



CMA(PT)/37/2023

IN THE HIGH COURT OF JUDICATURE AT MADRAS

DATED: 27.08.2024

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THE HONOURABLE MR.JUSTICE SENTHILKUMAR RAMAMOORTHY

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Hendrickson USA, L.L.C.

Rep. By its Authorized Representative Mr.R.R.Nair,

500 Park Boulevard, Suite 1010, Itasca,

Illinois 60143, USA

Nationality: USA

... Appellant

-vs-

The Controller of Patents and Designs,

Government of India, Patent Office,

Intellectual Property Rights Building,

GST Road, Guindy,

Chennai - 600 032.

... Respondent

PRAYER: Civil Miscellaneous Appeal (Patents) is filed under Section 117-A of the Indian Patents Act, 1970, praying to call for the records of the Respondent culminating in the Impugned Order dated 01 March 2023, rejecting the Grant of Patent and Set Aside the same and consequently direct Grant of the Patent in respect of the Appellant's Application No.2621/CHENP/2015.



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For Appellant : Mr.S.Sivathanu Mohan
for M/s S.Ramasubramaniam
and Associates

For Respondent : Mrs.R.Durgarani, CGSC
Mr.Kundan Kumar, Assistant
Controller of Patents

JUDGMENT

This appeal is directed against an order dated 01.03.2023 rejecting Patent Application No.2621/CHENP/2015. The appellant applied for grant of patent for an invention titled “Axle Mount For Heavy-Duty Vehicle Brake System Components”. Such application was the national phase application derived from PCT application bearing No.PCT/US2013/056178. Upon receipt of the application, the First Examination Report (FER) was issued on 04.07.2019. In the FER, objections were raised *inter alia* in respect of novelty and inventive step. The appellant responded to the FER on 01.01.2020. Pursuant to hearing notice dated 17.01.2023, the impugned order was issued on 01.03.2023.

2. Learned counsel for the appellant invited my attention to the



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claims and pointed out that independent claim 1 deals with an axle mount for brake system components wherein the peened portion extends through the entire length and width of the weld and onto adjacent surfaces of the said axle or said brake system component to a distance beyond the boundary of stress concentrations on the axle or the brake system component caused by the weld.

3. By referring to a pictorial representation of the claimed invention, learned counsel submits that the heat affected zones (HAZ) are the areas depicted in red adjoining the welded portion and that the areas depicted in blue are areas beyond the HAZ. By referring to hearing notice dated 17.01.2023, learned counsel submits that the respondent recorded that prior art document D3 does not disclose shot peening of the welded region and the nearby area. As regards prior art document D1, he submitted that the shot peened area in D1 is limited to the toe portion of the weld and that the respondent recorded a finding to this effect at paragraph 7 of the impugned order. After pointing out that prior art document D2 was



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published in or about 1969, he submits that the said prior art document also deals with peening of adjacent areas and not peening of areas beyond the stress affected zone or HAZ.

4. In support of these contentions, he relied upon the judgment of the Delhi High Court in *Avery Dennison Corporation v. Controller of Patents and Designs* C.A.(Comm.IPD.PAT)/29/2021, order dated 04.11.2022, particularly paragraph 36 thereof, for the principle that an extended time gap between the cited prior art and the claimed invention would ordinarily lead to a conclusion that the claimed invention is not obvious. He also relied on the judgment of the Delhi High Court in *Societe Des Produits Nestle SA v. The Controller of Patents and Design and another* C.A.(Comm.IPD-PAT)/22/2022, particularly paragraphs 63 and 65 thereof, for the proposition that the grant of patent in other jurisdictions, wherein the same prior art was considered, is a material consideration while considering an application for grant of patent.



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5. These contentions were countered on behalf of the respondent. The first submission was that inboard mounting is part of common general knowledge. Similarly, it was submitted that welding and shot peening are part of common general knowledge. By referring to prior art document D1, it was submitted that shot peening the welded areas is clearly disclosed therein. By referring to prior art document D2, it was pointed out that shot peening of adjacent areas is disclosed therein. By contending that such shot peening is not confined to the stress affected zone, it was further contended that the claimed invention does not satisfy the twin requirements of technical advance and non-obviousness under Section 2(1)(ja) of the Patents Act, 1970 (the Patents Act).

6. As regards the expression HAZ, it was submitted that the use of the word 'zone' indicates that it is not a clearly defined area and extends beyond the area actually affected by welding-related stress. By further submitting that the appellant failed to discharge the burden of establishing the technical advance or non-obviousness of



carrying out shot peening beyond the stress affected area, the respondent concluded his submissions by contending that no case is made out to interfere with the impugned order.

7. Independent Claim 1 of the appellant is set out below:

*“An axle mount for a brake system component (205) of an axle/suspension system comprising:
a weld (295) disposed on and between an axle (207) of said axle/suspension system and a brake system component (205), said weld securing said brake system component (205) to said axle inboard of a suspension assembly (14) of said axle/suspension system to form a bracket-to-axle connection, said connection including a peened portion that extends an entire length and width of said weld and onto adjacent surfaces of said axle or said brake system component **to a distance beyond a boundary of stress concentrations on the axle or the brake system component caused by the weld.**”(emphasis added)*



WEB COPY 8. The last segment of independent claim 1 indicates that the peened portion extends “to a distance beyond a boundary of stress concentrations on the axle or brake system component caused by the weld”. The question that arises for consideration is whether this aspect was noticed in the impugned order and, if not, the implications thereof. At paragraph 5(c) of the impugned order, it is stated as under:

“The welding in an area causes the local increase in heat. This causes a change in mechanical and physical properties in the nearby zone termed as Heat Affected Zone (HAZ). HAZ is common general knowledge in the field of joining technologies. The treatment of HAZ through shot peening or other mechanical techniques are well-known technique as a remedy to modify the mechanical/physical properties in the said zone. The same is also explicitly taught in D2.”



9. The above extract discloses clearly that the respondent recognised that welding causes changes in the mechanical and physical properties of the nearby zone termed as Heat Affected Zone(HAZ). It was further recorded that the treatment of HAZ through shot peening is a well-known technique to modify the mechanical and physical properties in the said zone. Since there was teaching in prior art document D2 to that effect, the claimed invention was construed as obvious to the person skilled in the art.

10. The impugned order referred to specific lines in column 4 of prior art document D2. The said portions are set out below:

“....The entire weld and the adjacent area is peened with a pneumatic hammer, air chisel or the like capable of operating at 1000 to 2000 strokes per minute, and providing from 200 to 1600 pounds impact....”(lines 26-29 of column 4)”

“Alternatively, after the cylinder head is repaired and the weld machined in the manner heretofore described, the repaired portion and areas adjacent



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thereto are peened at ambient temperature by shot peening to stress relieve the surface of such piece.

Peening, in general, compacts the surface and the part undergoing repair, thereby effectively increasing the “endurance life” and providing greater fatigue resistance of such part. In shot peening, the peening shot acts as a tiny ball hammer, stretching the surface radially. The total effect of the many tiny “hammers” is to present a surface which is in residual compression, while fibers immediately under the surface are in tension from the depressed surface. The effect of flexing is to relieve compression on the surface and return the inner fibers to normal, thereby extending fatigue resistance.”(lines 59-75 of column 4)

11. The above extracts disclose that peening is carried out in the entire welded area and the adjacent area for purposes of increasing the endurance life and providing fatigue resistance in such part. From D2, it is not possible to record a definitive conclusion as to whether the expression “adjacent area” is confined to the area under



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stress. Nonetheless, it should be noticed that there is no express reference therein to areas beyond the areas under stress.

12. By contrast, in the complete specification of the claimed invention, at internal pages 11 and 12, in relevant part, the following recital is contained:

"....Peened weld 295 is peened along its entire length. In addition, the bracket-to-axle connection is peened a sufficient distance beyond the weld to axle interface and the weld to bracket interface, beyond the boundary of where the stress concentration exists, to increase desirable compressive stresses."

13. The alleged benefit of such peening is asserted at internal page 12 of the complete specification of the claimed invention, in relevant part, as under:

"Improved axle mount for brake components 205 of the present invention imparts desirable compressive stresses into the critical



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high stress areas of the bracket-to-axle connection, thereby increasing durability of the bracket-to-axle connection as well as durability of axle 207. The improved durability of the bracket-to-axle connection and axle 207 provides the opportunity if desired to use a thinner, and therefore lighter, axle, which in turn provides cost and weight savings to the axle/suspension system."

14. As discussed earlier, the impugned order deals with peening in the HAZ and records the conclusion that such peening would be obvious from prior art document D2. The complete specification read with independent claim 1, however, refer to peening being undertaken beyond the stress affected area and asserts advantages on that account. Since the impugned order stopped with recording that peening in the HAZ is obvious from prior art document D2, I do not think it appropriate in course of these appellate proceedings to examine whether the appellant has made good the assertion that peening beyond stress affected areas actually



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results in a technical advance or that it would not be obvious to a person skilled in the art. Such exercise should be carried out upon remand.

15. Therefore, for the limited purpose of examining whether the claimed invention qualifies as an invention under the Patents Act in view of undertaking peening beyond the boundary of stress concentration, I propose to remand the matter. It should be noticed, in this regard, that the impugned order cannot be characterized as unreasoned and that the remand is for the limited purpose outlined above.

16. For reasons set out above, impugned order dated 01.03.2023 is set aside and the matter is remanded on the following terms:

(i) In order to ensure that the matter is examined afresh, re-consideration shall be undertaken by an officer other than the officer who issued the impugned order.

(ii) After providing a reasonable opportunity to the appellant, a reasoned decision shall be issued within a period of *four months*



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from the date of receipt of a copy of this order.

WEB COPY (iii) It is made clear that no opinion is expressed herein on the merits of the application.

17. Therefore, CMA(PT)/37/2023 is disposed of on the above terms without any order as to costs.

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Index : Yes / No
Internet : Yes / No
Neutral Citation: Yes / No

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