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(54) **Scroll compressor with a check valve**

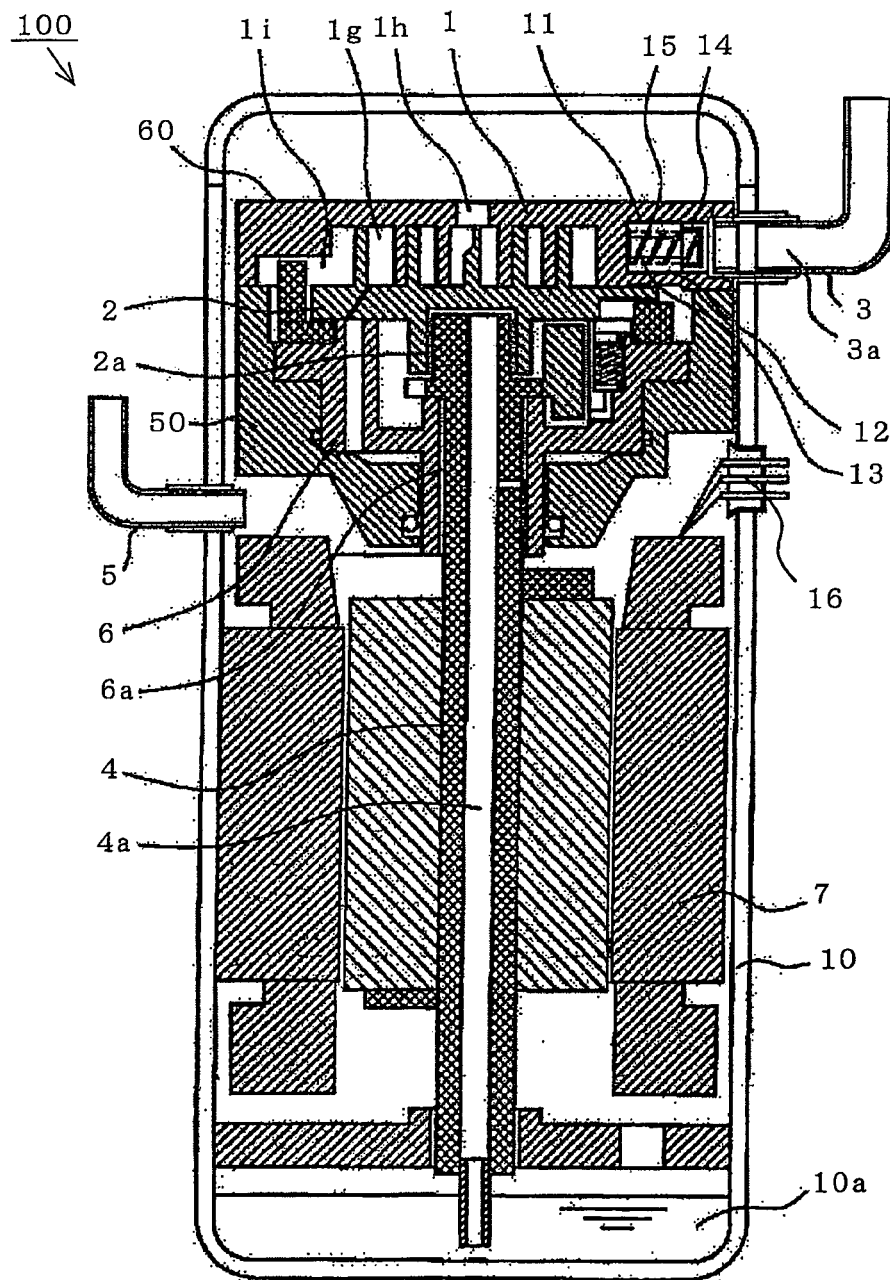
(57) A scroll compressor with a sealed container comprises a check valve (14) arranged in an inlet path (11) and a spring (15,17,18,19) mounted in the inlet path and configured to urge the check valve (14) in the direction of an inlet pipe (3). The spring (15) (having an outer diameter (doa) on a check valve side (15a), an outer diameter (dob) on a seating surface side (15b), an inner diameter (dia) on the check valve side (15a), and an inner diameter (dib) on the seating surface side (15b)), and the check valve (14) (having an inner diameter (Di), an outer diameter (Do), a cup depth (h)) satisfy both Expressions 1 and 2, and Expression 3 is satisfied between a protrusion (1e) provided on the inlet path (11) and a height (H):

$$(Di - doa) < (Di - dob)..... (Expression 1)$$

$$(dib - Do) < (Di - dob)..... (Expression 2)$$

$$H < h (Expression 3)$$

FIG. 1





EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	JP S58 142384 U (HITACHI) 26 September 1983 (1983-09-26) * figures 1-3 *	1-4	
A	DE 31 06 980 A1 (TOKICO LTD [JP]; HITACHI LTD [JP]) 6 May 1982 (1982-05-06) * figure 5 *	1-4	
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			TECHNICAL FIELDS SEARCHED (IPC)
			F04C F01C F04B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 November 2014	Examiner Grilli, Muzio
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82