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**Datasheet for the decision
of 5 March 2013**

Case Number: T 0248/12 - 3.2.06

Application Number: 01201385.0

Publication Number: 1157860

IPC: B60C 25/13, B60C 25/132,
B60C 25/138

Language of the proceedings: EN

Title of invention:

Automatic bead release device for tyre removal machines

Patent Proprietor:

CORGHI S.p.A.

Opponent:

Snap-On Equipment GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 123(2)
RPBA Art. 13(1), 12(4), 10(1)

Relevant legal provisions (EPC 1973):

EPC Art. 56, 54(1)

Keyword:

"Amendments - intermediate generalisation - added subject-matter (yes)"

"Technical relevance as such versus direct and unambiguous disclosure for a skilled person when deciding on Article 123(2) EPC (Point 3.3.7 - 3.3.11)"

Decisions cited:

G 0002/10, G 0003/89, G 0009/91, G 0011/91, G 0001/10,
T 1408/04, T 1685/07, T 1906/11

Catchword:

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Case Number: T 0248/12 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 5 March 2013

Appellant I: CORGHI S.p.A.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
8 December 2011 concerning maintenance of
European patent No. 1157860 in amended form.

Composition of the Board:

Chairman: M. Harrison
Members: M. Hannam
W. Sekretaruk

Summary of Facts and Submissions

- I. An appeal was filed by the proprietor (appellant) against the interlocutory decision of the opposition division in which it found that European Patent No. 1 157 860 in an amended form met the requirements of the European Patent Convention (EPC), the appellant/proprietor requesting that the interlocutory decision be set aside and that the patent be maintained as granted or that the patent be maintained according to one of auxiliary requests 1-3.
- II. The opponent (appellant) also filed an appeal against the interlocutory decision, requesting that the patent be revoked. Its request for revocation was based *inter alia* on the basis that the subject-matter of claim 1 lacked novelty and that of claims 1 and 11 lacked an inventive step.
- III. In response to the appellant/opponent's appeal, the appellant/proprietor argued that a novelty objection to the subject-matter of claim 1 had not been substantiated in the proceedings before the opposition division.
- IV. In response to the appellant/proprietor's appeal, the appellant/opponent argued *inter alia* that claim 11 of all the auxiliary requests contravened Article 123(2) EPC and that the subject-matter of claim 11 of all requests lacked an inventive step in view of at least
- D1: US-A-5 226 465 in combination with
- D2: DE-C-25 29 343,

and that the subject-matter of claim 11 of the main request lacked novelty over D2.

- V. The Board issued a summons to oral proceedings including a communication containing its provisional opinion. In regard to the main request, the Board indicated *inter alia* that the subject-matter of claim 11 appeared to lack novelty over at least D2. Regarding the auxiliary requests, the Board indicated that claim 11 of each request appeared to contain subject-matter extending beyond the content of the application as originally filed, contrary to Article 123(2) EPC.
- VI. With letter of 5 February 2013, the appellant/proprietor filed auxiliary requests 1-5 replacing those requests previously on file. It also presented arguments regarding *inter alia* the basis for the amendments made to claim 11 in each of the auxiliary requests 1-5.
- VII. Oral proceedings were held before the Board on 5 March 2013, during which the appellant/opponent confirmed its request that the decision under appeal be set aside and that the European patent No. 1 157 860 be revoked.

In the course of the proceedings the appellant/proprietor filed replacement auxiliary requests 4 and 5 and stated its requests as follows: that the decision under appeal be set aside and the European patent be maintained as granted, or on the basis of one of the auxiliary requests 1-3, filed with the letter of 5 February 2013, or the appeal of the

opponent be dismissed, or the European patent be maintained on the basis of auxiliary request 4 filed 5 March 2013, or on the basis of auxiliary request 5 filed 5 March 2013.

VIII. Claim 11 of the main request and claim 10 of auxiliary request 1 each read as follows:

"A tyre removal machine comprising a base from which there upwardly project rotary means for supporting the wheel rim (6), and a column carrying at least one tool arranged to interact with the tyre bead, wherein said tool undergoes movements parallel to the axis of rotation of the wheel rim, characterised in that the rotary means supporting the wheel rim (6) undergo translating movements arranged to position the flange of the wheel rim (6) in a fixed zero position relative to the direction of movement of said tool."

Claim 11 of auxiliary request 2 has the following additional features:

"said rotary means for supporting the wheel rim (6) comprising a shaft (16) "

and

"wherein the tyre removal machine comprises a programmed electronic processor configured for being fed with the wheel rim dimensions and for causing said shaft (16) to translate until it reaches said zero position in which bead release discs (286) and (306) lie just outside the flange on the wheel rim."

Claim 11 of auxiliary request 3 has the following additional features to claim 11 of the main request: "of a wheel (5), wherein a vertical shaft (16) is provided carrying means for supporting and locking in position the wheel (5), said wheel (5) including the wheel rim (6) and tyre (7)", which follows on from the wording "... supporting the wheel rim (6)" at the start of the claim

and

"wherein the tyre removal machine comprises a programmed electronic processor configured for being fed with the wheel rim dimensions and for causing said shaft (16) to translate until it reaches said zero position in which bead release discs (286) and (306) lie just outside the flange on the wheel rim."

Claim 11 in the form found allowable by the opposition division has the following additional features to claim 11 of the main request:

"of a wheel (5), wherein a vertical shaft (16) is provided carrying means for supporting and locking in position the wheel (5) including the wheel rim (6) and a tyre (7)", which follows on from the wording "... supporting the wheel rim (6)" at the start of the claim

and

"wherein the tyre removal machine comprises a programmed electronic processor configured for being fed with the wheel rim dimensions and for causing said shaft (16) to translate until it reaches said zero

position in which bead release discs (286) and (306) lie just outside the flange on the wheel rim."

