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**Datasheet for the decision
of 8 April 2008**

Case Number: T 0163/05 - 3.2.07
Application Number: 95203321.5
Publication Number: 0710741
IPC: D21G 1/02
Language of the proceedings: EN

Title of invention:

Method and apparatus for calendering paper

Patentee:

S.D. Warren Company

Opponent:

Andritz Küsters GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 123(2), 123(3)

Relevant legal provisions (EPC 1973):

-

Keyword:

"Transfer of opponent status accepted (point 1)"
"Prior use - proven (point 2)"
"Request filed during oral proceedings - not admitted
(point 5)"
"Novelty (first and fourth auxiliary requests) - no"
"Inventive step (fifth auxiliary request) - no"

Decisions cited:

G 0004/88, G 0003/97, T 0472/92, T 0750/94

Catchword:

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Case Number: T 0163/05 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 8 April 2008

Appellant:
(Opponent)

Andritz Küsters GmbH
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Representative:

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Respondent:
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Decision under appeal:

Interlocutory decision of the Opposition
Division of the European Patent Office posted
25 November 2004 concerning maintenance of
European patent No. 0710741 in amended form.

Composition of the Board:

Chairman: H. Meinders
Members: P. O'Reilly
I. Beckedorf
H. Hahn
E. Lachacinski

Summary of Facts and Submissions

- I. Opposition was filed against European patent No. 0 710 741 as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The opposition division decided to maintain the patent in amended form. It held that the subject-matter of claim 1 of the main request was novel and involved an inventive step.

- II. The appellant (opponent) filed an appeal against that decision.

- III. Oral proceedings were held on 8 April 2008. The appellant requested that the decision under appeal be set aside and the patent be revoked.

During the said oral proceedings the respondent (patent proprietor) withdrew its main, second, third and sixth auxiliary requests.

The respondent requested that the decision under appeal be set aside and that the patent be maintained in amended form in accordance with the first auxiliary request filed with letter dated 6 March 2008 or alternatively, in accordance with (in the following order): the seventh auxiliary request filed during the oral proceedings before the Board; or the fourth or fifth auxiliary requests filed with said letter.

- IV. The independent claim of the patent according to the first auxiliary request filed with letter of 6 March 2008 reads as follows (changes compared to

claim 1 of the patent as granted indicated as struck through):

"1. An internally heated calendering roll (2) capable of finishing paper satisfactorily at the temperatures, heat loads and pressures required for substrata thermal molding which roll (2) comprises:

A. a metal calendering roll (2) having a circumferential wall (9) at least 0.1016m (4 inches) thick, the roll (2) being constructed of a first material of forged steel, ~~cast iron~~, cast steel, or ductile iron and being provided with a thin circumferential surface layer of a second hard abrasive resistant material;

B. heating means to provide heat into the interior of the circumferential wall of the metal calendering roll (2) to be conducted through the wall (9) to the outer surface (11) for heating the paper web being calendered by the roll, which heating means includes uniformly spaced fluid conducting conduits (10) which are from 1.27×10^{-2} to 5.0×10^{-2} m (0.5 to 2 inches) in diameter and are located totally within the first material of the calendering roll with the outer edge of the conduits (10) being no more than 5.0×10^{-2} m (2 inches) from the circumferential surface (11) of the roll and are positioned equidistant from the center of the roll (2) in accordance with the following formula: (hole diameter + hole spacing)/(2 x hole depth) is less than 1.2, where hole spacing is the distance from outer edge of one hole to the closest outer edge of the adjacent hole and hole depth is the distance from the outer edge of the hole to the surface of the roll (2); and

C. the thermal conductivity of the roll (2) from the conduits to the surface is greater than 29.42 w/mk (17 BTU/HR.Ft.°F)."

