

SHOTSHELL RELOADING WITH THE



Model 8567 Grabber™

Mayville Engineering Company, foremost manufacturer of reloading equipment in America, is widely respected for its continuing dedication to precision engineering.

This precision is incorporated into every one of MEC's "New Generation" reloaders rendering truly innovative and efficient engineering designs.

The MEC Model 8567 Grabber is no exception. It is the latest in our line of progressive machines. The Model 8567 Grabber allows you to resize any high or low brass shells manufactured in the U.S.A. It can be converted to reload 3" and will reload steel shot.

To convert to 3" (12 & 20 ga. *ONLY*), Kit No. 8582 is necessary. REFER TO INSTRUCTION SHEET ENCLOSED IN KIT.

This reloader will allow you to reload with steel shot. To convert to steel shot, Kit No. 8581 is necessary.

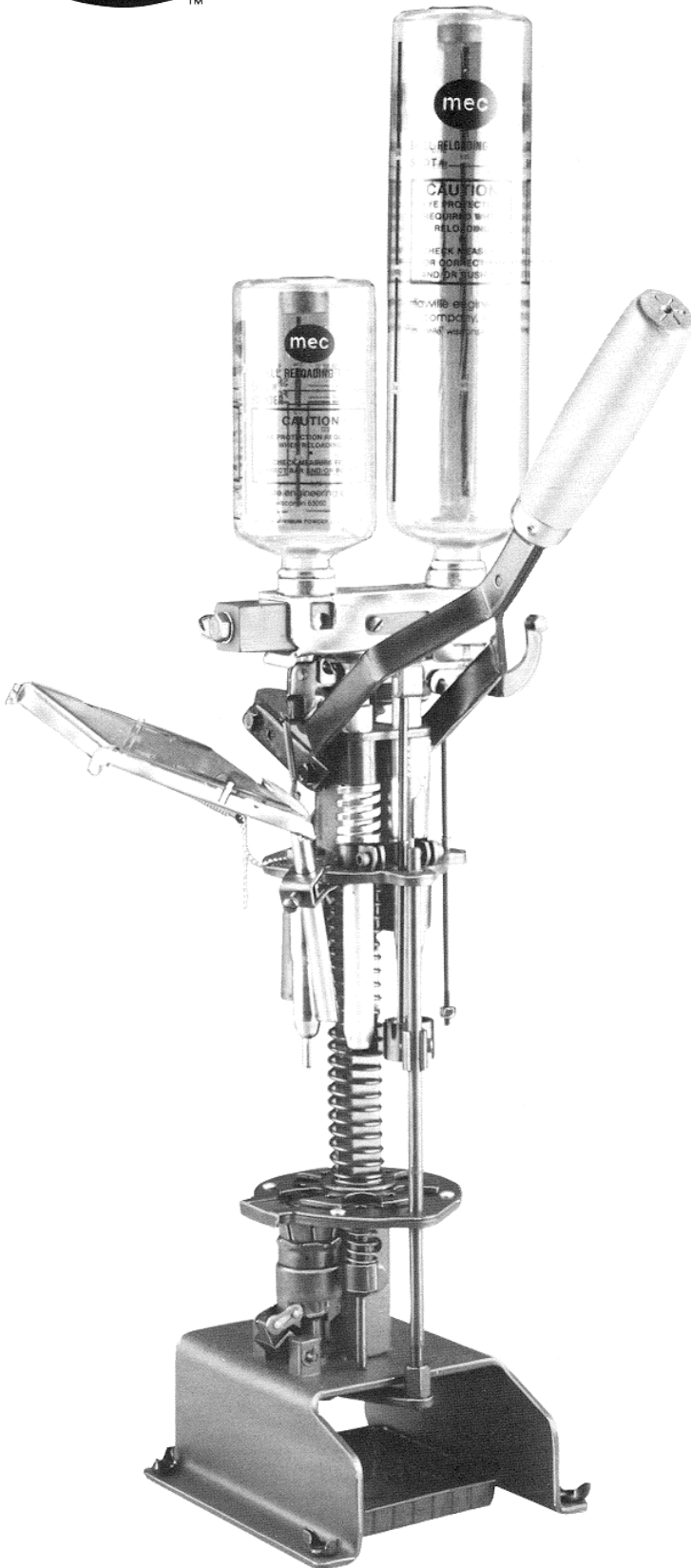
However, if you already have a 3" kit, you need only order our single stage steel shot adaptor Kit No. 8433.

If you *do not* have our 3" kit, it is necessary to order progressive steel shot Kit. No. 8581.

A special steel shot charge bar must be used when loading steel shot. Do not use charge bars designed for lead shot when loading steel shotshells.

Common sense precautions are advised. Careless handling of flammables and explosives can result in serious injury. We endorse checking charges with a reliable scale which will disclose variations in powder weights. Adhering to loads recommended by the powder manufacturer is a must and the use of **safety glasses is strongly encouraged**. We disclaim any liability for damage or injury resulting from reloading shotshells.

We disclaim any liability resulting from the use of any parts or accessories not manufactured or recommended by MEC.



LET'S LOOK INSIDE A SHOTSHELL...

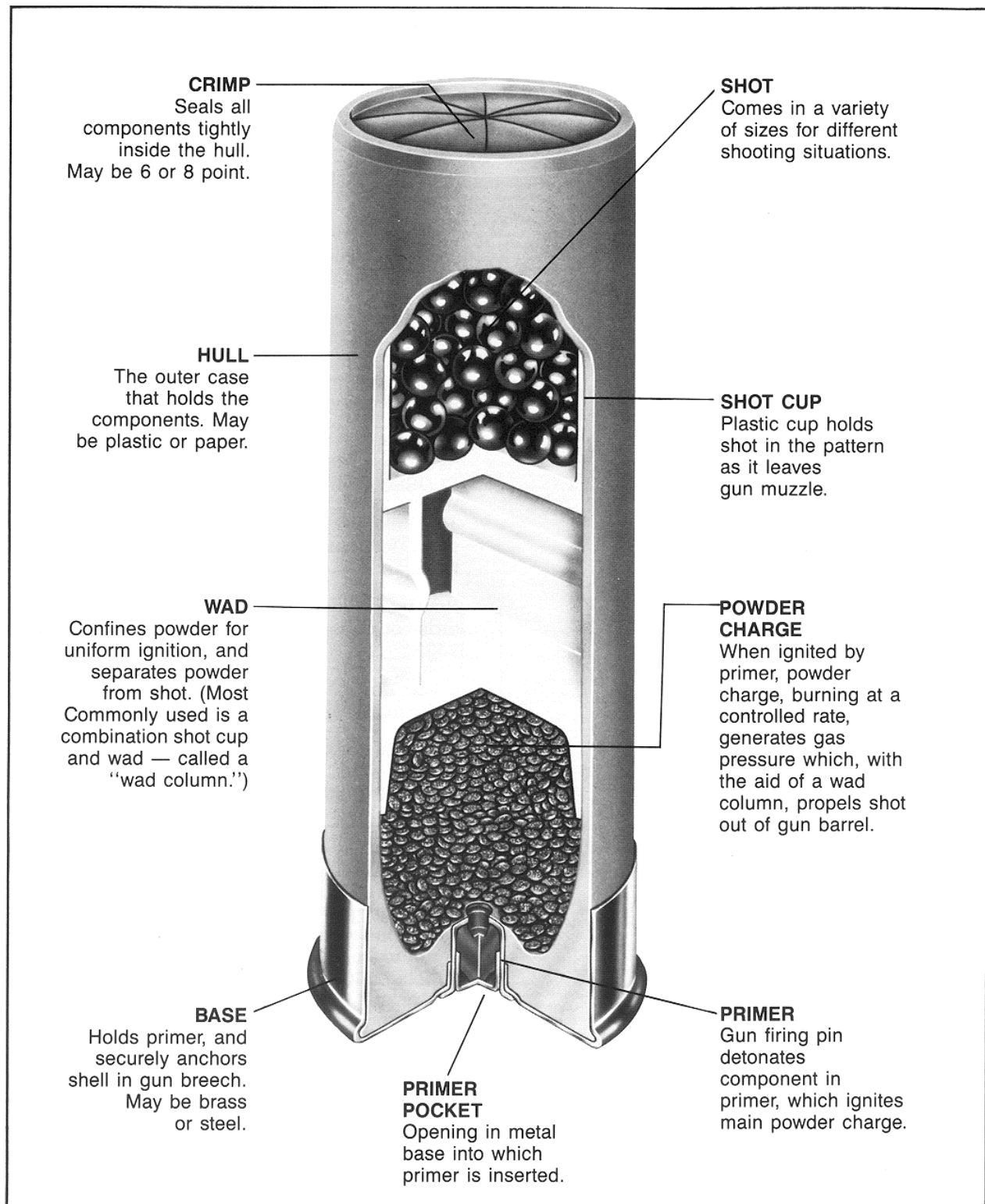


Photo No. 1

HOW TO SELECT COMPONENTS

As we saw on the previous page, a shotshell is made up of several different components. There are many different variations of each component.

Packed with every MEC reloader are brochures supplied by leading component manufacturers. A study of this literature will show you numerous combinations of primer, powder charge, wad and shot you should use with each empty hull, for waterfowl, small game, or trap and skeet. Each combination of components has been carefully tested by ballistics experts for maximum effectiveness and safety. **Experimenting with combinations not recommended by a component manufacturer is fool-hardy and dangerous!**

Choosing the Hull.

Proper choice of empty hulls is one of the most important choices you must make to keep your reloading simple.

The problems encountered by trying to use any and all of the hulls you may find are usually quite discouraging. Not all hulls have the same capacity. Not all hulls have the same crimp. Each time that you use a hull with a different capacity (usually caused by different base wad height) you must assemble a different set of components to properly fill this case.

We are not recommending that you throw away all the nonstandard hulls that you have, but are advising you to keep it simple until you have gained the experience necessary to assemble the different components.

Selecting the Right Wad.

The wad is that part of the shotshell between the powder and the shot. A tight seal permits the expanding gas from the burning powder to push the shot column out of the gun barrel with maximum velocity.

Modern "wad columns" combine both the shot cup and the wad in one piece. These one-piece wad columns are the easiest to use, and therefore are most popular — especially with beginning reloaders. There are many different kinds. Use only the specific wad column recommended for the other components you are using.

The Shot.

There are two kinds of shot — lead and steel. **Lead and steel shot are not interchangeable.** Reloading with steel shot requires special wads. Using wads designed for lead shot will not only ruin your gun, but could cause high pressures that could burst the gun causing injury or death to the shooter or bystander.

When loading with steel shot, it is imperative that steel shot components be used and the instructions for these components be followed to the letter. Only select components that are suited for steel shot reloading.

As the size of the shot increases, fewer pellets can be loaded into the hull. The smaller sizes are used for trap and skeet, doves, varmints, small game, etc. The larger shot sizes are for heavier game — ducks, geese, turkeys, etc.

SHOT SIZES

(Shown Actual Size)

| Lead Shot | | Buckshot | |
|-----------|---------|----------|--------|
| No. | Dia. | | |
| 9 | ● .08" | 4 | ● .24" |
| 8½ | ● .085" | | |
| 8 | ● .09" | 3 | ● .25" |
| 7½ | ● .095" | | |
| 7 | ● .10" | 1 | ● .30" |
| 6 | ● .11" | | |
| 5 | ● .12" | 0 | ● .32" |
| 4 | ● .13" | | |
| 2 | ● .15" | 00 | ● .33" |
| Air | | | |
| Rifle | ● .175" | | |
| BB | ● .18" | | |

All Powder Is Not Alike.