Claim 11 of auxiliary request 4 has the following additional features to claim 11 of the main request:

"of a wheel (5), wherein the rotary means comprise a vertical shaft (16) carrying means for supporting and locking in position the wheel (5), said wheel (5) including the wheel rim (6) and tyre (7)", which follows on from the wording "... supporting the wheel rim (6)" at the start of the claim;

"wherein said at least one tool is a bead release tool in the form of a disc and is supported by a frame slidable on a shaft (27) parallel to the axis of rotation of the wheel rim, wherein the shaft (27) can rotate about its axis in order to position the axis of the bead release disc such that it cuts the axis of rotation of the wheel rim"

and

"wherein the tyre removal machine comprises a programmed electronic processor configured for being fed with the wheel rim dimensions and then causing said shaft (16) to translate until it reaches said zero position in which bead release discs (286) and (306) lie just outside the flange on the wheel rim and for simultaneously causing the shaft (27) to rotate such that the axes (296) and (316) of rotation of the bead release discs (286) and (306) cut the axis of the shaft (16)."

Claim 1 of auxiliary request 5 reads:

"An automatic bead release device for tyre removal machines, comprising, for supporting the wheel rim (6) complete with tyre (7), rotary means associated with a frame (28) which supports a bead release disc (286, 306) in contact with the tyre (7) just external to the flange of the wheel rim, a shaft (16) parallel to its axis of rotation, on which said frame (28) slides to approach and withdraw from the wheel rim (6), means for moving said frame along said shaft, and means for lightly inserting said disc (286, 306) below the flange of the wheel rim (6) after it has come into contact with it, wherein said disc (286,306) is positioned at the end of a bar (285, 305) perpendicular to said shaft (16) and axially slidable within guides present on said frame (28), the other end of said bar (285, 305) being provided with a roller (289, 309) arranged to slide along a cam (291, 311) normally rigid with the frame (28), characterised in that the cam is arranged to be locked to the shaft (16) when the disc (286,306) comes into contact with the tyre (7) in order to compel said bar (285, 305) to slide slightly forward to insert the disc (286, 306) slightly below the wheel rim flange and act exactly on the wheel tyre (7) while the frame (28) continues to descend downwards and the rear roller (289,309) rises along the cam (291,311)."

IX. The arguments of the appellant/proprietor may be summarised as follows:

Claim 11 of the main request and claim 10 of auxiliary request 1

The claim defined a fixed zero position for the flange of the wheel rim and thus could handle many sizes of wheel rim; this ability to handle different wheel rim sizes was an implicit requirement of the claim. D2 also defined a zero point, yet this was for the plate on which the wheel rim was supported and thus represented a machine zero point rather than a fixed zero point in relation to a flange of any wheel rim. The device of D2 was thus unable to automatically adjust for different sized wheel rims.

Auxiliary request 2

The basis for the machine of claim 11 comprising a programmed electronic processor was provided through a combination of paragraphs [0024],[0054] and [0060] of the published patent application (*all subsequent paragraph references here will be to this published application, which corresponds to the content of the application as originally filed*). The function of the processor was to control the translating movement of the shaft according to the input wheel rim dimensions and thus could be extracted in combination with these features. Inclusion of a locking mechanism for the wheel rim, for example, was not necessary as the processor functioned independently of this. The skilled person would want to have a machine capable of adapting to different rim sizes, such that he would read the description in this context in order to extract the necessary features for this capability. It was not relevant that the processor features were disclosed in the description of a method of operation, since paragraph [0055] explained that the following

paragraphs were a description of how the devices worked, without implying any further connection of the devices.

That the rotary means comprised a shaft was clear from the description as a whole and particularly from paragraphs [0025] and [0027] describing the supporting and rotating functions of the shaft. Being dependent claims and thus relating to preferred features, the skilled person would realise that it was not necessary for all the features disclosed in claims 7 and 8, in combination with the rotary means, to be included in claim 11.

For considering whether the requirement of Article 123(2) EPC was met, a skilled person would appreciate that only the technically relevant information in regard to certain components disclosed needed to be extracted from the description for combination in the claim. Only if the skilled person were presented with some additional technically relevant information, not disclosed in the application, would a problem exist. This was also supported by recent case law of the Boards. This was exactly what a skilled person would do when considering the processor and the shaft by themselves, one not being directly technically related or relevant to the other. Also, only the technically relevant parts of each introduced feature had to be defined. When considering the processor for example, the skilled person would be able to derive that the information defined in the claim was the only information which was relevant technically and this much was contained in paragraph [0060]. The skilled person's knowledge in this regard also could not be omitted.

Auxiliary request 3

Through addition of features regarding the vertical shaft, all functionally connected features to the processor were now included in claim 11. The skilled person would identify unambiguously that these were the only features required and the only technically relevant features.

Claim 11 in the form found allowable by the opposition division

Other than those features in paragraphs [0060] and [0061], the other features from paragraphs [0056] to [0069] were not functionally related to the operation of the processor and thus did not need to be taken up into claim 11.

Auxiliary request 4

Paragraph [0024] clearly stated that not all features disclosed in the embodiment of the description needed to be included in the claimed invention. The shell surrounding the rotary shaft as stated in the description in paragraph [0025] was a feature irrelevant to the function of the rotary means since the only relevant element of the rotary means was the vertical shaft itself. Since no function was ascribed to the shell, it could thus be omitted from claim 11. Auxiliary request 4 was *prima facie* allowable and should be admitted into the proceedings.

Auxiliary request 5

The limitation of the set of claims to include only claims 1-10, thereby excluding claim 11 (which was earlier considered by the Board not to be allowable),

was made only at an advanced stage in the oral proceedings as the proprietor had expected that claim 1 would have been discussed first during the oral proceedings.

