RECOMMENDATIONS

1. A liquid filled case is the best solution to counter the effects of vibration. Liquid filling the case of a gauge dampens the oscillations of the tube at the pressure element itself, preventing the tube oscillating outside its design limits. Furthermore, the filling acts as a lubricant and coolant to all the moving parts, extending their life (Fig. 11 and Fig. 12).
2. WIKA do not recommend the use of damped movements. The movement provides a good calming effect to the pointer but accelerates the wear on the movement. With severe vibration this can eventually lead to a resonance rupture of the Bourdon Tube (Fig. 11 and Fig. 12).
3. The cold working and annealing of the Bourdon Tube combined with the WIKA tube design and special tube end closing techniques, increases the calibration stability, endurance and safety of the Bourdon Tube (Fig. 7, Fig. 8 and Fig. 11).
4. Liquid filling improves the safety of a Bourdon Tube by preventing a resonant rupture from occurring should the movement fail (Fig. 11).
5. WIKA recommend the removal of the zero stop on the gauge dial as this disguises calibration errors. The new tube design is strong enough not to need this. Under and over range stops are already on the movement.
6. Inserting the tube by up to 7mm into the shank of the gauge before welding, does not increase the strength of the tube.