

(2013) 01 IPAB CK 0007

In the Intellectual Property Appellate Board

Case No : ORA/6/2009/PT/CH, M.P. Nos. 15 Of 2010, 29 Of 2010, 77 Of 2010, 45 Of 2011, 6, 7 Of 2013 In ORA/6/2009/PT/CH

Enercon (India) Limited

APPELLANT

Vs

Aloys Wobben

RESPONDENT

Date of Decision : 29-01-2013

Acts Referred:

Evidence Act, 1872 — Section 115, 117
Patents Act, 1970 — Section 10(4), 117A, 117C, 117D, 13, 140, 2(1)(j), 2(1)(ja), 21(a)(i), 22, 3, 59, 64, 64(1)(f)

Citation : (2013) 1 MIPR 287

Hon'ble Judges : Prabha Sridevan, J; D.P.S. Parmar, Technical Member

Bench : Division Bench

Advocate : R. Parthasarathy, Ayush Sharma, Lakshmikumaran, Sridharan, Praveen Anand, Archana Shankar, M.S. Barath, Anand

Judgement

Prabha Sridevan, J

1. This application along with others between the same parties was heard by another Bench of the IPAB. Orders were reserved. The then Technical

member retired before the orders were pronounced. So the cases were listed to be heard again. This application is for revocation of the patent No.

198648 (Invention in short). Mr. R. Parthasarathy appeared for the applicant and Mr. Praveen Anand represented the respondent. Both the learned

counsel, besides arguing the matter at length, have also filed their written submissions on the preliminary issue as well as on merits.

Preliminary objections by respondent

Locus-standi

2. A Preliminary objection has been taken by the respondent herein questioning the locus-standi of the applicant to move the revocation application as

a "person interested" under S. 64 of the Patents Act, 1970. (Act in short). This question has already been decided against the respondent by this Board

in the cases between the same parties in ORA/43/2009/PT/CH and others by order dated 16.11.2010. We will call it the First Batch. This revocation

application forms part of the Second Batch which had to be heard again. The Board which heard the First Batch was pleased to hold that the

applicant has "a known and general interest" together with "commercial interest" by the grant of the patent in question and therefore, they are

definitely "persons interested". All the revocation applications in the First Batch were allowed and the patents were revoked. The respondent has

challenged these orders in the Hon'ble Madras High Court and the writ petitions are pending.

3. According to the learned Counsel Mr. Praveen Anand appearing for the respondent, the Articles of Association of the applicant merely authorise

the applicant to defend the company and to file suits on behalf of the company in matters that may arise out of contractual laws, etc. Therefore, filing

of proceedings against the applicant's own Chairman falls outside the scope of the conditions mentioned in the Articles of Association. According to

the respondent, the Articles of Association do not confer powers on Mr. Yogesh Mehra to institute proceedings against Enercon GmbH and the

respondent herein. The technology has been used with the consent of the majority shareholders and therefore, the applicant cannot challenge the same

technology. It was submitted that the dispute between the parties as regards management and operations of the applicant is sub-judice before the

Company Law Board which has directed maintenance of status quo by its order dated 29.10.2007. The Company Law Board had further directed that

no Board Meeting shall be convened or held and no circular or resolution shall be issued. Therefore, the revocation petition has been filed violating the

order passed by the Company Law Board. It was submitted that the applicant had never disputed the validity of the patent in question until the

termination of the last licence agreement on 8.12.2008 and for 12 years, the patent had not been challenged. It was submitted that the applicant is

estopped by convention and the applicant cannot approbate and reprobate and blow hot and cold. On the one hand, the applicant has derived the

benefit of the patent and on the other the applicant has challenged the validity of the patent. It was also submitted that the applicant should elect the

forum for obtaining relief. It cannot simultaneously proceed with the counter claim before the Delhi High Court and pursue the revocation petition

before the IPAB. It was submitted that following CEO & Vice Chairman, Gujarat Maritime Board v. Haji Daud & Ors. (1996) 11 SCC 23], this

Board must decide all matters ancillary to the revocation proceedings and this Board is vested with the powers to decide the question of locus standi

and whether the applicant is a 'person interested'. The learned counsel referred to several statements on the website of the applicant, where these

inventions were described as break-through innovations and submitted that the applicant cannot make a volte-face and attack the same technology.

The learned counsel submitted that the applicant cannot now challenge the very same technology which it had used and gained financial advantages

for over 17 years. The applicant has held out to the public that it is associated with Enercon GmbH and therefore it cannot move the invalidation

proceedings. The conduct of the applicant is mala fide and the applicant has not come to the Court with clean hands.

4. Mr. R. Parthasarathy the learned counsel for applicant submitted that the applicant had approached the Company Law Board for the name change

and for holding a Board Meeting, and no orders have been passed. He submitted that on 26.4.2007 there was a Board resolution authorising Mr.

Yogesh Mehra to initiate proceedings. This will include revocation proceedings. This authorisation was well within the knowledge of the respondent.

Learned counsel submitted that the Board resolution was passed before the orders of the Company Law Board and till date, the Board's resolution has

not been stayed or set aside. Learned counsel submitted that Enercon GmbH refused to refer the dispute to arbitration and therefore, the derivative

action suit was filed on legal advice and the proceedings before the IPAB and the Hon'ble Bombay High Court are different. Learned counsel

submitted that the Madras High Court had directed the IPAB to examine the locus standi issue and had dismissed the writ petition filed by the

respondent approving the view of the IPAB that the preliminary issue and the merits of the revocation application will be heard together. This was

challenged by the respondent before the Supreme Court, but the respondent withdrew the SLP.

5. According to the learned counsel for the applicant, the respondent had pressed for stay of the Board's resolution on three different occasions, but

the Company Law Board had not granted the relief. According to the applicant, the fact that the respondent had approached the Company Law Board

to decide the validity of the Board's resolution is a tacit admission that the IPAB has no competency to decide the issue. The copy of Articles of

Association relied upon by the respondent was not the correct version. Under Article 117(14) the Board of Directors has been permitted to file legal

proceedings. Article 117(29) permits the Board of Directors to delegate powers conferred on it by Article 117 to any Director. Therefore, the

delegation of powers vide the Board's resolution dated April 26, 2007 is valid. Learned counsel submitted that no time limit has been prescribed under

S. 64 to challenge the validity of the patent and therefore, the period during which Mr. Yogesh Mehra has not challenged the patent is irrelevant.

6. According to the applicant, the respondent was aware of the Board's resolution and had not chosen to challenge it till date. According to the

applicant, the IPAB cannot decide the validity of the Board's resolution of a company and only the civil court can decide the validity. Learned counsel

for the applicant submitted that the applicant was a 'person interested' since its genuine commercial interest will be jeopardised by the patent. Learned

counsel submitted that the argument that the applicant cannot simultaneously proceed with the revocation application in the IPAB and the counter

claim in the suit was urged before the Delhi High Court. The learned Single Judge rejected this contention. This was upheld by the Division Bench.

The SLP filed against that is pending, but there are no interim orders. Learned counsel also submitted that in the appeal filed against the First Batch,

the High Court has not stayed the finding relating to locus standi.

7. By a detailed order in the First Batch, the IPAB had decided the question of locus standi against the respondent. There are no subsequent orders or

decisions of higher Courts which justify a relook into the same issue by this Bench. If this Bench is of a different view, then it must necessarily refer

the matter to a larger Bench. Otherwise, the facts and materials on record are the same.

8. If we examine the words ""person interested"" we find In Ajay Industrial Corporation v. Shiro Kanao of Ibaraki City the Hon'ble High Court of Delhi

has held that the word, 'interest' will depend on the facts of each case and that a 'person interested' must be a person who has a direct, tangible and

commercial interest or public interest which is insured or effected by the continuance of the patent on the Register. The Division Bench referred to

the principles enunciated by Graham, J. In Madeline AG's Patent (1973 RPC 91).

