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VERY High Power

Dedicated to the Sporting Uses of the .50 BMG Cartridge

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"We're the Good Guys"

50 BMG in the Pink

Ten-X Ammunition's TX-50 Progressive Loading Press

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The new .50 caliber progressive reloading press by Ten-X Ammunition. Photo © 2011 by Ten-X Ammunition

If you reload for your big fifty, you need a press. But like everything else in our sport, what works for "regular" rifles just won't do. Not big enough. It HAS to be a FIFTY press! In the old days, we were pretty much limited as to what we could use; RCBS or Hornady was about it. Now we have many more options, it is even getting to the point where it can be a difficult choice; there is some really nice machinery on the market today.

One of those available is the TX-50 Progressive 50 BMG Press from Ten-X Ammunition, Inc. (no relation or connection to Ten X Bullets), developed by Richard Pumerantz several years ago. Originally developed for their own ammo production, it seemed to take on a life of its own. I was lucky enough to get the opportunity to test out this press in order to get the word out to our members, for those who may be in the market for a high volume press.

The TX-50 is a top-of-the-line piece of equipment; it can load as many as 600 rounds per hour and is already in use with a number of ammunition manufacturers around the world including Australia, Canada, New Zealand and the Philippines. For recreational shooters who have a need for putting out a lot of ammo, it is ideal. What comes to mind, initially. is that anyone who owns an M2 machine gun has GOT to have one of these presses.

But there are other applications as well. If you have friends that you have been helping load their ammo for playing around, practicing, or getting ready for a match, this press can get it done in a lot less time. This is especially true if someone has one of the semi-auto fifties (and there

are getting to be more of those on the market all the time). A progressive press is the way to get ready to send a lot of rounds down range without spending quite so much time at the loading bench.

If you are a match shooter and you are loading for extreme accuracy, you may not need a progressive press since you are loading mostly one step at a time. But even so, this press does not need to be used to its full capacity all the time. You can still do single steps in the reloading process with this press, but retain the capability of turning out large volumes of ammunition, if the need arises.

Tool head with dies, powder dispenser, and shell feeder tube at right. Primer feed tube in the foreground. Photo © 2011 by Dale Arenson

The TX-50 is almost fully "automated" with automatic case feed, auto indexing of the shell plate, primer seating and a RCBS powder dispenser. The platform with the shell plate automatically advances each time the operating handle is returned to the up position. In my use of the press, the shell plate indexed to the exact correct position every time. All the operator has to do is put a bullet on the mouth of the case at position 4, where it will seat the bullet. Then (when the handle is brought back up and the turret comes back down) the shell plate advances and a fully-loaded round is dispensed off of the back of the press and slides down a ramp into a waiting container.

The press itself is huge; some people have called it "The Monster!" It completely dwarfs the five other presses I have in my loading room. Guests or bullet customers that stop by are always amazed at the size of it. The main body of the press is made out of machined, 6061, clear anodized aluminum and the platform that the shell plate sits on is machined 7075 hard anodized aircraft aluminum, while the shell plate and ram are stainless steel. There are no Ten-X produced cast parts in this press.

The tool head at the top of the press (which holds the dies and powder dispenser) is bolted front and back to the upright column of the press with 8 Allen screws. It would be possible to order additional tool heads for different calibers and just change everything at once. That way you can leave all of your die and powder dispenser adjustments the same.

The shell feeder bowl is perched atop a 1-inch steel tube and is molded from light-weight HDPE, high density polyethylene plastic. Good thing too, because it is heavy enough when full of .50 BMG cases.

The shell plate has five positions and the tool head has locations for three, fifty-caliber sized 1 1/2", 1 in 12 thread dies and two positions with smaller threads, one for a powder measure, and another position for a powder "checker," but more on that later.

The press sits on a stand made of steel, which bolts to your table or work bench. When mounted on a work bench of 30", it still towers up to almost seven feet at the top of the shell feeder bowl. But that makes it just the right height for me to operate it comfortably.

Assembly and operation are easily understood because of Ten-X Ammunition's instruction manual, complete with color pictures that make everything perfectly clear.

