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D E C I S I O N
of 30 January 1997

Case Number: T 0355/95 - 3.2.1

Application Number: 86904360.4

Publication Number: 0250594

IPC: B21D 5/12

Language of the proceedings: EN

Title of invention:

Forming roll for pipe mills and forming method and apparatus
using same

Patentee:

NAKATA MANUFACTURE COMPANY LIMITED

Opponent:

Mannesmann Ag

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 111(1)

Keyword:

"Amendments - added subject-matter (no, after amendment)"
"Decision re-appeals - remittal (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 0355/95 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 30 January 1997

Appellant:
(Proprietor of the patent) NAKATA MANUFACTURING COMPANY LIMITED
12-2, Mikunihonmachi 2-chome
Yodogawa-ku
Osaka-shi
Osaka 532 (JP)

Representative:
Skone James, Robert Edmund
GILL JENNINGS & EVERY
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

Respondent:
(Opponent) Mannesmann AG
Mannesmannufer 2
D-40213 Düsseldorf (DE)

Representative:
Meissner, Peter E., Dipl.-Ing.
Meissner & Meissner
Patentanwaltbüro
Postfach 33 01 30
D-14171 Berlin (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 20 February 1995
revoking European patent No. 0 250 594 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: F. A. Gumbel
Members: P. Alting van Geusau
G. Davies

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 250 594 in respect of European patent application No. 86 904 360.4, filed on 30 June 1986, was published on 27 December 1991.

II. Notice of opposition was filed on 25 September 1992 on the grounds of Article 100(a) EPC. In respect of an alleged lack of novelty and inventive step the opposition was supported by the document

D1: DE-A-2 352 573.

In the course of the opposition proceedings also document

D2: DE-A-2 529 466

was introduced.

III. By a decision which was given at the end of oral proceedings held on 2 February 1995 and issued in writing on 20 February 1995 the Opposition Division revoked the patent.

The patent was revoked because the introduction of an additional feature ("the curves of the profiles of any male and female pairs of the forming rolls lying on the same plane perpendicular to the moving direction of the band material were different") into claim 1 as presented during the oral proceedings, was considered to introduce subject-matter which extended beyond the content of the application as filed. Consequently the amended claim 1 was found to be in conflict with the requirements of Article 123(2) EPC.

IV. On 10 April 1995 a notice of appeal was lodged against this decision, the appeal fee having been paid on 7 April 1995. With the statement of grounds of appeal filed on 16 June 1995 the appellant (proprietor of the patent) submitted new sets of claims in accordance with a main and first auxiliary request for consideration by the Board.

V. In a communication issued in preparation of oral proceedings requested by both parties, the Board expressed the provisional view that the set of claims in accordance with these main and first auxiliary requests were not formally acceptable.

However, the Board also noted, that if the appellant were to succeed in submitting formally acceptable claims, the case would have to be remitted to the first instance for further prosecution of the opposition proceedings in respect of the ground of opposition, in particular the issue of inventive step on which the Opposition Division had not yet expressed an opinion.

VI. After further communications by the Board, dated 19 November 1996 and 11 December 1996, the appellant requested with telefax dated 13 December 1996 to make the second and third auxiliary requests as filed on 5 December 1996 its new main- and auxiliary request.

By implication the appellant requested grant of a patent on the basis of either the main or auxiliary request.

The independent claims in accordance with the main and auxiliary request read as follows:

(Main request)