Different powders have different burning speeds, which make them useful for different jobs. The heavier the shot load, the slower the powder must burn. It takes longer to accelerate a heavy shot load than it does a light one.

A fast burning powder ignited behind a heavy shot load could cause excessive "breach pressure" which might cause damage to the gun and even injury to the shooter or bystander. (Breach pressure is the pressure of the gas which is created by the burning powder. It is this breach pressure which forces the shot through the barrel.)

On the other hand, using a slow-burning powder to propel a light load of shot will not work effectively. Without the proper pressure buildup, many powders will not burn uniformly and impart sufficient velocity to the shot. **Never interchange powders for reloading steel shot.** A powder that generates acceptable pressures on 1½ oz. of lead shot cannot be used to propel 1½ oz. of steel shot. The pressures will raise to dangerous levels.

Which Primer to Use?

The primer ignites the powder. When you pull the trigger, the hammer falls on the firing pin, denting the primer cup. This causes the component in the primer to detonate, igniting the main powder charge.

Different primers have different characteristics depending on their purpose. Use only the primer that is recommended by the component manufacturer for the hull, powder, wad, and shot load you are using.

To make reloading safe, all it takes is common sense and the ability to read and follow the directions of the various component manufacturers.

When you purchase your powder, get a copy of the "SAAMI" (Sporting Arms and Manufacturers Institute) pamphlet on the properties and storage of smokeless powder. Read this literature and abide by it. Generally speaking, powder is safer than gasoline, because unlike gasoline, it does not give off explosive fumes. If ignited, powder will burn until it consumes itself. Modern smokeless powders must be confined to cause an explosion. The containers that powder is purchased in are designed to burst without causing an explosion if the powder is accidentally ignited. Your powder should be kept in these containers until it is used up. It is unsafe to put powder in a glass jar or bottle or any other container which could cause pressure buildup. Store your powder where there is no chance of sparks, fire or flame, where it is cool and dry, and where children cannot reach it.

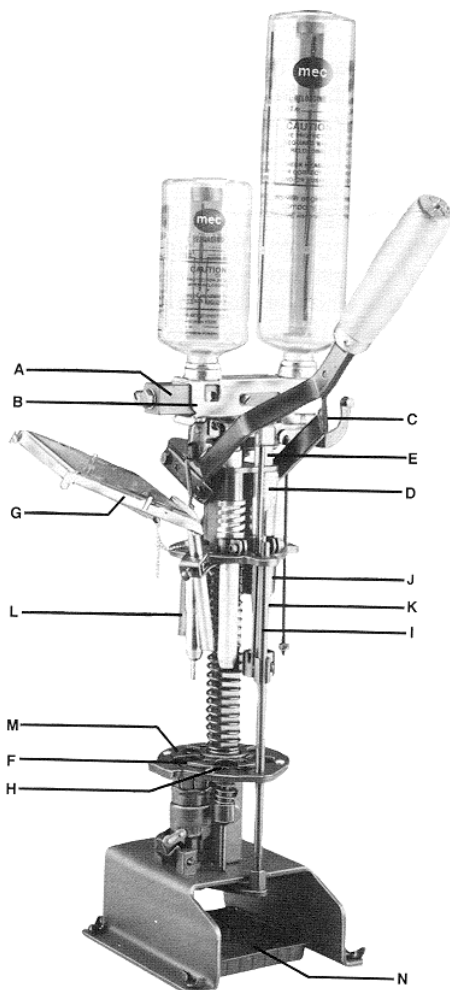
Primers also require care in handling. Never take primers from the container that they come in until ready for use. Storage of primers in anything but the container

that they were purchased in is unsafe. Exposing a primer to excessive heat, or to fire, flame or rough handling will cause it to explode. Do not store primers near your powder or where children can get at them.

When a manufacturer tells you to use a particular set of components in a shell it means precisely that. You cannot indiscriminately experiment with or substitute components without experiencing problems. At best, you will get a shell which fails to give the performance you expect. At worst, you may inflict serious injury upon yourself or someone else who fires your reloaded shells. The manufacturer has extensively tested recommended loads and knows how they perform. Always follow these recommendations exactly.

It is also highly recommended that safety glasses be worn when reloading.

When finished reloading, remove the containers from your machine and seal them with caps and put them in a safe place. Also return all primers to their original container and store them in a safe place. It is important that these materials are kept out of the reach of children and other unauthorized persons.



After removing your new reloader from its carton, inspect it carefully for damage. In addition to the reloader itself, you should have these additional parts shown in Photo No. 3.

Before you actually try reloading, we recommend that you look over your loader and compare it with this diagram identifying all the parts and dies you'll be using.

- A. CHARGING BAR is located just under the powder and shot containers.
- B. MEASURING ASSEMBLY pivots back for easy changing of loads.
- C. AUTOMATIC-CYCLE MECHANISM. Each stroke of the handle automatically moves the charge bar to left or right measuring and charging precise amounts of powder or shot into the shells.
- D. WAD PRESSURE INDICATOR gives exact amount of pressure actually being applied to the wad column at the bottom of the handle stroke.
- E. WAD HEIGHT INDICATOR used to disclose improper wadding.
- F. DEPRIMING STATION at which the shell mouth is ironed and shell head is truly resized to industry standards for minimum diameter.
- G. AUTOMATIC PRIMER FEED positions primers in shell carrier with each stroke of the handle.
- H. REPRIMING STATION at which shell is also charged with powder. Spring tension automatically applies the proper pressure and compensates for variations in height of base wad while seating primer.
- I. RAMMER TUBE is used to seat the wad column and through which shot is also dropped into the shell.
- J. SPINDEX™ CRIMP STARTING with swivel action to correctly align with the original shell creases. Can be changed from 6-8 pt. in seconds.
- K. CRIMPING STATION with the exclusive cam-operated two stage crimping apparatus. Die is adjustable for depth of crimp. (Not showing)
- L. RESIZING AND FINISHING STATION radius may be adjusted to suit individual taste. (Not Showing)
- M. SHELL CARRIER into which shells are placed and which positions each shell at the proper station.
- N. PRIMER CATCHER which is placed into position under the base.

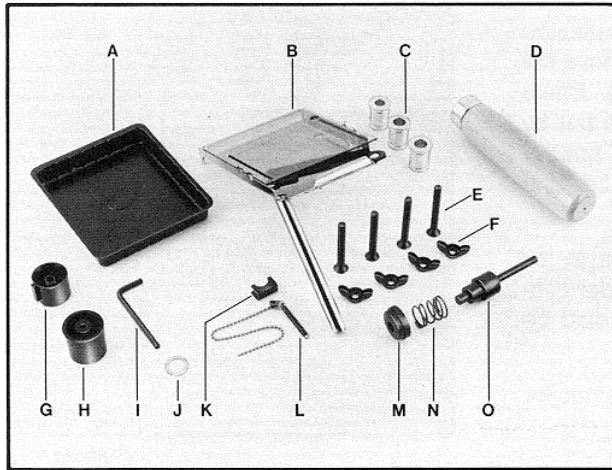


Photo No. 3

Contents of Parts Bag

- | | |
|--------------------------|-----------------------------|
| A. Primer Catcher | I. Allen Wrench |
| B. Primer Feed | J. Brass Washer |
| C. Bushings (3) | K. Retaining Clip |
| D. Handle | L. Primer Feed Spring/Chain |
| E. Bolts (4) | M. Spring Pad |
| F. Wing Nuts (4) | N. Spring |
| G. Wad Guide | O. Primer Seating Post |
| H. Spindex Crimp Starter | (12 - 16 - 20 gauge only) |

(M, N, O) Assemble as shown in Photo No. 18.
 (J) Brass washer is used with fine grain powders (Winchester) to prevent leaking. Install smooth side down on the powder side of the measure by removing the grommet, replace grommet over washer, Photo No. 8.

MOUNTING YOUR RELOADER

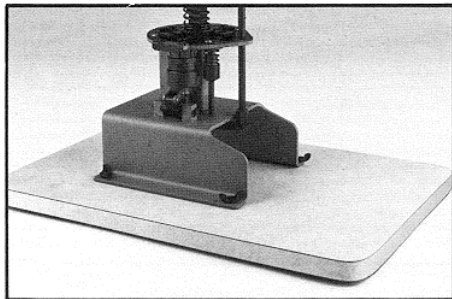


Photo No. 4

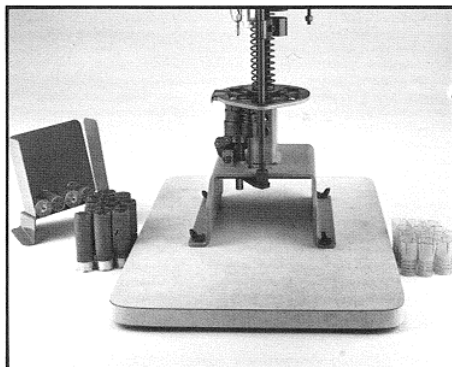


Photo No. 5

Although it is desirable to have your reloader mounted permanently to a bench, it is not a necessity. However, if you do mount your reloader on a bench, allow sufficient room to tilt the measure as in Photo No. 6. If you cannot mount your reloader permanently to a bench, we recommend placing your reloader on a piece of $\frac{3}{4}$ x 12 x 18" plywood. Photo No. 4 shows the ideal location for your loader on a piece of plywood. Install your loader by placing it in the proper location, marking through the holes with a pencil, then remove your reloader and drill a $\frac{9}{32}$ hole at these locations. Put the reloader back in position and fasten securely with the $\frac{1}{4}$ x 20 x 2" countersunk stove bolts with wing nuts. Place the bolts in from the bottom up and draw them up tight enough so the heads are slightly depressed so that they will not scratch the bench or table.

By this time you should have made your choice of components. Photo No. 5 shows how these components should be placed for the most efficient operation of your Grabber.

You will note that the measure will tilt to the rear for easy removal of shot and powder containers, Photo No. 6. Note: The screw on which the measure pivots should be kept tight enough so that some resistance is felt when tilting the measure.

Installing the wood handle grip.

Drive handle onto lever up to the mark on the side of the handle, Photo No. 7.

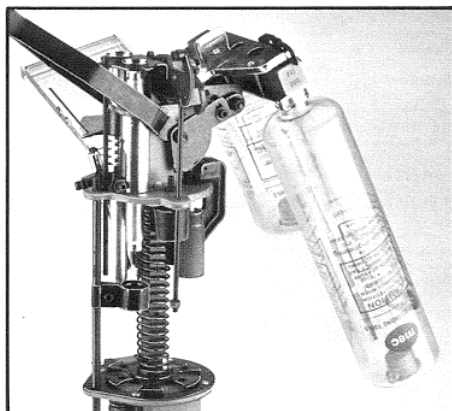


Photo No. 6

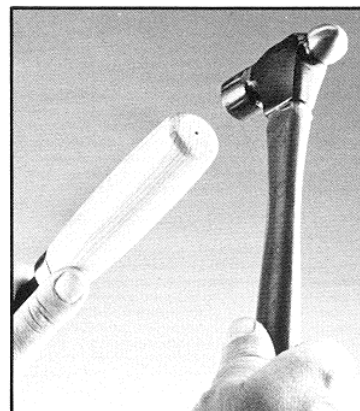


Photo No. 7

Measure Assembly

As you face the loader, you will see the measure. On this measure you will see (powder) on the left and (shot) on the right. Remove the charge bar by first disconnecting the bar return spring, Photo No. 8, and remove the bar screw. Now remove the charge bar by sliding it to the left, Photo No. 9, remove the disc covering the powder bushing hole. Now place the proper bushing into the charge bar, and replace bar, spring and screw.

