

**Keeney, Mike**

**To:** Zajk, Joseph J  
**Subject:** RE: Model 710 Receiver Design Change Requests

**Magazine Opening:**

The corner radii can be opened from .125 to .156 without interference.

**Fire Control Slot:**

The objective of the cross slot is to provide clearance for the sharp corners of the receiver insert. Therefore any width and any angle will be acceptable as long as the receiver insert is allowed to fully seat against the face of the receiver. As well, a sharp corner at the intersection of the leg and cross section is acceptable.

**Ejection Port:**

Unfortunately the port has to remain as drawn currently due to mating with the receiver insert.

**Bolt Handle Clearance Cut:**

Again, geometry cannot change due to mating with the receiver insert.

**Top Tang Cut:**

Strictly cosmetic, but the bolt plug has to mate to the runout of this cut; therefore we need to ensure the mating geometry of both parts is achievable.

In general, all of the receiver cuts were generated around the use of a standard 1/4" endmill. The approach was that if a common/standard endmill could be used, the number of tool changes could be minimized thus reducing cycle time.

I do not have extra bolt handles to provide, if you provide a charge number I can have our vendors produce a quantity for you.

Mike

**From:** Zajk, Joseph J  
**Sent:** Tuesday, October 26, 1999 6:58 PM  
**To:** Keeney, Mike  
**Cc:** Golemboski, Matt R.  
**Subject:** Model 710 Receiver Design Change Requests

Mike,

I was wondering if you would look at the possible changes to the 710 receiver design. These questions arose during my part runoffs at Okuma in Charlotte. We are currently planning to machine the receiver complete from tubing stock on an LT-15 MY turning center. Its a twin spindle, twin turret machine that is capable of machining the receiver complete as is. However, a lot of the cuts on the receiver can be accomplished easier and quicker if small modifications to the design were possible. They are:

- **Magazine opening:** Can the corner radii be larger than .125? A radius of .156 (5/16 dia.) would assist in machining the opening quicker. The machine we're looking at might have a software option that would allow the slot to be cut to the same width, have a larger corner radius, and still have the tool on centerline. That would allow us to use a larger endmill to finish the magazine well.
- **Fire control slot:** Can the cross of the "T" be .320 wide to match the fire control slot itself? Do the walls at the ends of the "T" need to be straight as shown in the drawing or can they be angled in towards centerline (difference between rotating the part to cut the "T" versus having to move the cutter off center). Is the radius blending the leg and cross of the "T" necessary or can it be a square corner?

- **Ejection port** : Is it absolutely necessary to have the full .295 radius at the corners? Can it be two .250 or .281 radii and a small flat connecting the two? Do the ejection port walls have to be straight as shown or can they be tapered slightly? If those items aren't acceptable, can the ejection port opening be a standard size, like 9/16 or 5/8 wide?
- **Bolt handle clearance cut**: Can the radii on both corners be equal?
- **Top Tang Cut**: Look at the way the top tang cut was machined on the sample Matt is bringing up. Is it acceptable to have that concave look instead of being flat (finish on the part notwithstanding).

Additionally, I was wondering if you have an extra 30 or so bolt handles (the screw machine ones) that you might be able to part with so we can give samples to a brazing vendor to size a machine for us? If not, could you give me the information on who made them for you?

Please let me or Matt know what you think about these proposed changes.

Thanks,

Joe Z.

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