

Judgments of Intellectual Property High Court, Second Division

Date of the Judgment: 2007. 3. 29

Case Number: 2006 (Ne) No. 10035

Title (Case):

A case which was brought for payment of reasonable value for an employee's invention and wherein the court decided who the inventors of the invention are and then decided on the proportion of contribution by each joint inventor thereto

Reference: Article 35, para.3 and 4 of the Patent Act prior to the revision by Act No.79 of 2004.

Summary of the Judgment:

1. In this case, regarding the patent on the invention called "Fuel Injection Valve" which was succeeded by the defendant of first instance (hereinafter referred to as the "Defendant") from the plaintiff of first instance (hereinafter referred to as the "Plaintiff") (The patent is hereinafter referred to as the "Disputed Patent" and the invention is hereinafter referred to as the "Claimed Invention."), the Plaintiff demanded the Defendant to pay 5 billion yen as a part of reasonable value therefor — the Plaintiff asserted the amount of the reasonable value was 23,082,842,220 yen — under Article 35 of the Patent Act prior to the revision by Act No.79 of 2004 (hereinafter, referred to as the "Former Article 35.") and delay damages thereon.

2. On March 9, 2006, the Tokyo District Court, which was the court of first instance of this case, partly upheld the Plaintiff's claim and ordered the Defendant to pay 549,333 yen and delay damages thereon. In doing so, the court found that "among the joint inventors, the proportion of contribution made by A, the Plaintiff and B were 5, 3 and 2, respectively," and that "the proportion of contribution made by the Defendant, the employer, to the employee's invention was 90%," and held that "Considering the fact that the Plaintiff has already received payment of 718,800 yen from the Defendant as consideration for assignment of the Claimed Invention, the remaining amount to be paid shall be 549,333 yen."

3. Dissatisfied with the judgment of the first instance, both the Plaintiff and the Defendant appealed to this court.

4. This court partly upheld the claim made by the Plaintiff and ordered the Defendant to pay 1,394,756 yen and delay damages thereon. In doing so, this court found that "among the joint inventors, the proportion of contribution made by A, the Plaintiff and B were 3, 5 and 2, respectively," and that the proportion of contribution made by the Defendant, the employer, to the employee's invention was 90%," and held that "Considering the fact that the Plaintiff has already received payment of 718,800 yen from the Defendant as consideration for assignment of the Claimed Invention, the remaining amount to be paid shall be 1,394,756 yen."

5. Regarding the proportion of contribution made by each joint inventor to the Claimed Invention, this court found the course of events leading to the Claimed Invention based on the examination of the three joint inventors (A, the Plaintiff and B) held before it, and held as follows.

"The claimed fuel injection valve, by setting the length L1 of the longitudinal direction of the inner end of the slit-shaped nozzle outlet not less than 4.5 times as large as the width W of said inner end, forms fuel spray into a remarkably flat sector shape so that it may increase the area with

which to contact the surrounding air and it may easily entrain the surrounding air. As a result, atomization of fuel spray is promoted and the spray diameter is kept at smaller values even in the case of small fuel consumption. Furthermore, the Claimed Invention enables the fuel spray to have a proper range and penetration by changing the ratio of the length L1 of said inner end and the width W of said inner end. Consequently, the Claimed Invention makes intense suction swirl unnecessary, enjoy a high efficiency and extend the scope of lean burn control thereby eliminating cycle-to-cycle variation.

“The problem to be solved by and the working-effects of the Claimed Invention were suggested in an experiment conducted by A in or around 1983. In A’ s experiment, it is confirmed that when using a fan spray nozzle, (i) a flat sector-shaped fuel spray is formed, (ii) the angle of diversion of the fuel spray would be approximately 180 degrees, (iii) a narrower width W provides better atomization of fuel sprays and, in practical use, the optimum numerical range of width W shall be set to 0.2mm or less, and (iv) the angle of diversion of the fuel spray may possibly be defined by the diameter of the sack portion (D) and the depth of slit made on the inner wall of the sack portion. ... Among the teachings (i) to (iv), the teaching (i) was well known at the time of A’ s experiment, but the other teachings ((ii) to (iv)) cannot be found to be well-known or easy to invent at that time. Therefore, A can be found to be one of the joint inventors of the Claimed Invention. However, as A’ s experiment did not teach or suggest the technical information that resulted in the constituent feature E (the length L1 of the longitudinal direction of the inner end of the slit-shaped nozzle outlet is set not less than 4.5 times as large as the width W of the inner end) — which is more important in the Claimed Invention than the teachings of A’ s experiment (i) to (iv) —, A’ s contribution to the Claimed Invention shall deemed to be smaller than the Plaintiff’ s.

The plaintiff produced various kinds of slit-shaped nozzle outlets and took data thereof, by observing the shapes of the fuel spray emitted from these nozzle outlets, and measured the spray diameters. Moreover, the Plaintiff made experiments not only by setting the angle of divergence of the fuel spray to 180 degrees but by changing the angle from 180 degrees to 70 degrees and thereby demonstrated that the use of the appropriate nozzle would make intense suction swirl unnecessary, result in a high efficiency, extend the scope of lean burn control, and decrease cycle-to-cycle variation. Based on these findings, the Plaintiff prepared an in-house invention report. Although the relational expression ‘ $L \geq 4.5 \times W$ ’ was thought of by B, it is obvious that such relational expression is based on the findings of the Plaintiff’ s experiment stated in the report (Fig. 21, Fig. 23 and other descriptions of the report). Thus, although the Plaintiff’ s experiment was made based on the teachings provided by A, the Plaintiff has made the greatest contribution to the making of the Claimed Invention.

It is B who reached the idea to limit the numerical range of L1 and W which define the size of the inner end of a slit-shaped nozzle outlet, using the knowledge acquired from his/her experience in research and development of diesel engines. B made the technical ideas underlying the Claimed Invention more specific and clear by working out the relational expression, ‘ $L \geq 4.5 \times W$,’ based on teachings of the in-house invention report. In other words, B reached the idea to

limit the numerical ranges of L1 and W which define the size of the inner end of a slit-shaped nozzle outlet, based on the knowledge acquired from his/her own experience in research and development of direct injection diesel engines that the angle of divergence and diameter of the fuel spray depend upon the shape of the inner end on the side of the inner circumferential wall of the slit-shaped nozzle outlet. When doing so, B combined the findings disclosed in the in-house invention report and his/her technological knowledge that the angle of divergence of the fuel spray should be more than 60 degrees to guarantee proper fuel combustion without support of swirls and on specifications of the inner ends of slit-shaped nozzle outlets, thereby giving a concrete form to the technical ideas underlying the Claimed Invention and specifying it. These works conducted by B shall be regarded as more important than a mere act of preparing the description of the Claimed Invention by comparing the in-house report with prior arts to identify patentable features of the Claimed Invention and reciting them in the claims. B added his/her own technical knowledge obtained in the course of research and development of diesel engines, and thereby further developed the invention and made it more specific and clear. B should also be regarded as a joint inventor by reason of these contributions.

However, as B's relational expression, ' $L \geq 4.5 \times W$ ' was thought of based on the finding of the Plaintiff's experiment (Fig. 21, Fig. 23 and other descriptions of the report), his/her contribution shall not be deemed greater than those of the Plaintiff.

Based on the above findings, this court examined the actual contribution by the three joint inventors to the Claimed Invention and found that the proportion of contribution made by the Plaintiff, A and B shall be considered as 5, 3, 2, respectively."

Moreover, regarding the Defendant's argument that the Claimed Invention was invented only by B and that A and the Plaintiff shall not be regarded as joint inventors, this court held as follows. "In the application for patent filed by the Defendant on August 21, 1989 and in the patent bulletin published on February 13, 1997, the Plaintiff and A had been stated as the inventors of the Invention. Therefore, arguing that the two above-mentioned joint inventors are not the inventors of the Invention in a lawsuit where the Plaintiff, who had been stated as one of the joint inventors in the patent application, claimed reasonable value for the employee's invention, shall be deemed as an act of openly asserting matters inconsistent with those reported pursuant to the provision of Article 36, para.1, item 2 of the Patent Act in the patent application to the Japan Patent Office, a state institution. Such act is a violation of good faith and shall be estopped unless there are any special circumstances.

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