

Title (en)  
Tubing distance sensor for a tunnel boring machine

Title (de)  
Tübbing-Abstandssensor für Tunnelbohrmaschine

Title (fr)  
Capteur de distance de cuvelage pour tunnelier

Publication  
**EP 2740895 A3 20160420 (DE)**

Application  
**EP 13196094 A 20131206**

Priority  
DE 202012104780 U 20121207

Abstract (en)  
[origin: EP2740895A2] The plate comprises a shield tube (118) for protecting a portion of the tunnel boring machine (100), which is temporarily arranged between the borehole segments (112) for lining the borehole wall, and a sensor (116) arranged in the shield tube for detecting the distance between the shield tube and the borehole segments. The sensor is arranged away from the borehole wall in the inner surface of the shield tube. A supporting ring (122) and the lateral surface of shield tube are integrally formed from a single material. An independent claim is included for a tunnel boring machine.

IPC 8 full level  
**E21D 9/06** (2006.01); **E21D 11/40** (2006.01)

CPC (source: EP)  
**E21D 9/003** (2013.01); **E21D 9/0607** (2013.01); **E21D 11/403** (2013.01)

Citation (search report)

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- [Y] US 4990027 A 19910205 - HATTORI MASATO [JP], et al
- [Y] JP H11280378 A 19991012 - HITACHI SHIPBUILDING ENG CO
- [X] JP H07217372 A 19950815 - MITSUBISHI HEAVY IND LTD
- [X] JP H07233695 A 19950905 - KAJIMA CORP
- [X] JP H07238779 A 19950912 - MITSUBISHI HEAVY IND LTD
- [A] JP H11294072 A 19991026 - TODA CONSTRUCTION
- [L] VMT GMBH: "Automatisches Schildschwanzluft Messsystem SLuM", 14 January 2016 (2016-01-14), XP055256206, Retrieved from the Internet <URL:http://vmt-gmbh.de/wp-content/uploads/2013/07/PDS-Automatisches-Schildschwanzluft-Messsystem-SLuM-DE.pdf> [retrieved on 20160308]

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 202012104780 U1 20130227**; EP 2740895 A2 20140611; EP 2740895 A3 20160420

DOCDB simple family (application)  
**DE 202012104780 U 20121207**; EP 13196094 A 20131206