

October 1, 2009

DeVault Industries LLC

Custom Engineered Shooting Solutions

The sun was setting and the air had a crisp clean smell. I went for a walk at our local gun club today. I closed my eyes and just stood and listened to the sounds of nature around me. God's playground was unfolding. In my mind I see the bright vivid colors; I hear the water running in the stream and know that the approaching cold weather will silence it for a while. I hear the rustling of leaves, as I open my eyes I see a doe and a buck playing on the hill. It is approaching the rut and the two are playing a game of hide and seek in the trees. My eyes close again and I hear the sound of turkeys on the hill above the tree line. A crow spots me and calls a distress to warn his friends on the ground that an enemy is near and to take cover. I am reminded that I have been given an opportunity to share many things in this too short of a life and I think about all the people that have been to our shop this year. Any anger that may have been there from a bad week has now gone away and I am thankful that another day has been granted to me. Yes, granted, for there is never a promise of tomorrow except in a foolish man's mind! Take a moment to call an old friend this week for there may not be a tomorrow to say hello. Laugh more and love all that you can, remember that life is only but a whisper.



Well that time has finally arrived. It is without a doubt my favorite time of the year. Wing shooting is just around the corner and I can't wait to take Bella for a run in the grass and uncover that sly old ring neck. There are not many around these parts but it will be a good time to take my second favorite female out for a walk and see all the fall colors.

DeVault's Winners Box !!!

Steve Smith: Infinity Shotgun ~ Jaqua's Labor Day Shoot ~ 96 x 100 Shoot-off 25 x 25 Handicap Runner-up

Ron Zimmerman : Silver Seitz –DeVault Custom Stock ~ Labor Day Carmi Trap Club Handicap Champion runner-up 97 x 100 Shoot-off 72 X 75

Pat Krokonko: Double D Shooting Clinic ~ Perazzi MX-2000 ~ Devault Industries Custom Stock Millvale Pa. Summer league Class AA Champion won in shoot-off.

Jean McCord: DeVault Infinity ~ New York Grand ~ Ladies Singles Runner-up 96 x 100

Dr. Clay Gormish: DeVault Industries Adjustable high rib Kreighoff K-80. Dr. Gormish was the first shooter that we ever installed an adjustable high rib on two skeet barrels. Since shooting this set-up Clay has been on the Pa. State1st team every year. Congratulations

Congratulations to Scott Messenger from Minnesota ~ Bob Schultz had a raffle for the North Caroline Hall of Fame shoot and Sunday October 27, 2009. Scott's name was drawn as the winner of a New Infinity Shotgun good luck to Scott and I hope that he shoots it well.



The World According to Me ~ “Dennis DeVault”

Is stock fitting necessary? Will it improve my shooting? Will it help the shooting experience be more enjoyable? Do I need to visit a bona fide gun fitter? The answer to these questions is yes. Can anyone fit a stock? Do I have to buy exhibition grade wood? Are factory stocks made as a one size fits all? The answer to these questions is no.

A custom fit stock, without a doubt, will improve your overall performance and make shooting a shotgun much more enjoyable. It has been said to me “fitting a gun stock is not rocket science”. That may be true for most stock makers but not DeVault Industries. I had a customer in the shop last week who wandered around the shop watching the guys make his pattern. A little later he came back to my office and was smiling. I ask if everything was OK and he just nodded and said “I knew I came to the right place to have this stock done”. I asked how he arrived at this decision. He told me that he watched Tracy taking all the stock measurements from the barrel bore center line. He asked, “Who taught you that method”. I replied, “I taught myself”.

