WHY GARAGE DOOR SPRINGS BREAK

Most of us take garage doors for granted; we don't think twice when we hear the metallic creaking of a garage door opening and closing to let our cars pass through. With this mentality in mind, we are often confused when our garage doors malfunction or break all together.

While DIY projects are fun to complete, *homeowners are cautioned against attempting to fix malfunctioning garage doors on their own.*That being said, garage doors are an important factor of our lives, as such it is a good idea to know a little bit more about how they operate. For example, have you ever heard of the torsion spring? This counterbalance system is a crucial component for ensuring that your garage door continues to function properly – no matter how many times a day you use it.

What is a torsion spring and why is it important?

- A torsion spring is a counterbalance system that uses one or two tightly wound springs. The springs are located on a steel shaft and have cable drums at both ends. The torsion spring is mounted to the

system with a center and two end bearing plates at either end.

- The **torsion spring** is responsible for helping the garage door raise and lower. The spring(s) have a stationary cone at one end and a winding cone at the opposite end. When a garage door is raised, the springs will unwind, which releases stored tension. This stored tension lifts the door by turning the torsion spring's shaft, which in then turns the garage door's cable drums. When the door is lowered, the cables are unwrapped from the cable drums, and the torsion springs are returned to a full tension mode.

How can torsion springs break?

Even though manufactures typically construct torsion springs for a lot of wear and tear, there are several factors that can contribute to breaking or malfunctioning. Torsion springs are typically manufactured to provide a minimum of 10,000 cycles. It is important to note that one full cycle includes a single opening and closing sequence of the garage door.

Additional factors that can contribute to breaking, include:

- Poor garage door maintenance
- Loose tracks
- Grease build-up on garage door tracks. This causes the wheels to skate in their tracks instead of turning on their bearings.
- Insufficient lubricant on bearings, hinges, and spring wire

If your garage door is no longer seamlessly lifting or closing, there is a high probability that the torsion springs are no longer properly functioning. Torsion springs can occasionally become undone from their bearings, snap, or become tangled. **It is important to note that in these instances a professional garage repair company should be hired to fix or replace the torsion springs.** Since the torsion springs are the main mechanisms involved in lifting and closing a garage door, fixing them is extremely dangerous. Rest assured, if your torsion spring breaks, a quick call to a professional repair company can have your garage door fixed in no time.