RTCG-75A
RETENTION TESTER CALIBRATION GAGE DATASHEET

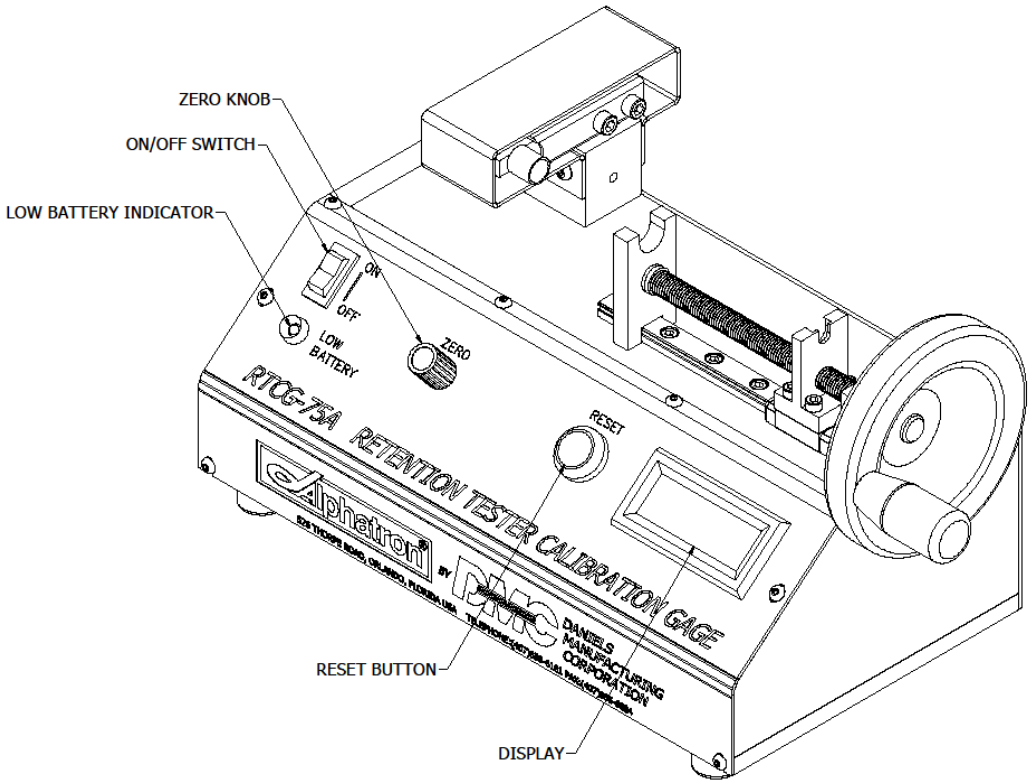

FIGURE 1

DESCRIPTION

The Daniels RTCG-75A is a portable, 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-75A 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-75A. 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-75A 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-75A is designed for optimal performance and durability. The user should keep in mind, however, that as a load sensing device, the RTCG-75A 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.

CHARGING

Charge the unit, using only the AC adaptor supplied. A minimum of 4 hours is recommended before use. It is best to unplug the unit after full charge. Tests can be performed while the unit is charging.

When a sufficient amount of energy is expended from the battery, the low battery indicator will illuminate. Accurate testing can still be performed, but charging is recommended. When the voltage output of the battery approaches a level where incorrect readings are possible, the unit will automatically shut down.

It is recommended that the unit be unplugged when fully charged and not in use.