Although it is possible to use this press to load ammunition in a progressive manner, starting with fired cases and going from one stage to the next to produce live rounds with each pull of the handle, that is not recommended. Ten-X Ammu-

nition recommends that (if cases need to be fully processed) then that should be done first, since some processes like reaming or swaging primer pockets can not be done in the normal process from stage to stage. Additionally, the extra force required to full-length resize cases tends to shake the powder measure too much or splash the powder out of the cases, causing too many variables that will not produce the most consistent results. The smoother the press is operated, the more consistent and accurate the loaded rounds will be.

The TX-50 can be set up to size cases, remove spent primers and, if you had one of Dillon's excellent electric case trimmers, you can trim case mouths for overall length, all with one pull of the operating handle. Anyone who has ever stood and trimmed .50 BMG cases with a hand crank, will really appreciate being able to do this job with one pull of the handle, while sizing the case at the same time. But Ten-X recommends that these steps be completed prior to the final loading process.

Getting started; Position one,

The automatic case feeder bowl will hold up to 40 cases, any more than that and the weight will cause it to slow down. The cases are fed into a feed tube that will hold three cases before a micro switch automatically shuts off the case feeder. Then, every time you operate the handle and use a case, it will start up again and feed another case into the feed tube. It can feed as many as 20 cases per minute and no matter how fast you try to load, you cannot out run it. Now, because of international sales, Ten-X Ammunition is offering a new 220 or 240 volt shell feeder motor (depending on the country) in place of the domestic 110 volt motor.

The shell plate in full operation. Photo © 2011 by Dale Arenson

As the handle is pulled down, so that the platform and shell plate reaches its upper most position, the case in the bottom of the feed tube is released to drop onto the shell feeder block. As the platform is lowered, the new case is automatically fed into a newly empty slot in the shell plate by the shell feeder block at station one. This positions and aligns the case under the sizing die. The next pull on the handle runs the case up into the sizing die where, as with most sizing dies, it is also de-primed. There is a cup positioned underneath the turret which captures the spent primer. This spent primer cup is clear plastic, so that you can see when it is getting full and it is easily emptied.

Whether you are full-length sizing, or just neck-sizing, you will need to lube your cases before you put them in the case feed tumbler. I used a spray lubricant, which makes the whole process go a lot faster than doing each case using die wax or a case lube pad. If you are using an expander ball on your de-capping pin, don't forget to lube the inside of your case necks. It will reduce the amount that the expander ball stretches the case and will also require less force on the upstroke of the operating handle.

The shell plate and the platform underneath it are extremely stable and they have zero flex. Cases that I neck-sized on the TX-50 averaged about .001 in neck run-out, while some were as low as .0005 and a couple as much as .002. That's pretty good for any cases sized in neck-size-only dies, since the body of the die is not supported as with

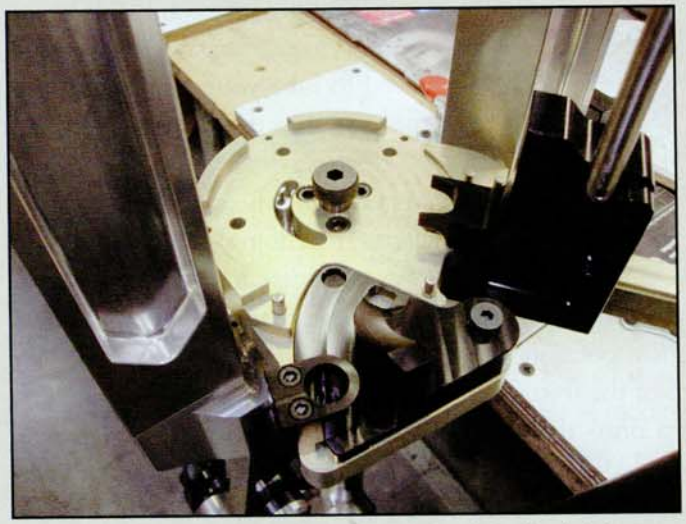
full-length sizing dies.

I also ran a number of cases through this press and full-length sized them, doing the sizing process only, with my new Warner Tool Company full-length sizing dies. Neck run-out averaged .001 or less with those cases.

Bringing the handle up (lowering the platform), will cause the newly-sized and de-primed case to rotate to position two.

Position two,

Two things happen at position two; while the platform is in the up position, the .50 BMG Primer Shuttle is automatically rotated under the primer feed tube and picks up a new primer. When the platform is lowered, the primer shuttle rotates back and positions the new primer underneath the case now at position two. A push full forward (away from you) lowers the case down onto the new primer, seating it. At the same time (with that push on the operating handle), the shell feeder block positions a new case into the shell plate at position one.



