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(54) Title: TURRET WINDER MANDREL CUPPING ASSEMBLY

(57) Abstract

A web winding apparatus (90) and a method of operating the apparatus are disclosed. The apparatus can include a turret assembly (200), a core loading apparatus (1000), and a core stripping apparatus (2000). The turret assembly (200) supports rotatably driven mandrels (300) for engaging hollow cores (302) upon which a paper web (50) is wound. Each mandrel (300) is driven in a closed mandrel path (320), which can be non-circular. The core loading apparatus (1000) conveys cores (302) onto the mandrels (300) during movement of the mandrels (300) along the core loading segment (322) of the closed mandrel path (320), and the core stripping apparatus (2000) removes each web wound core (302, 51) from its respective mandrel (300) during movement of the mandrel (200) along the core stripping segment (326) of the closed mandrel path (320). The turret assembly (200) can be rotated continuously, and the sheet count per wound log (51) can be changed as the turret assembly (200) is rotating. The apparatus (90) can also include a mandrel (300) having a deformable core engaging member (3100). A mandrel cupping assembly (400) releasably engages the second ends (312) of the mandrels (300) intermediate the core loading segment (322) and the core stripping segment (326) of the mandrel path (320) by means of a mandrel cup (454) associated with each mandrel (300). The mandrel cups (454) are supported on cupping arms (450) pivotally supported on a cupping arm support (410) rotating about the turret assembly central axis (202). The distance between the turret assembly central axis (202) and the respective cupping arm pivot axis (451) varies as a function of the position of the cupping arm (450) about the turret assembly central axis (202).

