

The Winding of Torsion Springs

WARNING!

Spring Winding can be Dangerous! Pay careful attention to preparation, secure and stable footing, and proper technique.

Tools Required

Winding Bars:

Minimum diameter ½", Minimum Length 300mm. The Tip must be an easy sliding fit in the sockets of the winding cone, and be long enough to 'bottom' in the socket. Do not use screwdrivers, pliers or unsuitable levers.

Vise Grips (for locking the Torsion Shaft in place)

Preparation

Ensure that the Torsion system is securely and correctly installed, with Red Drums and Spring tips on the Left, and Black Drums and Spring tips on the Right (as seen from inside the garage). With the door closed, fit a Vise Grip to the Shaft with the handles pointing upwards and blocked against the wall, to maintain the tension in the cables. Make sure the ladder is stable and suitably positioned. If the spring is without a stripe, mark a chalk line along the length of the spring to assist in counting the turns.

Winding

Insert the first winding bar fully into a socket on the winding cone, and wind the spring by lifting the bar from below to above the horizontal, and hold in that position. While holding the first bar, insert the second bar and repeat as for the first. Note that the force required is light at first and increases rapidly, and great care must be exercised. Note too, that the operation can be stopped at any time by carefully allowing a winding bar to move downwards and back towards the door, and leaving it against the door. This allows time to rest, and to count the number of turns. Apply the number of turns indicated by the tag on the spring and, while holding the bar in that position, tap it outwards about 25mm and tighten first one square-headed grub screw, and then the other. If the system uses a second spring, wind this up and secure it in the same way. Remove the Vise Grip and test the door. If slight adjustment is needed, refit the Vise Grip and follow the method described above.

Apply a coating of grease to the spring.