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Paper No. 71

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

THOMAS A. **GENISE**, RONALD K. MARKYVECH
and JAMES R. McREYNOLDS
Junior Party
(Application 09/289,390)

v.

THOMAS **DESAUTELS**, EDWARD M. BACON
and STEVE M. WEISMAN
Senior Party,
(Patent No. 5,573,477)

Patent Interference No. 104,835

Before LEE, MEDLEY and TIERNEY, Administrative Patent Judges.

LEE, Administrative Patent Judge.

Decision on Preliminary Motions

Introduction

On April 17, 2003, we heard oral argument on junior party Genise's preliminary motions 1, 2, 3, and 4, and senior party Desautels' preliminary motion 1. Upon conclusion of that oral argument and just prior to our making a bench ruling on all motions, counsel for Genise (1) withdrew its preliminary motion 4 which asserted unenforceability of Desautels' involved patent based on "alleged" inequitable conduct, and (2) partially withdrew its preliminary motion

Interference No. 104,835
Genise v. Desautels

1 to designate claims 5, 6, 8, 12, 14 and 16 of Desautels as corresponding to the count, insofar as claim 5 of Desautels was concerned. We then proceeded, at oral argument, to rule as follows:

(1) Genise's preliminary motion 1, modified so as to be directed only to claims 6, 8, 12, 14 and 16 of Desautels, was granted; (2) Genise's preliminary motion 2 was denied; (3) Genise's preliminary motion 3, alleging unpatentability of Desautels' claims based on prior art, was dismissed insofar as it was directed to claim 5 of Desautels, and otherwise denied; and (4) Desautels' preliminary motion 1 was granted. Counsel for the parties were advised that a written opinion in support of the bench ruling would follow within a month or two.

This is our written decision, re-stating the bench ruling, and our opinion in support of the decision.

Genise's Preliminary Motion 1, as modified at oral argument to exclude the assertions against claim 5 of Desautels, is **granted**.

Genise's Preliminary Motion 2 is **denied**.

Genise's Preliminary Motion 3 is **dismissed** insofar as it is directed to claim 5 of Desautels, and otherwise **denied**.

Desautels' Preliminary Motion 1 is **granted**.

Background

1. This interference was declared on April 26, 2002.
2. Junior party Genise is involved in this interference on the basis of its application 09/289,390.

Interference No. 104,835
Genise v. Desautels

3. Senior party Desautels is involved in this interference on the basis of its Patent No. 5,573,477.
4. There is a single count in this interference, i.e., Count 1.
5. Count 1 is defined as claim 1 or claim 11 of Desautels' Patent 5,573,477 or claim 35 or claim 43 of Genise's Application 09/289,390.
6. At the time of declaration of this interference, Genise's claims 35-38, 41-43, 45, 47 and 49 were designated as corresponding to the count.
7. At the time of declaration of this interference, Desautels' claims 1-4, 7, 9-11, 13 and 15 were designated as corresponding to the count.
8. Genise's involved application was filed on April 12, 1999, and was accorded, with respect to the count of the interference, benefit of application 08/666,164, filed June 19, 1996, and benefit of application 08/649,830, filed April 30, 1996, which issued as Patent No. 5,735,771.
9. Desautels' involved patent is based on application 08/508,155, filed July 27, 1995.
10. The subject matter at issue in this interference concerns a vehicle drive and a method of operating a vehicle drive, which determines a zero torque parameter value and operates the vehicle engine to achieve the zero torque parameter value. In the case of the method the parameter is fuel. An input exists for the vehicle operator to signal a desire or request to eliminate torque.

11. The significance of the zero torque parameter value is that when the value is achieved, the transmission of the motor vehicle is free to be shifted to neutral without engagement of a clutch.

12. Independent claim 1 of Desautels reads as follows:

1. A vehicle drive comprising:

an engine having an output shaft;

a transmission selectively connected to said engine output shaft, said transmission having several selectively actuated speed ratios, said transmission having a transmission output shaft, said selected speed ratios controlling the ratio of the input speed from said engine output shaft to the output speed of said transmission output shaft; and

an engine control to control a parameter of said engine, said engine control including an operator input to allow an operator to signal a desire to eliminate torque between said engine output shaft and said transmission output shaft, said operator signal requesting said engine control determine a zero torque parameter value for said engine output shaft that approximates a zero torque load on the connection between said engine and said transmission, and said engine control being operable to control said engine to achieve said zero torque parameter value.

13. Independent claim 11 of Desautels reads as follows:

11. A method of operating a vehicle drive comprising the steps of:

a. providing an engine, an engine fuel control, a transmission driven by an output shaft of said engine, said transmission being provided with several selectively actuated speed ratios, and an operator input switch to indicate a desire to eliminate torque on said transmission and allow the operator to move said transmission to begin a speed ratio shift;

Interference No. 104,835
Genise v. Desautels

- b. indicating a desire to eliminate torque by actuating said input switch;
- c. determining a zero torque fuel to reduce the torque load between said engine and said transmission;
- d. modifying said engine fueling by said controller to achieve said zero torque fuel value; and
- e. manually moving said transmission out of engagement to a neutral position.

