

Dynamometers

Installation and Operation Guide

Dillon Mechanical Dynamometers are designed to measure tension forces and weight.

CAUTION: Dillon Dynamometers are not designed for measurement of dynamic shock loads and should not be subjected to sudden torque force. Load or weight should be applied in a gradual manner to avoid damaging the Dynamometer.

Heavy duty needle bearings inserted in each end of the Dynamometer deflection beam (in capacities up to and including 20,000 pounds/10,000 kg) allow the shackle pin to rotate as force is applied. Bearings should be cleaned periodically in a suitable solvent. After drying, the bearings should be treated with a coat of light machine oil. DO NOT allow oil to run into the mechanism case. The mechanism should never be oiled as this tends to attract dust or dirt.

Drain holes have been provided in the bottom of the mechanism case. If the Dynamometer should be accidentally immersed, hold it so that water is free to run out through these holes and allow to dry.

If any type of accessory fitting is made for use with the Dillon Dynamometer, be sure to machine this from high grade aircraft alloy and heat treat it in order to ensure maximum safety.

NOTE: Dillon-Weigh-Tronix is not responsible for failure of attachment fittings furnished by others.

Dillon Dynamometers are equipped with a red maximum indicator hand (max hand) having a manual reset knob at the center of the dial crystal. Before applying force to the unit, the max hand should be adjusted by turning it counterclockwise so it rests against the main pointer (black). While continuing to turn the knob counterclockwise, adjust the zero of the Dynamometer as needed by turning the zeroing mechanism on the unit. If the max hand will not be used, turn the max hand clockwise to the full capacity mark on the Dynamometer face. No further adjustment is necessary. Dynamometer scales are also supplied with a red max hand and should be adjusted in the same manner. When force or weight is released, the main pointer (black) will return, leaving the red max hand at the peak reading point. The main pointer may not return to zero. This is normal when using the max hand. Note the max hand reading and reset the max hand by turning the max hand knob counterclockwise. When the max hand is reset to zero, the main pointer should return to zero. If it does not, adjust the unit as necessary.

WARNING: Failure to adjust the max hand prior to use of the Dynamometer WILL affect the readings if the max hand is used.

The Dillon Dynamometer is a precision instrument and will provide many years of dependable service if given reasonable care and suitable protection. Many firms make it a regular practice to return Dynamometers to their distributors or the factory at 6 to 8 month intervals (depending upon how much they are used) to have accuracy recertified. We recommend this at least once a year.