We have all heard the term parallel stock but what does that mean? Where are the dimensions taken from? Everyone that I know who makes stocks takes the comb dimensions off of the slope of the rib. This is wrong!! Today ribs are sloped and most are adjustable. I asked a stock maker one day; from what position of the rib did he make the stock parallel? His answer was with the rib in the middle setting. The problem with this was that when you look at a side profile of the gun the stock is higher in the back than in the front. Again, his answer to this configuration was that the stock being lower in the front allowed the gun to recoil away from the face. That set-up may work for a single shot; but shooting that style in Doubles won't work. On the first shot of Doubles your face falls off the stock and then you hunt for the proper face position for the second target. Another observation I made years ago was the shape of most stocks. They are narrow at the grip and then come back to the recoil pad in the shape of a V. I asked a famous stock maker the reason for this shape and his answer was, “to create more recoil surface allowing for a larger recoil pad”. So when I asked the question, “Why do you call these stocks you make parallel?”, he said I needed to leave his place of business because I was getting too technical and the questions I asked were not relevant to making a stock. He stated further, “No one really cares about function as long as it looks beautiful”. Beginning that day I started to research and study the effects of recoil and how it might be tamed to the level that the recoil is not uncomfortable. That research is the basis for the style of stocks that DeVault Ind. builds today. We call the stock we build the X factor. It is not a rollover stock but it gets referred to as a rollover for lack of a better term.

Several months ago there was a magazine article on why parallel stocks were uncomfortable. The author referring, to the radial bone in the face, said pressure in that area was beating the daylights out him when he shot. When I looked at the photos it was a stock that was high toward the back end of the stock. I had to agree with the author that the stock would kick your brains out.

I know I have jumped around on this topic and may have made it more confusing to some of you; so I will attempt to illustrate how we measure for a stock.

A stock has to be made parallel in more than one plane. The comb and heel height has to be made parallel from the bore center line. The pitch at the back of the stock should be determined off of the bore center-line. The drop at the heel should also be measured off of the bore center-line. This will go a long way toward reducing felt recoil and making the shooting experience more enjoyable. Increased discomfort from recoil is only one of the problems caused by not using the center bore line when making a stock. While it may not be rocket science “When you go about things wrong; they turn out wrong” or “garbage in garbage out” applies to stock making. No, you don't need exhibition grade wood. No, one size does not fit everyone. But, a correctly measured and made stock will improve every aspect of your shooting.

The World According to Me ~ “Dennis DeVault”



Fig. 1

In this photo you can see the comb is offset to the right for a right hand shooter. The line of the face side of the stock is parallel to the center-line of the bore. There is no cast in the stock. The comb is also parallel to the center-line of the bore. It is taken off of the apex point of the highest part of the rib. Notice that the heel of the stock is in-line with the bore center.

Note: Cast is when a stock has been made to go from the front of the receiver and then to the back of the stock at an angle. It is a method used by many European stock makers as a means to get the master eye in line with the center of the barrel. If the stock is at an angle there is only one place where the face can set to be in perfect alignment, to far forward of that spot puts the eye inside the center line. To far back on the stock puts the eye on the outside of the bore center line. When nothing is straight it is difficult to be perfect on every mount, the stock works against you. Another reason for making a stock with cast, the stocker maker can use a thinner piece of wood and save himself the added expense of buying a

higher priced blank. Cast also creates recoil in the front corner of the mouth and makes the butt of the stock move further out on the shoulder. In that stock it may be impossible to get the butt of the stock in the shoulder pocket.

Fig. 2

Notice the line that is drawn along the rib. The line does not follow the taper of the rib but is parallel to the bore center-line. As you can see the stock comb is also parallel to the same center-line. Also notice that the comb is not higher in the back than in the front of the stock. No matter where you put your face on this stock you will be in-line with the center of the barrel. It is very important that the face side of the stock be parallel to the bore center-line. To achieve maximum felt recoil reduction a stock has to be made straight back to allow the recoil to go to the shoulder and not the face. We first place a level on the bottom side of the barrel leveling the barrel in the vice. We then place a level on the rib and level it by placing shims on the front part of the rib to make the level the same as the barrel. The line represents the level projecting back over the stock. “The height of the comb is determined by the apex of the rib so the Shooters sees straight down the rib.” The level was not shown as it would have been to much in the photo. **Note:** The picture may not be level.