Having the status of an appellant, the proprietor could not have filed any fallback position to claims 1 to 10 earlier, since the opposition division had found in favour of the proprietor on claim 11 so that the proprietor was not disadvantaged by claim 11 being held allowable by the Opposition Division. Also, it was the Board itself who had objected to Article 123(2) EPC, contrary to G9/91, and thus had put the proprietor in such a predicament, forcing it to file the request at such a late stage.

The desire not to flood the proceedings with requests had also been a further consideration in not filing such a request, even if in retrospect this had proven not to be the correct approach. As the request entailed a simple deletion of unallowable claims from the main request, however, it was not complex and should be admitted into proceedings.

Inventive step, claim 1

The use of the expression "normally rigid with the frame" clearly described that the cam usually moved with the frame. From the subsequent portions of the claim it was clear that, when the disc contacted the tyre, the cam was locked to the shaft whilst the frame continued to descend downwards. In D1, the cam was never locked to the shaft. In D2 different rim sizes were accommodated through replacing or repositioning the cam. The objective problem was to be seen as how to

deal with different rim sizes in a simple manner. There was no hint in D2 which led to a modification of the device of D1, nor in D1 which led to a modification of D2.

- X. The arguments of the appellant/opponent may be summarised as follows:

Claim 11 of the main request and claim 10 of auxiliary request 1

The fixed zero point of claim 11 was not further defined such that col.2, lines 58-61 and col.4, lines 9-11 and line 20 onwards of D2 anticipated the device of claim 11.

Auxiliary request 2

The non-converging claims 11 in auxiliary requests 2 and 3, ought not to be admitted according to T 1685/07. The claim anyway failed to meet the requirement of Article 123(2) EPC due to intermediate generalisations regarding what the rotary means comprised and the machine being comprised of a programmed electronic processor. In regard to the rotary means *per se*, claim 8 of the A-publication for example contained the only definition of what "rotary means" meant in the context of the application and this disclosed the rotary means including, amongst other things, a rotary hollow shaft. In as far as paragraph [0025] was relevant to the rotary means, this described a shell containing a vertical shaft and was anyway related to what was shown in the Figures.

Auxiliary request 3 and claim 11 in the form found allowable by the opposition division

The electronic processor was still claimed in a way which was an intermediate generalisation of the disclosure in paragraphs [0055] to [0062].

Auxiliary requests 4 and 5 - admittance into proceedings

These were filed very late in the appeal procedure, and in response to objections which were not new in the proceedings, such that these should not be admitted into proceedings. There was no reason to expect that such a request would be filed, in particular since the communication from the Board had already put the allowability of claim 11 in doubt and a limitation to the other independent claim, claim 1, should have been made at that stage. The opponent had objected under Article 123(2) EPC in response to the proprietor's appeal containing its auxiliary requests, so the proprietor had already been aware at that stage that Article 123(2) was an issue, which had been confirmed by the Board in its communication. The presentation of auxiliary request 5 at such a late stage was also unfair as, through deletion of claims 11-16 for the first time by way of the request, it implied an unnecessary complication requiring new matters to be dealt with compared to the previous requests. Procedural economy was negatively affected and the appellant/opponent, after being successful in its arguments and efforts to have the other requests on file held unallowable, was then faced with the need to make renewed efforts for another independent claim which had previously not needed to be attacked as the requests were already defective for other reasons.

Claim 11 of auxiliary request 4

The rotary means comprising solely a shaft was an intermediate generalisation of the more detailed disclosure of the rotary means in the description. Such an amendment did not overcome the previously raised objection under Article 123(2) EPC.

Auxiliary request 5, Inventive step, claim 1

Due to the contradictory statement in claim 1 that the cam was rigid with the frame yet was freed therefrom when locked to the shaft, these features were to be regarded as functional. Starting from D1, plates 114b, 115b were also locked to the shaft when the tool was engaged. The above functional features of claim 1 were thus also to be found in D1 and, in combination with D2 resulted in the subject-matter of claim 1 lacking an inventive step.

Alternatively starting from D2, the problem to be solved was to automate the machine. Col.2, lines 17-23 of D1 discussed an automation of the machine, as did col.8 from line 22 onwards such that combining the teaching of D1 with the device of D2 deprived the subject-matter of claim 1 of an inventive step.

Allowing amendments to the description effected procedural economy and should not be admitted; only deletion of inconsistent sections was required, rather than adaptation thereof. Also, paragraph [0025] allowed features to be considered part of the invention according to the reader's own interpretation, thus contradicting the specific claim scope; this paragraph

should thus have been deleted when adapting the description to the amended claims.

Reasons for the Decision

1. *Main request*

1.1 Regarding the subject-matter of claim 11 of this request, there was no disagreement between the parties insofar as D2 discloses a tyre removal machine (see Fig. 1, claim 1) comprising a base (1) from which there upwardly project rotary means (4; col.4, lines 26 - 29) for supporting the wheel rim (7), and a column (10) carrying at least one tool (18,27) arranged to interact with the tyre bead, wherein said tool (18,27) undergoes movements (col.4, lines 37-43) parallel to the axis of rotation (see Fig. 1) of the wheel rim (7) whereby the rotary means (4) supporting the wheel rim (7) undergo translating movements (col.4, lines 9-11). The Board also finds no reason to differ from the parties' view in this respect.

1.2 The appellant/proprietor argued that D2 failed to disclose the wheel rim being arranged in a fixed zero position relative to the direction of movement of said tool, as the fixed zero position of D2 related to a machine zero point rather than a zero point of the wheel rim.

