

Title (en)

MANUFACTURING TOOL, METHOD FOR DETERMINING A STATE OF WEAR, AND USE OF A PNEUMATIC SENSOR

Title (de)

FERTIGUNGSWERKZEUG, VERFAHREN ZUM BESTIMMEN EINES VERSCHLEISSZUSTANDS UND VERWENDUNG EINES PNEUMATISCHEN SENSORS

Title (fr)

OUTIL D'USINAGE, PROCÉDÉ POUR DÉTERMINER UN ÉTAT D'USURE ET UTILISATION D'UN CAPTEUR PNEUMATIQUE

Publication

EP 4377026 A1 20240605 (DE)

Application

EP 22758436 A 20220726

Priority

- DE 102021119874 A 20210730
- EP 2022070955 W 20220726

Abstract (en)

[origin: WO2023006753A1] The invention relates to a manufacturing tool (1), in particular a forming tool and/or a cutting tool. The manufacturing tool (1) comprises an active element (2), mounted so as to be movable along its longitudinal axis (L), with a distal end formed as a processing portion (6), in particular as a forming portion and/or cutting portion. Furthermore, the manufacturing tool (1) comprises a passive element (3; 4; 5) with a recess (9). The recess (9) has a cross-sectional contour which corresponds to the cross-sectional contour of the processing portion (6), and into which the processing portion (6) passes during operation of the manufacturing tool (1). Moreover, the manufacturing tool (1) comprises at least one pneumatic sensor (7) received on or in the passive element (3; 4; 5). The pneumatic sensor (7) has a sensing region which extends into the recess (9). The at least one pneumatic sensor (7) senses a stagnation pressure within the recess (9). Finally, the manufacturing tool (1) comprises an evaluation unit by means of which a state of wear of the processing portion (6) is deduced from the sensed stagnation pressure. The invention also relates to a method for determining a state of wear and to the use of a pneumatic sensor.

IPC 8 full level

B21D 28/02 (2006.01); **B21C 51/00** (2006.01); **B21D 28/24** (2006.01); **B21D 37/00** (2006.01); **B26D 5/00** (2006.01); **B26F 1/14** (2006.01); **B26F 1/44** (2006.01); **G01B 13/00** (2006.01); **G05B 19/4065** (2006.01)

CPC (source: EP)

B21C 51/00 (2013.01); **B21D 28/02** (2013.01); **B21D 28/24** (2013.01); **B21D 37/00** (2013.01); **B26D 5/00** (2013.01); **B26F 1/44** (2013.01); **B26F 1/02** (2013.01); **B26F 1/14** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021119874 A1 20230202; EP 4377026 A1 20240605; WO 2023006753 A1 20230202

DOCDB simple family (application)

DE 102021119874 A 20210730; EP 2022070955 W 20220726; EP 22758436 A 20220726