In Globe Industries Corporation's Patent case [(1977) RPC 563] the Court of Appeal held as follows:

The next point, which I think is of great significance, is this: that Graham, J. Points out that, if there is a genuine interest which will be prejudiced,

provided the opposition or the application is not frivolous, vexatious or of a blackmailing nature, then it should be held that sufficient interest has been

established, even if the nature of the interest might be open to some question.

He says this I think partly because there is a fourth point which is referred to in the decision; and that is that it is a matter of public interest that

genuine opposition and revocation proceedings should be allowed, for the reason that the hearing of an opposition or an application for revocation

inevitably gives the comptroller a better chance of assessing the possible grounds upon which the validity of the patent may be questioned, either

before grant or at least at a very early stage in the patent's life; and it is of interest, if an effective challenge can be maintained, to the public at large,

quite apart from the individual interests of the patentee and applicant for revocation or applicant and opponent, that matters of controversy of this kind

should be dealt with as soon as possible and as expeditiously as possible.

Here again we see the public interest angle and how it has been held that genuine opposition and revocation petitions are absolutely necessary to

protect public interest.

9. The respondent herein is an individual, he is the inventor. Enercon GmBH and Enercon (India) Ltd. are corporations and juristic persons and we

must remember this while dealing with the rights of the parties. The challenge of Enercon (India) Ltd. to the patent is against the inventor who is the

individual and not the Chairman. It is admitted that there is a Board resolution dated 26.4.2007. It is the respondent's case that the resolution was not

valid. The respondent also submits that the word, 'suit' will not apply to the revocation proceedings. We cannot decide whether the resolution conforms

to the provisions of the Companies Act. The IPAB has the jurisdiction, power and authority conferred on it by the statute. In these proceedings the

IPAB decides those matters which are referred to in subsection (2) of S. 117A or

S. 117D. (vide S. 117C of the Patents Act) All other Courts and authorities are barred from exercising the above jurisdiction. By the same analogy we cannot stray into areas where the jurisdiction is vested with other authorities like the Company Law Board. While exercising our power we are bound to exercise such powers as are necessary or ancillary to the substantive power, that does not mean we can arrogate to ourselves powers not falling within our jurisdiction. The decision in Gujarat Maritime Board (cited supra) must be understood properly. It said "The jurisdiction of the Commission to entertain and decide complaints necessarily means that where plurality of persons claim the same relief, simultaneously disputing each other's right to claim the said relief, the Commission has the necessary power to adjudicate the rival claims and decide the said dispute also. This power flows from and is incidental and ancillary to the substantive power conferred by Section 21(a)(i) read with Section 22 which applies sub-sections (4), (5) and (6) of Section 13 to the National Commission as well" That is all.

10. We may however see whether there was a resolution which authorised the applicant to sue for revocation. It appears to us that the powers under Article 117(14) and (29) include filing a revocation application. Admittedly there was a resolution and this resolution has not been stayed, nor set aside in a manner known to law. It is for the Company Law Board and/or the High Courts to decide whether such a resolution was valid in law. As far as we are concerned there is a resolution dated 26-4-2007, which authorises the filing of suits and we have Art. 117(14) and (29), so we will not throw out the petition on the ground that the person who signed the revocation petition had no authority to do so.

11. Here, the applicant as an interested person has been enjoying the benefit of the technical know-how of the respondent. There is no denial that the applicant has established an industry on the basis of this. If the licence has been removed or revoked, then, the applicant in the course of business will be prevented from selling the machinery, and the respondent is already suing for infringement. If the applicant succeeds in demolishing the patent in accordance with law, then the infringement suit must fail and the applicant's commercial interest will be secured. Therefore, the applicant herein passes the test of Ajay Industrial Corporation case. In any event, the definition of 'person interested' in the Patents Act is not restrictive, but inclusive.

Therefore, unless it is shown that the challenge to the patent is frivolous and with a view to extract more money from the patent holder, we are bound to examine the patentability of the invention. We are also not sure how far the conduct of the party will weigh with us while deciding a revocation petition. Though we find in S. 64 the words, 'may be revoked', if the revoking applicant proves obviousness under section 64(1)(f) or that the invention does not involve any inventive step, the IPAB cannot say that it is true that the invention is obvious or that it is not novel but since S. 64 gives us the discretion, we will not revoke the patent. That will set the Patent Law on its head. Therefore, the fact that the applicant has not behaved in an unexceptional fashion towards the respondent will not weigh with us if the applicant proves that the invention is not patentable, on the ground that either it is not an invention under S. 3 or since the invention is anticipated or that it does not satisfy the definition of S. 2(1)(j) and 2(1)(ja) or if the grounds under S. 64 are made out. The patent monopoly is not given lightly. If the applicant has not paid the royalty or has displayed bad faith, the respondent can sue the applicant for compensation elsewhere. But on that ground an inventor cannot have an unworthy patent protected. We are therefore satisfied that the applicant has the locus standi to file this revocation application. We are not inclined to differ from the views of the earlier Bench in his regard.

12. After the orders were reserved, the learned counsel for the applicant produced the order of the Company Law Board dated 14.12.2012 in C.P. Nos. 82 & 83 of 2011 by which C.P. 82 of 2011 filed by Enercon GmbH was dismissed and C.P. No. 83 of 2011 filed by Enercon (India) Ltd. was ordered.

Licensee Estoppel

13. The learned counsel for the respondent submitted that though S. 140 of the Patents Act provides for avoidance of certain restrictive conditions, it is always subject to Ss. 115 and 117 of the Indian Evidence Act. Having pleaded that the applicant is the transferee of the technology transferred, it cannot destroy the validity of the intellectual property that was transferred. There is lack of good faith. Learned counsel referred to paragraph-18 of the written statement filed by the applicant herein in the suit before the Delhi High Court. It was submitted that after revocation petition was filed, the

applicant stopped paying the royalty. Learned counsel referred to various paragraphs in the written statement. Learned counsel submitted that an order of revocation is a discretionary remedy and the discretion shall not be exercised in favour of the applicant. Learned counsel referred to the derivative action suit filed before the Bombay High Court. Learned counsel submitted that the applicant must surrender the rights under the agreement (Intellectual Property Licence Agreement) before it attacks the patent.

14. In response, Mr. R. Parthasarathy, learned counsel for the applicant submitted that on 8.12.2008, the licence had been terminated and once it has been terminated, the subsequent application for revocation will not be barred by estoppel. Learned counsel submitted that the respondent cannot plead in the same breath that the license has been terminated and that the applicant as the licensee is estopped from challenging it. According to him, the suit in the Bombay High Court was for a relief regarding the payment of royalty, etc. where the Court will decide the construction of documents and it is still pending before the Bombay High Court. Learned counsel submitted that the answer to the question whether a licensee can file a revocation is 'yes' and referred to S. 140 of the Patents Act. He submitted that the power under S. 64 is very wide. He referred to the decision in *Lear, Inc v. John S. Adkins* 395 U.S. 653, 89, S. Ct. 1902].

15. So we will see whether even if the applicant is a person interested, he is estopped from suing for revocation being a licensee. S. 140 says that it is not lawful to insert in a licence to manufacture or use a patented article or to work any process protected by a patent, any condition of prevention to challenges to the validity of a patent. This is the law. This condition will govern all licences which relate to or are in relation to a patented article or a process protected by a patent. Learned counsel for the applicant relied on AIR 2010 SC 259 in which it was held that there can be no estoppel against a statute.

