

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* MICHAEL KUHN

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Appeal 2007-1215  
Application 10/702,724  
Technology Center 3600

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Decided: June 19, 2007

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Before EDWARD C. KIMLIN, CHARLES F. WARREN, and  
PETER F. KRATZ, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, 6-9, and 11-14. Claim 1 is illustrative:

1. A hydropneumatic suspension, comprising:

at least one suspension cylinder; at least one suspension accumulator;  
a controllable, proportional and pilot-actuated valve connecting said cylinder and said accumulator and being movable between an open position providing fluid communication therethrough and a closed position blocking fluid communication therethrough, said pilot-actuated valve being movable

Appeal 2007-1215  
Application 10/702,724

to the closed position by a hydraulically operated control having a switching valve, said hydraulically operated control tapping fluid pressure from between said accumulator and said cylinder and relaying that fluid pressure through said switching valve to an actuation side of said pilot-actuated valve;

a reset spring on a reset side of said pilot-actuated valve biasing said pilot-actuated valve toward said open position thereof, forming a neutral position thereof; and

a connecting line providing fluid communication between said reset side and a tank connection.

The Examiner relies upon the following references as evidence of obviousness:

Runkel	US 5,246,247	Sep. 21, 1993
Brandenburger (DE '448)	DE 4,242,448 C1	Mar. 31, 1994
Wallestad	US 6,578,855 B2	Jun. 17, 2003
Stanfield	US 6,641,155 B2	Nov. 4, 2003
Sorum	US 6,669,217 B2	Dec. 30, 2003

Appellant's claimed invention is directed to a hydropneumatic suspension comprising a suspension cylinder, a suspension accumulator, and a controllable, proportional, and pilot-actuated valve which connects the cylinder and the accumulator. When the pilot-actuated valve is in the open position it provides fluid communication between the suspension cylinder and the suspension accumulator. The pilot-actuated valve is movable to a closed position by a hydraulically operated control having a switching valve, and the control taps fluid pressure from between the accumulator and the cylinder and relays that fluid pressure through the switching valve to the actuation side of the pilot-actuated valve.

Appeal 2007-1215  
Application 10/702,724

Appealed claims 1, 2, 6, 8, 9, 11, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallestad in view of DE ‘448 (we rely on the English translation). Claim 7 stands rejected under § 103(a) as being unpatentable over the stated combination of references further in view of Sorum, whereas claims 12 and 13 stand rejected under § 103 over the stated combination of references further in view of Stanfield.

Appellant does not set forth separate, substantive arguments for any particular claim on appeal, although various recitations of appealed claims are referred to at pages 10-12 of the principal Brief. Accordingly, all the appealed claims stand or fall together with claim 1, and we will limit our consideration to the Examiner’s rejection of claim 1 over Wallestad in view of DE ‘448.

We have thoroughly reviewed each of Appellant’s arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner’s rejections for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

At the outset, we note that there is a distinction in the arrangement of components in the hydropneumatic suspension depicted in Appellant’s Figure 1 and the figure of Wallestad. However, as explained by the Examiner, such distinction is not reflected in the breadth of claim 1 on

appeal. As a result, Appellant's arguments are not germane to subject matter within the scope of the appealed claims.

Appellant contends that:

Claim 1 is patentably distinguishable over the Wallestad and DE patents by the hydraulic control using fluid pressure directly from between the accumulator and the cylinder to move the pilot-actuated valve, in the form of a proportional valve, to its closed position against the bias of a reset spring. (Emphasis added.)

(Principal Br. 4, last sentence). However, as pointed out by the Examiner, appealed claim 1 does not require any such use of fluid pressure directly between the accumulator and the cylinder. Moreover, we find no error in the Examiner's reasoning that the node positioned above check valve 62 of Wallestad is, in fact, located between suspension cylinder 12 and accumulator 26. Also, we agree with the Examiner that the fluid pressure from pump 34 at the node above valve 62 is relayed through the switching valve 68 to the actuation side of pilot actuated valve 28. Although Appellant further argues that "the Wallestad patent indicates that the pressure from pump 34 is used for the pilot pressure for valve 28 and not the pressure between accumulator 26 and cylinder 12" (principal Br. 6, second para.), we note that pump 34 is also between the cylinder and the accumulator and, as explained by the Examiner, provides the fluid pressure that is tapped at the node above valve 62.

Appellant sets forth certain differences between the claimed suspension system and the one set forth in DE '448. However, we concur

Appeal 2007-1215  
Application 10/702,724

with the Examiner that DE ‘448 simply provides additional evidence that it would have been obvious for one of ordinary skill in the art to tap the fluid pressure of Wallestad’s system in any of a number of locations “dependent upon such well[-]known factors as specific vehicle undercarriage design limitations or spatial constraints etc.” (Answer 5, first para.).

As noted above, Appellant does not provide different arguments against the § 103 rejections citing Sorum and Stanfield.

As a final point, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the applied prior art.

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

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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