The independent claim of the seventh auxiliary request filed during the oral proceedings before the Board reads as follows (amendments when compared to claim 1 of the first auxiliary request are depicted in bold):

"1. An internally heated calendering roll (2) capable of finishing paper satisfactorily at the temperatures, heat loads and pressures required for substrata thermal molding which roll (2) comprises:

A. a metal calendering roll (2) having a circumferential wall (9) at least 0.1016m (4 inches) thick, the roll (2) being constructed of a first material of forged steel, cast steel, or ductile iron and being provided with a thin circumferential surface layer of a second hard abrasive resistant material, **being a cermet selected from tungsten carbide and chromium carbide in a matrix of a more ductile material selected from nickel chromium, cobalt or combinations of these, or being chromium oxide;**

B. heating means to provide heat into the interior of the circumferential wall of the metal calendering roll (2) to be conducted through the wall (9) to the outer surface (11) for heating the paper web being calendered by the roll, which heating means includes uniformly spaced fluid conducting conduits (10) which are from 1.27×10^{-2} to 5.0×10^{-2} m (0.5 to 2 inches) in diameter and are located totally within the first material of the calendering roll with the outer edge of the conduits (10) being no more than 5.0×10^{-2} m (2 inches) from the

circumferential surface (11) of the roll and are positioned equidistant from the center of the roll (2) in accordance with the following formula: $(\text{hole diameter} + \text{hole spacing}) / (2 \times \text{hole depth})$ is less than 1.2, where hole spacing is the distance from outer edge of one hole to the closest outer edge of the adjacent hole and hole depth is the distance from the outer edge of the hole to the surface of the roll (2); and

C. the thermal conductivity of the roll (2) from the conduits to the surface is greater than 29.42 w/mk (17 BTU/HR.Ft.°F)."

The independent claim of the fourth auxiliary request filed with letter of 6 March 2008 reads as follows (amendments when compared to claim 1 of the first auxiliary request are depicted in bold or struck through):

"1. An internally heated calendering roll (2) capable of finishing paper satisfactorily at the temperatures, heat loads and pressures required for substrata thermal molding which roll (2) comprises:

A. a metal calendering roll (2) having a circumferential wall (9) at least 0.1016m (4 inches) thick, the roll (2) being constructed of a first material of forged steel, cast steel, or ductile iron and being provided with a thin circumferential surface layer of a second hard abrasive resistant material;

B. heating means to provide heat into the interior of the circumferential wall of the metal calendering roll (2) to be conducted through the wall (9) to the outer

surface (11) for heating the paper web being calendered by the roll, which heating means includes uniformly spaced fluid conducting conduits (10) which are from ~~1.27 x 10⁻² to 5.0 x 10⁻²m (0.5 to 2 inches)~~ **0.01905m (0.75 inch) to 0.03175m (1.25 inch)** in diameter and are located totally within the first material of the calendering roll with the outer edge of the conduits (10) being no more than 5.0 x 10⁻²m (2 inches) from the circumferential surface (11) of the roll and are positioned equidistant from the center of the roll (2) in accordance with the following formula: (hole diameter + hole spacing)/(2 x hole depth) is less than 1.2, where hole spacing is the distance from outer edge of one hole to the closest outer edge of the adjacent hole and hole depth is the distance from the outer edge of the hole to the surface of the roll (2), **and the (cross section area of each conduit x the number of conduits)/(circumference of roll face x face length of roll) is greater than 0.00013;** and

C. the thermal conductivity of the roll (2) from the conduits to the surface is greater than 29.42 w/mk (17 BTU/HR.Ft.°F)."

The independent claim of the fifth auxiliary request filed with letter of 6 March 2008 reads as follows (amendments when compared to claim 1 of the first auxiliary request are depicted in bold):

"1. An **apparatus for calendaring paper comprising an** internally heated calendering roll (2) capable of finishing paper satisfactorily at the temperatures, heat loads and pressures required for substrata thermal molding which roll (2) comprises:

A. a metal calendering roll (2) having a circumferential wall (9) at least 0.1016m (4 inches) thick, the roll (2) being constructed of a first material of forged steel, cast steel, or ductile iron and being provided with a thin circumferential surface layer of a second hard abrasive resistant material;

B. heating means to provide heat into the interior of the circumferential wall of the metal calendering roll (2) to be conducted through the wall (9) to the outer surface (11) for heating the paper web being calendered by the roll, which heating means includes uniformly spaced fluid conducting conduits (10) which are from 1.27×10^{-2} to 5.0×10^{-2} m (0.5 to 2 inches) in diameter and are located totally within the first material of the calendering roll with the outer edge of the conduits (10) being no more than 5.0×10^{-2} m (2 inches) from the circumferential surface (11) of the roll and are positioned equidistant from the center of the roll (2) in accordance with the following formula: (hole diameter + hole spacing)/(2 x hole depth) is less than 1.2, where hole spacing is the distance from outer edge of one hole to the closest outer edge of the adjacent hole and hole depth is the distance from the outer edge of the hole to the surface of the roll (2); and

C. the thermal conductivity of the roll (2) from the conduits to the surface is greater than 29.42 w/mk (17 BTU/HR.Ft.°F); **and**

D. the apparatus further comprising a polishing doctor blade which is positionable against the circumferential surface of the metal calendering roll to resurface the

roll while in operation faster than it deteriorates, the polishing doctor having a working surface containing an abrasive material harder than the surface material."

