

Title (en)
PART COATED WITH A HYDROGENATED AMORPHOUS CARBON COATING ON AN UNDERCOAT COMPRISING CHROMIUM, CARBON AND SILICON

Title (de)
TEIL MIT EINER HYDRIERTEN AMORPHEN KOHLENSTOFFBESCHICHTUNG AUF EINER UNTERSCHICHT AUS CHROM, KOHLENSTOFF UND SILIZIUM

Title (fr)
PIÈCE REVÊTUE PAR UN REVÊTEMENT DE CARBONE AMORPHE HYDROGÉNÉ SUR UNE SOUS-COUCHE COMPORTANT DU CHROME, DU CARBONE ET DU SILICIUM

Publication
EP 3824114 A1 20210526 (FR)

Application
EP 19742446 A 20190617

Priority
• FR 1855319 A 20180618
• FR 2019051462 W 20190617

Abstract (en)
[origin: WO2019243720A1] The present application relates to a part comprising a metal substrate, a non-hydrogenated amorphous ta-C or a-C carbon coating that coats the substrate, and an undercoat which is based on chromium (Cr), carbon (C) and silicon (Si) and is disposed between the metal substrate and the amorphous carbon coating and to which the amorphous carbon coating is applied, characterized in that the undercoat comprises, at its interface with the amorphous carbon coating, a ratio of silicon in atomic percent to chromium in atomic percent (Si/Cr) of 0.35 to 0.60, and a ratio of carbon in atomic percent to silicon in atomic percent (C/Si) of 2.5 to 3.5.

IPC 8 full level
C23C 28/04 (2006.01); **C23C 14/06** (2006.01); **C23C 14/32** (2006.01); **C23C 14/35** (2006.01); **C23C 16/26** (2006.01); **C23C 16/50** (2006.01)

CPC (source: EP KR US)
C23C 16/0272 (2013.01 - EP KR US); **C23C 16/029** (2013.01 - EP KR); **C23C 16/26** (2013.01 - EP KR US); **C23C 16/32** (2013.01 - US); **C23C 28/046** (2013.01 - EP KR US); **C23C 28/048** (2013.01 - EP KR US); **C23C 28/34** (2013.01 - US); **F16J 9/26** (2013.01 - US)

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)
WO 2019243720 A1 20191226; BR 112020024244 A2 20210223; CA 3101721 A1 20191226; CN 112400038 A 20210223; CN 112400038 B 20231020; EP 3824114 A1 20210526; FR 3082526 A1 20191220; FR 3082526 B1 20200918; JP 2021533255 A 20211202; KR 20210019553 A 20210222; MA 53161 A 20210526; MX 2020014256 A 20210325; US 12012657 B2 20240618; US 2021254220 A1 20210819

DOCDB simple family (application)
FR 2019051462 W 20190617; BR 112020024244 A 20190617; CA 3101721 A 20190617; CN 201980041073 A 20190617; EP 19742446 A 20190617; FR 1855319 A 20180618; JP 2020560146 A 20190617; KR 20217001357 A 20190617; MA 53161 A 20190617; MX 2020014256 A 20190617; US 201917252615 A 20190617