

Title (en)
STEEL STRIP FOR FLAPPER VALVES

Title (de)
STAHLBAND FÜR KLAPPENVENTILE

Title (fr)
BANDE D'ACIER POUR CLAPETS À BATTANT

Publication
EP 3980571 A4 20231122 (EN)

Application
EP 20817981 A 20200605

Priority
• SE 1950679 A 20190607
• SE 2020050569 W 20200605

Abstract (en)
[origin: WO2020246937A1] The invention relates to a cold rolled and pre-hardened martensitic steel strip for flapper valve reeds in the compressors, wherein the steel strip is made from steel comprising in weight % (wt. %): C 0.9 - 1.1 Si 0.1 - 0.5 Mn 0.2 - 0.8 Cr 0.05 - 0.3 V 0.05 - 0.20 Nb 0.02 - 0.09 optional elements, Fe and impurities balance, wherein the steel strip has a matrix comprising tempered martensite and up to 8% area fraction of remaining secondary carbides and wherein the steel strip has a thickness of 0.07- 3.5 mm and a width of 7- 450 mm.

IPC 8 full level
C22C 38/24 (2006.01); **C21D 1/18** (2006.01); **C21D 1/22** (2006.01); **C21D 1/56** (2006.01); **C21D 1/58** (2006.01); **C21D 1/60** (2006.01); **C21D 6/00** (2006.01); **C21D 6/02** (2006.01); **C21D 8/02** (2006.01); **C21D 9/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/22** (2006.01); **C22C 38/26** (2006.01)

CPC (source: EP SE)
C21D 1/18 (2013.01 - EP); **C21D 1/22** (2013.01 - EP); **C21D 1/56** (2013.01 - EP); **C21D 1/58** (2013.01 - EP); **C21D 1/60** (2013.01 - EP); **C21D 6/002** (2013.01 - EP); **C21D 6/005** (2013.01 - EP); **C21D 6/02** (2013.01 - EP); **C21D 8/0205** (2013.01 - EP SE); **C21D 8/0226** (2013.01 - EP); **C21D 8/0236** (2013.01 - EP); **C21D 8/0263** (2013.01 - EP); **C21D 8/0268** (2013.01 - EP); **C21D 8/0273** (2013.01 - EP); **C21D 9/02** (2013.01 - EP SE); **C21D 9/46** (2013.01 - EP); **C22C 38/001** (2013.01 - EP); **C22C 38/02** (2013.01 - EP SE); **C22C 38/04** (2013.01 - EP SE); **C22C 38/06** (2013.01 - EP); **C22C 38/22** (2013.01 - EP); **C22C 38/24** (2013.01 - EP SE); **C22C 38/26** (2013.01 - EP SE); **F04B 39/1073** (2013.01 - SE); **C21D 2211/008** (2013.01 - EP)

Citation (search report)
• [I] EP 3216889 A1 20170913 - TOKUSHU KINZOKU EXCEL CO LTD [JP], et al
• [A] EP 0462779 A2 19911227 - NISSHIN STEEL CO LTD [JP]
• [A] US 2015030870 A1 20150129 - UENO TOMONORI [JP], et al
• [A] JP H0347948 A 19910228 - SUMITOMO METAL IND
• [A] CN 109280847 A 20190129 - ANGANG STEEL CO LTD
• [A] US 9290832 B2 20160322 - JUNIUS HANS-TONI [DE], et al
• [A] WO 2019015957 A1 20190124 - BEKAERT SA NV [BE], et al
• See also references of WO 2020246937A1

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

DOCDB simple family (publication)
WO 2020246937 A1 20201210; BR 112021024371 A2 20220118; CN 113939608 A 20220114; EP 3980571 A1 20220413; EP 3980571 A4 20231122; SE 1950679 A1 20201208; SE 543422 C2 20210112

DOCDB simple family (application)
SE 2020050569 W 20200605; BR 112021024371 A 20200605; CN 202080041948 A 20200605; EP 20817981 A 20200605; SE 1950679 A 20190607