Patent Right	Date	September 16, 2021	Court	Intellectual Property High Court, Fourth Division
	Case number	2021 (Ne) 10005		
- A case in which the court did not accept the allegation that the Corrected Invention lacks enablement requirements and support requirements based on the experimental results where the infringing product that works the Corrected Invention with design change shows effects superior to those of the infringing product. - A case in which the judgment in prior instance was modified concerning the damages corresponding to the royalties set forth in Article 102, paragraph (3) of the Patent Act.				

Case type: Claim for compensation based on the patent infringement
Results: Modification of the judgment in prior instance
References: Article 36, paragraph (4), item (i) and paragraph (6), item (i), Article 123, paragraph (1), item (iv), and Article 102, paragraph (3) of the Patent Act
Related rights, etc.: Patent No. 4304544
The judgment in prior instance: Tokyo District Court, 2017 (Wa) 28541

Summary of the Judgment

1. The First-instance Plaintiff who is the patentee of a patent (Patent No. 4304544) of an invention titled "Refrigerant suction structure in piston type compressor" alleged that the manufacture and sale of the First-instance Defendant's products fall under infringement of the patent right in question (the "Patent Right") and claimed compensation for damages or reimbursement of unjust enrichment.

From the damages calculated pursuant to Article 102, paragraph (2) of the Patent Act and damages calculated pursuant to paragraph (3) of said Article, the judgment in prior instance partially upheld the claim based on the latter for which the amount is larger.

The First-instance Plaintiff filed an appeal against the part of the judgment in prior instance that partially dismissed the claim for compensation for damages and expanded the claim, and the First-instance Defendant was dissatisfied with all the parts against it and filed an appeal.

2. Concerning the Patent Right, the First-instance Defendant had filed with the JPO a request for a trial for invalidation twice but in both cases, the JPO rendered a decision to maintain the patent. The First-instance Defendant further filed a lawsuit to seek rescission of the JPO decision, but the court rendered a judgment to dismiss the claim

and maintain the patent, which became final and binding. In the appeal instance of this case, the First-instance Defendant withdrew its allegations that it had argued as grounds for invalidation in these invalidation trials.

3. Breach of enablement requirements

The First-instance Defendant alleged as follows: the design-changed product shows effects superior to those of the infringing product and therefore it is obvious that the corrected invention in question (the "Corrected Invention") does not prove effective; even if the Corrected Invention shows effects under specific conditions, the relevant conditions are not indicated in the description; and therefore, excessive trial and error are required for working the Corrected Invention. However, concerning the experimental results on which the First-instance Defendant relies, the experimental conditions are not clear and its reliability cannot be verified. The design-changed product does not fulfill Constituent Feature E of the Corrected Invention, but fulfills the remaining constituent features. In the Corrected Invention, refrigerant leakage is prevented by Constituent Features C and F. The fact that the design-changed product achieved an equivalent or greater compression rate than the infringing product cannot be said to deny that the Corrected Invention shows the effects of an increase in volumetric efficiency. Therefore, the experimental results do not have an impact on the determination on enablement requirements.

4. Breach of support requirements

The First-instance Defendant alleged that the design-changed product shows effects superior to those of the infringing product and therefore it is obvious that the Corrected Invention does not prove effective, and that the structure of the Corrected Invention cannot achieve an increase in volumetric efficiency, which is an objective of the invention, and therefore, the Corrected Invention is not stated in the detailed explanation of the invention as a means to solve the problem. However, concerning the experimental results on which the First-instance Defendant relies, the experimental conditions are not clear and their reliability cannot be verified. In addition, the Corrected Invention has a means of communicating a compression reaction that biases the rotary valve towards the inlet of the suction channel that communicates to the cylinder bore in the discharge stroke and it corresponds to a means to solve the problem, while the design-changed product fulfills constituent features other than Constituent Feature E in the Corrected Invention and it has a structure corresponding to the aforementioned means to solve the problem, in which it has the same flexible thrust bearing structure as the infringing product and thereby biasing the rotary valve towards the inlet of the suction channel that communicates to the cylinder bore in the discharge

stroke. Therefore, the fact that the design-changed product achieved an equivalent or greater compression rate than the infringing product cannot be said to deny the effects of the Corrected Invention and the experiment results do not have an impact on the determination on support requirements mentioned above.

5. Amount of damages

(1) In cases of calculating the amount of damages pursuant to Article 102, paragraph (3) of the Patent Act by setting the sales of the infringing product as the base amount and by multiplying the base amount by the rate to be received for working, when calculating the rate of money to be received for working, a reasonable rate should be specified by [i] taking into account the royalty rate under actual licensing agreements of the patented invention and, if the royalty rate is not clear, by also taking into account the market rate for royalties in the industry, etc., [ii] the value of the patented invention itself, in other words, the technical content, importance, and substitutability with other items of the patented invention, [iii] contribution to sales and profits and mode of infringement in cases where the patented invention is used for the product and [iv] competitive relationship between the patentee and infringer, business policy of the patentee, and other circumstances presented in the lawsuit.

