

# Choosing & Adjusting A NEW GUN

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**A**s I mentioned in my December 2008 column, I purchased a new Beretta 687 Silver Pigeon II trap combo in August. The gun is one of Joel Etchen's special runs (see his website [www.joeletchenguns.com](http://www.joeletchenguns.com)). Joel commissions these from Beretta each year. Ever since buying a top-single combo for our son Jason in 2005, I have had a fondness for

these guns and often said if I ever bought another trap combo for myself, it would be one of Joel's. I thought this would be a good opportunity to talk about choosing and setting up a new trap gun. It doesn't matter what brand of gun you buy; you always want to choose one you like and know something about and then want to research everything you can on it.

by **Ed Clapper**



Photo by Jason Clapper

## Choosing The Gun

Because of my past experience with Joel's guns, my choice was easy. I was pleasantly surprised to find the stocks on almost all of Joel's special-order 687s have  $\frac{1}{8}$ " to  $\frac{3}{16}$ " of cast — cast-off in the case of right-handed stocks and cast-on for lefties. That's important, because a stock that has some cast will usually fit most people better before any adjusting is done than one that is neutral.

My main selection challenge became wood figure and, when the choices are as vast as Joel's, that can take awhile. As the photo of my friend Larry's, Jason's and my guns illustrates (see page 40), they can be had as 30" or 32" over/under, 34" top single, 34" unsingle or a combo with a single barrel and an over/under barrel in either 34"/32" or 34"/30". I went with an "EELL" wood upgrade with 34" unsingle barrel and 32" over/under barrels.

The checkering on these guns differs slightly with the wood grade. The standard wood on these higher-grade guns is quite attractive. Jason's and Larry's guns bear machine-cut checkering (it's almost too perfect, and the lines are too straight for it to be hand-cut) in the metric equiv-

## Choosing & Adjusting A NEW GUN

alent of 22 lines per inch (LPI). My "EELL" wood has the equivalent of 24 LPI checkering. As the number of lines of checkering per inch increases, the "diamonds" cut into the wood become smaller and closer together. I'm happy there are no fancy ribbons or fleur de lis, as I find that too gaudy for my taste. Both checkering styles are very comfortable when shooting without gloves, as I do. When I handle a gun with the more common 20 LPI checkering, it often feels abrasive by comparison. It's a personal thing, but it can make a difference when you are trying out new guns.

I like the oil finish for the wood used on these guns because minor scratches and other damage are easier to repair than with a polyurethane finish. It also sets these guns apart from other trap models and imparts a "classic European" look. Joel orders his in Beretta's Silver Pigeon II grade, which includes an almost-ornate receiver engraving pattern and nicer wood.

They come in a hard-plastic case, with stock and choke wrenches and a second recoil pad that is  $\frac{1}{4}$ " thinner than the one that comes on the gun. Unsingles also come with a rib-adjustment tool. Little details like this can sway your decisions when choosing a gun.

Joel chose the 687 as the platform for his guns because the newer 682 model has a "high-tech" theme reflected in its elliptical engraving pattern not available in higher grades, and some folks prefer the more "classic" wood checkering and receiver engraving patterns. The 682 has Beretta's superb Optima barrels featuring overboring and very long chokes that cause less pellet deformation, and Joel specifies those for his 687s. The top-single barrels also have a weighted "rib" added below the bore. The only 682 features these guns lack is that model's position-adjustable trigger, which can be retrofitted to any 687, if needed for better fit. Joel has the stock comb made  $\frac{3}{16}$ " lower because a lot of his trapshooting customers requested that on earlier models.

To learn more about Berettas in general, I spent the better part of a day at Beretta USA's headquarters in Accokeek, Maryland, about 40 minutes



*The whole enchilada! The 687 Unsinglet Trap Combo and all its goodies came in an ABS case.*

# Choosing & Adjusting A NEW GUN

*This photo shows the underside of Jason's 687 Trap Combo's receiver and my newer model. Joel Etchen prefers to offer guns with a more classic receiver engraving pattern.*

week. As impressed as I was with the vastness of the manufacturing operation, I was equally impressed by the small size of the repair center. Half a dozen gunsmiths maintain a two to three-week turnaround on most repairs, which speaks volumes about the low frequency of failures experienced by owners of the guns. I suggest everyone do as much research as they can into the type and brand of gun they think they want, especially a gun you plan to use in competition for many years.