1.3 The Board notes however that the expression "fixed zero position" is not defined more precisely in the patent specification and is thus open to interpretation as to how the skilled person would read this. With the

purpose of the "fixed zero position" being to locate the tool correctly for initiating the tyre bead removal, the Board finds that the skilled person would interpret the "fixed zero position" as any known starting position of the tool relative to the wheel rim. From this known starting position, the tool is controlled to remove the bead from the rim without damaging the tyre. Whilst D2 does indeed indicate that the tool is positioned relative to the wheel rim support (4) rather than specifically the rim itself (see col.4, lines 9-11), with no definition to the contrary in the patent, this can be considered a "fixed zero position" since - when a wheel rim is fixed to the support - any fixed position with respect to the support is also a fixed zero position with respect to the wheel rim fixed to that support. Also, the operator of the machine would know exactly where on the support (4) the wheel rim itself is positioned, such that the location of the "fixed zero position" relative to the wheel rim would also be directly identifiable.

- 1.4 The appellant/proprietor argued further that the "fixed zero position" as claimed would automatically compensate for various wheel rim dimensions, as the point was defined relative to the rim itself and that this was different from D2. Whilst the Board does not see any reason to doubt that the machine of claim 11 is able to automatically arrange the zero position to be the same with respect to the rim of various different sized rims, and that the ability to handle different rim sizes may implicitly be important in such machines, only a single rim is defined in claim 11, not a plurality of different sized rims nor an ability of the machine to locate the fixed zero position appropriately

for an undefined number of rim sizes. Thus, for any given rim size in D2, whilst the tool starting point is fixed relative to the wheel rim support (4), the position of the tool relative to the wheel rim fixed on that support would also be fixed. The starting point of the tool in D2 for any one rim can thus be regarded as the "fixed zero position" according to claim 11.

- 1.5 Since the appellant/proprietor did not argue that any further difference of claim 11 existed with respect to D2, the Board thus concludes that the subject-matter of claim 11 is known from D2 and thus lacks novelty, contrary to Article 54(1) EPC 1973.

2. *Auxiliary request 1*

With claim 10 of auxiliary request 1 being identical to claim 11 of the main request, the subject-matter of claim 10 of this request also lacks novelty over D2 (Article 54(1) EPC 1973) for the same reasons as apply to the main request.

3. *Auxiliary request 2*

- 3.1 The appellant/opponent argued that this request should not be admitted (citing T 1685/07), as the subject-matter of claim 11 of the respective auxiliary requests 2 and 3 was non-converging.

- 3.1.1 The Board notes that the claims of the present auxiliary requests 2 and 3 filed with letter of 5 February 2013 are however identical to requests filed with the grounds of appeal. In contrast in the case T 1685/07 (see the Reasons for the Decision, 6.7), the

non-converging claims in different requests did not correspond to requests filed with the grounds of appeal, rather these were filed in response to the summons to oral proceedings so the reasons for the Board's use of its discretion in that case do not apply here.

3.1.2 Also, the subject-matter of claim 11 of these requests cannot immediately be regarded as being divergent between the second to the third auxiliary request merely because "rotary means" has been removed at one location in the claim in the third auxiliary request. In terms of any divergence compared to the first auxiliary request, at least in as far as claim 11 is concerned, this is rather academic since claim 11 was the same in the main request and auxiliary request 1. The matter of divergence is also not by itself decisive.

3.1.3 Whilst the Board has discretion under Article 12(4) of the Rules of Procedure of the Boards of Appeal (RPBA) not to admit requests into proceedings which could have been presented in the first instance proceedings, this question can be left aside in the present case since, as can be understood from the conclusions *infra*, the requests are anyway not allowable.

3.2 With respect to the basis in the originally filed application of the feature "rotary means for supporting the wheel rim comprises a shaft" (referred to hereafter as the first feature), the Board notes that such wording is not to be found in the application as filed. "Rotary support means" are mentioned in paragraphs [0012] and [0016] although without detailing their structure. The only part of the application detailing the composition of the rotary means is in claim 8 which,

however, discloses the rotary means as comprising a combination of more features than simply a shaft: for example, an upper plate, a pawl means and a statement that the shaft is hollow. It thus follows that the rotary means is described, in its sole disclosure, as comprising significantly more than simply a shaft. The Board thus concludes that the extraction of this single feature from a sole disclosure in the patent application disclosing the shaft in combination with other features has no basis.

3.2.1 Claim 8 is indeed dependent on claim 7 which itself is dependent on claim 1 (not claim 11). However, whilst dependent claims relate to preferred features with respect to an independent claim from which they depend, dependency alone does not necessarily provide an unrestricted resource to extract individual features from these claims (here dependent claims 7 or 8) for combination with those of another claim. The features in claim 8 are disclosed in combination and, due to dependency of claim 8 on claim 7, also in further combination with those in claim 7. This disclosure cannot therefore *per se* provide a basis for extracting individual features, such as the shaft, from claim 8 for combination with the subject-matter in claim 11. At least when having regard to the claims, no direct and unambiguous basis is given for the isolation of merely one or some of those features from the specific combination in which they are disclosed.

3.2.2 The appellant/proprietor also argued that the shaft is disclosed elsewhere in the application as possessing supporting and rotating functions and thus clearly is what is intended within the expression "rotary means"

in claim 11 and in claim 1. The Board concludes however that whilst the shaft is indeed indicated to carry out supporting (see paragraph [0025]) and rotating (see paragraph [0027]) functions, there is neither an explicit nor an implicit link between the rotary means and the shaft alone anywhere in the application as filed. Solely in claim 8 is any link between the rotary means and the shaft established, and there it is in combination with a plurality of other features.

3.2.3 The reference to paragraph [0025] itself as providing a basis for extracting only the shaft 16 as the constitutive part of the rotary means is also not convincing since paragraph [0025] specifically refers to what is shown in the Figures, and indeed specifically describes a shell 3 surrounding the shaft 16. For a skilled person, it is also evident when reading paragraph [0025] in conjunction with the Figures that the shell 3 surrounding the shaft 16 has the function of supporting the shaft 16 as a journal. At least these structural elements are thus clearly functionally and structurally disclosed in combination in that part of the description. It is also clear from the Figures and the related description that the shaft is functionally and structurally arranged as a hollow shaft to co-act with still further features.