16. In *Lear Incorporated v. John S. Adkins* 395 U.S. 653, 89, S. Ct. 1902], it has been held that the contractual rights give way to public interest in a challenge to a patent and therefore, even a licensee can attack an unworthy patent. In *Lear*, the inventor was Adkins. He was hired by Lear Incorporated to develop a gyroscope which was required in the aviation industry. Adkins developed an invention which Lear incorporated in its

production process. In the litigation where Adkins claimed compensation for Lear's use of the improvements which the inventor has patented, Lear

sought to prove that Adkins inventions were not sufficiently novel. The inventor argued that as a licensee, Lear must pay. The California Supreme

Court relied on the rule of estoppel to bar Lear from proving that Adkins' invention was not patentable. The U.S. Supreme Court granted Certiorari in

this case to reconsider the Hazeltine rule which invoked estoppel to deny a licensee the right to prove that the licensor's idea was really a part of the

public domain. The U.S. Supreme Court said that the present federal policy favoured free competition in ideas which do not merit patent protection,

and that the licensee estoppels had an uncertain status and it is a product of judicial efforts to accommodate the competing demands of the common

law of contract in the federal law of patents. It observed that instead of a creative compromise, there has been a chaos of conflicting case law. It also

observed as under:

Surely the equities of the licensor do not weigh very heavily when they are balanced against the important public interest in permitting full and free

competition in the use of ideas which are in reality a part of the public domain. Licensees may often be the only individuals with enough economic

incentive to challenge the patentability of an inventor's discovery. If they are muzzled, the public may continually be required to pay tribute to would-be

monopolists without need or justification. We think it plain that the technical requirements of contract doctrine must give way before the demands of

the public interest in the typical situation *671 involving the negotiation of a license after a patent has issued.

The U.S. Supreme Court also held that the overriding federal policies would be significantly frustrated if licensees are required to continue to pay

royalty during the time they are challenging the patent's validity. The Court observed that enforcing this contractual provision would undermine the

strong federal policy favouring full and free use of ideas in the public domain. So we have the Act which says that the conditions which restrict the

right of a licensee from challenging the patent are illegal and we have the opinion of the U.S. Supreme Court explaining why a licensee is entitled to

invalidate the patent. This restriction imposed by S. 140, is another indicator of the public interest angle in patent law. While the law shall protect the

rights of the property owner, it will not restrict the rights of the interested person to challenge the grant, so that unworthy patents are restored to the public domain. Because of the costs of the litigation and the very special nuances of the technology, it may very well be that the licensee alone is capable of challenging the patent. He has the funds and the knowledge to launch the attack on the subject matter of the invention. This is why the U.S. Supreme Court held that it would be inequitable to restrict him from attacking the patent by any condition in the contract. The Parliament has specifically introduced this provision in our Patents Act which is a special enactment as far as patents are concerned and hence it will prevail over the general rules relating to contract. Therefore no licensee can be estopped from challenging the patent. This objection is rejected.

Respondent's MP for additional documents

17. The respondent has also filed a common MP in ORA/3/2009/PT/CH, ORA/6/2009/PT/CH, ORA/7/2009/PT/CH, ORA/8/2009/PT/CH, ORA/10/2009/PT/CH, ORA/39/2009/PT/CH AND ORA/41/2009/PT/CH For reception of additional evidence after this Board had reserved orders and the said MP will be dealt with in ORA/3/2009/PT/CH. Along with the said MP, about 38 documents which had been produced before the High Court have been produced as additional evidence. The applicant objected to reception of these documents.

18. The 38 documents include pleadings filed in the various proceedings between the parties. As far as we are concerned the Hon'ble Supreme Court had refused to grant any interim relief to the respondent in respect of the orders passed in the writ petitions filed against the orders of the IPAB in the First Batch. The pleadings filed before the Company Law board or the Hon'ble High Courts will form the basis for the decisions in those proceedings. No document or order has been produced in these additional documents which has a bearing on the issues raised here.

MERITS:

19. The question whether the applicant succeeds on merits has to be seen. The title of the invention is ""An inverter for producing an alternating or three phase current from a DC voltage"". The object of the invention is to eliminate harmonics so that only current with very low and if possible, no harmonics at all is fed in the public supply net work. According to the

specifications, there is a further winding at the inverter output to produce (this is sought to be amended to 'reduce' as we will see later.) the asymmetrical harmonics. According to the specifications, if there are symmetrical harmonics present at all, they are collected by way of three resonant circuits and directly compensated with them and asymmetrical harmonics are fed back to DC voltage intermediate circuit.

20. There are 21 claims originally and they read as follows:

1. An inverter for producing an alternating or three-phase current from a dc voltage comprising a dc voltage intermediate circuit having an output side

an output circuit including an output choke (LA) connected to said output side, and a feedback circuit including a feedback choke inductively coupled

to said output choke and connected to said dc voltage intermediate circuit to feed harmonics generated in said output side to eliminate said harmonics.

2. An inverter for producing an alternating or three-phase current from a dc voltage comprising a dc voltage intermediate circuit having an output side;

and output choke (LA) connected to said dc voltage intermediate circuit; and a feedback loop from said output side to said dc voltage intermediate

circuit, said feedback loop including a feedback choke inductively coupled to said output choke; wherein an alternating current (three-phase current) is

outputted with the inverter by way of m lines, wherein the m lines are coupled together by a resonant circuit; and wherein substantially symmetrical

harmonics occurring on said output side are very substantially compensated by feeding said symmetrical harmonics back to said dc intermediate circuit

through said feedback loop.

3. The inverter according to claim 1 or 2, wherein the resonant circuit has a tapping by way of which asymmetrical harmonics which occur at the

output of the inverter are fed back into the dc voltage intermediate circuit.

4. The inverter according to claim 1 or 2 having means which produce asymmetrical harmonics at the output side.

5. The inverter according to claim 4, wherein the output choke transmits asymmetrical magnetic fluxes which arise out of the asymmetrical harmonics.

6. The inverter according to claim 4, wherein the output choke comprises m+1 legs, wherein m is a natural number, wherein a leg is associated with

each three-phase current and asymmetrical fluxes which arise out of the asymmetrical harmonics are transmitted by means of the m+first leg.

7. The inverter according to claim 6, wherein the $m+1$ legs are magnetically coupled together and magnetic fluxes which occur in the m +first leg flow back into the m legs of the output choke.
8. The inverter according to claim 1 or 2, wherein only harmonic current flows through the m +first leg.
9. The inverter according to claim 1 or 2, wherein the output choke is a current-compensated choke.
10. The inverter according to claim 1 or 2, wherein the output choke comprises a four-leg choke and a series-connected three-phase choke.
11. The inverter according to claim 1 or 2 wherein the dc voltage intermediate circuit is stabilised with the closed harmonic circuit.
12. The inverter according to claim 1, wherein said dc voltage intermediate circuit has two buses and wherein said output choke is connected to one of said buses.
13. The inverter according to claim 1, wherein said output choke is connected to said dc voltage intermediate circuit by another choke.
14. An inverter comprising a dc circuit having two buses carrying a dc voltage and switches connected to said buses to generate multi-phase ac voltages; an output circuit having a first set of output chokes, each output choke being connected to said dc circuit, a plurality of output lines connected to said output chokes and carrying said multi-phase ac voltages; and a feedback circuit including a feedback choke inductively coupled to said first set of output chokes and connected to said dc circuit to feed harmonics generated in said output circuit; said dc circuit being adapted to eliminate said harmonics.
15. The inverter according to claim 14, wherein a second set of chokes are connected between said output lines and said feedback choke.
16. The inverter according to claim 15, wherein said second set of chokes are connected in a star configuration.
17. The inverter according to claim 15 comprises a set of capacitors, each capacitor being connected to one of the chokes of said second set.
18. The inverter according to claim 14, wherein the said feedback choke is connected to one of said buses.
19. An electrical energy generating system comprising a dc input; and an inverter arranged to generate ac voltage from said dc input, said inverter

comprising a dc intermediate circuit connected to said dc input, an output side with an output choke, and a feedback connected between said output

choke and said dc circuit to feed to said dc intermediate circuit harmonics produced in said output side to dc intermediate circuit, said feedback being

provided to reduce said harmonics.

