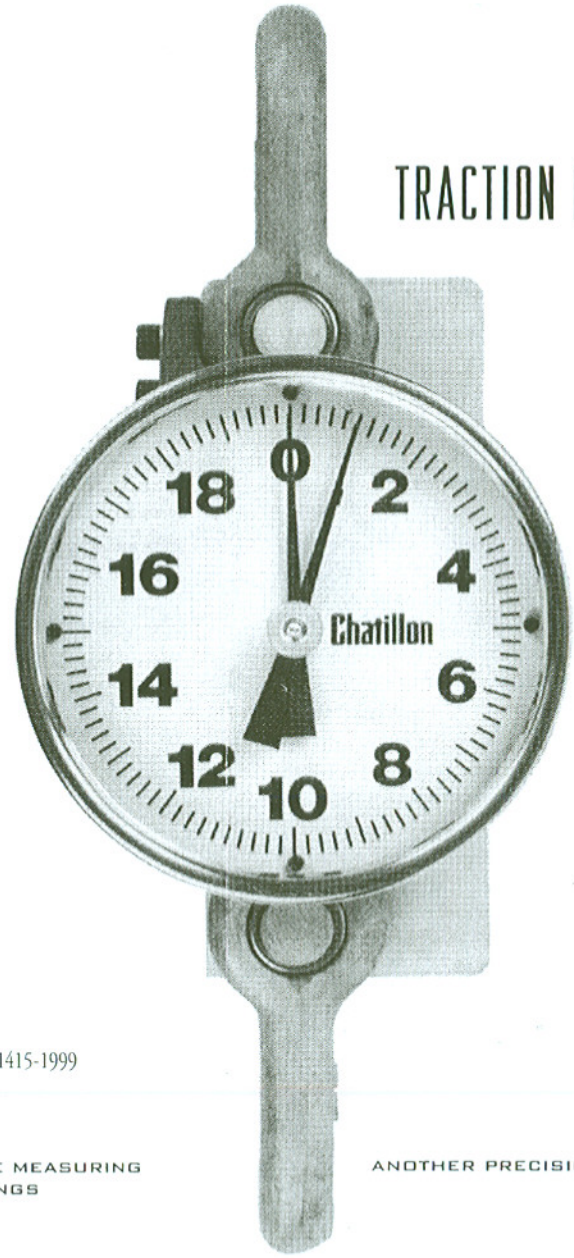
TRACTION DYNAMOMETER
MODEL TD5



AMETEK® Chatillon®

SCALE PRODUCTS

83-30 KEW GARDENS ROAD, KEW GARDENS, NY. 11415-1999

TEL. (718)847-5000 FAX (718)441-4365

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Chatillon®

TRACTION DYNAMOMETER
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The TD5 can be rigged in any position to satisfy any loading condition: suspended weights, inserted in tensioned cables, coupling a prime mover and load, or connected to lever systems. Any combination of hooks, shackles, or slings may be utilized. However, these connections should be fairly smooth at point of contact so that any pull from either side will tend to make the connections self-centering and in line.

An alloy steel bar deflects in direct proportion to the applied load and the amount of deflection is read on a dial calibrated in pounds.

The dial can be rotated 90°, or 180° by removing the bezel, glass, and four dial-holding screws and rotating the dial accordingly. Carefully remove pointer with a pointer puller and press it back on, pointing to the new zero position. When replacing the pointer, the pinion shaft must be supported through the pinion access hole to prevent injury to the movement. It is recommended that this be done by a qualified scale mechanic.

MAXIMUM READING CONTROL: The knurled knob on the face of the dial controls the second pointer used for holding maximum readings. In use, the MRP is rotated CCW until it rests against the indicating pointer. The indicating pointer will move the MRP so that it will coincide with and remain at the maximum reading after the load is released. The pointer can then be reset. If held maximum readings are not required, the MRP may be rotated fully CW and thus placed out of the way.

TARE & ZERO ADJUST: An opening is provided in the side of the case for access to the zero adjust screw. Rotating the screw CW or CCW with a screwdriver (maximum blade width ¼") will move the pointer to the left or right. Adjustment up to 10% of full capacity is possible, and this can be used to compensate for tare.

CALIBRATION: Check zero setting and, if off, adjust as instructed above. Remove back cover and suspend known weights, preferably of approximately full capacity. If pointer does not read within one graduation, recalibrate instrument as follows: Loosen socket head calibrator lock screw sufficiently to enable calibrator to be moved slightly to left or right. Adjust until pointer reading is correct. An extremely slight change in lever position will suffice.

Tightening the calibrator lock screw may cause the calibrator to change position and the procedure will have to be repeated allowing for this. Remove load, reset zero and reapply full load. It may be necessary to repeat the adjusting process until both the zero load and the full load are properly indicated.

ADDING HOOK: Unscrew shackle pin lock screw and withdraw shackle pin. Slip eye of hook over shackle and assemble by reinserting pin. Turn pin so that slot lines up with shackle pin lock screw hole, permitting screw to pass pin and be tightened.

DO NOT REMOVE COLLAR ON SHACKLE PIN: It is factory set to assure proper clearance. If accidentally removed, carefully reassemble, leaving .010" clearance between inside face of collar and shackle. Shackle pin lock screw should be in place.

MAINTENANCE: None normally required.

SAFETY FACTOR: At 20,000 pounds a 50% overload can be applied without permanently injuring the instrument. Breaking load is 200%. These values increase proportionately in lower capacity models to a breaking strength of 500% at 500 pounds.

