fully automatic APEX Auto.

To begin loading shotshells, you will need powder, shot, primers and wads, in addition to empty hulls. We have included several bushings with your loader. These bushings throw the most common charges used for most popular target loads.

There is a bushing chart on page 34. There, you will see a list of powders along with the bushings for those powders (additional bushings are available at your dealer). Find your bushings in that chart, and note the powder/loads they are designed for. Read the section "Selection of Bushings" for more information. If you prefer to use powder or shot other than the ones for the bushings that come with your loader, those bushings are available from your dealer or from Hornady. Call 1-800-338-3220 for information.

The APEX 3.0 reloader will use any of the standard bushings Hornady offers, should you want to change loads. These bushings, as well as the optional automatic features, Versalite™ wads, and other reloading accessories are available at your Hornady dealer, or from Hornady Mfg. Order information is in the back of the manual.

PARTS BAG CONTENTS

1 Powder/Shot Drain Tube	1 6-point Crimp Starter	Apex 3.0 Auto Only
1 Shot Drop Tube	1 Paper (smooth) Crimp Starter	1 Primer Feed Ball Joint Shaft
3 Powder Charge Bushings	1 Spent Primer Catcher	1 Indexer Assembly
1 Shot Charge Bushing	1 Powder Bushing Cover	
1 3/32" Hex Wrench	1 Shot Bushing Cover	
1 7/64" Hex Wrench	1 Powder/Shot Charge Bar Link	
1 1/8" Hex Wrench	(Apex Standard Only)	
1 5/32" Hex Wrench	1 Cleaning Brush	
1 9/16 x 3/4 Open End Wrench	4 Plastic Hopper Attaching Rivet	

12 Gauge APEX 3.0 includes these bushings:

Bushing	Charge
#190108	1 1/8 oz. #7 1/2 lead shot
#363	19.5 gr. Winchester Superlite
#426	17.5 gr. Accurate Arms Nitro 100
#468	18 gr. Hercules Red Dot 18.5 gr. Hodgdon Clays 19.5 gr. Hodgdon International

20 Gauge APEX 3.0 includes these bushings:

#190107	7/8 oz. #9 lead shot
#381	17.5 gr. IMR SR 7625
#393	14.0 gr. Hercules Green Dot
#375	14.0 gr. Hodgdon International

LOADING 3" SHELLS

With minor adjustments, the APEX 3.0 will load 3" shotshells. Simply adjust the heights of the case flaring sleeve, wad guide, crimp starter and crimp die. Also, if your loader has a collet size die, remove the internal spacer ring on the depriming pin.

APEX 3.0™ LOAD DATA

All loads were developed for the APEX 3.0 using Hornady Versalite™ Shotshell wads and the bushings provided with the loader.

Dimensions and tolerances for shotshells are much more forgiving than with rifle and pistol cartridges. Every time a shotshell is fired, it will lengthen slightly. So long as the fired length is within .25" of standard, the hull is fine to reload. The only way to bring a shell back to exact standard is to measure and trim it after each firing if need be. Otherwise, be sure the crimped length is correct, even if it means there is a small amount of extra material in the crimp, causing it to swirl slightly. Just so long as the shell is not deformed during loading, it is safe to fire.

DIMENSIONS AND TOLERANCES FOR SHOTSHHELLS

Gauge	Fired Length	Crimped Length	Tolerance	Gauge	Fired Length	Crimped Length	Tolerance
12	2.75"	2.30"	(-.25")	20	3.00"	2.70"	(-.25")
12	3.00"	2.65"	(-.25")	28	2.75"	2.37"	(-.25")
20	2.65"	2.30"	(-.25")				

The difference in loading sequence between the APEX 3.0 Standard and the APEX 3.0 Automatic may affect the amount of powder thrown by the bushings. Before loading, double check the weight of your charges.

CAUTION: Use of spray cleaners or lubricants containing 1,1,1-trichlorethane will destroy some of the engineering plastics strategically used on the APEX 3.0. Read the label on the spray. When in doubt, don't use it.

PLEASE HELP! This instruction manual was designed to be as clear and accurate as possible, but there may be room for improvement. We would enjoy hearing your suggestions.

Before you begin: Please read through and understand all the information in this manual before you start to reload. It contains information which may save you some time and frustration. Also, we've included several booklets provided by powder companies which have more information about their products.

Never mix powders or use unidentified powders. It's dangerous to use modern smokeless powders in old firearms unless that firearm is certified safe. Do not exceed recommended loads.

Always wear safety glasses while reloading.

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SETTING UP THE APEX 3.0™ STANDARD & AUTOMATIC LOADER

Tools & bolts needed:

9/16" wrench

Small flat blade screwdriver

Three 3/8" mounting bolts, long enough to go through your bench and the loader base with washers and nuts.

MOUNTING THE APEX 3.0

Figure 1 - Select an open area on your reloading bench for set-up. When selecting a place, keep in mind you will need space for the press and reloading components. The Apex 3.0 is designed to work equally well on the edge of the bench or set back, since the handle doesn't require any additional clearance on the down stroke. Mark the mounting hole positions and temporarily remove the Apex 3.0 Drill three holes into your bench top. Use 3 mounting bolts long enough to hold two washers and locking nut, going through the bench top and the Apex 3.0 base.

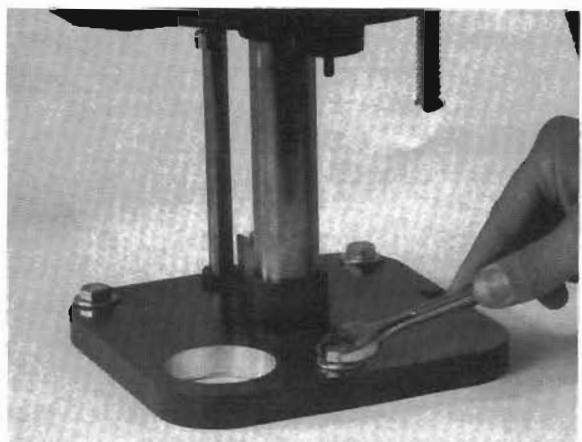


Fig. 1

INSTALLING HOPPERS

Figure 2 - Install powder hopper into the front hopper casting and insert plastic rivet to secure. Do not fill hopper at this time.

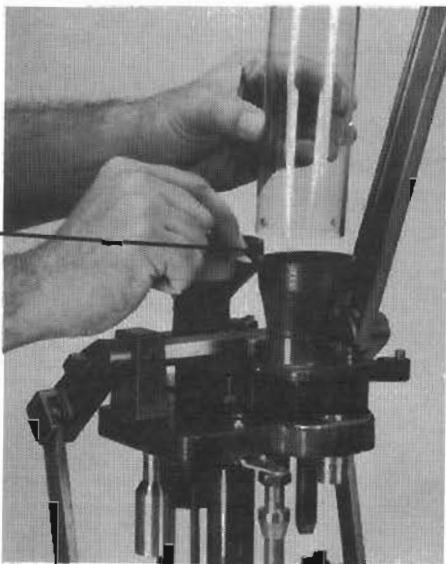


Fig. 2

Figure 3 - As with the powder hopper, install shot hopper into the rear hopper casting and insert plastic rivet to secure. Do not fill hopper at this time.

Rivet

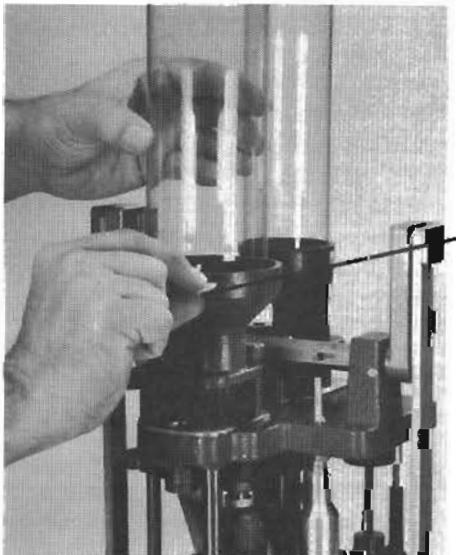
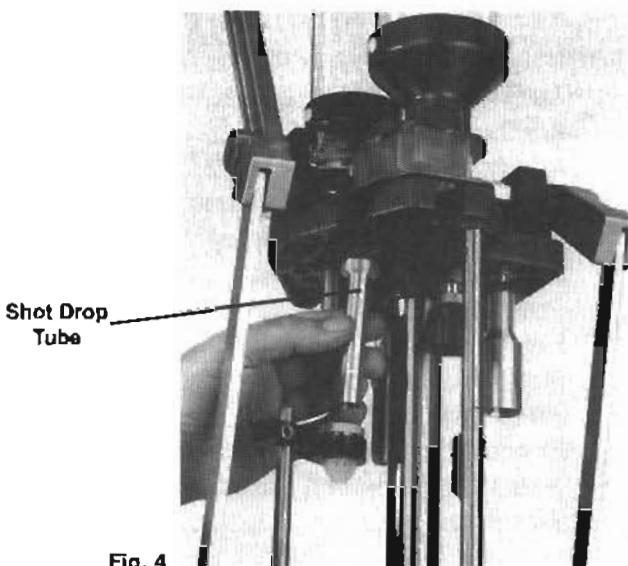


Fig. 3



Shot Drop
Tube

Fig. 4

INSTALLING SPENT PRIMER CATCHER

Figure 5 - Place the Spent Primer Catcher into its recessed position in the base of the Apex 3.0

(APEX 3.0 AUTOMATIC ONLY)

INSTALLING AUTOMATIC PRIMER FEED ASSEMBLY

Figure 6 - Install the primer feeder so the guide aligns with the slot in the drop tube. At the same time, align the Primer Feed Universal Drive Arm into the slots in the top of the drive assembly and the bottom of the feeder.

Figure 7 - When completed, the primer tray should fit down over the Universal Drive Arm and the brass primer drop tube.

CAUTION: When removing the primer tray from your loader, don't twist it. It's designed for a very close fit, and may crack or break if not removed straight up.



Fig. 5

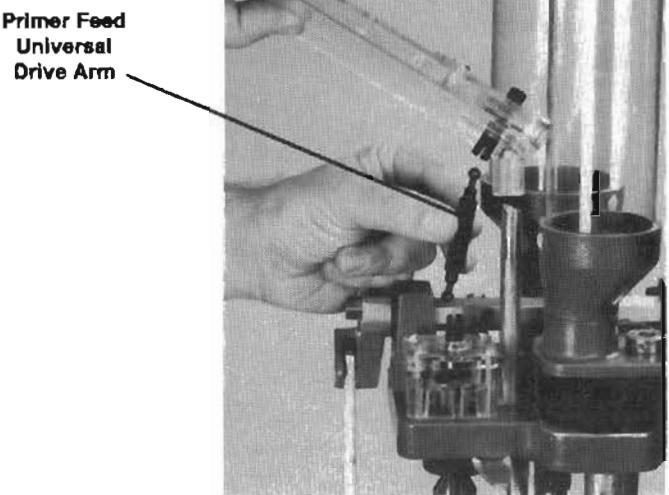


Fig. 6

INSTALLING AUTOMATIC ADVANCE

Figure 8 - Loop the retainer clip around the short arm of the Automatic Advance Indexer, and fit the clip down over the assembly.

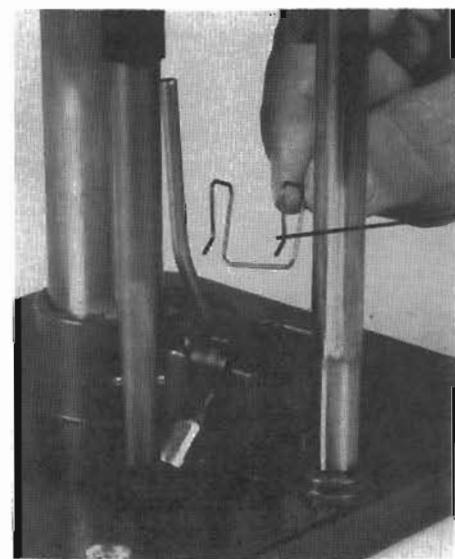


Fig. 8

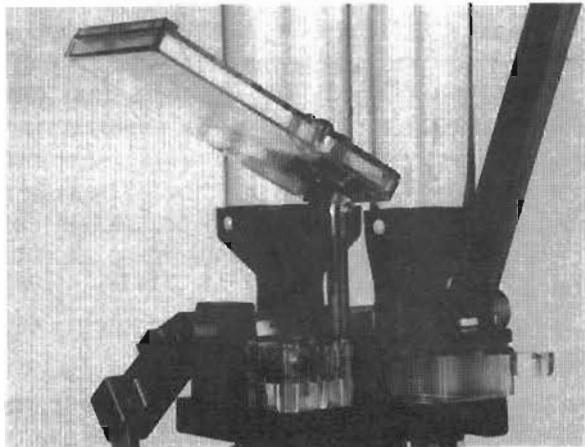


Fig. 7

Figure 9 - Raise the platen and thread the Index Drive Bolt into position directly above the indexor. Tighten the lock nut.

Figure 10 A & B - When properly adjusted, the Index Drive Bolt pushes the short Index arm down, the long index arm rotates and advances the shellplate—stopping just to clear the bottom of the shellplate or below top of shell retainer.. You must cycle the handle completely, and the shellplate must advance fully to the next station, for proper indexing. By attempting to advance without fully cycling the handle each time, you risk jamming the machine or breaking the shellplate.

WARNING: If the handle does not come all the way down smoothly, or return smoothly—STOP—Find out why and DON'T FORCE!



Fig. 9

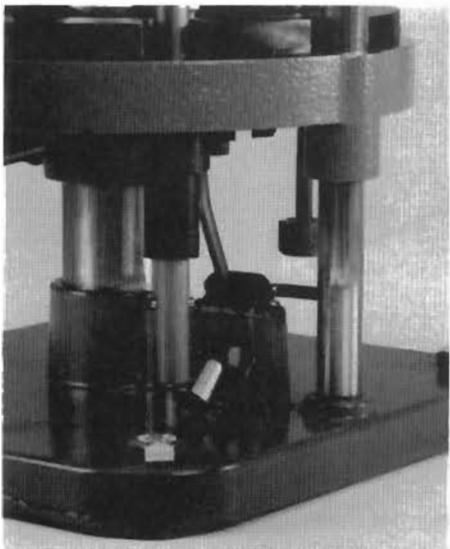


Fig. 10A

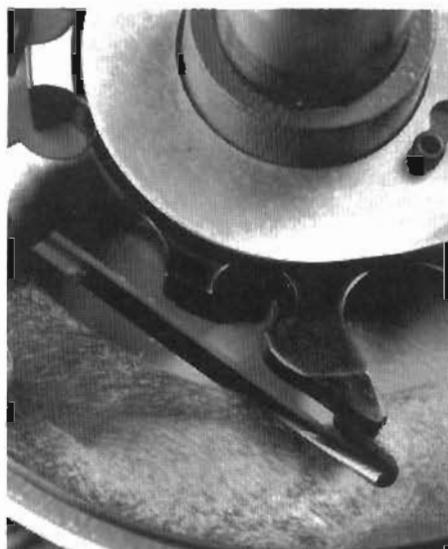


Fig. 10B

SELECTIONS OF BUSHINGS

Figure 11 - The press comes packaged with several standard-charge bushings, and two shot and powder bushing covers. The bushings drop into the charge bars through holes in the measure castings, and are easily removed the same way. After inserting each bushing, snap the small powder bushing cover and the larger shot bushing cover into the measure casting holes above the bushings. Keep the covers in place during loading.

ALWAYS DOUBLE CHECK AND WEIGHT YOUR CHARGES.

If you're working with non-standard loads, refer to the bushings chart on page 34 and find the charge you intend to use. **DOUBLE CHECK!**



Fig. 11

SELECTION OF HULLS

When selecting hulls to load, we recommend those which were originally factory "target loads" made by U.S. manufacturers. This type of hull was designed to be reloaded. Other types of factory shells, called "field loads" are not designed to be reloaded. If you have some empty field load shells, and want to reload them, try one or two in the APEX 3.0. If you're satisfied, fine. But if the results are not good, it is better to throw them away and stick with the target style.

Sort through all the empty hulls you intend to reload, arrange by type, and discard any damaged ones. Different types of hulls vary from each other in appearance, construction, and dimension. It's best to load hulls of the same brand and type, rather than mixing them. By loading shells that are identical, it's much easier to adjust the loader for a perfect load and a safe load.

