

RTCG-75B RETENTION TESTER CALIBRATION GAGE

DATASHEET

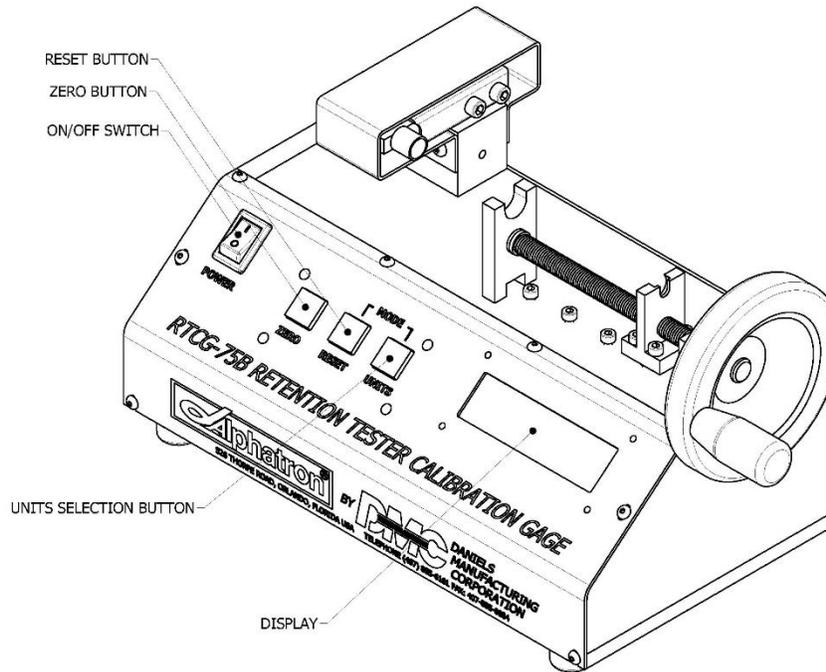


FIGURE 1

DESCRIPTION

The Daniels RTCG-75B is a self-contained calibration gage for use with Daniels HT series retention testers. It incorporates the latest Alphatron® digital test technology, and comes with a certification traceable to NIST (accuracy 0.5% of full scale to 75 pounds force).

SAFETY

The Daniels RTCG-75B *Retention Tester Calibration Gage* is a force measurement device, and operators should wear safety glasses for eye protection because foreign objects can be thrown from the tool under test.

To prevent fire and shock hazard, do not expose this equipment to moisture. Always unplug the AC line cord prior to servicing the unit.

Do not exceed the rated force capacity of 75lb for the RTCG-75B. The unit may be damaged, and the operator, or others

in the immediate area, may be injured under extreme force conditions.

SETUP

The Daniels RTCG-75B is shipped from the DMC factory assembled, calibrated, and tested. For best results, users should familiarize themselves with the setup, and operation of this unit before placing it in service.

The RTCG-75B is designed for optimal performance and durability. The user should keep in mind, however, that as a load sensing device, the RTCG-75B should be handled with care. Dropping either the meter or fixture assemblies can cause damage to the unit. Applying excessive force to the load cell, either by exceeding 75lb during a test, or by dropping the fixture assembly, can cause irreparable damage to the load cell.

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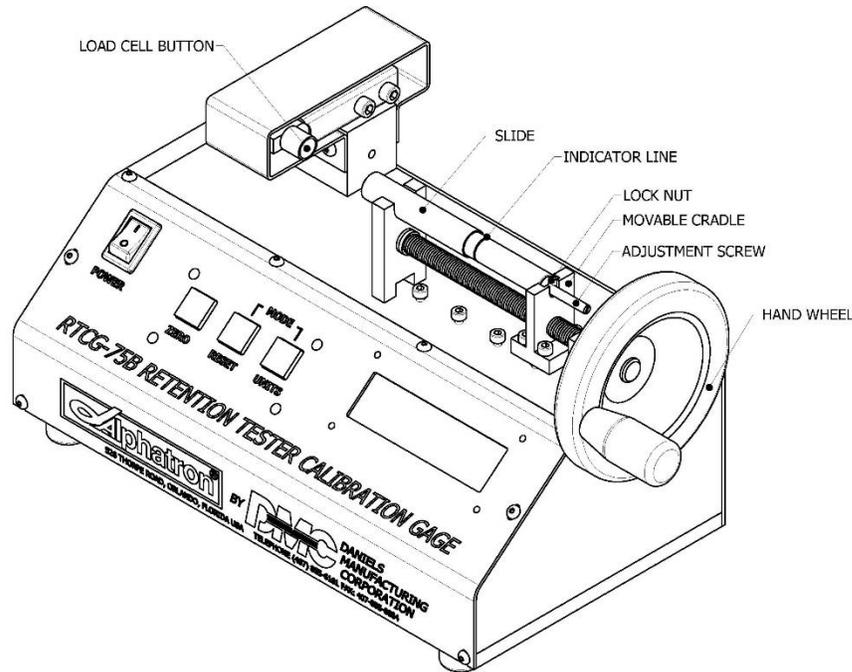


