

Scott Franz

From: Danner, Dale
Sent: 08/02/2000 05:26:55 PM
To: Franz, Scott; Keeney, Mike; Rages, Brian L
CC:
BCC:
Subject: RE: 710 Sear Loading Fixture Screw Force

Bottom line - it sounds to me that the granularity of the fixture will not permit a reliable/consistent adjustment. . . . Other thoughts. . . Dale

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>From: Rages, Brian L
>Sent: Wednesday, August 02, 2000 3:38 PM
>To: Danner, Dale; Franz, Scott; Keeney, Mike
>Subject: 710 Sear Loading Fixture Screw Force

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>If friction is neglected, a 0.473 in-oz torque on the sear loading screw is necessary to result in a 11.4 pound force at the sear (the load I calculated earlier).

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>If a thread coefficient of friction of 0.05 is used, the resultant torque is 0.799 in-oz.

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>With a thread coefficient of friction of 0.2, the necessary torque rises to 1.79 in-oz.

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>Assuming no changes in geometry, a linear relationship between screw torque and sear force exists -- a 5% deviation in torque will result in a 5% deviation in sear force.

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>Does the 0.473 in-oz torque sound low? I calculated that the screw must supply a 3.72 pound horizontal force to result in a 11.4 pound vertical force. Consider the force-multiplying wedge and that the wedge face is twice as far from the pivot as the sear force pin is, and 3.72 pounds seems reasonable.

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>-- Brian

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