

The opinion in support of the decision being entered today  
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MOTOAKI KATAOKA, TOSHIKI MATSUMOTO,  
TSUTOMU TASHIRO, MAMORU MABUCHI,  
and MAMORU SAWADA

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Appeal 2007-1367  
Application 10/703,596  
Technology Center 3600

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Decided: June 28, 2007

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Before EDWARD C. KIMLIN, THOMAS A. WALTZ, and  
CATHERINE Q. TIMM, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-8. Claim 1 is illustrative:

1. A vehicle vibration control apparatus for controlling an engine and/or brake in response to an input indicative of at least one of the driver's operations of an accelerator, steering and brake, comprising:

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a vibration calculator which calculates, responsive to the input, a tire vibration due to a road surface reaction force, under-spring vibration of a suspension and on-spring vibration of a vehicle body caused by the input; and

a compensator which compensates said input in order to reduce the vibrations.

The Examiner relies upon the following reference in the rejection of the appealed claims:

Sugai US 6,182,001 B1 Jan. 30, 2001

Appellants' claimed invention is directed to a vehicle vibration control apparatus for controlling the vehicle's engine and/or brake in response to input from the driver of the vehicle, such as the driver's use of the accelerator, steering, or brake. The apparatus comprises a vibration calculator which calculates tire vibration, vibration of the suspension system, and on-spring vibration of a vehicle body. The apparatus also comprises a compensator for the input which reduces the vibrations.

Appealed claims 2, 4, and 8 stand rejected under 35 U.S.C. § 112, 2d ¶. In addition, all the appealed claims stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sugai.

We have thoroughly reviewed the respective positions advanced by Appellants and the Examiner. In so doing, we find ourselves in agreement with Appellants that the Examiner's § 112, 2d ¶, rejection is not well founded. However, we fully concur with the Examiner that the claimed subject matter is described by the Sugai reference within the meaning § 102.

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Accordingly, we will sustain the Examiner’s § 102 rejection for essentially those reasons expressed in the Answer.

We consider first the Examiner’s rejection under § 112, 2d ¶. It is the Examiner’s position that the claim language “giving priority,” “top priority,” “second priority,” and “lowest priority” is indefinite. The Examiner explains that “[w]hat is considered a priority to one person may not be a priority to another person” and that “[i]t is not clear from the claimed invention what all encompasses the model, thus one of ordinary skill in the art cannot ascertain the scope of the term ‘priority’” (Answer 3, penultimate para.).

It is well settled that claim language is not to be read in a vacuum but in light of the specification as it would be reasonably interpreted by one of ordinary skill in the art. *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). In the present case, as pointed out by Appellants, the Specification states that “the vibration which is felt most uncomfortable to the passenger is suppressed always with the highest priority, whereby a more comfortable ride is given” (Specification 7:9-12). Also, the Specification discloses that the vibration calculation means include a tire model, a suspension model, and a vehicle body model, and that the compensations to reduce vibrations in the models are such that priority is given to the vehicle body model (Specification 6:6-13). Accordingly, based on these specific Specification disclosures, we are satisfied that one of ordinary skill in the art

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can reasonably understand the meaning attributed to the criticized claim language directed to the priorities given to the vibration compensator.

We now turn to the Examiner’s § 102 rejection of all the appealed claims over Sugai. Sugai, like Appellants, discloses an apparatus or system for diagnosing faults, such as unwanted vibrations, in the dynamic system of a vehicle which includes vibrations in the tire, suspension system, vehicle body, etc. Also, it is clear that the apparatus of Sugai gives priority to reducing “unpleasant vibration felt by the driver or a variation in vehicle behavior by continuously controlling a hydraulic braking pressure in a smooth manner” (col. 5, ll. 4-7). The reference describes that the anti-lock brake controller is responsive to the detection of wheel speed and vibration of the wheel (*see col. 23, ll. 4 et seq.*). The reference system also includes a memory section 40 for stored reference values for various components of the vehicle (col. 7, ll. 21 *et seq.*). The reference further explains that the “dynamic system diagnostic apparatus can also be applied to the diagnosis of the state of components around a tire (e.g., the damping force of a damper used in the suspension system, the eccentric state of a tire, the state of a wheel, the wear of the tire, and foreign objects cut into the tire” (col. 21, ll. 29-34). As for Appellants’ tire, suspension, and vehicle body models of the vibration calculator, the Examiner properly points to the reference at col. 27, ll. 56 *et seq.* for the tire model; col. 29, ll. 14-20 for the suspension model; and col. 41, penultimate para. for the vehicle body model.

Accordingly, based on the Examiner's factual findings with respect to the Sugai disclosure, we find that the Examiner has established that the Sugai apparatus is fully capable of performing the claimed functions for reducing uncomfortable vibrations imparted to the driver of a vehicle by compensating for vibrations from the tire, suspension, and vehicle body resulting from input from the driver, including manipulating the accelerator, steering column, and brake.

Appellants maintain that, as a result of the claimed apparatus which compensates for driver input in order to reduce calculated vibrations, "the brake can be controlled in response to the compensated input" (Br. 6, last sentence). Appellants then state that "[o]n the other hand, Sugai teaches an anti-lock brake controller and a braking pressure controller [wherein] an ABS system controls an anti-lock braking operation on the basis of variations in the resonance characteristics of a braking pressure" (Br. 7, first para.). However, we do not understand how this acknowledged feature of Sugai's apparatus does not meet Appellants' function of controlling the brake in response to the compensated input. Manifestly, the apparatus of Sugai compensates for any vibrations emanating from the braking system in response to the input of the driver, which includes acceleration, steering, and braking.

We also do not understand Appellants' argument that "Sugai does not reveal the calculation of tire vibration, under-spring vibration, and on-spring vibration" (Br. 7, last sentence). The portions of Sugai cited by the

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Examiner, as well as the entirety of the reference disclosure, teach the calculation and compensation for vibrations emanating from the tire/wheel assembly, suspension system, vehicle body, etc.

In our view, the Examiner has set forth the requisite factual basis for the conclusion that Sugai reasonably appears to disclose an apparatus or system that is fully capable of controlling and reducing the vibrations that are uncomfortable to the driver of the vehicle resulting from the driver's use of the accelerator, steering column, and braking system. Appellants, on the other hand, have failed to point to any particular structural distinction between apparatus within the broad scope of the appealed claims and apparatus fairly described by Sugai.

Appellants' separate arguments for the dependent claims have been adequately addressed by the Examiner. For instance, regarding the claim 7 recitation that the compensator reduces the displacement of a head position of a passenger, we agree with the Examiner that the apparatus of Sugai, which objective is to reduce the unpleasant vibrations felt by the driver, would necessarily also reduce the displacement of a passenger's head position.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

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