3.2.4 The Board thus concludes that the text passages referred to by the appellant/opponent provide no basis in the application as originally filed for isolating this first feature from the context in which it is disclosed and then combining this with other features defined in claim 11. Nor can the Board immediately see

any other disclosure which would provide basis for such introduction in the form chosen.

3.2.5 The appellant/opponent's further argument, concerning the idea that the skilled person is not presented with any additional technically relevant information and the ability of a skilled person to extract only the technically relevant information from the application as filed, is dealt with *infra* in relation to the further feature added to claim 11.

3.3 Concerning the basis in the application as originally filed for the added feature "wherein the tyre removal machine comprises a programmed electronic processor...." (referred to hereafter as the second feature) the Board finds that the tyre removal machine is only disclosed as comprising a programmed electronic processor in combination with further features which have not been included in claim 11 of this request.

3.3.1 Paragraph [0054] of the application introduces the programmed electronic processor as coordinating the movement of "certain aforescribed devices". It is thus already evident at the outset that any one of the paragraphs following paragraph [0054] cannot, unless derivable in another way, be viewed in isolation. In the subsequent paragraphs until paragraph [0062], the operation of the processor with certain of these devices is described. It is to be noted that these following paragraphs essentially concern the operation of the tyre bead removal machine, whereby the processor is disclosed only in relation to the method steps included in the machine operation. The programmed electronic processor is thus disclosed only in

combination with the assorted devices mentioned in the operating method disclosed in paragraphs [0056] to [0062], and introduction of the processor into claim 11 isolated out of this particular context is thus an inadmissible intermediate generalisation of the disclosure in the application as originally filed.

- 3.3.2 In this regard, the terminology "inadmissible intermediate generalisation" (see also T 1408/04) is to be understood to refer, as an abbreviated form used by practitioners, to an undisclosed combination of selected features lying between an original broad disclosure (in this case, claim 11 as filed) and a more limited specific disclosure (in this case, the specific details of a processor disclosed as being used as an integral part of a method in which several assorted devices are operated in a specific order).
- 3.3.3 The appellant/proprietor argued that the function of the processor had first to be understood, whereupon a skilled reader would then extract those features of technical relevance for this function and introduce them into the claim. Only if the skilled person were then presented with additional technical relevant information would an objection then allegedly arise.
- 3.3.4 The Board however finds this argument non-persuasive, as explained below.
- 3.3.5 In the decision of the Enlarged Board of Appeal G 2/10, (see item 4.3) the following was stated when referring to earlier decisions G 3/89 and G 11/91:

"...it follows that any amendment to the parts of a European patent application or of a European patent relating to the disclosure (the description, claims and drawings) is subject to the mandatory prohibition on extension laid down in Article 123(2) EPC and can therefore, irrespective of the context of the amendment made, only be made within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of these documents as filed..".

- 3.3.6 The foregoing is referred to further on in item 4.3 of G 2/10 as "the gold standard".

The Board can see no reason why the Board should depart from the "gold standard" in the present case.

- 3.3.7 In as far as the appellant/proprietor makes reference to recent case law of the Boards of Appeal to support its case, the Board notes that case T 1906/11 indeed mentions (see item 4.2) the terminology intermediate generalisation ("Zwischenverallgemeinerung") as being irrelevant and takes up the issue of whether the skilled person is presented with additional technical relevant information as being the decisive factor.

- 3.3.8 The Board (in the present case) can agree with that decision in so far as it is irrelevant whether an amendment is specifically referred to as an "intermediate generalisation" or not, since it is the specific amendment which has been made which must be considered. In the present case however (see the definition in item 3.3.2 above) the Board refers to

"inadmissible intermediate generalisation" as appropriate jargon when considering the particular nature of the amendment and its relationship to the content of the application as filed.

- 3.3.9 In respect of the "technical relevance" of the added information, case T 1906/11 cannot be understood by this Board to define a new standard for judging amendments with respect to Article 123(2) since this would be at odds with the "gold standard".

In other words, the standard whereby an amendment must be directly and unambiguously derivable, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the application as filed, remains a pre-requisite for judging any amendment with respect to the requirement of Article 123(2) EPC.

- 3.3.10 Hence, the "relevance", as such, of the technical information is not of importance for deciding upon the issue of Article 123(2) EPC, rather simply whether this technical information received by the skilled person is new having regard to the content of the originally filed application. Indeed, in G 2/10 (see item 4.4.2, 3rd paragraph) it is stated that "the Enlarged Board (*in G 1/10*) replied by stating that any amendment to a claim is presumed to have a technical meaning otherwise it would be useless to have it in the claim".

- 3.3.11 In the present case before the Board, the programmed electronic processor is indeed disclosed in combination with a plurality of further technical features from paragraphs [0056] to [0062] such that extraction of the

processor alone from these paragraphs and insertion into claim 11 presents the skilled person with new technical information in the form of a new combination of features which is not directly and unambiguously derivable from the application as originally filed.

3.3.12 The appellant/proprietor further argued that paragraph [0054] mentions that only certain of the aforescribed devices are coordinated by the programmed electronic processor and the skilled person would thus extract only necessary technical features for inclusion in the claim. The Board can concur with the appellant/proprietor insofar as the processor is described as coordinating the movement of certain devices. However, as regards the disclosure of the processor in paragraph [0054] onwards, this is disclosed in a structural and functional interrelation with the other features in these paragraphs such as, for example, the locking means 4 which secure the wheel rim 6 to the support plate 17 (see Fig. 3). Without the locking means securing the wheel rim, the tyre removal machine would not be successful in releasing the tyre bead and thus there is a functional interrelation between the locking means and the processor, the latter controlling the relative movement between the shaft supporting the wheel rim and the bead release discs. A disclosure of a tyre removal machine as in granted claim 11 in combination with - only - features of a programmed electronic processor is simply not part of the application as originally filed.