The crimp-starter station in the APEX 3.0 is set up for hulls with an eight-point crimp. If you are loading 6-point hulls or paper shells, replace the crimp starter with either the 6-point or smooth insert respectively.

SELECTION OF WADS AND PRIMERS

Select the correct wad for the hull, shot and powder charge recommended by the powder manufacturers.

Because of the design differences, you may find some types of primers won't appear to seat in some

hulls. This is more cosmetic than functional. As long as the primer seats tight and flush with the base of the hull, it will work fine.

LOADING SHOT AND POWDER HOPPERS

Figure 12 - Remove the top cap from the rear hopper and slowly pour in shot to desired level. Replace cap.

Figure 13 - Remove the cap from the front hopper and slowly pour in the powder. Replace the cap. Static electricity may cause powder to cling to the sides of the hopper. The static charge can be eliminated by rubbing the hopper with a laundry dryer "anti-static" sheet.

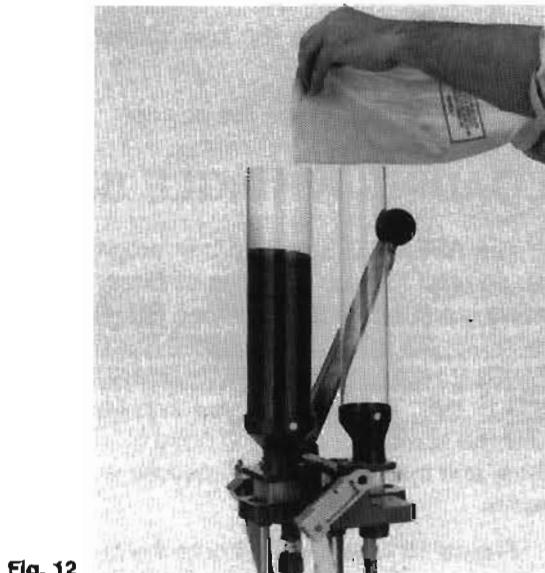


Fig. 12

DROPPING LARGE SHOT

Larger-sizes shot (4's or bigger) may not feed or measure consistently through the shot charge bar. However, you can still load this shot by separately measuring it, or counting it, away from the loading process. Drop the measured shot directly through the bushing into the hull at that station.

The APEX 3.0 was designed to accommodate loading of steel shot. Loading steel shot is much more critical than that of lead shot. Steel shot loads are extremely sensitive in terms of loading pressures. There are companies who market steel shot loading components, and who have worked up loading data of their own. Since we have no control over these companies, we have no knowledge on the validity of their loading data.

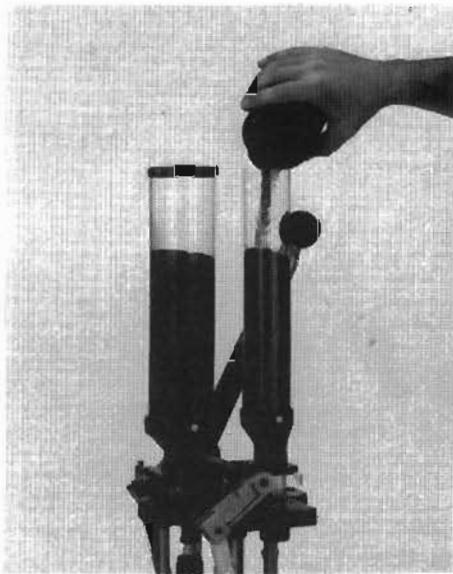


Fig. 13

REVIEW OF THE STATIONS

Figure 14 - The Apex 3.0 has six loading stations. Each station, except for the shot-drop tube you installed, has been factory adjusted and should not need further adjustments on your part.

It generally takes both hands to load shotshells. Your left hand is used to insert hulls in the shell plate, primers into the primer feed, cycles the powder/shot charge, and to remove the finished shells as they exit the shellplate. Your right hand inserts wads into the swingout wad guide, cycles the handle, and rotates the shellplate. By arranging the empty hulls and primers to the left of the loader on your workbench, and the wads to the right of the loader, you'll find this reloading sequence will come quite naturally.

STATION ONE deprimes the shell and collects the spent primers in a cup located in the base.

STATION TWO seats the new primer and flares the hull mouth.

STATION THREE drops the powder.

LOADING A SINGLE SHELL

The APEX 3.0 Standard can progressively load a single shell through all of the stations, or can load as many as six hulls at a time. **EITHER WAY YOU INTEND TO LOAD, IT'S BEST TO BEGIN WITH A SINGLE HULL, TAKING IT THROUGH ALL OF THE STATIONS.** This will give you experience in loading, limit the number of hulls you need to watch at any one time, and insure that all the stations are adjusted correctly.

Figure 15 - Set the shell onto the recessed depriming base underneath the depriming pin.

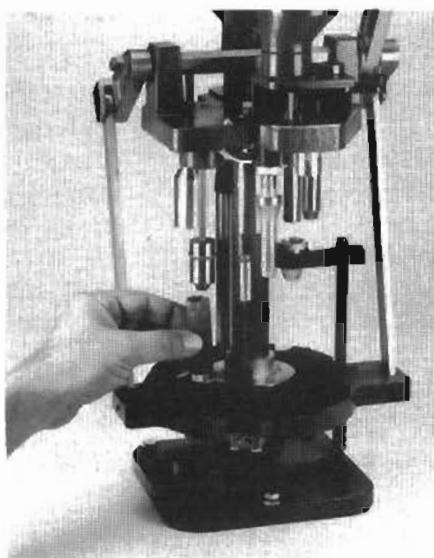


Fig. 15



Fig. 16

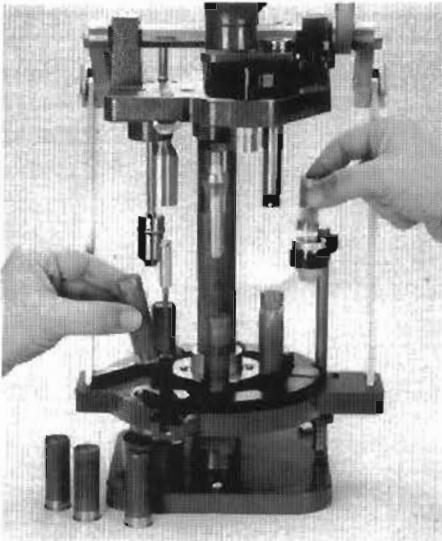


Fig. 14

STATION FOUR seats the wad and drops the shot.

STATION FIVE starts the crimp.

STATION SIX finishes the crimp, and the shell is then ejected with a final turn of the shellplate.

Figure 16 - Pull the handle down until it completely cams over the top and the spent primer is ejected from the hull and drops down into the spent primer catcher.

Figure 17 - Leaving the handle down, place a new primer rim down into the primer transfer tube and release. (When you raise the handle, the primer transfer bar will slide the new primer into position under the hull for seating).

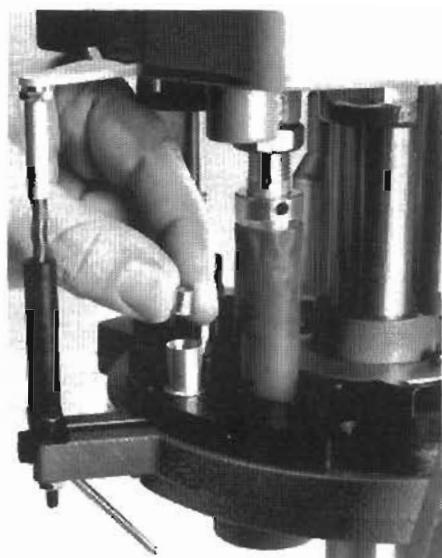


Fig. 17

Figure 18 - Raise the handle completely and manually advance the shell to the primer seating station. The new primer is in position underneath the hull at that station. Pull the handle down again until it cams over. The new primer is now seated.

Adjustment: Remove the primed hull from the shell plate to inspect. The APEX 3.0 is designed with a shell retainer which can flex away from the hull allowing it to be removed from the shellplate. You can replace hulls in the same manner. The primer should be flush with the bottom of the hull. If the primer is seated too shallow, the primer seater punch located on the die head can be adjusted for height. If the primer seating is difficult or seems to need extra effort, adjust the ram upwards. The flaring sleeve might also have to be adjusted at this time. The primer seater pad is factory-adjusted, and does not change the primer seating depth. It should be flush with the platen surface. If not, it can be reset by loosening the primer seater bolt and raising or lowering it. Tighten the bolt when finished. Double check your adjustment using a new hull and primer.

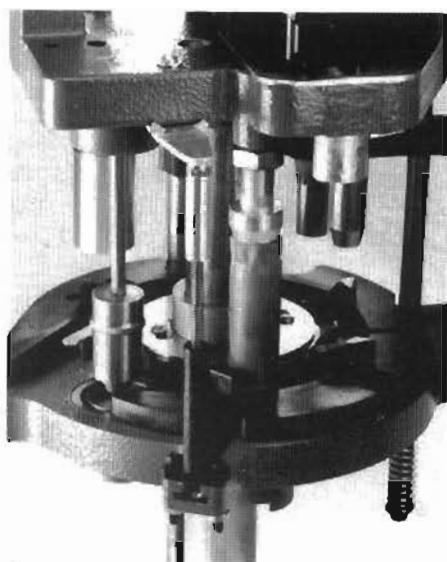


Fig. 18

Figure 19 - Advance the shell to the powder drop station. Lower the handle. With the shell platen raised, rotate the powder charge bar until it drops its powder charge into the hull. On the Apex 3.0 Standard, the charge bushings travel past center in order to insure all the charge has been dropped. Rotate the charge

bar back to its original position underneath the powder hopper. Raise the handle, check your charge, and advance the shell plate to the next station.

Figure 20 - Place a wad into the swing out wad guide.

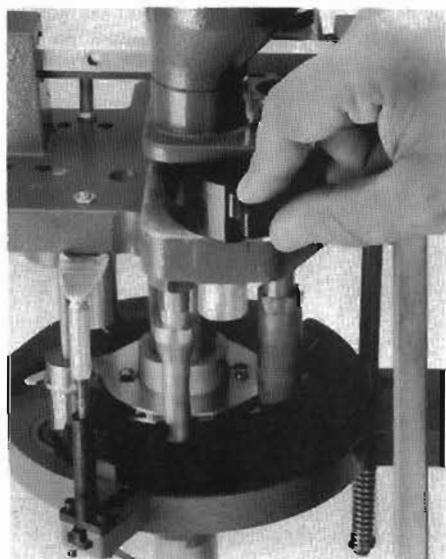


Fig. 19

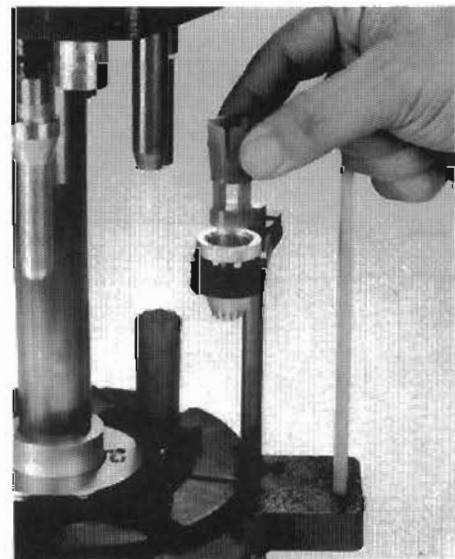


Fig. 20

Figure 21 - Lower the handle completely. The wad guide will swing over in line with the hull, and the wad will be seated by the shot drop tube. Raise the handle and inspect. Generally, the wad should be seated so the top of it is 5/8" from the top of the hull mouth.

Adjustment: If the wad is too deep, screw the shot drop tube into the die head. If the wad is too shallow, screw the tube out from the die head. Double check



Fig. 21

Figure 23 - Raise the handle and advance the shell to the crimp start position. Lower the handle and raise the hull into the crimp starter.

Adjustment: The starting crimp should be nicely rounded and symmetrical, with about 1/4" hole in the center. If the crimp is too tight, raise the crimp starter. If the hole in the center is too large, lower the die slightly. Hulls vary in material and length and won't all close the same. Double check your adjustment.



Fig. 23

your adjustment when you wad your next shell. The wad guide spring fingers should have approximately 1/8" clearance above the hulls.

Figure 22 - Pull the handle down again, rotate the shot charge bar so as to drop the shot into the shell. Return the charge bar to its original position underneath the shot hopper.



Fig. 22

Figure 24 - Advance to the Finish Crimp position. Lower the handle and finish the crimp on the shell.

Adjustment: The finished shell should have a flat and symmetrical recessed top, with no sags or bulges. The top ridge should be tight all way round, and the shell should show a slight taper at the top. The crimp die can be raised or lowered by loosening the nut on top of the die head. After loosening, insert a flat-blade screwdriver and turn up or down as needed to get desired crimp. Re-tighten lock nut.

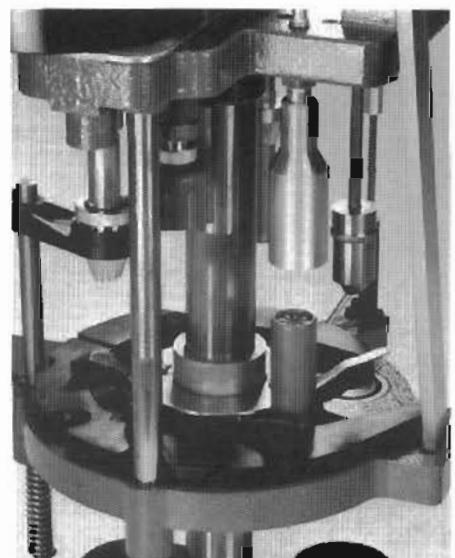


Fig. 24

Figure 25 - Raise the handle and advance the shell plate, ejecting the shell.

Figure 26 - If at any time during the loading process you wish to remove or inspect the hull, the APEX 3.0

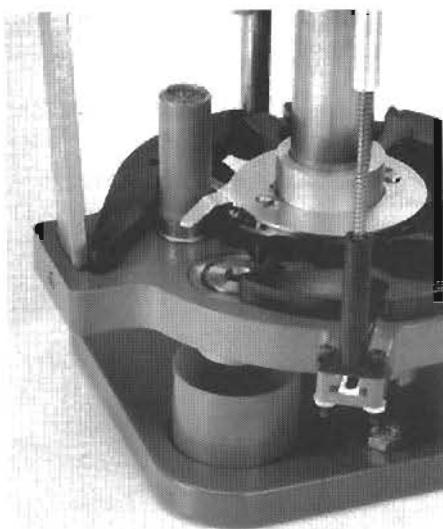


Fig. 25

is designed with a shell retainer which can flex away from the hull allowing it to be removed from the shellplate. You can replace hulls in the same manner.

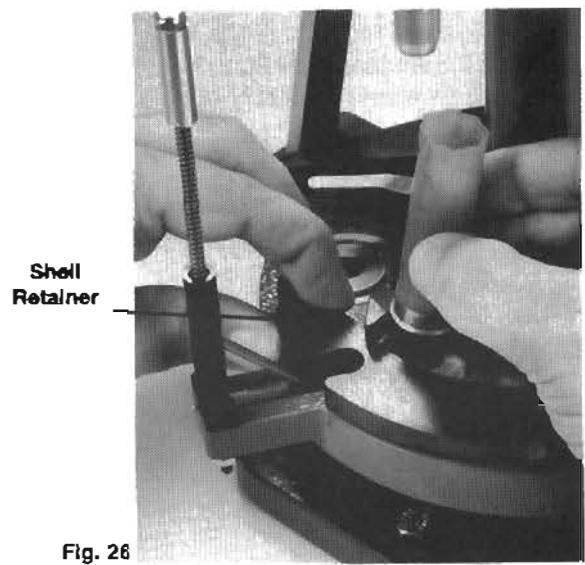


Fig. 26

RELOADED SHELL INSPECTION

Your reloaded shell should look similar to a factory load. The case walls are straight and smooth. The top crimp is symmetrical and completely closed without sinking or bulging, and no shot should be visible. Don't worry if your reloaded shell looks slightly different. This is normal, every shell is different — automated factory loading procedures are impossible to duplicate at home. Shells elongate when they are fired, which causes some stretching and minor cosmetic variations in the crimp, but will not affect performance.

