

Title (en)  
SCROLL COMPRESSOR

Title (de)  
SPIRALVERDICHTER

Title (fr)  
COMPRESSEUR À SPIRALE

Publication  
**EP 2703648 A4 20140730 (EN)**

Application  
**EP 11864486 A 20111227**

Priority  
• JP 2011101545 A 20110428  
• JP 2011080591 W 20111227

Abstract (en)  
[origin: EP2703648A1] Provided is a scroll compressor which can enhance the strength of an end plate facing a through-hole in the vicinity of the base of the lap tip portion of a fixed scroll and hence provide enhanced reliability and durability. A concave curved surface S32 of a non-involute surface S3 formed between the start point P of an inner involute surface S1 constituting a lap 23B of a fixed scroll 23 and the start point Q of an outer involute surface S2 is formed in a curved surface shape having a smaller radius of curvature. The opening shape of the periphery of a through-hole 23C in a close region  $\mu$  facing the concave curved surface S32 is formed with a curved surface having a smaller radius of curvature than the radius  $r$  of curvature of the concave curved surface S32, the through-hole being formed at the spiral center or the tip portion of the lap 23B of the fixed scroll 23. A distance to hole L is ensured to be as long as possible, where the distance to hole L is the length between the base of a vertex Z of the convex curved surface S32 of the non-involute surface S3 and a maximum proximity edge U of the through-hole 23C facing the base of the lap tip portion Z.

IPC 8 full level  
**F04C 18/02** (2006.01); **F04C 23/02** (2006.01); **F04C 29/12** (2006.01)

CPC (source: EP)  
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Citation (search report)  
• [XY] US 4558997 A 19851217 - SAKATA HIROTSUGU [JP], et al  
• [XY] JP 2000045969 A 20000215 - ARATA TETSUYA  
• [Y] US 2010135836 A1 20100603 - STOVER ROBERT C [US], et al  
• [Y] JP H10169574 A 19980623 - HITACHI LTD  
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• [Y] JP 2005273453 A 20051006 - AISIN SEIKI, et al  
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**EP 11864486 A 20111227**; CN 201180070452 A 20111227; JP 2011080591 W 20111227; JP 2011101545 A 20110428