AUTOMOTIVE TECHNOLOGIES INTERNATIONAL, INC., Plaintiff,

v.

SIEMENS VDO AUTOMOTIVE CORP., et al., Defendants.

Case No. 06-CV-15756-DT.

United States District Court, E.D. Michigan, Southern Division.

Oct. 30, 2009.

[redacted]

[redacted]



Andrew Kochanowski, Lisa R. Mikalonis, Sommers, Schwartz PC, Southfield, MI, Michael H. Baniak, McDonnell, Boehnen, Chicago, IL, for Plaintiff.

Boyd T. Cloern, Bingham McCutchen LLP, Jin–Suk Park, Akin, Gump, Washington, DC, Drew M. Wintringham, III, Mark W. Rueh, DLA Piper US LLP, Mark A. Kirsch, Clifford Chance, New York, NY, Kathleen A. Lang, Michelle Thurber Czapski, Dickinson Wright, Detroit, MI, Andrea L. Moody, Lawrence C. Mann, Bowman & Brooke, Troy, MI, Gregory A. Lewis, Peter J. Brennan, Reginald J. Hill, Jenner and Block, Chicago, IL, for Defendants.

OPINION AND ORDER GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY [DKT. # 113], GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY [DKT. 115], AND DENYING AS MOOT DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT [DKT. ## 108, 109, 110, 111, 112, 116, 119, 120]

ROBERT H. CLELAND, District Judge.

Pending before the court are ten motions for summary judgment filed by the Defendants in this case. The parties have briefed the matter, and the court concludes a hearing on the motion is unnecessary. *See* E.D. Mich. LR 7.1(e)(2). For the reasons stated below, the court will grant Defendants' motion for summary judgment of invalidity as to U.S. Patent Nos. 7,025,379, 7,052,038, and 7,070,202, grant Defendants' motion for summary judgment of invalidity as to U.S. Patent No. 6,850,824, and deny the remaining motions as moot.

I. INTRODUCTION [1]

This litigation involves U.S. Patent Nos. 7,025,379 ("'379 Patent"), 7,052,038 ("'038 Patent"), 7,070,202 ("'202 Patent"), 7,097,201 ("'201 Patent") and 6,850,824 ("'824 Patent"), all of which are related to motor vehicle side-impact sensors that deploy occupant protection apparatus, such as airbags. ATI earlier litigated Patent No.

1. The facts set forth in the Introduction section are taken from the court's November 25, 2008 *Markman* order, 2008 WL 5085389.

5,231,253 ("'253 Patent") before this court, and the court construed that patent to disclose both a mechanical accelerometer and an electronic-based side crash sensor. The court also concluded that certain defendants should be dismissed because of the locations in vehicles where sensors were mounted. *Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc.*, No. 01–71700, 2004 WL 5465964 (E.D.Mich. March 31, 2004) (Cleland, J.). The court later granted summary judgment to the remaining defendants because any claims concerning electronic sensors were invalid for lack of enablement. *Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc. (ATI I)*, 378 F.Supp.2d 780 (E.D.Mich.2005). The Court of Appeals for the Federal Circuit affirmed, finding the '253 patent invalid for lack of enablement. *Automotive Technologies Int'l, Inc. v. BMW of North America, Inc.*, 501 F.3d 1274 (Fed.Cir. 2007).[2]

ATI contends that the patents involved in this litigation "generally come from two different 'families' of earlier ATI patents which followed the '253 Patent, and which add detail to the specification concerning use of an electronic side crash sensor in connection with occupant restraint apparatus." (ATI's Br. at 1.) Defendants dispute this view and contend that ATI is "attempt[ing] to justify the overly broad claim scope it now seeks." (Defs.' Br. at 1–2.) The court construed the parties' claims in its November 11, 2008 order, and following that order the parties agreed to dismissal of Plaintiff's claims as to the '201 patent, and the court entered a stipulated order to this effect on February 3, 2009.

II. STANDARD

Under Federal Rule of Civil Procedure 56, summary judgment is proper when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R.Civ.P. 56(c). "In deciding a motion for summary judgment, the court must view the evidence in the light most favorable to the non-moving party, drawing all reasonable inferences in that party's favor." *Sagan v. United States*, 342 F.3d 493, 497 (6th Cir.2003). "Where the moving party has carried its burden of showing that the pleadings, depositions, answers to interrogatories, admissions and affidavits in the record, construed favorably to the non-moving party, do not raise a genuine issue of material fact for trial, entry of summary judgment is appropriate." *Gutierrez v. Lynch*, 826 F.2d 1534, 1536 (6th Cir.1987) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986)).

The court does not weigh the evidence to determine the truth of the matter, but rather, to determine if the evidence produced creates a genuine issue for trial. *Sagan*, 342 F.3d at 497 (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986)). The moving party must first show the absence of a genuine issue of material fact. *Plant v. Morton Int'l*, 212 F.3d 929, 934 (6th Cir.2000) (citing *Celotex*, 477 U.S. at 323, 106 S.Ct. 2548). The burden then shifts to the nonmoving party, who "must do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. v. Zenith Radio Corp.*, 475 U.S. 574, 586, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986). They must put forth enough evidence to show that there exists a genuine issue to be decided at trial. *Plant*, 212 F.3d at 934 (citing *Anderson*, 477 U.S. at 256, 106 S.Ct. 2505).