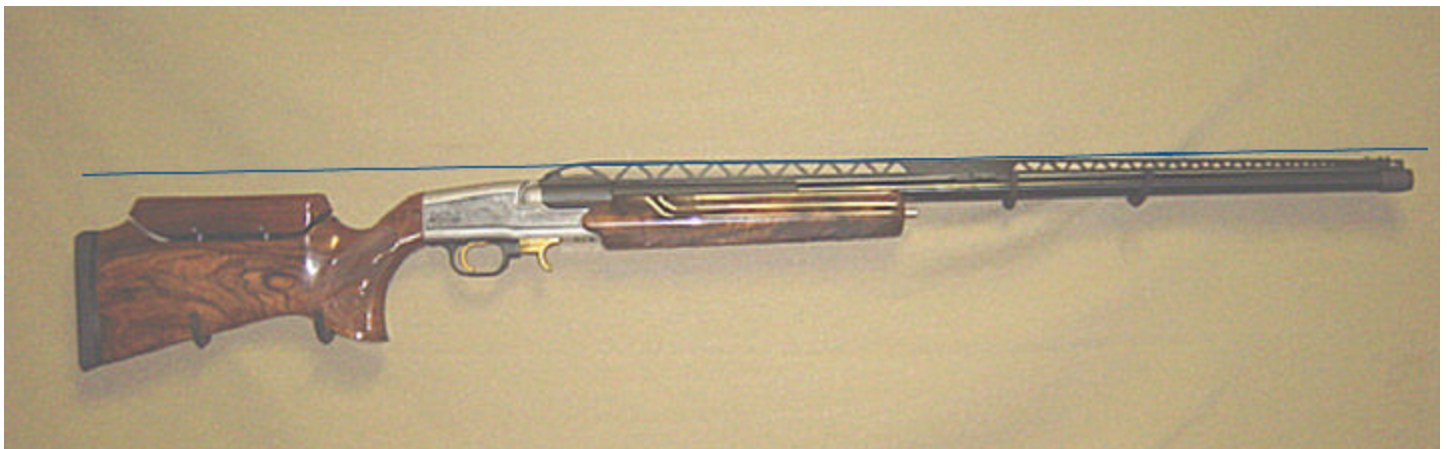


Fig.3

The grip is one of the most important areas of a stock. It is an area most stock fitters pay very little attention to. It is the steering wheel of the gun and is where most of your control comes from. If you shoot a release trigger it becomes even more important. Notice the large relief area behind the palm swell (red arrow). The relief keeps the meat pad below the thumb from being compressed. Smashing the hand into the stock creates fatigue and tension in the hand. The extended grip, (blue arrow), allows the shooters hand to move down allowing the index finger to be in-line with the trigger. In this position the hand is straight and not bent in a downward angle. With the hand relaxed the recoil comes into the shoulder and not in the hands. With this grip style the thumb is taken out of the grip. The thumb can cause the gun to cant and tilt left or right. Taking the thumb out of the equation reduces arm shooting. "Arm shooting" a gun with a high rib and high point of impact leads to shooting inconsistent scores. Arm shooting is when a person shoots strictly with their hands and shoulders. All moves to a target should be done with the legs and waist. Moving with the arms allows the gun to be pulled into or away from the face. If you pull the gun away from your face the master eye is no longer looking over the center of the barrel.



Final Note:

Over the past month three customers asked if we could salvage the basic body of their stock by make revisions to their stock and make it work for them. We were very successful in doing this and the results were very good. The grip was not perfect and the hand was not where I wanted it to be but we managed to take all the discomfort out of the stocks they were shooting. When I set up DeVault Ind. my goal was to help as many shooters as I could. Not everyone can afford a custom stock. If the alterations are capable of being made to a factory stock with satisfactory results, the customer walks away with extra money in their pocket and I feel good that we have helped another shooter be able to shoot more targets by, becoming consistent and enjoy shooting in comfort.

Rodeo Man,

Target color, Background and Lens Color

This month let us talk about three things, Target color, background and lens color.

First, let us talk about the target color. There have been some very interesting arguments on this subject over the years. Most people think that a solid orange target is the best color for all backgrounds. This is not true! There are some places it is best, but truthfully, there are fewer than you might guess. If you talk to most optometrists that know shooting, they will tell you the only color your eye can find true definition for is Black. After all what color is the optometrist's wall chart?

