

Title (en)
RING FOR FINE SPINNING MACHINE

Title (de)
RING FÜR FEINSPINNMASCHINE

Title (fr)
ANNEAU POUR UNE MACHINE DE FILATURE FINE

Publication
EP 3502325 A1 20190626 (EN)

Application
EP 18209991 A 20181204

Priority
JP 2017246490 A 20171222

Abstract (en)
A ring (11) for a fine spinning machine is used in the fine spinning machine for winding a yarn through a traveler (12) sliding on a sliding surface of the ring (11) in a dry state. The sliding surface of the ring (11) is covered by chrome plating (13). In the chrome plating (13), a ratio of emission intensity of hydrogen atoms (H) to emission intensity of chromium atoms (Cr) determined by glow discharge optical emission spectrometry (GD-OES) is 0.1 or more.

IPC 8 full level
D01H 7/60 (2006.01); **C25D 7/04** (2006.01); **C25D 3/04** (2006.01)

CPC (source: CN EP)
C25D 7/04 (2013.01 - EP); **D01H 7/602** (2013.01 - CN EP); **C25D 3/04** (2013.01 - EP)

Citation (applicant)

- JP 2014029046 A 20140213 - TOYOTA IND CORP
- JP S4843318 B1 19731218
- WO 2010119747 A1 20101021 - CHUNICHI CRAFT CO LTD [JP], et al
- JAPAN METAL SOCIETY JOURNAL, vol. 68, no. 8, 2004, pages 552 - 557

Citation (search report)

- [X] US 5829240 A 19981103 - BENSON RIO H [US], et al
- [X] US 2001047645 A1 20011206 - POQUETTE GEREON E [US], et al
- [A] V-D HODOROABA: "Wasserstoffeffekt und -analyse in der GDS - Anwendungen in der Werkstoffforschung (Hydrogen Effect and Analysis in GDS - Applications in Material Science)", DISSERTATION TU DRESDEN [DE], 30 April 2002 (2002-04-30), pages 1 - 121, XP055250332

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)

EP 3502325 A1 20190626; EP 3502325 B1 20220706; CN 109957862 A 20190702; CN 109957862 B 20220318; JP 2019112740 A 20190711;
JP 6814725 B2 20210120

DOCDB simple family (application)

EP 18209991 A 20181204; CN 201811570946 A 20181221; JP 2017246490 A 20171222