FIGURE 2

OPERATION (Refer to Figures 1 & 2)

1. Turn the gage on, the display will illuminate and the system software will load indicating that the unit is operational.
2. Zero the display, as needed, by pushing the **ZERO** button on the unit. The display should read 0.0.
3. Remove the white plastic hand protector, and protective tip boot from the HT tool to be tested.
4. Retract the movable cradle by rotating the hand wheel counter clockwise until the carriage on the linear guide stops against the rail end stop.
5. Load the HT tool into the fixture cradles, as shown in Figure 2. For HT250 tools, the end of the tool with the adjustment screw should be in the movable cradle. For HT210, HT240, & HT260 tools, the end of the tool with the socket tester (i.e. silver pin) should be placed into the movable cradle.
6. Rotate the hand wheel clockwise, until the tool comes in contact with the load cell button. Readings will begin to display on the unit.
7. Continue rotating the hand wheel until the slide is aligned with the indicator line on the body. The reading on the display is the force applied by the tool.
8. Reset the display after each test by pressing the **RESET** button on the unit.
9. Check the displayed reading against the specified value for the tool being tested. The specified value can be found in the datasheet supplied with the tool when purchased. If an HT250 type tool is applying force out of range it needs to be adjusted. If an HT210, HT240, or HT260 tool is out of range, the tool needs repaired or replaced.
10. To adjust an HT250 type tool, remove it from the testing gage. Loosen the lock nut on the tools adjusting screw with

a 5/16" open-end wrench. Then, using a standard blade screwdriver, turn the adjusting screw in the end of the tool either clockwise to increase output force, or counter clockwise to decrease output force. Re-tighten the lock nut on the tools adjusting screw.

11. Re-test the tool as described in steps 4 thru 7. Repeat adjusting, and checking the tool until the unit reads the output force to be in the specified range for the tool being tested. If a tool is worn to the point that it cannot be adjusted into range, it needs repaired or replaced.
12. Once a tool is verified to be in proper range, replace the protective hand cover and tip cover, and return the tool to service.

ALTERNATE UNITS

The RTCG-75B *Retention Tester Calibration Gage* is factory set to display force in lb-f (Pounds Force) units. If it is desired to display alternate force units, push the **UNITS** button on the gage to change the force units displayed. Force can be alternately displayed in Kg-F (Kilograms Force) or N (Newtons).

FORCE READING MODES

The RTCG-75B *Retention Tester Calibration Gage* is factory set to measure force in the continuous reading mode. In this mode the force on the load cell is constantly updated on the display, and the value displayed can change up or down. If desired, the force reading mode can be changed to peak hold. In this mode the maximum force seen by the load cell is displayed and held, the value only goes up until the display is reset. To switch between these two measuring modes, press and hold both the **RESET** button and the **UNITS** for approximately 3 seconds. When

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in peak mode the gage will display the word "Peak" under the force reading. In continuous mode, nothing will be displayed under the force reading.

SERVICE

Repair and calibration services for the RTCG-75B *Retention Tester Calibration Gage* are available from Daniels Manufacturing Corporation. Spare parts are also available.

Should it be necessary to return the unit for service, please ship to: 526 Thorpe Road, Orlando, FL 32824 freight prepaid. Enclose a letter, or purchase order, with company name, address, phone number, contact person's name, and the reason for return.

Limitation of Liability

DANIELS MANUFACTURING CORPORATION IS NOT LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE OR KIND RESULTING FROM THE USE, OR MISUSE, OF ANY OF ITS PRODUCTS. OWNERS AND USERS OF DMC PRODUCTS ASSUME FULL RESPONSIBILITY FOR INSTRUCTING THEIR EMPLOYEES IN THE PROPER AND SAFE USE OF SUCH PRODUCTS.

Limited Warranty

DMC (Daniels Manufacturing Corporation) warrants each new product sold by it to be free from defects in material and workmanship under normal use and service. DMC's obligation under this warranty is limited to the free correction or, at DMC's option, the refund of the purchase price of any such product which proves defective in normal service within ninety (90) days after delivery to the first user, provided that the product is returned to DMC with all transportation charges prepaid and which shall appear to DMC's satisfaction, after DMC's inspection, to have been defective in material and workmanship, it being understood that DMC products are not consumer products. This warranty shall not cover any damage to any product which, in the opinion of DMC, was caused by normal wear, misuse, improper operation, tampering, neglect or accident. This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of Daniels Manufacturing Corporation other than those herein set forth.