After making sure that the neoprene grommet is in place in the measure, Photo No.10, you may turn a plastic shot and powder container into each of the threaded cups. The charge bar should be locked in position as per Photo No. 11.

Note: Use the large container for shot and the small container for powder.

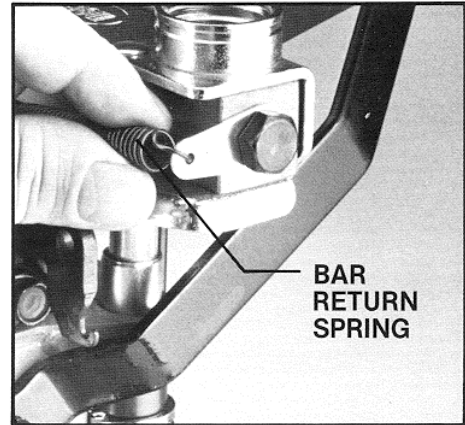


Photo No. 8

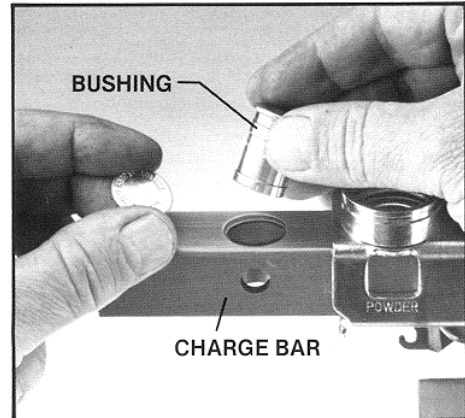


Photo No. 9

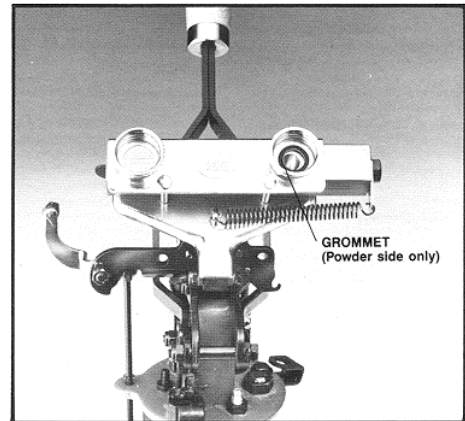


Photo No. 10

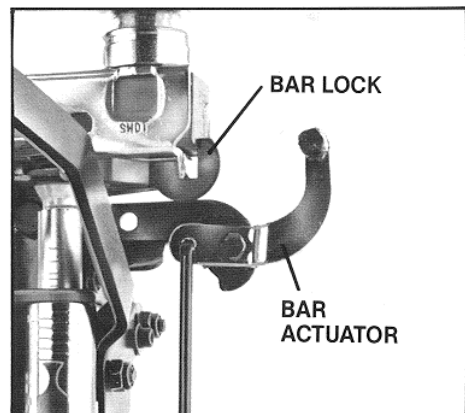


Photo No. 11

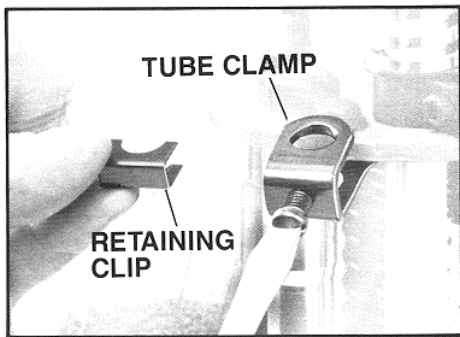


Photo No. 12

Installing the Primer Feed

Remove the primer feed tray from the parts box along with the spring/chain and retaining clip.

Place retaining clip in place, Photo No. 12. Insert tube into the tube clamp. Now depress handle so that primer tube will rest on the hole provided in the shell carrier, Photo No. 13. Now tighten screw to hold tube and tray in position. Now hook the spring/chain in position, Photo No. 14. The spring actuates the primer feed when you depress the handle, adjust the chain position to achieve a positive feed every time. The primer should drop about 1/4 inch from the bottom of the stroke, Photo No. 15.

Note: It may be necessary to bend the tube clamp, Photo No. 12, to assure perfect alignment with the primer receiver hole.



Photo No. 13

Loading the automatic primer feed.

Lower handle and open primer feed cover. Place box of primers on tray. Slide box cover off slowly, leaving liner and primers on tray, Photo No. 16. Carefully lift the liner, leaving the primers on the tray, Photo No. 17. Close primer tray cover.

Installing the Primer Seating Assembly

Your Grabber is equipped with the exclusive self-cleaning primer seating assembly. It consists of 3 parts. Spring pad (A), seating spring (B) and seating post (C). Photo No. 18.

To Install: Hold spring pad in place on underside of base with left hand. Place spring on seating post and insert into pad using upward pressure. Seat pointed base of seating post in detent provided for this purpose.

To Remove: Simply grasp seating post, lift and pull toward you.

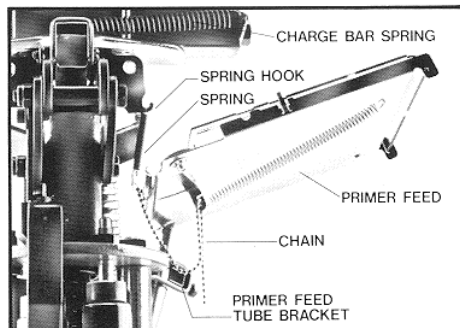


Photo No. 14



Photo No. 15

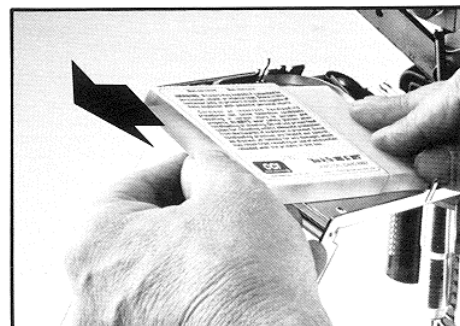


Photo No. 16

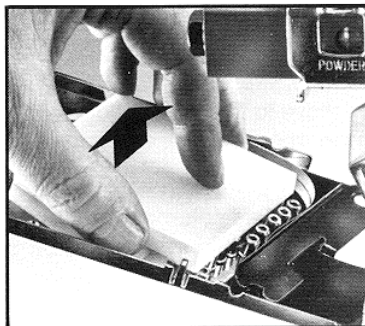


Photo No. 17

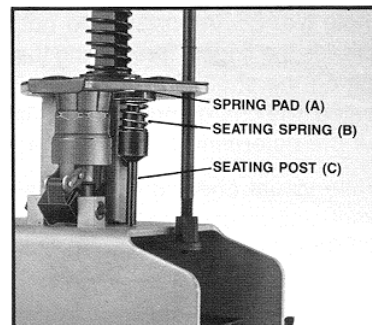


Photo No. 18

LET'S START RELOADING

This drawing clearly shows a top view of the six shotshell reloading stations. You will note that your shells are processed in a counter-clockwise rotation. In order to explain the reloading sequence step by step using only one shell, and going through each reloading station, we purposely detached the automatic primer feed spring from the hook. **Note: Manual loading of primer will be necessary while spring is disconnected.**

Move the charge bar to the left as far as it will go and lock it in this position with the bar lock, Photo No. 11. At this time, you may put the proper powder and shot into their respective containers. Now we're ready to completely reload a single shell.

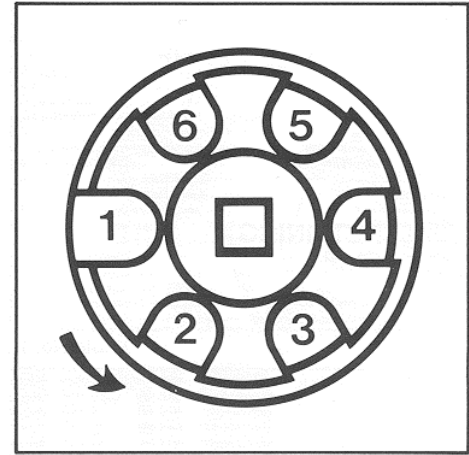


Photo No. 19

STEP ONE

Place empty shell into the carrier at the deprime Station No. 1, Photo No. 20 and pull down on the handle, lowering the shell into the resize collet where it is resized and the spent primer is removed. Place a fresh primer into the primer cup. Next, rotate the six-stage carrier counterclockwise with your left hand. This is a two-stage motion with click stop positioning. Then position the shell under the reprime tube Station No. 2, Photo No. 21.

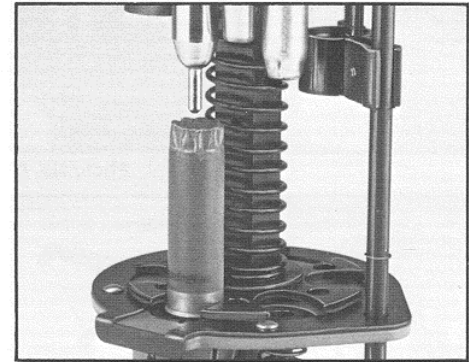


Photo No. 20

STEP TWO

Again, with your right hand, depress the handle fully to the bottom of the stroke which reprimers the shell. On the down stroke, the charge bar lock lever will automatically unlock the bar *and* on the up stroke the bar will move to the right releasing the proper powder charge into the shell casing. Now move the carrier counterclockwise two clicks to the next station. Station No. 3.

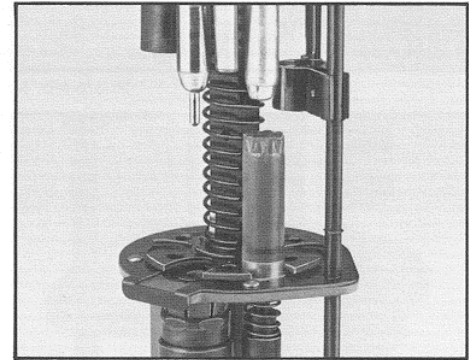


Photo No. 21

STEP THREE

Using your right hand, place the proper wad column on the wad ram, Photo No. 22. Important: Do not force wads into the guide as this spreads the fingers, preventing the wad guide from dropping into position on the shell. By depressing the handle, the wad will be firmly seated, the charge bar will automatically move to the left position and the pre-determined shot charge will drop into the shell

While visual checking is not necessary, the pointer indicates the exact amount of pressure being applied to the wad column when the handle is depressed. The reading is always positive regardless of any other adjustments. While tool has been pre-set at the factory for average pressure required, you may find it desirable to increase or decrease pressure. Photo No. 41.

