

Title (en)  
ULTRASONIC PROBE AND ULTRASONIC INSPECTION SYSTEM

Title (de)  
ULTRASCHALL-PRÜFKOPF UND ULTRASCHALL-PRÜFANLAGE

Title (fr)  
TÊTE DE TEST À ULTRASON ET SYSTÈME DE TEST À ULTRASON

Publication  
**EP 3440458 A1 20190213 (DE)**

Application  
**EP 17714181 A 20170327**

Priority

- DE 102016205548 A 20160404
- EP 2017057227 W 20170327

Abstract (en)  
[origin: WO2017174391A1] The invention relates to a probe (100) for an ultrasonic inspection system for nondestructive material inspection during movement of a test object relative to the probe in an inspection direction, comprising a probe housing (110), which defines a longitudinal direction (L) in the inspection direction and a transverse direction (Q) perpendicular to the inspection direction, and a plurality of transmitting-receiving units (150-1, 150-2, 150-3). Each transmitting-receiving unit has a transmitter element (T1, T2, T3) and an associated receiver element (R1, R2, R3) and defines an effective inspection width (PB1, PB2, PB3) in the transverse direction (Q) in such a way that, during movement of the test object relative to the probe in the inspection direction, an inspection track having the effective inspection width can be inspected by means of the transmitting-receiving unit. The transmitting-receiving units are arranged in at least two rows (155-1, 155-2) which are consecutive in the longitudinal direction (L) and extend in the transverse direction (Q). Transmitting-receiving units from different rows are mutually offset in the transverse direction (Q) in such a way that receiver elements (R1, R2, R3) of mutually offset transmitting-receiving units overlap each other in an overlapping region (U1-2, U2-3) such that the totality of the transmitting-receiving units continuously covers an effective probe inspection width (PKPB). All the transmitting-receiving units are mounted in the probe housing (110). All the transmitter elements (T1, T2, T3) are electrically connected to a common transmitter connection element (AT) of the probe.

IPC 8 full level  
**G01N 29/04** (2006.01); **B06B 1/06** (2006.01); **G01N 29/22** (2006.01); **G01N 29/24** (2006.01); **G01N 29/27** (2006.01); **G10K 11/00** (2006.01)

CPC (source: EP KR RU)  
**G01N 29/04** (2013.01 - EP KR RU); **G01N 29/221** (2013.01 - EP KR); **G01N 29/225** (2013.01 - EP KR); **G01N 29/2437** (2013.01 - EP KR); **G01N 29/27** (2013.01 - EP KR); **B06B 1/0607** (2013.01 - EP KR); **G01N 2291/023** (2013.01 - EP KR); **G01N 2291/044** (2013.01 - EP KR); **G01N 2291/105** (2013.01 - EP KR); **G01N 2291/106** (2013.01 - EP KR); **G01N 2291/263** (2013.01 - EP KR)

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)  
**DE 102016205548 A1 20171005**; CN 109196349 A 20190111; EP 3440458 A1 20190213; JP 2019516093 A 20190613; JP 7122973 B2 20220822; KR 102339444 B1 20211215; KR 20180128053 A 20181130; RU 2018136368 A 20200512; RU 2018136368 A3 20200512; RU 2732102 C2 20200911; WO 2017174391 A1 20171012

DOCDB simple family (application)  
**DE 102016205548 A 20160404**; CN 201780034635 A 20170327; EP 17714181 A 20170327; EP 2017057227 W 20170327; JP 2018552191 A 20170327; KR 20187031830 A 20170327; RU 2018136368 A 20170327