Title (en)

Internal worm drive and oscillating roller assembly for use in dampening system for lithographic printing presses

Title (de)

Innenschneckentrieb und oszillierende Walze für ein Feuchtwerk in einer Offsetdruckmaschine

Title (fr)

Transmission interne à vis sans fin et ensemble à rouleau oscillant pour utilisation dans un système de mouillage pour presses lithographiques

Publication

EP 0510962 B1 19960710 (EN)

Application

EP 92303644 A 19920423

Priority

US 69059591 A 19910424

Abstract (en)

[origin: EP0510962A1] An internal worm drive suitable for use for or with a dampening roller in a lithographic dampening system has a worm gear and a substantially hollow tubular worm with an outer surface and an inner surface. The inner surface has at least one internal worm thread mating the worm gear. The axis of the worm gear is substantially perpendicular to the longitudinal axis of the tubular worm. Utilizing the tubular worm with the threaded internal surface in conjunction with the mating worm gear is an oscillating roller assembly suitable for use as a dampening roller in lithographic presses. The oscillating roller assembly has a shaft, and a bearing unit mounted along the shaft. A worm gear having a plurality of teeth is contained in a slotted space in the bearing unit and the shaft such that the rotational axis of the worm gear is substantially perpendicular to the longitudinal axis of the bearing unit and the shaft. The slotted space has first and second opposite longitudinal ends within the shaft. A pair of substantially coaxial eccentric cams are integrally affixed to opposite surfaces of the worm gear. The cams alternately engage the shaft at the opposite ends of the slotted space. A roller shell having at least one internal thread is circumferentially mounted around the bearing unit such that its internal thread engages the teeth of the worm gear. Rotation of the roller shell causes the worm gear to rotate, thereby causing the cams to alternately engage the shaft at the opposite ends of the slotted space, thereby causing the bearing unit and roller shell to oscillate back and forth along the shaft. <IMAGE>

IPC 1-7

B41F 31/14

IPC 8 full level

B41F 7/26 (2006.01); **B41F 31/15** (2006.01)

CPC (source: EP)

B41F 31/15 (2013.01)

Cited by

US6772685B2

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0510962 A1 19921028; **EP 0510962 B1 19960710**; DE 69212056 D1 19960814; DE 69212056 T2 19961212; JP 2622792 B2 19970618; JP H05345405 A 19931227

DOCDB simple family (application)

EP 92303644 A 19920423; DE 69212056 T 19920423; JP 13161792 A 19920423