



Because of the locking system at each end of the ejector rod, malfunctioning of the Ruger or Smith & Wesson revolvers is usually not encountered until the crane is severely bent. Smoothness of operation can often be impaired with only a very small or slight misalignment. This tool will enable the user to more easily and precisely align the crane in a matter of minutes without "guess work". The Yoke/Crane Alignment Tool is carefully precision ground to within .0005" on critical dimensions and hardened to prevent wear.



WARNING



Never attempt to disassemble or reassemble a firearm unless you are absolutely certain that it is empty and unloaded. Visually inspect the chamber, the magazine and firing mechanism to be absolutely certain that no ammunition remains in the firearm. Disassembly and reassembly should follow the manufacturer's instructions. If such instructions are not immediately available, contact the manufacturer to see if they are available. If they are not available at all, then you should consult other reference sources such as reference books or persons with sufficient knowledge. If such alternative sources are not available and you have a need to disassemble or reassemble the firearm, you should proceed basing your procedures on common sense and experience with similarly constructed firearms.

With regard to the use of these tools, the advice of Brownells Incorporated is general. If there is any question as to a specific application it would be best to seek out specific advice from other sources and not solely rely on the general advice and warnings given.

HOW TO USE

In the case of Ruger "SIX" Series revolvers, following Ruger's Instruction Manual, remove the cylinder and crane assembly from the revolver frame. Secure the body of the cylinder in a padded vise so you have access to both the front and rear of the cylinder. Place the two appropriate extractor support tool inserts into any two opposing cylinder chambers from the breech end. Clamp an extractor rod wrench onto the extractor rod and unscrew it by turning in a clockwise direction. When removing the extractor rod, care should be taken with the cylinder center pin, rod and spring. These small parts can easily be lost or misplaced.

The cylinder can now be removed from the crane. Be sure the internal parts of the cylinder assembly, such as the ejector spring and cylinder lock pin, remain in the cylinder. More often than not, the ejector rod washer will remain inside the crane. It should be removed with a wooden dowel or pin punch.

With Smith & Wesson revolvers, remove the side plate screw that retains the crane. Then remove the crane and cylinder assembly from the revolver. Remove the cylinder assembly from the crane. It slips off the rear of the crane on modern S&W's. Older models require loosening and removing the ejector rod.

The crane on either make of revolver should now be placed back into the frame and the yoke/crane alignment tool inserted into the crane. The knurled portion of the tool should be as far forward (in the direction of the muzzle) as possible. Gently press the crane into its locked position while at the same time depressing the cylinder release button on the Rugers or, on Smiths, pushing the cylinder release button forward toward the muzzle. With the crane in its locked position, slide the yoke/crane alignment tool to the rear of the frame. The small projection on its end should slip snugly and easily into the cylinder center pin hole in the frame. If it does not slide into the cylinder pin hole, do not immediately assume that the crane is bent or warped! The cylinder pin hole may be burred, or for some reason is no longer concentric.

However, if the cylinder pin hole is in good shape, then you may be faced with a warped crane. By noting the position of the end of the yoke/crane alignment tool in relation to the cylinder pin hole you will be able to determine the extent and direction of the crane warpage. This can normally be

corrected by carefully tapping the crane with a plastic-faced hammer. Under no circumstances should a steel hammer be used to strike the crane, for the crane is relatively fragile and you risk damaging it. **BE SURE** to leave the yoke/crane alignment tool in the crane to prevent the collapse or denting of the crane tube. Check the crane in the revolver frame with Brownells Yoke/Crane Alignment Tool after each adjustment. Remember, a little pressure goes a long way, so be **VERY CAREFUL!**

An alternate method of straightening the crane entails placing the lower portion of the crane in a padded vise and simply twisting or adjusting the crane with hand pressure. Again, it is important to leave the Brownells Yoke/Crane Alignment Tool in the crane to prevent any deformation or collapse of the crane tube. **DO NOT** use the precision ground yoke/crane alignment tool as a lever to twist the crane! **BE CAREFUL - GO SLOW - CHECK YOUR WORK!**

IMPORTANT NOTE: New Smith & Wessons have the crane made in two pieces and some resistance may be felt if the alignment tool is pressed as far down in the crane as possible. This is due to some collapse taking place at the juncture of the two pieces and does not interfere with the smoothness of function. Examine the crane to assure the alignment of the small hole, which helps to keep the extractor rod concentric with the cylinder, is in the approximate center of the large hole. Extreme misalignment here will severely effect the smoothness of function.

Reassemble the firearm according to the manufacturer's instructions. Check for proper functioning using **ACTION PROVING DUMMIES**. Make sure **ALL SAFETY MECHANISMS** are fully functional as designed and approved by the manufacturer. If these tests prove satisfactory, test-fire the firearm with live ammunition in a **SAFE** and **APPROPRIATE** manner.

BROWNELLS[®] YOKE/CRANE ALIGNMENT TOOLS

READ & FOLLOW THESE
INSTRUCTIONS

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