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(54) Title: METHOD OF DETERMINING PUMP FLOW IN ROTARY POSITIVE DISPLACEMENT PUMPS

(57) Abstract:

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference 911-2-48-2	IMPORTANT DECLARATION	Date of mailing(<i>day/month/year</i>) 28 February 2014 (28-02-2014)
International application No. PCT/US2013/035902	International filing date(<i>day/month/year</i>) 10 April 2013 (10-04-2013)	(Earliest) Priority date(<i>day/month/year</i>) 12 April 2012 (12-04-2012)
International Patent Classification (IPC) or both national classification and IPC F04C2/107 F04C2/00 F04C14/28		
Applicant ITT MANUFACTURING ENTERPRISES LLC		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. ☐ The subject matter of the international application relates to:

- a. ☐ scientific theories
- b. ☐ mathematical theories
- c. ☐ plant varieties
- d. ☐ animal varieties
- e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes
- f. ☐ schemes, rules or methods of doing business
- g. ☐ schemes, rules or methods of performing purely mental acts
- h. ☐ schemes, rules or methods of playing games
- i. ☐ methods for treatment of the human body by surgery or therapy
- j. ☐ methods for treatment of the animal body by surgery or therapy
- k. ☐ diagnostic methods practised on the human or animal body
- l. ☐ mere presentations of information
- m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art

2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☒ the description ☒ the claims ☐ the drawings

3. ☐ A meaningful search could not be carried out without the sequence listing; the applicant did not, within the prescribed time limit:

- ☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
- ☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
- ☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13ter.1(a) or (b).

4. Further comments:

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 MEYER, Ingo Tel: +49 (0)89 2399-8748
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The application lacks sufficient disclosure, contrary to the requirements of Article 5 PCT, and is extremely vague and unclear. The reasons are the following:

The application concerns "published" data. However, "published" data is not a clearly defined or well established technical term, at least not in the technical field of rotary positive displacement machines. There is also no definition in the application, what the Applicant considers to be "published" data, i.e. what distinguishes published data from any "data" as such.

Already from that, a profound lack of disclosure and clarity arises. Hence, the claims lack clarity and support in the description to such an extent that a meaningful search is not possible.

Notwithstanding the aforementioned reasoning, the application further concerns "corrected published" data, such as "rated" power, "rated" flow, and "rated" slip "compensated" for "actual" conditions.

However, when consulting the description and the figures, and also taking into account the definition of the different (independent and dependent) claims, it has to be stated that for a number of parameters named in the application it is not disclosed what they actually are, a (non-exhaustive) list of the parameters given in the following:

- "HP ACT " is named "actual power at rated conditions", but it is neither disclosed what "rated" conditions are supposed to be for fluid pumped with rotary positive displacement machines, nor what power of which part is addressed or how that power is supposed to be determined.
- "Q RTD" is named "rated flow for the application", but apart from the before-mentioned lack of disclosure of what "rated" data are, such a definition leaves it entirely undisclosed what the "flow for the application" is supposed to be.
- "Q NO SLIP " is named "the flow in gpm at rated speed and rated viscosity at 0 psid differential pressure". Apart from the before-mentioned lack of disclosure of what "rated" data are, it is also not disclosed how to obtain the flow at "0 psid differential pressure".

In view of the (at least vaguely) declared technical problem to solve, namely to provide for "new and unique techniques for tuning rotary positive displacement pumps" (see page 4, lines 8 - 9) and to correct some "calculated flow value" based on "published performance data" (notwithstanding the lack of disclosure of what that is supposed to be) "to reflect actual pump performance", the disclosure of all parameters must be considered as absolutely essential.

The non-compliance with the substantive provisions is to such an extent, that none of the claims can be meaningfully searched (PCT Guidelines 9.26, 9.27).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guidelines C-IV, 7.2), should the problems which led to the Article 17(2) declaration be overcome.