20. The electrical energy generating system according to claim 19, wherein feedback includes a feedback choke inductively coupled to said output

choke.

21. An inverter for producing an alternating or three-phase current from a dc voltage substantially as herein described with reference to figures 2 to 8

of the accompanying drawings.

21. The diagram which is relevant is as follows:

Applicant's case

Anticipation

22. The applicant attacked the Invention as being anticipated and that it was obvious and did not involve an inventive step and did not sufficiently and

fairly disclose the invention. Though several prior arts were cited in the application, the only prior art that was focussed was US Patent 5661390 ('390

Patent, in short) in both oral and written submissions. The title of this prior art is ""Inverter-Fed Motor Drive with EMI Suppression"". It is dated August

6, 1997. Mr. R. Parthasarathy submitted that this prior art related to inverters and more particularly to minimisation of electro-magnetic interference or

radio frequency noise and the Invention relates to minimisation of unwanted harmonics produced due to inherent switching mode operation of the

invertors. Learned counsel referred to Figure-2A and Figure-2B of the '390 Patent and compared them with Fig 2 of the Invention and submitted that

even a cursory glance would show that both were substantially similar and the configuration is almost the same. Learned counsel submitted that zero

sequence inductance disclosed in '390 Patent is the same as the output choke in the Invention. Learned counsel submitted that the inductor 31 in the

prior art feeds back the harmonics to the DC link where the capacitors are connected and it would be clear to any person skilled in the art that

inductor 31 and DC link are connected because, the inductor is shown to be grounded and the DC link is also at the ground potential. It was submitted

that the secondary winding provided in '390 Patent was for the further improvement of the working of inverter and on the same reasoning the impugned specifications referred to the feedback choke which is provided for improvement. According to the applicant, all elements in the Invention are present in '390 Patent and therefore, it is anticipated.

Inventive step

23. As regards inventive step, the learned counsel referred to the decision in *Wind Surfing International Inc. V. Tabur Marine Great Britain Limited*

[1985 RPC 55] to show how the question of obviousness must be decided. He also referred to 2007 EWHC 2636 (Pat) between the respondent

herein and *Vestas Celtic Wind Technology Ltd.* He also referred to *Pozzoli v. BDMO SA* [(2007) EWCA Civ 588]. According to the learned counsel

there is no difference between the Invention and what is described in Figure-2A and Figure-2B in '390 Patent and that the prior art also talks about an

inverter, reduction of harmonics, use of a secondary winding which is inductively coupled to output choke and the secondary winding is connected to

DC intermediate circuit. Learned counsel submitted that if the connection by way of common conductor is not accepted to be a direct connection,

then, the difference was something extremely obvious to a person skilled in the art. Learned counsel submitted that the so-called inventive step is

essentially the provision of a feedback choke. Learned counsel referred to the Expert evidence which are the affidavits of (i) Prof. B.E. Kushare who

is an Electrical Engineer with 20 years of experience and (ii) Mr. Dilip Trasi who is also an Electrical Engineer with 35 years of experience. Learned

counsel submitted that both the Experts have concluded that the impugned patent is not novel in view of '390 Patent and the grounded connection with

capacitors C1 and C2 means that they are inherently connected. Learned counsel submitted that the Expert evidence filed by the respondent was self-

contradicting. Learned counsel submitted that the respondent's Expert Dr. Volker Diedrichs had also admitted that the '390 Patent addresses the same

problem i.e., elimination of harmonics. Learned counsel objected to the filing the petition for amendment of claims in MP No. 45 of 2011 and submitted

that this was a belated amendment. Learned counsel submitted that while a claim can be amended to overcome the objection of novelty, no

amendment can be made to include any change in the inventive concept and no

amendment can be used to convert a non-essential element into an essential element by combining dependent claims into an independent claim. According to the learned counsel, the amendment ought not to be allowed and even if it is allowed, the amended claims also lack inventive step in view of the prior art.

Respondent's reply

24. Learned counsel for the respondent, Mr. Praveen Anand, referred to each claim and submitted that the respondent ought to have addressed each claim separately on the ground of novelty and inventive step. With the help of a Tabular column, he showed that the attack on each claim of anticipation is unsustainable. As regards obviousness, it was submitted that there is an admission in the pleadings that '390 Patent does not contain the feedback mechanism and to determine the difference between the invention and prior art, it is clear that the difference between the Invention and '390 Patent lay in the combination of features of the output choke and the feedback choke. According to the learned counsel, there was absolutely no indication in the '390 Patent regarding elimination of asymmetrical harmonics. He relied on the evidence of his expert (affidavit dated Sep 2010) who had given evidence regarding the patentability of the Invention and had countered the evidence of Prof. Kushare.

25. Regarding the amendment, he submitted that the amendment was within the provisions of S. 59 and it was narrower in scope than the original claims and the amendment was to bring out clarity and the original independent claims, 2 and 14 and dependent claims 8, 16 have been merged to frame the amended claim-1. According to him, the amendment falls wholly within the original claims. Page 3 para-2 of the specifications is also sought to be amended. The amendment of this Paragraph is as follows:

Asymmetrical harmonics at the inverter output side are fed back into the dc intermediate circuit. To reduce the asymmetrical harmonics, there is a further winding (fourth leg).

After amendment, the claims will read as under:

We claim:-

1. An inverter comprising:-

a three-phase inverter:

an output inductor comprising four mutually magnetically coupled windings, said inductor having a first terminal of each of three of said windings

coupled to a corresponding output terminal of said three-phase inverter;

a symmetrical three-phase star-connected series resonant filter having each of its inputs coupled to a corresponding second terminal of each of said

three windings, said second terminals forming the output terminals of the inverter;

a first terminal of the fourth winding of said output inductor being coupled to a common-terminal of said three-phase series-resonant filter; and the

second terminal of said fourth winding of said output inductor being directly coupled to an input terminal of said inverter.

2. The inverter as claimed in claim 1 wherein the output inductor is a current-compensated inductor.

The Prior Art:

26. The '390 Patent is for 'Inverter-fed Motor Drive with EMI Suppression' is the only prior art. This provides cost-effective suppressing conducted

radio-noise emissions from industrial inverter-motor drives whose EMI performance is able to meet the CISPR or FCC limits on conducted emissions.

It includes some small size L.C. filtering elements built inside the inverter, e.g., two grounding capacitance connected from both side of DC link to

grounding heat sink of devices, a line capacitance across a DC link, three line capacitances across phase leads in AC input side of the diode rectifier,

a zero sequence inductance both in each phase input and in each phase output lead of the inverter. Optionally, an extra secondary winding of the zero

sequence inductor is connected to main circuit of inverter via a L, R, C network.

