

3 Documents

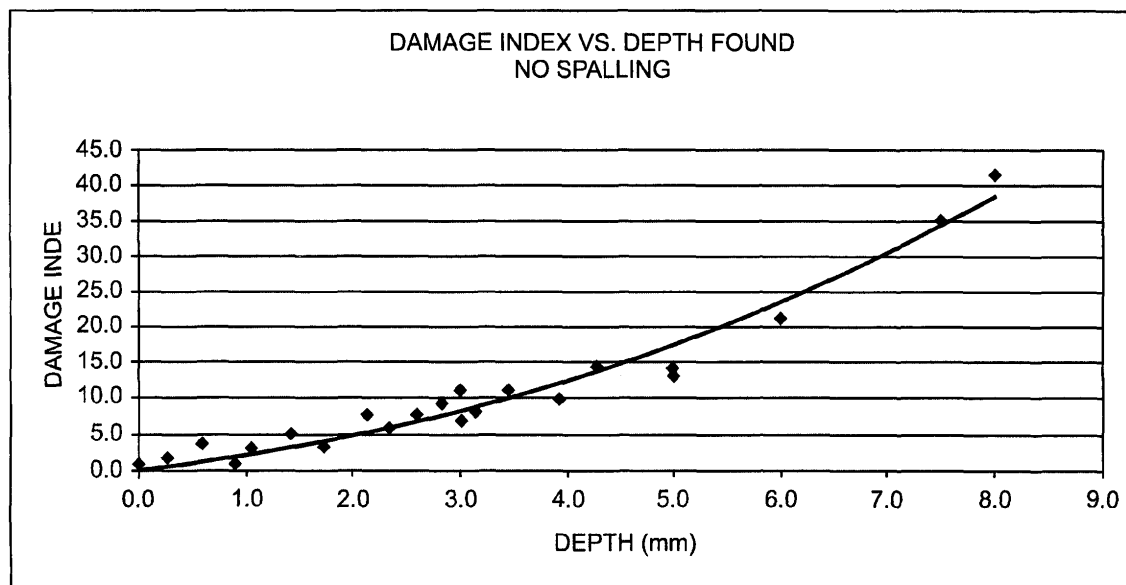
Publication numbers	Title	Current assignees
WO2011109869 A1	Method and apparatus for magnetic crack depth prediction	JRB ENGINEERING
US20050285588 A1	Method and apparatus for testing material integrity	GE GLOBAL SOURCING
US20030020469 A1	Transverse crack detection in rail head using low frequency eddy currents	TRANSPORATION TECHNOLOGY CENTER, ...

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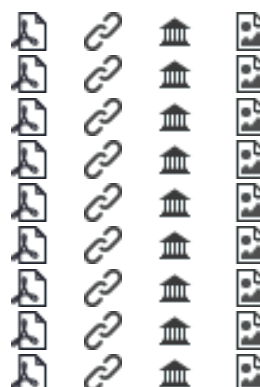
Title

(EP2545368)

Method and apparatus for magnetic crack depth prediction

Images**Publication data including kind & date**

WO2011109869	A1	2011-09-15	WO2011109869
CA2792268	A1	2011-09-15	CA2792268
AU2011226745	A1	2012-09-27	AU2011226745
EP2545368	A1	2013-01-16	EP2545368
US20130113472	A1	2013-05-09	US20130113472
AU2011226745	B2	2016-01-14	AU2011226745
EP2545368	A4	2016-12-28	EP2545368
US9599592	B2	2017-03-21	US9599592
CA2792268	C	2018-09-18	CA2792268

**Abstract**

(EP2545368)

A method of magnetic crack depth prediction for a magnetisable component of a first geometry comprising determining a measure of remnant magnetic flux leakage for a section of the component and, converting the remnant magnetic flux leakage to a predicted crack depth for that section of the component using an empirically determined relationship between remnant magnetic flux leakage and crack depth for a previously tested in service component of the first geometry.

Inventors

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Latest standardized assignees - inventors removed

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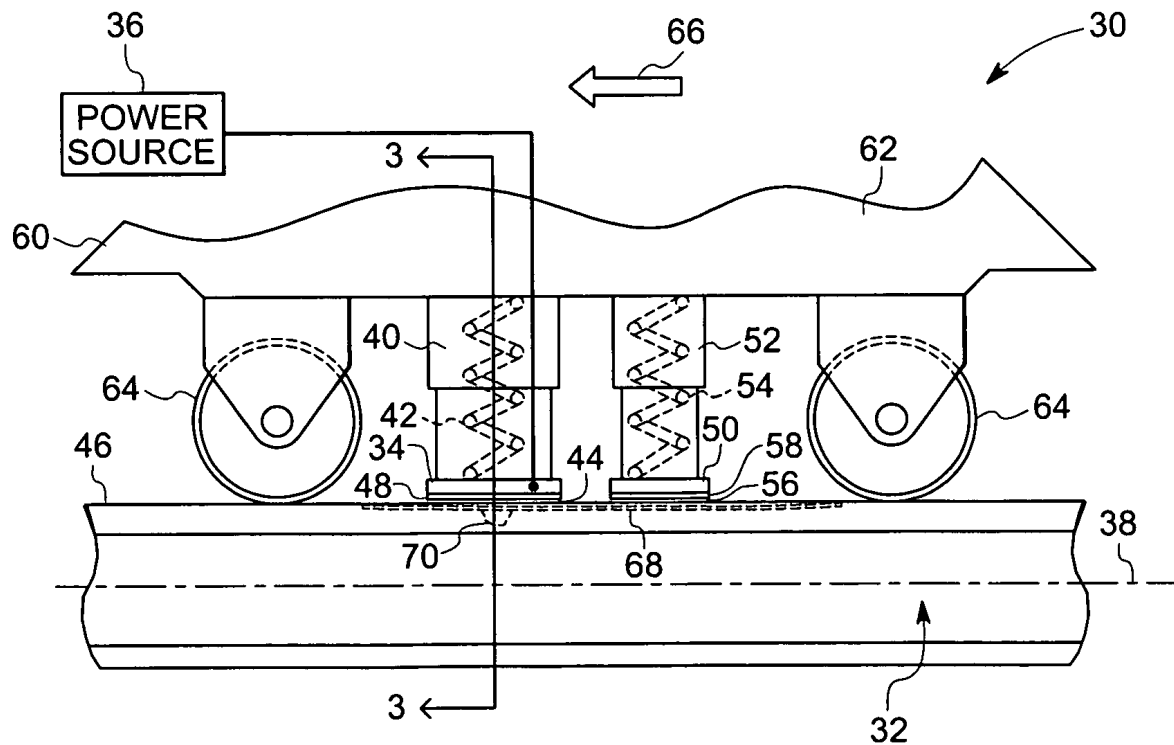
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Title