"1. Forming apparatus for forming the edge portion of band material in a pipe mill, the apparatus comprising two sets of upper and lower forming rolls for forming both edge portions of the band material, each set of upper and lower rolls (5, 18) consisting of an upper male roll and a lower female roll movably disposed in vertically spaced relationship, wherein the lateral distance between the pairs of forming rolls at both edge portions is changeable responsive to the band width, characterised in that each roll being formed such that a part or the whole sectional curve of the roll (5, 18) surface is formed as an involute curve based upon a previously determined polygon having a plurality of sides chosen such that the roll can be positioned so as to conform with the required curvature of the pipe at the pipe forming apparatus and can accommodate various diameters in the forming region, wherein the upper roll (18) of each set is mounted for vertical movement and is supported such that its roll surface is swingable circularly relative to the lower roll in the lateral direction of the band material, so as a part or whole surface of the involute curve of the sectional shape of the forming roll is capable of contacting with the edge portion of the band material responsive to the band width and the required edge bending stages to adjust the contacting direction of the upper roll, the lateral, vertical and swingable movements of the upper rolls being controllable independently of the lower rolls, and wherein an intermediate roll (6) is provided divided into two sections so as to be movable to and from each other in the lateral direction of the band material, the intermediate roll being disposed between the lower rolls and cooperating with the upper and lower rolls to render an upward projection to the centre portion of the band material to facilitate the forming of the edge portion."

(Auxiliary request)

"1. Forming apparatus for forming the edge portion of band material in a pipe mill, the apparatus comprising two sets of upper and lower forming rolls for forming both edge portions of the band material, each set of upper and lower rolls (5, 18) consisting of an upper male roll and a lower female roll movably disposed in vertically spaced relationship, wherein the lateral distance between the pairs of forming rolls at both edge portions is changeable responsive to the band width, characterised in that each roll being formed such that a part or the whole sectional curve of the roll (5, 18) surface is formed as an involute curve based upon a previously determined polygon having a plurality of sides chosen such that the roll can be positioned so as to conform with the required curvature of the pipe at the pipe forming apparatus and can accommodate various diameters in the forming region, wherein the radius of the involute curve reduces in the lateral direction towards the edge portion of the band material, wherein the upper roll (18) of each set is mounted for vertical movement and is supported such that its roll surface is swingable circularly relative to the lower roll in the lateral direction of the band material, so as a part or whole surface of the involute curve of the sectional shape of the forming roll is capable of contacting with the edge portion of the band material responsive to the band width and the required edge bending stages to adjust the contacting direction of the upper roll, wherein the upper roll is swung to cooperate with an upper portion of the lower roll when forming the edge portion of relatively narrow band material and is swung to cooperate with lower portion of the lower roll when forming the edge portion of relatively wide material, the lateral, vertical and swingable movements of the upper rolls being controllable independently of the lower rolls, and wherein an intermediate roll (6) is provided divided

into two sections so as to be movable to and from each other in the lateral direction of the band material, the intermediate roll being disposed between the lower rolls and cooperating with the upper and lower rolls to render an upward projection to the centre portion of the band material to facilitate the forming of the edge portion."

- VII. In support of the formal acceptability of the present sets of claims the appellant essentially submitted that the subject-matter of claim 1 in accordance with the main request was a mere combination of the granted claims 1 and 8 and additionally included some adaptations so as to further specify or clarify some of its features. Claim 1 in accordance with the auxiliary request was based on claim 1 of the main request but included further details relating to the radius of the involute curve and the swing movements of the upper roll in relation to the lower roll when forming the edge portion of relatively wide material. The features not to be found in the granted claims were disclosed in the embodiment of the invention as described in the application in its originally filed form.
- VIII. As far as the respondent's arguments submitted during the appeal proceedings are still relevant for the subject-matter now claimed, only a formal objection was raised with its letter dated 30 January 1996 against the use of the word "two" on line 2 of claims 1 in accordance with the main and auxiliary requests.
- XI. With communication dated 20 December 1996 the Board informed the parties that the new set of claims in accordance with the new main request appeared to meet the requirements of Article 123(2) and (3) EPC and that the Board envisaged remitting the case to the Opposition Division for further prosecution of the case on the basis of the main request.

However, the Board drew attention to the fact that cancellation of the oral proceedings and a decision for remittal could only be taken if the respondent expressly withdrew its auxiliary request for oral proceedings.

- X. With telefax dated 23 December 1996 the respondent withdrew its request for oral proceedings. The notice of cancellation of the oral proceedings was sent to the parties on 27 December 1996.