14. The parties have stipulated to the level of ordinary skill in the art, i.e., a person having at least an undergraduate degree in mechanical engineering and between 3-5 years of practical experience with vehicle drive systems. (Exhibit 1007, ¶ 4)

Discussion

A. Genise's preliminary Motion 1

By this preliminary motion, Genise seeks to have claims 5, 6, 8, 12, 14 and 16 of Desautels designated as corresponding to the count. However, that aspect of this motion as directed to claim 5 of Desautels was withdrawn by counsel for Genise at oral argument on April 17, 2003. The explanation provided by Genise with regard to why claims 6, 8, 12, 14 and 16 of Desautels should be designated as corresponding to the count appears rational and sufficient, and party Desautels also does not oppose the designation of its claims 6, 8, 12, 14 and 16 as corresponding to the count.

Accordingly, Genise's preliminary motion 1, as modified at oral argument to withdraw that aspect of the motion as directed to claim 5 of Desautels, is **granted**.

Interference No. 104,835
Genise v. Desautels

B. Genise's Preliminary Motion 2

In this preliminary motion, Genise asserts that claims 1-4, 7, 9-11, 13 and 15 of Desautels are unpatentable over prior art. Specifically, Genise asserts that claims 1-3, 9-11, 13 and 15 of Desautels are each anticipated by Patent No. 4,593,580 ("Schulze" Exhibit 2004), and that claims 4 and 7 of Desautels are unpatentable for obviousness over the combined teachings of Schulze and Patent No. 4,850,236 ("Braun" Exhibit 2005). Claim 4 depends directly from claim 3 and claim 7 depends indirectly from claim 3. Claim 3, on the other hand, depends from claim 1. Accordingly, each of claims 4 and 7 includes all the recited features of claim 1. 35 U.S.C. § 112, fourth paragraph.

Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. In re Spada, 911 F.2d 705, 707, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed.Cir. 1984). See also In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Anticipation can be found when a claim feature at issue is inherent or otherwise implicit in the pertinent reference. Standard Havens Products v. Gencor Industries, 953 F.2d 1360, 1369, 21 USPQ2d 1321, 1328 (Fed. Cir. 1991). The prior art reference must either expressly or inherently describe each and every limitation in a claim. Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987).

Interference No. 104,835
Genise v. Desautels

Genise appears to have the wrong idea as to what constitutes anticipation. On page 13 of its motion, Genise states that “[e]ven if a reference does not explicitly teach every element of a claim, it nonetheless anticipates that claim if it discloses the claimed invention ‘such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention.’” To the extent that Genise adopts some kind of an obvious-to-combine notion for determining anticipation under 35 U.S.C. § 102, that is improper. At issue is what one with ordinary skill in the art would understand as the subject matter disclosed, not what one with ordinary skill in the art may assemble or put-together based on that disclosure. Genise cites to In re Graves, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 1362 (1996), indicating that Graves cites, in turn, to In re LeGrice, 301 F.2d 929, 133 USPQ 365 (CCPA 1962) and In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). But the reliance on LeGrice and Donohue is misplaced. What was being discussed in those cases concerns the principle that a prior art reference cannot anticipate a claimed invention if its disclosure is not “enabling” as to what was being taught, and a judicially imposed requirement that aside from describing what is being claimed, an anticipatory reference must also “enable” one with ordinary skill to possess the invention from the perspective of making and using it. That an anticipatory prior art reference’s disclosure must be enabling as to the claimed invention does not dispense with the fundamental requirement that the claimed invention must first be described in the prior art reference.

As for the case In re Graves, supra, it appears to support Genise’s position by stating as follows:

Interference No. 104,835
Genise v. Desautels

Even assuming, however, that the dissent's construction of claim 4 is correct, Rockwell nevertheless anticipates claim 4, even if it does not specifically disclose simultaneous monitoring of the output points, if simultaneous or parallel monitoring is within the knowledge of a skilled artisan. [Citations to In re LeGrice and In re Donohue omitted.]

It is evident that the above-quoted portion of In re Graves constitutes only dicta and thus is not controlling. Moreover, to the extent that In re Graves approves the idea of going beyond the four corners of an anticipatory reference as would be understood by one with ordinary skill in the art, that is contrary to a plethora of precedent already identified above. Note also Glaxo, Inc. v. Novopharm, Ltd., 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir. 1995), which states that a claim is anticipated only when a single prior art reference discloses each and every limitation of the claim and that the disclosure need not be express but may anticipate by inherency where it would be appreciated by one with ordinary skill in the art. In that context, the "appreciation" refers to that which is inherently described in the reference, not something in addition thereto.

In the context of independent claim 11 of Desautels, we focus on these two recited steps (emphasis added):

determining a zero torque fuel to reduce the torque load between said engine and said transmission;

modifying said engine fueling by said controller **to achieve said zero torque fuel value;**

In the context of independent claim 1 of Desautels, we focus on the following feature (emphasis added):

[said operator signal requesting] engine control [to] **determine a zero torque parameter value** for said engine output shaft that approximates a zero torque load on the connection between said engine and said transmission, and said engine control being operable to control said engine **to achieve said zero torque parameter value.**

Each of Desautels' involved claims, whether it is in the chain of dependence from independent claim 1 or independent claim 11, requires that the zero torque parameter value (in the case of claim 1) or the zero torque fuel (in the case of claim 11) be determined and then achieved by engine control. The sequential order of first determining the value and then achieving that value is not explicit, but implied by the clear reference in claim 1 and claim 11, in connection with that which is to be achieved, to "said zero torque parameter value" (in the case of claim 1) and "said zero torque fuel value" (in the case of claim 11). The only antecedent basis in both claims for the referenced "said" zero torque parameter or fuel value is the determined zero torque value. A relationship exists between what is determined and what is to be achieved. In that sense, because the determination of zero torque value is performed in advance, or before hand, it is a prediction as is described in the specification of the Desautels patent. A contrary reading would be unreasonably broad and also inconsistent with Desautels' specification.