The existence of a factual dispute alone does not, however, defeat a properly sup-

2. The Federal Circuit did not reach this court's additional rationale of undue experimentation under the factors of *In re Wands*, 858 F.2d 731 (Fed.Cir.1988).

ported motion for summary judgment—the disputed factual issue must be material. *See Anderson,* 477 U.S. at 252, 106 S.Ct. 2505 (citation omitted) ("The judge's inquiry, therefore, unavoidably asks whether reasonable jurors could find by a preponderance of the evidence that the plaintiff is entitled to a verdict—'whether there is [evidence] upon which a jury can properly proceed to find a verdict for the party producing it, upon whom the *onus* of proof is imposed.' "). A fact is "material" for purposes of summary judgment when proof of that fact would establish or refute an essential element of the claim or a defense advanced by either party. *Kendall v. Hoover Co.,* 751 F.2d 171, 174 (6th Cir.1984) (citation omitted).

A patent enjoys a presumption of validity pursuant to 35 U.S.C. § 282. "Consequently, 'a moving party seeking to invalidate a patent at summary judgment must submit such clear and convincing evidence of invalidity so that no reasonable jury could find otherwise.' " *Chrimar Sys. v. Cisco Sys.,* 318 F.Supp.2d 476, 491 (E.D.Mich.2004) (quoting *Eli Lilly & Co. v. Barr Labs.,* 251 F.3d 955, 962 (Fed.Cir. 2001)); *see also Beckson Marine, Inc. v. NFM, Inc.,* 292 F.3d 718, 725 (Fed.Cir. 2002) (holding that a party seeking to establish particular claims as invalid must overcome the presumption of validity in 35 U.S.C. § 282 by clear and convincing evidence). However, "[t]he burden of persuasion created by the presumption of validity of the patent as issued is more easily met when evidence is introduced of more pertinent prior art than that considered by the Patent Examiner during prosecution of the patent application." *Standard Mfg. v. United States,* 25 Cl.Ct. 1, 50 (Cl.Ct.1991) (citing *Solder Removal Co. v. United States Int'l Trade Com.,* 65 C.C.P.A. 120, 582 F.2d 628, 633 (1978)).

Finally, "[a] quite different burden is that of going forward with evidence-sometimes referred to as the burden of production-a shifting burden the allocation of which depends on where in the process of trial the issue arises." *Tech. Licensing Corp. v. Videotek,* 545 F.3d 1316, 1327 (Fed.Cir.2008) (citation omitted). First the party alleging invalidity has the burden of going forward with evidence of anticipating prior art, and then the patentholder has the burden of going forward with evidence

> that it is not prior art because the asserted claim is entitled to the benefit of a filing date prior to the alleged prior art. This requires [a party] to show not only the existence of the earlier application, but why the written description in the earlier application supports the claim.

Id. (internal citations omitted). This means "producing sufficient evidence and argument to show that an ancestor to the [patent at issue], with a filing date prior to the [alleged prior art] date, contains a written description that supports all the limitations of ... the claim being asserted." *Id.*

In order to establish invalidity on obviousness grounds, Defendants must show that "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a).

> Obviousness under 35 U.S.C. § 103(a) is ultimately a legal question, based on underlying factual determinations. *See Richardson–Vicks, Inc. v. Upjohn Co.,* 122 F.3d 1476, 1479 (Fed.Cir.1997). The factual determinations underpinning the legal conclusion of obviousness include 1) the scope and content of the prior art,

> 2) the level of ordinary skill in the art,[3] 3) the differences between the claimed invention and the prior art, and 4) evidence of secondary factors, also known as objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966).

Eisai Co. Ltd. v. Dr. Reddy's Labs., Ltd., 533 F.3d 1353, 1356 (Fed.Cir.2008); *see also Para–Ordnance Mfg., Inc. v. SGS Imps. Int'l., Inc.*, 73 F.3d 1085, 1088 (Fed. Cir.1995) ("The ultimate determination of obviousness is a question of law, which we review de novo."). "The scope and content of the prior art, differences between the prior art and the claimed invention, the level of ordinary skill in the art, and objective evidence of secondary considerations of patentability are fact determinations." *Para–Ordnance Mfg.*, 73 F.3d at 1088. Additionally, "[w]hat the prior art teaches and whether it teaches toward or away from the claimed invention also is a determination of fact." *Id.*

[redacted] It is the movant's burden to prove invalidity by clear and convincing evidence. *Id.* (citing *Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 881 (Fed.Cir.1998)). As "[t]he Supreme Court stated in *Anderson*, ... 'in ruling on a motion for summary judgment, the judge must view the evidence presented through the prism of the substantive evidentiary burden.' " *Enzo Biochem, Inc. v. Gen–Probe Inc.*, 424 F.3d 1276, 1284 (Fed.Cir. 2005) (quoting *Anderson*, 477 U.S. at 254, 106 S.Ct. 2505).

[redacted] "The grant of summary judgment of invalidity for obviousness must be done on a claim by claim basis." *Knoll Pharm. Co., Inc. v. Teva Pharms. USA, Inc.*, 367 F.3d 1381, 1384 (Fed.Cir.2004) (citing *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1371 (Fed. Cir.2003)). "The accused infringer must prove by clear and convincing evidence that each claim that is challenged cannot reasonably be held to be non-obvious." *Id.* (citing *Monarch Knitting Mach. Corp.*, 139 F.3d at 881). Clear and convincing evidence exists when the movant "place[s] in the mind of the ultimate fact finder an abiding conviction that the truth of its factual contentions are 'highly probable.' " *Colorado v. New Mexico*, 467 U.S. 310, 316, 104 S.Ct. 2433, 81 L.Ed.2d 247 (1984).

The Supreme Court has recently clarified the law with respect to obviousness in *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S.Ct. 1727, 167 L.Ed.2d 705 (2007). In *KSR*, the Supreme Court rejected a rigid application of the "teaching, suggestion, or motivation" ("TSM") test. *KSR*, 550 U.S. at 418–19, 127 S.Ct. 1727. The Court explained: "The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents." *Id.* The Federal Circuit has since elaborated:

> a rigid requirement of reliance on written prior art or patent references would, as the Supreme Court noted, unduly confine the use of the knowledge and creativity within the grasp of an ordinarily skilled artisan. [*KSR*, 127 S.Ct.] at 1742. As this court has explained, however, a flexible TSM test remains the primary guarantor against a non-statutory hindsight analysis such as occurred in this case. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed.

3. In *ATI I*, Plaintiff defined one having ordinary skill in the art as "a person having a four-year degree in mechanical, electro-mechanical or automotive engineering, plus several years [of] experience in the field or the equivalent." *ATI I*, 378 F.Supp.2d 780, 801–02 (E.D.Mich.2005). No reason exists to depart from this definition at this time.

Cir.2007) ("[A]s the Supreme Court suggests, a flexible approach to the TSM test prevents hindsight and focuses on evidence before the time of invention."). The TSM test, flexibly applied, merely assures that the obviousness test proceeds on the basis of evidence—teachings, suggestions (a tellingly broad term), or motivations (an equally broad term)—that arise before the time of invention as the statute requires. As *KSR* requires, those teachings, suggestions, or motivations need not always be written references but may be found within the knowledge and creativity of ordinarily skilled artisans.

Ortho–McNeil Pharm., Inc. v. Mylan Labs., Inc., 520 F.3d 1358, 1364–65 (Fed. Cir.2008).

III. DISCUSSION

A. Invalidity Contentions

1. Invalidity of the '379, '038, and '202 Patents Based on the '974 Mazur Patent

In their motion for summary judgment on the invalidity of the '379, '038, and '202 Patents, Defendants Hyundai, Kia, Nissan, TRW, and TK argue that Plaintiff's claims as to these patents are invalid as anticipated and obvious by prior art, namely by U.S. Patent No. 5,566,974 ("'974 Mazur Patent"), in addition to several others. Defendants further argue that the '974 Mazur Patent has an effective filing date of March 22, 1993, which predates the earliest effective filing date of the asserted patents, which have an effective filing date of September 16, 1993, and that the '974 Mazur Patent was undisclosed to the Patent Office at the time of filing. Defendants assert that the '974 Mazur Patent is therefore prior art under § 102(e) and renders Plaintiff's '379, '038, and '202 Patents invalid.

In response, Plaintiff contends that it can "swear behind" the patent, that is, show prior conception for the three patents, such that the '974 Mazur Patent does not render Plaintiff's claims invalid. In the alternative, Plaintiff argues that the three patents are entitled to an effective filing date of July 9, 1991, which renders the '974 Mazur Patent irrelevant as prior art. Plaintiff further argues that it has petitioned the Patent Office for a reissue of the patents based on a priority date of July 1991 because the '038 Patent should have been filed as a continuation-in-part of the '970 Patent. Finally, Plaintiff argues that the '974 Mazur Patent does not anticipate the '038 Patent because it does not show as a transfer structure, as Plaintiff's patent does.

a. Prior Art

Section 102 of Title 35 provides that a "person shall be entitled to a patent" unless:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filing in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filing in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102. Nonetheless, a plaintiff whose patent is allegedly barred by § 102(e) "can overcome a reference by showing that [it was] in possession of [its] invention prior to the effective date of the reference." *In re Costello*, 717 F.2d 1346, 1349 (Fed.Cir.1983).

[redacted] While courts are not always precise regarding the specific statute or legal authority, an inventor can "swear behind" alleged anticipatory prior art to show prior "invention" for the purposes of defeating a claim for invalidity on the basis of § 102(e).[4] To do so, the inventor must usually show (1) constructive reduction to practice, even though the inventor need not show actual reduction to practice, or (2) conception and diligence in filing a patent application following the date of conception. *See Polaroid Corp. v. Eastman Kodak Co.*, 641 F.Supp. 828, 228 U.S.P.Q. 305, 331 (D.Mass.1985), *aff'd*, 789 F.2d 1556 (Fed.Cir.1986).

> The law is clear that the applicant's date of invention under these provisions is to be calculated according to the same basic rules that are used in connection with 102(g). Thus, an applicant will be held to have 'invented' the subject matter at issue, for paragraphs 102(e) and (a), when he has both conceived and reduced to practice.