V. The documents cited in the present decision are the following:

D24: Order from De Pretto-Escher Wyss to SHW, dated 09/05/1990

D26: Drawing number 188 7412571

D28: Offer from Vereinigte Schmiedewerke GmbH to SHW dated 30/05/1990

D29: SHW internal order form numbered 178621

D30: Order from SHW to Vereinigte Schmiedewerke GmbH dated 08/06/1990

D31: Drawing No. 1-59-8603/1K from SHW

D32: Order confirmation from Vereinigte Schmiedewerke GmbH to SHW dated 03/07/1990

D36: Extract from "Stahlschlüssel" edited by Stahlschlüssel Wegst GmbH, Marbach, 19th edition, 2001

D38: E-mail from Ulrike Geissler to Mr. Cogliati concerning "Marchi Group, Chiampo" dated 14/07/2004.

D57: Order confirmation from SHW to De Pretto-Escher Wyss dated 28/06/1990

D58: Delivery note from De Pretto-Escher Wyss to Cartiera Valchiampo S.p.A, Chiampo, dated 28/12/1990

D59: US-A-2 767 529

Minutes of the hearing of the witness Mr. Zaoralek on 5 October 2004 before the opposition division.

VI. The arguments of the appellant may be summarised as follows:

- (i) There has been a change of ownership of the relevant assets and the right to be an opponent in the present proceedings from Eduard Küsters Maschinenfabrik GmbH & Co. KG to Andritz Küsters GmbH. This right was effected in a first step via the transfer of the assets relating to non-woven and paper from Eduard Küsters Maschinenfabrik GmbH & Co. KG to Küsters Technologie GmbH & Co. KG on the basis of a contract dated 30 December 2005 which became effective at 23.56h on 31 December 2005. Jagenberg AG, the party involved in this contract, had the right to effect this transfer on the basis of the transfer of the shares in Eduard Küsters Maschinenfabrik GmbH & Co. KG, originally held by Eduard Küsters GmbH, to Jagenberg AG as set out in a contract dated 22 December 2005 which became effective at 23.55h on 31 December 2005. In a second step Küsters Technologie GmbH & Co. KG changed its name to Andritz Küsters Technologie GmbH & Co. KG on 11 May 2006. In a third step this was converted into Andritz Küsters GmbH as registered on 27 August 2007. Therefore Andritz Küsters GmbH has now opponent and appellant status in the present proceedings.

- (ii) The prior use by delivery to Cartiera Valchiampo S.p.A of a calendering roll in accordance with D31 has been proven. Since Cartiera Valchiampo S.p.A as a purchaser must be considered to be member of the public it is not necessary to consider the status of the other companies involved in the

production of the roll. The delivery of the roll to Cartiera Valchiampo S.p.A is proven by D58. This document is linked by the internal order numbers of the companies in the production and delivery chain to the drawing D31. Although the order confirmation D57 mentions a cast iron roll this is clearly an error since the material composition given in the order is that of a steel. It is true that there may be a discrepancy in the order number given on D58 and the number given on drawing D26. The discrepancy is small and there appears to have been an attempt to correct it in D58. D38 shows that a roll with an order number 178621 which is linked via D57 to drawing D31 was considered by SHW to have existed and to have been delivered.

- (iii) The subject-matter of claim 1 of the first auxiliary request lacks novelty. The prior used roll is hard chrome-plated as stated in the order confirmation D57. Chrome-plating is abrasion resistant as is mentioned in the patent itself. The patent also mentions that it is not scratch resistant. However, claim 1 only specifies that the circumferential layer should be abrasive resistant. It does not specify that the layer should also be scratch resistant.

- (iv) The seventh auxiliary request should not be allowed into the proceedings as it is filed too late. The filing of the request during the oral proceedings means that the appellant has no time to react. It has no time to carry out a further search.