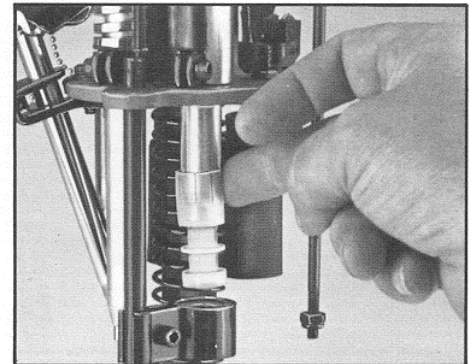


Photo No. 22

STEP FOUR

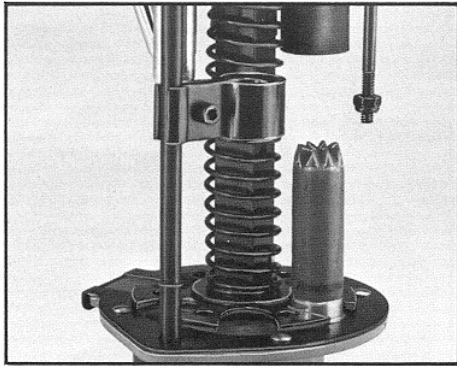


Photo No. 23

Index the shell to Station No. 4 where the downstroke of the operating handle, the crimp is started with the exclusive spindex crimp starter. Note that this crimp starter may be adjusted up or down by loosening the nut on the stud that retains the spindex and turning these for less or more crimp start.

To remove or change the spindex, simply pull down to remove and snap a new one in place. A properly started crimp should look like Photo No. 23. It is important that shells are crimped with the same crimp as original, 6 or 8 point.

STEP FIVE

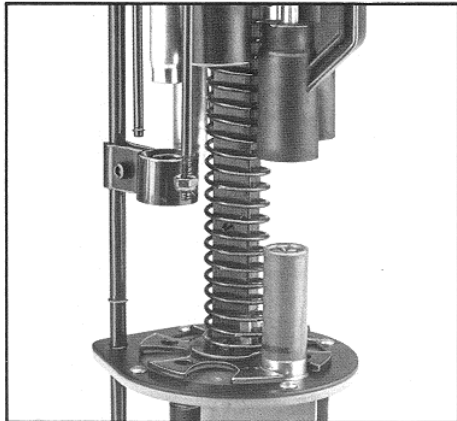


Photo No. 24

By rotating the carrier assembly counterclockwise two clicks to Station No. 5, we arrive at the closing station. As you depress the handle with your right hand; the crimp punch moves down on the casing and your reloaded shell begins to take on a factory appearance. Photo No. 24.

STEP SIX

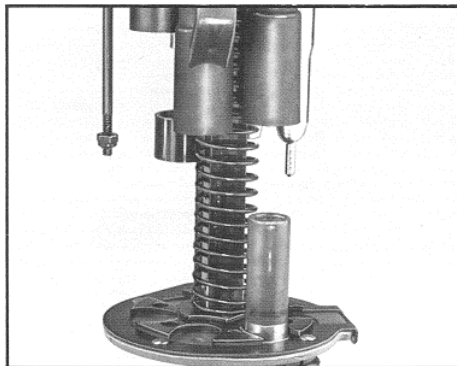


Photo No. 25

Advance to Station No. 6 where a pull of the handle resizes and puts a finished radius on the perfectly reloaded shell. Photo No. 25. Advance the finished shell and remove it from the machine. A properly loaded and crimped shell should look like the shell in Photo No. 26.

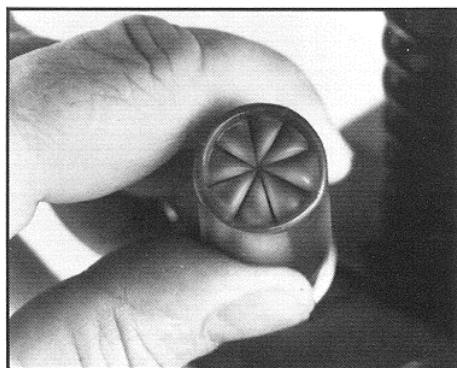


Photo No. 26

AUTOMATIC SEQUENCE

Now that we have gone through the loading sequence with one shell, let's proceed with the setup of the automatic sequence that will give us a loaded shell with each pull of the handle. The Grabber is very easy to operate but attention must be paid to detail, the misloading of one shell may affect the characteristics of all shells in the press at that time.

First re-hook the primer feed spring. Place an empty shell in the deprime Station No. 1. **Make certain that the charge bar is locked all the way to the left position by the bar lock, Photo No. 11.** Pull the handle to the down position. This will deprime, place a primer in position and resize the brass head.

Move shell carrier counterclockwise a full stop (2 clicks) and insert another empty shell in the No. 1 position. Repeat the handle pull procedure, again move the shell carrier one stop (2 clicks) counterclockwise, now insert a wad on the wad ram, and place empty shell in Station No. 1. Repeat handle pull. Repeat this procedure each time to obtain a reloaded shell with each pull of the handle.

Follow these instructions exactly and you will develop the correct hand movements to load 10 to 20 boxes per hour.

First pick up the empty shell with your index and middle finger, Photo No. 27. Now with your thumb and forefinger grab the finished shell, index the carrier by pulling the shell around to where it can be removed. Photo No. 28. Slide the empty shell into the carrier, Photo No. 29 and place the loaded shell into the E-Z Pak. Now place the wad on the wad ram and pull the handle down, Photo No. 30.

To Avoid Mistakes and Problems It Is Necessary to Watch for Certain Things:

1. That the shell has dropped to the full bottom of Station No 1. If the handle "bottoms" part way up in the stroke, it is usually an indicator that the shell has not dropped to the bottom of the resize station. Refer to Station No. 1 regarding problems in this station.
2. Make sure that a primer has dropped into the carrier and then into the primer seating assembly as the carrier is advanced.
3. Do not run out of shot, powder or primers. Develop a regular sequence for replacing these components. (Example: Every four boxes of shells, primers must be added — every eight boxes, shot and powder must be replenished.) Also remove the spent primers from under the machine each 400 rounds.
4. Do not mix shells while loading. Process only one kind of shell with matching components at a time. Mixing shells is sure to cause trouble.
5. **Check all shells** before loading for defects, split plastic, cracked brass and foreign objects in shell. Each defective shell processed will probably cause trouble and trouble means "down time" not only to remove the defective shell but to clean up the mess that it may have caused.
6. **Always** be sure to make a full stroke of the handle. Get accustomed to where the handle "bottoms" and be sure to get a full stroke each time.
7. Anytime that you make a mistake — **stop**. Tip the measure back, lock the bar to the left, unload all shells from the machine, open them and remove the contents before starting over. Do not allow mistakes to get mixed in with good shells.
8. **Never** "double stroke" the handle because of an incomplete first stroke, without first checking to see whether any shot or powder has been dropped.

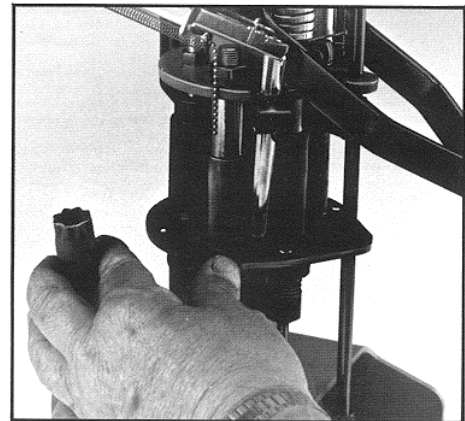


Photo No. 27

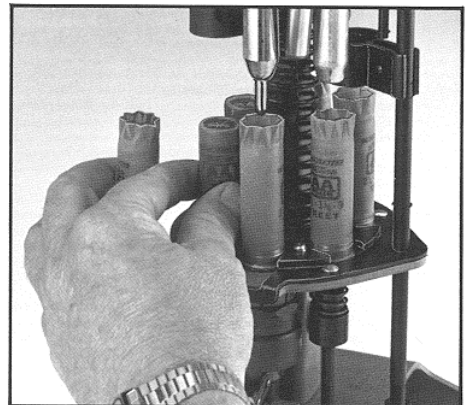


Photo No. 28

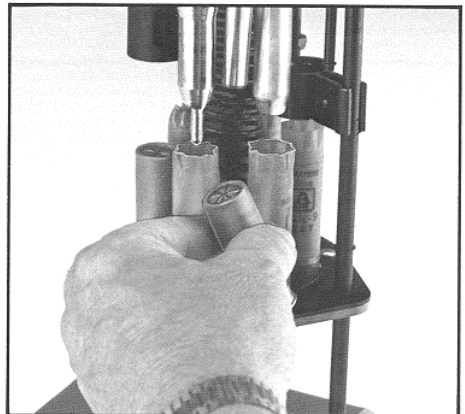


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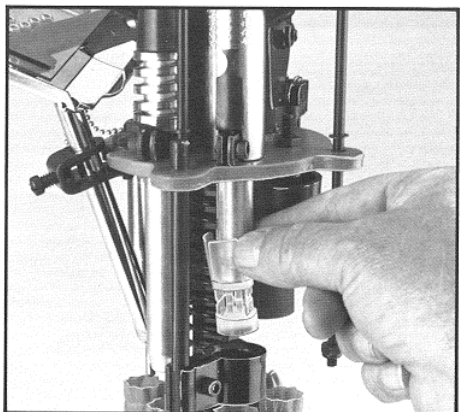


Photo No. 30

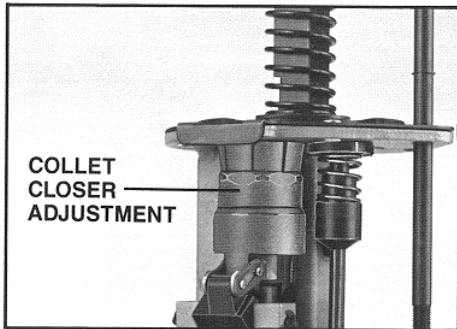


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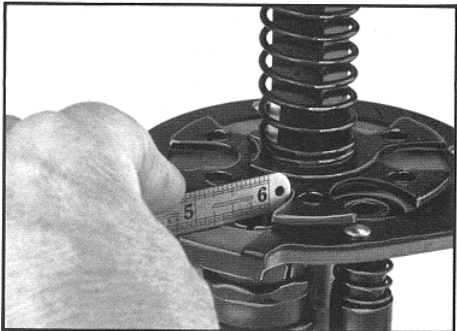


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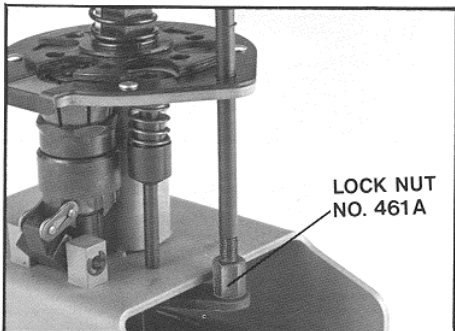


Photo No. 33

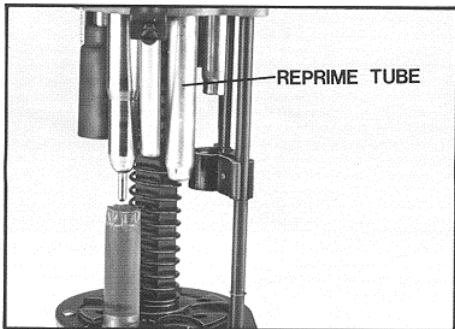


Photo No. 34

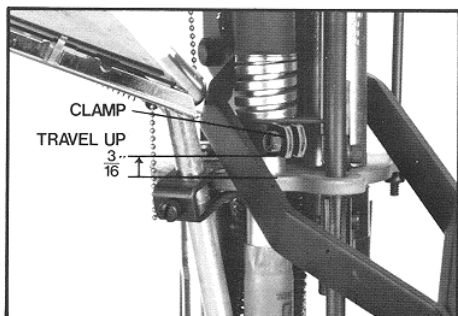


Photo No. 35

STATION No. 1 Resize and Deprime.