(2) The royalty rate that was found by the judgment in prior instance was increased in consideration of the following circumstances: actual cases on the royalty rates in the field of compressors, the fact that the Corrected Invention contributed to putting the rotary valve method to practical use and has reasonable technical value, and there were no other alternatives at the time of the infringement; the First-instance Plaintiff and the First-instance Defendant were in a competitive relationship and it is difficult to consider that mutual licensing is implemented; on the other hand, the effects of increasing volumetric efficiency by the Corrected Invention are not clear in specific figures and therefore, customer attractiveness, etc. is limited to an extent; the sales of the Defendant's Products include those of the clutch parts, etc. The amount of marginal profits from sale of the infringing product by the First-instance Defendant is the upper limit of the damages calculated pursuant to Article 102, paragraph (2) of the Patent Act. Since the amount of damages calculated pursuant to paragraph (3) of said Article is larger than the marginal profits, regardless of the existence or non-existence of grounds for rebuttal of presumption in paragraph (2) of said Article, it can be said that it is obvious that the amount of damages calculated pursuant to paragraph (3) of said Article exceeds the amount of damages calculated pursuant to paragraph (2) of said Article. Accordingly, the court did not make a detailed determination on damages pursuant to paragraph (2) of said Article.

Judgment rendered on September 16, 2021
2021(Ne)10005, Appeal case of seeking compensation
(Court of prior instance: Tokyo District Court, 2017(Wa)28541)
Date of conclusion of oral argument: June 24, 2021

Judgment

Appellant / Appellee (hereinafter referred to as the "First-instance Plaintiff")
Toyota Industries Corporation

Appellee / Appellant (hereinafter referred to as the "First-instance Defendant")
Hanon Systems Japan Ltd.

Main text

1. Based on the appeal filed by the First-instance Plaintiff, the judgment in prior instance shall be modified as follows.
(1) The First-instance Defendant shall pay to the First-instance Plaintiff 698,858,050 yen and the amount accrued thereon at the rate of 5% per annum for the period from September 1, 2017, until the completion of the payment.
(2) The remaining claim of the First-instance Plaintiff shall be dismissed.
2. The additional claim of the First-instance Plaintiff in this instance shall be dismissed.
3. The appeal filed by the First-instance Defendant shall be dismissed.
4. Court costs in the first and second instances shall be divided into three and the First-instance Defendant shall bear one-third of the costs and the First-instance Plaintiff shall bear the remaining costs.
5. This judgment may be enforced provisionally only for Paragraph 1 (1).

Facts and reasons

No. 1 Judgment sought by the parties
1. The First-instance Plaintiff
(1) The judgment in prior instance shall be modified as follows.
(2) The First-instance Defendant shall pay to the First-instance Plaintiff 1,853,621,468 yen and the amount accrued thereon at the rate of 5% per annum for the period from September 1, 2017, until the completion of the payment.

(The First-instance Plaintiff claimed in the court of prior instance the payment of 1.0 billion yen and delay damages or interest thereon; however, the claim was expanded as mentioned above in this instance.)

2. The First-instance Defendant

(1) The part of the judgment in prior instance which is against the First-instance Defendant shall be rescinded.

(2) Concerning the part related to the aforementioned rescission, the claim of the First-instance Plaintiff shall be dismissed.

No. 2 Outline of the case

1. Outline of the case (Abbreviations used hereinafter are defined separately or are the same as in the judgment in prior instance.)

This is a case in which the First-instance Plaintiff who has a patent right (the "Patent Right") related to an invention titled "Refrigerant suction structure in piston type compressor" alleged that the compressors imported and sold by the First-instance Defendant (hereinafter referred to as the "Defendant's Products") belong to the technical scope of the invention related to the Patent Right and demanded that the First-instance Defendant pay 1 billion yen out of the 1,713,203,366 yen and delay damages or interest thereon at the rate of 5% per annum as specified by the Civil Code before the amendment by Act No. 44 of 2017 for the period from September 1, 2017 (the day following the day when the complaint was served) until the completion of the payment, as a claim for damages or reimbursement of unjust enrichment based on tort.

The judgment in prior instance found patent infringement by the First-instance Defendant, upheld the First-instance Plaintiff's claim to the extent of claiming payment of 438,300,840 yen and delay damages thereon, and dismissed the remaining part. Therefore, both parties were dissatisfied with the parts respectively against them and filed appeals. The First-instance Plaintiff expanded the claim in this instance to the payment of 1,853,621,468 yen and delay damages or interest thereon.

2. Concerning "Basic facts," "Issues," and "Allegation of the parties against the issues," the judgment in prior instance is modified as follows; the supplementary allegations of the parties in this instance as indicated in 3. below are added; and the remaining parts are as stated in No. 2, 1. and 2. (since the First-instance Defendant withdrew its allegation in this instance concerning Grounds for invalidation 1 through 6 and 8, G. only from (2)) and No. 3, 1. through 3., 10., 12., and 13. in the "Facts and reasons" section of the judgment in prior instance and therefore these are cited.

(1) The following is added as a new line after the end of page 3, line 23 of the judgment in prior instance.

"Concerning the lawsuit (Tokyo District Court, 2014 (Wa) 34678; hereinafter referred to as the "Prior Infringement Lawsuit") in which the First-instance Plaintiff made a claim for an injunction, etc. against the manufacturing and sale, etc. of the Defendant's Products against the First-instance Defendant, the Tokyo District Court granted the claim of the First-instance Plaintiff on April 21, 2017; concerning the case of appeal (Intellectual Property High Court, 2017 (Ne) 10060), the Intellectual Property High Court dismissed the appeal of the First-instance Defendant on November 28, 2017, and the judgment became final and binding due to dismissal of the appeal and non-acceptance of the final appeal (Exhibits Ko 6, 9, and 14)."