Position 2 with the shell plate removed, the primer shuttle is in the center and to the right at position 1, the shell feeder block. Photo © 2011 by Dale Arenson

Primer seating depth is fully adjustable, with an Allen head set-screw directly underneath the primer seating punch, on the primer seating block. Each 1/4 turn of this set screw, generally equates to .001 in primer seating depth. While operating the press, the primers I seated were consistently within one and a half thousandths of each other. I was using RWS primers. CCI primers do not seem to seat with the same consistency.

The TX-50 is equipped with unique, collapsible, link arms that generate additional leverage when the handle is pushed back, for seating the big .50 BMG primers. These arms can be locked into place with the Link Arm Lock, for when you are not doing the primer seating process, which is recommended.

Primers are fed into the primer feed tube either one at a time by hand, or they can be fed into a .50 BMG primer pick-up tube and inserted into the primer feed tube that way. The primer feed tube will hold 40 .50 BMG primers at a time.

A nice little feature is the primer feed tube rod that goes inside the primer feed tube. It helps to gravity feed the primers down into the tube. But, more importantly, if you run out of primers, it lets you know by locking the primer shuttle arm back, keeping it from swinging back under the shell holder, a very obvious way to show that you are out of primers in the feed tube.

The primer feeding system is also capable of feeding and seating large rifle primers, more on that in a bit.

The powder measure is a Quick Change High Capacity Powder Measure from RCBS and will hold two pounds of powder. Although, I suspect that (with a dense ball-type powder) weight wise, it will hold more than that.

The next pull on the operating handle raises the newly primed case up into the case-activated RCBS powder measure, where it is filled with an already weighed and adjusted volume of powder. This is done by throwing powder charges before you get started and weighing them to get the exact amount of powder you are planning to load. Needless to say, for the same volume, different types of powder will weigh drastically different depending on their composition, ball powders versus extruded "stick" powders, for example.

I first tried using the powder measure all the way out and using US869, a ball powder. I got powder charges just over 280 grains, while with Reliant's new RL-50, an extruded powder, I was getting just over 260 grains.

I tested three different powders, using some that are the most common with .50 shooters, H50BMG,

US869 and RL-50. I set the powder measure to make each powder give me 250 grains. As might be expected, when using the fine ball powder like US869, I got charges that were more accurate and varied by only 2.6 grains, in other words +/- 1.3 grains. With a 250 grain load that is only 1%.

With larger grain extruded powders, the spread was slightly higher, RL-50 and H50 BMG were almost identical, although I had to adjust the powder measure slightly for the different powders. After throwing 25 powder charges with each, interestingly, they both varied exactly from 248.5 to 252.8, a difference of 4.2 grains, or +/- 2.1 grains. This is still less than 2%.

It is rumored that Dillon is making a large .50 BMG powder measure. If that happens, the folks at Ten-X Ammunition are going to make sure that this new powder measure will be usable on the TX-50 press.

Position three,

Three is normally set up for the Powder Check die, which has a powder check probe that will give you a visual indication that the case has received enough powder, too much powder, too little, or no powder. It is easily adjustable and has a nylon set-screw to lock it in place.

The powder check die at position three. Lock rings are not required because of the nylon set screw below the die.
Photo © 2011 by Ten-X Ammunition

Position four,

This is normally set up for seating bullets. It is the only station where you have to manually do something. In this case, placing a bullet on top of the case, that has been primed and charged with powder. It is possible to crimp the case in position four, if desired; assuming your seating die has a crimper in it.

I seated a number of bullets on the TX-50 press, using my M2 bullet seater die with the micrometer top and they all came out with minimal run-out. I love that die. I could not tell any difference in the finished rounds, than if they had been seated on my Hornady or Hollywood presses. But then I think, although a quality bullet seater die is very important, the amount of run-out (or lack of it) in a finished round is directly attributed to the quality of the die that the case was re-sized in.

It is also possible to use position four for case mouth sealing and do the bullet seating at position five.

Position five,

You can use this position for separate bullet crimping, if desired, or it can be used for bullet seating and crimping at the same time. It can also be left empty and used to inspect the bullet at this last position, before it is ejected into the ammo box.

