

Title (en)
METHOD FOR MANUFACTURING SINTERED COMPACT, AND SINTERED COMPACT

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES SINTERKÖRPERS UND SINTERKÖRPER

Title (fr)
PROCÉDÉ DE FABRICATION D'UNE PIÈCE FRITTÉE, ET PIÈCE FRITTÉE

Publication
EP 3441161 A4 20190213 (EN)

Application
EP 17779150 A 20170404

Priority
• JP 2016077069 A 20160407
• JP 2017014145 W 20170404

Abstract (en)
[origin: US2018236548A1] A sintered body manufacturing method includes: a preparation step of preparing a raw material powder containing an iron-based metal powder; a molding step of subjecting the raw material powder to uniaxial pressing using a die to produce a green compact having an overall average relative density of 93% or more; a machining step of machining the green compact to produce a machined compact; and a sintering step of sintering the machined compact to obtain a sintered body.

IPC 8 full level
B22F 3/10 (2006.01); **B22F 1/06** (2022.01); **B22F 1/10** (2022.01); **B22F 3/02** (2006.01); **B22F 3/03** (2006.01); **B22F 3/24** (2006.01); **B22F 5/08** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01)

CPC (source: EP US)
B22F 1/06 (2022.01 - EP US); **B22F 1/10** (2022.01 - EP US); **B22F 3/10** (2013.01 - US); **B22F 5/008** (2013.01 - EP US); **B22F 5/06** (2013.01 - EP US); **B22F 5/08** (2013.01 - US); **B22F 5/085** (2013.01 - EP US); **B22F 5/10** (2013.01 - EP US); **C22C 33/02** (2013.01 - US); **C22C 33/0264** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **B22F 3/03** (2013.01 - EP US); **B22F 2003/026** (2013.01 - EP US); **B22F 2003/247** (2013.01 - EP US); **B22F 2009/0828** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP US)

C-Set (source: EP US)

EP
1. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/30**
2. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/05**
3. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/01**
4. **B22F 2998/10 + B22F 2009/0828 + B22F 1/10 + B22F 3/02 + B22F 3/10 + B22F 2003/247**
US
1. **B22F 2998/10 + B22F 2009/0828 + B22F 1/10 + B22F 3/02 + B22F 2003/247 + B22F 3/10**
2. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/30**
3. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/05**
4. **B22F 2999/00 + B22F 2009/0824 + B22F 2201/01**
5. **B22F 2998/10 + B22F 2009/0828 + B22F 1/10 + B22F 3/02 + B22F 3/10 + B22F 2003/247**

Citation (search report)
• [YA] DE 102014110903 A1 20160204 - HOERBIGER ANTRIEBSTECHNIK HOLD [DE]
• [XAY] WO 2005102565 A1 20051103 - HOEGANAES AB [SE], et al
• [XAI] WO 0228576 A2 20020411 - KEYSTONE INVEST CORP [US], et al
• [A] US 2015217371 A1 20150806 - NARUMI ISSHIN [JP], et al
• [A] ROBERT-PERRON E ET AL: "MACHINABILITY OF GREEN POWDER METALLURGY COMPONENTS: PART I. CHARACTERIZATION OF THE INFLUENCE OF TOOL WEAR", METALLURGICAL AND MATERIALS TRANSACTIONS A: PHYSICAL METALLURGY & MATERIALS SCIENCE, ASM INTERNATIONAL, MATERIALS PARK, OH, US, vol. 6, no. 38A, 1 June 2007 (2007-06-01), pages 1330 - 1336, XP001508165, ISSN: 1073-5623, DOI: 10.1007/S11661-007-9191-9
• [A] ROBERT-PERRON E ET AL: "MACHINABILITY OF GREEN POWDER METALLURGY COMPONENTS: PART II. SINTERED PROPERTIES OF COMPONENTS MACHINED IN GREEN STATE", METALLURGICAL AND MATERIALS TRANSACTIONS A: PHYSICAL METALLURGY & MATERIALS SCIENCE, ASM INTERNATIONAL, MATERIALS PARK, OH, US, vol. 6, no. 38A, 1 June 2007 (2007-06-01), pages 1337 - 1342, XP001508166, ISSN: 1073-5623, DOI: 10.1007/S11661-007-9187-5
• See also references of WO 2017175772A1

Cited by
DE202024100893U1

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)
US 2018236548 A1 20180823; CN 107921535 A 20180417; CN 107921535 B 20200630; EP 3441161 A1 20190213; EP 3441161 A4 20190213; EP 3441161 B1 20240717; JP 2017186625 A 20171012; JP 6509771 B2 20190508; WO 2017175772 A1 20171012

DOCDB simple family (application)
US 201715750703 A 20170404; CN 201780002715 A 20170404; EP 17779150 A 20170404; JP 2016077069 A 20160407; JP 2017014145 W 20170404