In 1992, the first time I planned to shoot in Las Vegas, I was told they threw solid black targets. Never having shot all black targets, instead of calling Steve and checking, I proceeded to take a case of orange dome targets and paint them black. Even here in Kentucky where everything is green, they did show up very well. Upon arriving to the shoot, only then did I realize, my efforts had been for nothing. There were orange dome targets flying through the air. However the next year (1993), not having or taking the time to read the program properly, they threw all black targets. In a panic, with a friend, we proceeded to the practice trap to see what I needed. Do I need a different color lens for black targets? The answer was no. After two practice rounds and leaving fifty black dots in the air from 27 yards, it was still not clear to me how it was possible to see black targets against the Las Vegas background. I told my friend, they seemed like they flew in slow motion. Having had a bit of eye problems in the past he told me about color and definition. He was an airline pilot for many years and flew DC-10's so I trusted his information. I have shot every color target made in almost every possible background. Complete orange, orange dome, lime dome, all lime, all white at night, all white in the day-time. Long story short, in most backgrounds orange dome is the target of choice, and believe it or not you will shoot better scores with a black ring target in most backgrounds. One example comes to mind to prove this point. When I was manager of the Phoenix Trap & Skeet Club, I had some members that wanted to practice to get ready to go to the Missouri Fall Handicap. Missouri uses orange dome targets, so did we for the Arizona State Shoot and the Spring Grand. We had all orange targets and orange dome. After asking if they wanted to replace the targets, they insisted on shooting all orange and said that it made no difference. I arrived at the shoot in Missouri just in time for the Handicap event that day. We ran into each other that evening and I ask how they shot that day? The highest on the squad was an 83, one had a 79 and another was in the low 60's. Evidently, it does make a difference. If there is a solid background, green or otherwise, all orange or all lime is the target of choice in most places. So plainly, in most cases, a solid color target is used against a solid background. However, without a black ring on the target for your eyes to lock onto, most people end up shooting at the streak, and shoot under them. It all happens so fast, it is hard to pick up.

This is why it seems you are shooting lower on a solid color target verses a target with a black ring. Think about it; when shooting a black ring target you have a much smaller orange center and the black draws your eye to it and your eye focuses on the black. In your mind you may be looking for orange, and see the orange, but the black is what your eyes lock onto first. So in essence, you are pointing the gun a bit differently at the two different targets. The next time you shoot a solid color target, day or night, try looking at the front ring on the target. Do not just point at the orange and pull or let the trigger go. Even though it is a round object, the front ring is the direction it is going in, so always look at the front of the target.

Now let us discuss lens colors and why many of us get lost in this area. In my opinion, you need at least two if not three different colors, I have three. Find a color you like for bright days, a color for cloudy days, and a color for night. It depends on what color targets the club uses. Everyone's eyes are different. If you have blue eyes you will not see the same color contrast through a color that a brown eyed person sees. So if you are borrowing someone's glasses to see if you like the color, make sure to keep this in mind. To find a color you like for bright days, a color for cloudy days, and a color for night, it takes 10 to 15 minutes for your eyes to adjust to a color. So do not do this over the internet unless you know what you want. And don't buy when you are in a hurry. Many vendors at the bigger shoots have a display so you can look at targets through different colors to help you choose. For most of us, this is an expensive item, especially if you wear prescription glasses. Take your time to get it right. Get your eyes examined even if you don't need a prescription. Remember, this is not to say there will not be a color someone comes up with that you like better at some time in the future. Your vision can change, just like target or background colors, making it important to always think about how you are shooting and then make the right adjustments.

Until next month,
Please remember,
There is a Champion in each and every one of you,
Sincerely,



DOUBLE D
SHOOTING CLINICS

We are beginning to set our schedule for the spring of 2010. If anyone wants to schedule a clinic at their favorite club let Dean or Dennis know so we can set you in the schedule. Watch the web site later this year for the dates as we post the schedule. www.ddshooting.com Contact Dean @ 270-886-2095 or Dennis @ 330-456-6070. We look forward to seeing everyone in the spring.

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Focus, determination, and unwilling to ever say never. Always keep and hold on to these qualities and you will always come out a winner. Remember there is a champion in each and every one of us. Just let it out and see how the impossible can be achieved!!