When a loaded round is rotated out of station five, it is kicked out into a chute at the back of the press. There it will slide down into an ammo bin, which just happens to fit perfectly in a standard, Government-Issue, .50 BMG ammo can. When set up correctly, the tips of the bullets will not contact the primers of loaded rounds previously dropped into the box. The chute and ammo bin are optional items.

So as an overview, in a normal progressive operation, each time the handle is pulled (and there are cases in each of the shell holder positions) you will get: One case full-length resized or neck-sized and de-primed at

View from the rear of the tool head. Left to right, positions 1, 5 and 4 with sizing, crimping and seating dies. Photo © 2011 by Ten-X Ammunition

View of the ramp at position 5 that guides finished rounds into the ammo box. Photo © 2011 by Dale Arenson

station one, while station two is receiving a powder charge from the powder measure. Station three is providing you a visual check of the powder charge, while station four is seating a bullet and possibly crimping the case mouth. Station five may be separately crimping a bullet, or it may just be presenting a loaded round for inspection. Basically, you are getting as many as six different functions in one stroke.

Each time the handle is brought back up (the platform comes down), the shell plate is rotated, bringing each case to a new position, plus feeding a new case into position one, while sending a finished round down the chute into the ammo can from position five. Plus, after the handle is brought back up and pushed to the rearward position, it seats a new primer into the case at position two.

One of the nice things about the TX-50 press is the LRP (meaning Large Rifle Primer) conversion kit, which will convert the TX-50 press into a progressive press for "smaller," large rifle caliber cases. First out was the .338 Lapua Magnum. Now available are the .408 CheyTac and .505 Gibbs (they use the same basic case), also the .500 Nitro Express cartridges, a host of .577 based calibers and just about any other rifle caliber that Ten-X Ammunition makes a shell plate for. They are in the process of designing shell holders for belted magnums and even down to 30-06. Richard told me that they will also do custom orders for just about any caliber that a customer wants to be able to load on the TX-50.

Converting to another caliber is accomplished by just swapping a few parts. It could be done even more quickly by having an extra tool head as mentioned earlier.

Matt Bender (from DS Arms) has used a TX-50 press to load well over fifty-thousand rounds over the last year that he has had it. He says he loves using it and that it has dramatically increased his production to an average of 2000 rounds of .50 BMG per day. On a good 10-hour day, he has produced over 3000 rounds.

Matt also says that he consistently gets powder charges varying no more than +/- 1.0 grain, plus he has had literally no mechanical problems or failures of any kind and no changes in the settings that he started with over a year

Part of the TX-50 press production line. Photo © 2011 by Dale Arenson

ago. His sizing die is still in the same position today, as when he started using the press.

Obviously, the word on this press is getting out because Richard tells me that they have over 40 of them out there, many of which are in use with commercial ammo manufacturers in at least five countries.

Product support from Ten-X Ammunition is, in my opinion, excellent. Not only do Richard and the folks at Ten-X Ammo support the FCSA and the "Fifty Caliber Community," but they really want people to be happy with their products. If you have any problems, either setting up the press or run into problems when you get up and running, Richard (or someone at the office) is always ready to help in order to make sure that you will get it straightened out. They definitely want the customer to be satisfied.

At the recent SHOT Show in Las Vegas, I spent over an hour with Richard going over the features and operation of the press, enabling me to more smoothly operate the one I had on loan in order to write this article.

It was very helpful to me to see how easily the press worked and also quite interesting to watch the expressions of some of the convention goers who happened by, looking at the size of the press and the (inert) loaded rounds being produced by it. A person in awe of seeing a .50 caliber round is something most of us have gotten used to, but it is still interesting to watch none the less.

This press is very specialized. It is not for everybody. Certainly it will produce a high volume of .50 BMG rounds in a relatively short time; some shooters will really like that, while others have no need for it.

However, because of the rigidity of the press body and the stability of the shell plate and platform, it will do the job (with the same quality and consistency) that any other .50 press will do, while still retaining the capability to pump out a whole lot of loaded ammo in a short amount of time. For example, if you are doing nothing more than sizing cases, once they are lubed and put into the shell feeder hopper, it is just a matter of pulling the handle over and over until all of the cases are sized and dumped into the box after stage five. It all depends on what your particular needs are. But some may think it is nice to have the high volume capability on the side, even if not needed, while they are using the press for "lower volume" operations, such as loading their match rounds.

The choice is yours. The nice part is that, now-a-days, we have a whole lot more choices than we used to.

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