

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
09 June 2022 (09.06.2022)



(10) International Publication Number  
**WO 2022/117659 A1**

(51) International Patent Classification:

*F02D 9/04* (2006.01) *F16K 1/22* (2006.01)  
*F02D 9/10* (2006.01) *F16D 3/72* (2006.01)  
*F16D 3/52* (2006.01) *F02M 26/54* (2016.01)

(21) International Application Number:

PCT/EP2021/083796

(22) International Filing Date:

01 December 2021 (01.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

20211319.7 02 December 2020 (02.12.2020) EP

(71) Applicant: **AKRAPOVIC D.D.** [SI/SI]; Malo Hudo 8a,  
1295 Ivancna Gorica (SI).

(72) Inventors: **PENCA, Jure**; Šmartinska cesta 72, 1000  
Ljubljana (SI). **ZALETTELJ, Henrik**; Zagorica pri Dobr-  
nicu 5, 8211 Dobrnica (SI). **VEBER, Boštjan**; Precna ulica  
19, 3313 Polzela (SI).

(74) Agent: **SCHMID, Nils, T., F.**; BOEHMERT &  
BOEHMERT ANWALTSPARTNERSCHAFT MBB, Pet-  
tenkoferstrasse 22, 80336 München (DE).

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,  
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,

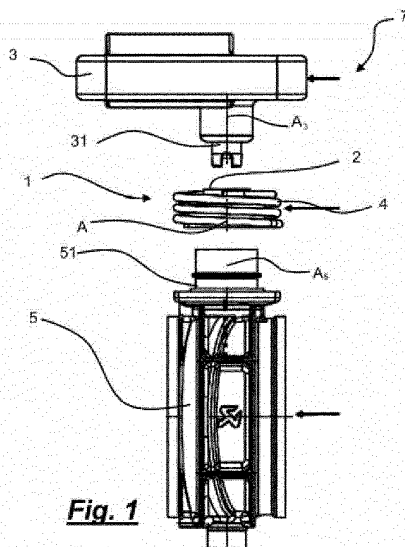
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,  
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,  
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,  
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,  
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,  
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,  
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,  
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,  
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: COUPLING DEVICE, VALVE SYSTEM AND METHOD FOR ASSEMBLING A COUPLING DEVICE OR A VALVE SYSTEM



(57) Abstract: A Coupling device (1) for connecting a drive shaft (31) of an actuator (3) to a driven shaft (51) of an exhaust-gas valve (5). The coupling device (1) defines a rotational axis (A) and comprises a torsionally rigid retainer (2) having an axially extending slot (25), a coupling rod (45) received in the slot (25) for translational movement relative to the retainer (2) in the direction of the rotational axis (A), and an elastic element (4) biasing the coupling rod (45) in the direction of the rotational axis (A) and having an attachment section (42) fixed to the retainer (2); wherein the retainer (2) and the coupling rod (45) are non-rotatably connected.

WO 2022/117659 A1