Reasons for the Decision

1. The appeal is admissible.
2. *Procedural considerations*
 - 2.1 The patent was revoked by the Opposition Division for reasons of non-compliance of claim 1 submitted at that stage with the provisions of Article 123(2) EPC only.

Because this deficiency was not put right by the appellants at that stage there was no need for the Opposition Division to give an opinion on the grounds of opposition in relation to Article 100(a) EPC, i.e. novelty and inventive step of the subject-matter of the patent, which was the ground of opposition raised by the respondent.

- 2.2 Under these circumstances, the Board considers it to be appropriate to deal only with the aspects directly related to the point at issue, thus the compliance with the requirements of Article 123 EPC, but not with substantive issues so as not to deprive the parties of

the opportunity to have the case considered by two instances of decision, making use of its discretion under Article 111(1) EPC to remit the case to the Opposition Division for further prosecution.

3. *Amendments (main request)*

3.1 Claim 1 in accordance with the main request is essentially a combination of the features of granted claims 1 and 8, which granted claims are based on the originally filed claims 1 and 11. In addition to the subject-matter of the granted claims 1 and 8 present claim 1 includes the following further details (in bold):

- (a) the apparatus comprises **two** sets of upper and lower forming rolls,
- (b) the **lateral** distance between the pairs of forming rolls at both edge portions is changeable responsive to the band width,
- (c) the upper roll **of each set is mounted for vertical movement,**
- (d) the upper roll surface is swingable **relative to the lower roll,**
- (e) **to adjust the contacting direction of the upper roll, the lateral, vertical and swingable movements of the upper rolls are controllable independently of the lower rolls,**

- (f) the intermediate roll being disposed between the lower rolls **and cooperating with the upper and lower rolls**, to render an **upward** projection to the centre portion of the band material **to facilitate forming of the edge portion**.

Furthermore, the word **pair** of lower rolls and the alternatives **flat or recess** to the projection (see last three lines of granted claim 11) were deleted.

3.2 The additional features (b) to (f) follow immediately from the preferred embodiment of the forming apparatus, in particular when considering the possibilities of adjustment of the rolls 18 and their purpose for forming the band material described in relation to Figure 7 of the application in its originally filed form:

- (b) page 26, lines 12 to 23,

- (c) page 24, lines 15 to 22,

- (d) page 26, lines 2 to 5,

- (e) the different means of adjustment indeed allow independent adjustment,

- (f) see Figure 7.

Feature (a), (**two** sets of rollers) was apparently introduced to take account of the omission of **pair** of lower rolls and followed from the redrafting of claim 1 to comply with Rule 29(1) EPC to include in the pre-characterising portion of the claim those features which are in combination known from the closest prior

art document. Such starting point for the forming apparatus of claim 1 is disclosed in D2 (embodiments of Figures 3 and 4). The respective feature appears to be clearly supported by Figures 7 and 11.

The omission of the alternatives **flat or recess** is essentially a limitation to one of three alternatives and neither infringes the requirements of Article 123(2) nor those of Article 123(3) EPC.

3.3 The present dependent claim 2 is a repetition of the granted claim 9 which was dependent on granted claim 8. Granted claim 9 is based on the originally filed claim 12.

3.4 In view of the above assessments it can be concluded that claims 1 and 2 in accordance with the appellant's main request meet the requirements of Article 123(2) and (3) EPC.

Therefore, the main request can form the basis for further prosecution of the opposition proceedings in respect of the grounds of opposition in accordance with Article 100(a).

4. Since the main request forms a suitable basis for remittal of the case to the Opposition Division there is no need to consider the formal acceptability of the auxiliary request.

Order

For these reasons it is decided that:

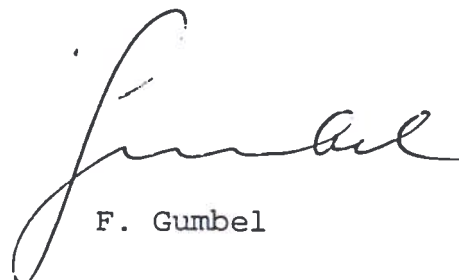
1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution of the opposition proceedings.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel