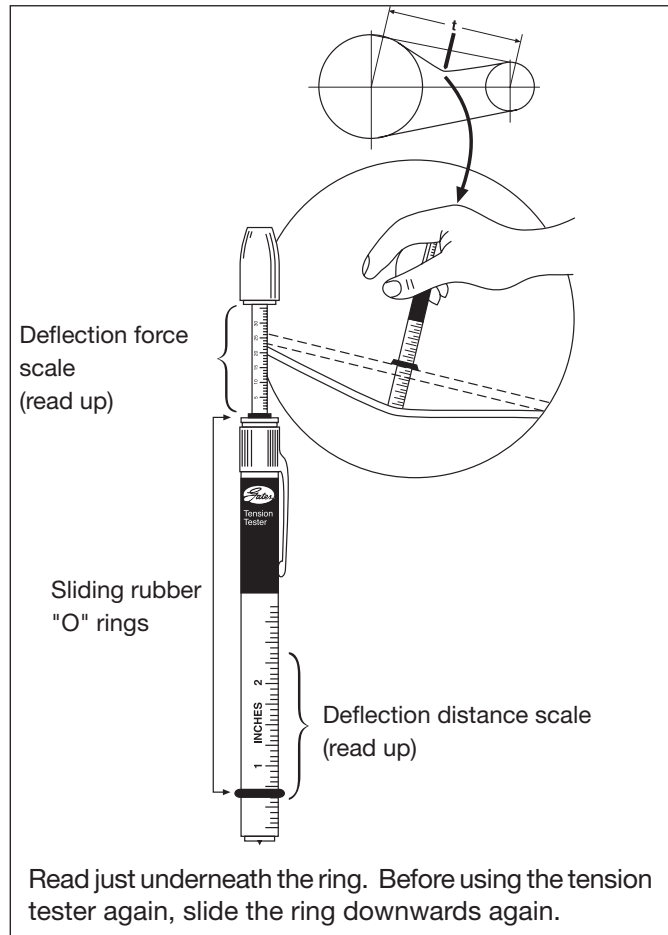
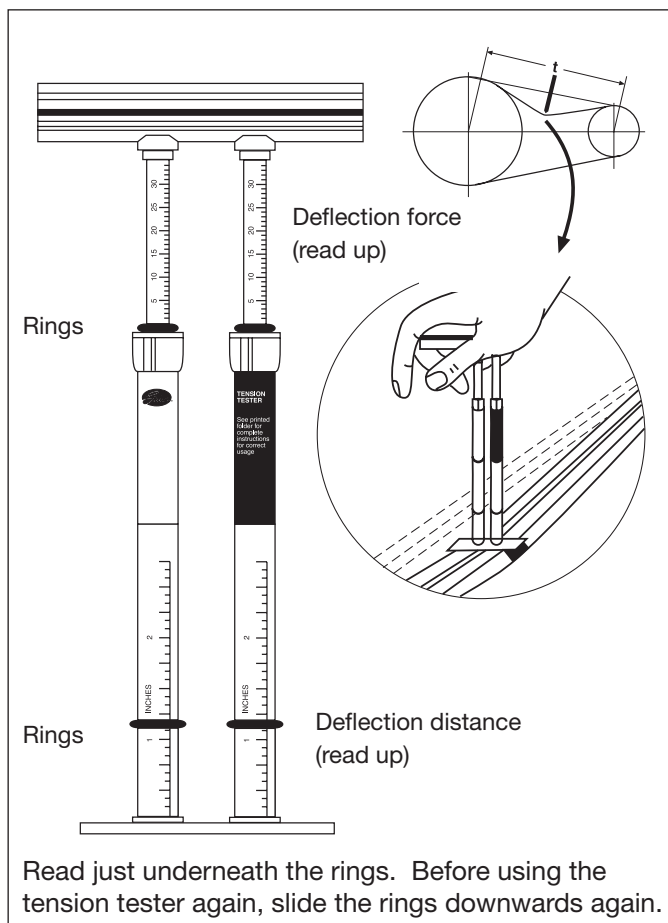


IV. DRIVE SHUTDOWN AND THOROUGH INSPECTION

Single tension tester PN: 7401-0076



Double tension tester PN: 7401-0075



Conventional tension testers

Unlike the sonic tension meter, Gates' conventional tension testers measure deflection force. The Single tension tester measures up to ± 120 N and the Double tension tester up to ± 300 N. Both testers consist of a calibrated spring with two scales: one to measure the deflection and another to measure the applied force.

The reading of these scales can be done as follows.

1. Measure the span length (t).
2. The calculated deflection should be positioned with the lower ring on the distance scale. The upper ring should be on the zero position of the deflection force scale.
3. Put the tension tester perpendicular to the span and in the middle of the span. Exercise enough pressure to the tension tester to deflect the belt by the amount indicated by the lower ring. A straight edge, laid across the pulleys, can help accuracy of reading.
4. The upper ring will slide up the upper scale and indicates the deflection force. Read at the bottom edge of the ring. When you use the Double tension tester you can read the values just underneath the rings and calculate the sum of both values. This value has to be compared with the calculated min./max. forces (see Synchronous drive design manual E2/20099).

In tensioning a Gates PowerBand® belt, multiply the deflection force (see table on page 7) by the number of belts in the PowerBand®. The tension tester can be applied as indicated above to deflect the entire PowerBand®, providing a small board or metal plate is placed on top of the band so that all belts are deflected uniformly. As a reference for measuring deflection, a straight edge can be laid across the pulleys. If the deflection force exceeds 30 kg (66 pounds) — the maximum reading on the tester — use a large spring scale or consult your Gates representative.