

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **see form PCT/ISA/210**

| | | |
|--|---|---|
| Applicant's or agent's file reference 56 416 XI | | FOR FURTHER ACTION See paragraph 2 below |
| International application No. PCT/EP2008/000227 | International filing date (day/month/year) 14.01.2008 | Priority date (day/month/year) 15.01.2007 |
| International Patent Classification (IPC) or both national classification and IPC B21D39/00, B21D19/04, B23K26/02, B23K33/00 | | |
| Applicant EDAG GMBH & CO. KGAA | | |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

| | | |
|--|------------------------------------|--------------------|
| Name and mailing address of the ISA/EP | Date of completion of this opinion | Authorized officer |
| Facsimile No. | | Telephone No. |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2008/000227

| Box No. I | Basis of this opinion |
|-----------|---|
| 1. | <p>With regard to the language, this opinion has been established on the basis of:</p> <p><input checked="" type="checkbox"/> the international application in the language in which it was filed</p> <p><input type="checkbox"/> a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).</p> |
| 2. | <p><input type="checkbox"/> This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))</p> |
| 3. | <p>With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> on paper</p> <p><input type="checkbox"/> in electronic form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in electronic form</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search</p> |
| 4. | <p><input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> |
| 5. | <p>Additional comments:</p> |

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2008/000227

| Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|-----------|--|-------------------------|-----|
| 1. | Statement | | |
| | Novelty (N) | Claims <u>15, 17-23</u> | YES |
| | | Claims <u>1-14, 16</u> | NO |
| | Inventive step (IS) | Claims <u>15, 17-23</u> | YES |
| | | Claims <u>1-14, 16</u> | NO |
| | Industrial applicability (IA) | Claims <u>1-23</u> | YES |
| | | Claims _____ | NO |
| 2. | Citations and explanations: | | |
| | 1. Documents cited | | |
| | Reference is made to the following documents: | | |
| | D1: DE 100 23 351 A1 (PROGRESSIVE TOOL & IND CO [US]) 14 December 2000 (2000-12-14) | | |
| | D2: DE 199 27 208 A1 (THYSSEN KRUPP IND AG [DE] THYSSENKRUPP DRAUZ NOTHELFER G [DE]) 28 December 2000 (2000-12-28) | | |
| | D3: US-A-5 897 796 (FORREST MARIANA G [US]) 27 April 1999 (1999-04-27) | | |
| | D4: JP 2007 237283 A (HONDA MOTOR CO LTD) 20 September 2007 (2007-09-20) | | |
| | D5: JP 56 009016 A (NIPPON DENSO CO) 29 January 1981 (1981-01-29) | | |
| | 2. Independent claims | | |
| | 2.1 Independent claim 1 | | |
| | The present application fails to comply with the requirements of the PCT because the subject matter of independent claim 1 is not novel (PCT Article 33(2)). | | |

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Document D1 discloses (the references between parentheses relate to said document):

a sheet-metal composite, comprising:

- a) an outer sheet (10) having a flange (figure 1) folded over about a hemming edge (figure 1) by hemming,
- b) an inner sheet (28) which forms a joint (figure 1) with the flange (figure 1),
- c) and a weld (16) produced at or in the joint (figure 1) and fixedly connecting the sheets (10, 28) to one another.

The feature "by roll or slide hemming" in claim 1 is a reference to a production process which does not make the known product/subject matter of claim 1 novel and/or inventive (also see PCT Guidelines Chapter III, 4.12).

In addition, the subject matter of claim 1 is also contained in documents D2-D4.

Therefore the subject matter of independent claim 1 is not novel (PCT Article 33(2)).

2.2 Independent claim 10

The same reasoning correspondingly applies to independent claim 10.

Therefore the subject matter of independent claim 10 is not novel (PCT Article 33(2)).

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

2.3 Independent claim 17

Document D1 is considered to be the prior art closest to the subject matter of independent claim 17 and discloses (the references between parentheses relate to said document):

an apparatus for hemming and welding components (10, 28), comprising:

- a) a tool head (figure 1, implicit),
- b) a hemming member (20) for hemming which is arranged on the tool head (figure 1, implicitly contained),
- c) and a welding tool (14) arranged on a second tool head (figure 1, implicitly contained),
- d) wherein the hemming member (20') and the welding tool (14) are arranged in such a way that the hemming member (20') forms a pressure device for a welding process that can be carried out using the welding tool (14).

Therefore, the subject matter of independent claim 17 differs from this known welding and hemming apparatus in that the hemming member for the roll or slide hemming and the welding or brazing tool are arranged on one tool head.

The subject matter of independent claim 17 is therefore novel (PCT Article 33(2)).

The problem addressed by the present invention can therefore be considered that of saving space for the production installations, improving the flexibility for the production of complex edge profiles in conjunction

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

with a stiffer sheet-metal composite compared with a conventional folded connection.

The solution to this problem, as proposed in claim 17 of the present application, involves an inventive step (PCT Article 33(3)) for the following reasons:

The arrangement of roll- or slide-hemming tool and welding or brazing device on one tool head permits simultaneous hemming and welding or brazing in one operation. As a result, the production of complex edge profiles on one machine with simultaneous production of a stiff sheet-metal composite is possible.

Therefore the subject matter of independent claim 17 involves an inventive step (PCT Article 33(3)).

3. Dependent claims

3.1 Dependent claims 2-9, 11-14 and 16

Dependent claims 2-9, 11-14 and 16 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D5 and the relevant passages indicated in the search report.

The subject matter of dependent claims 2-9, 11-14 and 16 is therefore not novel and/or does not involve an inventive step (PCT Article 33(2) and (3)).

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

3.2 Dependent claims 15 and 18-23

The combination of features in dependent claim 15 is neither known nor obvious from the available prior art. The same reasoning as for independent claim 17 accordingly applies.

Claims 18-23 are dependent on claim 17 and therefore likewise meet the requirements of the PCT in respect of novelty and inventive step.

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International application No.
PCT/EP2008/000227

| Box No. VI | | Certain documents cited | |
|---|--|---|---|
| 1. Certain published documents (Rule 43bis.1 and 70.10) | | | |
| Application No. Patent No. | Publication date (day/month/year) | Filing date (day/month/year) | Priority date (valid claim) (day/month/year) |
| _____ | _____ | _____ | _____ |
| 2. Non-written disclosures (Rule 43bis.1 and 70.9) | | | |
| Kind of non-written disclosure | Date of non-written disclosure (day/month/year) | Date of written disclosure referring to non-written disclosure (day/month/year) | |
| _____ | _____ | _____ | |
| <u>See Form 210</u> | | | |