

Title (en)
COVER BODY FOR VALVE ROTARY DEVICE, CORRESPONDING VALVE ROTARY DEVICE AND METHOD FOR MANUFACTURING THE COVER BODY

Title (de)
DECKELKÖRPER FÜR VENTILDREHVORRICHTUNG, ENTSPRECHENDE VENTILDREHVORRICHTUNG UND VERFAHREN ZUR HERSTELLUNG DES DECKELKÖRPERS

Title (fr)
CORPS DE COUVERCLE POUR ROTATEUR DE SOUPAPE, ROTATEUR DE SOUPAPE CORRESPONDANT ET PROCÉDÉ DE FABRICATION DU CORPS DE COUVERCLE

Publication
EP 3901427 B1 20230531 (DE)

Application
EP 21167812 A 20210412

Priority
DE 102020111090 A 20200423

Abstract (en)
[origin: US2021332724A1] A cover body (2) for a valve rotating device includes a ring-shaped upper part (4) and a ring-shaped lower part (6). The upper part (4) and the lower part (6) are axially spaced apart and are adapted to accommodate an axial spring element (24) therebetween. The upper part (4) and the lower part (6) are connected to one another by at least one connecting piece arranged at the location opposite an insertion position of the axial spring element (24). A valve rotating device (12) having such a cover body is also provided. A ring-shaped base body (22) has a plurality of pockets (16) oriented in a circumferential direction, in each of which a ball (14) and a tangential spring (32) are arranged. The pockets (16) have a variable depth in the circumferential direction such that inclined raceways (26) for the balls (14) arranged therein are formed. The tangential springs (32) push the balls (14) toward an end of the respective pocket (16). The axial spring element (24) is ring-shaped and a first end of the axial spring element (24) is supported on an ring-shaped stop surface (18) of the base body (22) and a second end of the axial spring element (24) is supported on a surface of the upper part (4) of the cover. A surface of the lower part (6) facing away from the axial spring element (24) rests against the balls (14), and wherein the balls (14) and the axial spring element (24) are arranged overlapping in the radial direction. A method for producing a cover body (2) for a valve rotating device is also provided.

IPC 8 full level
F01L 1/32 (2006.01); **F01L 1/46** (2006.01); **F01L 3/10** (2006.01)

CPC (source: EP US)
F01L 1/32 (2013.01 - EP US); **F01L 1/462** (2013.01 - EP); **F01L 3/10** (2013.01 - EP); **F01L 3/20** (2013.01 - EP); **F01L 1/462** (2013.01 - US); **F01L 3/10** (2013.01 - US); **F01L 2303/00** (2020.05 - EP 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

DOCDB simple family (publication)
EP 3901427 A1 20211027; **EP 3901427 B1 20230531**; DE 102020111090 A1 20211028; PL 3901427 T3 20231204; US 11788440 B2 20231017; US 2021332724 A1 20211028

DOCDB simple family (application)
EP 21167812 A 20210412; DE 102020111090 A 20200423; PL 21167812 T 20210412; US 202117232637 A 20210416