

Title (en)
RADIAL ROLLING BEARING

Title (de)
RADIALWÄLZLAGER

Title (fr)
PALIER À ROULEMENT RADIAL

Publication
EP 2707613 A1 20140319 (DE)

Application
EP 12715666 A 20120412

Priority

- DE 102011075730 A 20110512
- EP 2012056605 W 20120412

Abstract (en)
[origin: WO2012152519A1] The invention relates to a radial rolling bearing (10) with rolling bodies (24) which are received in at least one cage (26, 28) and which are arranged between an inner ring (20) and an outer ring (22). The radial rolling bearing (12) is designed to be radially separable, and the radially multipart inner ring (20) can be fixed on a shaft (16) using two clamping rings (36, 38) which are attached to the axial ends of said inner ring. According to the invention, the inner ring (20) is designed without rims on the axially outer sides, and the clamping rings (36, 38) take on the function of inner ring rims, said rolling bodies (24) running against inner run-on surfaces (50) of the clamping rings (36, 38) in the axial direction. On the basis of the at least partial positioning of the clamping rings (36, 38) axially below the cages (26, 28) or the outer ring (22), the clamping rings (36, 38) take on two additional functions in addition to the actual clamping ring main function of fixing the inner ring (20) on the shaft (16). Firstly, the clamping rings (36, 38) form a cage guide in the radial direction, and secondly, said clamping rings assist the axial guiding of the rolling bodies (24) by means of the inclined inner run-on surfaces (50). The radial rolling bearing additionally has a reduced axial installation dimension on the basis of the special arrangement of said clamping rings (36, 38) in the radial rolling bearing.

IPC 8 full level
F16C 33/60 (2006.01); **F16C 23/08** (2006.01); **F16C 33/58** (2006.01)

CPC (source: EP US)
F16C 23/086 (2013.01 - EP US); **F16C 33/585** (2013.01 - EP US); **F16C 33/60** (2013.01 - EP US); **F16C 33/605** (2013.01 - EP US);
F16C 33/6659 (2013.01 - US); **F16C 19/38** (2013.01 - EP US); **F16C 33/526** (2013.01 - EP US); **F16C 35/063** (2013.01 - EP US)

Citation (search report)
See references of WO 2012152519A1

Citation (examination)

- US 3166363 A 19650119 - PITFIELD KAY SYDNEY
- JP 2007218394 A 20070830 - NTN TOYO BEARING CO LTD

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 2012152519 A1 20121115; DE 102011075730 A1 20121115; EP 2707613 A1 20140319; US 2014169717 A1 20140619;
US 9011017 B2 20150421

DOCDB simple family (application)
EP 2012056605 W 20120412; DE 102011075730 A 20110512; EP 12715666 A 20120412; US 201214113683 A 20120412