(2) The section from "made the decision that ...." on page 4, line 1 through the end of line 4 of the judgment in prior instance is modified to "made the decision (hereinafter referred to as the "JPO Decision") as follows: .... The First-instance Defendant filed a lawsuit to seek rescission of the JPO Decision (Intellectual Property High Court, 2019 (Gyo-Ke) 10016); however, the Intellectual Property High Court dismissed the claim of the First-instance Defendant on January 29, 2020, and the judgment became final and binding due to dismissal of the appeal and non-acceptance of the final appeal. (Exhibits Ko 18, 27, and 38)."

(3) After "'piston type compressor with a rotary valve.'" on page 65, line 10 of the judgment in prior instance, the following is added: "At the time of the Priority Date, as a refrigerant suction structure in swash plate form piston type compressor, a reed valve method was generally adopted where a thin, elastic reed made of metal, etc. is installed in a cantilever manner on the cylinder room side, the reed blocks the suction port from the inside, and thereby prevents the reverse flow of refrigerant; however, there was the following problem: pressure differences between the cylinder room, suction room, and discharge room were essential; since refrigerant was supplied to the cylinder room through a clearance formed by the elastic deformation of the reed, the cross-sectional area of the flow channel was small and intake resistance was generated. In order to solve this problem, a rotary valve method that supplies refrigerant by shaft rotation had been developed; however, it was not put into practical use. The corrected invention in question (the "Corrected Invention") is a basic invention that enabled practical use of the rotary valve method by preventing leakage of refrigerant, and obtaining various effects, including an increase in volumetric efficiency. Actually, the First-instance Plaintiff started sale of a rotary valve method piston type compressor (10SR compressor) for the first time in the industry in 2004 after the Priority Date (November 21, 2001)."

(4) The following is added as a new line after the end of page 68, line 23 of the judgment

in prior instance.
"The First-instance Plaintiff alleged that the Corrected Invention is a basic invention that enabled practical use of the rotary valve method and it started sale of a rotary valve method piston type compressor for the first time in the industry in 2004 after the Priority Date.

It is found that the First-instance Plaintiff started sale of the rotary valve method piston type compressor after the Priority Date; however, the rotary valve of the product (10SR15C) was not cylindrical, but had a concave portion or groove on its outer periphery (currently the product has no concave portion or groove on its outer periphery). Based on the above, it cannot be said that the rotary valve method was put into practical use by the Corrected Invention."

(omitted)

No. 3 Judgment of this court

This court determines that the claim of the First-instance Plaintiff has grounds to the extent of seeking the payment of 698,858,050 yen and delay damages thereon. Reasons are as stated below.

1. The Corrected Invention

It is as indicated in No. 4, 1. of the judgment in prior instance and therefore it is cited.

2. Issue (1) (Whether the Defendant's Products belong to the technical scope of the Corrected Invention)

It is as indicated in No. 4, 2. through 4. of the judgment in prior instance and therefore it is cited.

3. Issue (2) G. (Grounds for invalidation 7: Breach of enablement requirements or support requirements)

(1) Breach of enablement requirements

A. In the detailed explanation of the invention in the description in question (the "Description"), the problem to be solved by the invention, means to solve the problem, action of the structure, and effects obtained from the structure are stated; the concrete structure is stated in the working example and, in particular in [0043], there is a specific suggestion concerning clearance control. Therefore, it should be said that, in the statements of the detailed explanation of the invention in the Description, matters necessary for a person skilled in the art to understand the technical meaning of the invention are given and a person skilled in the art can manufacture and use the article without requiring excessive trial and error, based on the statements of the detailed

explanation of the invention in the Description and common general technical knowledge as of the Priority Date.

Consequently, a breach of enablement requirements cannot be found in the Corrected Invention.

B. As mentioned in No. 2, 3. (1) A. (B) above, the First-instance Defendant alleged that, in the Corrected Invention that uses flexible thrust bearings, various types of failures may be generated and therefore, excessive trial and error are required for working the invention. However, in the field of compressors, it is common general technical knowledge that the oil (lubrication oil) that returns to a compressor along with refrigerant flows through the sliding unit performs lubrication and the oil fulfills the role of preventing refrigerant leakage by sealing the clearance in the operation room (Exhibit Ko 11). It is naturally required in terms of compressor design to set the biasing force or to select lubrication oil so that the oil film of the lubrication oil on the sliding surface does not break when working the Corrected Invention. It cannot be said that necessity of adjustment for the requirements alone represents excessive trial and error.

In addition, the First-instance Defendant alleged that, according to Exhibit Otsu 67, RS-15N, which is a design-changed product, is superior in volumetric efficiency to RS-15 (Defendant's Product 1) that is a working of the Corrected Invention, and therefore it is obvious that the Corrected Invention does not prove effective; even if the Corrected Invention proves effective under specific conditions, the relevant conditions are not stated in the description; and therefore excessive trial and error are required for working the Corrected Invention.

However, from Exhibit Otsu 67, experimental conditions are not clear except for the differences in the structure of RS-15N and RS-15, and the reliability thereof cannot be verified, and therefore, Exhibit Otsu 67 cannot be adopted immediately.