- (v) The subject-matter of claim 1 of the fourth auxiliary request lacks novelty in view of the prior use. The size of the conduits indicated in D31 is within the range specified in the claim.

D59 should be allowed into the proceedings. Although the fourth auxiliary request was filed one month before the oral proceedings it is directed to subject-matter that is derived from the description. This has necessitated a further search in which D59 has been found. The document is relevant as it discloses the new feature and is short so that it is easy to understand.

- (vi) The subject-matter of claim 1 of the fifth auxiliary request lacks an inventive step. Doctor blades are well known in the art as evidenced by D59. In order to keep the surface of the prior used calendering roll clean and smooth it would have been obvious to provide a doctor blade. Also the properties of the doctor blade specified in the claim are just those properties which are necessary for the doctor blade to function as such.

VII. The arguments of the respondent may be summarised as follows:

- (i) The respondent considers that there is no clear chain of transfer of title from Eduard Küsters, Maschinenfabrik, GmbH & Co. KG to Andritz Küsters GmbH of the assets which includes the right to be an opponent and appellant in the present proceedings so that Andritz Küsters GmbH does not

have opponent or appellant status in the present proceedings.

- (ii) The alleged prior use involving the sale and delivery of a calendaring roll to Cartiera Valchiampo S.p.A was not public. The companies involved in the manufacture and supply of the roll were contractors or subcontractors and hence subject to secrecy. Cartiera Valchiampo S.p.A as purchaser controlled the information relating to the roll and there is no evidence that it ever made that information or the calendaring roll itself available to the public. It may have left the roll in a store room.

It is also not known what was actually sold to Cartiera Valchiampo S.p.A. The order numbers shown in D58 are either unclear or different to those shown in the other documents. The material of the roll is unclear as its constitution is not consistent throughout the documents. The evidence that has been produced was confidential in content as shown by the fact that part of it has been blacked out.

The prior use must be proven to a high level of probability as confirmed by decisions T 472/92 (OJ EPO 1998, 161) and T 750/94 (OJ EPO 1998, 032). This has not occurred in the present case.

- (iii) The subject-matter of claim 1 of the first auxiliary request is novel since the allegedly prior used roll does not disclose a circumferential layer of a hard abrasive material

as required by the claim. A chrome-plated roll does not resist scratching so that it is not abrasive resistant.

- (iv) The seventh auxiliary request should be allowed into the proceedings. The request clarifies the material of the circumferential layer. When preparing for the oral proceedings the appellant should have anticipated that a request including a claim containing a corresponding feature would be filed and should have prepared itself accordingly.
- (v) It appears that D31 discloses conduits having dimensions within the ranges specified in claim 1 of the fourth auxiliary request.
- (vi) D59 should not be allowed into the proceedings since it is late-filed and not relevant.
- (vii) The subject-matter of claim 1 of the fifth auxiliary request involves an inventive step. D59 discloses a doctor blade for polishing. There is no indication of it carrying out a resurfacing as specified in the claim.

Reasons for the Decision

1. *Transfer of opposition status of the appellant*

- 1.1 The opposition was filed in the name of Eduard Küsters Maschinenfabrik GmbH & Co. KG.

Jagenberg AG and Eduard Küsters GmbH were partners in Eduard Küsters Maschinenfabrik GmbH & Co. KG.

Eduard Küsters GmbH (the unlimited partner) left Eduard Küsters Maschinenfabrik GmbH & Co. KG and transferred its shares to Jagenberg AG (a limited partner) by way of a contract dated 22 December 2005 which stipulated that the transfer would take effect at 23.55h on 31 December 2005.

The legal consequence of the withdrawal of Eduard Küsters GmbH from the partnership was the extinction of Eduard Küsters Maschinenfabrik GmbH & Co. KG as a company and legal person with Jagenberg AG taking over all the assets.

With effect from 23.56h on 31 December 2005 Jagenberg AG transferred the assets relevant to the present opposition/appeal proceedings, i.e. "Non-Woven" and "Papier" to Küsters Technologie GmbH & Co. KG. This transfer was effected by the contract dated 30 December 2005. In accordance with paragraph § 185(2) of the German Civil Code a contract which concerns assets which have not yet been acquired at the time of its signing may become effective from the time that the asset is acquired. This means that the contract signed on 30 December 2005 became effective at 23.56h on 31 December 2005 so that also at 23.56h the transfer of assets took place.

