

Title (en)  
A RECIPROCATING COMPRESSOR AND MANUFACTURING METHOD

Title (de)  
HUBKOLBENVERDICHTER UND HERSTELLUNGSVERFAHREN

Title (fr)  
COMPRESSEUR ALTERNATIF ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 3502475 A3 20191016 (EN)**

Application  
**EP 18212273 A 20181213**

Priority  
• IT 201700146286 A 20171219  
• IT 201800010538 A 20181123

Abstract (en)  
A manufacturing method for manufacturing a cylinder for a reciprocating compressor is disclosed. The method comprises the step of manufacturing a compressor barrel comprising a cylinder chamber, a first suction valve seat, fluidly coupled to the cylinder chamber through a respective first gas suction port; and a first delivery valve seat, fluidly coupled to the cylinder chamber through a respective first gas delivery port. The method further comprises the step of manufacturing a gas inlet plenum and further manufacturing a gas discharge plenum, separately from the compressor barrel. The gas inlet plenum and the gas discharge plenum are manufactured by additive manufacturing.

IPC 8 full level  
**F04B 39/12** (2006.01); **F04B 39/06** (2006.01); **F04B 39/00** (2006.01); **F04B 39/10** (2006.01)

CPC (source: EP)  
**F04B 39/064** (2013.01); **F04B 39/122** (2013.01); **F04B 39/123** (2013.01); **F04B 39/0072** (2013.01); **F04B 39/10** (2013.01)

Citation (search report)  
• [IY] GB 1367164 A 19740918 - FRENKEL MARK ISAAKOVICH  
• [IY] CN 104747405 B 20170426  
• [IY] GB 555944 A 19430914 - SULZER AG  
• [IY] CN 202926543 U 20130508 - SUN JIHUI  
• [IY] US 2016341188 A1 20161124 - TOGNARELLI LEONARDO [IT], et al  
• [A] US 2015345497 A1 20151203 - LUCAS MICHAEL JOHN [US], et al  
• [A] US 2016341187 A1 20161124 - BUFFA FRANCESCO [IT], et al  
• [Y] US 4006602 A 19770208 - FANBERG RALPH Z  
• [Y] US 1998264 A 19350416 - AIKMAN BURTON S  
• [Y] US 1791364 A 19310203 - LEWIS JAMES O

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3502475 A2 20190626; EP 3502475 A3 20191016; EP 3502475 B1 20220223**

DOCDB simple family (application)  
**EP 18212273 A 20181213**