In column 4, lines 20-27, the Desautels specification describes as inefficient, impractical, and taking a long time, prior art which attempted to measure the torque load actually being applied in order to achieve a zero torque load, and states in contrast to the prior art that the present invention achieves torque elimination by predicting what an actual zero torque engine

Interference No. 104,835
Genise v. Desautels

parameter should be and then achieving that predicted zero torque engine parameter. In column 4, lines 28-33, the Desautels specification states:

The predicted zero torque value is calculated based upon several vehicle operation variables weighted by constants. The determination of the constants can be achieved by real world testing of the particular model that is to incorporate the electronic control unit, and could vary with the engine transmission or other system components.

Note also Figure 2 in Desautels' specification. In Figure 2, the solid horizontal line in the graph depicts the predicted zero load value and the dashed horizontal line depicts the actual zero load. It is evident from the figure that the actual zero load is not necessarily the same as the predicted zero load value. Much depends on the effectiveness of the formula for making the prediction.

It is evident that in the context of the Desautels specification, measuring the actual torque does not constitute determining the zero torque value and then achieving it. Indeed, it is for overcoming the difficulties in measuring the actual torque that Desautels has proposed instead to "predict" the zero torque value by calculations based on system parameters instead of actually measuring the zero torque value. In that regard, note the discussion of prior art contained in column 1, lines 58-64.

We have carefully reviewed the summary of invention portion of Desautels' specification. Nothing therein indicates that the invention of Desautels is anything other than first determining what the zero torque value is anticipated to be and then moving toward or achieving that predicted value, subject to the option of some "dithering" or in the vicinity of the predicted value. It would not be consistent with Desautels' specification to read claims 1 and 11 of Desautels as

Interference No. 104,835
Genise v. Desautels

not requiring that the zero torque parameter value to be achieved be the zero torque parameter value that has been determined or predicted in advance.

With regard to the claim feature of determining the zero torque value and then achieving it, Genise states on page 19 of its motion the following two sentences:

In response to the operator input in the Schulze system, as detected by sensor 32, the engine control determines a zero torque value to achieve zero torque load between the engine and transmission. [EX 2003, col. 2, lines 44-48].

In Schulze, the engine power control is adjusted via the control motor 2 so that a zero torque value is achieved and the operator can disengage the gear. [EX 2003, col. 2, lines 44-52].

We have reviewed the cited portion of Schulze and do not find any teaching therein about determining the zero torque value in the sense of anticipating what it is ahead of time or in advance and then achieving it once it has been determined. The entirety of that portion of Schulze cited by Genise to meet this claim feature, i.e., column 2, lines 44-52, is reproduced below:

[the] power control element is first adjusted through the control motor 2 in a manner whereby the actual driving torque of the engine Md_{actual} becomes zero, so that neither a positive (tractive) or negative (braking) torque of the engine is present. In this condition, since the desired speed still coincides with the actual speed of the engine, the engaged gear of the multiple gear ratio transmission can be disengaged smoothly and noiselessly. (Emphasis added.)

The description cited by Genise specifies that the power control element is adjusted in a manner whereby the actual driving torque of the engine Md_{actual} becomes zero. But just how the adjustment takes place is not explained in the above-quoted text. Nor has that matter been explained, much less demonstrated, by Genise in its preliminary motion 2. Is the adjustment

Interference No. 104,835
Genise v. Desautels

made by first determining a zero torque value ahead of time and then achieving that already determined value, or is it not? Is the engine control adjusted continuously at random, until the zero torque parameter value is achieved, or is it not? Genise does not explain. Genise assumes far too much from the several lines of generic disclosure it cites. Genise does not cite to any other portion of the specification of Schulze to indicate specifically just how the adjustment to actual zero torque is accomplished. On page 9 of its brief, in ¶ 17, Genise indicates, with respect to Schulze, only that a sensor 32 is triggered which causes the control motor 2 to adjust the power control element such that the engine torque becomes zero, without further detail. Genise also offers no explanation on why the adjustment could not be done in the manner described in the background portion of Desautels' involved patent as follows (column 1, lines 58-60), which requires no prediction or anticipation of the zero torque value in advance:

One prior system proposed achieving a zero torque load by measuring the actual torque, and controlling the engine to attempt to reach a zero torque load.

Genise must establish, by offering proof, that Schulze describes a system that determines ahead of time or "predicts" the zero torque parameter value, and not just assume that it does. Even if the theory is based on inherent disclosure, inherency must be established and explained, not assumed. Also, inherency may not be established by probabilities or possibilities, and the mere fact that a certain thing "may" result from a given set of circumstances is not sufficient to show inherent disclosure. Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268-69, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). Furthermore, in light of the indication in the specification of Desautels' involved

Interference No. 104,835
Genise v. Desautels

patent that zero torque can be reached by taking real measurements of the actual torque, with respect to which process predicting the zero torque represents an improvement, it is even more important that Genise explain its position that Schulze discloses predicting a zero torque parameter value. Note also that the several lines of Schulze cited by Genise refers to measuring the actual torque, something Desautels in its specification appears to look upon with disfavor and an eye for improvement by way of Desautels' disclosed invention. We cannot read the mind of party Genise. Neither can party Desautels. Whatever is the reasoning behind Genise's view that Schulze discloses determining the zero torque parameter value ahead of time, it has not been revealed by Genise's preliminary motion 2 in a meaningful manner.

