

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

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INVITATION TO PAY ADDITIONAL FEES
 AND, WHERE APPLICABLE, PROTEST FEE
 (PCT Article 17(3)(a) and Rule 40.1 and 40.2(e))

	Date of mailing <i>(day/month/year)</i>
	30 November 2018 (30-11-2018)
Applicant's or agent's file reference P3354PC00	PAYMENT DUE within ONE MONTH from the above date of mailing
International application No. PCT/IB2018/056779	International filing date <i>(day/month/year)</i>
	5 September 2018 (05-09-2018)
Applicant HUSQVARNA AB	

1. This International Searching Authority

- (i) considers that there are 2 *(number of)* inventions claimed in the international application covered by the claims indicated on an extra sheet:

- (ii) therefore considers that **the international application does not comply with the requirements of unity of invention** (Rules 13.1, 13.2 and 13.3) for the reasons indicated on an extra sheet:

- (iii) has carried out a partial international search (see Annex) will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:

see extra sheet

- (iv) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid.

2. Consequently, the applicant is hereby **invited to pay**, within the time limit indicated above, the amount indicated below:

<u>EUR 1.775,00</u>	x	<u>1</u>	=	<u>EUR 1.775,00</u>
Fee per additional invention		number of additional inventions		currency/total amount of additional fees

3. The applicant is informed that, according to Rule 40.2(c), **the payment of any additional fee may be made under protest**, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive, where applicable, subject to the payment of a protest fee.

Where the applicant pays additional fees under protest, the applicant is hereby invited, within the time limit indicated above, to pay a protest fee (Rule 40.2(e)) in the amount of EUR 875,00 *(currency/amount)*

Where the applicant has not, within the time limit indicated above, paid the required protest fee, the protest will be considered not to have been made and the International Searching Authority will so declare.

4. Claim(s) Nos. _____ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040 Fax: (+31-70) 340-3016	Authorized officer VOINOT, Jacques Tel: +49 (0)89 2399-8782
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This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 14

lawn mower comprising two discharge tunnels

2. claims: 9-13, 15-21

lawn mower comprising a specific power transfer assembly

This Authority considers that the application does not meet the requirements of unity of invention and that there are 2 inventions. The reasons, for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:

The common matter linking together the independent claims 1 and 15 is the following: a power transfer assembly of a lawn mower to control timing of two cutting blades.

This common matter does not comprise a single general inventive concept, based on same or corresponding special technical features within the meaning of Rule 13.2 PCT, because document D1 discloses a lawn mower (Fig. 10 (2)) comprising a power transfer assembly (description col. 8, l. 11-16), which controls the timing of two cutting elements (Fig. 16 (226)) rotating in opposite directions (see arrows B for the directions in Fig. 10) and having an overlapping orbits (description col. 7, l. 58-60).

Hence, the following separate inventions or groups of inventions are not so linked as to form a single general inventive concept:

Group A: claims 1-14

Group B: claims 15-21

The following special technical features can be identified:

Group A: claim 1: lawn mower further comprising two discharge tunnels and a bagging assembly; apparently these special technical features solve the problem of how to transport grass clippings from a blade housing to a bagging assembly;

Group B: claim 15: power transfer assembly comprising a drive belt; apparently this special technical feature solves the problem of how to transmit power to an implement of a lawn mower.

From the above analysis it is obvious that the special technical features of the 2 groups are not the same and do not either correspond with respect to a single general inventive idea. Likewise it is clear that the problems to be solved are different and that the technical effects caused by the special technical features are different.

Furthermore the subject-matter of independent claims 1 and 15 is already known (see the grounds for this objection). The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists inasmuch as a technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT does not exist between the subject-matter of the following groups of dependent claims:

Group 1: claims 2-8, 14

Group 2: claims 9-13, 16-21

The following special technical features can be identified:

Group 1: lawn mower further comprising specific mounting of the two discharge tunnels and guide vanes and baffles to direct grass clippings; apparently these special technical features solve the problem of how to direct grass clippings into the discharge outlets;

Group 2: power transfer assembly comprising a drive belt, transmission gears; apparently this special technical feature solves the problem of how to selectively transmit power to the cutting blades of the lawn mower.

From the above analysis it is obvious that the special technical features of the 2 groups are not the same and do not either correspond with respect to a single general inventive idea. Likewise it is clear that the problems to be solved are different and that the technical effects caused by the special technical features are different.

