

Title (en)
FOLDABLE VEHICULAR COUPLER AND VEHICLE

Title (de)
FALTBARE FAHRZEUGKUPPLUNG UND FAHRZEUG

Title (fr)
COUPLEUR DE VÉHICULE PLIABLE ET VÉHICULE

Publication
EP 3992054 A4 20220928 (EN)

Application
EP 19907492 A 20191125

Priority

- CN 201921497292 U 20190909
- CN 201910849520 A 20190909
- CN 2019120626 W 20191125

Abstract (en)
[origin: EP3992054A1] A foldable coupler including a coupler head (1); a rotating arm mechanism (2) with a first arm and a second arm rotatably connected with the first arm; and a folding mechanism (3), including a driving mechanism (31) and a force transfer component (32); the driving mechanism (31) being mounted on the second arm (22), the force transfer component (32) being rotatably mounted on the first arm (21); the driving mechanism (31) being connected with the force transfer component (32) to transfer a driving force to the first arm (21) through the force transfer component (32), so that the first arm (21) and the second arm (22) rotate relative to each other; wherein the first arm (21) is connected to a vehicle body (4), and the second arm (22) is connected to the coupler head (1); or, the first arm (21) is connected to the coupler head (1), and the second arm (22) is connected to the vehicle body (4). A vehicle with the foldable coupler is also disclosed. The foldable coupler not only realizes the automatic folding, the number of driving elements is decreased, and the intermediate control process is simplified greatly.

IPC 8 full level
B61G 1/00 (2006.01); **B61G 7/00** (2006.01); **B61G 7/08** (2006.01)

CPC (source: EP)
B61G 7/08 (2013.01)

Citation (search report)

- [XAI] WO 2008132124 A1 20081106 - VOITH PATENT GMBH [DE] & EP 1985518 A1 20081029 - VOITH PATENT GMBH [DE]
- [A] EP 1129920 A1 20010905 - SCHWAB VERKEHRSTECHNIK AG [CH]
- [A] WO 2018120675 A1 20180705 - BYD CO LTD [CN]
- See references of WO 2020140646A1

Cited by
EP4393788A1; WO2024141429A1; EP4299406A1; WO2024003261A1

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 3992054 A1 20220504; EP 3992054 A4 20220928; EP 3992054 B1 20230719; EP 3992054 C0 20230719; WO 2020140646 A1 20200709

DOCDB simple family (application)
EP 19907492 A 20191125; CN 2019120626 W 20191125