R. Carl Moy, Moy's Walker on Patents § 8.132 (internal citations omitted). As a further example, under the Federal Regulations, an inventor can do this by "swearing behind" in patent prosecution proceedings, that is, file a "131 declaration," pursuant to 37 C.F.R. § 1.131, "to demonstrate that [his] date of invention is prior to the effective date of the [alleged prior art]." *In re Asahi/America, Inc.*, 68 F.3d 442, 445 (Fed.Cir.1995) (citing *In re Eickmeyer*, 602 F.2d 974 (C.C.P.A.1979)). The text of the relevant regulation states:

> (a) When any claim of an application or patent under reexamination is rejected, the inventor of the subject matter of the rejected claim . . . may submit an appropriate oath or declaration to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based. The effective date of a U.S. patent . . . is the earlier of its publication date or date that it is effective as a reference under 35 U.S.C. § 102(e). . . .
>
> (b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application.

37 C.F.R. § 1.131; *see also* 35 U.S.C. § 102(g). In the context of invalidity claims, invention requires conception and reduction to practice:

> Conception is the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice. Actual reduction to practice requires that the claimed invention work for its intended purpose, and, as has long been the law, constructive reduction to practice occurs when a patent application on the claimed invention is filed.

4. Much of the case law regarding this point arises in the context of patent prosecutions, pursuant to 37 C.F.R. § 1.131. Both the case law and the parties, however, appear to be in agreement that the same standard applies in this context as well. *See, e.g., Therasense, Inc. v. Becton, Dickinson and Co.*, 560 F.Supp.2d 835, 864 (N.D.Cal.2008) (finding that because a patent was reduced to practice prior to the effective filing date of the alleged prior art, the patent was not rendered invalid pursuant to § 102(e)); *DevTech Marketing, Inc. v. Westfalia–Surge, Inc.*, 2005 WL 6287929, at *14 (C.D.Cal. Apr. 19, 2005) (stating that to show prior invention such that § 102(e) is inapplicable, a party must should either reduction to practice or conception together with diligence in reducing the invention to practice).

Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed.Cir.1986) (internal citations and quotation marks omitted). Both conception and reduction to practice are legal determinations for the court to make. *Standard Mfg. Co., Inc. v. United States*, 25 Cl.Ct. 1, 62 (Cl.Ct.1991).

"Conception is the 'formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.'" *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed.Cir.1986) (quoting 1 *Robinson on Patents* 532 (1890)). "It is settled that in establishing conception a party must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception." *Coleman v. Dines*, 754 F.2d 353, 359 (Fed.Cir.1985) (citing *Davis v. Reddy*, 620 F.2d 885, 889 (C.C.P.A.1980)).

While "[c]onception always determines inventorship, . . . actual reduction to practice determines the date of invention for section 102 purposes." *Standard Mfg. Co., Inc. v. United States*, 25 Cl.Ct. 1, 63 (Cl.Ct.1991). "'[P]roof of actual reduction to practice requires more than theoretical capability; it requires showing that the apparatus . . . actually existed and worked for its intended purpose.'" *In re Asahi/America, Inc.*, 68 F.3d at 446 (quoting *Newkirk v. Lulejian*, 825 F.2d 1581, 1583 (Fed.Cir.1987)). An invention is reduced to practice, "when the inventive concept has been embodied in some physical form and demonstrated to be a workable embodiment of the invention." *Standard Mfg. Co., Inc.*, 25 Cl.Ct. at 63 (citing *Eastern Rotorcraft v. United States*, 181 Ct.Cl. 299, 384 F.2d 429, 431 (1967)).

Constructive reduction to practice can be shown in lieu of actual reduction to practice. "The filing of a patent application is a constructive reduction to practice of the invention disclosed therein." *Frazer v. Schlegel*, 498 F.3d 1283, 1288 (Fed.Cir.2007) (citing *Hyatt v. Boone*, 146 F.3d 1348, 1352 (Fed.Cir.1998)). However, in order to constitute constructive reduction to practice, the patent application must disclose the invention "by meeting the written description and enablement requirements of 35 U.S.C. § 112 ¶ 1." *Frazer*, 498 F.3d at 1287.

> [T]he filing date becomes a date of constructive reduction to practice in determining priority of invention and this should not be the case unless at that time, without waiting for subsequent disclosures, any person skilled in the art could practice the invention from the disclosure of the application. If information to be found only in subsequent publications is needed for such enablement, it cannot be said that the disclosure in the application evidences a complete invention.... [W]e now rule that application sufficiency under § 112, first paragraph, must be judged as of its filing date.

Application of Glass, 492 F.2d 1228, 1232 (C.C.P.A.1974).

Plaintiff does not contest that, if it is not entitled to a reissue of the three patents involved in this motion, the '379 and '202 Patents as well all '038 Patent claims except claim 1 are invalid as anticipated or rendered obvious by the prior art of the '974 Mazur Patent. *See* 35 U.S.C. § 102(e). However, § 102(e) will not act as a bar if Plaintiff can show prior (1) reduction to practice or (2) conception "coupled with due diligence from prior to [the effective filing date of the alleged prior art] to a subsequent reduction to practice or to the filing of the application." *See* 37 C.F.R. § 1.131(b); *see also In re Costello*, 717 F.2d 1346, 1349 (Fed.Cir. 1983); *Standard Mfg. Co., Inc.*, 25 Cl.Ct. at 63.