In addition, according to Exhibits Ko 28 and Otsu 67, RS-15N is different from RS-15 (Defendant's Product 1) that belongs to the technical scope of the Corrected Invention only concerning the structure of radial bearings of the rotary valve. In other words, concerning RS-15, the front side of a shaft 50 is directly supported by a front side cylinder block 20 via a hole 21 for the shaft and the back side of the shaft 50 is directly supported by a rear side cylinder block 30 via a hole 31 for the shaft (page 203, at line 11 through line 16 of the judgment in prior instance related to the citation). However, RS-15N is different in the following points: the front side of the shaft 50 is directly supported by a sliding bearing that is installed inside the front side cylinder block 20 and the rear side of the shaft 50 is directly supported by the sliding bearing that is installed inside the rear side cylinder block 30 (Constituent Feature E of the

Corrected Invention is not fulfilled). At the same time, as it is explained in No. 4, 3. of the judgment in prior instance related to the citation, RS-15N fulfills the remaining constituent features of the Corrected Invention in the same way as RS-15; RS-15 fulfills Constituent Feature C, "a means of communicating compression reaction that biases a rotary valve," and Constituent Feature F, "thrust bearing means consisting of part of the means of communicating compression reaction," and outer periphery of the shaft is displaced so that it comes closer towards the front side passage of the cylinder bore in the discharge stroke, thereby preventing refrigerant leakage. Then, the fact that RS-15N fulfills Constituent Features C and F of the Corrected Invention in the same way as RS-15 achieved an equivalent or greater compression rate than Defendant's Product 1 cannot be said to deny that the Corrected Invention shows the effect of an increase in volumetric efficiency. Therefore, the experimental results in Exhibit Otsu 67 do not have an impact on the determination on enablement requirements mentioned above.

(2) Breach of support requirements

A. As mentioned in (1) A. above, in the detailed explanation of the invention in the Description, the problem to be solved by the invention, means to solve the problem, action of the structure, and effects obtained from the structure are stated and the specific structure is stated in the working example.

And, concerning the Corrected Invention, a piston type compressor with a rotary valve, which serves as the basis for the invention, is specified in Constituent Feature A; the fact that it has a means of communicating compression reaction to bias the rotary valve towards the inlet of the suction channel that communicates to a cylinder bore in the discharge stroke by communicating the compression reaction against the piston in the cylinder bore that is in the discharge stroke to the rotary valve, and the structures of radial bearings and thrust bearings that comprise the means of communicating compression reaction are specified in Constituent Features C through F. These correspond to the invention stated as a means to solve the problem in the detailed explanation of the invention of the Corrected Invention and therefore, the invention stated in the claim of the Corrected Invention is the invention stated in the detailed explanation of the invention and is in the scope where a person skilled in the art can recognize that the problem to be solved by the invention can be solved based on the statement of the detailed explanation of the invention or the suggestion thereof.

Consequently, a breach of support requirements cannot be found in the Corrected Invention.

B. The First-instance Defendant alleged, as mentioned in No. 2, 3. (1) A. (C) above, that according to Exhibit Otsu 67, RS-15N, which is a design-changed product, is

superior in volumetric efficiency to RS-15, which is a working of the Corrected Invention, and therefore it is obvious that the Corrected Invention does not prove effective; since the structure of the Corrected Invention cannot achieve an increase in volumetric efficiency, which is an objective of the invention, the Corrected Invention is not stated as a means to solve the problem in the detailed explanation of the invention.

However, from Exhibit Otsu 67, experimental conditions are not clear except for the differences in the structure of RS-15N and RS-15, and Exhibit Otsu 67 cannot be adopted immediately as stated in (1) B. above.

In addition, as mentioned in A. above, the Corrected Invention has a means of communicating compression reaction that biases the rotary valve towards the inlet of the suction channel that communicates to the cylinder bore in the discharge stroke, and it corresponds to a means to solve the problem. RS-15N in the experiment in Exhibit Otsu 67 fulfills constituent features other than Constituent Feature E in the Corrected Invention and it has a structure corresponding to the aforementioned means to solve the problem (excluding structure of radial bearing), in which it has the same flexible thrust bearing structure as RS-15 and the Corrected Invention, in other words, a structure related to a means of communicating compression reaction (thrust bearing), and thereby it biases the rotary valve towards the inlet of the suction channel that communicates to the cylinder bore in the discharge stroke. Therefore, the fact that RS-15N achieved an equivalent or greater compression rate than Defendant's Product 1 cannot be said to deny the effects of the Corrected Invention and the experiment in Exhibit Otsu 67 does not have an impact on the determination on support requirements mentioned above.

4. Issue (3) (Amounts of damages and unjust enrichment)

(1) Sales and marginal profits of the Defendant's Products

A. Sales

There are no disputes regarding the sales of the Defendant's Products from February 2013 through June 2017 that those of Defendant's Product 1 were ●●●●●●●●●●●●●● and those of Defendant's Product 2 were ●●●●●●●●●●●●●●●.

In addition, concerning sales of the Defendant' Products in US dollars in December 2012 and January 2013, sales of Defendant's Product 1 in December 2012 were ●●●●●●●●●● and those in January 2013 were ●●●●●●●●●●●●; those of Defendant's Product 2 in December 2012 were ●●●●●●●●●●● and those in January 2013 were ●●●●●●●●●●●●; the average foreign exchange rate in December 2012 was 83.64 yen/US dollar (Exhibit Otsu 70-1) and the average foreign exchange rate in January 2013 was 89.24 yen/US dollar (Exhibit Otsu

70-2). There are no disputes regarding sales in both months or that sales should be calculated based on these foreign exchange rates. Based on the above, concerning the sales in Japanese yen of the Defendant's Products in both months, the sales of Defendant's Product 1 in December 2012 were ●●●●●●●●●●● and those in January 2013 were ●●●●●●●●●●●●●; those of Defendant's Product 2 in December 2012 were ●●●●●●●●●●●●● and those in January 2013 were ●●●●●●●●●●●●.