The collet as it comes from the factory is adjusted to give a dimension that is the same as factory loads. After a period of time, this may require adjustment. To make the proper collet closer adjustment for the resizing of the collet, follow these instructions:

Empty the carrier.

You will notice that the collet closer is a two piece unit. To adjust, pull the handle $\frac{3}{4}$ of the way down and taking a wrench, turn the nut either counterclockwise which will raise the nut and make the shell smaller or clockwise which will lower the nut and not resize the shell as much. Always making sure that a flat side of the closer nut is aligned with the base support. It is best not to size the head of the brass any smaller than is necessary to fit the smallest chamber gun you shoot.

It is necessary for the shell lifter to be level with the track in which the shells ride around the machine.

To adjust, raise the handle to the top of its stroke. Put a straight edge in the track, Photo No. 32. To raise or lower the lifter, loosen the wad guide slightly (enough so you may turn it on the wad guide rod). Now loosen the Lock Nut No. 461A, Photo No. 33. You may now raise or lower the lifter as required by turning the wad guide rod in or out of the lifter yoke as required.

Problems: If while lowering the handle with a shell in the resize station the machine "bottoms" before making a complete stroke, it may be caused by the shell not falling all the way into the collet. Reasons:

1. Collet will not open far enough to allow shell to drop all the way down.
2. Shell lifter doesn't drop all the way due to powder or shot in collet.
3. Oil on lifter.
4. Wad guide positioned too low in bracket.
5. Too many spent primers under the base.

It is important to keep inside of collet clean and dry. Only lubricate the outside segments of collet with recommended lubricant.

STATION No. 2 Reprime.

The only adjustment is to raise or lower the Tube No. 505 C, Photo No. 34, to accommodate different base wad heights. With a shell in this position, there should be about $\frac{3}{16}$ inch of travel at the full bottom of the stroke, Photo No. 35. If you do not have enough travel at this point, the charge bar may not operate or the primer will not be fully inserted. (If this happens, the machine will not index.) Too much travel will raise handle pressure required or cause the clamp to slip. It can also cause the bar not to lock out. To adjust, loosen the Clamp No. 507, Photo No. 35, and slide the tube up or down to the required position and retighten.

STATION No. 3 Shot and Wad.

The normal position for this tube when loading 1 1/8 oz. trap or skeet loads is as in Photo No. 40. When loading with modern one piece plastic wads it is not usually necessary to have wad pressure show on the Indicator No. 306 F, Photo No. 41. However, the wad should be pushed down tight against the powder. There are some recommendations for wad pressure and the tube may be raised or lowered by loosening Clamp No. 507, Photo No. 41. Move the tube to the desired position and tighten.

The wad guide is replaced by loosening screw, Photo No. 41, removing the old, slide a new one into position and retighten.

STATION No. 4 Crimp Station.

It is important to crimp all shells with same crimp as they were originally crimped with either 6 point or 8 point. The crimp starter may be adjusted up or down by loosening the Nut No. 8476, Photo No. 42, under the turret is another nut which may be turned either up or down to give more or less crimp start, If you are processing paper shells, a smooth cone crimp starter is available which will do the best job.

Remember — giving more or less of a crimp start will often improve a final crimp.

STATION No. 5 Crimp Close.

As your loader comes from the factory, the adjustment should be correct for most shells. There are two adjustments that can be made in the final crimp station. They are the cam adjustment, Photo No. 43, and the punch adjustment, Photo No. 43. Four of the common problems which can be corrected by crimp station adjustments. Photos No. 36-39.

Shell No. 1 — Crimp punch not deep enough. Correct by loosening Lock Nut No. 461A and turn punch deeper.

Shell No. 2 — Crimp punch too deep. Correct by loosening Lock Nut No. 461A and raise crimp punch.

Shell No. 3 — Opening in center of shell. Correct by loosening cam adjustment Screw No. 8324 and moving cam down about 1/32 of an inch and try again.

Shell No. 4 — Shell has a swirl in the crimp. Adjust by loosening cam adjust Screw No. 8324 and move the cam up. Move about 1/32 and try again.

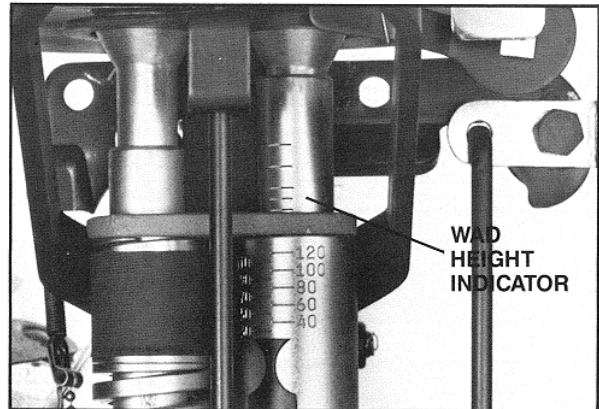


Photo No. 40

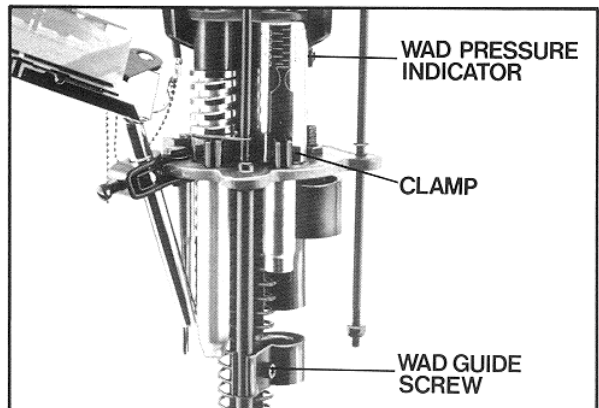


Photo No. 41

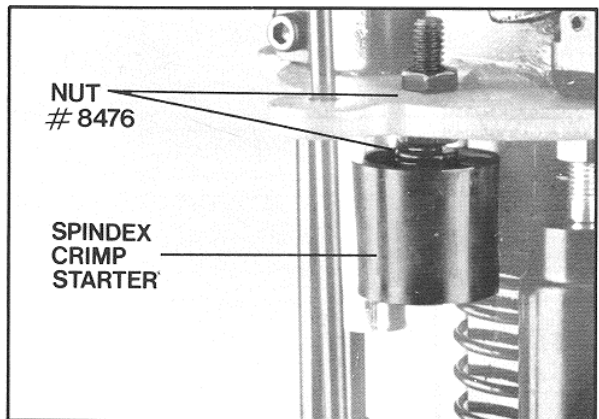


Photo No. 42

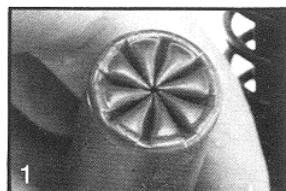


Photo No. 36

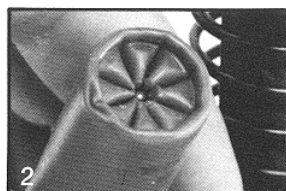


Photo No. 37

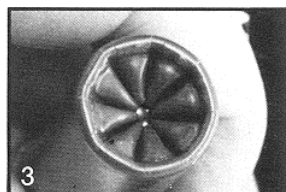


Photo No. 38



Photo No. 39

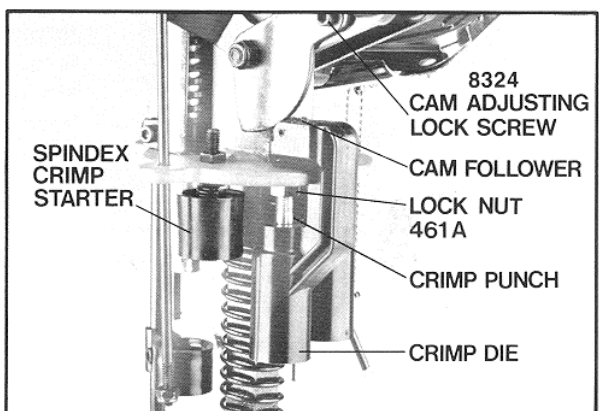


Photo No. 43

STATION No. 6 Final Crimp.

This station puts the "lead" or radius on your shells for easy feeding, especially in auto loaders and pumps. This can be lowered or raised to get the desired "lead." It is important not to have this station adjusted too deep or you will crush the shell just above the brass. This is very critical with paper shells, and straight wall cases.

Cannot Index the Turret.

Station No. 1 or No. 2 can cause the problem. In Station No. 1, it would be caused by the machine not going to the top of its stroke with the shell remaining part way in the resize collet preventing the carrier from indexing.

Another cause can be the primer not being fully inserted. If you can see that Station No. 1 is not causing the problem, remove the primer seating assembly described earlier, drop the shell out the bottom and look if the primer is fully seated. If not, the problem is usually caused by foreign material (powder) in the primer seat assembly, or the tube not being adjusted low enough to push the primer all the way in. At times, oversize primers can cause the problem, but this can almost always be overcome by lowering the tube a little.

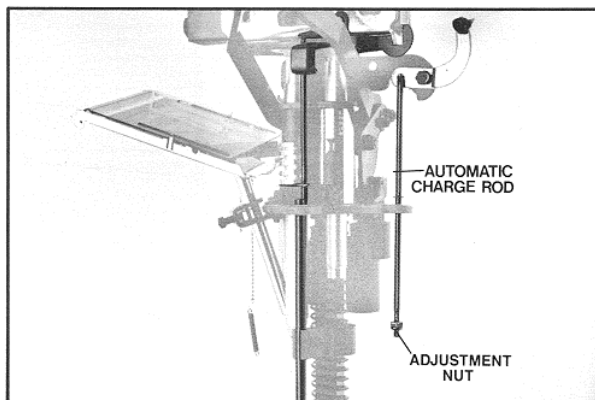


Photo No. 44

Using Large Lead Shot

Our charge bars with the soft insert allow you to reload with virtually any shot size up to BB. To prevent the lodging of large lead shot in the rammer tube, we recommend the use of our steel shot, large lead shot Adaptor Kit No. 8581-12. This is available in 12 ga. ONLY.

Charge Bar Will Not Release and Drop Shot or Powder.

This is almost always caused by the reprime tube not being adjusted deep enough. It is necessary for the Clamp No. 507, Photo No. 35, to raise off the turret about $\frac{3}{16}$ of an inch. Refer to adjustment for Station 2, page 11.

Another cause can be the measure not being tipped all the way down. Pull the measure down solidly and make sure the pivot screw is tight enough to keep it there.

Charge Bar will not lock without shell in Station No. 2 (keeps charging shot and powder with no shells in the machine).

Check to see that the bar stop Screw No. 303, Photo No. 2, is touching the left side of the slot, that it travels in with the handle down. If not, check for a bent return Bracket No. 670C. It can usually be adjusted for by turning Nut No. 304J, Photo No. 44, to shorten the rod.

Check the spring and Bar Lock No. 670A, Photo No. 15. When pushing the bar to the left, the spring should snap the lock up and keep the bar from moving to the right.

Inaccurate Powder or Shot Charges.

Almost always caused by short travel of the charge bar. With a full carrier when the handle is depressed; the bar stop screw must travel to the full left side of the slot. If it fails to; turn adjustment nut up on automatic charge rod, Photo No. 44, so that the screw just hits the left side of slot when handle reaches bottom of stroke.

Note: It is always recommended that powder and shot charges be checked with a reliable scale. When checking these charges, do it during the normal operation of the machine.

Primers do not drop into the primer seat assembly when the carrier is indexed.