Plaintiff is attempting to "swear behind" the '974 Mazur Patent. David S. Breed, inventor of the patents at issue, submitted a declaration that states that his "conception and reduction to practice" of the "use of an electronic sensor in an application for side impacts of a vehicle, so as to operate a passenger restraint system," is "set forth in at least U.S. Patent 5,231,253" as "constructive reduction to practice, based upon the filing of the patent application." (Pl.'s Resp. Ex. D ¶ 2.) In his declaration, Breed also states that "further evidence of my conception and reduction to practice of the use of an electronic sensor in side impacts of a vehicle in the patent specification of U.S. [sic] 6,009,970," in which he referenced an electronic sensor model made by Mercedes. (*Id.* ¶ 4.)

To show prior invention for purposes of § 102(e),[5] Plaintiff argues that (1) conception and constructive reduction to practice can be proved by the date of the '253 application, February 23, 1989, or in the alternative, (2) by the combination of the '253 and '970 applications, with an effective date of July 9, 1991. First, Plaintiff argues that the '253 Patent demonstrates conception and reduction to practice prior to the effective filing date of the '974 Mazur Patent. But to constitute constructive reduction to practice, an application or patent must comply with the enabling requirements of 35 U.S.C. § 112 ¶ 1.[6] *Bigham v. Godtfredsen*, 857 F.2d 1415, 1417 (Fed.Cir.1988) ("To serve as constructive reduction to practice, the disclosure of the subject matter . . . must meet the requirements of 35 U.S.C. § 112, first paragraph."); *see also Rengo Co. Ltd. v. Molins Mach. Co., Inc.*, 657 F.2d 535, 548 (3d Cir.1981) ("[A]n American application will be regarded as a reduction to practice only if it describes the invention with the particularity required by Section 112."). This court found the '253 Patent invalid for lack of enablement under § 112 ¶ 1 because the '253 Patent did not teach those skilled in the art how to make and use a side impact sensor with an electronic means for initiating an occupant protection apparatus. *ATI I*, 378 F.Supp.2d at 814–15, *aff'd*, 501 F.3d 1274 (Fed.Cir.2007). In particular, the court noted that defendants' expert stated that the '253 Patent did not teach "(1) how to sense the motion of the mass to properly output a stream of data; and (2) how to appropriately process this data to determine if the motion of [the] mass upon acceleration of [the sensor's] housing exceeds a predetermined threshold value, triggering the initiation of an occupant protection apparatus." *ATI I*, 378 F.Supp.2d at 815 (internal quotation omitted). Because the '253 Patent was found invalid for lack of enablement, the '253 Patent cannot constitute constructive reduction to practice such that Plaintiff can overcome Defendants' § 102(e) invalidity contentions. *See Bigham*, 857 F.2d at 1417.

5. The parties only dispute the existence of constructive reduction to practice, therefore the court will not address the issue of actual reduction to practice.

6. In its brief, Plaintiff argues that conception and enablement are distinct requirements, and, indeed, Plaintiff identifies supporting case law for this contention. *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1231 (Fed.Cir.1994). To overcome invalidity on the basis of § 102(e), however, Plaintiff must show either (1) reduction to practice or (2) conception "coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application." 37 C.F.R. § 1.131(b); *see Standard Mfg. Co., Inc.*, 25 Cl.Ct. at 63; *see also In re Asahi/America, Inc.*, 68 F.3d 442, 444–45 (Fed.Cir.1995). When a patent application is used to show constructive reduction to practice, it must meet the requirements of § 112 ¶ 1. *Bigham*, 857 F.2d at 1417; *Yasuko Kawai v. Metlesics*, 480 F.2d 880, 886 (C.C.P.A. 1973).

Moreover, Plaintiff cannot show conception on the basis of the '253 Patent. To show conception, "a party must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception." *Coleman,* 754 F.2d at 359 (citing *Davis,* 620 F.2d at 889). The '253 Patent was invalid for lack of enablement, specifically because while it disclosed the use of mechanical side impact sensors, it did not disclose electronic side impact sensors, which are "a distinctly different sensor compared with the well-enabled mechanical side impact sensor" that was "fully discussed in the specification." *ATI,* 501 F.3d at 1285. The '974 Mazur Patent and the patents at issue in this case disclose an electronic sensor for detecting lateral acceleration [7] which the '253 Patent does not disclose.

The '253 Patent, therefore, does not offer corroborating evidence of conception. *See Coleman,* 754 F.2d at 359 (citing *Davis,* 620 F.2d at 889). Finally, Plaintiff has not offered any showing, nor even asserted, diligence "from prior to [the effective filing date of the alleged prior art] to a subsequent reduction to practice or to the filing of the application." 37 C.F.R. § 1.131(b). Therefore, the '253 Patent is not corroborating evidence of Plaintiff's prior invention.

[redacted] Plaintiff also argues that it has shown conception and reduction to practice through its U.S. Patent. No. 6,009,970 ("'970 Patent"), or through the combined evidence of the '253 [8] and '970 Patents.

Specifically, Plaintiff argues that the specification, entitled Tape Switch Crush Sensor, demonstrates conception and constructive reduction to practice of an electronic sensor in side impacts of a vehicle because in the background section the '970 Patent references "an electronic sensor such as is part of the Mercedes air bag system." '970 Patent col. 1 l. 24–25; (*see also* Pl.'s Resp. Ex. D. ¶ 4). Plaintiff contends that this statement in the '970 Patent, together with the invention disclosed in the '253 Patent show that inventor Breed had the conception for an electronic sensor to measure lateral acceleration to be used in the event of a side impact to a vehicle to trigger the deployment of an occupant restraint system by 1991, and prior to the effective filing date of the '974 Mazur Patent. (Pl.'s Resp. at 4–5.)

