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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS SVENSSON

Appeal 2018-008829
Application 15/151,628
Technology Center 3600

Before STEFAN STAICOVICI, BRETT C. MARTIN, and
WILLIAM A. CAPP, *Administrative Patent Judges*.

MARTIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–19. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Ford Global Technologies, LLC. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed “to a method for limiting brake pressure to a predetermined pressure value.” Spec. ¶ 3. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method of operating a vehicle brake system comprising:
 - generating a hydraulic brake pressure;
 - providing a plurality of brake cylinders, each cylinder associated with a wheel;
 - obtaining an estimated brake pressure for each wheel resulting in wheel lock;
 - determining a pressure limit based on a maximum of the estimated brake pressure for each wheel; and
 - continuously maintaining the hydraulic brake pressure at a constant margin above the pressure limit.

REFERENCE

The prior art relied upon by the Examiner is:

Name	Reference	Date
O’Dea	US 6,964,460 B2	Nov. 15, 2005
Bohn	US 2013/0080016 A1	Mar. 28, 2013

REJECTIONS

Claims 9–17 stand rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Bohn. Final Act. 2.

Claim 18 stands rejected under 35 U.S.C. § 102(a)(1) as being anticipated by O’Dea. Final Act. 3.

Claims 1–8, 18, and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bohn and O’Dea. Final Act. 4.

OPINION
Anticipation

Bohn

Claim 9

The Examiner rejects claim 9 as anticipated by Bohn. The Examiner maintains the rejection over Bohn by asserting that the term “always” is clouded by certain statements in the Specification and thus does not actually require pressure “always” to be maintained above the limit, that is, at all times, because “during break operations hydraulic pressure values change rapidly . . . [that] are still interpreted as being within the definition of ‘always’.”, Ans. 3. The Examiner refers to paragraph 19 of the Specification, which states “[i]f the brake pressure exceeds the pressure limit value, in step 20, the brake pressure is reduced to the brake pressure limit value.” *Id.* It is undisputed that Bohn teaches a time period 117 where the brake pressure is reduced to zero and then is increased back to the pressure limit value. *See* Bohn, Fig. 2. The only issue here is whether the Specification allows such a reduction to zero to fall within a claim limitation requiring the pressure to “always” be above the limit value.

The Examiner is reading the cited portion of paragraph 19 out of context. The Specification make clear in paragraphs 17 and 18 that the limit value includes a margin of 10 to 25 bar above the highest brake pressure required at each wheel. When, in paragraph 19, the Specification discusses reducing the pressure to the brake pressure limit value, the resulting brake pressure still includes the margin above the highest brake pressure required at each wheel. So, even when if the brake pressure is reduced, because it is maintained above what is necessary at each wheel due to the included margin, the brake pressure “always exceeds the estimated brake pressure

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limit of each wheel,” as recited by claim 9. Given that Bohn clearly reduces pressure to zero, it cannot teach “always” maintaining pressure above the limit value. Accordingly, we do not sustain the Examiner’s rejection of claims 9–17.

O’Dea

Claim 18

Regarding claim 18, the Examiner asserts that “a maximum brake pressure is estimated when a first slip threshold is exceeded.” Ans. 5. As Appellant points out, however, O’Dea “does not disclose estimating a brake pressure for each wheel.” Reply Br. 3. Rather, O’Dea “discloses adjusting the brake pressure based in part on the slip status of each respective wheel, not a pressure limit.” Reply Br. 4. In other words, although O’Dea adjusts pressure, it never measures a maximum of the estimated brake pressure for each wheel and only adjusts pressure based on slip. O’Dea is, thus, concerned only with an added pressure not with any estimate of the level of pressure before additional pressure is added. Accordingly, we do not sustain the rejection of claim 18.

Obviousness

As noted above with regard to claim 9, Bohn discloses a time interval 117 where the pressure subsides to zero. *See* Bohn, Fig. 2. In contrast, claim 1 requires “*continuously* maintaining brake pressure at a constant margin above the pressure limit.” *See* Appeal Br. 27 (Claims App.) (emphasis added). As such, Bohn is deficient for at least this limitation.

As to O’Dea, as noted above with regard to claim 18, O’Dea does not measure a pressure limit at all, but merely adjusts pressure based on measured slip. As such, O’Dea cannot “continuously” maintain pressure at a margin above a level that it does not measure in the first place. Accordingly,

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because this limitation of continuously maintaining pressure at a margin above the pressure limit is found in neither Bohn nor O’Dea, we do not sustain the obviousness rejection.

CONCLUSION

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
9–17	102	Bohn		9–17
18	102	O’Dea		18
1–8, 18, 19	103	Bohn and O’Dea		1–8, 18, 19
Overall Outcome:	1–19			1–19

REVERSED