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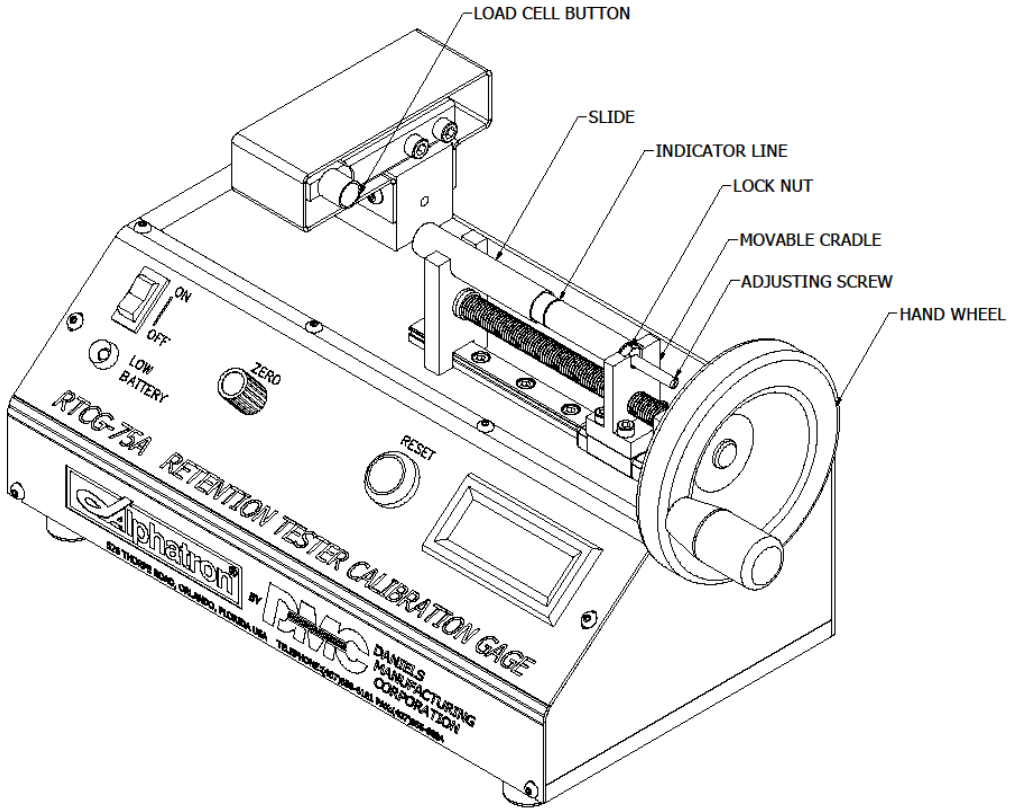

FIGURE 2

OPERATION (Refer to Figure 2)

1. Turn the meter on, and the display will indicate that the unit is operational. Allow 5 minutes warm up prior to operating the unit.
2. Zero the display, as needed, by alternately turning the zero knob and momentarily pushing the reset button. The display should read -00.0 or 00.0. It is important to push the reset button before taking the next reading.
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 Figures 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. 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 repair or replacement.
9. 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" wrench. Then, using a standard blade screw driver, 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.
10. Re-test the tool as described in steps 4 thru 8. 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 repair or replacement.
11. Once a tool is verified to be in proper range, replace the protective hand cover and tip cover, and return the tool to service.

FUNCTIONAL CHECK

The RTCG-75A Retention Tester Calibration Gage is factory calibrated with equipment traceable to the National Institute of Standards and Technology (NIST). We recommend recalibrating the unit at intervals not to exceed one year in duration.

The functional check is executed using the R-cal switch built into the unit. The R-cal switch is located on the back of the unit, and its R-cal value is on the sticker applied to the back of the unit.

A functional check can be performed at any time:

1. Allow the RTCG-75A to warm up for 5 minutes.
2. Depress the reset button.
3. Zero the display by alternately turning the zero knob, and momentarily pressing the reset button until the display reads -00.0 or 00.0.
4. Press the R-cal switch on the back of the unit. Note the value on the display. Repeat this process several times to assure a repeatable value. The display value should be within the range recorded on the sticker on the back of the unit.
5. If any of the procedures in steps 2 thru 4 do not produce the expected results, the unit should be returned to DMC for repair and recalibration.

SERVICE

Repair and calibration services for the RTCG-75A 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 RESPONSIBILTY 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.