3.3.13 It also cannot be accepted by the Board that when a skilled person applies common general knowledge, he would then arrive at the combination of features in

claim 11 of this request. Nothing has been filed by the appellant/proprietor to support this argument, nor is any such information derivable from the application as filed. The appellant/proprietor's argument that a skilled person would realise what elements were technically relevant to the invention when adding certain further structural features into the claim is entirely subjective when considering the content of the application as filed which does not disclose such elements (here namely the programmed electronic processor, and the rotary means comprising a shaft) in anything but a specific form in a specific context.

3.4 It thus follows that the introduction into claim 11 of both the first and second features identified above results in the skilled person being presented with a new combination of features (i.e. new technical information) which he would not derive directly and unambiguously, using common general knowledge, from the application as filed. Claim 11 thus contravenes Article 123(2) EPC and auxiliary request 2 is therefore not allowable.

4. *Auxiliary request 3*

Claim 11 of this request maintained the above identified second feature unamended. The appellant/proprietor's argument that the addition of the "vertical shaft" to claim 1 overcame the contravention of Article 123(2) EPC is not convincing, particularly as the "vertical shaft" is not the only of the "aforescribed devices", as concluded in 3.3.12 *supra*, to be disclosed in combination with the programmed electronic processor. It thus follows that,

at least for this reason, the finding of added subject-matter in claim 11 of auxiliary request 2 applies equally to claim 11 of this request. Claim 11 thus contravenes Article 123(2) EPC and auxiliary request 3 is also not allowable.

5. *Claim 11 in the form found allowable by the opposition division*

5.1 Whilst the above-identified second feature of auxiliary request 2 remains unchanged in this request, the appellant/proprietor additionally argued that the shaft translation in paragraph [0060] was a separate function from the shaft rotation in paragraph [0061] and that these two movements were not functionally interrelated.

5.2 The Board however cannot concur. The paragraphs [0060] and [0061] are linked by the word "simultaneously" indicating an inseparable interaction of the translation and rotation movements of the shaft described in the paragraphs. Furthermore, as regards the programmed electronic processor and its interaction with the shaft, according to the above paragraphs, the processor is stated to control both the translation and rotary shaft movements. An extraction of the programmed electronic processor and its control of the shaft translation alone from the combined disclosure of the processor in at least paragraphs [0060] to [0061] is an inadmissible intermediate generalisation of the content of the application as originally filed and is not clearly and unambiguously derivable for the skilled person.

5.3 Claim 11 thus contravenes Article 123(2) EPC and the request found allowable by the opposition division is found by the Board not to be allowable.

6. *Auxiliary request 4*

6.1 The appellant/opponent objected to the late filing of this request, arguing that no new arguments had been presented to the appellant/patentee necessitating such a late change of case. The Board also noted that claim 11 of the current auxiliary request 4 had been amended over that previously on file only with respect to minor and very specific issues which had been raised in the course of the oral proceedings. Nonetheless, since the filing of the replacement auxiliary request 4 represented a change of the appellant/proprietor's case, the Board had to exercise its discretion under Article 13(1) RPBA as to whether the request should be admitted into the proceedings. One factor to be considered in the exercise of its discretion, as is established case law of the Boards, was whether the newly filed request could be considered *prima facie* allowable at least in the sense that all previous objections had been overcome without giving rise to any new objections.

6.2 Regarding the basis for the rotary means comprising a vertical shaft, the appellant/proprietor referred to paragraph [0025] that the shell was technically irrelevant and thus could be omitted from the claim. As under point 3.3 *supra*, the Board refers to G 2/10 in identifying that technical relevance is not the test to be applied in establishing whether a feature disclosed in combination with others in an embodiment is to be

taken into the claim. Rather, of importance is that after the amendment the skilled person may not be presented with new technical information, or as stated by the Enlarged Board in G 2/10, the skilled person may not be presented with technical information which he would not derive directly and unambiguously, using common general knowledge, from the application as filed. Therefore the Board sees the purpose of the shell in combination with the shaft very differently to the appellant/proprietor, particularly with reference to Figure 3 from which it is clear that the shell 3 is a stationary item within which the vertical shaft 16 can rotate. With the appellant/proprietor's arguments being the same on this point to those presented for auxiliary request 2, the conclusions under point 3.2.3 apply *mutatis mutandis* here.

6.3 At least for this reason, the requirement of Article 123(2) EPC is *prima facie* not met by claim 11 of auxiliary request 4 and, as a result, the request was not admitted into the proceedings.

7. Auxiliary request 5.

7.1 With regard to the admittance of this request, the Board again had to exercise its discretion under Article 13(1) RPBA, as this request was a change of the proprietor's case, having been filed during oral proceedings.

7.2 The proprietor argued that its status as appellant prevented it from filing the request earlier, since it was not disadvantaged by the decision of the opposition division.

This is however a misunderstanding of the law by the proprietor. In the present case there are two appellants and the proceedings are therefore considered in the same proceedings (see Article 10(1) RPBA) due to the consolidation of appeal proceedings. The proprietor is thus also a respondent to the appellant/opponent's appeal. As such, in response to the attacks against claim 1 and claim 11 made in the grounds of appeal of the opponent, the proprietor was already in a position to file an auxiliary request as a fallback position should the opponent's attack against claim 11 have been successful, as indeed turned out to be the case. Indeed, under Article 12(1) and (2) RPBA, the proprietor was given a time limit of four months in which to reply to the opponent's grounds of appeal with its complete case in response.

Thus the request has to be dealt with under Article 13(1) RPBA as a change to the proprietor's case in response to the opponent's appeal.

