

Transfer Bar Pinch

Here are two photos illustrating Transfer Bar Pinch.

In the first photo, the hammer is down and my finger is still on the trigger. This simulates the situation of the hammer falling and firing a cartridge. The trigger is still back and the transfer bar is in the raised position, the position it needs to be in to do its job of transferring the hammer blow to the firing pin. Notice there is a gap between the hammer face and the frame of the revolver.



http://img.photobucket.com/albums/v495/Driftwood_Johnson/rugers/transferbarpinch01.jpg

In this photo I have released the trigger. This causes the trigger to rotate forward, which in turn pulls the transfer bar down away from the firing pin. Notice the gap between the hammer face and the frame has closed.



http://img.photobucket.com/albums/v495/Driftwood_Johnson/rugers/transferbarpinch02.jpg

That is Transfer Bar Pinch. What it means is the transfer bar is being supported at two places. The transfer bar has a pin cast onto its base. The pin fits into a hole in the trigger. When the hammer falls, it

strikes the transfer bar, which in turn pushes the firing pin all the way into the frame. The problem exists when the transfer bar is supported at both the bottom, by the pin in the trigger, and at the top where it bottoms out on the frame. Picture those Karate guys who support a board at both ends and strike it in the middle. The board splits. If they did not support the board at both ends, but instead laid it flat on a table, the board would not split and they would break their hand.

That is what happens with Transfer Bar Pinch. The hammer strikes near the top of the transfer bar, forcing it against the frame, while at the same time the pin at the bottom is also supporting the bottom of the transfer bar. Just like the Karate example, the transfer bar can break because the impact of the hammer is between the two points of support.

Now, let's look at another photo. The arrow is pointing to the surface of the hammer that actually strikes the transfer bar. That is where the Pinch is occurring. You can do the same test I did. Hold the trigger back and lower the hammer all the way. Look to see if there is a gap between the hammer face and the frame. Then release the trigger. What happens? I'll bet you a donut the hammer jumps forward a little bit and closes the gap, bottoming on the frame. If so, you have Transfer Bar Pinch.



http://img.photobucket.com/albums/v495/Driftwood_Johnson/rugers/hammerreliefareawitharrow.jpg

The fix for Transfer Bar Pinch is to relieve the surface of the hammer that I indicated with the arrow. But it is tricky. One of the cardinal rules of gunsmithing is that if one of two parts that fit together need to be altered, always do it to the cheaper part. But in this case, thinning the top of the transfer bar so the hammer did not cause it to be pinched, would weaken the TB (Transfer Bar) so much that it would probably be more likely to break. So the fix is to relieve the surface I indicated on the much more expensive hammer so that it just kisses the surface of the TB, without stressing it. But if you remove too much material, the transfer bar will no longer be able to do its job of striking the firing pin.

Transfer bars are cheap. They are not a precision part. They are Investment Cast and there is no secondary machining done to them. They pop out of the mold and they are ready to go into a gun. Ever notice how the TB usually sits at an angle in the gun? That is because they are designed with so much

slop. There is slop in the fit of the pin into the trigger. They are made this way on purpose so that they do not need expensive hand fitting.

I have three 'old model' Vaqueros, two New Vaqueros, and a transfer bar equipped Blackhawk that I bought in 1975. If I was concerned about a transfer bar breaking, I would have a couple of spares hanging around. They are cheap and easy to install. If you can take a Vaquero apart and get it back together again, you can replace a transfer bar. I ain't seen the need yet to keep any extra transfer bars around, and I certainly have not seen the need to alter my hammers. I know guys in CAS who are so paranoid about this that they have had gunsmiths remove their transfer bars and weld up the hammer so it strikes the firing pin directly. But that is another story.

If you are concerned, order a couple of extra transfer bars and learn how to install them. I ain't going to do that. When and if I break a transfer bar, I will call up Ruger and tell them to send me another.

P.S. Ruger is completely aware of transfer bars breaking. But it is such a rare occurrence that they are not going to go to the trouble of either redesigning the hammer and transfer bar, or tightening up the tolerances. It is much cheaper for them to send out a few free transfer bars, or install new ones at the factory for free if the owners send them a gun with a broken transfer bar.