## Adjusting For Your Needs

The comb on my new gun had been made adjustable by Mark Shimchick, who has a stock shop in Joel's build-



*Photo by Jason Clapper*



*Shooter tastes and needs vary. The Etchen Beretta 687 Silver Pigeon II Trap is available in over & under (single gun), top single (single gun), unsingle (single gun) and combos with the over/under barrel and either a top single or unsingle.*

southeast of Washington D.C., as the guest of Technical Support Group Manager Randy Bimson. I was able to follow the production of their semiautomatic shotguns and handguns from bar stock to finished product and, although there is a lot of 21st-century automation involved, there is also a lot of hands-on work. I was greeted by a lot of smiling faces, an indicator Beretta USA must be a good place to work, and it appeared sales have been good, because the plant was running two shifts seven days a

ing. I found his work to be very good, as I was able to observe him working for a few minutes and see some of his finished products. Mark furnished rubber spacers for the adjustable comb, something I had never seen used for that purpose before. The posts are  $\frac{1}{16}$ " in diameter. Flat washers in plastic or metal in that size could be used if you don't want to use the rubber ones (which work fine). Once I arrive at a comb height for Singles, I make tubular spacers for my combs and add a flat

spacer when I raise the comb for Handicap. That way, I can tell at a glance which way the comb is set. I've been known to put my gun away after a Handicap event without resetting the comb to my 16-yard height and, if spacers of the same kind were used for both settings, the difference might not be readily apparent during a "senior moment." For this gun, I used  $\frac{1}{16}$ " interior diameter PVC tubing I painted with metallic black spray paint to make it easy to identify.

The stock had a length-of-pull (LOP) — the measurement from the face of the trigger to the center of the face of the butt — of 14½" with the thicker of the two supplied recoil pads installed and 14¼" with the thinner one fitted. The pads themselves measured ¾" and ½" thick, respectively. The drop at the comb — the distance from the top of the rib to the top of the comb — is 1⅝", and the drop at the heel — the top of the stock where the recoil pad attaches — comes in at 2¼". The stock had zero degrees of pitch, so the butt was at a 90-degree angle to the rest of the gun, an angle that fits most people but can be changed with tapered spacers, differently shaped recoil pads or, of course, a saw. The offset, as I mentioned earlier, can pretty much be counted upon to be ⅝". The pistol grip was adorned with a slight palm swell.

The receiver's top tang houses the combination barrel selector and safety. Moving it to the left (one red dot exposed) fires the bottom barrel first; moving it to the right (two red dots exposed) makes the top barrel fire first, and sliding it rearward engages the safety, which is not automatic (a very good thing on a target gun). I like this

## Choosing & Adjusting A NEW GUN

setup because it is easy to see and operate. The triggers are set by inertia, which means the recoil of the first barrel firing sets the second trigger so that barrel can be fired.

The unsingle barrel had an adjustable rib with 10 forward-sloping pickets. The gun's point-of-impact (POI) can be changed with a mechanism at the muzzle end of the rib — moving the rib down moves the POI up and vice-versa. There is a locking screw in the nose of the rib's hanger and several screws at the rear of the rib that must be loosened before the thumbwheel in the rib adjuster can be rotated to move the front of the rib up or down. All those locking screws might seem redundant, but this adjustable rib doesn't ring or rattle every time the action is closed. An extra plus is the added support which helps prevent the aluminum rib from being bent during handling. All screws use the same Allen driver, and a small

tool came with my gun. Anyone who reads my articles regularly knows I am a big fan of adjustability.

The overall weight of the 34"/32" combo is 8 pounds, 8 ounces with the over/under barrel and 2 ounces more with the unsingle. I like a heavier gun and, as I get older, I find a slightly butt-heavy gun more comfortable to shoot, so I added 16 ounces to the stock. That brought my gun to 9 pounds, 12 ounces with the over/under barrel and 10 pounds even with the unsingle. Weight distribution is a very personal thing and only you can decide what works best for you after experimenting with different guns and configurations.

The nominal bore diameter seems to be .730" on these guns, with a maximum of .732". I say that because the nine bores of the three guns I measured were between those two numbers. Joel's guns come with Beretta's flush-fitting Optima choke tubes, and they are some of the best factory chokes I've seen. I don't need more than the Improved Modified (IM) to paint the sky with inkballs. Since his experience was similar to mine, Joel changed the choke selection for his guns from the standard issue of one Improved Cylinder (IC), one Modified, one IM and two Full tubes. Joel specifies two IM and one Full. Joel is one of Pennsylvania's best trapshooters and a former state Doubles champion — if he says you just don't have much need for a Full Optima choke with his guns, that's good enough for me!

