

AUTOMATIC SPOOL TENSIONING MECHANISM

ABSTRACT

Systems **(100)** and methods **(1400)** for operating a Spool Mechanism (“SM”). The methods comprise: transitioning an operational mode of SM from a first operational mode in which a drag torque is not settable to a second operational mode in which the drag torque is settable; selectively mechanically coupling a rewind motor to a spool **(612)** of SM by engaging a coupler **(1014)** in response to the SM’s transition into the second operational mode; activating the rewind motor **(610)** such that the rewind motor applies a motor torque having a pre-defined value selected for facilitating a setting of the drag torque to an optimal value; mechanically gradually adjusting an amount of drag resistance applied to the spool by a drag mechanism **(1012)**; and discontinuing the mechanical adjustment of the drag resistance when the spool’s speed is within a threshold percentage range of a zero resistance speed.

[Figure 1]