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JAMAR[®]

Hydraulic Pinch Gauge Owner's Manual

English(EN)

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INTRODUCTION

The JAMAR Hydraulic Pinch Gauge is designed for use in hand strength testing applications — specifically the measurement of tip, key and palmar pinch.

The Hydraulic Pinch Gauge can be used effectively as a diagnostic tool or as a means of monitoring progress of rehabilitation of the hand.

OPERATION

Pinch force is measured on a dual scale, in pounds and kilograms (50 lbs. or 22.5 kg. maximum reading). The instrument was designed to be held by the therapist, so that the weight of the pinch gauge is not supported by the patient being tested.

The unique pinch block has been specifically designed for even, comfortable pressure application by the finger pads or finger tips. The pinch button is pressed by the thumb during the various pinch maneuvers, causing the force reading to appear on the gauge.

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SERVICE/CALIBRATION

Call toll free 1-800-323-5547 to receive a repair request and authorization (RA) number and shipping instructions.

REFERENCES

Mathiowetz, VV., Kashman N., Volland G., Weber K., Dowe M., Rogers, S. "Grip and Pinch Strength: Normative Data for Adults." *Arch Phys Med Rehabil* 66:69-72, 1985.

Mathiowetz VV., Woody R. "Effect of Forearm Position on Pinch Strength Measurements." *Journal of Hand Therapy* 1:124-126.

Fess E.E., Moran C. "Clinical Assessment Recommendations." Indianapolis, *American Society of Hand Therapists*, 1981.

APPLICATIONS

Ideal Testing Position

Research indicates that the position of the upper extremities significantly affects pinch strength measurement. Findings suggest that for optimal and consistent results, a standardized test position should be used. The American Society of Hand Therapists recommends the following testing position:

1. Patient should be seated.
2. Shoulders adducted and neutrally rotated.
3. Elbow flexed at 90 degrees.
4. Forearm and wrist in neutral position.

Variations in Pinch Styles

1. Tip Pinch — thumb tip to index fingertip.
2. Key Pinch — thumb pad to lateral aspect of middle phalanx of index finger.
3. Palmar Pinch — thumb pad to pads of index of middle fingers.

Note: The pinch gauge is designed to be used with the *thumb*; however, accurate readings will be obtained whether the thumb *or finger(s)* is placed on the pinch button. It is important that the digit be *centered* on the button.

OPERATION (continued)

NOTE: Due to temperature extremes during shipping, the gauge needle on your new JAMAR Hydraulic Pinch Gauge may not be resting on zero when you receive the instrument.

If this is the case, the gauge needle can be easily repositioned by following these steps:

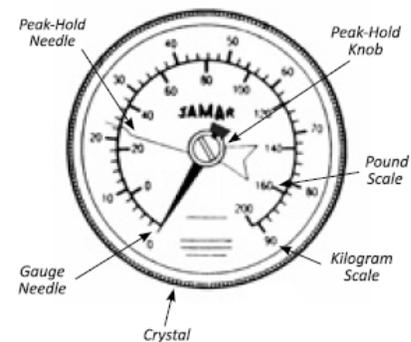
1. Unscrew the crystal and locate the center screw that holds the gauge needle.
2. Carefully hold the needle between your thumb and first finger.
3. Using a screwdriver, turn the screw clockwise to move the needle lower or counterclockwise to move the needle higher.
4. Check the needle to make sure it is not bent before replacing the crystal.

SERVICE TIPS

Peak-Hold Needle

Check for excessive friction in the peak-hold assembly by turning the peak-hold knob counter-clockwise. If the peak-hold needle deflects the gauge needle, return the gauge for service.

If the peak-hold needle is knocked off its support pin, it can easily be repositioned. Unscrew the crystal and turn it upside down. Locate the brass pin in the center of the crystal (the pin is part of the chrome knob on the outside of the crystal). Locate the slot on the brass pin and place the peak-hold needle into this slot.



CALIBRATION

The instrument is calibrated at the factory by applying a known force and making appropriate adjustments in the gauge. It is not recommended that the user perform this operation, but rather that the instrument be returned to Performance Health for calibration. The calibration should be checked yearly and Performance Health offers service plans that assure annual calibrations are performed in a timely manner at an economical price. See our catalog for details. Of course, if the instrument has been dropped or there is some particular reason to suspect that the calibration is in error, the instrument should be serviced immediately.

Limited One-Year Warranty

Performance Health warrants the JAMAR 7498-05 Pinch Gauge to be free from defects in workmanship and materials for one year from the date of purchase. Performance Health will repair or replace, at its discretion, any gauge found defective during this period. If failure occurs after the one-year warranty period, repairs will be made for the prevailing service charge. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.