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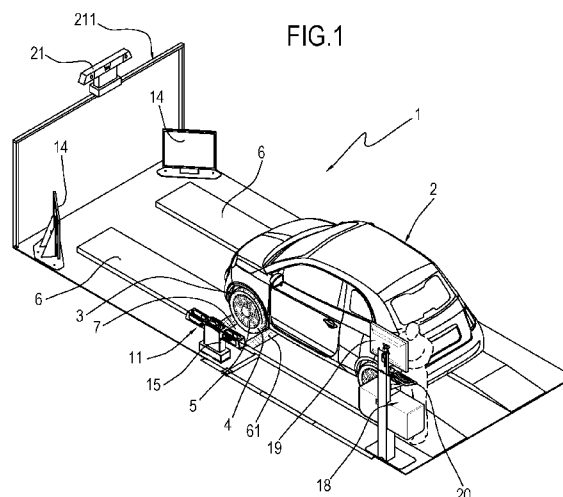
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(54) **Title:** APPARATUS AND METHOD FOR DIAGNOSTIC ASSESSMENT OF THE SET-UP OF A VEHICLE THROUGH TRAJECTORY ESTIMATION



(57) **Abstract:** An apparatus (1) for diagnostic assessment of the set-up of a vehicle (2) comprises: two contact tracks (6) for tyres (4) of the vehicle (2) having two stretches adjacent to corresponding optical measuring devices (11), for detecting image information of a pair of front wheels (3) of the vehicle (2) resting on said stretches of the tracks (6) in a first operating position of the vehicle (2); a processing unit (18) programmed to process the image information and calculate a position in space of the front wheels (3) of the vehicle. The processing unit (18) implements a model of operation of a vehicle on the road, and is programmed to calculate: (i) an ideal trajectory of the vehicle (2) being assessed, depending on a type of vehicle set, the position of the front wheels (3) and the model; (ii) an actual trajectory followed by the vehicle (2) being assessed during a movement from the first operating position to a second operating position, in which the rear wheels (3) of the vehicle (2) rest on said stretches of the tracks (6), depending on the type of vehicle, the position detected for the front wheels (3) and further image information taken by a further optical measuring device (21) relating to at least one predetermined portion of the vehicle (2) and detected at least when it is in the second operating position. The processing unit (18) is programmed to derive diagnostic indications, depending on a deviation of said actual trajectory relative to said ideal trajectory.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 INV. G01B11/27 G01B11/275
 ADD.
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 G01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 895 056 A2 (CORGI SPA [IT]) 3 February 1999 (1999-02-03) paragraphs [0054] - [0059], [0061]; claims 1,6; figures 1-3 -----	1,10
A	WO 2009/056392 A1 (CORGI SPA [IT]; CORGI REMO [IT]) 7 May 2009 (2009-05-07) page 7, lines 1-5 page 9, line 3 - page 11, line 5; figure 6 -----	1,10
A	EP 2 302 318 A1 (CORGI SPA [IT]) 30 March 2011 (2011-03-30) cited in the application paragraphs [0075], [0085], [0086], [0089] - [0113]; figures 1,4 -----	1,10
A	US 6 219 134 B1 (VOELLER DAVID A [US] ET AL) 17 April 2001 (2001-04-17) column 5, lines 30-55; figures 1,1a-1c -----	1,10

Further documents are listed in the continuation of Box C.

See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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