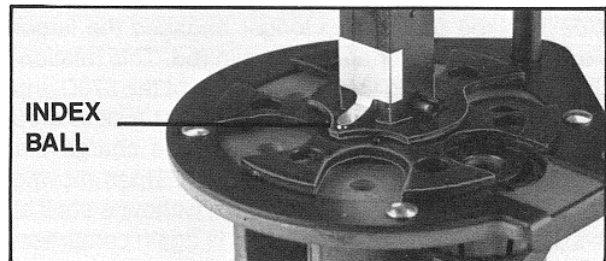


Photo No. 45

The most common cause for this is losing the Index Ball No. 515D, Photo No. 45. A bent spring can also cause the problem, Photo No. 45.

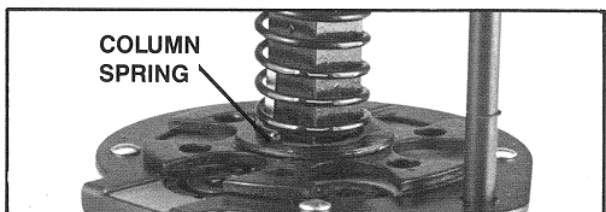


Photo No. 46

It is important that you feel a crisp index each time the ball drops into an indent. This is adjustable. To adjust, merely turn the Column Spring No. 612, Photo No. 46. Getting the free end of the spring right at the index ball gives the highest pressure, Photo No. 46. The maximum pressure is usually too much for good indexing and primer dropping. Having the free end of the spring about 90° from the index ball is usually about correct.

MEC AUTO-CYCLE MECHANISM

Your MEC GRABBER is equipped with the exclusive Auto-Cycle Bar mechanism. This mechanism in no way affects the flexibility of the pivoting measure. Powder, shot or charge bar can be changed as easily as with any other MEC model.

Adjustment

While the unit was adjusted when the actuating rod was assembled, it may be necessary to readjust because of severe handling during shipment. To check, hold press handle at bottom stop position. Charge bar should now be all the way to the left. If charge bar is not as far left as it will go, use adjusting nut (A). Bar and handle must be synchronized so that charge bar will hit left hand stop as handle hits bottom on down position. It is best to check this with machine empty.

Auto-Cycle is activated by the compression of the Reprime Spring No. 8025, Photo No. 47, at the time that the primer is being seated. The containers need not be in position to check the action, and we suggest they be removed or that they be emptied. The measure assembly must be tipped forward in an upright and level loading position, the charge bar positioned to the left as illustrated with the carrier empty, the handle can be depressed and the bar will remain locked to the left in the illustrated position. With the handle depressed, the 670E, trip rod bracket, will engage the large diameter at the lower end of the trip rod, maintaining the compression of the 670D, trip spring. Upon inserting a shell in the carrier and moving it to the reprime station and depressing the handle, the spring, compresses and the 670E, trip rod bracket, no longer engages the larger diameter at the lower end of the trip rod. This relationship no longer holds the compression of the 670D, trip spring, and its expansion causes the bar lock to drop down and upon raising the handle, the charge bar moves to the right to drop the powder. Upon moving the shell to the wad ramming station without a shell at the reprime station, the trip spring is again compressed by the engagement of the trip rod bracket with the large diameter at the lower end of the trip rod and the 670B, lock spring, lifts the 670A, bar lock, to again maintain the position illustrated.

The full travel of the charge bar is required to permit pivoting the bar lock. The travel of the charge bar is controlled by the adjusting Nut A, and it should be positioned as described in the first paragraph. It is mandatory that the measure assembly be upright and level and that the reprime spring, compresses a minimum of $\frac{3}{16}$ inch when a shell is in position to receive the powder charge. To position the bar for autocycling, the bar must be moved to the left either manually or by depressing the handle to allow the bar lock to hold the bar in the extreme left position.

Factory adjustment has positioned the reprime tube adequate to maintain charge bar operation and seat the primer in low base shells under normal conditions. Lowering the tube will provide increased primer seating pressure with increased handle load. If preferred, to reduce the handle load, the reprime tube may be raised when reloading is limited to only high base shells.

Operating Manually

Under some conditions, such as when abrasive powder or heavy shot is to be used, it may be desirable to operate charge bar manually. To do this, remove bar lock and return spring, and remove actuating rod.

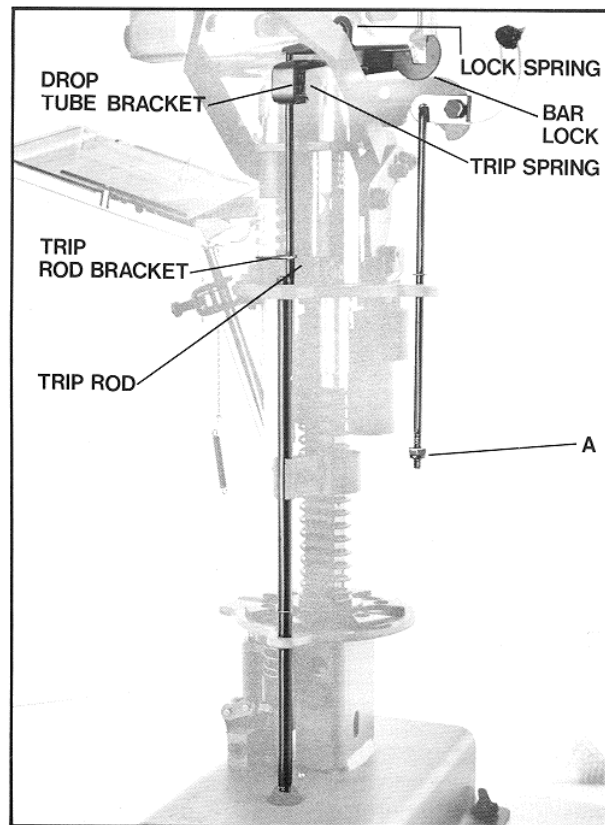


Photo No. 47

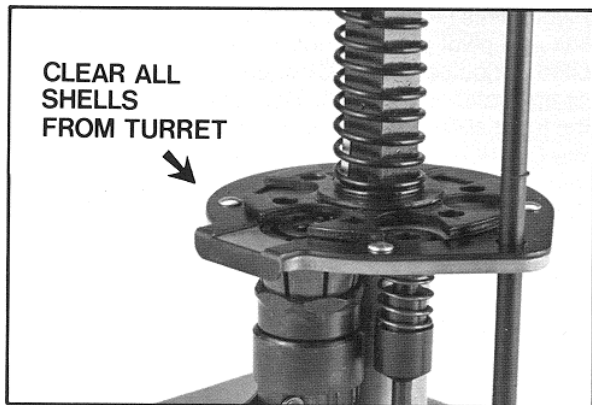


Photo No. 48

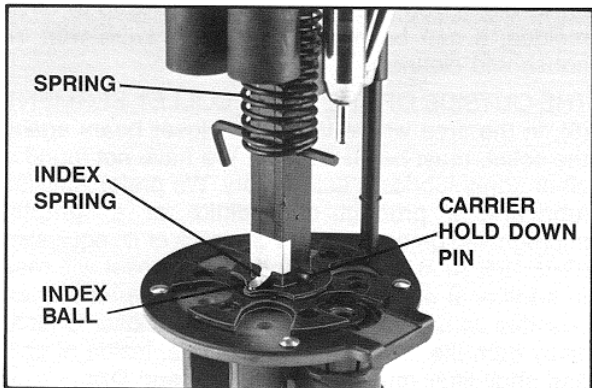


Photo No. 49

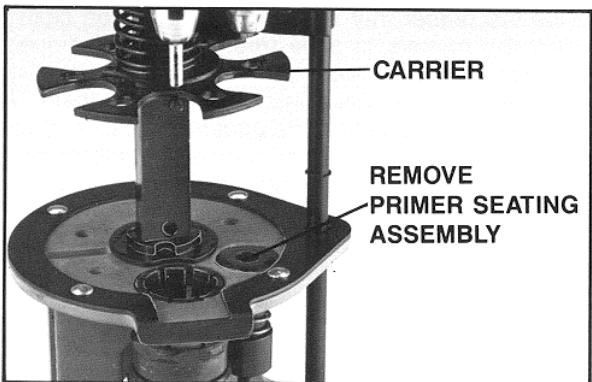


Photo No. 50

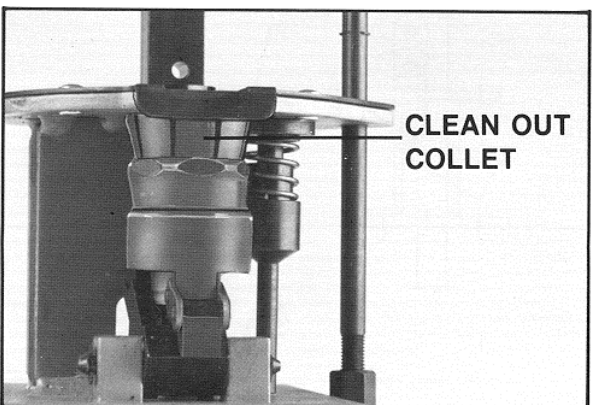


Photo No. 51

If You Spill Shot:

Remove all shells from the carrier immediately.

Lift column spring to allow entry of retaining pin (nail or Allen wrench) into the hole in the column, beneath the last coil of column spring is preferred, although between 2nd coil and into column will provide adequate clearance. Photo No. 49.

Remove index spring, index ball and carrier hold-down pin. Enter screwdriver blade between carrier hold-down and carrier, pry up slightly, alternating pressure from various points until hold-down is high enough to raise carrier.

Remove primer seating assembly. Photo No. 50.

Remove all pellets that may be trapped beneath carrier or between outer edge of collet and inside edge of opening in the base.

Remove the shell lifter from the collet by reaching under the machine and raising it with one hand while removing with the other, Photo No. 53.

Inspect collet slots to be assured that none have been overlooked. Photo No. 51.

Reposition carrier and carrier hold-down, replace index ball, reposition index spring. Withdraw retaining pin and ease column spring into position over flange of index spring. PIVOT MEASURE TO REAR AND MANUALLY LOCK CHARGE BAR TO THE LEFT, return measure to upright position. Photo No. 49.

Replace shell lifter. Turn wad guide rod to allow shaft to seat in socket at the end of arm attached to the wad guide rod beneath the base.

Reposition the last three shells in the carrier in the order in which they were removed, enter fired shell at the first station and proceed with normal reloading sequence after disposing of first three shells on which preliminary operations were performed.

LUBRICATION POINTS

Instructions for Collet Removal and Replacement

1. Remove the shot and powder containers from the machine.
2. Remove the loader from the bench or board on which it is mounted.
3. Remove the shell lifter from the collet by reaching under the machine and raising it with one hand while removing with the other, Photo No. 53.
4. Swing the wad guide to the right, Photo No. 52.
5. Now raise the column spring and place a pin through the hole in the column, Photo No. 49. Also remove the index spring and ball along with the carrier hold down pin.
6. Enter a screwdriver under the carrier and raise the carrier alternating pressure from side to side until the carrier can be raised as in Photo No. 50.
7. Now tip the machine on its side and using a $1\frac{3}{16}$ inch socket, loosen the nut that locks the collet. Remove the nut, and the collet is free to turn up and out of the base. Normal collet adjustment is level with the top of the base, Photo No. 32.
8. Reverse the procedure to reassemble.

It is necessary for the shell lifter to be level with the track in which the shells ride around the machine, Photo No. 32.

