

Title (en)
HARD MATERIAL LAYER ON METAL SUBSTRATE

Title (de)
HARTSTOFFSCHICHT AUF METALLSUBSTRAT

Title (fr)
COUCHE DE MATÉRIAU DUR SUR UN SUBSTRAT MÉTALLIQUE

Publication
EP 3752656 A1 20201223 (DE)

Application
EP 19706474 A 20190214

Priority
• DE 102018103320 A 20180214
• EP 2019053748 W 20190214

Abstract (en)
[origin: WO2019158669A1] The invention relates to a chain component of a chain for transmitting a force, coated with a hard material layer having a steel-based substrate and a hard material layer on an outer side of the steel-based substrate, wherein the hard material layer contains metal nitrides, and the C mass concentration in the hard material layer decreases in the direction towards the outer side of the hard material layer.

IPC 8 full level
C23C 16/30 (2006.01); **C23C 16/32** (2006.01); **C23C 16/34** (2006.01); **C23C 16/36** (2006.01); **C23C 28/00** (2006.01); **C23C 28/04** (2006.01); **C23C 30/00** (2006.01); **F16G 13/00** (2006.01); **F16G 13/02** (2006.01); **F16G 13/04** (2006.01); **F16G 13/06** (2006.01); **F16G 13/08** (2006.01)

CPC (source: EP US)
C23C 16/32 (2013.01 - US); **C23C 16/34** (2013.01 - US); **C23C 16/36** (2013.01 - US); **C23C 28/042** (2013.01 - EP US); **C23C 28/044** (2013.01 - EP US); **C23C 28/048** (2013.01 - EP US); **C23C 28/34** (2013.01 - EP); **C23C 28/341** (2013.01 - EP); **C23C 28/347** (2013.01 - EP); **C23C 28/36** (2013.01 - EP); **C23C 30/00** (2013.01 - EP); **C23C 30/005** (2013.01 - EP); **F16G 13/06** (2013.01 - EP US); **F16S 5/00** (2013.01 - US)

Citation (search report)
See references of WO 2019158669A1

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 102018103320 A1 20190814; CN 112218976 A 20210112; EP 3752656 A1 20201223; JP 2021513611 A 20210527; JP 7303207 B2 20230704; US 11434976 B2 20220906; US 2021115567 A1 20210422; WO 2019158669 A1 20190822

DOCDB simple family (application)
DE 102018103320 A 20180214; CN 201980019734 A 20190214; EP 19706474 A 20190214; EP 2019053748 W 20190214; JP 2020543929 A 20190214; US 201916970153 A 20190214