Drawbar Force Gauge Operating Manual

Drawbar Force Gauges are a simple and convenient hydraulic testing instrument that can be used to check the drawbar force on your machine's spindle. Proper drawbar force ensures tools are securely held in the spindle during operation, as insufficient force can lead to tool slippage or ejection, posing a safety risk and potentially damaging both the machine and workpiece.

All intended personnel must read and understand the directions specified in this manual before handling. For further assistance, contact your local HFO or customersupport@haascnc.com.

Product Information:
Hydraulic mechanical structure, high stability.

Do not use the product in ambient temperatures beyond:
20-23˚C / 68-74˚F

Pressure Conversions:
1kg/cm^2=10kg=100N=22.48lbf

Directions for Use:
1. Wipe the force gauge taper and the interfacing surface of the spindle clean. Any unwanted material may result in incorrect measurements and may damage the spindle.

Fig. 1

2. To ensure the accuracy of the measured value, the force gauge preload must be adjusted accordingly. Use an 8mm hex wrench to first release tension (CCW), then set the preload of the force gauge to 1kg/cm^2 (CW), as seen in **Fig. 1**.

3. When inserting the force gauge into the spindle, ensure the drive keys are oriented correctly before clamping.

4. After the drive keys are correctly oriented and the force gauge is properly clamped, take readings; PSI and kg/cm^2 are shown. The necessary conversions are shown on the force gauge body.

5. Refer to the Spindle Drawbar Force Table below, for the correct drawbar force at a given RPM:

HSK63A	
Spindle RPM	Drawbar Force, lbs / N
12K RPM	2835 - 4030 / 12610 - 18015
15K RPM	2835 - 4030 / 12610 - 18015