27. Figures 2A & 2B of the '390 Patent are as under:

28. The reference in the following extract to ""invention"" is to the '390 patent. """"The background of the invention speaks of unwanted harmonics which

are the subject for minimisation. Referring to Figs-2A and 2B the inverter 13 of the present invention includes switching devices 14 and diodes 15

which form a DC link 16 of the inverter 13. Grounding capacitances C1 and C2 are connected from both sides 17, 18 of DC link 16 to heat sink 19

close to switching devices 14. Although the present invention is described herein and shown in Figs-2A and 2B with reference to the PWM inverter

and three-phase induction motor and power supply, it will be appreciated by

those skilled in the art that this invention will apply in a variety of switching mode operation inverters, regardless of the number of phases of supply or the power range as well as the modulation mode. During the switching transient charging/discharging, current flows through the distributed capacitance to the grounded frame of the motor 11 and returns to power mains 27 along miscellaneous paths. This current may be considered as zero sequence current or common mode emission current which is of impulse damping oscillation wave form with complex wide bandwidth spectrum due to the distributed inductance and the losses. These radio frequency currents can be large enough to produce harmful electromagnetic interference (EMI). Along with common three phases primary windings, an extra secondary winding 31 associated with properly chosen circuitry, shown in Fig. 2 is employed to modify the spectrum of primary L, C filtering circuit and to decrease noise by 10 dB μ V at MHz frequency range (150 KHz-30 MHz). Summarizing the aforesaid, by properly placing filtering elements L, C, in the inverter itself associated with the power unit, e.g., a filter built into the converter, the applicants are able to establish an overall cost-effective EMC design. A proposed filtering circuit has been demonstrated in this paper to perform satisfactorily with the excellent effectiveness in suppression of EMI from the inverter drive so that it comes close to meeting the CISPR or FCC limits for digital devices. Furthermore, the cost and weight of the elements used are 5 to 10 times less than that of traditional AC power line filters for implementation of the same filtering level. Therefore, producing ""clean"" inverters with cost-effective EMC become feasible.

29. In the counter statement filed by the respondent, it is pleaded that the object of the Invention is to eliminate the harmonics and though the prior art is admitted to compensate the harmonics by means of capacitor filter network, harmonics will still flow as the filter circuit will not be able to compensate the entire harmonics. It is pleaded that to achieve the said object of eliminating harmonics, there is provided a feedback circuit including feedback choke which is inductively coupled with the output choke and which is connected to the DC voltage intermediate circuit to feedback harmonics generated in the output side to eliminate the said harmonics. The advantage of the Invention is that the harmonics generated at the output side can be fed back and thus eliminated. In none of the prior documents, the

feedback loop connected to the DC voltage intermediate circuit is described. '390 Patent disclosed an inverter having an output side with an output choke which is inductively coupled to a further choke. Thus, the further choke 31 is merely coupled to the resonant circuits and ground and not between the output of the inverter in the input side of the inverter.

30. In the counter statement at Para 4(g)(i) it is pleaded that the prior art depicted in fig. 1 has six power switches (T1-T6) with diodes connected in parallel. At the output of the circuits an output choke and a capacitor filter network is provided. The power switches are switched on to achieve a sinusoidal output current. This output current will also comprise harmonics. The prior art attempts to compensate harmonics by means of the capacitor filter network. But the filter circuits will not be able to compensate the entire harmonics.

31. Mr. Praveen Anand explained the Invention with the help of an explanatory note called, 'Inverter with Reduced Harmonics' to show how the Invention is distinguished from the conventional inverter. The inverter converts DC to a single phase or multiple phase AC. The invention relates to a three phase AC. AC waveform is sinusoidal and the deviation from a pure sinusoidal waveform is known as distortion. There may be periodical distortions which are distortions that are repeated in every cycle. There may be a periodical distortion which is not repetitive like, noise. The periodical distortion can be harmonics or non-harmonics. Harmonics are distortions where the frequencies are multiples of the base frequency. Non-harmonics are distortions where the frequencies are not multiples of the base frequency. The harmonics could be symmetrical or asymmetrical. In the former, the same distortion arises in each phase whereas in asymmetrical harmonics different distortions arise in each phase. The short duration transients are random distortions which do not essentially require three phase. These need to be eliminated. The respondent admits that the objective of the prior art US '859 Patent is the elimination of short duration transients by the use of AC feedback modulator. According to the respondent, the objective of this prior art is different from the objective of the Invention and it also relates to single phase output in contrast to the invention which operates on three phase. The objective of '390 Patent is the elimination of EMI interference which also is undesirable. But, according to the respondent, this is irrelevant

to the Invention which deals with the elimination of harmonics and the circuit used in '390 patent is not the resonant circuit used in the Invention and it is not equipped to handle harmonic frequencies. The harmonics both symmetrical and asymmetrical are prevalent only in multiphase systems. Both these harmonics need to be eliminated. The respondent admits that one of the solutions to eliminate the harmonics is the use of an inverter with suitable filter circuit which contains the switches T1 to T6 and the output shows the parallel filter circuit which filters the symmetrical harmonics in an ideal situation. The output of the conventional inverter should be pure sinusoidal AC and practically, the output comprises harmonics. According to the respondent, this is because, the filter circuit in the conventional inverter does not sufficiently and efficiently filter symmetrical harmonics and does not take into account the asymmetrical harmonics at all. It is the case of the inventor that his Invention overcomes this disadvantage and removes both symmetrical and asymmetrical harmonics efficiently. The inverter in the Invention, according to the inventor, also contains switches T1 to T6 as in the conventional inverter, however, the output inductor contains four mutually magnetically coupled windings and a symmetrical three phase star-connected series resonant filter which is claimed to shunt symmetrical harmonics away from the output. Zero impedance choke L4 at the star-point of the three phase symmetrical resonant filter collects asymmetrical harmonics output and this is a feedback to DC voltage intermediate circuit.

32. Mr. Anand submitted that the petition for amendment of the claims had been filed because of new perspectives and insight gained as a result of the understanding of the technologies. The respondent has carefully contended that the amendment should not be considered as an admission of the deficiency in the claims. By the amendment, original claims 1, 3, 4, 5, 6, 7, 9, 11, 12, 13, 15, 17 and 18 have been deleted. The inventive step or the invention that is claimed by the respondent is the closed harmonics current circuit which sends back the asymmetrical harmonics from the star-point of the resonant circuit through the winding of the 4th leg into the negative bar of the DC voltage intermediate circuit. From the complete specifications, we learn that the invention attains the object of elimination of harmonics by feeding the asymmetrical harmonics "back into the DC intermediate circuit" and that this reduction is achieved by a further winding which transmits asymmetrical magnetic fluxes which arise out of the asymmetrical

harmonics. According to the invention, some of the asymmetrical harmonics are taken off ""at the star-point of the resonant circuit"" and they are

coupled in or passed by way of a winding on the fourth leg into the negative bar of the DC voltage intermediate circuit.

33. If the amendment is narrower than the original claim and brings clarity and explains the inventive step and novelty, we are bound to consider it.

We cannot grant an amendment that does not stand the test of Section 59, but if the amendment falls within the original claim and does not claim

anything beyond that, we may consider whether our discretion should be exercised for granting the amendment.

34. It is clear both from the pleadings on both sides and the written submissions as well as the expert evidence that what is claimed by the inventor as

the Invention, and alleged as being inherent in the prior art of '390 Patent by the applicant, lies in the feedback of the current into the negative terminal

of the dc intermediate circuit. The '390 Patent speaks of an extra secondary winding connected between each of the said phase input power leads and

ground for further improvement. The '390 Patent claims an inverter which is connected by AC input to an AC power supply and by its AC output to

an AC induction motor, the AC input having respective phase input power leads and the AC output includes respective phase output leads. This is an

inverter having a DC link and a plurality of pairs of first and second switching devices respectively each pair being connected between the first and

the second side respectively in parallel to the DC link. It is claimed to be an invention for suppressing the radio noise emission. This prior art

acknowledges that the inherent switching mode operation of the inverter leads to a plurality of problems by means of unwanted harmonics.

EXPERT EVIDENCE:

35. Now we look at the expert evidence. The affidavit of Prof. B.E. Kushare is to the effect that the invention is anticipated by the '390 Patent.

According to the Expert, the '390 Patent talks about an inverter having the object of suppressing high frequency noise emission. He has compared the

prior art and the invention and according to him, there are various parallels and similarities between the prior art and the invention such as, DC

intermediate circuit and output choke and the presence of secondary inverter and 4th link inductor are found in the prior art. According to the Expert,

the 4th inductor 31 is a part of the feedback being at the same potential as the DC intermediate circuit, because both are grounded via the earth which means they are inherently connected. Therefore, according to the Expert, the element of feedback is inherently present in '390 Patent.