To adjust, raise the handle to the top of its stroke, put a straight edge in the track, Photo No. 32, loosen the wad guide slightly (enough so you may turn it on the wad guide rod). Now loosen the Lock Nut No. 8036, Photo No. 33. You may now raise or lower the lifter as required by turning the wad guide rod in or out of the shell lifter.

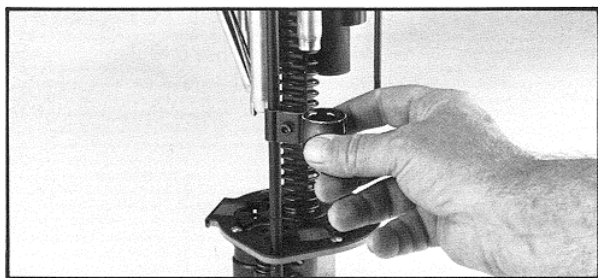


Photo No. 52

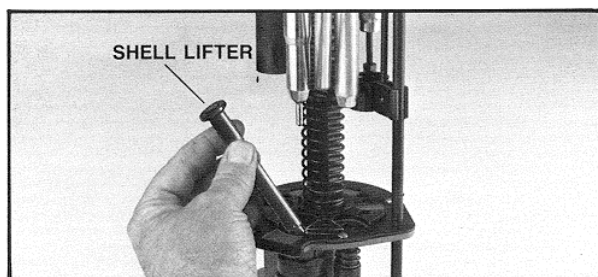


Photo No. 53

Pivot points (1-2-3) of the scissor linkage and the chain link and pivot pin (4) of the closer assembly are to be oiled periodically on both sides, our choice is EP90 or its equivalent (heavy oil). The column, in the area that the turret slides, must be kept lubricated (Heavy oil "A"). We DO NOT like to see spray lubricants used on the reloader. These sprays cause a buildup of residue over the entire reloader.

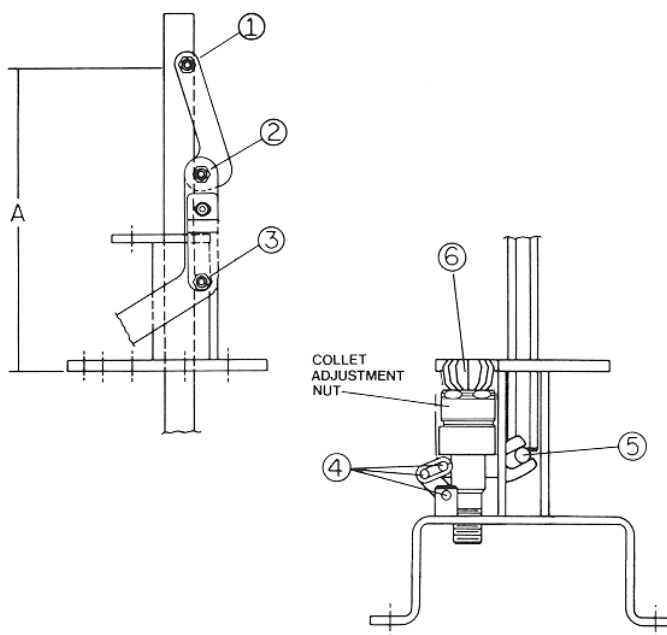
A drop of oil at the metal to metal contact area of the operating rod and the bar actuator should be applied occasionally as well as to the shoulder bolt which pivots the bar actuator. The roller on the bar actuator, roller on cam crimp die, and roller in actuator rod (5) should be kept lightly greased.

Occasionally feel the inside of the cam crimp die and finish die, if you should notice any buildup of dirt or residue, it can be removed using a swab with any household cleaner.

THE OUTSIDE OF THE EIGHT COLLET SEGMENTS (6), in the area where the collet closer bears against the collet, must be GREASED. We have not found an oil or spray lubricant satisfactory. We prefer Antisieze lubricant, a product of Locktite or a graphite impregnated grease. (Outers Gunslick or its equivalent) (GREASE AT 6.) Lack of lube on the collet will result in additional effort required on the down stroke and possible damage to the unit when the closer is forced away from the collet on the up stroke. Inside of collet and shell lifter must be kept **Clean and Dry**.

Cleanliness is not a virtue, it's a necessity for efficiency. Wipe the primer tray with tissue or a silicon cloth to allow the primers to slide freely. Powder residue is abrasive and inflammable, don't allow an accumulation. Shot should be in the container or in the shell. The results of loose pellets found under a bare foot, in your wife's rug or in the reloader mechanism will, in some manner, adversely affect your efforts.

A little care for a lot of service.



IF YOU HAVE TROUBLE

1. Oversize shells

A shell that goes into your gun hard but comes out easy is caused by oversize plastic or paper.

In the case of plastic shells, overfilling is almost always the cause. To correct, you need:

1. A case with more capacity
2. A shorter wad
3. Less shot
4. A more dense powder
5. Sometimes using more wad pressure will give more room in the case.

Over or under filling is most often corrected by using the proper size wad.

If using paper shells, any of the above can be the cause, but the most common cause with paper shells is to swell up by absorbing moisture. The only way to remedy this is to dry the cases before reloading. **Never attempt to dry loaded cases.** Putting them in the oven at about 200° for 30 minutes will usually dry them. Don't even attempt to load paper cases during hot humid weather.

Case bulges above the brass:

When a case bulges above the brass, it is usually caused by overfilling the case. To correct:

1. Use a case with more capacity
2. Use a shorter wad
3. Use less shot
4. Use a denser powder
5. Use more wad pressure (40 lb. is usually sufficient)

Can also be caused by cam adjustment or punch adjustment being too low.

Poor Crimps

1. Hole in crimp.
Refer to punch and cam adjustment.
2. Misfolded crimps.
Using wrong crimp starter 6 or 8 point.
3. Swirl in crimp.
Caused by cam adjusted down too far, refer to cam adjustment.

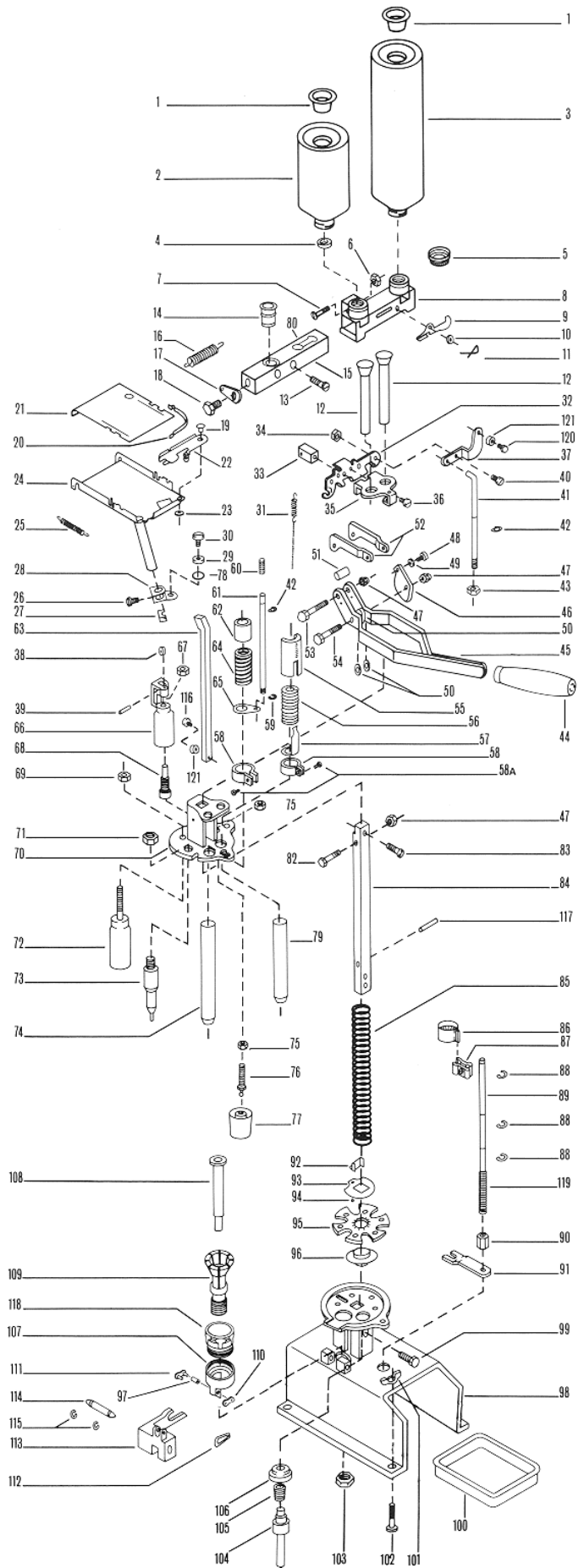
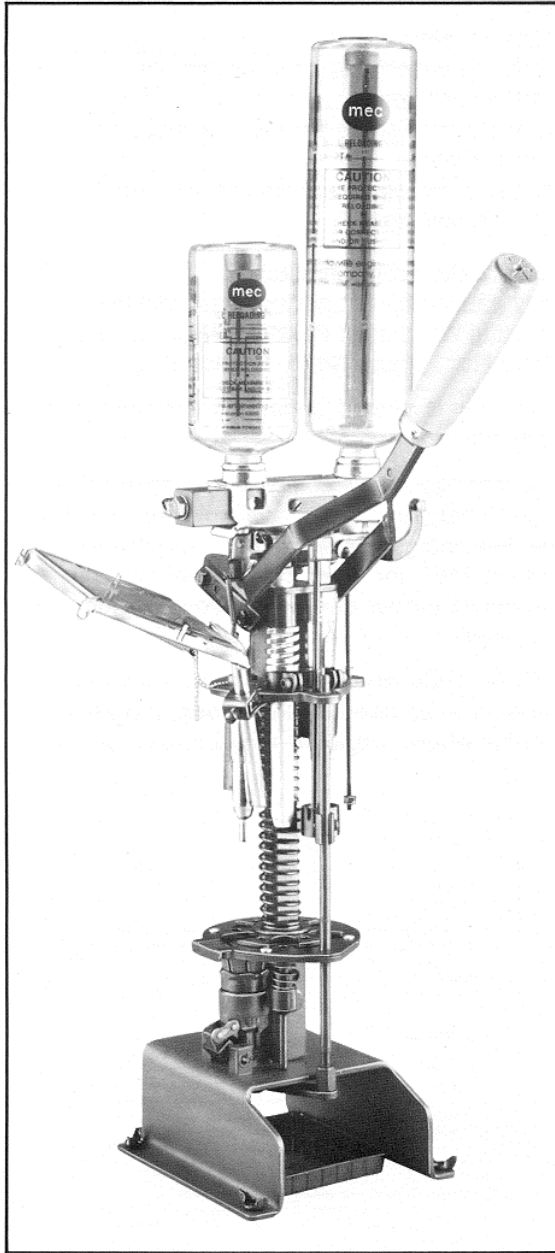
Powder Leaks From Measure

Usually caused by not having brass washer in place when using Winchester Powder. Install per instructions at Photo No. 3, Page No. 5, Section J.

This washer is placed under the grommet with the smooth side down.

MEC Charging Bar — A complete assortment of "quick-change" charging bars is available for any load or gauge. See charging bar chart packed with each loader or write to MEC for a complete list of bars. List also recommends proper bar for any combination of shot and powder.

CAUTION: Only dry lubricant, such as powdered graphite is to be used on the charge bar slide or at any point where lubricant may contact powder.