In total, the grand total of sales of Defendant's Product 1 was ●●●●●●●●●●●●●● and that of Defendant's Product 2 was ●●●●●●●●●●●●●●●.

B. Marginal profits

There are no disputes regarding the fact that the marginal profits of Defendant's Product 1 from February 2013 through June 2017 were ●●●●●●●●●●● and those of Defendant's Product 2 were ●●●●●●●●●●●●.

In addition, there are also no disputes concerning the marginal profits of the Defendant's Products in US dollars in December 2012 and January 2013, that the marginal profits of Defendant's Product 1 in December 2012 were ●●●●●●●● and those in January 2013 were ●●●●●●●●●, those of Defendant's Product 2 in December 2012 were ●●●●●●●●● and those in January 2013 were ●●●●●●●●; and that the marginal profits in December 2012 should be converted at an average foreign exchange rate in December 2012 of 83.64 yen/US dollar and the marginal profits in January 2013 should be converted at an average foreign exchange rate in January 2013 of 89.24 yen/US dollar. Based on the above, concerning the marginal profits in Japanese yen for the Defendant's Products in both months, the marginal profits of Defendant's Product 1 in December 2012 were ●●●●●●●●● and those in January 2013 were ●●●●●●●●●●; those of Defendant's Product 2 in December 2012 were ●●●●●●●●●● and those in January 2013 were ●●●●●●●●●.

In total, it is found that the marginal profits related to Defendant's Product 1 were ●●●●●●●●●●●● and those of Defendant's Product 2 were ●●●●●●●●●●●.

(2) Article 102, paragraph (3) of the Patent Act

A. In cases of calculating the amount of damages pursuant to Article 102, paragraph (3) of the Patent Act by setting the sales of the infringing product as the base amount and by multiplying the base amount by the rate to be received for working, when calculating the rate of money to be received for working, a reasonable rate should be specified by

[i] taking into account the royalty rate under actual licensing agreements of the patented invention and, if the royalty rate is not clear, by also taking into account the market rate for royalties in the industry, etc., [ii] the value of the patented invention itself, in other words, the technical content, importance, and substitutability with other items of the patented invention, [iii] contribution to sales and profits and mode of infringement in cases where the patented invention is used for the product, and [iv] competitive relationship between the patentee and infringer, business policy of the patentee, and other circumstances presented in the lawsuit. These points are examined in sequence below.

[i] Royalty rate under actual licensing agreement of the patented invention and, if the royalty rate is not clear, the market rate for royalties in the industry, etc.

(A) There is no evidence to indicate that a licensing agreement was actually concluded concerning the Corrected Invention.

(B) a. In the survey result report on the royalty rates in the automobile-related technology field that was created by the Intellectual Property Research Associates, there are the following statements: "A technology licensing agreement was concluded with a non-public foreign automobile manufacturing company concerning manufacturing of a new compressor and liquid separator for an automobile air-conditioning system. Under the schedule to complete technical transfer in late 1998, Shanghai Machinery (licensee) needs to pay 3% of the net sales price of all pieces of subject product that are manufactured for seven years to the foreign automobile manufacturing company." and "Prime Manufacturing Company (licensee) concluded an exclusive worldwide patent agreement concerning automobile air-conditioning technology that is used for the development of highly efficient air-conditioning systems for off-road vehicles and buses, that is unique and safe in terms of environmental protection, and that is equipped with an ozone protection function. Prime pays Rovac (licenser) a royalty of 6% of the net sales price of all base parts of Rovac that are included in the scope of air-conditioning and refrigerant systems that are sold. The royalty includes mainly compressors, heat exchangers, discs, and plumbing systems." (Exhibit Ko 19).

b. In the royalty database created by a US marketing consulting company (AUS Consultants), there are the following statements concerning automobile-related technology: "Licensing agreement: Company has an exclusive license to manufacture orbital vane compressors. The license covers multiple markets, including automobile air-conditioning, freezers for transportation, industrial air-compressors, and vacuum pumps: India, Pakistan, Sri Lanka, Nepal, Bangladesh."; "Payment details: Royalty: In cases of exporting to countries other than the aforementioned countries, the royalty rate

was disclosed to be 8%; and in cases of selling to the aforementioned countries, the royalty rate was disclosed to be 5% respectively."; and "Licensing agreement: A Korean company ... concluded an agreement with an Egyptian automobile parts company to provide the technology of the Korean company concerning manufacturing and assembly of automobile air-conditioning."; "Payment details: Prepaid amount: Under the agreement, Elteriak (licensee) needs to pay to Halla (licensor) 200.000 US dollars as a deposit, and a royalty: a royalty of 3% of the net sales for five years by setting October as the start date." (Exhibit Ko 20)

c. In the "Royalty Rate Data Handbook" edited by the Intellectual Property Policy Office, Ministry of Economy, Trade and Industry (Exhibit Ko 21), it is stated as a result of a questionnaire on royalty rates that, in "Technical field: Machines or pumps," which covers engines, compressible fluid pumps, etc. that are closely related to the technology field of the Corrected Invention, there are 16 cases, including one case of a royalty rate of less than 1% (6.3%), 3 cases of a royalty rate of 1% to less than 2% (18.8%), 2 cases of a royalty rate of 2% to less than 3% (12.5%), 6 cases of a royalty rate of 3% to less than 4% (37.5%), 2 cases of a royalty rate of 5% to less than 6% (12.5%), and 2 cases of other royalty rates (12.5%).

d. [redacted] According to the licensing agreement in question (the "Licensing Agreement"), a fixed amount of royalties is paid per piece and therefore, it is different from the royalty rate method.

e. [redacted] Under this agreement, a fixed amount of royalties is paid at the conclusion of the agreement and at mass production and therefore it is different from the royalty rate method.