My actual choke constrictions, given a bore diameter of .732", were IC .008", Modified .016", IM .026" and Full .038". The parallel — untapered portion at the muzzle end of the choke — on all four tubes seemed fairly consistent at ½". To me, that is a substantial amount of parallel, but the overall length of these chokes allows for that much parallel without creating an excessively steep tapered portion and apparently causes the chokes to pattern tighter than their markings would indicate.

For the last six years, in all my shotguns except one (the one with the Hastings High-Rib Trap Barrel), I've used chokes from Wright's Gunsmiths in Pinckneyville, Illinois (see their website: [www.wrightsgunsmiths.com](http://www.wrightsgunsmiths.com)). Wright's doesn't make choke tubes for the Hastings High-Rib Trap Barrel (see page 42) on my Remington 1100 Tournament Trap. Stu sent me tubes

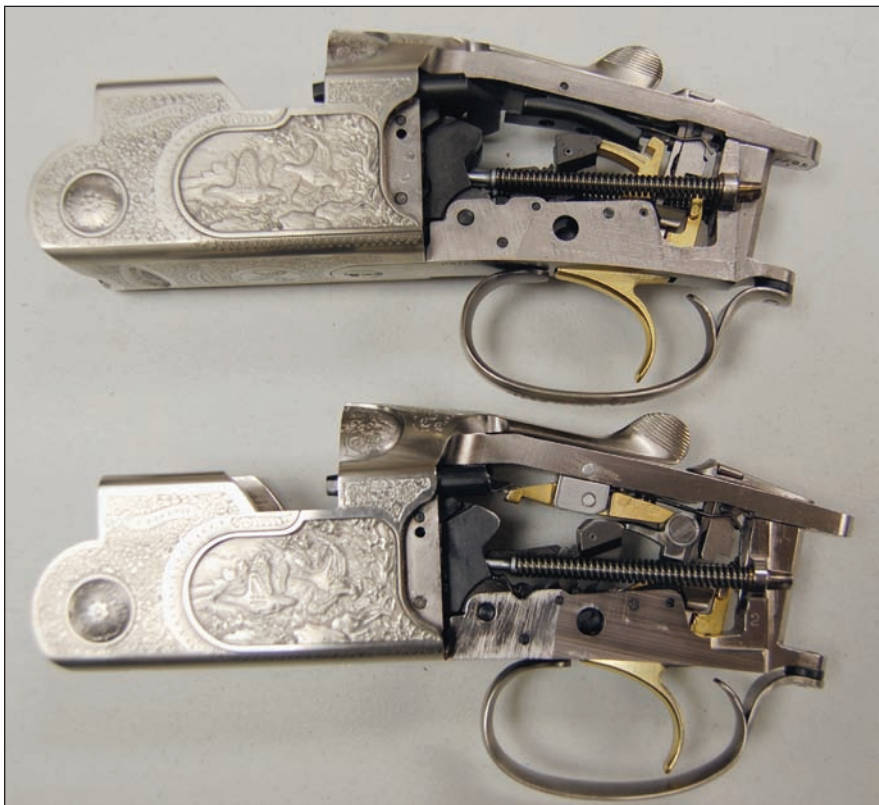


Photo courtesy Allen's Guncraft ([www.allensguncraft.com](http://www.allensguncraft.com))

*On the bottom is my receiver with Allen's Roller Release trigger system. On top is the factory pull-trigger system with the powerful coil-type hammer-spring assemblies to drive the hammers. If you don't need a release trigger, just be sure the trigger pull on whatever gun you choose works with your shooting style.*

for the new gun's over/under barrel with Doubles in mind and his suggestions for Singles and 27-yard Handicap choking for the unsingle. All three tubes I decided to use printed nice, even patterns, and the tighter constrictions gave slightly hotter cores, which is what you would expect. There were no gaping holes or useless fringes in any of the patterns I shot. I like extended tubes because placing the muzzle on a leather toe pad between shots does not rub the bluing from the barrel or adjustable rib mechanism, which is

## Choosing & Adjusting A NEW GUN

his over/under barrel choked IC/IM and IM in his top single barrel. Personal taste, style and testing on a patterning board will help you decide what you want to use.

I had the stock on my gun shortened to yield a LOP of 14½" with a recoil pad adjustable for height and cant. I decid-

Based upon their reputation and my past experience with their release triggers, I selected Allem's Guncraft (See their website: [www.allemsguncraft.com](http://www.allemsguncraft.com)) near Zionsville, Pennsylvania, to install double release triggers. John and Nancy Allem and their sons John Jr. and Mike are the only employees of their 40-year-old business, so you always know with whom you will be speaking when you call. John and Nancy handle the gun sales and travel to Europe to buy high-grade wood blanks direct from Turkish vendors. They have them machine-



*Here you see a left-side view of my Beretta's monobloc and the wonderfully simple and efficient ejector system. The replaceable barrel shoulder helps ensure proper barrel-to-receiver fit. The nicely jeweled monobloc walls add to the overall good looks of the gun.*

also flush with the muzzle. Beretta's Optima chokes are very long — they might be the longest ones available — which makes the taper much gentler on the shot, improving patterns and reducing the amount of plastic scrubbed from the wads. Being extended, Wright's chokes are a little heavier than the Optima tubes.

The chokes I will be using most in my gun's over/under barrel are Wright's #5 (.020" constriction) in the bottom barrel and Wright's #7 (.028") in the top barrel. The unsingle will carry a Wright's #8 tube (.032"). Jason uses Beretta's Optima chokes and has

ed replacing the recoil pads that came with the gun was a "must" for me. I use the "Rocker" pad by Kick-eez on most of my shotguns because its convex shape fits my shoulder pocket and chest better than a flat or concave pad and it doesn't have a "tractor-tread" face to chafe my skin when shooting in a short-sleeved shirt. Again, personal preference is the key here.

The pull triggers on Joel's guns are very nice and break at about 4 pounds with fairly good repeatability. Having shot nothing but release triggers for trap-shooting for the last 14 years meant a change had to be made on my gun.

inletted for the receiver to which the finished stock will be fitted. From there, Mike shapes the wood to fit the client, checkers and finishes it. The examples of his work I saw were gorgeous.

John Jr. is the inventive type. A sign in his shop says: "If it doesn't exist, invent it. If it does exist, make it better." He recently developed a release-trigger mechanism called the Allem Roller Release employing a roller in place of the usual release sear that all but eliminates wear and permits the trigger to function much more smoothly, as well as offering a couple additional and very valuable benefits. The

speed with which a trigger releases is very subjective, as some shooters like less reduction in finger pressure before it releases than others. With conventional sears, removing metal from the mating surfaces changes the speed, but metal removed cannot be put back without a lot of costly extra work and possibly some new parts. On many guns, installing a release trigger requires sufficient changes to the lockwork converting the gun back to a pull trigger may be difficult or impossible without affecting trigger operation. The speed of the Allem Roller Release (for which a patent is pending) can be changed by simply changing rollers that come in five diameters and can be changed by the gun owner with just a screwdriver once the stock is removed from the receiver. The gun can be changed back to a pull trigger by simply removing the roller. Allem's has a regulation trap field behind their shop where stocks, triggers and guns can be test-fired — very handy!

John Jr. fitted my releases with his Number Two rollers, so I can go one step faster and three steps slower if I ever need to, but after about 500 targets, I can't see any need for a change.

## Choosing & Adjusting A NEW GUN

The triggers are crisp, fast and smooth, and the amount of forward finger movement to set the second release is very minimal — just the way I like it. If you don't need a release trigger, of course, you won't need to go through these changes. Just make sure the gun you choose has a trigger pull you like and that fits with your style of shooting. You can often have work done to a trigger by the manufacturer's custom shop or a gunsmith.

With the obvious exception of the trigger, adapting myself to the new gun has been very easy because I took the time to adapt it to me before shooting it. I don't believe in taking a patterning board's word for where and how a gun is shooting because I shoot at moving targets differently than a patterning board. I used my 870 as an example so I would set my new gun's POI as high as I needed. Paper shows I have my new Beretta shooting about 120% high. I have mispointed a target in the

past or one dropped so that my bead was covering it when I shot and it still broke, something that would not be possible if I shot with the same mechanics I employ when shooting at stationary patterning sheets. This gun has been the easiest to dial in of any I've owned and the majority of my broken targets are being center-punched with authority.

As I continue to work with the gun, I find more things I could tweak. The raised portion of the stock's comb could be an inch or so shorter, as there is very little "level" wood between it and the butt, making shortening the stock a challenge if very much wood has to be removed. Since no one cheeks a stock that far back, the extra comb length really is not needed. And the pistol grip could be extended perhaps ¼" to ½" further so all of my wide hand could fit onto it. Those are pretty minor complaints. Actually shooting the gun is what separates the wheat from the chaff, and I am really enjoying my time on the trap field with this gun. This might just be the most comfortable gun I've ever owned. You can't ask for more than that! Good luck with your gun shopping. **SS**

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