- 1.2 The Board is therefore satisfied that the opposition was transferred along with the relevant business assets from Eduard Küsters Maschinenfabrik GmbH & Co. KG to Küsters Technologie GmbH & Co. KG at 23.56h on 31 December 2005

in a manner that satisfies the criteria set out in decisions G 4/88 (OJ EPO 1989, 480) and G 3/97 (OJ EPO 1999, 245).

- 1.3 The transfer of the opponent status during the appeal proceedings also leads to a corresponding transfer of the appellant status.
- 1.4 Subsequently Küsters Technologie GmbH & Co. KG changed its name to Andritz Küsters Technologie GmbH & Co. KG on 11 May 2006, which later on was converted to Andritz Küsters GmbH with effect from 27 August 2007.
- 1.5 The above explained transfers, changes of name and conversions all took place during the appeal proceedings after the appeal had been filed in the name of Eduard Küsters Maschinenfabrik GmbH & Co. KG, i.e. the original opponent, satisfying the Board that Andritz Küsters GmbH holds the position of opponent/appellant.

2. *Prior use*

- 2.1 The appellant alleged two separate prior uses. However, it is only necessary to consider the one that follows.
- 2.1 A company called "Cartiera Valchiampo S.p.A" (hereinafter "Valchiampo") ordered a calendering roll for paper making from a company called "DE PRETTO-ESCHER WYSS S.r.l" (hereinafter "De Pretto"). De Pretto decided to subcontract the manufacture of the roll to a company called "Schwäbische Hüttenwerke GmbH" (hereinafter "SHW"). SHW in turn subcontracted the construction of part of the roll to a further company called "Vereinigte Schmiedewerke GmbH" (hereinafter "VS").

2.2 The main argument of the respondent regarding the prior use is that none of the above mentioned companies can be considered to be part of the public in the sense of Article 54(2) EPC. With respect to De Pretto, SHW and VS the respondent considered that these were contractors or subcontractors to Valchiampo with an implicit obligation to confidentiality. With respect to Valchiampo the respondent considered that as purchaser of the calendaring roll it had control over all the information regarding the constructional details of the roll and that it had not been proven that Valchiampo had made this information available to the public.

2.2.1 It is not necessary to consider the situation of confidentiality surrounding the dealings of De Pretto, SHW and VS since the Board considers that at least the sale and delivery of the calendaring roll to Valchiampo made the roll and its technical details available to the public in the sense of Article 54(2) EPC.

2.2.2 In accordance with the case law of the Boards of Appeal a single sale of goods places those goods in the public domain in the absence of any special contractual conditions (cf. section I.C.1.8.7(a) of Case Law of the Boards of Appeal, 5th Edition 2006).

D58 is a delivery notice from De Pretto to Valchiampo for a calendaring roll which shows that such a roll did reach Valchiampo. Valchiampo purchased this roll and the respondent has not disputed this. Valchiampo is a paper making company and thus is not a subcontractor to a further company which means that the calendaring roll remained in the possession of Valchiampo for the purpose

of making paper. The sale and delivery to Valchiampo, in the absence of evidence to the contrary, must therefore be considered to be unrestricted and without any confidentiality clause. Since Valchiampo is considered to be a member of the public by virtue of its purchase of the roll there is no need to consider what it did with the roll, e.g. whether or not it was shown to further members of the public or whether it was just left in a store room, or what it did with the information relating to the characteristics of the roll.

2.3 The second argument of the respondent is that the documents do not show what was delivered to Valchiampo.

2.3.1 In this respect the respondent argued that the documents which passed between De Pretto, SHW and VS as well as various drawings which were filed by the appellant to prove the prior use were confidential so that they cannot be used to prove a public prior use. The respondent noted that pricing information had been blacked out which supported this thesis.

The Board does not agree with the respondent in this respect. A document can contain both confidential and non-confidential information. In the present case what was sold might not be confidential though the price might, for competitive reasons, be confidential. In any case, documents which are not normally publicly available may still be used as evidence of a prior use since the public part of the prior use was the sale and delivery to Valchiampo and the documents are only intended as evidence as to what was sold. The confidentiality status of these documents does not therefore play a role.

