

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte LAWRENCE P. WAGLE, DALE KWASNIEWSKI  
and JAMES F. ZIECH

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Appeal No. 2004-1378  
Application No. 09/761,724

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ON BRIEF

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Before KIMLIN, WARREN and DELMENDO, Administrative Patent Judges.  
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, 5, 6, 9 and 11. Claims 8, 10 and 12 have been allowed by the examiner. Claim 7, the other claim remaining in the present application, has been withdrawn from consideration as being directed to a non-elected species. Claim 11 is illustrative:

11. An inter-axle differential assembly for a vehicular power transmission unit provided with a supply of lubricant; said inter-axle differential assembly comprising:

a differential input shaft;

a differential output shaft;

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a first side gear and a second side gear arranged coaxially relative to said input shaft and rotatable relative to said differential input shaft;

said first side gear including a sleeve portion receiving said output shaft for drivingly coupling thereto;

a differential spider drivingly connected to said input shaft and provided with a plurality of pinion gears rotatably mounted to said differential spider and drivingly engaging said first side gear and said second side gear to allow differential rotation thereof;

a dedicated reversible gerotor lubrication pump for lubricating components of said differential assembly, said lubrication pump mounted within said sleeve portion of said first side gear;

said reversible gerotor lubrication pump including a rotor drivingly coupled to said input shaft and an impeller coupled to said first side gear, wherein said pump generates lubrication flow whenever differential action between said differential input shaft and said first side gear occurs;

a hydraulic fluid suction passage providing an inlet fluid communication passage between said supply of lubricant and an inlet port of said lubrication pump including an inlet passage formed in said sleeve portion of said first side gear; and

a gallery of fluid passages supplying said lubricant for lubricating said components of said inter-axle differential assembly; said gallery of fluid passages fluidly connected to an outlet port of said lubrication pump.

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

Kwasniewski	5,302,158	Apr. 12, 1994
Dick	5,916,052	Jun. 29, 1999
Ozaki et al. (JP '712) (Japanese Kokai patent application)	Hei 6-193712	Jul. 15, 1994

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Appellants' claimed invention is directed to an inter-axle differential assembly for a vehicular power transmission unit. The assembly includes a lubrication pump which provides flow of lubricant only during the differential action between the input and output shafts. The lubrication pump of the present invention is a gerotor pump that includes a rotor drivingly coupled to the input shaft and an impeller coupled to a first side gear.

Appealed claims 1, 2, 5, 6, 9 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '712 in view of Kwasniewski and Dick.<sup>1</sup>

Although appellants have set forth three groups of claims at page 5 of the Brief, the examiner has properly held that all the appealed claims stand or fall together with claim 11. As explained by the examiner, the Argument section of appellants' Brief fails to set forth an argument that is reasonably specific to any particular claim on appeal. Also, we note that appellants have not contested the examiner's holding.

We have thoroughly reviewed each of appellants' 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

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<sup>1</sup> The examiner has withdrawn the rejection of claims 1 and 2 over Plantan (see page 3 of Answer, second paragraph).

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§ 103 in view of the applied prior art. Since we fully concur with the examiner's reasoning underlying the rejection and the cogent disposition of the arguments raised by appellants, we will adopt the examiner's reasoning as our own in sustaining the rejection of record. We add the following for emphasis only.

Appellants do not dispute the examiner's factual determination that JP '712 discloses all the features of the claimed assembly for a vehicular power transmission unit with the exception of the claimed requirement that the lubrication pump be a gerotor pump. Also, appellants have not refuted the examiner's rationale with respect to the motivation for one of ordinary skill in the art for substituting a gerotor pump for the axial-piston pump of JP '712, namely, "one of ordinary skill in the art would have recognized that a gerotor pump is of simpler construction than an axial-piston pump in that it only requires two relatively rotating pumping members," along with the "[i]ncidental benefits associated with a construction with fewer parts [which] include: lower cost for the components, lower assembly cost, and less likelihood of failure of any one component" (page 6 of Answer, second paragraph).

The principal argument advanced by appellants is that the prior art must suggest the desirability for combining their

disclosed features, and "[t]he prior art references cited by the Examiner fail to disclose or suggest the desirability of replacing the axial-piston lubricating pump of JP '712 with the gerotor lubricating pump of Kwasniewski or Dick" (page 8 of Brief, penultimate paragraph).<sup>2</sup> However, to the extent it is appellants' argument that the prior art must expressly suggest the desirability of combining the features of the references, it is well settled that such an express teaching is not necessary for a finding of obviousness under § 103. Rather, it is axiomatic that a conclusion of obviousness may be drawn from what the collective teachings of the prior art would have suggested to one of ordinary skill in the art. In re Keller, 642 F.2d 413, 426, 208 USPQ 871, 882 (CCPA 1981). The collective teachings of the prior art need only establish, as we find here, a reasonable expectation of success, not an absolute predictability of such. In re O'Farrell, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness

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<sup>2</sup> Appellants advance no argument why it would have been nonobvious to use a gerotor pump in the assembly of JP '712.

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established by the examiner. Indeed, as noted by the examiner, appellants' specification attaches no criticality to the particular lubrication pump used (see page 11 of specification, lines 8-11). Appellants' preference for a gerotor pump would seem to allay any suggestion of criticality.

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 CFR § 1.136(a).

AFFIRMED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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	)	
CHARLES F. WARREN	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
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	)	
	)	
ROMULO H. DELMENDO	)	
Administrative Patent Judge	)	

ECK:clm

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