

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte PETER DOMINKE, CHI-THUAN CAO,
WOLFGANG PFEIFFER, KLAUS-DIETER LEIMBACH,
WERNER HARTER, JENS HAERMALZ,
HELMUT KNOEDLER, WILFRIED LEUTNER,
JUERGEN SCHUELE and HERBERT LOHNER

Appeal No. 2006-0373
Application No. 10/181,625

HEARD: FEBRUARY 7, 2006

Before GARRIS, MCQUADE, and BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 24-27.

Claims 13-23 and 28-32 stand withdrawn from consideration pursuant to 37 CFR § 1.142(b) as being drawn to nonelected species.¹ No other claims are pending.

¹ The appellants' petition (dismissed in a decision mailed April 4, 2005) of the examiner's restriction requirement and withdrawal of claims 13-23 and 28-32 from consideration, referred to on page 3 of the brief, is not an appealable issue and is not within the jurisdiction of the Board of Patent Appeals and Interferences. See Manual of Patent Examining Procedure (MPEP) §§ 1002 and 1201 and In re

Mindick, 371 F.2d 892, 894, 152 USPQ 566, 568 (CCPA 1967).

BACKGROUND

The appellants' invention relates to a steer-by-wire system for a vehicle. A steer-by-wire system is one in which, in normal operation, there is no direct mechanical connection between the steering wheel and the steered wheels (appellants' specification, page 1). Instead, the steering applied to the steering wheel by the driver is detected by rotary angle sensors at the steering column and processed by a control unit which transmits control signals accordingly to a steering actuator acting on the steered wheels of the vehicle. A steering wheel actuator 9, having a rotor and a stator, provides feedback to the steering wheel 1 in the form of a moment to simulate the contact with the road for the driver (specification, page 1). Additionally, the steering system is provided with a braking device 10 acting on the steering column, said braking device being actuated as a function of the torque transmitted from the stator to the steering column (specification, page 3). The braking device serves as a steering stop and serves to block the steering wheel 1. Once the steering wheel has executed a plurality of revolutions in one direction the braking device 10 is activated and thus prevents further rotation of the steering wheel (specification, page 10). There are two embodiments of the braking device disclosed and illustrated in the present application. In the embodiment of Figures 4a-4c, the steering wheel actuator is integrated with the braking device and the torque transmitted by the steering wheel actuator to the steering column is used directly to actuate the braking device. In the embodiment of Figures 3a-

3c, the rotor and stator of the steering wheel actuator 9 are not integrated with the braking device. Instead, a separate actuating device 29, in the form of a lifting electromagnet 37 for lifting a cylindrical pin 31, is used to clamp the outer race 40 to the steering column to block the steering wheel. A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The Rejection

Claims 24-27 stand rejected under 35 U.S.C. § 112, first paragraph, because, according to the examiner, the specification, while being enabling for the two embodiments, does not reasonably provide enablement for a combination of both. It is thus the examiner's position that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (mailed February 25, 2005) for the examiner's complete reasoning in support of the rejection, and to the brief (filed December 6, 2004) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims and to the respective positions articulated by the appellants and the examiner. For the reasons which follow, we cannot sustain the examiner's rejection.

The basis of the examiner's rejection is that claims 24-27, which recite features directed specifically to the braking device of Figures 3a-3c, depend, directly or indirectly, from claims 13 and 14, which recite the rotor and stator of the steering wheel actuator 9, and thus also include the rotor and stator. The examiner's rejection appears to be grounded on a misunderstanding of the appellants' invention. In particular, the examiner seems to believe that appellants' specification fails to disclose an embodiment of the steer-by-wire braking system which includes both the rotor and stator and the braking device actuating device comprising a lifting magnet (the braking device of Figures 3a-3c).

The examiner's understanding of appellants' disclosed invention is incorrect. As explained above, the steering wheel actuator 9, which is part of appellants' steer-by-wire system, regardless of which embodiment of braking device 10 is used therein, comprises a rotor and a stator. In accordance with appellants' disclosure (specification, page 7, for example), the braking device 10 may be integrated with the steering wheel actuator 9, as in Figures 4a-4c, or comprise a separate actuating device, the lifting

magnet, as in Figures 3a-3c. Claims 24-27 are directed to the steer-by-wire system incorporating the braking device of Figures 3a-3c and the steering wheel actuator 9 including a rotor and stator, an invention which, as discussed above, is fully described in the appellants' specification so as to enable one of ordinary skill in the art to make and use the invention. Their dependence from claims 13 and 14 does not, as the examiner suggests, constitute a combination of the two different braking devices of Figures 3a-3c and Figures 4a-4c. Independent claims 13 and 14 recite the braking device generically and thus do not appear to be limited to either embodiment of braking device.

For the reasons discussed above, the examiner's rejection of claims 24-27 under the first paragraph of 35 U.S.C. § 112 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 24-27 under 35 U.S.C. § 112, first paragraph, is REVERSED.

REVERSED

BRADLEY R. GARRIS)
Administrative Patent Judge)
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) BOARD OF PATENT
JOHN P. MCQUADE) APPEALS
Administrative Patent Judge) AND
) INTERFERENCES
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APPEAL NO. 2006-0373

APPLICATION NO. 10/181,625

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DECISION: REVERSED

PREPARED: May 13, 2006

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