In pertinent part, the '970 Patent states: "Three types of sensors have been widely used to sense and initiate deployment of an air bag passive restraint system. These sensors include ... an electronic sensor such as is part of the Mercedes air bag system." 970 Patent col. 1 l. 19–21, 25–26. Inventor Breed states that the referenced Mercedes system demonstrates he knew of electronic sensors used in frontal crash

7. The '974 Mazur Patent discloses a sensor that "is preferably a directionally responsive accelerometer.... When such a sensor is appropriately biased, an electrical output signal 52 is provided having a magnitude value functionally related to the sideways acceleration of the vehicle, i.e., acceleration of the vehicle in a direction normal to the door 22." '974 Mazur Patent col. 4 l. 37–38, 54–59. The '974 Mazur Patent also discloses a preferred model sensor. *Id.* col. 4 l. 52–54.

8. Plaintiff argues in a footnote that, even if the '253 Patent is invalid for lack of enablement, the Breed PCT Application includes the same disclosures as the '253 Patent. Defendants argue that the Breed PCT Application is prior art under § 102(b) to the '202 Patent. Plaintiff further argues that if the Breed PCT Application is prior art under § 102(b), it can also demonstrate conception prior the effective filing date of the '974 Mazur Patent. However, the court views these as alternative arguments by Defendants under the varying defenses of § 102.

airbag sensing applications. (Pl.'s Resp. Ex. D ¶ 4.) Plaintiff further argues that the declaration, together with the '970 and '253 Patents are sufficient to demonstrate conception, no later than July 9, 1991, predating the effective filing date of the '974 Mazur Patent.[9]

As discussed above with respect to the '253 Patent and the issue of constructive reduction to practice, if an application or patent is to demonstrate the reduction to practice requirement, the application or patent must comply with the enabling requirements of 35 U.S.C. § 112 ¶ 1.[10] *See Bigham*, 857 F.2d at 1417; *see also Rengo Co. Ltd.*, 657 F.2d at 548.

The '970 Patent does not fully enable what is disclosed in the patents at issue in the instant motion; indeed, the '970 Patent does not even disclose essential portions of the three patents. It does not disclose side impact sensors, or the included microprocessor, algorithm, or movable sensing mass. Furthermore, the '970 Patent cannot serve as evidence of conception for the patents at issue for the same reason that the '253 Patent could not: it does not show " 'formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.' " *See Hybritech Inc.*, 802 F.2d at 1376 (quoting 1 *Robinson on Patents* 532 (1890)). The '970 Patent merely demonstrates that the inventor knew electronic sensors had been used in frontal crash systems used for the deployment of airbags in the event of a frontal crash. In particular, the '970 provides for a "crush switch crash sensor which functions when a portion of the vehicle where the sensor is mounted is displaced, deformed or otherwise bends or buckles." '970 Patent col. 2 l. 45–50. The '970 Patent describes its improvements over earlier tape switch versions as being able to discriminate between large frontal forces exerted on a vehicle which are indicative of a crash, in contrast to non-crash events. *Id.* col. 2 l. 31–41. None of the cited references by Plaintiff, however, disclose a "complete and operative invention" prior to the '974 Patent such that Plaintiff has shown conception. Nor has Plaintiff produced or even asserted diligence "from prior to [the effective filing date of the alleged prior art] to a subsequent reduction to practice or to the filing of the application," a requirement conjunctive with that of conception. *See* 37 C.F.R. § 1.131(b). Therefore, Plaintiff has not provided evidence of its prior invention on the basis of the '970 Patent.

[redacted] Plaintiff further argues that the combined evidence of the '253 and '970 Patents provides evidence of conception. Plaintiff contends that the '970 Patent demonstrates that Plaintiff knew an electronic sensor, such as the one referenced in the background section of the specification, could be used in conjunction with the invention described in the '253 Patent. (Pl.'s Resp. at 4–5.) The " 'formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice' " is required to show conception. *Hybritech Inc.*, 802 F.2d at 1376 (quoting 1 *Robinson on Patents* 532 (1890)). As explained, *infra*, "[i]t is settled that in establishing conception a party

9. Plaintiff does not argue, nor would the court find, that the '970 Patent alone demonstrates conception and reduction to practice.

10. In its brief, Plaintiff argues that its has the met the requirements for showing conception, but Plaintiff does not address any of the issues relating to constructive reduction to practice. *See Polaroid Corp. v. Eastman Kodak Co.*, 641 F.Supp. 828 (D.Mass.1985) (citing *Hazeltine Research v. Brenner*, 382 U.S. 252, 255–56, 86 S.Ct. 335, 15 L.Ed.2d 304 (1965); *Radio Corp. of Am. v. Int'l Standard Electric Corp.*, 232 F.2d 726 (3d Cir.1956)).

must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception." *Coleman*, 754 F.2d at 359 (citing *Davis*, 620 F.2d at 889); *see also Kridl v. McCormick*, 105 F.3d 1446, 1449 (Fed.Cir.1997) (citing *Davis*, 620 F.2d at 889). But even the combined evidence of the '253 and '970 Patents does not show conception prior to the '974 Mazur Patent because the patents do not show an electronic sensor for sensing lateral acceleration coupled to a microprocessor with an algorithm for determining whether acceleration has passed a certain threshold such that the passenger restraint system should deploy. The '253 Patent does not disclose such an electronic sensor, and while the '970 Patent acknowledges the existence of electronic sensors, it does so in the context of frontal crash systems rather than side impact systems.

