

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

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

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/NO2018/050193

International filing date (day/month/year)
17.07.2018

Priority date (day/month/year)
03.08.2017

International Patent Classification (IPC) or both national classification and IPC
INV. A01B17/00

Applicant
KVERNELAND GROUP OPERATIONS NORWAY

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 and 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 usually 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.

Name and mailing address of the ISA:



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Date of completion of this opinion

see form PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - 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)).
2. 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))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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)	Yes: Claims	<u>6</u>
	No: Claims	<u>1-5, 7-13</u>
Inventive step (IS)	Yes: Claims	<u>6</u>
	No: Claims	<u>1-5, 7-13</u>
Industrial applicability (IA)	Yes: Claims	<u>1-13</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1 **Re Item V**

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1 WO2015/057080 A

D2 DE 43 39 254 B4

1.1 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claim 1 is not new.

1.1.1 D1 discloses (see figures 2, 3 and 3a) a reversible mouldboard plough , wherein a plough beam is provided with a pair of plough bodies (10, 10'), a skimmer arrangement (13) being connected to the plough beam providing a first skimmer (13) and a second skimmer (13') proximate and in front of the respective plough bodies (10, 10'), wherein each skimmer (13, 13') is attached to a skimmer shank (131) which is arranged displaceable in a longitudinal direction of the skimmer shank (131), and wherein the first skimmer (13) and the second skimmer (13') are interconnected with a synchronization mechanism (122) arranged to provide equal displacement of the skimmers (13, 13') relative to the respective plough bodies (11), wherein the first skimmer (13) and the second skimmer (13') are further interconnected with a linear actuator (threaded rod 1222 & electric motor 14) arranged for displacing the skimmers (13, 13') in the longitudinal direction of the skimmer shanks (142).

1.1.2 The corresponding method of claim 11 lacks novelty, *mutatis mutandis*, for the same reasons.

1.2 Dependent claims 2-5, 7-10, 12, 13 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 or inventive step:

1.3 The features of dependent claims 2, 5, 7, 8, 9 and 10 are disclosed in D1, see figures 3, 3a and claim 1.

1.4 The features of dependent claims 3-4 and 12-13 concern usual standard measures in the field of reversible ploughs and are considered implicitly known from D1.

- 1.5 The combination of the features of dependent claim 6 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows: None of the prior art documents discloses or suggests that the control unit is arranged to allow a change of a vertical position of a depth wheel providing a correlated change of the vertical position of the skimmers.

2 **Re Item VIII**

Certain observations on the international application

- 2.1 The application does not meet the requirements of Article 6 PCT, because claims 1 and 11 are not clear.
- 2.2 It is clear from the title of the application and from the description on page 2 that a control unit arranged for remote control of the displacement of the skimmers is essential to the definition of the invention.

Since independent claims 1 and 11 do not contain this feature it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.