COMMON RELOADING VARIATIONS

Figure 27 - Not enough shot or powder, or the wad may be seated too deep. The crimp is proper, but the shell looks slightly empty. Recheck your bushings combination to make sure you are dropping the proper charges, and recheck the wad seating depth.

Figure 28 (swirl) - Too much case in the crimp causing the swirls. The shell may have elongated during its previous firing. As long as the overall cartridge length is correct for the gauge, this swirl pattern won't have any affect on performance. Trimming the shell before loading it next time may eliminate the swirl. But even some new factory shells have a swirl.



Fig. 27



Fig. 28



Fig. 29



Fig. 30

Trimming your hulls to uniform length will help to reduce the variations, but it generally isn't worth it. Most reloading variations will not affect firing. Some pronounced variations may affect such things as feeding reliability. One note: if a shell has been wrinkled once, it will always wrinkle when reloaded. You might want to discard it after firing and not reload it again.

Figure 29 (wrinkled) - Finish Crimp die down too far, or the shell may have elongated during previous firing, or the components are wrong — double check your bushings. If all the shells coming off the press are wrinkled, raise the crimp die enough so it does not crush the hull during crimp. Double check the overall cartridge length to make sure it has not been affected.

Figure 30 (deformed) - This can be caused by a number of factors including having a shell that was factory loaded with a different number of crimp points. The Apex 3.0 is furnished with an 8-point crimp.

PROGRESSIVE LOADING

Figure 31 - Once you have reloaded several shells individually, have become accustomed to the six stations, and are satisfied with the adjustments, you can begin reloading more than one shell at a time. The APEX 3.0 Standard is designed to operate all six stations at a time as a manually-operated progressive press.

Start at STATION 1 and perform the single stage operations on each successive hull until you have four hulls in the shellplate (Stations 1 through 4).

Figure 32 - When you reach STATION FOUR, place a wad in the swing out wad guide and lower the

handle, seating the wad into your first hull. Drop the powder charge, but not the shot charge. Before moving the powder charge bar back to its original position, connect the shot and powder charge bars together with the charge bar link. Now, by returning the powder charge bar back to its original position, the charge bar link will rotate the shot charge bar and drop the shot.

Leave the charge bar link connected and continue the steps of adding shells, wads and primers in succession. **INSPECT YOUR SHELLS CAREFULLY AND DON'T RUSH THE PROCESS.** When the final hull you want to reload passes the powder drop station, disconnect the charge bar link at this time, and throw the shot charge independently on the last shell.

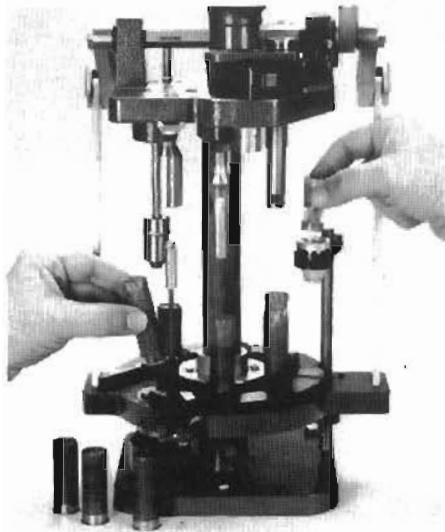


Fig. 31

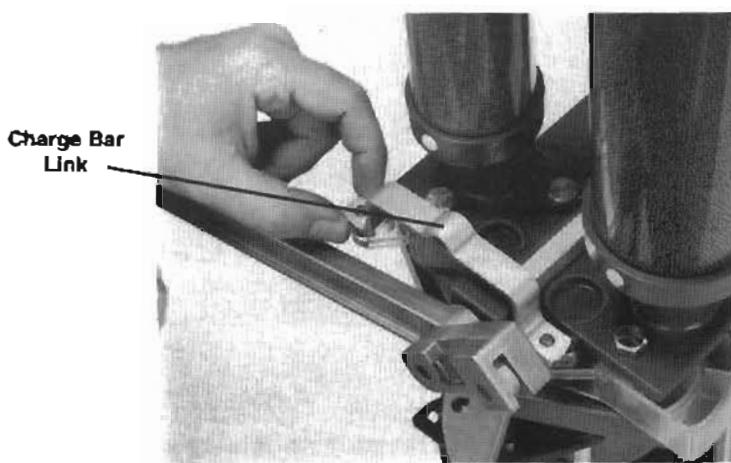


Fig. 32

CHANGING WAD FINGERS

If the wad fingers wear out or show damage, they may no longer support the wad properly in the wad guide. The wad fingers are easily replaced.

Figure 33 - Remove the Wad Guide Lock Ring by prying with a small screwdriver or coin. Remove and discard the old wad fingers and replace with a new one. Replace the Lock Ring by snapping it back into place.

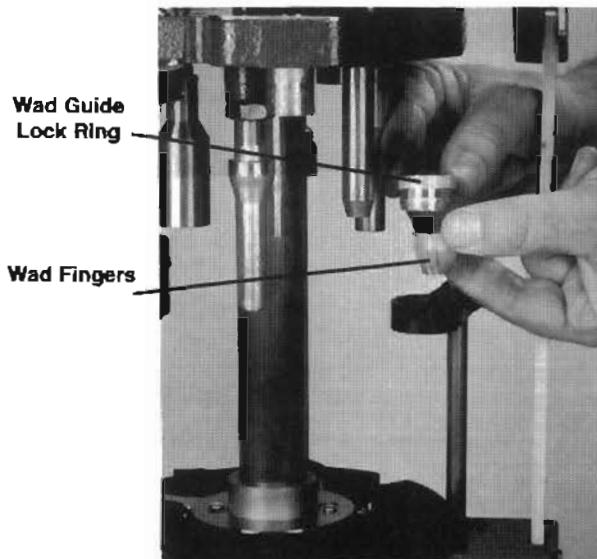


Fig. 33

DRAINING SHOT AND POWDER

Shot and powder can be easily and quickly drained without removing the hoppers from the press.

Figure 34 - A clear drain tube has been provided for easier emptying. Fit the drain tube over the drain hole

in the casting under either the shot or powder hoppers.

Figure 35 - Remove the measure attaching bolt that holds the measure casting in place. Loosen the hex nut on measure casting 1/2 turn.

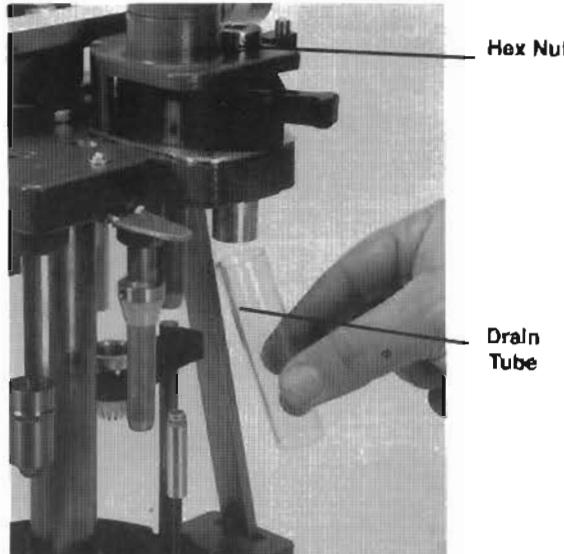


Fig. 34

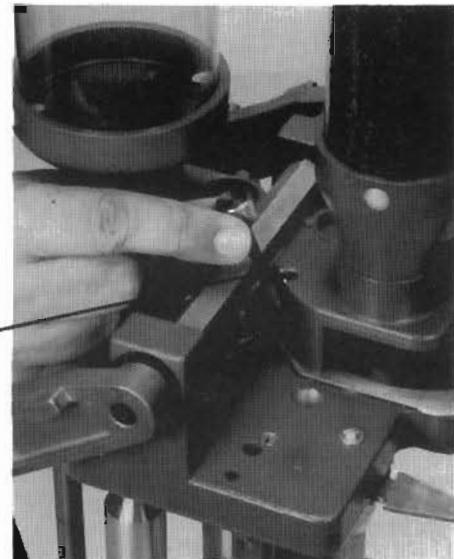


Fig. 35

Figure 36 - Hold your powder can (or shot bag) underneath the tube. Swing the hopper casting out away from the press until it aligns with the extension tube. Rotate the charge bar until the bushing aligns with the hopper. The contents will flow out of the hopper and into your container. When the hopper appears empty, shake the charge bar to make sure. Swing the hopper casting back into its original position and replace the measure attaching bolt to hold the casting in place. Tighten nut on measure casting. Switch the drop tube to the other station and repeat the process of emptying the other hopper.



Fig. 36

MAINTENANCE

Your APEX 3.0 was designed and constructed with the same tight tolerances and quality as a valued firearm. With proper care, it will give you a lifetime of reloading enjoyment. During and after every reloading session, it's important to keep your APEX 3.0 running

smoothly and efficiently. This means cleaning up stray powder and shot, and making sure the press is well-lubricated at all times. Clean-up is fairly easy to do since there are few tight spaces on the APEX 3.0.

APEX 3.0™ AUTOMATIC INSTRUCTIONS

Figure 37 - The Apex 3.0 Automatic is the most advanced loader in its class. It lets you reload shells by simply inserting a case and wad then pulling the handle. The automatic features do the rest. The Apex 3.0 Automatic will seat primers, drop powder and shot, crimp the shells, and guide the cases through all the stations automatically.

In addition, the automatic features can be manually overridden at any station, should you desire. The shellplate can be rotated by hand in either direction, and hulls can be inserted or removed without disrupting the automatic loading sequence.

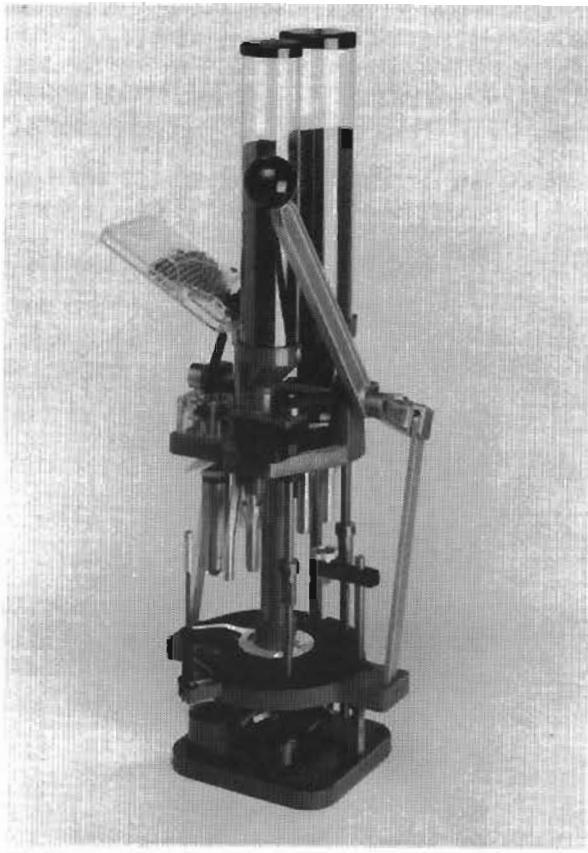


Fig. 37

SELECTION OF PRIMERS, WADS & BUSHINGS

Please turn to pages 8 and 9 for instructions on how to select primers, wads and bushings.

LOADING SHOT AND POWDER HOPPERS

Please turn to page 9 for instructions on loading the shot and powder hoppers.

LOADING PRIMER TRAY

Figure 38 - Open the top panel of the primer feeder by pivoting it around on its holding screw and hold the feeder upside down. Take a full tray of primers and remove the sleeve with the primers rightside up. Hold the primer tray tight against the underneath of the

primer feeder.

Figure 39 - Flip the feeder right side up and lift away the primer box.

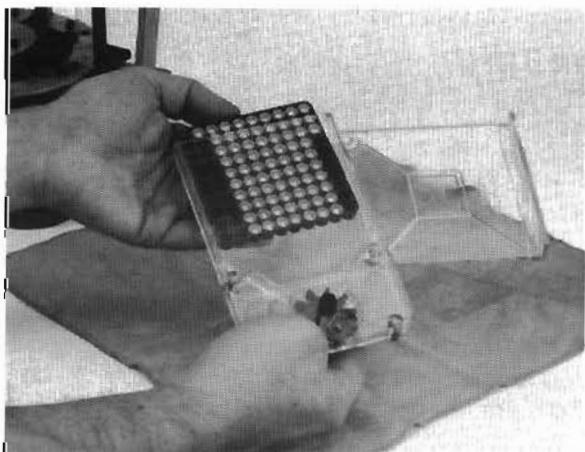


Fig. 38

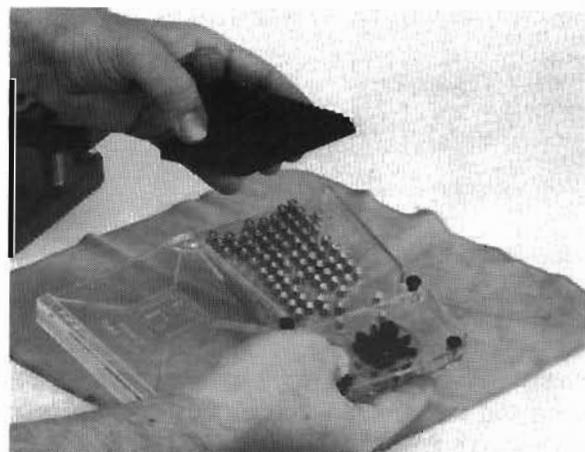


Fig. 39

Figure 40 - Rotate the primer feeder top panel back to its closed position, being careful not to upset or tip any of the primers inside.

Figure 41 - Replace the feeder onto the loader. Manually click the primer feed wheel around counter-clockwise until the first primer is aligned to drop down the tube at the next click of the wheel.

Figure 42 - You can replace or add individual primers without opening the feeder by inserting primers into the access hole located in the top panel as shown.

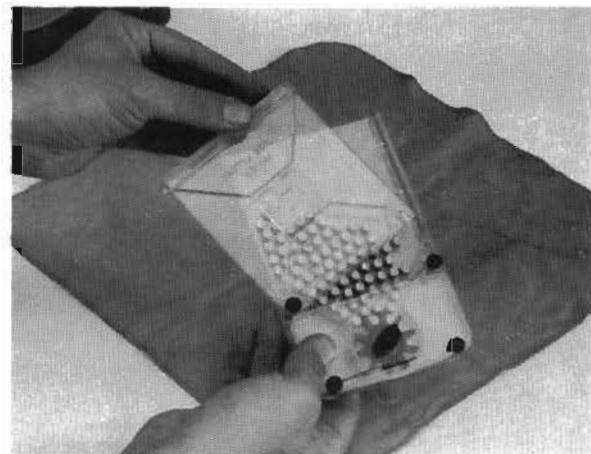


Fig. 40



Fig. 41

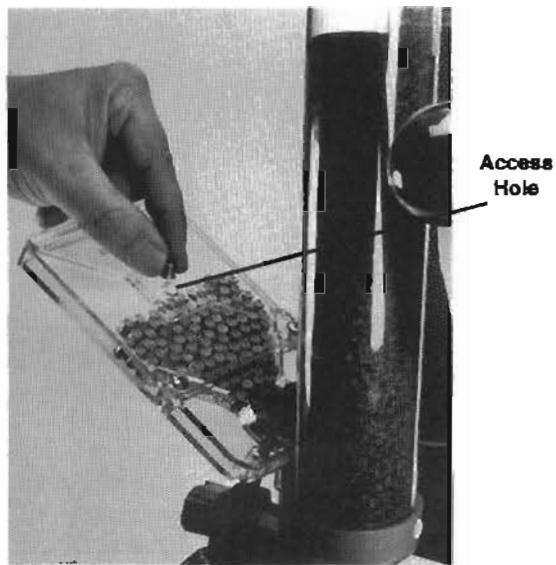


Fig. 42

RELOADING STEPS REVIEW OF ALL THE STATIONS

The APEX Automatic has six loading stations. Each station, except the shot drop tube, has been factory adjusted and should not need further adjustments on your part. You should, however, inspect the loader to ensure everything appears as pictured.

