

Title (en)

Roving feeding apparatus comprising a special worm gear

Title (de)

Faserbandzuführeinrichtung mit speziellem Schneckenantrieb

Title (fr)

Dispositif d'alimentation de ruban de fibres avec élément à vis

Publication

EP 1362939 A3 20040331 (DE)

Application

EP 03010647 A 20030513

Priority

DE 10222291 A 20020518

Abstract (en)

[origin: EP1362939A2] An open-ended spinning assembly has a swivel-action fibre band feed cylinder with a helical gear engaging with a shaft-driven worm gear. The helical gear esp. has an overlain peak profile to ensure immediate engagement by the worm gear. The helical gear (23) is esp. transposed on the shaft (24) with respect to a symmetrical plane (42) at right angles to the drive shaft (24). The plane (42) intersects the lowest point (45) in the overlain gear thread (41), along the drive shaft (24) axis with respect to the worm gear (22) centre axis (44) swivel plane (43). The gear further has a pre-positioning assembly (30) which presents the worm gear (22) in a position which is determined by the distance (x) by which the helical gear (23) is transposed. The worm gear (22) teeth (35) then swivel accurately into the helical gear (22) thread. A worm gear tooth (35) centreline (33) is presented at an angle theta (f) to the worm gear swivel plane (43), as determined by the transposition (x) value. The value theta is calculated using the formula $f = \sin 72^{\circ} (x/2)$

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D01H 4/12; **F16H 55/22**

IPC 8 full level

D01H 4/32 (2006.01); **D01H 4/42** (2006.01)

CPC (source: EP US)

D01H 4/32 (2013.01 - EP US); **D01H 4/42** (2013.01 - EP US)

Citation (search report)

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