

Title (en)  
DEVICE AT RAILWAYS TO PRODUCE PRESENCE CRITERIA OF RAIL-BOUND WHEELS

Publication  
**EP 0340660 A3 19900711 (DE)**

Application  
**EP 89107752 A 19890428**

Priority  
AT 113688 A 19880503

Abstract (en)  
[origin: EP0340660A2] The device on railways for producing presence criteria of rail- bound wheels consists of a coil system (S, E1, E2) which can be mounted on the inside of a rail (1, 2, 3) and has an AC current-fed transmitter coil (S) via which voltages can be induced in two assigned receiver coils (E1, E2), the induction field of the transmitter coil (S) being variable in form by means of a wheel (4, 5) located in the monitoring region so that the induction voltages in the receiver coils (E1, E2) change with respect to their state of rest. In order to increase the operating reliability, the sensitivity and in order to provide extended evaluation possibilities of the signals, the transmitter coil (S) and the receiver coils (E1, E2) are attached free of ferromagnetic connections and the receiver coils are arranged asymmetrically in the induction field, maintaining distances from the ends and from the axis (LS) of the transmitter coil (S), diametrically opposed with axes (A1, A2) which are inclined with respect to this axis (LS) and directed towards the passage region of the wheel rim (5). Separate inputs of a monitoring circuit are provided for the induction voltages (U1, U2) of the receiver coils (E1, E2). <IMAGE>

IPC 1-7  
**B61L 1/16**

IPC 8 full level  
**B61L 1/16** (2006.01)

CPC (source: EP)  
**B61L 1/165** (2013.01)

Citation (search report)  
• [A] DE 3150546 A1 19830714 - SIEMENS AG [DE]  
• [A] US 3941338 A 19760302 - KNUDSEN WILL B  
• [A] DE 1530408 A1 19691016 - STANDARD ELEKTRIK LORENZ AG

Cited by  
DE102010027017A1; DE102016201896A1; US5333820A; US5574366A; DE4325406B4; DE102007019751B4; DE102007019751A1; AU2015246241B2; CN113264084A; EP1630518A3; EP0657337A1; CN103693074A; WO2015158538A1; EP2468602A1; WO2012084552A1; WO2012004251A1; WO2017137191A1; DE102016211354A1; WO2017220306A1; US10577001B2

Designated contracting state (EPC)  
DE FR GB NL

DOCDB simple family (publication)  
**EP 0340660 A2 19891108; EP 0340660 A3 19900711; EP 0340660 B1 19940309**; AT 397069 B 19940125; AT A113688 A 19930615; DE 58907151 D1 19940414

DOCDB simple family (application)  
**EP 89107752 A 19890428**; AT 113688 A 19880503; DE 58907151 T 19890428