

FORCE GAUGES TENSION PUSH-PULL GAUGES

Jonard force gauges are all ergonomically designed and have become the industry standard for measuring force. Our 3 different lines of force gauges are used by a multitude of industries and these gauges are being used in over 1000 different applications for measuring, calibrating, standardizing, testing and evaluating.

Measurement is extremely simple. Just place point of gauge arm perpendicular to the force to be measured. Reading can be taken in both directions - clockwise and counter-clockwise. Gauges offer extreme precision and durability. The measuring springs are made of hard tempered annealed beryllium copper. All gauges equipped with maximum reading pointer. Tolerance $\pm .01$ (Reading + Maximum Scale Reading.)



Small Gauges

(Flat Tip, Dial Diameter 1 1/2")

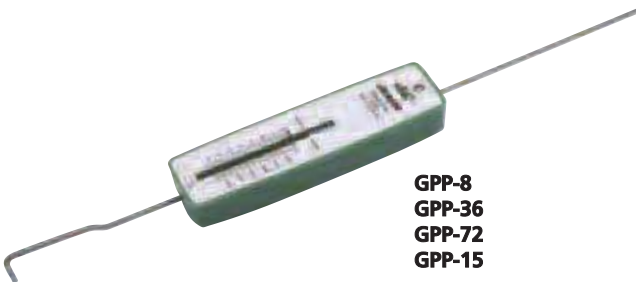
JONARD PART NO.	RANGE IN GRAMS	GRADUATION IN GRAMS
GD-1	0-10	.25
GD-3	4-35	1.00
GD-5	5-50	1.00
GD-10	10-100	2.00
GD-15	15-150	5.00
GD-25	30-250	10.00
GD-30	40-350	10.00



Large Gauges

(Round Tip, Dial Diameter 2 1/2")

JONARD PART NO.	RANGE IN GRAMS	GRADUATION IN GRAMS
GD-50	60-500	20.00
GD-100	100-1000	25.00
GD-200	200-2000	50.00
GD-400	400-4000	100.00



GPP-8
GPP-36
GPP-72
GPP-15



GPP-5

ECONOMY PUSH-PULL TENSION GAUGES

These high impact polystyrene cased instruments accurately measure push pull forces. Gauge is graduated in two scales: grams and ounces. Precision springs. Full scale accuracy is held to ± 1 graduation. Size: 1 1/2" wide x 1" deep x 14" long.

JONARD P/N	AVOIRDUPOIS CAPACITY	METRIC CAPACITY
GPP-8	8 oz. x 0.25 oz.	220 g x 5 g
GPP-36	36 oz. x 0.5 oz.	1,020 g x 20 g
GPP-72	72 oz. x 1 oz.	2,025 g x 25 g
GPP-15	15 lb. x 4 oz.	6,804 x 100 g

PUSH-PULL PRECISION TENSION GAUGE

Precision, compact tubular-type mechanical force gauge slender shape permits its use in confined areas. Gauge is graduated in two scales: grams and ounces. Precision springs individually are calibrated. Full scale accuracy and permanent calibration is held to ± 1 graduation. Construction is brass with satin chrome finish. Size: 1/2" diameter x 15" long.

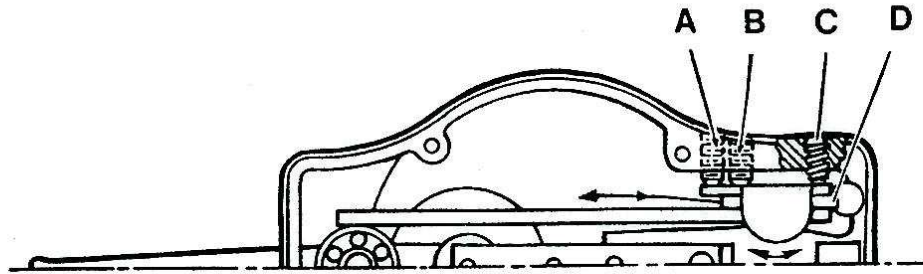
JONARD P/N	AVOIRDUPOIS CAPACITY	METRIC CAPACITY
GPP-5	1 lb X 1 oz.	500 g X 50 g

