

Title (en)
HONING TOOL AND FINE MACHINING METHOD USING THE HONING TOOL

Title (de)
HONWERKZEUG UND FEINBEARBEITUNGSVERFAHREN UNTER VERWENDUNG DES HONWERKZEUGS

Title (fr)
OUTIL DE RODAGE ET PROCÉDÉ D'USINAGE DE PRÉCISION REPOSANT SUR L'UTILISATION DE L'OUTIL DE RODAGE

Publication
EP 3921118 A1 20211215 (DE)

Application
EP 20703181 A 20200129

Priority
• DE 102019201465 A 20190205
• EP 2020052189 W 20200129

Abstract (en)
[origin: WO2020160983A1] A honing tool (100) for processing an inner surface of a bore in a workpiece by the means of at least one honing operation comprises a tool body (110), which defines a tool axis (112); a first cutting group (160-1) attached to the tool body and having a plurality of radially adjustable first carriers (150-1), which are adjustable radially in relation to the tool axis (112) by means of an associated first cutting group adjustment system (170-1), each first carrier on its radial outer side covering a peripheral angular range of at least 20° and on the outer side (154) carrying a single first cutting material body, which is broad in the peripheral direction, or a plurality of narrow first cutting material bodies (140-1), which are arranged at a mutual distance from one another; and a second cutting group (160-2) which is attached to the tool body and has a plurality of radially adjustable second carriers (150-2), which are adjustable radially in relation to the tool axis (112) by means of an associated second cutting group adjustment system (170-2) independently of the first carriers (150-1), each second carrier (150-2) carrying an individual narrow second cutting material body (140-1, 140-2) on its radial outer side (154). All cutting material bodies (140-1, 140-2) of the first and second cutting group are arranged in an axially short cutting region (130), which has a length, measured in the axial direction, which is substantially smaller than an effective outer diameter of the cutting groups when the cutting material bodies are fully retracted.

IPC 8 full level
B24B 33/02 (2006.01); **B24B 33/08** (2006.01)

CPC (source: EP US)
B24B 33/02 (2013.01 - EP); **B24B 33/083** (2013.01 - EP); **B24B 33/084** (2013.01 - US)

Citation (search report)
See references of WO 2020160983A1

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

DOCDB simple family (publication)
DE 102019201465 A1 20200806; CN 113474120 A 20211001; CN 113474120 B 20230922; EP 3921118 A1 20211215; EP 3921118 B1 20231122; EP 3921118 C0 20231122; US 2022055177 A1 20220224; WO 2020160983 A1 20200813

DOCDB simple family (application)
DE 102019201465 A 20190205; CN 202080012740 A 20200129; EP 2020052189 W 20200129; EP 20703181 A 20200129; US 202017428905 A 20200129