STATION ONE deprimes and sizes the hull and ejects the spent primers into a cup located in the base.

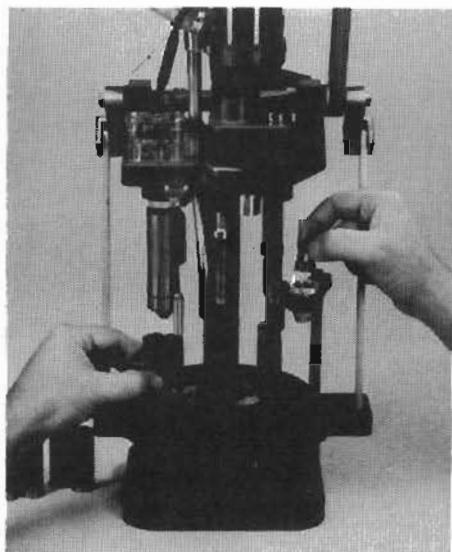
STATION TWO seats the new primer and flares the shell mouth.

STATION THREE drops the powder charge.

STATION FOUR sets the wad and drops the shot.

STATION FIVE starts the crimp.

STATION SIX finishes the crimp and tapers the shell. The shell is then ejected with the turn of the shellplate.



It's best to begin reloading on the APEX 3.0 Automatic using a single hull and taking it through all the stations. If a station needs adjusting, refer to the section APEX 3.0 STANDARD, LOADING A SINGLE SHELL for the adjustment procedures.

Take reasonable care while operating the APEX 3.0. All parts are machined for easy use and to tight tolerances. If for any reason the loader doesn't operate properly, STOP and determine what the problem is before continuing. Don't force the loader to operate.



Fig. 43

Figure 43 - As you begin loading, both charge bars will be facing inwards towards the center of the Apex 3.0.

Figure 44 - Place the hull onto the collet size-deprime station and lower the handle. As the hull rides up into the size die, it triggers the Automatic Primer Assembly which drops a primer into position in the primer transfer system. The primer transfer spring then retracts the primer transfer slide. If there is no hull in this station, no primer will drop.

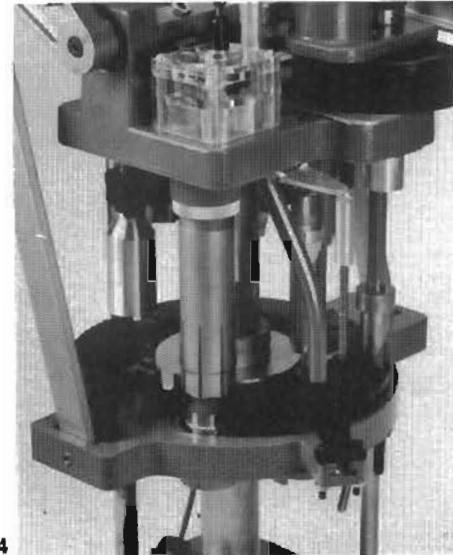


Fig. 44

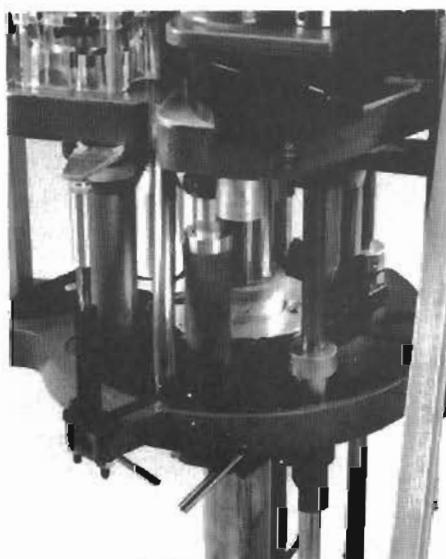


Fig. 45

Figure 45 - With each return stroke, the shellplate advances and the primer transfer slide inserts a primer in the pad. It is important to always fully return the handle on the upstroke for full advance. When the handle is pulled again, the new primer is seated at the second station.



Fig. 46

Figure 47 - Return the handle to the up position. This returns the charge bar to its original position and advances the hull. Place a wad into the swing out wad guide.

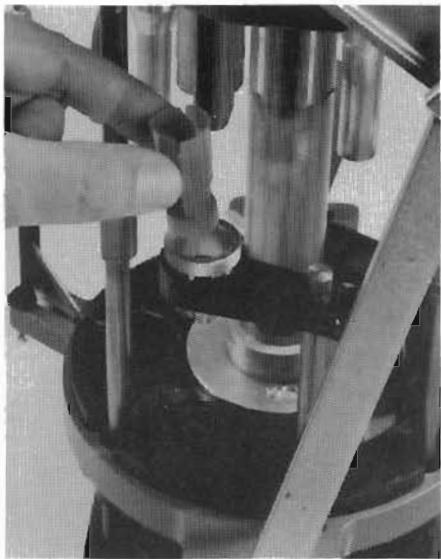


Fig. 47

Figure 48 - Lower the handle completely until it cams over. The shot drop tube inserts the wad into the hull, and shot is dispensed. This station also has a shell detect feature, which operates like the powder drop, and no shot will drop without a hull being in position or the handle being lowered completely.

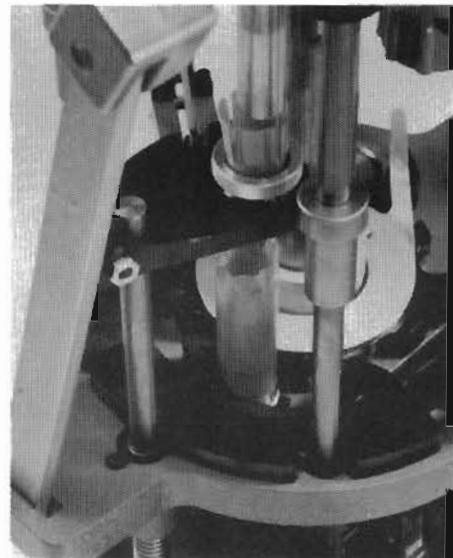


Fig. 48

Figure 49 - Continue to cycle the handle, advancing the hull through the remaining stations. Following the shot drop, the crimp is started.

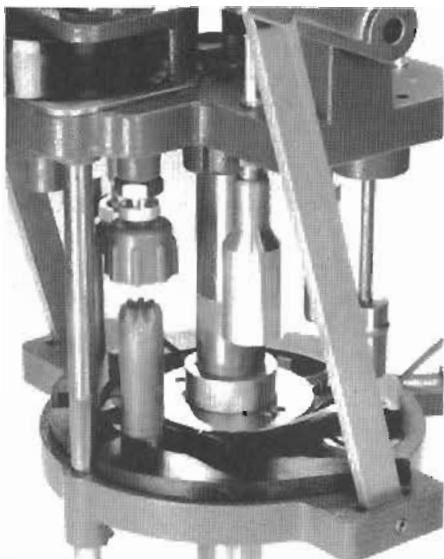


Fig. 49

Figure 50 - At the last station, the Cam-Actuated Crimp die crimps and tapers the shell.

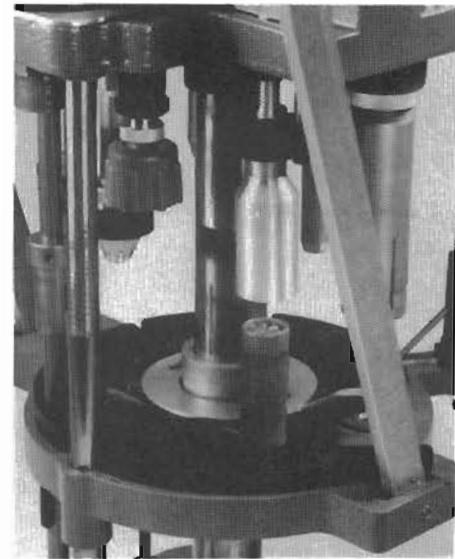


Fig. 50

Figure 51 - Returning the handle to the up position, the completed shell is ejected.

Figure 52 - After loading the single case, you can now run multiple cases through the Apex 3.0 Automatic. The three shell detect will automatically

drop primers, powder and shot whenever hulls are in those positions. All you need to do is place a shell in the first station, and place a wad in the wad guide and pull the handle.



Fig. 51

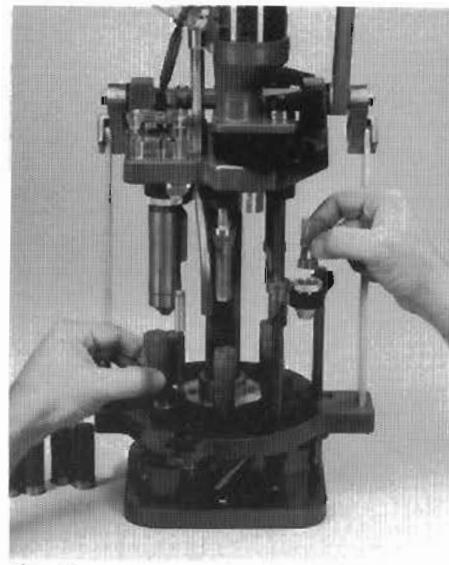


Fig. 52

The Apex 3.0 Automatic is built to reload hundreds of shells quickly. But like any machine, there are limits to its best operating speed. Jerking the handle up and down too quickly will result in spilled components, flying shells, pinched parts and possible damage. Use common sense. Get to know and understand how the machine operates.

Spilled powder and shot can cause the detents to jam resulting in failure to operate correctly. Always pay close attention to your work and clean up spills. The shell retainer segments and shellplate are designed to easily lift from the platen to clean under them.

At the end of each reloading session, brush or wipe away any spilled powder or shot. Lubricate all moving parts as needed, and wipe down all steel parts with a high-quality rust repellent. Do not use spray lubricants that contain 1,1,1-trichlorethane — a chemical which will severely damage some of the engineering plastics used on the loader. Read the label carefully. If in doubt, don't use the spray.

Treat your Apex 3.0 Automatic like your valued firearm, and it will last a lifetime.

ADDING AUTOMATIC ACCESSORIES

ADDING AUTO INDEX

Figure 1 - Set the indexer into position in the base casting. Loop the retainer cup around the short arm of the indexer, and slide the clip down over the base casting, securing the indexer in place and allowing it to rock freely back and forth.

Figure 2 - Raise the platen and thread the index drive bolt into position directly above the indexer. Tighten the lock nut against the platen.

Figure 3 - When properly adjusted, the index drive bolt pushes down the short arm of the indexer on the

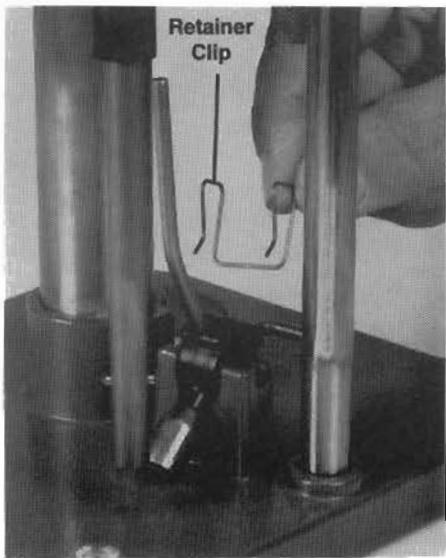


Fig. 1



Fig. 2

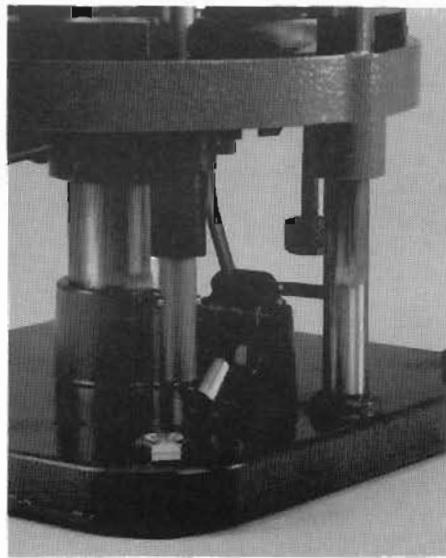


Fig. 3

upstroke of the operating handle. The long arm enters the platen from the bottom, and advances the shellplate — stopping just clear of the shellplate as it cams over.

You must cycle the handle completely, and the shellplate must advance fully to the next station for proper indexing. By attempting to advance without fully cycling the handle each time, you risk jamming the machine or breaking the shellplate.

ADDING AUTO PRIMER FEED

Figure 1 - Remove the primer transfer plate from the die head, and set the mounting bolt aside.

Figure 2 - Insert the Primer Feed Cam into the diehead hole directly above the depriming punch (or collet size die if one has been installed). Set the

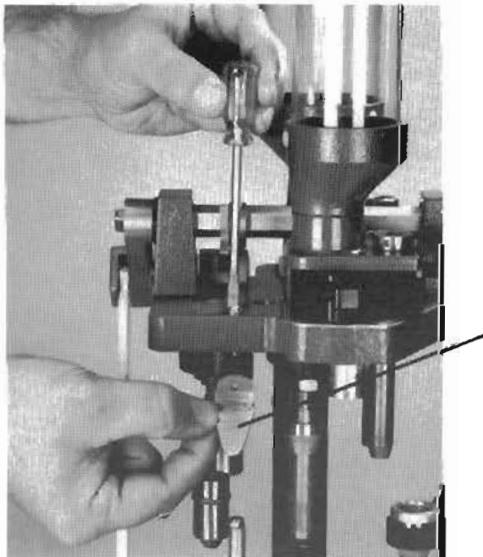


Fig. 1

Primer Transfer Plate

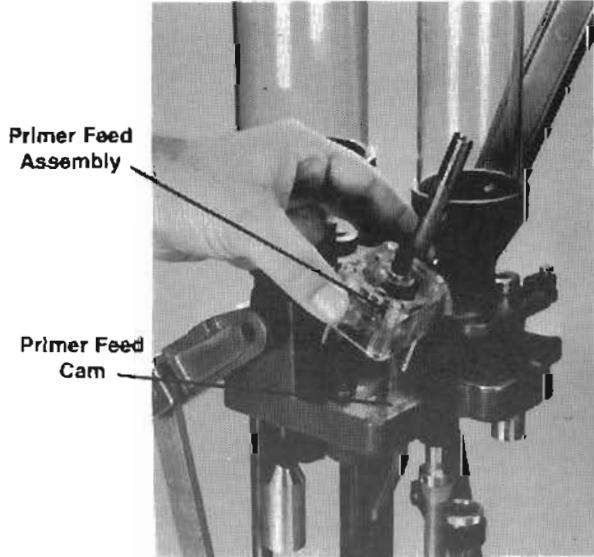


Fig. 2

Primer Feed Assembly over the cam, inserting the Primer Drop Tube through the diehead and aligning the Primer Feed Cam so it slides into the slot in the base of the Primer Feed Assembly.

Figure 3 - Insert the two new longer mounting bolts through the top of the Primer Feed Assembly and through the diehead. Screw on the lock nut of the rear mounting bolt and tighten. Then, replace the Primer Transfer Plate over the front mounting bolt and screw on its lock nut and tighten. Check lower end of tube for proper location on platen before tightening. Tube should be centered in primer receiver in platen.

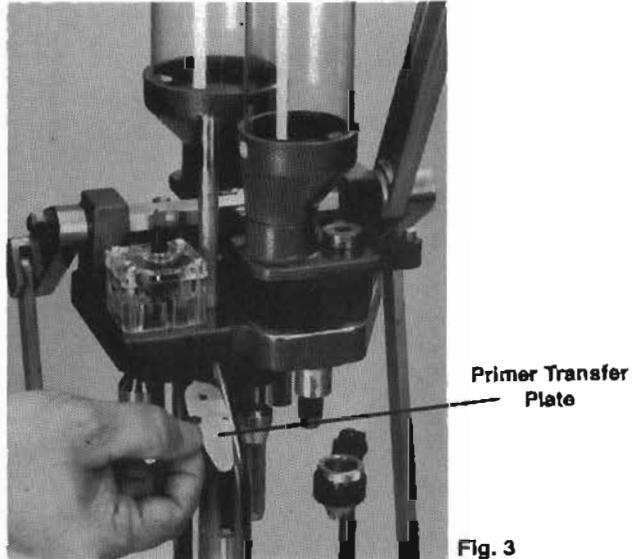


Fig. 3

Figure 4 - Install the primer tray so the guide aligns with the slot in the drop tube. At the same time, align the universal drive arm to slide into the primer feeder. When completed, the primer tray should lock down over the universal arm and the brass Primer Feed Tube.

CAUTION: Don't twist the primer tray when removing it from your loader. It's designed for a close fit and may crack or break if not removed and replaced straight up and down.

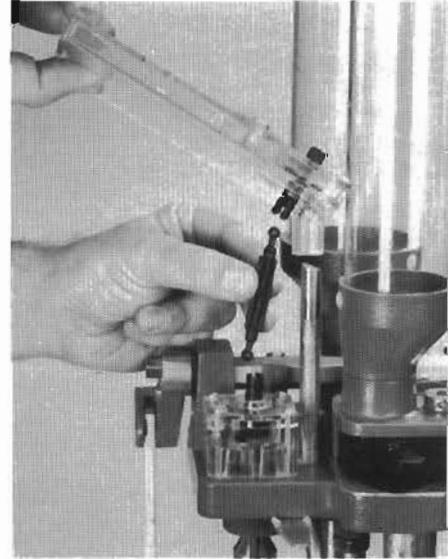


Fig. 4

ADDING AUTO POWDER/SHOT

Figure 1 - The Automatic Shot & Powder Drop Assembly includes two drive rods, two upper cams, two lower cams, three shell detents, and 6 pins. While there are several steps involved, their installation is straightforward and relatively simple if you first read through the instructions and study all of the photos before you actually begin. For simplicity, we're

installing the Automatic Powder Drop only. The Shot Drop installs in the same manner.

Figure 2 - First, install the lower cam under the platen at the powder drop station. The cam is held in position with two 1/8" hex nuts. The slotted side of the cam must face to your left to be in the correct position.

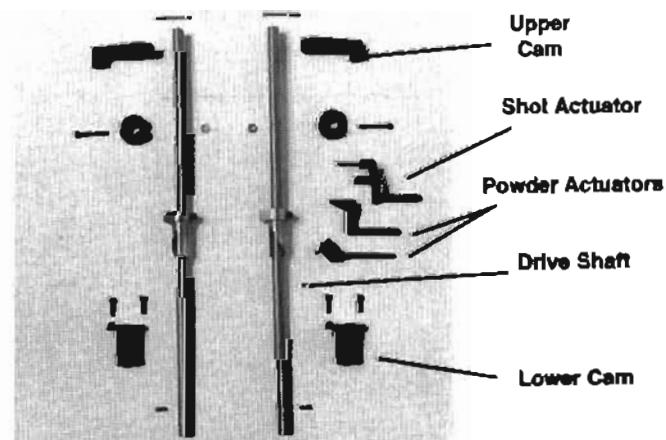


Fig. 1

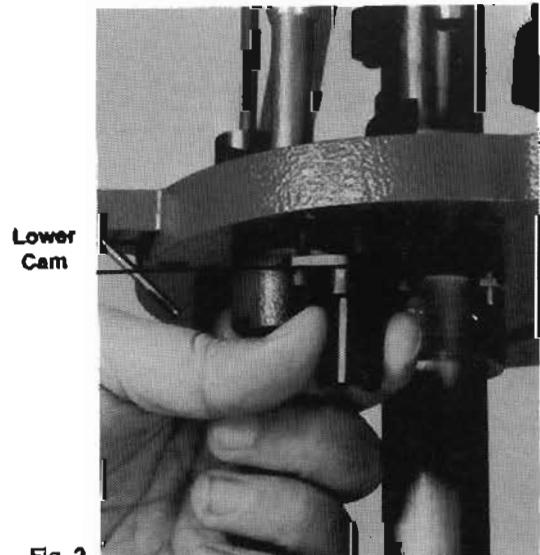


Fig. 2

Figure 3 - Remove the measure casting bolt from the powder hopper casting.

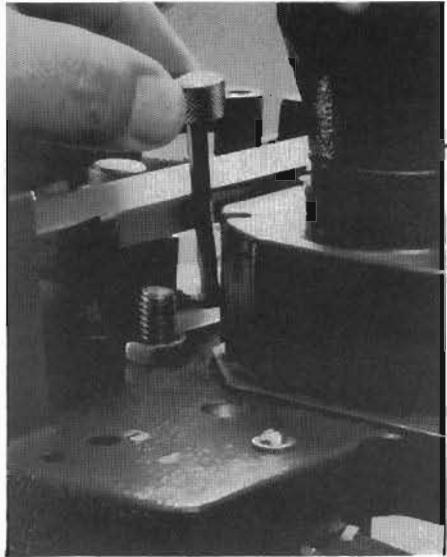


Fig. 3

Figure 4 - Remove the lock nut from under the powder hopper casting.

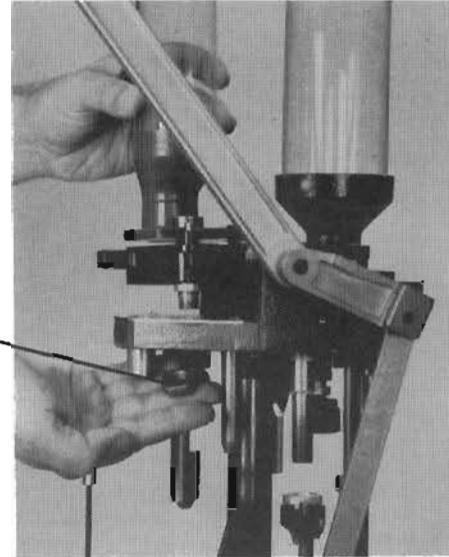


Fig. 4

Figure 5 - Taking the drive shaft marked POWDER, insert the powder hopper lock nut over the shaft and insert the shaft into the die head high enough to clear the platen below. Then lower the shaft through the platen.

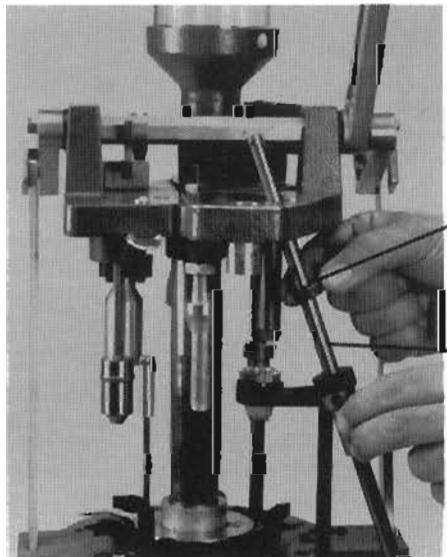


Fig. 5

Figure 6 - Insert one of the short screws through the drive shaft just underneath the lower cam.

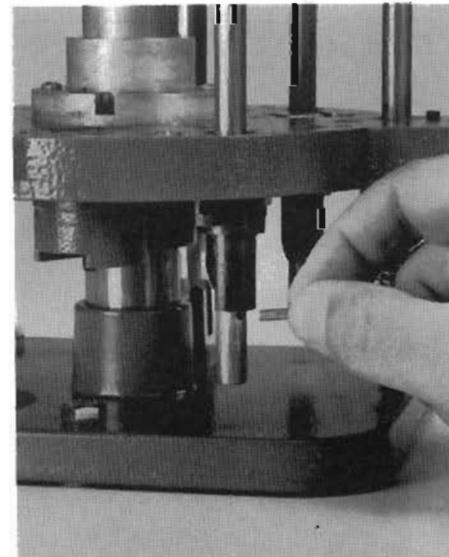


Fig. 6

Figure 7 - Replace the powder hopper over the top of the drive shaft so it fully rests back on the diehead.

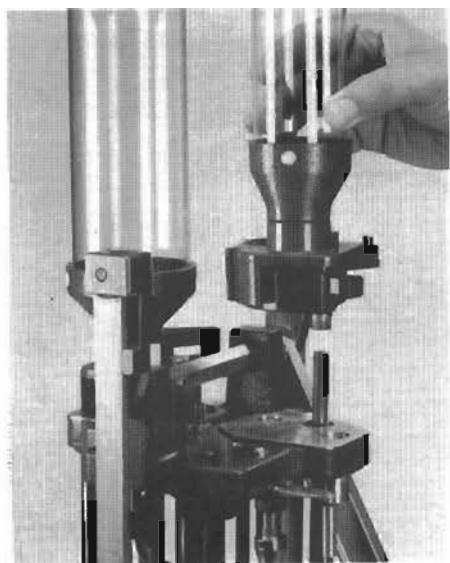


Fig. 7

Figure 8 - Slide the lock nut up the drive shaft so it engages the threads of the powder hopper casting and tighten the nut.



Fig. 8

Figure 9 - Install upper cam onto the top of the drive shaft and also onto the top of the charge bar arm.

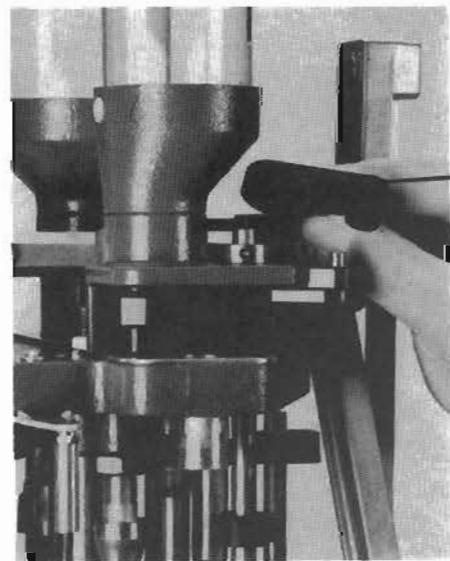


Fig. 9

Figure 10 - Lift the drive shaft up slightly so the lock hole clears the top of the upper cam you just installed. Insert a long pin through the top of the drive shaft.

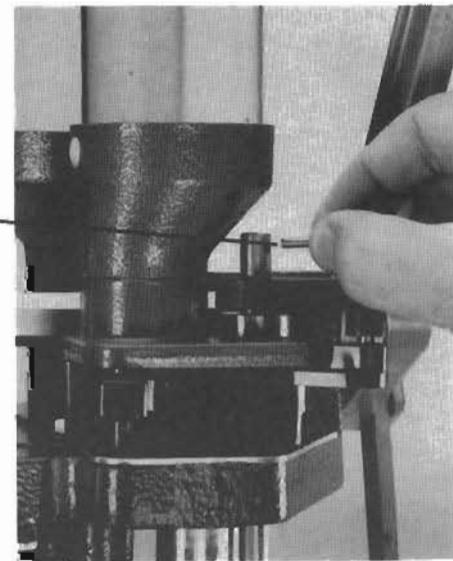


Fig. 10

Figure 11 - When installed, the pin will ride in a slot molded into the top of the upper cam.

Figure 12 - Raise the plastic thrust bearing up the drive shaft until it touches the lock ring. Insert the long



Fig. 11

screw into the shaft. The shaft is now locked into position both in the diehead and platen. **The automatic shot drop assembly installs the same way as the powder drop assembly.**

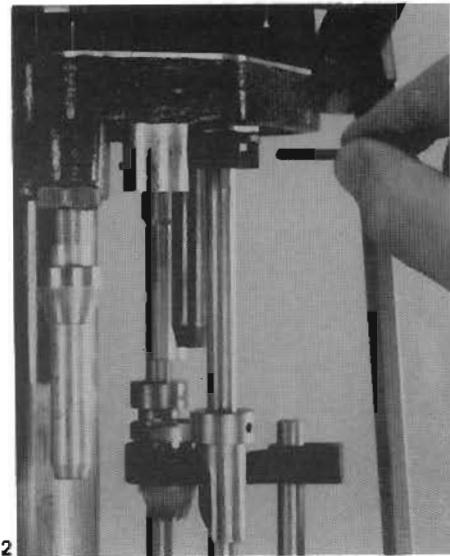


Fig. 12

INSTALLING DETECTS AND ACTUATORS

Figure 13 - Loosen the lock screws that hold down the shellplate retainer. Turn the holder slightly so it clears the screw heads and lift up — freeing the shellplate. Do this step carefully so the spring-loaded shellplate detent is not dislodged before you're ready to remove it. Note the detent's orientation in the photo. You will be removing the detent and later replacing it, and its correct orientation is important. **THE FLAT ANGLE OF THE DETENT FACES TO THE LEFT, THE SHARP ANGLE TO THE RIGHT.** The detent is spring loaded and may pop out of position suddenly once the

retainer or shellplate is removed. Lift up the shellplate and set the detent to one side. Remove the three hull retainer sections by releasing them from underneath the platen and set them to one side.

Figure 14 - There are three parts to the shell detects to install in the platen. The first, the shot actuator bar, shown here from the rear of the loader, is inserted into the platen just behind the swing out wad guide.

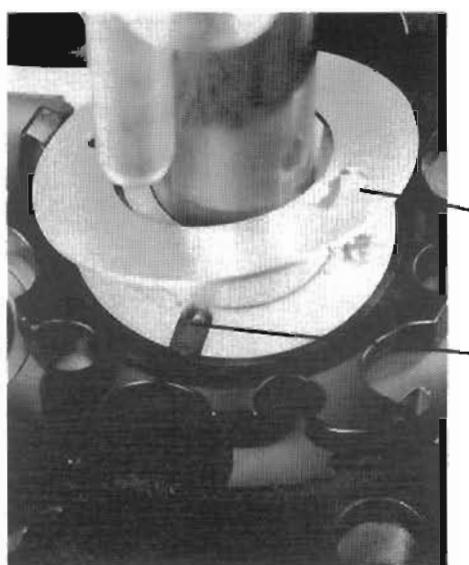


Fig. 13

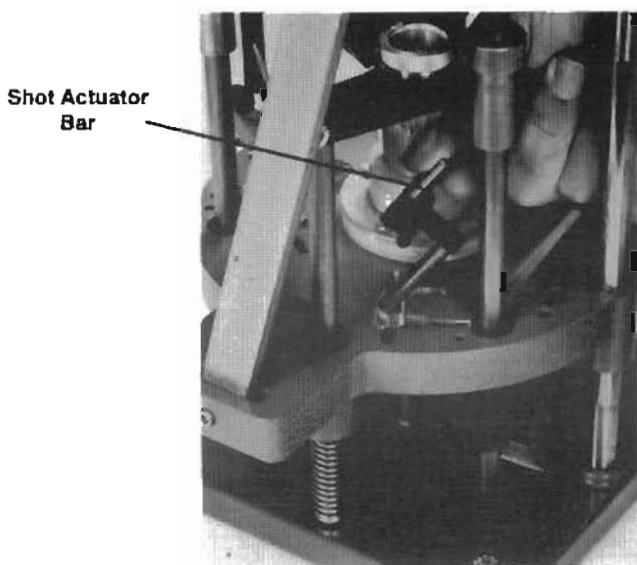


Fig. 14

Figure 15 - The powder actuator is in two parts. The first part inserts into the platen slot between the drop drive shaft you installed and the main guide post.

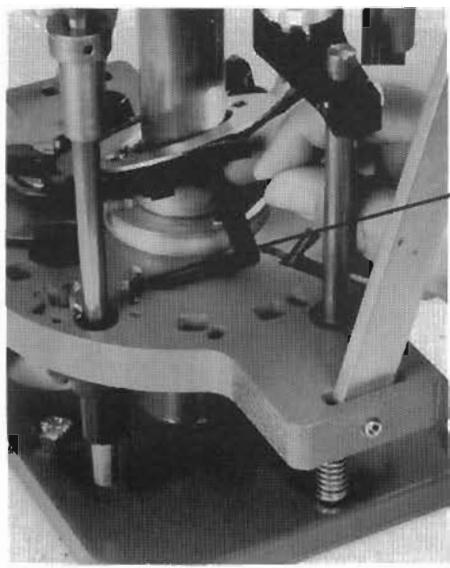


Fig. 15

Figure 16 - The final detect inserts just to the left of the powder drop drive shaft from the top. (Shown held from the bottom for clarity.)



Fig. 16

Figure 17 - When completed, all detents should move freely in their respective slots.

Figure 18 - Reinstall the shellplate detent noting its correct orientation. Slide the shellplate back into position followed by the shellplate holder — rotating it slightly to engage the heads of the lock screws. Tighten the lock screws.

With both powder and shot drop assemblies installed and oriented as in Figure 43, and without filling the hoppers, run a single empty shotgun hull through the loader to make sure everything is working well. The shell detects will actuate the powder and

shot drops when the shell is at that station, and you will see how the charge bars automatically rotate to dispense powder and shot.

The process is designed to operate relatively smoothly. If you feel any unusual or extra resistance — STOP — don't force anything. Stop and find the location of the resistance and correct the problem before attempting to go on. After you've given the loader a dry run, read through the APEX 3.0 Automatic instructions once again to better understand all the features and functions of the loader.



Fig. 17

Shot
Actuator

Powder
Actuator

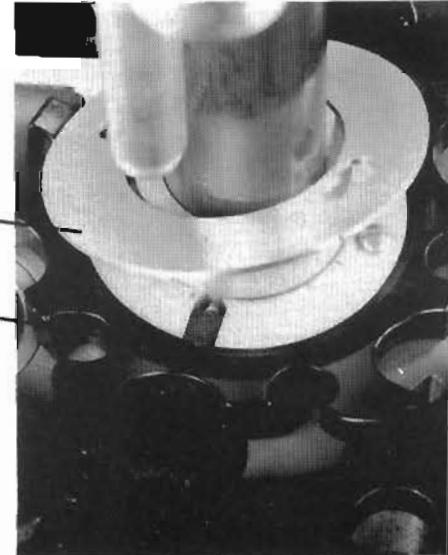
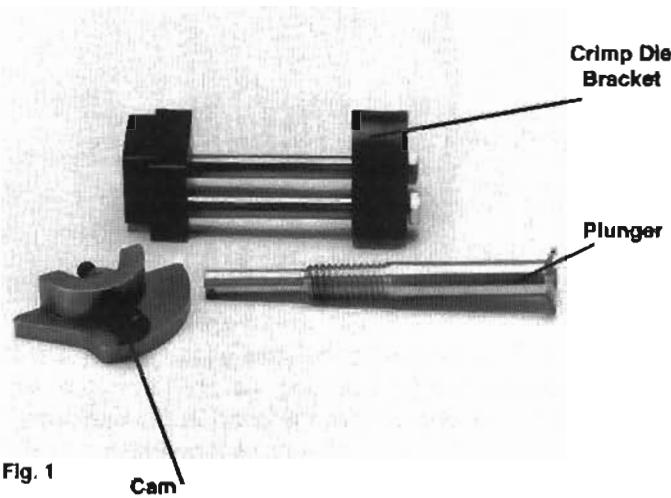


Fig. 18

ADDING A DUAL ACTION CRIMP DIE

The Dual Action Crimp Die assembly is an improvement over a standard crimp die. It better supports the shotshell case while crimping. And through its floating action, it exerts less damaging pressure on the shell top.

Figure 1 - The assembly includes a plunger, holder



and cam. The only installation tools needed are a thin flat blade screwdriver and a small hex wrench. **Figure 2** - Remove the existing crimp die from the rear of the die head.

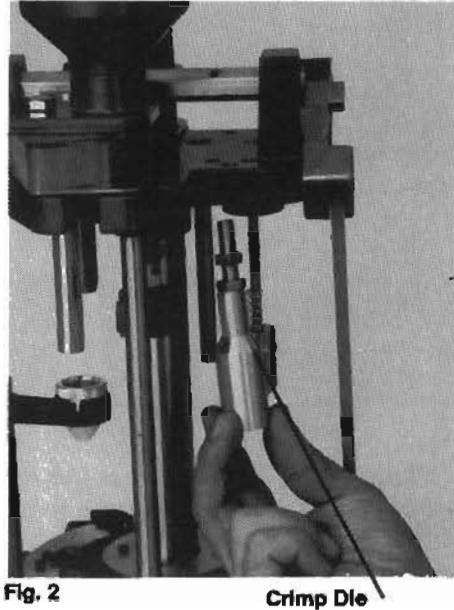


Figure 3 - Separate the upper and lower brackets of the new crimp die holder. Insert the lower bracket into the twin mounting holes in the die head. Insert the upper bracket into the metal sleeves of the lower bracket.

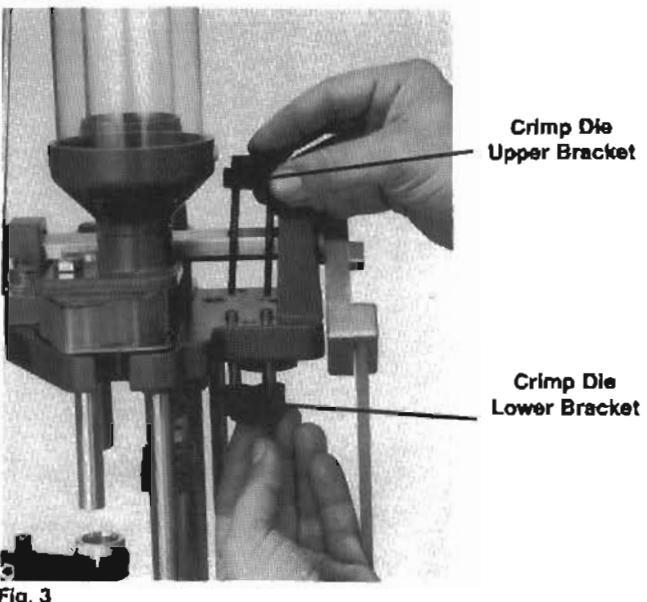


Figure 4 - Secure the lower bracket with the two lock nuts.

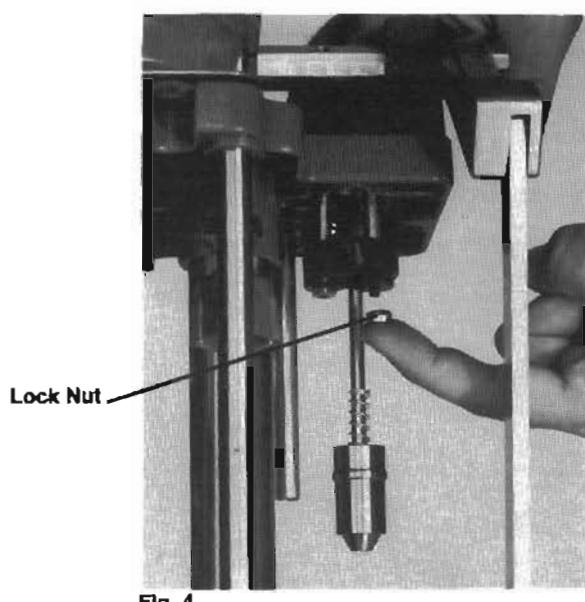


Figure 5 - Screw the crimp-die body into the lower bracket until 9 threads on the die body remain below the block. Insert the crimp plunger into the die body, and thread the 3/8" lock nut onto the plunger shaft. Then insert the die plunger shaft up into the diehead casting.

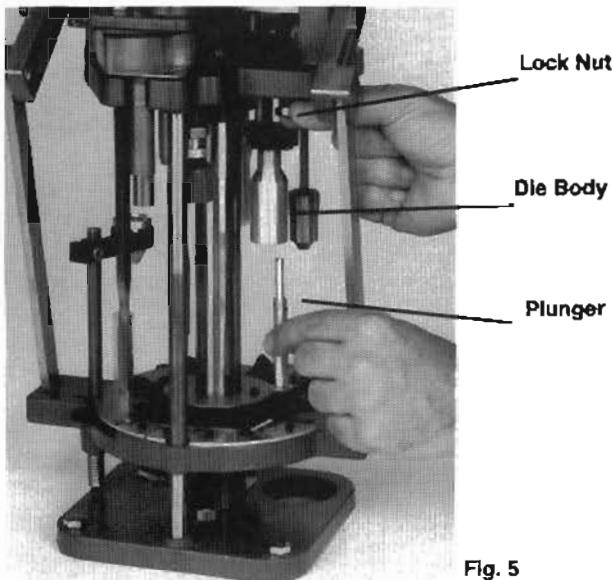


Fig. 5

Figure 6 - Push the die body and plunger upward, bringing the lower brackets up to the bottom of the diehead. Using a narrow flat blade screwdriver, turn the top of the plunger so as to engage its threads in the diehead. Screw the plunger all the way up. Don't tighten the lock nut until final adjustments are made.

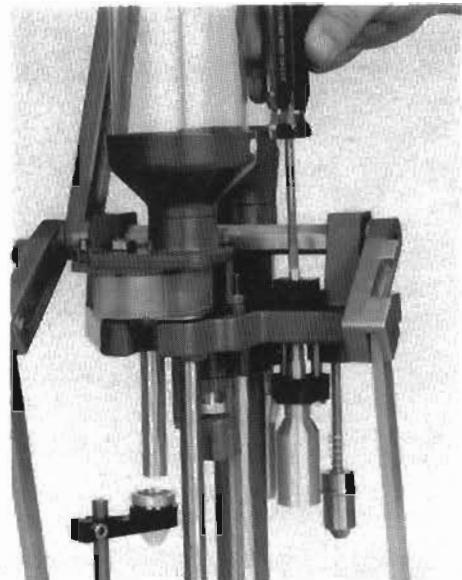


Fig. 6

Figure 7 - From the front of the Apex, position the cam under the mounting hole through the central shaft, with the rounded portion of the cam facing down and back. Insert the mounting bolt, and secure with lock nut.

Figure 8 - When complete, the cam rides on the steel roller on the block as it cams over. The crimp-die body should freely move up and down, and the plunger should be threaded into the diehead.

Adjustment: Take a crimp-started shell (loaded with powder and shot) and place under the crimp die.

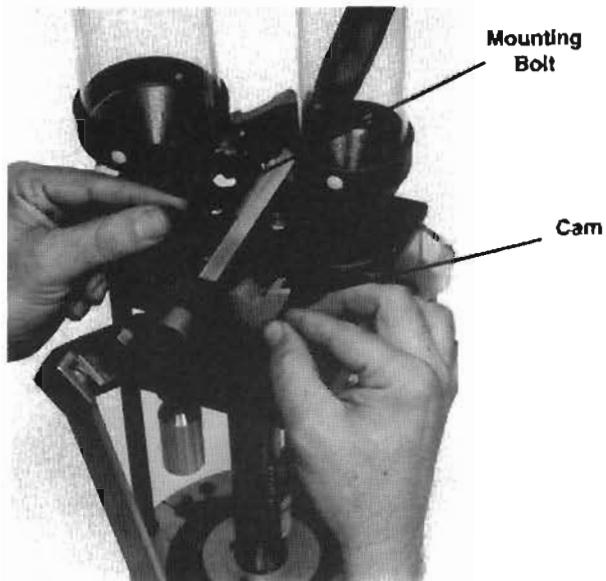


Fig. 7

Lower the handle, raising the shell all the way into the die. Raise the handle, lowering the shell from the die and inspect the shell. From the chart at the beginning of this manual, determine the correct overall length of the shell. If it is too long, adjust the die body down by half-turns at a time until the length is correct. If the shell is too short, adjust the die body up by half-turns.

The die plunger can also be adjusted up and down by using your small flat-blade screwdriver to achieve proper crimp depth. The finished shell should look similar to a factory-loaded one.

(Rear View)

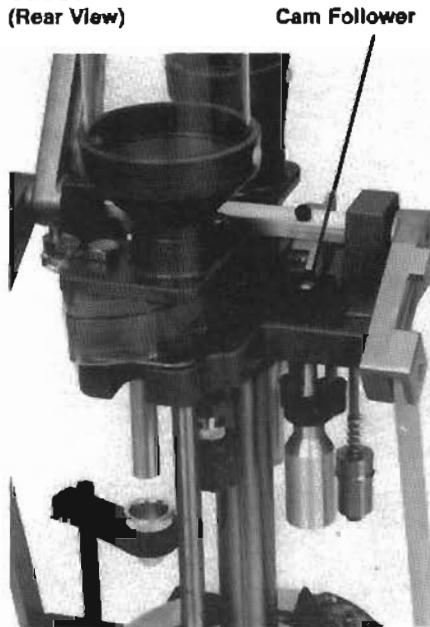


Fig. 8

ADDING A COLLET SIZE DIE

Figure 1 - Remove the shell retainers and shell plate retainer. Lift the shellplate and remove the original de-priming base, setting it aside. Insert the replacement collet sizer base.

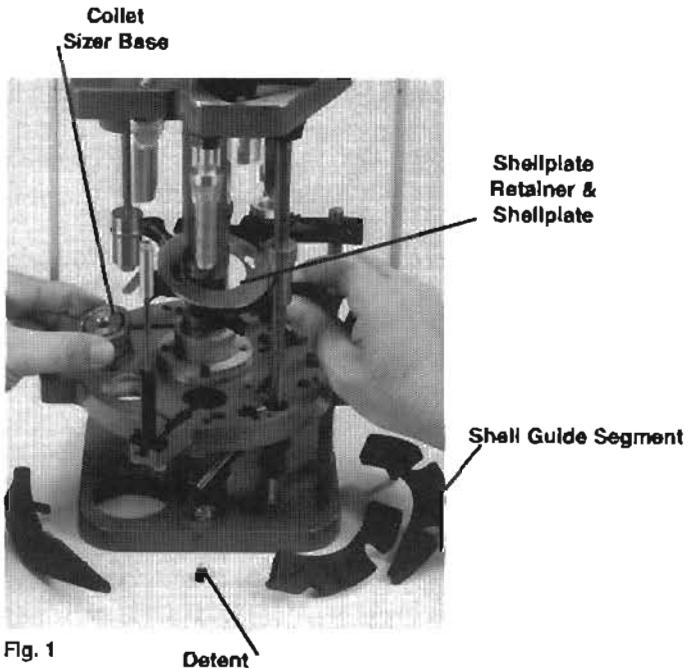


Figure 2 - Carefully push the supplied crescent lock ring into the slot of the collet sizer base, from underneath the platen. Replace the shellplate and shell retainer and tighten all screws securely.

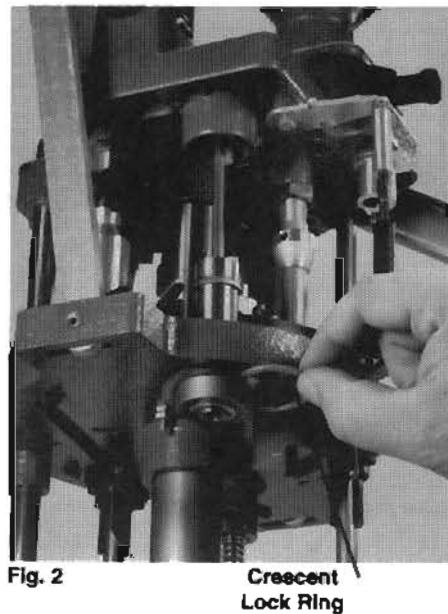
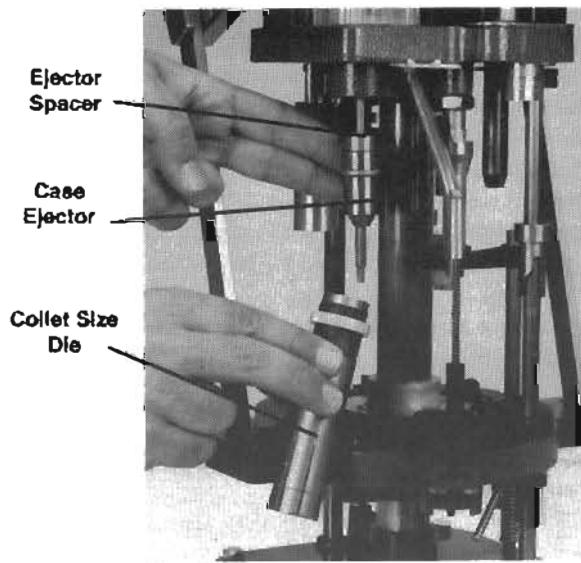
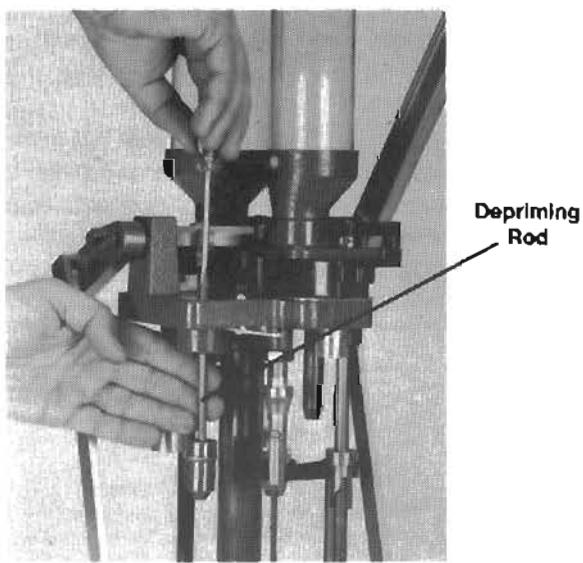


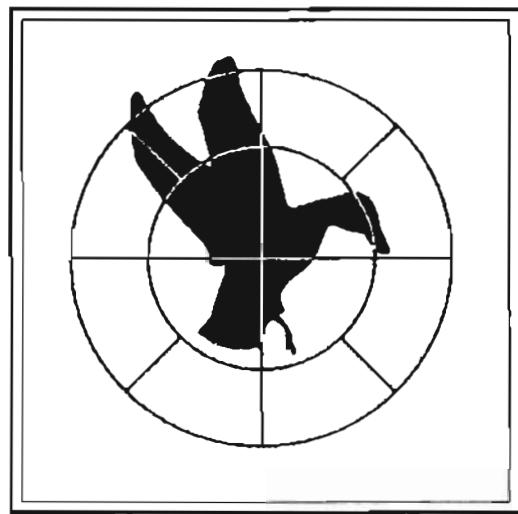
Figure 3 - Remove the original depriming rod, and set aside the rod and the ejector spring, as they will no longer be needed. Fit the new depriming rod into the diehead and secure with the mounting screw from above the die head.

Figure 4 - Slide the ejector spacer and the case ejector over the depriming rod with your left hand, followed by the collet size die in your right hand. Release

your left hand and screw the collet size die into the die head several turns. When properly adjusted, the collet size die will bottom out against the depriming base plunger when the handle is pulled all the way down. There should be no play in the base plunger. When the collet size die is positioned properly, tighten the lock ring against the die head.



PATTERNING YOUR SHOTGUN



Waterfowl Hornady Patterning Kit

Like sighting in a rifle, patterning a shotgun is best analyzed by shooting at a patterning target. The Hornady Shotgunning Kit is a convenient package of targets.

When at the range, determine the yardage you feel most comfortable shooting within and test your shotgun's pattern from that distance. As a guide, waterfowlers generally shoot within 50 yards, pheasant and grouse hunters within 40 yards and quail shooters less than 25 yards. Competition shooters need to evaluate their own preferred shooting range.

After measuring the yardage and placing the patterning kit into the ground, place some type of marker at the point at which you'll shoot. Remember, try not to stray too far from your original shooting point - even a couple of feet variation can produce different overall results.

Once you're set up and ready, each load should be fired at least five times. That will give you enough information to provide an analysis of your shotgun and where it shoots.

For the sake of this explanation, we'll use one of the most popular gauges and loads used by bird shooters.

With the patterning kit set up at 40 yards, place the gun to your shoulder (in a standing, normal shooting position) and set the bead on the center of the bird in the target. Remember to hold the gun in the same position each time - this will help determine the gun's point of aim.

Once you fire the shot, proceed down range and inspect the target for holes. Locate the approximate center of the shot pattern and then note the gun, load, gauge and shot size on the target.

Take down the target, replace it with another clean target and repeat the steps until you've shot at least five times on separate targets.

When you're finished shooting, take the targets and begin the simple, systematic method of counting pellet holes in the target.

With Hornady's exclusive target, it's easy to determine the number of holes in a quadrant. Simply count each hole in a given quadrant, circle each hole after it's been counted (to avoid counting the same hole twice) and write the number of holes with a marker in that quadrant. Repeat the steps until all the holes have been counted.

After the pellets have been counted, it's time to compute the percentage of hits on the target. Simply multiply the number of pellets (see chart) times the ounces of shot and you get the number of pellets in that specific load. (Example: a 1-1/8 oz. load of No. 7-1/2 shot contains 394 pellets — 350 pellets per ounce times 1-1/8 ounces (1.125) — equals 394 pellets).

If the pattern contained 335 holes, then 335 divided by 394 shows about 85 percent of the shot hit the target within the outer circle. Opinions may vary, but 85% hit at 30 yards would be a full choke shotgun.

Because of the unique diameters of the two target rings, each quadrant contains the same amount of space in square-inches. Having equal size quadrants to work with, you will get a more accurate picture of the hit percentage in each of the quadrants.

Once you've calculated the percentage of holes in the target and analyzed your shotgun's choke pattern, you should now be able to determine your gun's "point of aim," as well as whether the gun shoots a poor pattern, a pattern different than which the gun is marked and other variations that, in the past, might have led to missed shots.

To summarize:

- Step 1 - shoot at the center of the target at 40 yards (shoot at least five targets). Mark the gun, gauge, load and shot size on the paper.
- Step 2 - count the number of pellet holes in each quadrant and mark the number in each section. Total the number at the top of the page.
- Step 3 - compute the number of pellets in your load by multiplying the number of pellets times the ounces of shot in the load you shot. (Example: 1-1/8 oz. load of No. 7-1/2 Shot contains 394 pellets. Consult the chart for No. 7-1/2 shot (350) and multiply 350 x 1.125 (1-1/8 oz. load) for a total of 394 pellets.
- Step 4 - compute the percentage of hits in the target. Take the total number of hits on the target and divide by 394 pellets in the shotshell (350 divided by 394 equals 85 percent).
- Step 5 - determine the "point of aim" of the shotgun, the pattern of the choke, and whether the pattern is uniform or scattered.

Shot Size	Diameter (inches)	#Pellets Per Ounce (5% Antimony)	Shot Size	Diameter (inches)	#Pellets Per Ounce (5% Antimony)
No. 00 Buckshot	.330	8	No. 4	.130	138
No. 0 Buckshot	.320	9	No. 6	.110	228
No. 1 Buckshot	.300	11	No. 7-1/2	.095	350
No. 3 Buckshot	.250	19	No. 8	.090	417
No. 4 Buckshot	.240	21	No. 8-1/2	.085	495
BB	.180	51	No. 9	.080	594
No. 2	.150	90	No. 11	.060	1410

POWDER CHARGE BUSHINGS LIST

Powder Charge Bushings For 366 Auto And APEX™ Shotshell Presses

GRAINS	Acc. Arms Nitro 100	DuPont 700-X	DuPont PB	DuPont SR 7625	DuPont 800-X	DuPont SR 4756	DuPont MR 4227	Hercules Red Dot	Hercules Green Dot	Hercules Unique	Hercules Harco	Hercules Blue Dot	Hercules 2400	Hodg. Claye	Hodg. HSS	Hodg. HSS	Hodg. H11D	Royal Seal	Scot 1000	Scot 1250	Win. 452AA	Win. 473AA	Win. 540	Win. 571	Win. 296	Win. Super Target	Win. Super Lite	Win. Super Field				
10	330																															
11	342	324																														
12	357	339	324					384	363																							
13	369	351	336	351				393	378	342	357																					
14	387	366	345	363				405	390	354	369																					
15	402	378	357	372	366	303	423	405	369	381			300																			
16	414	390	369	390	378	312	438	420	381	393			312	429		303	291										333	330				
17	420	429	402	381	402	387	324	453	435	393	405			324	441		312	300								405	345	342				
18	432	441	414	390	414	399	333	468	447	405	414		366	330	456		318	309	471	456	420	402	369	308		417	354	351				
19	444	453	426	402	423	408	339	480	456	414	426		372	339	468		327	315	483	468	432	411	381	318		429	363	—				
20	456	465	435	414	429	417	348	489	468	423	438		381		483		336	324	495	480	444	420	390	327	330		438	372	—			
21	468	477	447	426	438	426	357	498	480	435	450		390		495		345	507	492	456	432	399	336	339		450	381	—				
22	486	466	438	447	435	366	510	492	444	462	396			510		354	519	504	468	441	408	345	348		459	390	—					
23	498	465	444	459	447	375	519	501	453	471	408					363	531	513	480	450	414	351	357		471	402	—					
24		474	453	468	459	384			513	465	477	414				369	543	519	489	462	426	360	363		480							
25		486	462	480	471	390			522	474	489	423					378	555	531	498	474	435	366	369						411		
26		495	474	489	480	399			534	483	498	435					375	387										420				
27		—	486	501	489	408			—	492	—	441					381	393										426				
28		510	495	507	495	414			549	501	513	447					390	402										432				
29		522	—	525	501	420			558	—	522	459					396	408										441				
30			501	531	513	426			510	531	468					402	414											450				
31			513	534	522	435				—	474					408	420											456				
32			519	543	525	441				549	483					417	429											462				
33				549	534	447				558	489					423	435											423				
34				558	543	453				564	495					429	441											429	429			
35					564	549	462				573	501					447												435	438		
36						558	468				—	510					453												441	444		
37						564	474				588	516					459												444	450		
38						573	480				594	522					465												450	456		
39						580	486				531					471												459	462			
40						588	492				534																465	468				
41						594	498				543																471	474				
42						—	—				549																	477	480			
43						606	510				555																	483	486			
44							519				561																	489	492			

HOW TO SELECT BUSHINGS FOR HALF-GRAIN CHARGES:

Hornady powder bushings are identified by numbers that correspond to the size of their inside diameter. (For instance, the inside diameter of the #402 bushing is .402 inches.) Bushings for powder charges in half-grain increments can be calculated from this chart. Simply "split the difference" between the two even-grain bushings, and select the bushing nearest the result.

Example: To find the bushing for 18 1/2 grains of Hercules Red Dot powder, note that bushing #468 gives a charge of 18 grains and that bushing #480 gives 19 grains. Split the difference between 468 and 480, and the result is 474. Thus, the correct bushing for 18 1/2 grains of Red Dot is bushing #474.

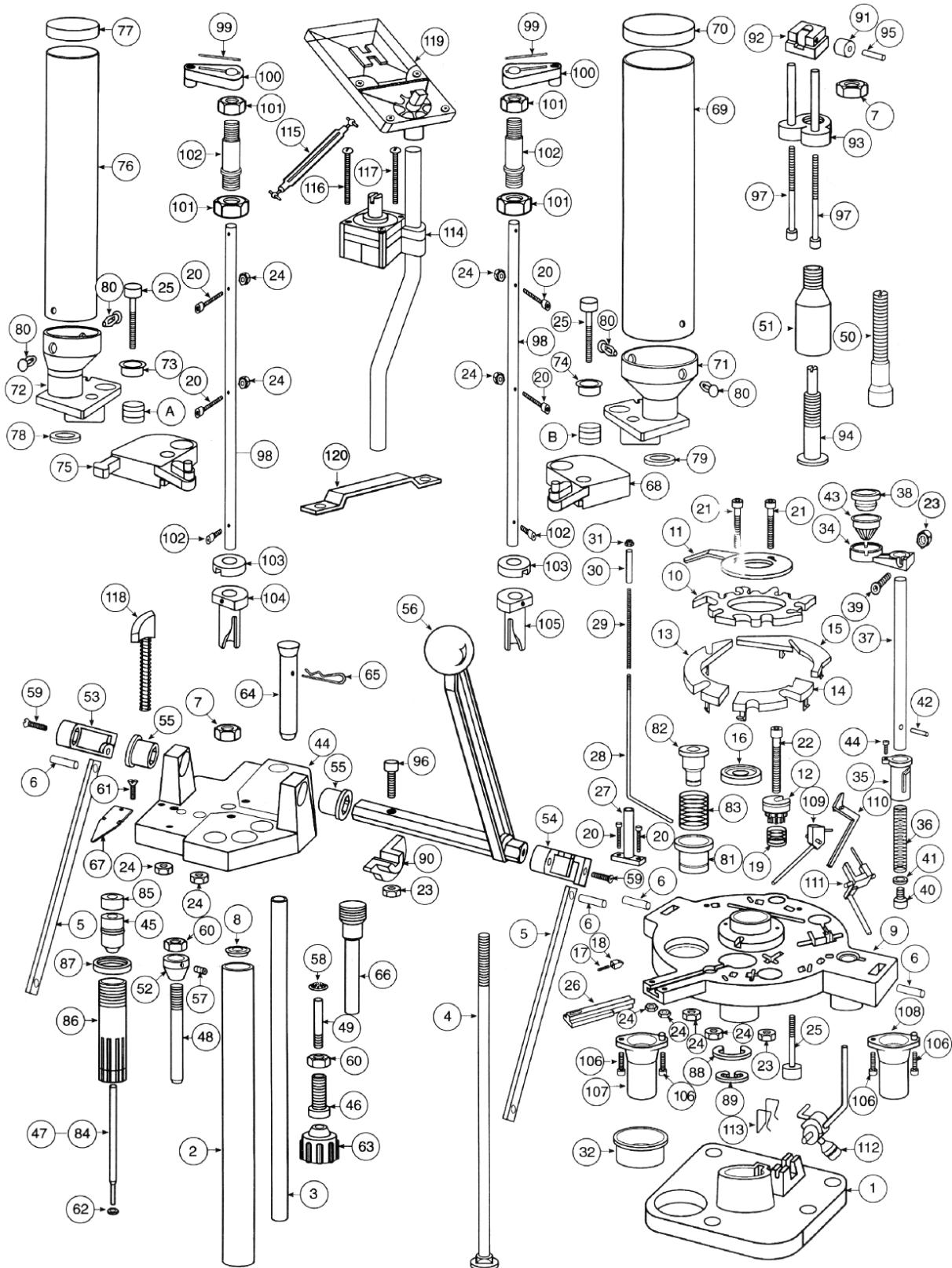


IMPORTANT: Due to agitation of powder during the loading operation, different models of loaders require different bushings. Therefore, the above chart should be used only for 366 Auto and Hornady's new APEX™. Additional charts are published for other Hornady loaders.

All charges listed on this chart are an average of several loads, weighed following the complete reloading cycle. Powders used in establishing these loads were from ballistic samples supplied by the manufacturer or sealed tins of recent manufacture. Charges may vary slightly due to operator's technique and/or moisture content of the powder.

— Means no bushing made for this grain weight.

If no bushing is listed or marked by dash, no load of this grain weight is recommended by powder manufacturer.





APEX 3.0

PARTS LISTING

NOTICE: Prices and/or specifications are subject to change without notice. Discontinued products may or may not have replacement parts available. Call for availability 800-338-3220.

KEY NO. PART NO. DESCRIPTION

1	170500	Base Casting
2	370501	Main Guide Post
3	170502	Auxiliary Guide Post
4	170505	Main Guide Post Bolt
5	170508	Drive Link (2)
6	390074	1/4 X 3/4 Dowel Pin (4)
7	390097	3/8 -16 Plain Steel Hex Nut
8	390654	Guide Post Bolt Retainer

PLATEN ASSEMBLY

9	370101	Platen Casting
10	170105	Shell Plate 12 GA
	170106	Shell Plate 10 GA
	170107	Shell Plate 20 GA
	170108	Shell Plate 28 GA
	170109	Shell Plate 410 Bore
11	370114	Shell Plate Retainer
12	370116	Primer Seater Pad
13	370145	Shell Retainer #1, 12 GA
	370165	Shell Retainer #1, 20 GA
	370175	Shell Retainer #1, 28 GA
	370185	Shell Retainer #1, 410 Bore
14	370146	Shell Retainer #2, 12 GA
	370166	Shell Retainer #2, 20 GA
	370176	Shell Retainer #2, 28 GA
	370186	Shell Retainer #2, 410 Bore
15	370147	Shell Retainer #3, 12 GA
	370167	Shell Retainer #3, 20 GA
	370177	Shell Retainer #3, 28 GA
	370187	Shell Retainer #3, 410 Bore
16	170235	Deprime Base 12 GA
	170237	Deprime Base 20 GA
	170238	Deprime Base 28 GA
	170239	Deprime Base 410 Bore
17	370334	Shell Plate Detent Spring
18	300333	Shell Plate Detent
19	380047	Primer Seater Spring
20	390104	6-32 X 1 Cap Screw (6)
21	390111	6-32 X 1 1/4 Cap Screw (2)
22	390113	10-32 X 1 Cap Screw
23	390211	10-32 Hex Nut (4)
24	392452	6-32 Hex Nut (10)
25	170413	Measure Mount Bolt (3)
26	370520	Primer Slide
27	370521	Primer Slide Cam Holder
28	370522	Primer Feed Cam
29	370525	Primer Slide Cam Spring
30	370527	Primer Spring Spacer
31	370252	6-32 Nylock Nut
33	370144	Primer Guide Tube (manual only)

WAD GUIDE ASSEMBLY

34	170600	Wad Guide Arm
35	170601	Wad Guide Cam
36	170602	Wad Guide Return Spring
37	170603	Wad Guide Shaft
38	170610	Wad Guide Cap 12 GA
	170612	Wad Guide Cap 20 GA
	170613	Wad Guide Cap 28 GA
	170614	Wad Guide Cap 410 Bore
39	390116	10-32 X 3/4 Button Hd Cap Screw
40	390130	10-32 X 1/2 Cap Screw
41	390651	10 SAE Plain Washer
42	390655	3mm x 12mm Dowel Pin
43	480007	Spring Finger 12 GA
	480009	Spring Finger 20 GA
	480010	Spring Finger 28 GA
	480011	Spring Finger 410 Bore
44	390200	5-40 x 3/8" Cap Screw

A - Powder Bushing
B - Shot Bushing

KEY NO. PART NO. DESCRIPTION**DIE HEAD ASSEMBLY**

44	370201	Die Head Casting
45	170215	Case Ejector/Deprime 12 GA
	170217	Case Ejector/Deprime 20 GA
	170218	Case Ejector/Deprime 28 GA
	170219	Case Ejector/Deprime 410 Bore
	170220	Case Ejector Spring
46	170315	Crimp Starter Holder
47	170320	Deprime Punch / Standard
48	170337	Primer Seater Punch 10/12/20 GA
	170339	Primer Seater Punch 410 Bore
49	392101	Crimp Starter Rod
50	170350	Crimp Plunger 12 GA-Standard
	170352	Crimp Plunger 20 GA-Standard
	170353	Crimp Plunger 28 GA-Standard
	170354	Crimp Plunger 410 Bore-Standard
51	170380	Crimp Die Body 12 GA
	170357	Crimp Die Body 20 GA
	170358	Crimp Die Body 28 GA
	170359	Crimp Die Body 410 Bore
52	170365	Case Flaring Sleeve 12 GA
	170367	Case Flaring Sleeve 20 GA
	170368	Case Flaring Sleeve 28 GA
	170369	Case Flaring Sleeve 410 Bore
53	170503	Left Toggle
54	170504	Right Toggle
55	170511	Driveshaft Bushings (2)
56	170512	Handle/Driveshaft Assembly
57	390064	10-32 X 1/8 Set Screw
58	390066	3/16 Push Nut
59	390079	10-32 X 5/8 Flat Hd Screw (2)
60	390251	1/2-20 Steel Hex Jam Nut (2)
61	390187	6-32 X 1/2 Slt Flat Hd Screw
62	390648	O-Ring, 1/8-ID X 1/4-OD
63	490500	Crimp Starter 12 GA-8 Pt
	490501	Crimp Starter 12 GA-6 Pt
	490313	Crimp Starter 12 GA-Paper
	490503	Crimp Starter 20 GA-8 Pt
	490504	Crimp Starter 20 GA-6 Pt
	490319	Crimp Starter 20 GA-Paper
	490509	Crimp Starter 28 GA-6 Pt
	490321	Crimp Starter 28 GA-Paper
	490511	Crimp Starter 410 Bore-6 Pt
	490323	Crimp Starter 410 Bore-Paper
64	170470	Powder Drop Tube 12/10 GA
	170470	Powder Drop Tube 20/28 GA
	170472	Powder Drop Tube 410 GA
65	390640	Hitch Pin
66	170370	Shot Drop Tube 12/10 GA
	170371	Shot Drop Tube 20/28 GA
	170372	Shot Drop Tube 410 Bore
67	370523	Primer Feed Cam Bar
	370249	Groove Pin

SHOT & POWDER DROP ASSEMBLIES

68	370302	Shot Charge Bar
69	170304	Shot Hopper Tube
70	170305	Shot Hopper Cap
71	370335	Shot Measure Casting Assy
72	370336	Powder Measure Casting Assy
73	170344	Powder Bushing Cover
74	170345	Shot Bushing Cover
75	370402	Powder Charge Bar
76	170404	Powder Hopper Tube
77	170405	Powder Hopper Cap
78	170412	Powder Charge Bar Seal
79	480001	Shot Charge Bar Seal
80	390098	3/16 Plastic Drive Rivet (4)

KEY NO. PART NO. DESCRIPTION

81	170117	Collet Sizer Base
82	170118	Collet Sizer Plunger
83	170119	Collet Sizer Plunger Ret'n Sprg
84	170210	Deprime Punch / Collet Sizer
85	170223	Ejector Spacer
86	170240	Size Die Body, 12 GA
	170242	Size Die Body, 20 GA
	170243	Size Die Body, 28 GA
	170244	Size Die Body, 410 Bore
87	170246	Size Die Lock Ring
88	390080	Crescent Ring
89	390081	E-Ring

OPTION PACKAGES**071312 CRIMP DIE ASSEMBLY**

90	170319	Crimp Die Cam
91	170324	Crimp Die Cam Follower
92	170327	Crimp Die Bracket (Upper)
93	170328	Crimp Die Bracket (Lower)
94	170360	Crimp Plunger 12 GA-Auto
	170362	Crimp Plunger 20 GA-Auto
	170363	Crimp Plunger 28 GA-Auto
	170364	Crimp Plunger 410 Bore-Auto
95	390117	Dowel Pin 1/8 X 3/4
96	392010	10-32 X 1 Cap Screw
97	390131	Crimp Die Bracket Screw (2)

373400 AUTO POWDER/SHOT CHARGE

98	170308	Charge Bar Rod
99	370258	1/8" x 1 1/2" Dowel Pin (2)
100	370311	Charge Bar Driver
101	370251	1/2 x 20 Jam Nut (2)
102	370257	Charge Bar Return Screw
103	370310	Charge Bar Bearing
104	370540	Upper Powder Cam
105	370545	Upper Shot Cam
106	370253	6-32 x 1/2 Cap Screw (4)
107	370541	Lower Powder Cam
108	370546	Lower Shot Cam
109	370530	Powder Actuator
110	370230	Powder Detect
111	370225	Shot Detect/Actuator
	370312	Charge Bar Post
	370250	9/16 x 18 Jam Nut

070800 INDEXER ASSEMBLY

112	370800	Indexer
113	170806	Indexer Retaining Clip

370500 AUTO PRIMER DROP

114	370700	Auto Primer Feed Assy
115	170702	Primer Feed Ball Joint Shaft
116	390123	6-32 x 2 1/4" Machine Screw
117	370256	6-32 x 2 1/2" Machine Screw
118	070701	Primer Feed Cam Assy
119	170750NP	Primer Tube Filler Assy.

LOADER ACCESSORIES

120	170409	Powder/Shot Charge Bar Link
	370425	Powder/Shot Drain Tube
	390036	5/32" Short Arm Hex Key
	390652	7/64" Short Arm Hex Key
	390653	1/8" Short Arm Hex Key
	390656	3/32" Short Arm Hex Key
32	170342	Spent Primer Catcher
	390670	Chip Brush

For parts inquiries, call 1-800-338-3220

SHOTSHELL RELOADER BUSHINGS

Shot Charge Bushings

Item	Description	Lbs	UPC
190099	1/2 oz. #9	1/4	19009
190100	3/4 oz. #9	1/4	19100
190101	7/8 oz. #9	1/4	19101
190102	1 1/8 oz. #9	1/4	19102
190107	1 oz. #7 1/2	1/4	19107
190108	1 1/8 oz. #7 1/2	1/4	19108
190096	1 oz. #8	1/4	19096
190097	1 1/8 oz. #8	1/4	19097
190098	1 1/8 oz. #8 1/2	1/4	19098

Steel Shot Bushings

Item	Description	Lbs	UPC
290102	1 oz. #4 & 6	1/4	92102
290103	1 1/8 oz. #4&6	1/4	92103
290104	1 1/4 oz. #4&6	1/4	92104
290202	1 oz. #1 & 2	1/4	92202
290203	1 1/8 oz. #1&2	1/4	92203
290204	1 1/4 oz. #1&2	1/4	92204

For Use in Models 155, 266 & Apex

Field Load Bushings

Item	Description	Lbs	UPC
190114	11/16 oz.	1/4	19114
190115	1/2 oz.	1/4	19115
190116	5/8 oz.	1/4	19116
190117	3/4 oz.	1/4	19117
190118	7/8 oz.	1/4	19118
190119	1 oz.	1/4	19119
190120	1 1/8 oz.	1/4	19120

Item	Description	Lbs	UPC
190121	1 1/4 oz.	1/4	19121
190122	1 3/8 oz.	1/4	19122
190123	1 1/2 oz.	1/4	19123
190124	1 5/8 oz.	1/4	19124
190125	1 3/4 oz.	1/4	19125
190126	1 7/8 oz.	1/4	19126
190251	2 oz.	1/4	19251
190252	2 1/8 oz.	1/4	19252

Powder Charge Bushings

Item	#	UPC
190184	256	19184
190185	266	19185
190231	291	19231
190128	300	19128
190129	309	19129
190131	318	19131
190133	327	19133
190135	336	19135
190137	345	19137
190190	354	19190
190140	360	19140
190141	366	19141
190143	372	19143
190145	381	19145
190147	390	19147
190194	396	19194
190150	402	19150

Item	#	UPC
190151	408	19151
190153	414	19153
190155	420	19155
190156	423	19156
190196	426	19196
190157	429	19157
190158	432	19158
190197	435	19197
190159	438	19159
190198	441	19198
190160	444	19160
190199	447	19199
190161	450	19161
190162	453	19162
190163	456	19163
190164	459	19164

Item	#	UPC
190165	462	19165
190166	465	19166
190167	468	19167
190168	471	19168
190169	474	19169
190171	480	19171
190200	486	19200
190201	489	19201
190173	498	19173
190236	507	19236
190176	516	19176
190178	525	19178
190179	534	19179
190180	549	19180
190181	558	19181
190183	588	19183

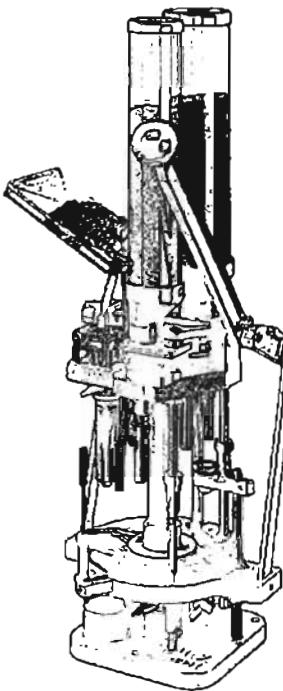
Universal Crimp Starter

Item	Description	wt.	UPC
490500	12 ga. 8 pt.	1/4	94500
490501	12 ga. 6 pt.	1/4	94501
490313	12 ga. paper	1/4	94313
490314	16 ga. 8 pt.	1/4	94314
490315	16 ga. 6 pt.	1/4	94315
490316	16 ga. paper	1/4	94316
490503	20 ga. 8 pt.	1/4	94503

Item	Description	wt.	UPC
490504	20 ga. 6 pt.	1/4	94504
490319	20 ga. paper	1/4	94319
490509	28 ga. 6 pt.	1/4	94509
490321	28 ga. paper	1/4	94321
490511	410 bore 6 pt.	1/4	94511
490323	410 bore pa.	1/4	94323
490512	10 ga. 6 pt.	1/4	94512
490325	10 ga. paper	1/4	94325

SHOTSHELL RELOADING ACCESSORIES

Available at your local dealer or from Hornady, 1-800-338-3220



APEX 3.0™ Automatic Accessories

You can add these accessories at the time of purchase or anytime thereafter. They come packaged with fully-illustrated instructions and are easily added to the APEX 3.0 Standard. All of these accessories are included with the APEX 3.0 Auto.

Collet Size Die

12 gauge	No. 070212
20 gauge	No. 070220

Cam-Actuated Crimp Die

12 gauge	No. 071312
20 gauge	No. 071320

Automatic Primer Feed

No. 370700

Automatic Shot/Powder Feed

No. 373400

Automatic Index

No. 370800

STEEL DIAL CALIPER



Makes precision measurements to .001". Measures overall shell length, inside/outside diameters and primer pocket depth. Includes carrying case.
No. 050075

WAD GUIDE SPRING FINGERS



Spring fingers guide the wad straight into the hull and prevents tipping.

10 gauge	No. 480012	20 gauge	No. 480009
12 gauge	No. 480007	28 gauge	No. 480010
16 gauge	No. 480008	.410 gauge	No. 480011

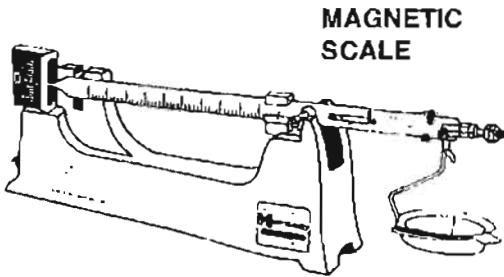
BUCKSHOT



Hornady Buckshot is cold swaged and hardened with 3% antimony. As a result you get buckshot that flies straighter and hits harder.

Available in 5 lb. bags.

Size		Order No.
#4	.240 Buckshot	6414
#3	.250 Buckshot	6413
#2	.270 Buckshot	6412
#1	.300 Buckshot	6411
#0	.320 Buckshot	6410
#00	.330 Buckshot	6400
#000	Buckshot	64000



Fast accurate weighing of charges. Model "M" scale weighs to within 1/10th grain, accuracy over a 0-510 grain range. Magnetic dampening stops beam swing.

"M" Scale No. 050026

VERSALITE™ WADS

One wad for all your shooting needs. Change the shot charge, the powder charge, the shell style—or all three, without changing wad styles. Adjusts to the correct wad length. Bag of 250 wads.

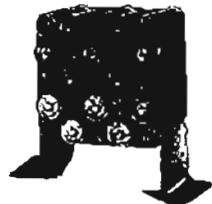
12 gauge (Red) No. 480050
20 gauge (White) No. 480051



WAD/HULL DISPENSER BOXES

These sturdy cardboard dispensers hold up to 200 wads or shotshells. Frees up workspace while reloading. Twin Pack No. 480026

STACK-N- PACK™



Fill the Stack-N-Pack with 25 loaded shells and slip them into your shotshell box all at once. Comes with 2 boxes. No. 480020



SHOTSHELL BOXES

Extra Boxes for 12-gauge reloads. Each holds 25 rounds and are reusable. 10-Pack No. 480024



UNIQUE™ CASE LUBE

Perfect for lubricating steel parts on your shotshell loader. Not harmful to polymer parts. No. 393299



WARRANTY

"We guarantee every one of our reloading tools and accessories for life."

No-Risk, Lifetime Warranty

All Hornady reloading tools and accessories are warranted against material defects and workmanship for the life of the product. Parts, which by the nature of their function are subject to normal wear such as springs, pins, bearings, etc. . . . and, parts which have been altered, abused or neglected — are excluded from the warranty.

If the product is deemed defective by either workmanship or materials, the reloading tool or accessory will either be repaired, reconditioned or replaced (at Hornady Manufacturing Company's option).

If it breaks, we'll repair it or replace it without charge.

This warranty supersedes all other warranties for Hornady products whether written or oral.

Please Note: Normally, few problems are encountered when reloading shotshells. However, variations in the powder lot, different brands of primers and other components can cause substantial changes in pressure. Hornady Manufacturing Company has no control over these components and other equipment that may be used with this published information; no responsibility is implied or assumed for results obtained through their use. The loading data provided was tested in modern firearms and does not exceed manufacturer's pressure recommendations.

Further information may be obtained from:

Accurate Arms
Dupont Explosive Products
Hercules Powder Company
Hodgdon Powder
Scot
Winchester Division/Olin Corp.

To return a product, send it **TRANSPORTATION PREPAID**, to:

Hornady Manufacturing Company
3625 Old Potash Highway
Grand Island, NE 68803

Prices and/or specifications are subject to change without notice. For the best prices on any of our products, contact your nearest Hornady dealer.

Hornady Manufacturing Company cannot assume any liability for damage which may result from use of the product or information given herein, since Hornady has no control over the manner in which products or components are used in the reloading process.



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