Hence, the claims comprise neither the same, nor corresponding special technical features, so the technical relationship between the subject matter of the claims required by Rule 13.2 PCT is lacking and the claims are not so linked as to form a single general inventive concept as required by Rule 13.1 PCT.

Consequently the application does not meet the requirement for unity of invention.

**Annex to Form PCT/ISA/206
COMMUNICATION RELATING TO THE RESULTS
OF THE PARTIAL INTERNATIONAL SEARCH**

International Application No
PCT/IB2018/056779

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:
- see 'Invitation to pay additional fees'
2. This communication is not the international search report which will be established according to Article 18 and Rule 43.
3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.
4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 335 567 A (COMER ROBERT C) 22 June 1982 (1982-06-22) the whole document	1-8, 14
X	----- US 5 214 906 A (SAKI MITSUO [JP] ET AL) 1 June 1993 (1993-06-01) column 5, line 17 - column 6, line 23; figures 3, 4	1, 4, 6-8
X	----- US 3 157 014 A (BOTTEBERG WARREN E) 17 November 1964 (1964-11-17) the whole document	1, 2, 8
A	----- US 2 926 478 A (IVAR JEPSON) 1 March 1960 (1960-03-01) column 4, line 53 - line 63; figures 1, 2, 3, 6 column 5, line 27 - line 30 column 6, line 43 - line 63 column 7, line 60 - column 8, line 20 column 8, line 72 - column 9, line 11 -----	1, 4, 6-8, 14

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Patent Family Annex

Information on patent family members

International Application No

PCT/IB2018/056779

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4335567	A	22-06-1982	NONE
US 5214906	A	01-06-1993	NONE
US 3157014	A	17-11-1964	NONE
US 2926478	A	01-03-1960	NONE

Application no:
Demande n°: PCT/IB2018/056779
Anmelde-Nr:

DISCLAIMER

The attached provisional opinion on the patentability of the first invention searched serves only as information.
A reply addressing the points raised in the opinion is **not** required and will **not** be taken into account when issuing the final search report and opinion on patentability.

AVERTISSEMENT

L'avis provisoire ci-joint sur la brevetabilité de la première invention recherchée ne sert qu'à titre d'information.
Une réponse abordant les points soulevés dans l'avis n'est **pas** nécessaire et ne sera **pas** prise en compte lors de l'établissement du rapport final de la recherche et de l'avis sur la brevetabilité.

DISCLAIMER

Die beigefügte vorläufige Stellungnahme zur Patentierbarkeit der ersten geprüften Erfindung dient lediglich zur Information.
Eine Antwort auf die erhobenen Punkte in der Stellungnahme ist **nicht** erforderlich und bleibt bei der Erstellung des endgültigen Recherchenberichts und der Stellungnahme zur Patentierbarkeit **unberücksichtigt**.

1 **Re Item IV**

Lack of unity of invention

- 1.1 This Authority considers that the application does not meet the requirements of unity of invention and that there are 2 inventions covered by the claims indicated as follows:

claims: 1-8, 14

lawn mower comprising two discharge tunnels

claims: 9-13, 15-21

lawn mower comprising a specific power transfer assembly

- 1.2 The reasons for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:

The common matter linking together the independent claims 1 and 15 is the following: a power transfer assembly of a lawn mower to control timing of two cutting blades.

This common matter does not comprise a single general inventive concept, based on same or corresponding special technical features within the meaning of Rule 13.2 PCT, because document D1 discloses a lawn mower (Fig. 10 (2)) comprising a power transfer assembly (description col. 8, l. 11-16), which controls the timing of two cutting elements (Fig. 16 (226)) rotating in opposite directions (see arrows B for the directions in Fig. 10) and having an overlapping orbits (description col. 7, l. 58-60).

Hence, the following separate inventions or groups of inventions are not so linked as to form a single general inventive concept:

Group A: claims 1-14

Group B: claims 15-21

The following special technical features can be identified:

Group A: claim 1: lawn mower further comprising two discharge tunnels and a bagging assembly; apparently these special technical features solve the problem of how to transport grass clippings from a blade housing to a bagging assembly;

Group B: claim 15: power transfer assembly comprising a drive belt; apparently this special technical feature solves the problem of how to transmit power to an implement of a lawn mower.

From the above analysis it is obvious that the special technical features of the 2 groups are not the same and do not either correspond with respect to a single general inventive idea. Likewise it is clear that the problems to be solved are different and that the technical effects caused by the special technical features are different.

Furthermore the subject-matter of independent claims 1 and 15 is already known (see the grounds for this objection). The requisite unity of invention (Rule 13.1 PCT) therefore no longer exists inasmuch as a technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT does not exist between the subject-matter of the following groups of dependent claims:

Group 1: claims 2-8, 14

Group 2: claims 9-13, 16-21

The following special technical features can be identified:

Group 1: lawn mower further comprising specific mounting of the two discharge tunnels and guide vanes and baffles to direct grass clippings; apparently these special technical features solve the problem of how to direct grass clippings into the discharge outlets;

Group 2: power transfer assembly comprising a drive belt, and transmission gears; apparently these special technical features solve the problem of how to selectively transmit power to the cutting blades of the lawn mower.

From the above analysis it is obvious that the special technical features of the 2 groups are not the same and do not either correspond with respect to a single general inventive idea. Likewise it is clear that the problems to be solved are different and that the technical effects caused by the special technical features are different.

Hence, the claims comprise neither the same, nor corresponding special technical features, so the technical relationship between the subject matter of the claims required by Rule 13.2 PCT is lacking and the claims are not so linked as to form a single general inventive concept as required by Rule 13.1 PCT.

Consequently the application does not meet the requirement for unity of invention.

2 **Re Item V**

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

Reference is made to the following documents:

- D1 US 4 335 567 A (COMER ROBERT C) 22 June 1982 (1982-06-22)
- D2 US 5 214 906 A (SAKI MITSUO [JP] ET AL) 1 June 1993 (1993-06-01)
- D3 US 3 157 014 A (BOTTENBERG WARREN E) 17 November 1964 (1964-11-17)
- D4 US 2 926 478 A (IVAR JEPSON) 1 March 1960 (1960-03-01)

----- [lack of novelty] -----

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

Document D1 discloses a lawn mower (Fig. 10 (102)) comprising:
a blade housing (Fig. 8 (104));
a power source (Fig. 7 (76), description col. 8, l. 11-16) supported at least in part by the blade housing to selectively rotate a drive shaft;
a mobility assembly comprising a first set of wheels and second set of wheels (Fig. 8 (142)) operably coupled to the blade housing;
a first cutting blade and a second cutting blade (Fig. 10 (108)), even though a cutting line is disclosed it is a normal option to use a cutting blade, as in D2-D4) disposed to be rotatable within the blade housing in a same plane such that respective blade orbits of the first cutting blade (Fig. 10 (108)) and the second cutting blade (Fig. 10 (108)) at least partially overlap at an overlap region (description col. 7, l. 58-60); and
a power transfer assembly (description col. 8, l. 11-16) operably coupled to the drive shaft and configured to drive the first cutting blade and the second cutting blade to rotate within the blade housing in opposite directions (see arrows B in Fig. 10 for the direction of the cutting blades) and control timing of passage of the first cutting blade and the second cutting blade through the

overlap region (description col. 7, l. 58-60), wherein the blade housing is configured to be operably coupled to a bagging attachment (Fig. 10 (114)) via a first discharge tunnel (Fig. 10 (138)) disposed proximate to the first cutting blade and a second discharge tunnel (Fig. 10 (138)) disposed proximate to the second cutting blade, and wherein the first cutting blade rotates to generate a first flow path along a first side of the blade housing toward the first discharge tunnel and the second cutting blade rotates to generate a second flow path along a second side of the blade housing toward the second discharge tunnel (description col. 10, l. 32-53).

----- [dependent claims, negative assessment] -----

Dependent claims 2-8, 14 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.

D1 further discloses all technical features of dependent claim 2 (see Fig. 8, 10), of dependent claims 3 and 4 (discharge tunnels removable: Fig. 8 (206); discharge tunnels fixedly mounted: Fig. 10 (138); see also description col. 10, l. 54-63), of dependent claim 5 (guide vanes in the blade housing: ramps (130) in Fig. 10), of dependent claim 6 (full length baffles: cutting chambers (22, 24) serve as full length baffles), of dependent claim 7 (partial length baffle: Fig. (200)), of dependent claim 8 (drive shaft for each cutting element: Fig. 11 (62)), and of dependent claim 14 (walk-behind lawn mower: Fig. 1 (95)).

3 **Re Item VII**

Certain defects in the international application

- 3.1 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1, and D2 is not mentioned in the description, nor is this document identified therein.
- 3.2 Independent claim 1 should be drafted in the two-part form in accordance with Rule 6.3(b) PCT, with those features known in combination from the prior art in D1 or D2 being placed in the preamble (Rule 6.3(b)(i) PCT) and the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).