(US7521917)

Method and apparatus for testing material integrity

Images

**Publication data including kind & date**

US20050285588

A1 2005-12-29

US20050285588

US7521917

B2 2009-04-21

US7521917

**Abstract**

(US7521917)

In accordance with one embodiment, the present technique provides a testing apparatus for testing material integrity in an object. The testing apparatus includes an electrical conductor and a sensing device. In the exemplary testing device, the electrical conductor extends in a generally linear direction and is configured to route current in a direction generally transverse to a longitudinal axis of the object being tested. Routing of current through the electrical conductor creates remote field eddy current effect, which, in turn, affects a magnetic field around the test object. The testing apparatus also includes a sensing device located at a distance from the electrical conductor and configured to detect magnetic fields generated in response to current routed through the electrical conductor.

Inventors

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Latest standardized assignees - inventors removed

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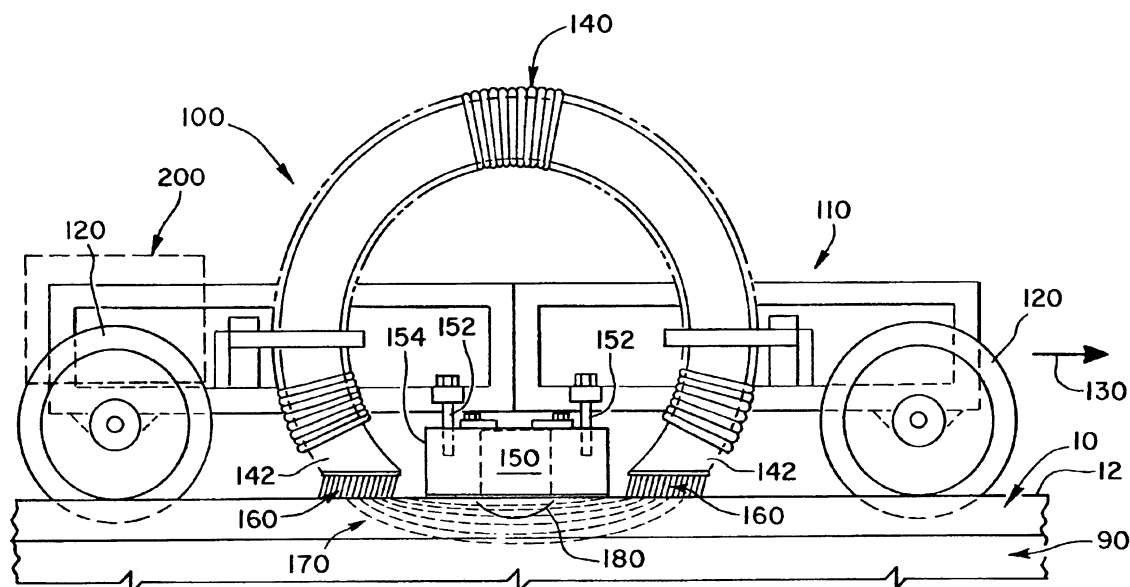
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Title

(WO200435368)

Transverse crack detection in rail head using low frequency eddy currents

Images



Publication data including kind & date

US20030020469	A1	2003-01-30	US20030020469
WO2004035368	A1	2004-04-29	WO200435368
AU2002357659	A1	2004-05-04	AU2002357659
US6768298	B2	2004-07-27	US6768298



Abstract

(WO200435368)

A method and system for detecting transverse cracks (50) beneath horizontal cracks (40) in the rail way track (90). As a transporter (110) moves over rail (90), a saturation magnetic field (170) is generated into and across the rail head (10) using a toroidal-shaped DC saturation magnet (140) located a predetermined distance above the rail head (10). Any transverse cracks (50) in the rail head (10) are detected with a low frequency eddy current probe (150) mounted centrally between the opposing pole ends (142) of the DC magnet (150) and over the rail head (10). A force is applied to the low frequency eddy current probe (150) to hold the probe towards the rail head (10) as the transporter (110) moves on the rail (90) so as to follow the wear pattern of the rail head (10) and to minimize lift-off. A second sensor (1000) is used to sense the presence of non-relevant indications that falsely indicate possible transverse cracks (50) by the low frequency eddy current probe (150).

Inventors

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