36. Prof Diedrichs has given expert evidence on behalf of the inventor. This expert has dealt with three prior arts viz., '859, '252 and '390 Patents.

This witness says there is an error in the complete specification which uses the word 'produce' in respect of asymmetrical harmonics. The expert says

that it is rather to compensate the asymmetrical harmonics and according to him, some of the asymmetrical harmonics are taken off at the star-point

and he says that they are not generated at the output side and they are undesired by-products. As far as '859 Patent is concerned, this expert's opinion

is that the elimination of short duration transients is a different problem and harmonics will be present at the output side of the inverter even if the short

duration transients are eliminated because, harmonics are generated due to the switching of six switches in the inverter. He explains that the feedback

mentioned in '859 Patent is not the feedback choke that is connected to the DC voltage intermediate circuit and the feedback modulator in that prior

art will not feedback harmonics occurring at the output choke to the DC voltage intermediate circuit to eliminate them. The feedback mentioned in this

prior art does not have the same function as the output choke and feedback choke have in the Invention. As regards '390 Patent, the expert says that

it discloses an inverter having an output side with an output choke which is inductively coupled to a further choke. The further choke 31, according to

this expert, is, however, merely coupled to the resonant circuits and ground but not between the output of the inverter and the input side of the inverter

and that the DC intermediate circuit is coupled to ground via two capacitors C1 and C2 and the feedback loop coupling the output of inverter with its

input is not disclosed. Therefore, even the patentee's own expert admits that the prior art also has a further choke.

37. The affidavit of the inventor's expert, Dr. Volker Diedrichs shows that in fact '390 Patent also discloses an inverter having an output side with an

output choke which inductively coupled to a further choke. It reads thus, ""Annexure ('390 patent) discloses an inverter having an output side with an

output choke which is inductively coupled to a further choke. The further choke is however merely coupled to the resonant circuits and grounded but

not between the output of the inverter and the input side of the inverter. Further more the DC intermediate circuit is coupled to ground via capacitors

C1 & C2. Accordingly a feedback loop coupling the output of the inverter is not disclosed. Moreover a different filter is used.

38. Therefore, the expert evidently accepts the case of the applicant to this extent;

â?¢ that the output choke mentioned in the invention is the same as zero sequence inductance found in '390 Patent,

â?¢ the inductive coupling of the outward choke to a further choke which the invention called additional winding is in the prior art.

â?¢ the coupling of further choke or additional winding to the resonant circuit is in the prior art.

However, the difference according to the expert lies in the fact that in the prior art, the further choke-31 is merely coupled to the resonant circuits and

ground but not between the output of the inverter and the input side of the inverter. Therefore, the inventor's expert narrows down the inventive step

of the invention to the feedback loop coupling output of inverter and the input side of the inverter,.

39. He has also referred to the affidavit of Prof. (Dr.) Kushare, who had given evidence that the fact that 4th inductor-31 is at the same potential as

DC intermediate circuit means that they are inherently connected. Dr. Diedrichs has disagreed with this opinion and according to him the DC

intermediate circuit is ""not directly grounded via earth but the capacitors C1 and C2 are coupled between DC intermediate circuit and the earth and

therefore, the electrical potentials of all the components of the rectifier, the inverter and DC link are different"". According to him, US '390 Patent has

chosen a different solution. Therefore, from this we see that this expert also admits that the DC link and DC intermediate circuit are the same.

40. Now, we come to the evidence of Prof. Dilip Trasi on behalf of the applicant. He has also stated that the DC link is the same as the DC

intermediate circuit. The zero sequence inductance which comprises 3 chokes is the same as the output choke in the invention. The feedback choke

which is inductively coupled to the output choke is the same as the 4th winding 31 inductively coupled to the output choke. Prof. Trasi too is of the

opinion that where the invention differs from '390 Patent is where the additional winding is coupled both to the output choke and to the DC voltage

intermediate circuit to feedback the harmonics generated in the output side to eliminate the harmonics.

41. Therefore, the evidence of the expert witnesses on two sides clearly indicate that the only difference between the prior art and the invention is the

coupling of the 4th leg to the output choke to its first terminal and to the inductive side of the DC intermediate circuit to its second terminal. Diedrichs

says it is not disclosed by the prior art, while the other two experts say it inherent in the prior art.

42. The applicant's case is that the additional winding or leg which is claimed to be the invention is really taught by the further choke-31 which is

mentioned in '390 Patent. It is the case of the respondent that while DC voltage intermediate circuit having an output side is found in '390 Patent, '390

Patent does not have an output choke connected to DC voltage intermediate circuit and that zero sequence inductance used in '390 Patent is different

from the choke used in the invention. It is also the respondent's case that the prior art does not contain a feedback loop from the output side to the DC

voltage intermediate circuit and that m-lines coupled together by resonant circuit are not found in '390 Patent. The alleged differentiating feature in

claim-1 as granted and claim-2 as granted from the prior '390 Patent is that there was no feedback circuit and no resonant circuit. Whereas, it is the

case of the applicant that DC link in '390 Patent has two sides 17 and 18, positive and negative, connected to switching device and that this DC link

along with switching device having an output side is having the same configuration as the DC intermediate circuit. It is also the case of the applicant

that the zero sequence inductance disclosed in '390 Patent and shown as L2 in the output choke of the inverter in Fig. 2A and 2B of the prior art is the

same as the output choke La in claim-1. It is also the case of the respondent that the secondary winding shown as inductor 31 is in the same

configuration as the feedback choke in claim-1. It is the applicant's case that the inductor 31 ""feeds back"" harmonics from the output of the inverter to

the DC link where the capacitors are connected. It is the applicant's case that the inductor is shown to be grounded i.e., connected to the chassis/outer

body of the inverter and DC link also has the same potential which would clearly indicate to any person skilled in the art that both the points are having

same potential. It is the applicant's case that the feedback choke 4th link provided for improvement in the invention is the same as the secondary

winding inductor 31 provided ""for further improvement"" of the working of the '390 Patent. According to the applicant, all the elements of claim-1, at

present, are claimed in '390 Patent and since admittedly claim-2 substantially corresponds to claim-1 while being directed to three phase system, '390

Patent anticipates claim-2 as well.

43. The case of the applicant is that because DC link is grounded in '390 Patent although through capacitors C1 and C2 and the second additional

choke is also grounded and since both will be at the same potential, the persons skilled in the art would know that there is a direct link. In '390 Patent

the object was to remove the electro magnetic emission and it also states that it addresses the minimisation of harmonics. It is clear from '390 Patent

that the grounding capacitors C1 and C2 were connected to the DC link close to the switching devices so that the physical path is shortest and there is

lowest impedance for radio frequency ground current source flowing device. The reason for grounding the DC circuit via the capacitors was for a

specific purpose and this is clear, from the prior art and it is also positioned in such a way as to achieve that purpose.

44. Considering the evidence of both the experts and the reasons given by them, the pleadings, the Fig 2 in the Invention and Figs 2A and 2B in the

'390 patent and the other materials before us, we find that the inverter having an output side with an out put choke is in"" 390, the output choke

inductively coupled to an extra choke is also in the prior art, both have the DC link too, the output is coupled to the resonant circuits also. So the

feeding back to the dc intermediate circuit through the feedback loop is the difference. The extra winding is included in '390 patent admittedly ""for

further improvement"", and the exact nature of this improvement is also indicated in the prior art. The extra secondary winding is employed to modify

the following circuit and to decrease the noise.

45. We had asked the Controller to give his opinion on the amendment and accordingly, the Controller filed his opinion which is extracted as follows:

I am of the opinion that the original claim 1 relate to an inverter for producing an alternating or three-phase current from a dc voltage. The said

inverter is like the known inverter which has a dc voltage intermediate circuit, power switches T1-T6 and diodes D1-D6 connected in parallel

therewith, and an output choke LA, as mentioned in para 2 & para 6 of the

description.