The problem with Genise's motion is lack of persuasion. We do not rule out the possibility that the Schulze reference, if adequately explained, might be read as describing predicting or determining ahead of time a zero torque parameter value and then modifying the engine parameter to achieve the predicted or determined zero torque value. Genise simply has not satisfied its burden of proof. If Genise has a meaningful explanation of its position, and explained that rationale in its motion, perhaps Desautels has a complete answer and perhaps not. During oral argument, we gave counsel for Genise two opportunities to point out where in Genise's motion is there an explanation of how the Schulze reference meets the predicting feature, aside from the several lines Genise has identified in its motion. Each time, counsel for Genise was unable to come up with any meaningful and responsive answer.

We have read the affidavit of Dr. Edward M. Caulfield (Exhibit 2006), and recognize that ¶ 22 thereof states that all the features in claim 1 of Desautels' involved patent are described

Interference No. 104,835
Genise v. Desautels

“in the Abstract, and col. 2, lines 22-52 of Schulze,” and that ¶ 29 thereof states that all the features in claim 11 of Desautels’ involved patent are described “in the Abstract, and col. 2, lines 22-52 and col. 4, lines 19-50 of Schulze.” On page 23 of Genise’s motion, in lines 1-5, it is stated:

The above analysis and the reading of each claims 1-3, 9-11, 13 and 15 on the Schulze patent disclosure is confirmed by the Affidavit of Dr. Edward Caulfield [EX 2006] filed concurrently herewith. Dr. Caulfield is a technical expert in the vehicle drive field and confirms that Schulze ‘580 teaches each of the features recited in claims 1-3, 9-11, 13 and 15. [EX 2006, ¶ 21-24, 27-29 and 31-32].

To the extent that Dr. Caulfield’s testimony in ¶ 22 and ¶ 29 refers to portions of Schulze not already identified and discussed in Genise’s motion, Genise has attempted to incorporate arguments by reference, which is improper and prohibited. LeVeen v. Edwards, 57 USPQ2d 1406, 1412 (Bd. Pat. App. & Int. 2000)(Int. Tr. Sec. Precedential).

In any event, Genise’s shot-gun approach to reliance on evidence, as is reflected in the above-quoted text, is unhelpful. Genise does not adequately point out what evidence supports which argument or assertion in its motion. We decline to sort out and organize the evidence for Genise. Desautels, of course, is not obligated to sort out and organize the evidence for Genise. Genise does not even point out which paragraph of Dr. Caulfield’s testimony supports the assertions in Genise’s motion with regard to which claim, much less which paragraph of Dr. Caulfield’s testimony supports Genise’s argument with regard to any particular claim element. In summary, we are unpersuaded by Genise’s disorganized and non-specific reliance on evidence. Furthermore, we do not credit ¶ 22 and ¶ 29 of Dr. Caulfield’s affidavit with any

Interference No. 104,835
Genise v. Desautels

substantial level of persuasion, because the testimony is conclusory and lacks any meaningful analysis.

As the moving party, Genise bears the burden of proof by a preponderance of the evidence. 37 CFR § 1.637; see also Kubota v. Shibuya, 999 F.2d 517, 521, 27 USPQ2d 1418, 1421 (Fed. Cir. 1993). Genise may not rely on Desautels or the board to make its case. Without setting forth an explanation for its position, Genise deprives Desautels a meaningful opportunity to refute the position taken and leaves the board hanging and very much unpersuaded that Genise is entitled to the relief sought. It is not the role of Desautels as the opposing party or the board as the deciding tribunal to see how the collection of evidence in the record can be mustered or otherwise put together in some way to help party Genise prevail. Genise must, in its motion, direct us to the evidence and explain how the evidence helps to establish its position.

Claims 4 and 7 of Desautels both depend indirectly from claim 1. They each include all the recited features of claim 1. According to a heading in Genise's motion on page 23, claims 4 and 7 of Desautels would have been obvious over Schulze "and/or" the Braun patent. However, Genise's motion with regard to Desautels' claims 4 and 7 does not include any discussion which makes up for the deficiency of Schulze as explained above in connection with the features of claim 1 of Desautels. The Braun patent is relied on by Genise to meet the further claim feature expressly recited in dependent claim 4. The characterization of the obviousness ground of unpatentability as being based on Schulze "and/or" the Braun patent is inaccurate and misleading, because Genise's motion does not include any discussion of unpatentability based on the Braun patent alone. For example, it is Genise's assertion that claim 4 of Desautels would

Interference No. 104,835
Genise v. Desautels

have been obvious over the combined teachings of Schulze and the Braun patent (Motion on page 23, lines 8-11), and that claim 7 of Desautels would have been obvious over Schulze (Motion on page 25, lines 6-7).

On this record, Genise, has failed to make out a prima facie case that any of Desautels' claims 1-3, 9-11, 13 and 15 is anticipated by Schulze under 35 U.S.C. § 102, or that either Desautels' claim 4 or claim 7 would have been obvious under 35 U.S.C. § 103 over Schulze "and/or" the Braun patent. It is not necessary to consider either the opposition of Desautels or the reply of Genise.

For the foregoing reasons, Genise's preliminary motion 1 is **denied**.¹

C. Genise's Contingent Preliminary Motion 3

This preliminary motion is contingent upon the granting of Genise's preliminary motion 1, and asserts that claims 5, 6, 8, 12, 14 and 16 of Desautels are unpatentable over prior art.

Because Genise's preliminary motion 1 has been withdrawn with respect to claim 5 of Desautels, contingent preliminary motion 3 of Genise insofar as it is directed to claim 5 of Desautels, is herein **dismissed**.

According to Genise (Motion at 19-21), claims 6, 8 and 12 of Desautels are each anticipated by Schulze and thus unpatentable under 35 U.S.C. § 102(b). Also according to Genise (Motion at 21-23), claims 14 and 16 of Desautels are unpatentable under 35 U.S.C. § 103

¹ Under 37 CFR § 1.637(a), the prior art asserted by Genise against Desautels would be deemed applicable to Genise's own claims unless Genise in its motion explains why it does not. Genise provided no such explanation. However, because the motion against Desautels' claims is denied, we will not regard as unpatentable Genise's own claims.

Interference No. 104,835
Genise v. Desautels

as being obvious over Schulze “and/or” the Braun patent. On page 1 of its motion, in the Introduction section, Genise incorrectly indicates that its position in this motion is that claim 6 of Desautels would have been obvious over Schulze and the Braun patent. The detailed discussion portion of the motion beginning on page 19 makes clear, however, that Genise’s position with regard to claim 6 of Desautels is based on anticipation, not obviousness.

Genise’s anticipation analysis with respect to claims 6, 8 and 12 and obviousness analysis with respect to claims 14 and 16 omits discussion and explanation of the claim features recited in the claims on which these claims depend. Claim 6 depends from claim 3 which in turn depends from claim 1. Claim 8 depends from claim 1. Claim 12 depends from claim 11. Claim 14 depends from claim 13 which in turn depends from claim 11. Claim 16 depends from claim 15 which depends from claim 13 which depends from claim 11. Per 35 U.S.C. § 112, fourth paragraph, each dependent claim includes all of the features recited in the claim on which it depends. Consequently, Genise’s preliminary motion 3 is unpersuasive .

To the extent that Genise might be relying on the fact that it had filed preliminary motion 1 which alleged that claims 1, 3, 11, 13 and 15 are each anticipated by Schulze, note that the Standing Order in ¶ 13 specifically prohibits incorporation of arguments by reference. At the very least, Genise should have filed a miscellaneous motion to request leave to incorporate by reference the arguments it had made with respect to claims 1, 3, 11, 13 and 15 of Desautels in its preliminary motion 1. But it has not. In any event, we have denied Genise’s preliminary motion 1. None of Desautels’ claims 1, 3, 11, 13 and 15 has been shown to be anticipated by Schulze.

Interference No. 104,835
Genise v. Desautels

Accordingly, both procedurally and substantively, Genise's preliminary motion 3 insofar as it is directed to claims 6, 8, 12, 14 and 16 of Desautels, is without merit.

Genise's contingent preliminary motion 3, insofar as it is directed to claims 6, 8, 12, 14 and 16 of Desautels, is **denied**.

D. Desautels' Preliminary Motion 1

By this motion, senior party Desautels attacks the benefit already accorded junior party Genise to the April 30, 1996, filing date of application 08/649,830 ("the '830 application"). To be entitled to benefit of the filing date of an earlier application for purposes of a priority determination under 35 U.S.C. § 102(g), the specification of the earlier filed application must satisfy the requirements of 35 U.S.C. § 112, first paragraph, with respect to at least one embodiment within the scope of the count. Weil v. Fritz, 572 F.2d 856, 865-66 n.17, 196 USPQ 600, 608 n.17 (CCPA 1978); Hunt v. Treppschuh, 523 F.2d 1386, 1389, 187 USPQ 426, 429 (CCPA 1975). Here, because Desautels is attacking the benefit already accorded Genise, the burden is on Desautels to demonstrate that the '830 application's specification does not satisfy one or more requirements of 35 U.S.C. § 112, first paragraph, with respect to an embodiment falling within the scope of the count.

The count in this interference is claim 1 or claim 11 of Desautels, or claim 35 or claim 43 of Genise. All of these claims substantively require, in various literal form, determining a zero torque parameter or fuel value, and also achieving "said" zero torque parameter or fuel value. While claim 1 of Desautels and claim 35 of Genise broadly refer to a zero torque parameter value, claim 11 of Desautels and claim 43 of Genise refer to a zero torque fuel value. According

Interference No. 104,835
Genise v. Desautels

to Desautels, the specification of the '830 application does not provide an enabling disclosure, and also does not provide a written description, for this determining and achieving feature.

A dispute between the parties has arisen with respect to whether the count requires that the zero torque parameter or fuel value be determined first, and then achieved. In that regard, Desautels refers to claim 1 and claim 11 of Desautels (Motion at 11), and Genise refers to claim 11 of Desautels (Sur-Reply at 3). According to Genise, the following two steps in claim 11 of Desautels imposes no order and there is no evidence or inherent reason that step (c) is required to conclude or even begin before step (d):

- c. determining a zero torque fuel to reduce the torque load between said engine and said transmission;
- d. modifying said engine fueling by said controller to achieve said zero torque fuel value;

The parties have both framed this issue in the context of claim 11 of Desautels. Accordingly, that is the context in which we will address the issue. We reject Genise's position.

Although the wording of the claim does not expressly specify an order or sequence, it is implicit that the reference in step (d) to "said zero torque fuel value" refers back to the determined zero torque fuel in step (c). The only antecedent basis for the "said zero torque fuel value" reference resides in what has been determined in step (c). Prior to determining the zero torque fuel in step (c), there is no particular or specific value to achieve by way of step (d). Furthermore, the claim initially defines no general variable which is "a zero torque fuel value." The first time the term "a zero torque fuel" is mentioned in the claim it is already fixed and made certain in value by the determining step. Consequently, the reference "said zero torque fuel

Interference No. 104,835
Genise v. Desautels

value” reasonably refers only to the determined zero torque fuel value and not some other zero torque fuel value yet to be determined or ascertained. While it is true that steps recited in a method claim are not ordinarily construed as requiring an order in the sequence in which they appear in a claim, they would be if such an order is implicitly required by the context of the claim, as it is here.

Furthermore, note also our discussion of the specification of Desautels when addressing Genise’s preliminary motion 2. The summary of invention section of Desautels’ specification gives no indication that Desautels’ invention is anything other than first predicting or determining what the zero torque parameter value would be and then modifying the engine to move toward or achieve the predicted or determined value, subject to the possibility of limited dithering around the intended target. On this record, to say that no sequence or order is required by claim 11 for the determining and achieving steps would be unreasonably broad and also not consistent with the specification.

Desautels acknowledges that the question of enabling disclosure involves a determination of whether the specification would have enabled one of ordinary skill in the art, at the time the application was filed, to make and use the claimed invention without undue experimentation, citing Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986). A number of relevant factors for determining whether undue experimentation is required is identified in In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Desautels’ motion, however, fails to set forth and discuss how much experimentation would have been required for one with ordinary skill in the art, after reading the disclosure of the ‘830

Interference No. 104,835
Genise v. Desautels

application, to make and use an invention falling within the scope of the count and why that level of experimentation should be deemed undue. The need for some experimentation is not the point. The issue is whether an “undue” amount of experimentation would have been required. In that regard, the substance of Desautels’ motion is lacking.

Note that even if a specification does not have written description for a claimed invention, it does not necessarily follow that an undue amount of experimentation would have been required for one with ordinary skill in the art to make and use the claimed invention. It is possible that that which is not described may be easily figured out by one with ordinary skill in the art, without undue experimentation. Without any meaningful analysis in that regard, Desautels has not made out a prima facie case that the specification of the ‘830 application fails to enable even one embodiment of the invention within the scope of the count.

As for Desautels’ attack based on alleged lack of written description, the standard for determining the question of written description under 35 U.S.C. § 112, first paragraph, is whether the specification would convey to one with ordinary skill in the art that the inventors were, at the time of filing of the application, in possession of the subject matter at issue. Vas-Cath, Inc., 935 F.2d at 1563-64, 19 USPQ2d at 1117.

Desautels states (Motion at 13) that “the Genise ‘830 Application [Exhibit 1003] fails to even toss out the mere germ of an idea with respect to the determination of a zero torque parameter.” According to Desautels, Genise’s ‘830 application describes a different invention utilizing the “forced torque reversal” technique of the prior art rather than the first determine and then achieve feature of the count. On page 12 of its motion, Desautels states:

Interference No. 104,835
Genise v. Desautels

Instead of describing a technique for determining a zero torque parameter value for the engine based on system variables and then modifying the parameter to control torque, **Genise merely incorporated by reference, the prior art “forced torque reversal” technique of the Braun ‘236 patent [Exhibit 1004] and the Steeby ‘357 patent [Exhibit 1005]. [Emphasis added.]**

Note lines 22-30 of page 13 of the specification of Genise’s ‘830 application (Exhibit 1003):

Upon receiving the intent-to-shift signal (ITS), the controller 146 will issue commands to the engine controller 112 to relieve torque lock by fuel manipulations and to auxiliary section actuator 116 to preselect the required splitter shift. This will allow easy shifting from the engaged ratio (fourth) into neutral without operator throttle manipulation or clutch disengagement, as well as providing a rapid splitter shift. Engine manipulations to relieve torque lock without requiring clutch disengagement is described in greater detail in aforementioned U.S. Pats. No. 4,850,236 [Braun patent] and 5,105,357 [Steeby patent].

In a different part of the ‘830 application disclosure, i.e., page 2, lines 19-23, the disclosure of U.S. Patent Nos. 4,850,236 and 5,105,357 are incorporated by reference as follows:

At least partially automated systems wherein engine fuel control, such as engine dither, is utilized to cause non-torque-lock conditions for shifting into neutral without requiring master clutch manipulation are known in the prior art and are disclosed in U.S. Pats. No. 4,850,236 and 5,105,357, the disclosures of which are incorporated herein by reference.

Where the disclosure of Genise’s ‘830 application refers to the Braun patent 4,850,236, or to the Steeby patent 5,105,357, the referring language evidently does not mention anything about determining in advance a zero torque parameter value or subsequently modifying the engine parameter to achieve “said” determined zero-torque parameter value. Rather, the referring language talks only about (1) engine manipulations to relieve torque lock without requiring clutch disengagement, and (2) partially automated engine dithering to cause non-torque-lock conditions for shifting into neutral without requiring master clutch manipulation, neither of

Interference No. 104,835
Genise v. Desautels

which necessarily involves determining the zero torque parameter value ahead of time, in advance, and then modifying the engine control to achieve that previously determined value.

For instance, one could manipulate the engine controls or dither the engine parameter over a wide range of values, without focus or target. That cannot reasonably be regarded as determining in advance what the zero torque parameter value might be. Also, the count requires determining the zero torque parameter value and then modifying the engine parameter to achieve said value. Even if dithering in general is itself regarded as some kind of determination, there still would have to be a subsequent modifying step to move toward and achieve the determined value. Further assuming that the determining action and the modifying action are both described in the Braun 4,850,236 patent and/or the Steeby 5,105,357 patent, the language employed in Genise's '830 application to incorporate by reference those two patents is not sufficiently specific to bring that particular description into the disclosure of Genise's '830 application for purposes of analyzing the written description requirement under 35 U.S.C. § 112, first paragraph. In a proper incorporation by reference which is relied on for satisfying the written description requirement, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the incorporated documents. See Advanced Display Systems, Inc. v. Kent State University, 212 F.3d at 1282, 54 USPQ2d at 1679. Here, there is no such identification with detailed particularity. What exists in the host document, i.e., the specification of Genise's '830 application, is only a general reference to engine manipulation and a general reference to engine dithering to cause non-torque-lock conditions. Any detail beyond that has not been referenced.

In any event, neither the Braun 4,850,236 patent nor the Steeby 5,105,357 patent describes determining in advance a zero torque parameter value or modifying the engine parameter to achieve “said” zero torque value which is the determined zero torque value. As is pointed out in Desautels’ motion on pages 6-7:

13. The Braun ‘236 Patent [**Exhibit 1004**] teaches that:

“The controller causes the engine fuel supply to be increased and decreased, possibly repeatedly, while actuators urge the existing engaged ratio jaw clutch assembly toward disengagement, to create a torque break sufficient for disengagement.[.]” [**Exhibit 1004, Col. 3, lines 5-9**].

“During the forced torque reversal, there will be, for at least an instant, a break in torque transfer across clutch 82-88 allowing disengagement of same. This is sensed at step 5 where a decision is made to proceed with the control sequence only once this disengagement occurs.” [**Exhibit 1004, Col. 7, lines 33-38**]. [Emphasis in original.]

We have no reason to conclude that generally increasing and decreasing the engine fuel supply, possibly repeatedly, constitutes a determination of the zero torque parameter value, ahead of time, sufficient to meet the determining action required by the count, even if the zero torque parameter value is in fact reached at some time during the repetitive variations. The range can be so large that it is expected to encompass the zero torque value wherever it may be. That, however, cannot reasonably be regarded as a meaningful “determination” of the value of the zero torque prior to actually getting there.

With regard to the Steeby 5,105,357 patent, Desautels’ motion on page 8 states:

14. The Steeby ‘357 Patent [**Exhibit 1005**] teaches that:

Interference No. 104,835
Genise v. Desautels

“According to the present invention, to implement a selected shift, upon sensing conditions indicative of non-jaw clutch torque lock, the manifold 112 is preselected to cause actuator 70 to be biased to shift main transmission section 12 into neutral. This is accomplished by the operator causing a torque break by manually momentarily decreasing and/or increasing the supply of fuel to the engine and/or manually disengaging the master clutch C. **[Exhibit 1005, Col. 6, lines 9-13]**.”

Again, as is the case with the Braun 4,850,236 patent, we have no reason to conclude that momentarily decreasing and/or increasing the engine fuel supply over a range that is sufficiently large to encompass the zero torque parameter value wherever it may be constitutes a “determination” in advance of actually getting there.

With respect to the Braun patent, Genise argues (Motion at 9):

The dithering taught by Braun necessarily includes a prediction of a zero torque parameter (i.e., the fuel supply level around which the fuel supply is varied), and explicitly modifies fuel supply to repeatedly attempt to achieve the zero torque value. Caulfield Affidavit No. 2 ¶¶ 9-12.

The argument is rejected. Genise does not point us to any description in the Braun patent of a specific fuel level around which or centered about which the fuel supply is varied. Genise also does not point us to any description in the Braun patent of a specific fuel level which is thought of or otherwise considered as an approximation of the actual zero torque value. Note also that Desautels has, in the context of Genise’s preliminary motion 2, denied that the Braun patent dithers in the vicinity of zero torque. Genise simply has not proven its case.

If there is a determined zero torque parameter value in the Braun patent, which determined parameter value is to be achieved once it has been determined, Genise has not articulated what that value is or where that determined value can be found in the disclosure of the

Interference No. 104,835
Genise v. Desautels

Braun patent. While there certainly is disclosure in the Braun patent of dithering, i.e., modifying a parameter value up and down, Genise has not shown that the dithering is centered or targeted about a specific predicted zero-torque parameter value. The apparent aimlessness of the dithering, i.e., not shown to be focused on a target value, undermines Genise's argument that the Braun patent discloses predicting a zero-torque parameter value. It is true that the count requires only the making of a determination and does not specify a determination according to any particular algorithm or a determination having a particular level of accuracy. However, that still would not qualify apparently aimless dithering as a determination. Even if such dithering is considered as determining the zero-torque value, there is no activity left to be regarded as modifying the engine parameter to achieve the so determined zero-torque value.

With respect to the Steeby patent, Genise argues (Motion at 8):

Steeby, at column 6, lines 33-59, describes a method for determining zero torque values. Caulfield Affidavit No. 2, ¶ 19 [EX 2010]. The **Steeby** method includes a predicting algorithm. In this section of **Steeby**, the predicting algorithm is performed by the ECU 106. **Steeby**, at line 40. The predicting algorithm of **Steeby** involves calculations with “**predetermined magnitude of decrease in input shaft speed**” and “**predetermined period of time**” (lines 49-50). The particular **Steeby** prediction algorithm is stored in the “predetermined logic rules” (column 5, lines 37-42) which control the ECU. The **Steeby** prediction algorithm predicts a zero torque value which will occur when there is a “decrease in engine/input shaft speed of at least a predetermined magnitude over a predetermined period of time” (column 6, lines 49-50). (Emphasis in original).

As is indicated in the above-quoted text, according to the Steeby patent's disclosure the zero torque parameter value will occur when there is a decrease in engine/input shaft speed of at least a predetermined magnitude over a predetermined period of time. That, however, does not set

Interference No. 104,835
Genise v. Desautels

forth any specific determined zero-torque parameter value, only a particular operating condition under which a zero-torque parameter value exists. As such, it is still at least one step short of determining the zero-torque parameter value itself as is called for by the count.

In any event, Desautels is correct in noting that the ECU 106 in the Steeby patent only determines or confirms that the condition for the existence of zero-torque parameter value has occurred, and does not increase or decrease the engine fuel supply or otherwise control the speed of the engine. (Fourth Declaration of Dr. Gregory W. Davis, Exhibit 1017, ¶ 12). Genise has not pointed us to any portion of the Steeby patent which indicates any role of the ECU 106 in urging or causing the condition under which the zero-torque parameter value exists to occur. Once the ECU 106 verifies that the condition for the existence of a zero-torque parameter value has occurred, no other step remains to modify the engine parameter toward any “determined” zero torque parameter value as is required by the count. Upon sensing that a zero-torque condition has occurred, the ECU 106 actuates transmission actuators 70 and 96. (Fourth Declaration of Dr. Gregory W. Davis, Exhibit 1017, ¶ 13).

We have reviewed the testimony of Dr. Edward M. Caulfield in his Affidavit No. 2 (Exhibit 2010) in support of Genise’s opposition to Desautels’ preliminary motion 1 and do not find the testimony persuasive. Dr. Caulfield appears to apply an obviousness standard to the issue of written description, which is erroneous. For instance, in Paragraph Nos. 10-12, Dr. Caulfield states the following with regard to the disclosure of the Braun patent:

10. One of ordinary skill in the art would understand that varying the fuel supply from zero fuel to the maximum possible fuel supply level would not be appropriate, and that a range of fuel variation must be selected.

Interference No. 104,835
Genise v. Desautels

11. One of ordinary skill in the art would understand to select a range in which the instance of zero torque, described in the Braun '236 patent, would be expected to occur instead of a range in which no zero torque instance would be expected.
12. One of ordinary skill in the art would understand to select a range based on a set point at which a zero torque instance would be expected to occur.

What one with ordinary skill in the art “would know” to do is a very different issue from what the particular inventors of Genise’s ‘830 application had, through the specification of the ‘830 application, conveyed as being possessed by them at the time of filing of the ‘830 application. That one of ordinary skill in the art would know does not mean these particular inventors had known and conveyed the same idea through the specification of the ‘830 application. Dr. Caulfield does not point out anything in the specification of the ‘830 application which indicates that the inventors of that application possessed, at the time of filing of that application, the idea of anticipating just where a zero torque instance would occur and what that zero torque value would be. Dr. Caulfield does not point out anything in the specification of the ‘830 application which indicates that the inventors of that application possessed, at the time of filing of that application, the idea that the range of variation of the fuel supply would be narrowly tailored to a small sub-range co-extensive with the inventors’ expectation of where the zero-torque value would occur. Furthermore, in Paragraph No. 22 of his Affidavit No. 2 (Exhibit 2010) Dr. Caulfield even relied on combining parts of different systems to make a case for satisfying the written description requirement. Similarly, in Paragraph No. 18 of his Affidavit No. 2 (Exhibit 2010) Dr. Caulfield sought to extend the specific disclosure of the Steeby patent by applying an example to other contexts. For these reasons, we do not find Dr. Caulfield’s opinions on what

Interference No. 104,835
Genise v. Desautels

one with ordinary skill in the art would know or understand as informative or on point insofar as the written description issue is concerned. The issue of written description concerns what the specification shows as being possessed by these particular inventors, not what would have been obvious to one with ordinary skill in the art to do in light of that specification.

For all of the foregoing reasons, Desautels' preliminary motion 1 attacking the benefit accorded Genise to the April 30, 1996 filing date of application 08/649,830, is **granted**.

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Administrative Patent Judge)	
)	BOARD OF PATENT
Sally C. Medley)	APPEALS
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