(C) In this lawsuit, there is no evidence to present a royalty rate under the actual licensing agreement in the technology field of the patent right in question.

According to the questionnaire results concerning royalty rates in a field adjacent

to the technical field of the patent right in question ("machines or pumps"), it is stated that the number of cases of a royalty rate of 3% to less than 4% is the largest (37.5%), the numbers of cases of a royalty rate of 5% to less than 6% and cases of a royalty rate of 2% to less than 3% are the same (12.5%), the number of cases of a royalty rate of 1% to less than 2% is 3 cases (18.8%), and it is also stated in other survey results and databases that there were cases of a royalty rate of 3% or 6% and cases of a royalty rate of 5% to 8% or 3%. Based on the above, royalty rates in the field of compressors may also be considered to be mainly around 3% to 4%, but it can be seen that there is also a considerable number of cases of royalty rates around those rates.

In addition, as mentioned in No. 2, 3. (2) B. (B) a. above, the First-instance Defendant alleged that both the case in this lawsuit and Licensing Agreement are for the licensing of patent rights to sell compressors and the subjects of licensing should be considered the same, and therefore, the Licensing Agreement should be valued; however, [redacted]. It cannot be said that there are reasons to particularly value these cases of licensing agreement over other cases and it is reasonable to consider it as an example of royalty rates in the field of compressors.

In addition, the First-instance Defendant alleged as follows: all the cases listed in Exhibits Ko 19 through 21 are general cases that have no relationship with the First-instance Defendant or First-instance Plaintiff and there is no commonality or similarity with this case in terms of specific points; the Patent Right is one patent right in Japan related to the field of compressors and therefore when considering the rate to be received for working as set forth in Article 102, paragraph (3) of the Patent Act, it should be compared with the rate by non-exclusive licensing of one patent right in Japan; however, Exhibit Ko 20 is not related to patent rights in Japan and it is a case of an exclusive license. If there is no case that completely matches specific points as a case to determine a royalty rate, it is natural to take into consideration other cases (including cases related to patent rights in other countries) in the same field and since only manufacturing is covered by an exclusive license under Exhibit Ko 20, it cannot be shown that the licensee acquired an exclusive right for sale. Consequently, the allegation of the First-instance Defendant cannot be adopted.

[ii] The technical content and importance, and substitutability with other items of the Corrected Invention

(A) In the book "Car Air-Con (Automotive Air Conditioning)," that was issued on March 25, 1997, which is before the Priority Date, (Exhibit Ko 11), a swash plate form piston type compressor using a rotary valve is not stated and a suction valve (reed valve) is shown in a diagram in Figure 6.5 on page 113.

The reed valve method, which is conventional art, had the following drawbacks: it required a pressure difference between the cylinder room and suction room; cross-sectional area for the flow channel was small; and intake resistance was generated by the valve. Therefore, a rotary valve method to provide refrigerant by shaft rotation had been proposed (Exhibits Otsu 18, 22, 23, 28, 30, etc.). However, it was not put to practical use since there was a problem that refrigerant leaked from the compression room during the discharge stroke due to a clearance between the outer periphery of the rotation shaft and the inner periphery of the shaft hole and it was very difficult to control the clearance (Description [0004]). In the Corrected Invention, the rotary valve is biased towards the inlet of the suction channel that communicates to the cylinder bore in the discharge stroke by using a compression reaction that is communicated to the rotation shaft equipped with the rotary valve and thereby increases the volumetric efficiency (Description [0015]) and strict control of the clearance becomes unnecessary (Descriptions [0043]). These are found to contribute to putting the rotary valve method to practical use in terms of costs and other aspects. There are no disputes regarding the fact that the First-instance Plaintiff sold the rotary valve method piston type compressor after the Priority Date.

The First-instance Plaintiff's product at the beginning of practical use (10SR15C) had the structure before the correction in question (the "Correction") and its rotary valve was not cylindrical but had a concave portion or groove. Therefore, it is considered that it is not a working of the Corrected Invention itself. However, the product also uses a technical idea of the Corrected Invention, which is to prevent refrigerant leakage with a compression reaction. This point was not changed before and after the Correction.

Then, it should be said that the Corrected Invention contributes to putting the rotary valve method piston type compressor to practical use and it can be said to have had considerable customer attractiveness.

(B) The First-instance Defendant continues to sell the design-changed product to Mazda, a customer of the Defendant's Products, but [redacted]. This means that there was no alternative technology that showed the effects of the Corrected Invention

at least during most of the time of the infringement (from December 2012 through June 2017).

[iii] Contribution to sales and profits and mode of infringement in cases where the patented invention is used for the products

(A) The fact that the Corrected Invention contributed to putting the rotary valve method to practical use is as mentioned in [ii] above.

At the same time, it is not clear in specific figures how much of an increase in volumetric efficiency is achieved and the customer attractiveness, etc. for the function and effect of the Corrected Invention is limited to an extent.

(B) Defendant's Products are sold in combination with a clutch part.

According to Exhibit Otsu 62, it is found that the sales price of a compressor (clutch part and compressor part) corresponding to the component number that falls under the Defendant's Products is 468.15 US dollars and the sales price of a clutch part alone is 231.82 US dollars. These are sales prices in the aftermarket (market for vendors who are not regular dealers for demand after the sale of goods) and it cannot be applied immediately to the transactions of the Defendant's Products between the First-instance Defendant and JCS or Mazda. In addition, the First-instance Defendant does not sell clutches separately from the Defendant's Products.

However, the clutch part and compressor part can be distinguished in terms of ideas. When applying Article 102, paragraph (3) of the Patent Act, it is necessary to consider the circumstances that sales of the Defendant's Products includes those of the clutch parts.

(C) As mentioned in No. 2, 3. (2) B. (B) c. above, the First-instance Defendant alleged that the Defendant's Products achieved the effects of prevention of refrigerant leakage by strict clearance control independently of the Corrected Invention.

The "strict clearance control" of the Defendant's Products as argued by the First-instance Defendant is to finish the shaft and shaft holes with extremely high accuracy, to adopt a structure to set the clearance at 30μm, to set the radial bearing to be a bearing to support the shaft in all areas except the swash plate installation section and thrust bearing, and to adopt a long structure wherein the bearing protrudes outside the cylinder block, and thereby preventing refrigerant from leaking from the inlet of the suction channel without shaft movement (judgment in prior instance related to citation, page 12, line 5 through line 13).

However, if refrigerant leakage is prevented by strict clearance control as alleged by the First-instance Defendant, in Exhibit Otsu 3 Report (a comparison of volumetric efficiency between Defendant's Product 1 [clearance is 30μm] and compressors for

which the clearance is changed to 50μm, 70μm, 90μm, and 110μm), the volumetric efficiency of a compressor with a clearance of 50μm should be inferior to Defendant's Product 1, for which the clearance is 30μm; however, it is stated that volumetric efficiency was almost the same between the cases of clearances being 30μm and 50μm. Therefore, it should be said that the allegation of the First-instance Defendant lacks sufficient grounds.

In addition, even if the Defendant's Products adopted the strict clearance as argued by the First-instance Defendant and the structure shows effects for the prevention of refrigerant leakage, the Defendant's Products have the structure as stated in Explanatory Document of Articles-A and Explanatory Document of Articles-B attached to the judgment in prior instance, wherein the shaft 50 displaces when compression reaction F that acts on a piston 60 is communicated to a front side thrust bearing 70, to which a swash plate and thrust load absorption function is added, acts to tilt the shaft 50 centering on the radius center of the swash plate 51 by allowing the action of the swash plate 51 by thrust load absorption, and thereby the shaft 50 (rotary valve) is biased towards the inlet of the front side channel 23 that communicates to the cylinder bore 22 in the discharge stroke. It can be said that refrigerant leakage is prevented also by the structure that fulfills Constituent Features C and F of the Corrected Invention as explained in No. 4, 3. of the judgment in prior instance. Therefore, the allegation of the First-instance Defendant that refrigerant leakage is prevented independently of the Corrected Invention cannot be adopted.

[iv] Competitive relationship between the patentee and the infringer and business policy of the patentee

(A) The First-instance Plaintiff manufactures and sells rotary valve method piston type compressors and the first-instance Defendant has imported and sold the Defendant's Products that are rotary valve method piston type compressors since December 2012. Therefore, they are in a competitive relationship. The First-instance Defendant alleged, as mentioned in No. 2, 3. (2) B. (B) d. above, that in automobiles manufactured by Mazda, in which the Defendant's Products are embedded, an affiliate relationship for compressors, "commercial distribution from the parent company of the Defendant → the First-instance Defendant → JCS → Mazda" has been established and denies the competitive relationship. However, the competitive relationship is questioned for specifying the royalty rate between the patentee and the infringer here. Therefore, it is not a problem of whether the First-instance Plaintiff can directly sell to Mazda and the allegation of the First-instance Defendant cannot be adopted.

(B) The market of rotary valve method piston type compressors is in an oligopoly

situation and it tends to be closed in that cross-licensing is not common (the entire import of oral arguments).

B. Based on the examination above, it is reasonable to find that the royalty rate in this case that is to be specified ex post facto against the patent infringer is 3% in consideration of the following circumstances of this case: royalty rates in the field of compressors are mainly around 3% to 4%; however, it can be seen that there is also a considerable number of cases of royalty rates around those rates; the Corrected Invention has reasonable technical value and there were no other alternatives; the First-instance Plaintiff and the First-instance Defendant are in a competitive relationship and it is difficult to consider that they mutually implement licensing; on the other hand, customer attractiveness, etc. for the function and effect of the Corrected Invention is limited to an extent; sales of the Defendant's Products include those of the clutch parts, etc.

In addition, the First-instance Defendant alleged that the value of the Corrected Invention is low on the grounds that determinations have varied between the judgment of the Intellectual Property High Court in the prior infringement lawsuit, this invalidation decision, or those by Seoul High Court, etc. and other judgment bodies concerning the function and effect and the establishment of infringement of the Corrected Invention, etc. as mentioned in No. 2, 3. (2) B. (B) e. above. Apart from the rate of the preliminary licensing agreement that is calculated in consideration of possibility, etc. of patent right invalidation, the damages set forth in Article 102, paragraph (3) of the Patent Act are calculated on the assumption that the patent right is valid and patent infringement exists. Therefore, it is not reasonable to take into account the situations of individual procedures.

C. Calculation of the amount of damages

According to sales of Defendant's Products 1 and 2 that were found in (1), A. above, the amount of damages sustained by the First-instance Plaintiff pursuant to Article 102, paragraph (3) of the Patent Act is [redacted] in total, based on the following formula.

(Calculation formula)

- Defendant's Product 1 (RS-15)

[redacted]

- Defendant's Product 2 (RS-13)

[redacted]

- Total: [redacted]

D. Damages calculated pursuant to Article 102, paragraph (2) of the Patent Act

The amount of profits that the infringer received from the infringement act that is presumed to be damages sustained by the patentee pursuant to Article 102, paragraph (2) of the Patent Act is the amount of marginal profits obtained by deducting additional necessary expenses directly related to the manufacturing and sale of the infringing product incurred by the infringer from the sales of the infringing product achieved by the infringer. As mentioned in (1) B. above, it is [redacted] and [redacted] is presumed to be the amount of damages sustained by the First-instance Plaintiff due to the patent infringement act of the First-instance Defendant.

Then, the amount of marginal profits, [redacted], is the upper limit of the damages pursuant to paragraph (2) of said Article. It is obvious that this amount is less than the aforementioned damages pursuant to paragraph (3) of said Article, [redacted]. Regardless of the existence or non-existence of grounds for rebuttal of presumption in paragraph (2) of said Article, it can be said that it is obvious that the amount of damages calculated pursuant to paragraph (3) of said Article exceeds the amount of damages calculated pursuant to paragraph (2) of said Article. Consequently, it is unnecessary to make any further determination for the damages pursuant to paragraph (2) of said Article.

E. Amount equivalent to consumption tax

(A) Consumption tax is imposed on "transfer, etc. of assets conducted by businesses in Japan" (Article 4, paragraph (1) of the Consumption Tax Act). There is the Consumption Tax Basic Directive that construes "transfer, etc. of assets" and includes "compensation for damages that the intangible property right holder receives from the party at fault, if the intangible property right is infringed" (Consumption Tax Basic Directive 5-2-5). Therefore, if a person whose patent is infringed receives compensation for damages based on tort from the infringer, it is construed that the compensation for damages is subject to the consumption tax. Then, [redacted], which is calculated pursuant to Article 102, paragraph (3) of the Patent Act as mentioned in D. above is compensation for damages in this case. When calculating the amount of damages sustained by the First-instance Plaintiff, it is construed to be reasonable to add the amount obtained by multiplying the aforementioned amount of damages by the amount equivalent to consumption tax. The First-instance Plaintiff claimed the amount obtained by multiplying the amount of damages by 8% as the amount equivalent to the

consumption tax. As indicated in the following formula, the amount is calculated as ●●●●●●●●●.

(Calculation formula)

●●●●●●●●●●●● × 8% = ●●●●●●●●●

Consequently, the amount of damages to which the amount equivalent to the consumption tax is added is ●●●●●●●●●●●.

(B) The First-instance Defendant alleged that it has already paid the amount equivalent to the consumption tax for the sales achieved by the First-instance Defendant that serve as the base amount of damages alleged by the First-instance Plaintiff, and that there are no grounds that the government can collect the consumption tax for the amount of compensation for damages due to intellectual property right infringement corresponding to the sales, in addition to the amount equivalent to the consumption tax for the sales achieved by the First-instance Defendant that has already been paid, and therefore, it is not allowed to add the amount equivalent to the consumption tax. However, in this case, ●●●●●●●●●●● that was calculated pursuant to Article 102, paragraph (3) of the Patent Act is the compensation for damages. As it is construed that receiving the compensation for damages corresponds to "transfer, etc. of assets," it is construed that the fact that the First-instance Defendant paid the amount equivalent to the consumption tax for sales of the Defendant's Products does not preclude the imposition of the consumption tax on the amount of compensation for damages received by the First-instance Plaintiff in this case. Consequently, the aforementioned allegation of the First-instance Defendant cannot be adopted.

F. Fees to attorney at law and fees to patent attorney

In light of the characteristics and details in this case, the details of the situation that led to this lawsuit, details of the proceedings in this case, and other general circumstances, it is found to be reasonable that the fees to the attorney at law and fees to the patent attorney that have a reasonable causal relationship with the tort by the First-instance Defendant are ●●●●●.

G. Summary

Based on the above, the amount of damages sustained by the First-instance Plaintiff is 698,858,050 yen.

The First-instance Plaintiff claims reimbursement of the unjust enrichment based on Article 703 of the Civil Code, but it is impossible to find that the claim exceeds the aforementioned amount of damages, and it is not necessary to make a determination therefor.

5. Issue (4) (Extinctive prescription)

It is as indicated in No. 4, 14. of the judgment in prior instance and therefore it is cited.

No. 4 Conclusion

Based on the above, the claim of the First-instance Plaintiff has grounds to the extent of seeking the payment of 698,858,050 yen and delay damages accrued thereon at the rate of 5% per annum as specified by the Civil Code for the period from September 1, 2017, which is the day after the day of the tort, until the completion of the payment. The judgment in prior instance which is different from the above is modified as indicated in paragraph 1 of the main text based on the appeal filed by the First-instance Plaintiff. The claim added in this instance by the First-instance Plaintiff has no grounds and therefore is dismissed. The appeal filed by the First-instance Defendant has no grounds and therefore is dismissed. The judgment is rendered as indicated in the main text.

Intellectual Property High Court, Fourth Division
Presiding judge: KANNO Masayuki
Judge: MOTOYOSHI Hiroyuki
Judge: OKAYAMA Tadahiro