But the amended claim 1 claims an inverter which in turn comprising a three-phase inverter. The said 'three-phase inverter' is not disclosed and the

terminology 'three-phase inverter' is not supported by the description.

It should be noted that there is a difference between the terminologies just 'an inverter' and a 'three-phase inverter'. It is not clear from the language

of the claim 1 that how an inverter in turn will comprise a three-phase inverter.

The terminology 'a symmetrical three-phase star' connected series resonant filter has not been mentioned as such in the description.

The features first and second terminal of fourth winding of the output inductor of the claim 1 is not supported by the description. It is difficult to

understand the said features as given in the amended claims and from the para-3 of page 3 and given in the description.

The term "output inductor"/"current compensated inductor" mentioned in claim 2 has been replaced with the terms "output choke"/"current

compensated choke" respectively which is not supported by the description.

It is concluded that, the amended claim 19 (which is a combination of original claims as alleged by the applicant) is not having the same combinational

features of the said original claims 2, 8, 14 and 16 and the scope has also been changed and it lacks in clarity.

The original claims relate to an inverter and the amended claims relate to an inverter which comprises a three-phase inverter. Hence the scope of

protection of the amended claims is beyond the scope of the original claims.

Therefore the proposed amendments in the claims are not allowable u/s. 59 and 10(4) of the Patents Act, 1970.

46. In the complete specifications the respondent had originally claimed that the inverter produces asymmetrical harmonics. According to the

respondent, this is an error, and it should read as "reduces" instead of "produces". This is repeated once more in the complete specifications. It is

stated further in the complete specification that the DC voltage intermediate circuit is simultaneously stabilised with the closed harmonics circuit at the

star-point of the three capacitors and in principle, the potential is earth. The respondent's expert had sworn to the affidavit on September 24, 2010. In

this, he has stated that asymmetrical harmonics occurring at the output side are not generated on the performance of the inverter, but they are the

undesired by-product of the poles with modulation of the six switches of the inverter. Then, again he says that the fourth leg of the choke is not provided to produce asymmetrical harmonics, but rather to compensate asymmetrical harmonics. In the US '819 Patent for the same invention granted on September 17, 2002, it is specifically mentioned that asymmetrical harmonics are generated at the inverter output side and fed back into the DC intermediate circuit. The same has been specifically claimed in original claim-4 which is for ""an inverter according to claim-1 or claim-2 having means which produce asymmetrical harmonics at the output side."" Similarly, in the corresponding EP patent which was granted on 11.1.2006, claim is for an inverter which "" it produces asymmetrical harmonics oscillation on the output side."" Therefore, before the US Patent Office as well as EP Office, the inventor's stand was that the fourth leg produced asymmetrical harmonics. Now, more than a year after the expert's affidavit was filed before the Tribunal, an amendment has been filed allegedly ""due to new perspective and insight gained as a result of the understanding of the technologies"". At least after his own expert gave opinion, the respondent should have known that all the features that were claimed as invention were actually disclosed by the US '390 Patent and that only the feedback loop was the invention and yet, he took no steps to seek the amendment.

AMENDMENT SOUGHT:

47. The Amendment petition states that the word"" produce"" in page 3 para 2 is an error and it should read as ""reduce"". The expert's opinion filed one year before the MP45/2011 also states that it is an undesired by-product. But the complete specifications filed in USA and EP reiterate that asymmetrical harmonics are generated at the output side and ""to produce the asymmetrical harmonics... there is a further winding leg"" (US '819 Col 1 line 57-58) ""the inverter according to the invention produces asymmetrical harmonics""(US '819 Col 3. line 16) claim 4.. wherein the output choke produces asymmetrical harmonics""(US '819 Col 5 Line 24-25) Claim 2 "" with means which produce asymmetrical harmonics oscillations on the output side."" (EP '445 Col 7 45) There appears to be a contradiction in these documents and the inventor is unclear whether the 4th leg produces or reduces asymmetrical harmonics. The unamended complete specifications and claims, and the '819 patent were all drafted to read that the fourth winding leg

produced asymmetrical harmonics. It may be an undesired by product as Dr. Diedrichs states, but nonetheless it is produced there. But when the

respondent was confronted with the '390 patent and the opinion of Diedrichs it was clear that up to the point L4 all the features of the Invention were

disclosed in the '390 patent, and so if the further winding leg produced the harmonics, so would the extra winding in 31(Fig 2B in '390) and this would

lead them into a tangle so they have come up with this case of inadvertent error.

48. We presume, though it was not argued, that the asymmetrical harmonics generated at 31('390 Patent) would have been removed because 31 is

coupled to the resonant circuit and thereafter grounded. It is not of course removed by obtaining a closed circuit by coupling the fourth choke to the

output side of the inverter. (as in the Invention). But we do not have to deal with that. We conclude from the materials before us that the case of the

respondent has all along been both before this Board till the date of the amendment, and before the US PTO and the EP office that at the extra

leg/fourth winding/secondary winding/fourth choke (by whatever name L4 a.k.a. 31 is called) asymmetrical harmonics is generated or produced. They

cannot be allowed to amend it now. We are not convinced by the case of inadvertent error.

49. The other alleged typographical error is the word ""symmetrical"" occurring twice in Claim 2, once when it refers to ""substantially symmetrical

harmonics"" and the other when it refers to ""said symmetrical harmonics"". The respondent requests that he actually meant ""asymmetrical"" and not

symmetrical"". This is incorrect. In the US '819 patent the claim 2 is exactly like the unamended claims, and uses the word ""symmetrical"". So it is not a

case of typographical error, but an intended employment of the word. The respondent could have explained the correct reason for the change, we may

have considered it. But he cannot present what is clearly contrary to truth, and hope to receive a favourable order. We are again not convinced by the

plea of inadvertent error.

50. The respondent also cannot claim an inverter comprising a three phase inverter.

51. In May and Baker Ltd.'s patent (1948) 65 R.P.C. 255, the Court had to consider whether the amendment of a chemo-therapeutic patent must be

allowed. The Court held that if the claims made by the unamended specification

are covetous that ""should in itself be a ground for refusing the amendment as a matter of discretion."" In ORA/14/2009/PT/MUM VRC Continental Ltd. Vs Uniroyal And Others dated 24.8.2012, this Board had relied on Matbro Ltd. v. Machingan (GB) Ltd. [(1973) RPC 823] in relation to belated amendments and held that, a clear distinction between instances where a patentee knows of prior art which he genuinely, and quite properly in the circumstances, thinks is irrelevant, and other instances where, though he learns of or has been warned of objections which are available against his patent as a result of prior art, yet he takes no steps to put his specification right by way of amendment, or still worse, knowingly persists in retaining it in the unamended and suspect form. In the latter cases delay is culpable because potential defendants and the general public are entitled to plan their activities on the assumption that the patentee, though warned, has decided not to amend. If the patentee, by his conduct, lulls the public into a false sense of security he cannot thereafter be allowed to change his mind and ask for amendment, or at any rate without adequate protection being granted to the public. and refused to allow the amendments.

52. The title of the invention is an inverter for producing an alternating or three phase current from DC voltage. The Complete specifications is captioned ""Inverter without Harmonics"" The object is to eliminate the disadvantages of harmonics. Fig 2. Shows the inverter according to the Invention. The complete specifications says that the fourth leg transmits the asymmetrical magnetic fluxes and specifically "" Asymmetrical harmonics are passed by way of the star point to the winding of the fourth leg L4. That fourth winding is connected to the negative bar of the dc voltage intermediate circuit. Up to L4 the expert admits that all the features are disclosed by '390. This coupling of this extra leg which feeds back the asymmetrical harmonics into the negative terminal is alone the difference.