SMALL GAGE ADJUSTMENT INSTRUCTIONS

1. Remove back cover
2. Select a weight that will put the indicator needle in the center of the scale of the gage. (ex: a GD-15 reads from 50-150g. 100g is the center of the reading. Use a 100 gram weight)
3. LEFT SIDE ADJUSTMENT. Hang a weight from the Gage and have Gage such that the reading is on the left side. If the reading is OVER the expected value then adjust screw #2 tighter. If you cannot tighten the screw further then loosen screw #1 slightly to allow screw #2 to turn. If the reading is BELOW the expected value adjust screw #1 tighter. If you cannot tighten the screw further you will then need to slightly loosen screw #2 to allow screw #1 to turn.
4. RIGHT SIDE ADJUSTMENT. Hang a weight from the Gage and have Gage such that the reading is on the right side. If the reading is OVER the expected value then adjust screw #4 tighter. If you cannot tighten the screw further then loosen screw #3 slightly to allow screw #4 to turn. If the reading is BELOW the expected value adjust screw #3 tighter. If you cannot tighten the screw further you will then need to slightly loosen screw #4 to allow screw #3 to turn.



LARGE



ADJUSTMENT INSTRUCTIONS FOR LARGE DYNAMOMETER GAUGES

If misadjustment is present in your gauge, the force applied to the gauge arm by the beryllium-copper spring can be adjusted by means of screws A, B and C. In this way the measuring range can be moved along the scale to bring it back into alignment.

If, for example, the gauge indicates a positive error, screws A and B should be tightened and/or screw C loosened. If the gauge indicates a negative error, screws A and B should be loosened and/or screw C tightened.

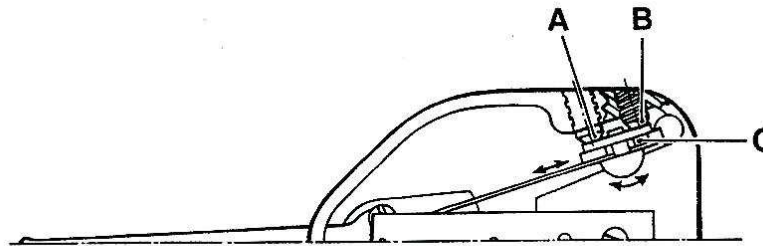
Another problem may be that the gauge indicates a negative error at the beginning of the scale and a positive error at the end of the scale.

The position of plate D regulates the elastic length of the beryllium-copper spring. By moving the plate either towards the gram gauge arm or away from it, the measuring range can be narrowed down or stretched out. In this case, move the plate toward the gram gauge arm.

Sometimes it is necessary to use a combination of the methods noted above, in order to make complete accurate adjustment.

Note: Very small irregularities in the springs may cause the indicator not to stand exactly in the vertical position when unloaded, however the gauge will show quite correctly when the springs are loaded.

SMALL



ADJUSTMENT INSTRUCTIONS FOR SMALL DYNAMOMETER GAUGES

If misadjustment is present in your gauge, the force applied to the gauge arm by the beryllium-copper spring can be adjusted by means of screws A and B. In this way the measuring range can be moved along the scale to bring it back into alignment.

If, for example, the gauge indicates a positive error, screw A should be tightened or screw B loosened. If the gauge indicates a negative error, screw A should be loosened or screw B tightened.

Another problem may be that the gauge indicates a negative error at the beginning of the scale and a positive error at the end of the scale.

The position of plate C regulates the elastic length of the beryllium-copper spring. By moving the plate either towards the gram gauge arm or away from it, the measuring range can be narrowed down or stretched out. In this case, move plate C toward the gram gauge arm.

Sometimes it is necessary to use a combination of the methods noted above, in order to make complete accurate adjustment.

CHANGES	APP'D.	CHANGES	APP'D.
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TOLERANCES:
UNLESS OTHERWISE SPECIFIED:

FRACTIONAL \pm

DECIMAL \pm ANGULAR \pm

MATL. AND DRILL SIZES NOT INCLUDED.
DIMENSIONS ARE IN INCHES

MATERIAL

HEAT TREATMENT

FINISH

SCALE: —

REF. —

DWG.
A
SIZE

TITLE

**DYNAMOMETER
GAUGE
ADJUSTMENT
INSTRUCTIONS**

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DWG. NO.

APPLICATION

DRAWN
A.G.

CHECKED

ENGR.

APPD.

DATE:

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**JONARD
INDUSTRIES CORP.**
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