PARTS LIST

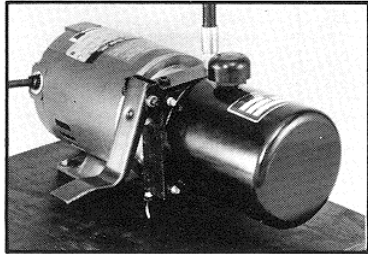
| REF. NO. | NAME OF PART | PART NO. |
|----------|-------------------------|----------------|
| 1. | Cap Plug | 13X |
| 2. | Powder Container | 301L-13X |
| 3. | Shot Container | 8042 |
| 4. | Grommet | 304G |
| 5. | Cap | 304C |
| 6. | Nut | 304J |
| 7. | Measure Pvt. Screw | 304D |
| 8. | Measure Assembly | 8059 |
| 9. | Bar Lock | 670A |
| 10. | Washer | 670G |
| 11. | Lock Spring | 670B |
| 12. | Drop Tube | 8205* |
| 13. | Stop Screw | 303 |
| 14. | Powder Bushing | 050 |
| 15. | Charge Bar | 502 |
| 16. | Spring Bar Return | 573 |
| 17. | Spring Anchor | 572 |
| 18. | Knob | 8024 |
| 19. | Rivet | 314A |
| 20. | Primer Feed Spring | 285P |
| 21. | Cover w/Hinge | 285ML |
| 22. | Pickup Arm | 285G |
| 23. | Retaining Ring | 285H |
| 24. | Primer Tray | 385A1 |
| 25. | Spring | 385Q |
| 26. | Screw | 303 |
| 27. | Retaining Clip | 385E |
| 28. | Tube Clamp | 385C |
| 29. | Washer | 685G |
| 30. | Mounting Screw | 685F |
| 31. | Spring w/Chain | 8276 |
| 32. | Bar Act. Mtg. Brkt. | 8045 |
| 33. | Measure Support Block | 504C |
| 34. | Lock Nut | 460A |
| 35. | Drop Tube Bracket | 670C |
| 36. | Screw | 304L |
| 37. | Bar Actuator | 8053 |
| 38. | Cam Roller | 8312 |
| 39. | Cam Roller Bolt | 613D |
| 40. | Screw | 570A |
| 41. | Operating Rod | 8055 |
| 42. | Retaining Ring | 670J |
| 43. | Nut | 304J |
| 44. | Handle Grip | 8400 |
| 45. | Handle | 609 |
| 46. | Cam | 623 |
| 47. | Stop Nut | 309E |
| 48. | Screw | 8324 |
| 49. | Washer | 623C |
| 50. | Washer | 609F |
| 51. | Link Spacer | 510B |
| 52. | R.H. & L.H. Link (Pair) | 610RH 610LH |
| 53. | Link Bolt | 610C |
| 54. | Handle Bolt | 609B |
| 55. | Pressure Ind. Face | 306F |
| 56. | Pressure Spring | 306T |
| 57. | Pointer | 306P |
| 58. | Clamp | 507 |
| 58A | Screw | 507A |
| 59. | Retaining Ring | 670K |
| 60. | Trip Spring | 670D |
| 61. | Trip Rod | 670F |
| 62. | Spacer | 8344 |
| 63. | Actuator Rod | 8310 |
| 64. | Lower Reprime Spring | 8025 |
| 65. | Trip Rod Bracket | 670E |
| 66. | Cam Crimp Housing | 621CAP* |
| 67. | Lock Nut | 461A |
| 68. | Cam Crimp Punch | 621B* |
| 69. | Lock Nut | 461A |
| 70. | Turret Assembly | 8035 |

*Specify Gauge

| REF NO. | NAME OF PART | PART. NO. |
|--|----------------------|-----------|
| 71. | Lock Nut | 459A |
| 72. | Finish Die | 522P* |
| 73. | Deprime Punch | 8107* |
| 74. | Reprime Tube | 505C* |
| 75. | Nut | 8476 |
| 76. | Ball Pivot Pin | 8419 |
| 77. | Spindex Star Crimp | 8439* |
| 78. | Lock Washer | 685H |
| 79. | Rammer Tube | 505B* |
| 80. | Rubber Insert | 8440 |
| 82. | Link Bolt | 610A |
| 83. | Pvt. Block Screw | 504D |
| 84. | Column | 8010 |
| 85. | Column Spring | 612 |
| 86. | Wad Guide Fingers | 8300* |
| | .410 only | 453P-410 |
| 87. | Wad Guide Clip | 8377 |
| 88. | Retaining Ring | 616A |
| 89. | Wad Guide Rod | 8561* |
| 90. | Lock Nut | 461A |
| 91. | Shell Lifter Bracket | 8563 |
| 92. | Index Spring | 615C |
| 93. | Carrier Holddown | 615B |
| 94. | Index Pin | 515D |
| 95. | Shell Carrier | 615* |
| 96. | Carrier Bushing | 8112 |
| 97. | Bushing | 8113 |
| 98. | Base Assembly | 8555* |
| 99. | Column Bolt | 8024 |
| 100. | Primer Catcher | 8067 |
| 101. | Wing Nut | 713D |
| 102. | Base Mounting Bolt | 313C |
| 103. | Collet Lock Nut | 8017 |
| 104. | Guide Post | 525A |
| 105. | Spring | 630 |
| 106. | Spring Pad | 531-12 |
| 107. | Collet Closer | 8491 |
| 108. | Shell Lifter | 8560* |
| 109. | Collet | 8080* |
| 110. | Chain Line w/Keeper | 8032 |
| 111. | Part of Item 110 | 8032 |
| 112. | Part of Item 110 | 8032 |
| 113. | Rocker Arm | 8608 |
| 114. | Pivot Pin | 8022 |
| 115. | Retaining Ring | 8023 |
| 116. | Roller Bolt | 8079 |
| 117. | Hold Down Pin | 8348 |
| 118. | Collet Closer Nut | 8492 |
| 119. | Spring | 8610 |
| 120. | Cam Roller Bolt | 623A |
| 121. | Cam Roller | 623B |
| HUSTLER PARTS (Not Illustrated) | | |
| | Hydraulic Unit | 690 |
| | Hose Assembly | 690A |
| | Pump Bkt. | 690B |
| | Foot Pedal | 690C |
| | Hyd. Cyl. | 691 |
| | Pivot Bkt. | 691A |
| | Roll Pin | 691B |
| | Bolt | 110A |
| | Jam Nut | 691D |
| | Formed Spacer | 691E |
| | Base Assembly | 8556* |
| | Link Strap | 694 |
| | Truss Rod R.H. | 8057 |
| | Truss Rod L.H. | 8058 |
| | Link L.H. | 8071 |
| | Link R.H. | 8072 |
| | Actuator Rod | 8310 |

Reloads and Resizes Hydraulically

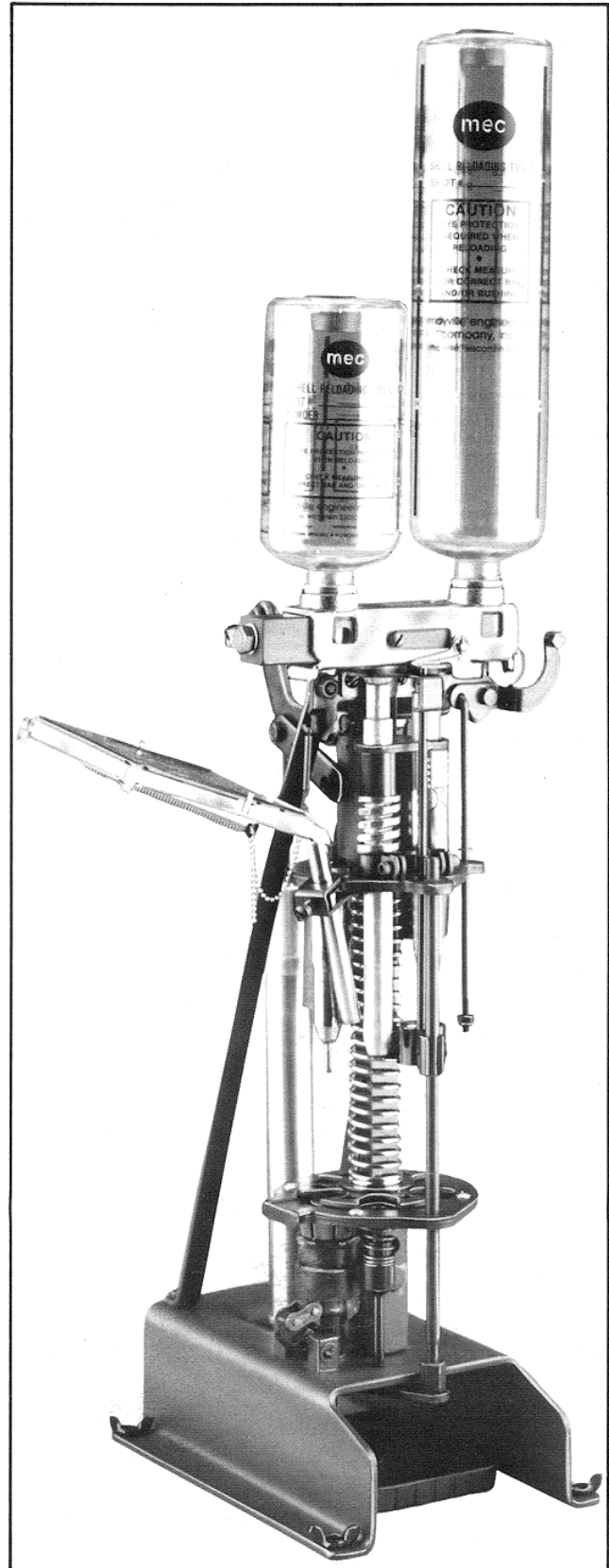
The GRABBER with its revolutionary resize chamber, combined with the MEC hydraulic system, becomes the HUSTLER. All the advantages of the MEC GRABBER, plus the trouble-free hydraulic system not only gives you your own miniature reloading factory, but one that resizes to under industry standards for minimum chamber. It's one super-fast way to reload with a quality never before available in a reloader. The hydraulic system is compact, lightweight and designed for long, trouble-free service. The motor operates on regular 110 volt household current and the pump supplies instant, constant pressure . . . no slowdown, no misses. The entire down stroke and up stroke functions are utilized and synchronized to allow continuous action. Every stroke of the cylinder piston is positive and performs all operations at six reloading stations. Every down stroke of the reloader produces one finished shell. The operator inserts empty shells and wads and removes finished shells ... the HUSTLER does the rest ... automatically.

1. Oil — use 10W30
 2. Attach Breather Cap.
 3. Remove Outlet Plug and connect Hose to unit.
- 
4. Install Swivel Fitting in top hole of cylinder.
 5. Connect Hose.
 6. Plug electrical cord into 110 volt outlet.
 7. Due to air in the lines, it may be required that the foot pedal be operated a number of times to smooth the action. Should it become necessary or desirable to remove containers while full or partially full, depress foot pedal and hold. Be sure caps are inserted before pivoting measure for removal of containers. To hold Turret at a lowered position, insert length of $\frac{3}{8}$ inch dowel between rear face of Cam and ahead of Tie Bars.

CAUTION:

While your HUSTLER Loader has been designed with your safety in mind, it must be remembered that it is a powerful tool and carelessly operated, can inflict serious injury to the fingers of the hands of the user. The following precautions should always be observed.

1. Clear hands before depressing foot pedal.
2. Disconnect power before making adjustments or clearing unit of damaged shells.
3. DO NOT ALLOW children to tamper with or operate the unit.



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