53. Now we will look at the original claims:

Claim 1 is for an inverter comprising 5 elements, a DC voltage intermediate circuit with an out put side, an out put circuit, an out put choke a feedback circuit and a feedback choke. The respondent's own expert's opinion is that '390 prior art has an inverter with an output choke which is inductively coupled to a further choke. And that the prior art does not have a feedback loop

coupling the output inverter with its input.

So the features of claim 1 are found in the prior art '390 patent. Therefore the claim 1 as it stands cannot be granted even as per the respondent's own expert.

In Claim 2 also the difference lies only in this feedback loop, but it claims a dc voltage intermediate circuit, an out put choke, but the feedback loop is

the coupling between the fourth winding and the out put inductor and the input terminal of the inverter. This is not claimed in claim 2. Claim 2 is also

concerned only with symmetrical harmonics which are not fed back. According to the complete specifications "" Symmetrical harmonics are directly

compensated with those resonant circuits, if they are still present"" It is the asymmetrical harmonics which go "" by way of the star point to the winding

of the fourth leg"". We have reiterated several times where the invention lies, and where the Invention, steps away from '390 patent. Claim 2 employs

the word ""comprises"" and takes in also features which are anticipated by '390 Patent. Claim 2 as originally filed fails.

Claim 14 is an independent claim but there is no support in the complete specifications for the two buses, where in again the invention lies only in

feedback circuit. So, this fails for the same reason as claim-2.

The Claim 19 also suffers from the same defect. None of the independent claims can stand as they are. So, the dependent claims also have to go.

The invention actually lies in two of the paragraphs of the Claim 1 as sought to be amended. i.e.

a first terminal of the fourth winding of said output inductor being coupled to a common-terminal of said three-phase series-resonant filter; and

the second terminal of said fourth winding of said output inductor being directly coupled to an input terminal of said inverter.

Therefore, advisedly the respondent has prayed for deletion of those claims which cannot be granted or accepted and has tried to focus on that which

the respondent claims as inventive step, which is novel and that it deserves the grant.

54. The US patent for the same invention is US 6,452,819. The claims here are the same as the original amended claims. This was granted on Sept.

17, 2002. The EP patent for the same invention is EP 1 078 445. The claims are somewhat similar to the claims in the amendment application. This

was granted on 11.01.2006. The Annexure B is the EP patent and it is in German and the claims alone are translated. But we can see that '390 patent

is cited as a prior art. Para 0004 also shows that the prior art is mentioned. We do not have the benefit of the translation, but we would be right in

assuming that the inventor knew that this was a prior art when his EP application was examined. We would also be right in assuming that it is because

this prior art was before the inventor that the width of the claims was narrowed. We also remember that the affidavit of Prof Volker Diedrichs was

with them on 24.09.2010. Yet the respondent persisted in the unamended claims when the matter was originally argued and orders were reserved on

13.10.2010. The then Technical Member retired before the orders were pronounced. So the matters had to be reheard, and were listed before us on

08.08.2011. The application for amendment was filed on 29.09.2011.

55. We are sure that when the EP patent was granted they were aware of the fact that their invention lay only in the feedback loop. Even if we must

grant them the greatest indulgence, they knew that it was so on 24 Sept 2010 (the date of Prof Diedrich's affidavit) and yet they did not seek the

amendment then. Nor did the respondent seek amendment when the matter was argued before the previous Bench. These are factors that justify our

refusal to exercise our discretion.

56. As regards Inherency, it is evident from the tenor of the applicant's expert evidence, that they have looked at the patent only from the angle of

novelty, and that is why the plea of inherency is taken. If the missing feature is inherent in the prior art then the Invention is wholly anticipated by '390.

We record our appreciation of the experts who gave evidence. Dr. Diedrichs has actually focussed on what exactly is the difference, and has

explained all the features that are disclosed by "'390. This has helped us in arriving at the conclusion. The applicant's experts have in a way

corroborated this evidence, because they have not said that this single feature namely the feedback loop is explicitly disclosed by the prior art. They

have only said because both ends are at the same potential viz. earth, the feed back is inherently disclosed.

57. A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention. The prior art

reference may anticipate without disclosing a feature of the claimed invention if

that missing characteristic is necessarily present, or inherent, in the single anticipating prior art. In 339 F. 3d 1373 SCHERING CORPORATION, v. GENEVA PHARMACEUTICALS, INC and others the Court

rejected the contention that ""inherent anticipation requires recognition in the prior art"". It also held that it is not necessary that inherent anticipation requires that a person of ordinary skill in the art at the time would have recognized the inherent disclosure. But it is necessary that the result is a necessary consequence of what was deliberately intended in the invention.

58. We do not agree that the feedback loop is a necessary consequence of the ""grounding"" in the prior art. We have already seen that it is clear from

'390 Patent that the grounding capacitors C1 and C2 were connected to the DC link close to the switching devices so that the physical path is shortest

and there is lowest impedance for radio frequency ground current source flowing device. The reason for grounding the DC circuit via the capacitors

was for a specific purpose. This was the deliberate intention. We do not see how the feedback is a necessary consequence, and that feedback is

allegedly ""inherent"" feature. We have already observed that the harmonics that are generated in 31 ('390 Patent) may be eliminated by grounding, that

may be a natural consequence. This was not argued. But the feedback and the closed circuit are not inherently anticipated by '390.

59. Therefore we find that the invention lies only in a three phase inverter with this feature of the fourth winding being coupled to the negative terminal

as we have indicated above. This alone is novel over '390 Patent. In view of this, the original claims cannot be granted, and we have given our reasons

earlier. Regarding the amendment sought for, the Controller has given his opinion as above. We have not relied on the Controller's opinion, since that

would be unfair to the respondent who had no opportunity to answer it. Dehors the opinion of the Controller we are convinced that the amendment as

sought cannot be allowed.

60. The delay in bringing the amendment, the persistence in the original claims fully knowing that with the prior art in front of them it cannot be

granted, and the incorrect reason for replacing the word ""produce "" by 'reduce"" and ""symmetrical"" by ""asymmetrical"" relate to the conduct of the

respondent. We would be justified in refusing amendment, if the conduct of the respondent was not fair. In Smith Kline French v. Evans Medical

(1989 FSR 561) the principles on which discretion for allowing amendments are set out. They include, full and fair disclosure of all relevant matters, compliance with the statute, public interest requirement of seeking amendment promptly, and above all, the conduct. The respondent fails on almost all counts.

61. But mainly, even now the amendments sought for are wider than what is indicated by their own expert to be the invention above '390. We have already given our reasons for refusing the respondent to amend the claims as prayed for and accordingly, MP No. 45 of 2011 is dismissed.

62. As regards the main revocation petition, we have found that all the claims as worded, barring claim Nos. 2, 14 and 19 are not novel and even claims Nos. 2, 14 and 19, as worded are wide and include features which are anticipated by the US '390 Patent. Hence these claims shall be amended before the patent can survive the revocation.

63. We have also given our reasons why we are not accepting the case of inherency pleaded by the applicant with regard to the single feature which according to us possesses novelty and which feature has its basis in the complete specification (page 3 line 15-18). When the claims as originally filed cannot be accepted and when the conduct of the respondent is one of the reasons for not allowing the amendment, we would have been justified in just ordering revocation. But, since we have found that there is a small inventive step in the invention, we want to give an opportunity to the respondent to file appropriately amended claims within a period of two months from the date of receipt of this order after serving a copy of the same on the applicant and the Controller. If the claims are not amended and filed within the time mentioned above, the Patent No. 198648 shall stand revoked. Consequently, M.P. Nos. 15 of 2010 M.P. No. 29 of 2010, M.P. No. 77 of 2010, M.P. No. 7 of 2013 and M.P. No. 6 of 2013 are closed. No costs.