

Bolt Bearing Surface Flatness Gaging System



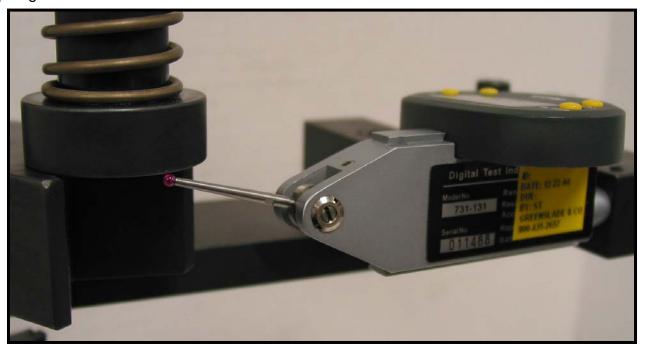
December 23, 2004



Greenslade & Company, Inc. USA 817-870-8888 817-870-9199 Fax

Procedure:

1. Loosen the thumb screw under the V arm and move the indicator arm such that the indicator point is just slightly away from the underside of the hold-down plunger.



2. Turn the indicator ON and press ZERO.



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3. Turn the thumbscrew at the end of the indicator arm so the indicator point contacts and slides under the bottom face of the hold down plunger. See that the indicator registers between about .008" and .012" (.20 and .30 mm).

The maximum indicator travel is .025" (.60 mm). If the targeted measurement is not attained retract the indicator by screwing the thumbscrew back and adjust the position of the point up or down as necessary to achieve the suggested measurement when the indicator is under the plunger face.



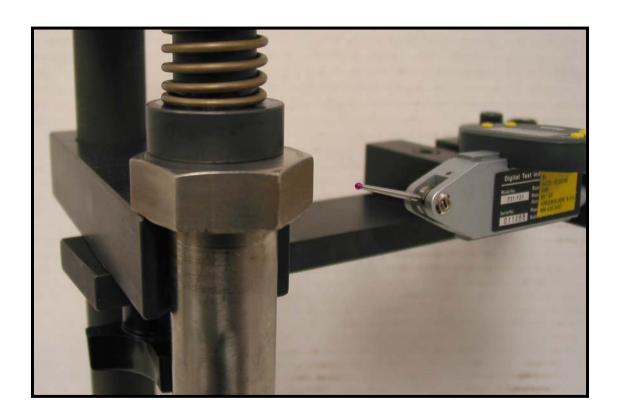
4. With the indicator point under the plunger face with the .009" to .012" reading on the indicator, press ZERO.



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- 5. Rotate the thumbscrew at the end of the indicator arm so the indicator moves back and forth across the face of the plunger face. Make certain the indicator continues to read .000" at all positions while the indicator point is under the plunger face.
- 6. Loosen the thumbscrew under the V arm and move the indicator arm back from in front of the V so the test bolt can be inserted without striking the indicator.

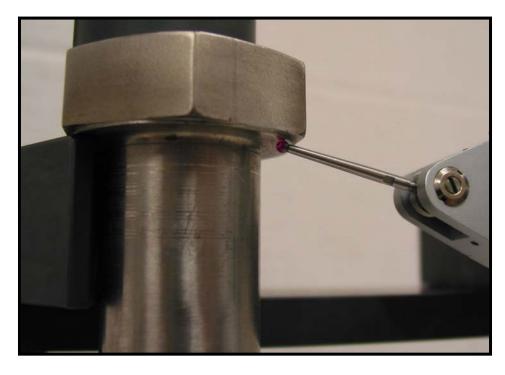
Lift the plunger and slide the bolt firmly into the V and release the plunger so it holds the bolt firmly against the top of the V arm



7. Swing the indicator arm toward the bolt and tighten the thumbscrew under the V arm with the indicator point just slightly out from the bolt's bearing surface.

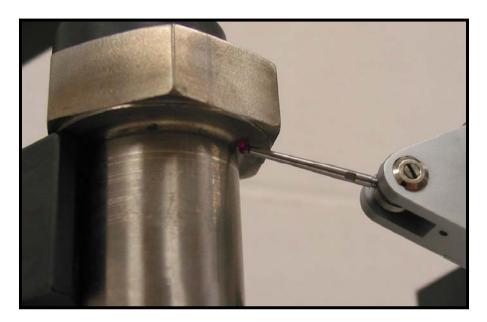
Rotate the thumbscrew at the end of the indicator arm to advance the indicator until the indicator point moves just onto the outer edge of the bearing surface.





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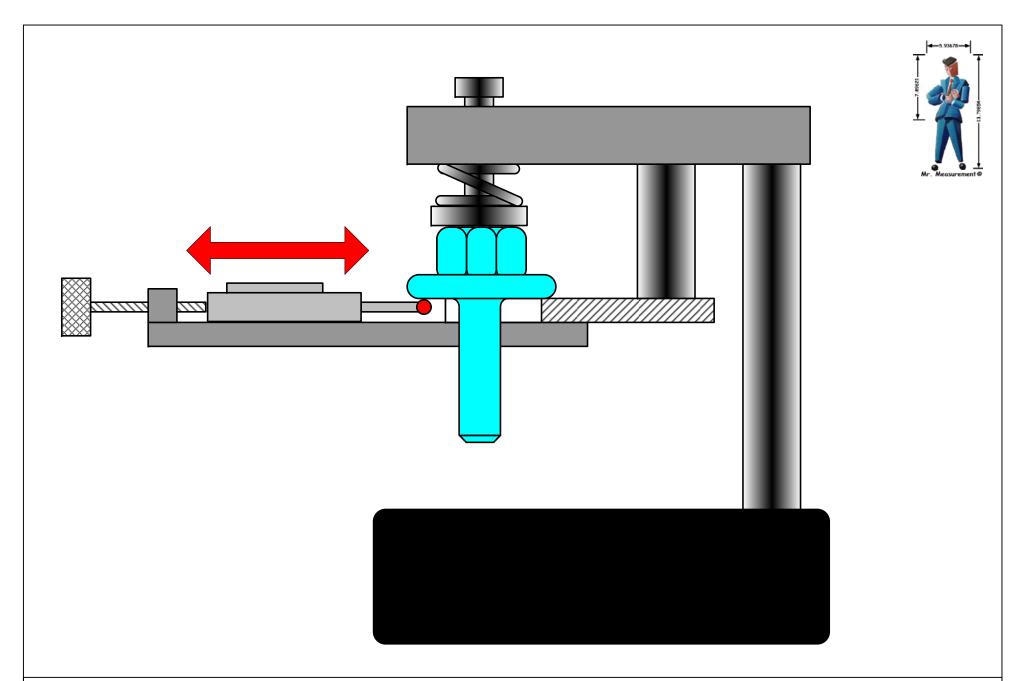
8. Rotate the thumbscrew at the end of the indicator arm so the indicator point advances across the bearing surface until it reaches the bolt's shank.



9. If the indicator reading remains at .000" for the entire distance this indicates that the bearing surface is flat. Any deviation from .000" indicates the bearing surface is either concave or convex depending on whether the indicator reading is positive or negative.



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Designed by **Joe Greenslade** Drawing date: May 6, 2003