- 7.3 Further, the proprietor argued that it was the Board itself who had objected to Article 123(2) EPC and that this had led to its predicament, and that this was contrary to G 9/91.

Again here the proprietor is mistaken both factually and legally. The objections under Article 123(2) EPC had been raised by the opponent in its response of 4 September 2012 to the proprietor's appeal. *Arguendo* even assuming this had not been the case, the Board is not prevented from raising objections *ex officio* against any amendments made, so as to ensure that such

amendments meet the requirements of the EPC (see G 9/91, item 19).

7.4 However, this request is a simplification of the main request insofar as it comprises just claims 1-10 of the main request, the unallowable claims from the main request having been deleted. Whilst being indisputably filed at a very late stage of proceedings, the Board accepts the appellant/proprietor's argument that, prior to the oral proceedings, it had no indication from the Board that claim 11 of each request would be discussed in preference to claim 1 such that a restriction of a request to just claims 1-10 was not immediately obvious. Although this alone is not adequate justification for filing such a request at the latest stage of oral proceedings requiring subject-matter not previously having been discussed in the oral proceedings to be considered, it can be understood from auxiliary request 1 filed as a response to the Board's written opinion that the proprietor had indeed filed a request which was, when considering the objections to claim 11, entirely meaningless unless claim 1 would itself have already been considered. Further, the fact that claim 1 of this request had been addressed at length and in detail by both parties in their written submissions led the Board to exercise its discretion under Article 13(1) RPBA to admit auxiliary request 5 into the proceedings.

The appellant/opponent argued against admittance on the grounds that it had been successful in dealing with all the requests previously on file and it was unfair procedurally that it was now faced with the need to make renewed efforts to attack another independent

claim which had previously not needed to be attacked as the requests were already defective for other reasons.

However, as stated above, the appellant/opponent had already argued extensively in writing on claim 1 and could also not have relied on the Board starting oral proceedings with discussion of claim 11; it could equally have opened discussion on claim 1.

- 7.5 The appellant/patentee argued that a novelty objection to the subject-matter of claim 1 had not been substantiated during the opposition procedure and should thus, according to Article 12(4) RPBA, be held inadmissible in appeal proceedings. During oral proceedings the appellant/opponent no longer pursued its objection that the subject-matter of claim 1 lacked novelty in view of D1, instead interpreting the features in the characterising portion of claim 1 as functional features of the claimed device.
- 7.5.1 The Board, for the reasons given in 7.6.1 and 7.7 *infra*, anyway concludes that the subject-matter of claim 1 is novel over D1 (Article 54(1) EPC 1973). No further novelty attacks were made against claim 1. In view of this, the appellant/patentee's request not to admit the objection into the appeal proceedings can be left aside.
- 7.6 The claims of a granted patent are regarded as clear under Article 84 EPC 1973 since lack of clarity is not a ground of opposition. The appellant/opponent alleged that the cam of claim 1 cannot be rigid with the frame yet be locked to the shaft while the frame continues to descend. For the claim to be understood, therefore,

these features had to be interpreted as functional features of the claimed bead release device.

7.6.1 The Board does not concur with the view of the appellant/opponent in this respect, rather interpreting the above features of claim 1 in the light of the entire disclosure of the patent, as follows:

from paragraphs [0043] to [0048] and [0065] to [0067] it is evident that normally (i.e. at all times when the bead release disc is not in contact with the tyre) the cam is rigid with the frame in the sense that it moves with it. As this rigid connection between the cam and the frame is achieved via a spring 292, it is evident to the skilled person that this rigid connection can be overcome. This occurs when the block 290 is locked to the shaft, occurring when the bead release disc is in contact with the tyre. With the cam profile being of one piece with the block, when the block is locked to the shaft the cam is also locked to the shaft and as such is no longer rigid with the frame as relative movement between the frame and cam can occur.

In this light, the Board finds that the alleged functional features can be clearly interpreted in a physical way, such that the cam can be normally rigid with the frame and arranged to be locked to the shaft when the disc comes into contact with the tyre.

7.7 In view of the above interpretation of claim 1, D1, representing the best starting point for reaching the claimed invention as also undisputed by the parties, discloses an automatic bead release device for tyre removal machines (see Fig. 4, col.1, lines 6-13) comprising, for supporting the wheel rim (102) complete

with tyre (103), rotary means (105,106,107; col.6, line 56 - 68) associated with a frame (112,113,114a,b,115a,b) which supports a bead release disc (122) in contact with the tyre (103) just external to the flange of the wheel rim (col.8, lines 22-25), a shaft (110,111) parallel to its axis of rotation, on which said frame (112,113) slides to approach and withdraw from the wheel rim (6), means (col.7, lines 14-18) for moving said frame along said shaft, and means (116,131) for lightly inserting said disc (286, 306) below the flange of the wheel rim (102) after it has come into contact with it (col.8, lines 25-34), wherein said disc (122) is positioned at the end of a bar (121,132) perpendicular to said shaft (110,111) and axially slidable within guides (120) present on said frame (112,113,114a,b,115a,b), the other end of said bar (121,132) being provided with a roller (126,127) arranged to slide along a cam (128,129) normally rigid with the frame (112,113,114a,b,115a,b).

Claim 1 differs from the device known from D1 in that: the cam is arranged to be locked to the shaft when the disc comes into contact with the tyre in order to compel said bar to slide slightly forward to insert the disc slightly below the wheel rim flange and act exactly on the wheel tyre while the frame continues to descend downwards and the rear roller rises along the cam. Starting from D1, the objective technical problem can be regarded as how to provide an alternative activation of the bead release disc against the tyre bead.

7.8 Considering the upper bead release disc of D1 depicted in Figures 4 and 5, this is activated once positioned

directly next to the wheel rim (corresponding to the "zero position" of the opposed patent) through hydraulic cylinder 116 being activated, such that piston 118 forces telescopic arm 120 to execute a pivoting motion, guided by pin 127 in hole 129, about cross pin 126 (see D1 col.8, lines 12-50).

It is thus clear that holes 128,129 of D1, which act as cams for the pins 126,127, are never locked to the shaft 110,111 since they are attached via plates 114,115 to the bushings 112,113 which are always free to slide on the shafts. During the activation of the bead release discs of D1, the bushing 112 (corresponding to the frame of claim 1) does not continue to move downwards, rather it is stationary while the tyre bead is released by the action of the bead release discs. The activation of the bead release discs in D1 is thus achieved through a significantly different mechanism and through different movements of corresponding parts of the respective devices in D1 and claim 1.

The appellant/opponent argued that the plates 114b, 115b of D1 were locked to the shaft during the bead release such that the subject-matter of claim 1 would be arrived at in an obvious manner by the skilled person. Even if it were accepted that plates 114b, 115b are indeed locked to the shaft, which it is not, the bushing 112 of D1 (which corresponds to the frame) must then also be interpreted as being locked to the shaft. How the skilled person can thus extract the contradictory teaching that the very same frame continues to descend on the shaft, as is required by claim 1, rather than remaining locked, is then not

technically consistent or logical and thus cannot be considered an obvious modification to the device of D1.

The Board thus concludes that there is no hint to be found to guide the skilled person to the invention defined in claim 1 based on the device known from D1 alone.

- 7.9 The appellant/opponent argued that D2 provided the skilled person with the teaching to modify the device of D1 in order to arrive at the subject-matter of claim 1.

The bead release device of D2 comprises, for any particular wheel rim, a specific (albeit exchangeable) cam profile 35 which is located in a fixed position on the column 10 (see D2 col.3, lines 10-15 and 38-43). The carriage 23 (corresponding to the frame of claim 1) is drivable along the column 10 by way of the worm-drive 11 and carries a cam-follower 34. It is thus evident that the cam profile 35 is never rigid with the frame as it is the relative movement between these two features which drives the cam-follower 34 along the cam profile 35.

The Board thus sees no hint in D2 which would lead the skilled person to modify the device known from D2 in such a way as to solve the objective technical problem and arrive at the subject-matter of claim 1 of the opposed patent, unless inventive skill were involved.

The appellant/opponent argued that, due to the feature "normally rigid with the frame" being a functional feature rather than a physical requirement of the cam

relative to the frame, D2 disclosed the features of the characterising portion of claim 1 and thus, in combination with D1 deprived claim 1 of an inventive step.

The Board however, as explained under point 7.6.1, does not interpret the above feature solely as a functional feature of the claim. Even if it were to, in order to follow the above argument, the cam would then have to exhibit the function of being rigid with the frame. Yet, in D2 the cam profile 35 and the carriage 23 (corresponding to the frame of claim 1) are never physically rigid one with the other, nor does the cam profile ever fulfil such a condition functionally; the carriage, which carries the cam-follower 34, is always movable relative to the cam-profile 35 in order for the cam to fulfil its purpose of providing a surface of varying profile on which the cam-follower is guided.

The Board therefore concludes that the combination of D1 with D2 does not lead the skilled person in an obvious manner to the subject-matter of claim 1.

7.10 Regarding the appellant/opponent's argument that claim 1 is also obvious starting from the device of D2 and combining this with the device of D1, the Board finds differently.

D2 discloses all features of claim 1 except for the following:

- (a) The bar is perpendicular to the shaft and axially slidable within guides present on said frame;
- (b) The cam is normally rigid with the frame; and

(c) The frame descends downwards while the bead release disc acts on the tyre bead.

Based on these characterising features with respect to D2, the objective technical problem being solved by the invention according to claim 1 may be seen as how to provide an alternative bead release device.

Whilst feature (a) above is known from D1 (a bar 121,122 perpendicular to the shaft 110,111 and axially slidable within guides 120 present on said frame 112,113,114a,b,115a,b) features (b) and (c) above are not disclosed in the device of D1, as discussed in point 7.4 above. The Board thus concludes that there is no hint for the skilled person suggesting the combination of features in claim 1 when starting from D2 and combining this with D1.

Even if the devices of D1 and D2 were to be combined, the lack of at least the feature that "the cam is normally rigid with the frame" in either document will result in such a combination not resulting in a bead release device in accordance with claim 1.

7.11 The Board therefore finds that the subject-matter of claim 1 of auxiliary request 5 involves an inventive step (Article 56 EPC 1973) in view of the cited prior art.

8. The appellant/opponent submitted that amendments to the description should not be allowed at all at this stage, due to the need for procedural economy under Article 13(1) RPBA. The Board concludes however that, bringing the description into conformity with the

amended claims is a normal part of the procedure when the Board has concluded that claims which would otherwise be allowable have been filed. There is also no necessity merely to delete various paragraphs of the description as opposed to adapting them.

The appellant/opponent also argued that paragraph [0025] was to be deleted as this left the scope of the patent open to the reader's interpretation. The Board finds however that the statement in the above referenced paragraph is in fact not inconsistent with claim 1, as this claim does indeed not include within its scope all the means described in the description. The features of claim 1 are clearly those which define the invention and this is also stated in paragraph [0018] of the amended description. No indication can be taken from paragraph [0025] that any feature of claim 1 can be omitted.

No further objections were raised against the adapted description by the appellant/opponent.

The description as amended is thus in accordance with claims 1-10 of auxiliary request 5.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the European patent on the basis of auxiliary request 5, filed 5 March 2013, containing the following documents:

Claims: 1-10, filed 5 March 2013;
Description: page 1 (cover sheet) and page 2, both
filed 5 March 2013; pages 3 and 4 as
granted;
Drawings: Figs. 1-5, as granted.

The Registrar

The Chairman

M. Patin

M. Harrison