2.3.2 The respondent further argued that the documents did not as a whole show what was sold to Valchiampo. The Board does not agree with the respondent in this respect either. The Board considers that the documents presented as evidence by the appellant show an unbroken chain between the drawing D31 and the delivery note D58, as will be shown below.

The delivery note D58 is dated 28 December 1990, i.e. approximately week 52, and indicates the delivery from De Pretto to Valchiampo of a "Cilindro Aquitherm" roll with dimensions of 710mm X 4390mm and a weight of 7160 Kg. The note has a first reference to a commission number 924.18775 and a second reference to a commission number 924.1877? whereby the last figure is not clear. It appears to have been corrected and could be a 5, 6 or an 8. The note bears the project name "Valchiampo"

2.3.3 In a letter from De Pretto to SHW (D24) which was received by SHW on 9 May 1990 an order was made for a "Cilindro Aquitherm" with dimensions of 710x2550mm and an overall length of 4390mm in a material designated "50 Cr Mo 4 V". The roll was to be chrome plated to 15 microns. The letter refers to a drawing Nr. 7412571. The letter also refers to a delivery date of 14 December 1990, i.e. approximately week 50, which would allow the further delivery to Valchiampo in week 52.

A technical drawing of a calendering roll (D26) has been filed which has the numbers 7412571, 1 88 7 412571 and 92418776, i.e. including the numbers mentioned in D24 and close to and consistent with the possible second number mentioned in D58, in a box in the bottom right-

hand corner together with the name "DE PRETTO-ESCHER WYSS". The box also contains the project name "VALCHIAMPO" The drawing thus twice contains the number sequence 7412571. It would require a chance of approximately one in ten million that this coincidence with the same number in D24 is mere chance as suggested by the respondent. The number 92418776 differs from that indicated in D58 by one figure, whereby the second time that the number is mentioned in D58 there could have been an attempt to correct the last figure to a 6. There are reasons which will be explained below why the Board considers that this possible discrepancy can be reasonably explained on the basis of other documents. The drawing shows a diameter of 710mm, a cylinder length of 2550mm and a total length of 4390mm for the calendering roll drawn therein. These dimensions are consistent with those mentioned in D24 and D58.

A further technical drawing of a calendering roll (D31) has been filed which, in a box in the bottom right-hand corner, indicates the name SHW GmbH and the number 1-59-8603/1K and contains the statement that it is based on drawing Nr. "1 88 7412571 DE PRETTO-ESCHER WYSS VALCHIAMPO", i.e. including the same number and project name as D26. The drawing shows a diameter of 710mm and an overall length for the roll of 4398mm whereby this has been corrected from 4390mm due to two of the individual length sections having their lengths corrected by 4mm respectively. The length for the coated part of the cylinder is given as 2550mm. In the statement of the witness Dr. Zaoralek, who worked for SHW, he explained that the first drawing (D26) was received from De Pretto and that this drawing could not be used directly by SHW but required additional work by

SHW in order to produce the drawing (D31) which SHW would use for its actual production of the roll (see question and answer spanning page 2 and 3 of the minutes of the hearing of the witness). This explanation is plausible and consistent with the information contained in the drawings. The Board therefore accepts this explanation.

D28 is a telex dated 30 May 1990 from VS to SHW which is in response to a request Nr. 178621 from SHW dated 16 May 1990 and refers to a calendaring roll sleeve with dimensions of 710x0x2550mm. The material is given as 62 crmov 6.3 though there is a hand written reference to 50CrMo4. D29 is an apparently internal note card from SHW dated 30 May 1990 concerning an order to VS for a roll body. The card has a reference to 178621 and to an order number 4206647.

D30 is an order from SHW to VS dated 8 June 1990 referring to the same order number 4206647 (see D28) and ordering a calendaring roll cover with dimensions of 710x0x2550mm. It indicates that the material is to be discussed with references to 62CR.MO6.3 and 50CRMO4 respectively. This document further mentions the number 178621.

D57 is the confirmation dated 28 June 1990 from SHW to De Pretto of their order of 9 May 1990, i.e. D24. It makes reference to Valchiampo as project title, to the order number 178621 and to the drawing number 7412571. The document thus links together the purchaser Valchiampo with the order of De Pretto to SHW and with D31. The cylinder length is 2550mm; the diameter is 710mm; and the overall length is 4390mm. Therefore the

document further links the dimensions given in the delivery note D58 with those in D26 and D31 as well as in D24, D28, D30 and D31 (see below). The weight is given as 7160 Kg which is the same as in the delivery note D58. The material is given as 62 Cr Mo 6.3, i.e. the same as in the order of SHW to VS (D30). The roll is stated to be hard chrome-plated to 0.15my (which is plausibly a mistake for 0.15mm). The document refers to the roll as a chilled cast iron roll ("Hartgußwalze"). This, however, is evidently an error as the material of the roll is designated as 62 Cr Mo 6.3 which is clearly a steel material for which D36 provides evidence.

D32 is an order confirmation dated 3 July 1990 from VS to SHW. The order number 4206647 of SHW is given as well as the dimensions of 710mm for the diameter and 2550mm for the length of the cylinder. The material is stated to be forged steel 62 Cr Mo 6.3 as in D57, confirming that it is steel and not chilled cast iron. The Board notes that although in the order note D26 a different steel (composition 50CRMO4) was specified D30 mentions both steels thus linking them. The change in steel specification during the design process is thus documented.

- 2.3.4 The three companies involved in the provision of the calendering roll, as well as Valchiampo the purchaser, each have their own designation numbers for the project. There is, however, a continuous chain linked via these designation numbers and the project title "Valchiampo" from D31 to D58. There is a possible discrepancy in the commission number given in D58. This discrepancy is not significant as there is other information indicating

that Valchiampo received a roll with the number 178621, i.e. via D26 and D57, and D38 (see below).

D38 is an e-mail dated 14 July 2004 from SHW to their representative in Italy - Mr. Cogliati - concerning the Marchi Group in Chiampo which was the seat of Valchiampo. The appellant stated in its letter dated 2 September 2004 accompanying the filing of this document that Valchiampo was the forerunner of the Marchi Group. This assertion was not challenged by the respondent. The e-mail concerns repairs to a roll. It indicates that the roll sent for repair is not the same as roll number 178621. This e-mail shows that the roll number 178621 was indeed considered by SHW to actually have been sold and delivered in a manner connected with Valchiampo. This e-mail thus lends weight to the argument that the discrepancy in one figure between the commission number given in delivery note D58 at the end of the chain and the number given in drawing D26 at the start of the chain was just a typographic error.

- 2.4 The respondent argued that the prior use must be proven to a high level of probability, citing decisions T 472/92 (*supra*) and T 750/94 (*supra*). T 472/92 concerned a prior use based on a joint venture involving the opponent itself whereby the deciding Board considered that a high standard of proof was required. In the present case, however, there is no indication of a joint venture of the original opponent and Valchiampo. In decision T 750/94 the deciding board considered the standard of proof required to establish the publication date of a journal. The deciding Board considered that the mere **possibility** that at least one subscriber **could have received** the journal was not a sufficient

probability to conclude that the journal **was received** by a subscriber before the priority date of the application in suit (see point 11 of the decision grounds). In the present case, however, there is clear evidence (D58 and D38) that Valchiampo, a member of the public, actually did receive the calendaring roll before the priority date of the patent.

- 2.5 The Board concludes therefore that a calendaring roll in accordance with D31 and D57 was made available to the public before the priority date of the patent in suit.

First auxiliary request

3. *Allowability of the amendments to the claim as granted*

Compared to the patent as granted one of four alternatives has been deleted from the claim so that no objection arises under Articles 123(2) and (3) EPC.

4. *Novelty*

- 4.1 The respondent argued that even if the calendaring roll (as discussed above) was available to the public it did not have all the features of claim 1 of this request since it did not have a circumferential layer of a second hard abrasive resistant material as required by the claim.

According to D57 the prior used calendaring roll was hard chrome-plated to a thickness of 0.15mm. The respondent considered that this was not a hard abrasive resistant material since it did not resist scratching. However, in the application as originally filed on

page 2, lines 6 to 11 (also in the patent as granted, page 2, lines 23 to 25) it is explained as part of the background art that a chrome plating of ductile iron provides "a hard, abrasion resistant surface which takes and holds a high polish". It is further stated that chrome-plated drums are easily scratched. In this part of the description the distinction is thus made between abrasion resistance and scratch resistance. This distinction is indeed a known distinction in the abrasives field. Since claim 1 only specifies an abrasive resistant material this is anticipated by the prior used hard chrome-plated surface. The claim does not specify scratch resistance so that the argument of the respondent that a hard chrome-plated surface does not resist scratching is not based on a feature of the claim.

- 4.2 Therefore, the subject-matter of claim 1 of the first auxiliary request is not novel in the sense of Article 54(1) EPC.

Seventh auxiliary request

5. *Admissibility*

- 5.1 This request was filed at the start of the oral proceedings before the Board. Claim 1 of the request contains an extra feature defining the material used for the surface layer. The feature is not contained in any of the granted dependent claims, but is derived from the description. The appellant has objected to its late filing since it did not have the time necessary to carry out a search for this feature and could not have been expected to anticipate such a request. The respondent

considered that the appellant should have anticipated such a request.

5.2 The Board agrees with the appellant. It is up to the proprietor to file requests involving amended claims sufficiently early in the appeal proceedings such that the opponent can prepare itself, including possibly carrying out a further search. The question of when is sufficiently early will depend upon the nature of the amendment. It is unreasonable to expect an opponent to carry out a search on every aspect of the description just for the case that the proprietor might file a request during the oral proceedings containing corresponding claims. In the present case there was no reason for the appellant to expect that the respondent would file a request containing claims directed to the surface material since at no stage was there any indication that the nature of this material could play a role in the proceedings.

5.3 The Board therefore decided not to admit the request into the proceedings.

Fourth auxiliary request

6. *Novelty*

6.1 Claim 1 of this request contains as additional features the features of claim 2 as granted. In its submission dated 23 July 2003 during the opposition proceedings the opponent had filed evidence of the prior use which has been considered by the Board as proven (see above). In that submission the opponent demonstrated why the calendaring roll shown in D31 disclosed the features of

claim 2 as granted (see page 11 of the submission). The respondent has not contested this part of the opponent's submission.

- 6.2 Since the extra features of claim 1 of this request are also known from the prior used calendaring roll the subject-matter of the claim lacks novelty in the sense of Article 54 EPC.

Fifth auxiliary request

7. *Novelty*

This was not contested by the appellant and the Board itself as no reason to doubt the novelty of the subject-matter of claim 1 of this request.

8. *Late filed document (D59)*

The appellant filed document D59 during the oral proceedings before the Board when this request came under consideration. Claim 1 of the request includes the extra feature that there is a doctor blade having particular properties. This feature was not included in the dependent claims and was taken from the description of the patent. The request was filed just one month before the oral proceedings. With a request filed at such a late stage in the proceedings which is not based on an existing claim the appellant is placed under stress since it may have to carry out an extra search. Also, in the present case where there is a relevant prior use the appellant could need to make extensive further enquiries with regard to the prior use, i.e. whether it included a doctor blade. In order that such a

request filed at this stage of the proceedings is to be admitted into the proceedings the respondent has to accept that it may first see the response of the appellant during the oral proceedings. This is the risk run by the respondent as a result of its actions. The Board therefore decided to admit D59 into the proceedings.

9. *Inventive step*

- 9.1 Doctor blades are well known in the art. It is indicated in the application as originally filed in the paragraph bridging pages 4 and 5 (which corresponds to page 3, lines 4 to 8 of the patent as granted) that a calendering roll needs to be able to resist the abrasive action of a cleaning doctor blade. The provision of a doctor blade is therefore standard practice. This view is reinforced by D59 which discloses a doctor blade for cleaning rolls in the paper industry, i.e. the technical area of the patent in suit and the prior used roll.

The claim further specifies that the polishing doctor blade has a working surface containing an abrasive material harder than the surface material of the roll. It is clear that the material of the doctor blade can be either harder or softer than that of the roll surface. Since the purpose of the blade is to polish the roll surface the skilled person would normally choose the blade surface to be harder since otherwise it could be the roll which polishes the blade rather than *vice versa*. The term "polishing" includes in its scope in this art surface material removal on a fine level.

The claim also specifies the effect that the roll is resurfaced faster than it deteriorates. Whether this effect can be considered to be a feature of the apparatus does not need to be answered since this feature is obvious to the skilled person. If the roll is not resurfaced faster than it deteriorates it will continue to deteriorate so that the doctor blade would not have carried out its intended function of maintaining a useable surface. The provision of this feature would therefore be considered by the skilled person to be essential.

- 9.2 Therefore, the subject-matter of claim 1 of this request does not involve an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders