

PRESSURE TESTING

C PRESSURE GAUGE

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1. GENERAL

1.01 This section describes the C Pressure Gauge used in pressure testing work and covers the method of adjusting and calibrating the instrument. This gauge has a range of 0 to 12 pounds per square inch (psi) and is graduated in 0.05 psi divisions. It is intended for use in checking cable pressure in gas systems where a relative accuracy of ± 0.05 psi is adequate.

1.02 While the gauge has been substantially constructed it should be handled with care. Heavy shocks or jars may impair its accuracy. The usual indication of inaccuracy is in failure of the pointer to register at zero when the gauge is not under pressure, or failure of the pointer to move freely when pressure is applied.

1.03 The gauge may be used in any position but it should always be faced squarely in reading to avoid error due to parallax. Tap the gauge slightly each time a reading is made. While the dial graduations are in increments of 0.05 psi, readings of 0.025 psi can be readily interpolated.

1.04 In taking pressure gradient readings, always use the same gauge for any one series of measurements.

1.05 It is recommended that the gauge be checked with a manometer about every three months or whenever there is any indication of inaccuracy which cannot be corrected by making a "zero" adjustment of the dial pointer.

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2. DESCRIPTION

2.01 The C Pressure Gauge weighs 1-1/4 pounds, is cylindrical in shape and, when enclosed in its leather case, has over-all dimensions of 4-1/4-inch diameter and 3-1/16-inch depth. It is equipped with an 18-inch length of rubber hose having a snap-on chuck for attachment to valves. It is furnished with a detachable leather carrying case having an adjustable shoulder strap. A dummy valve on the carrying case is for engaging the chuck, to protect it from dust and dirt, when the gauge is not in use.

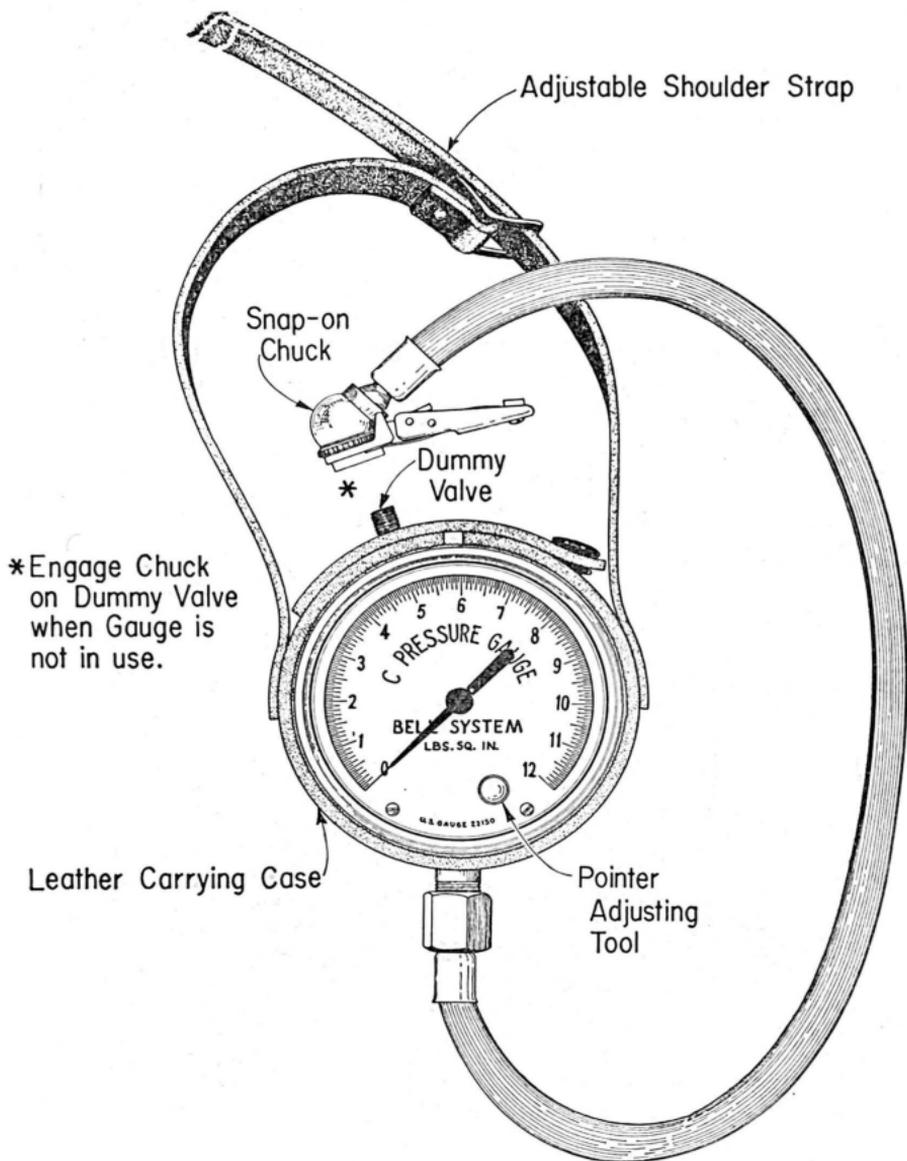
The gauge is used to measure the pressure of steam or other gases. It is made of brass and has a scale from 0 to 100 pounds per square inch. The needle is black and the numbers are white. The gauge is mounted on a brass base which has a threaded hole for a pipe. The rubber hose is attached to the gauge by a brass chuck. The carrying case is made of black leather and has a shoulder strap. A dummy valve is attached to the case to protect the chuck when the gauge is not in use.

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C 100 POUNDS PER SQUARE INCH
MILITARY PRESSURE GAUGE

The gauge is used to measure the pressure of steam or other gases. It is made of brass and has a scale from 0 to 100 pounds per square inch. The needle is black and the numbers are white. The gauge is mounted on a brass base which has a threaded hole for a pipe. The rubber hose is attached to the gauge by a brass chuck. The carrying case is made of black leather and has a shoulder strap. A dummy valve is attached to the case to protect the chuck when the gauge is not in use.

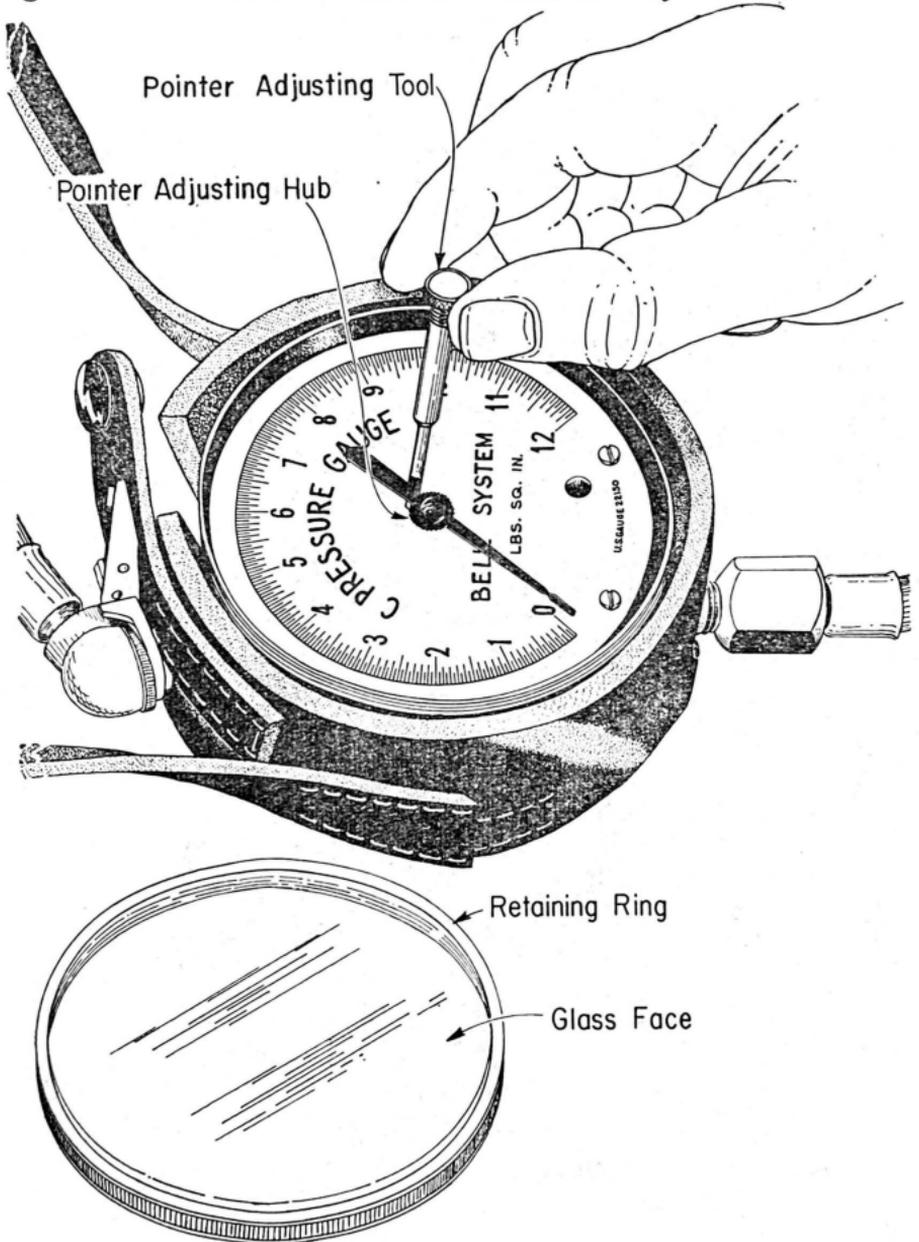


C PRESSURE GAUGE

3. ADJUSTMENT AND CALIBRATION

3.01 In adjusting the gauge, open the button snap on the leather carrying case, unscrew the retaining ring and remove the glass face. Unscrew the Pointer Adjusting Tool

from the dial face. Insert the tip of the tool in the hole in the dial pointer. The geared portion of the tool will then be engaged with the teeth on the pointer adjusting hub. Adjust the dial pointer for zero register by turning the pointer adjusting tool clockwise or counterclockwise as may be required.



3.02 In making a calibration check, the following tools and materials are required:

Nitrogen Cylinder with Pressure Regulator

Manometer

1/8 in. x 1/8 in. x 1/8 in. Brass Tee having female pipe threads and equipped with F Pressure Testing Valves

3.03 Connect the gauge, manometer and regulator hose to the valves on the brass tee. Adjust the regulator to an outlet pressure of about 10 psi. Disconnect the regulator hose and allow the pressure to stand for about a minute to ensure that the connections are gastight.

3.04 Lower the pressure by releasing the gas slowly at the free valve until the manometer reading is 9 psi. Tap the gauge and read the pressure, making note of any error in the gauge readings. Lower the pressure and take similar gauge readings at manometer pressures of 6 and 3 psi. If any error of 0.05 psi or greater is observed, and the pointer has been adjusted for zero register, the gauge should be returned for repair.