together to form a larger wire. In one example, the diameter of rigging **10** is 11 mm. In another example, the diameter of rigging **10** is 5/16 in. In other examples, rigging **10** is of any diameter that exhibits suitable tension and wire rope strength necessary for tower service lift applications. Rigging **10** may also be coated with any suitable material, such as zinc or any other coating material. In another example, rigging **10** is galvanized. In yet another example, rigging **10** is raw "bright" steel.

Figure 14 is a side view of guide wire tension assembly **4**. Guide wire tension assembly **4** further includes tension loss sensor **14**, tension system support **16**, tension system spring **18**, continuity plug **20**, wire rope termination device **22**, nut and jam nut **24**, and back-up tension measuring device **26**. Tension loss sensor **14** is electrically connected to continuity plug **20** and mechanically connected to one or more plates that are disposed proximal to nut and jam nut **24**. Tension loss sensor **14** operates by detecting stress that is transmitted through guide wire **6**, which is transmitted through tension system spring **18**. The stress, or tension, is created by the opposing upward or downward force of TSL **8** by rigging **10** of figure 13 on guide wire **6** and in turn tension system spring **18**. In the event that an opposing upward force is lost or decreased, tension loss sensor **14** will detect this change in tension and may indicate this as being a tension that does not meet a predetermined threshold. However, tension loss sensor **14** may detect tension at all times, including times of increased, decreased, or constant tension. In other examples, tension loss sensor **14** is configured to indicate any tension above or below a predetermined threshold.

In the example shown in figure 14, the assembly also includes a tension system spring **18**. Tension system spring **18** is mechanically connected to tension system support **16** and nut and jam nut **24**. It should be noted that nut and jam nut **24** may also include a plate that acts as a mating interface between tension system spring **18** and nut and jam nut **24**. Tension system spring **18** is intended to provide flexibility to guide wire **6** so that as the tension on guide wire **6** changes, the tension system spring **18** will flex thereby allowing guide wire **6** to accommodate the change in load without placing too much stress on guide wire **6** thereby preventing breakage in guide wire **6**. Additionally, the flexing, or movement, in tension system spring **18** may actuate in to movement of tension loss sensor **14**. In doing so, tension loss sensor **14** is able to detect tension by the movement of tension system spring **18**. Tension system spring **18** may be a coil spring (also known as a helical spring), which may be constructed of any commercially available material commonly used in coil springs. This material may include any steel alloy including high-carbon, low-carbon, chrome, or stainless steel.

Wire rope termination device **22** is mechanically connected to guide wire **6** on one end and mechanically connected to nut and jam nut **24** at the other end. In another example, wire rope termination device **22** is mounted to a lower portion of tower **2**, such as a concrete slab at the base of tower **2**. In another example, wire rope termination device **22** is mounted to a metal plate that sits at the base of tower **2**. In one example, the purpose of wire rope termination device **22** is to serve as an anchor to hold guide wire **6** in place. Guide wire **6** is mounted to wire rope termination device **22** via a wire rope wedge socket, which is a device commonly used in elevators for terminating wire ropes at a "close enough" length. In another example, the connection could also be a

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