[redacted] Furthermore, even if the '253 and the '970, taken together, offer corroborating evidence of conception, reduction to practice would not occur until the patents at issue were filed. This date would be too late to allow swearing behind the '974 Mazur Patent, unless Plaintiff was diligent "from prior to [the Mazur Patent's effective filing date] to a subsequent reduction to practice or to the filing of the application." *See* 37 C.F.R. § 1.131(b). Plaintiff neither presents evidence of nor even alleges diligence. Because diligence is required where a patented invention's conception precedes the prior art's conception but its reduction to practice follows the prior art's reduction to practice, Plaintiff cannot show prior invention based on the '974 Patent.

b. Application for Reissue of the '038 Patent

[redacted] Plaintiff argues that the patents are not invalid under § 102(e) because Plaintiff filed for reissue of the '038 Patent on July 13, 2009, pursuant to 35 U.S.C. § 120. In its brief, Plaintiff contends that it is entitled to a reissue of the '038 as a continuation-in-part of the '970 Patent, which will in turn entitle each of the patents at issue to an effective filing date of July 9, 1991.[11] Plaintiff argues that the '970 Patent discloses the structure designed to function when "a portion of the vehicle where the sensor is mounted is displaced, deformed or otherwise bends or buckles," and captures the conception of the patents at issue in this case.

[redacted] Section 35 of Title 120 provides the statutory basis for continuation-in-part applications:

> An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, ... shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application.

35 U.S.C. § 120. A continuation-in-part application thus gives a later-filed applica-

11. Plaintiff is not entitled to, nor does it argue that it is, the February 23, 1989 effective filing date of the '253 Patent because the '253 Patent issued on July 27, 1993, before the effective filing date of the patents at issue in this case, which was September 16, 1993. 35 U.S.C. § 120 ("An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, ... shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application."); *Electronic Planroom, Inc. v. McGraw-Hill Companies, Inc.*, 135 F.Supp.2d 805, 827 n. 20 (E.D.Mich.2001).

tion the benefit of the filing date of an earlier-filed application. *Id.*

> One court has explained the significance of 'continuation-in-part' status: "A continuation-in-part application ... is an application that is filed during the pendency of the original or parent application of the same inventor, disclosing and claiming some subject matter common to the parent application, as well as some subject matter not common to and not supported by the parent. The common subject matter is entitled to [the] filing date of the parent application while the non-common subject matter, *i.e.*, new matter, is only entitled to the actual filing date of the later filed continuation-in-part application." *Reynolds Metals Co. v. Continental Group, Inc.*, 525 F.Supp. 950, 970 (N.D.Ill.1981).

[redacted] *Electronic Planroom, Inc. v. McGraw–Hill Companies*, 135 F.Supp.2d 805, 827 n. 20 (E.D.Mich.2001). A later-filed patent application is entitled to the earlier effective filing date only to the extent that the later-filed application "'disclos[es] and claim[s] some subject matter common to the parent application.'" *Electronic Planroom, Inc.*, 135 F.Supp.2d at 827 n. 20 (quoting *Reynolds Metals Co.*, 525 F.Supp. at 970). Moreover, to gain the benefit of the earlier-filed application, the invention of the later-filed application must be fully disclosed in accord with the first paragraph of § 112 [12] in the earlier-filed application. 35 U.S.C. § 120. Indeed, the court discussed this issue above, finding that the '970 Patent could not be found to enable the patents at issue in this motion. Plaintiff's argument is a recapitulation and attempt to obtain official sanction of Plaintiff's contentions that the '379, '038, and '202 Patents are entitled to an effective filing date of July 1991, equivalent to the '970 Patent's filing date.

Plaintiff does not provide any substantiation for the assertion that its application has merit. Nor does Plaintiff cite any legal authority for holding this motion in abeyance while its application for reissue is pending. Indeed, Plaintiff filed its application for reissue on July 13, 2009—twelve days after Defendants' motion for summary judgment on this issue was filed. The application for reissue, viewed in the light of the court's discussion of the identified infirmities, amounts to a delay tactic and is not persuasive.

c. '038 Patent

[redacted] Finally, while Plaintiff does not dispute that the '379 and '202 Patents are anticipated or rendered obvious by the '974 Mazur Patent, Plaintiff argues that the '974 Mazur Patent does not anticipate the '038 Patent. Specifically, Plaintiff argues that the claim 1 of the '038 Patent claims a "means ... for transferring" or a "transfer structure" [13] for transferring lateral acceleration to the sensor, consisting of a movable mass in the interior of a housing such that the movable mass moves within the interior of the housing in response to lateral acceleration exerted on the outer skin of the vehicle, and transferred through the transferring means to the sensor.

12. Paragraph 1 of 35 U.S.C. § 112 states:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112.

13. Plaintiff does not argue that any other '038 Patent claims are not anticipated by the '974 Patent.

Defendants argue that relevant language of the '974 Mazur Patent states:

> The depression 304 is adapted to receive an accelerometer 306. The accelerometer 306 is the same as accelerometer 50. The accelerometer is secured in the depression 304 by any one of several means such as by gluing. The depression 304 spaces the accelerometer 306 a distance ... from the outer door panel 303 which adds further protection for the accelerometer 306.
>
> A plurality of strengthening or reinforcing beams 310, 312, and 314 are formed in the inner door panel 302 ... to provide better communication to the accelerometer 306 of the sideways acceleration of the vehicle that results from a side impact. Communication of the sideways acceleration is enhanced by limited acceleration attenuation that would otherwise occur from an unstiffened or unreinforced inner door panel. If the inner door panel was not reinforced, the accelerometer would tend to have an initially lower acceleration during a side impact because the inner door panel would flex. This flexing of the inner door panel has an effect of attenuating the acceleration of the accelerometer.

'974 Mazur Patent col. 7 l. 61–col. 8 l. 14. Defendants further explain that the '974 Mazur Patent discloses a structure for transferring lateral acceleration in the event of a side impact to a vehicle to a side impact crash sensor. Even though the '974 Mazur Patent does not disclose a transfer structure, Defendants say, such a structure is obvious as admitted by Plaintiff's inventor.

In its claim construction order of November 25, 2008, the court construed "means ... for transferring" as "means interposed between the outer skin along the side of the vehicle and said sensor for transferring the lateral acceleration to said sensor through a plate mounted on a main structural beam in the door." The court construed "transfer structure ... arranged to transfer the lateral acceleration to said sensor" similarly, as a "transfer structure interposed between the outer skin along the side of the vehicle and said sensor for transferring the lateral acceleration to said sensor through a plate mounted on the main structural beam in the door."

Inventor Breed made the following statements:

> Q: While there may be other things, do you feel one of ordinary skill in the art can take that disclosure and understand that to teach it means interposed between the outer skin along the side of the vehicle and said sensor for transferring the lateral acceleration to the sensor.
>
> A: One with ordinary skill in the art would know that this is a sensor that's designed to go into the crush zone of the vehicle. In other words, it has to see that the pulse of a car hitting the vehicle, regardless of where the car actually hits the vehicle....
>
> So anyone with ordinary skill in the art would know that there has to be some kind of a rigid transfer structure from wherever the car hits, wherever the car might potentially hit, and where the sensor is....
>
> [Y]ou can put the sensor anywhere in the car as long as you put a beam from where the car's going to get hit to that sensor.
>
> Q: And that's obvious to one of ordinary skill in the art with or without your teachings, correct?
>
> A: Yes, I think it would be.

(Defs.' Mot. Ex. M, Breed Dep. 97–98.) Inventor Breed admitted that the transfer

structure would be obvious to one skilled in the art. Section 103 provides the standard for invalidity based on obviousness, stating in pertinent part:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. § 103(a). Obviousness under 35 U.S.C. § 103(a) is ultimately a legal question, based on underlying factual determinations. *See Richardson–Vicks, Inc.*, 122 F.3d at 1479. Clear and convincing evidence exists when the movant "place[s] in the mind of the ultimate fact finder an abiding conviction that the truth of its factual contentions are 'highly probable.'" *Colorado v. New Mexico*, 467 U.S. 310, 316, 104 S.Ct. 2433, 81 L.Ed.2d 247 (1984).

The inventor having admitted that the disputed claim would be obvious to one having ordinary skill in the art, the claim is not novel under § 101, and the'038 Patent is invalid. *See Knoll Pharm. Co., Inc.*, 367 F.3d at 1384 (citing *Monarch Knitting Mach. Corp.*, 139 F.3d at 881) ("The accused infringer must prove by clear and convincing evidence that each claim that is challenged cannot reasonably be held to be non-obvious."). Finally, because this claim would be obvious, disclosure of it in the prior art, the '974 Mazur Patent, is not required in order to satisfy the requirements for a finding of invalidity pursuant to § 102(e).

B. Invalidity of the '824 Patent Based on Prior Art

Defendants Hyundai, Kia, Nissan, TRW, and TK Holdings filed a motion for summary judgment asserting the invalidity of the '824 Patent on the basis of prior art. In particular, Defendants argue that the '824 Patent is anticipated or rendered obvious by the prior art of U.S. Patent No. 5,439,249 ("'249 Steffens Patent"), which has an effective filing date of December 2, 1993. Because the '824 Patent has, at the earliest, an effective filing date of June 7, 1995, the '249 Steffens Patent constitutes prior art pursuant to § 102(e). The court has reviewed the motion and finds it persuasive. Additionally, Eastern District of Michigan Local Rule 7.1 requires that any party opposing a motion file a response. E.D. Mich. LR 7.1(b). ATI did not address the motion, essentially conceding the issue raised, and the court will therefore grant the motion for summary judgment asserting the invalidity of the '824 Patent. *See* E.D. Mich. LR 7.1(b).

IV. CONCLUSION

For the reasons set forth above, IT IS ORDERED that Defendants' motion for summary judgment of invalidity as to U.S. Patent Nos. 7,025,379, 7,052,038, and 7,070,202 [Dkt. # 113] is GRANTED.

IT IS FURTHER ORDERED that the Defendants' motion for summary judgment of invalidity as to U.S. Patent No. 6,850,-824 [Dkt. # 115] is GRANTED.

Finally, IT IS ORDERED that Defendants' remaining motions for summary judgment [Dkt. ## 108, 109, 110, 111, 112, 116, 119, 120] are DENIED AS MOOT.