

Title (en)  
LIGHT WEIGHT CRANKCASE CASTING FOR COMPRESSOR

Title (de)  
GIESSUNG EINES LEICHTGEWICHTIGEN KURBELGEHÄUSES FÜR EINEN KOMPRESSOR

Title (fr)  
MOULAGE DE CARTER LÉGER POUR COMPRESSEUR

Publication  
**EP 2435702 A4 20150729 (EN)**

Application  
**EP 10781089 A 20100525**

Priority  
• US 2010036073 W 20100525  
• US 18192209 P 20090528

Abstract (en)  
[origin: WO2010138510A2] A compressor (20), as well as a lightweight and strong casting (22) for a compressor (20), are disclosed. The compressor (20), which may be a reciprocating compressor (20) for use in compressing high-pressure refrigerants such as CO<sub>2</sub>, includes substantially reduced wall thicknesses (t) compared to prior art castings. The side walls (60, 62) of the compressor (20) can be manufactured to such reduced thicknesses (t) through the use of a bridge (70) spanning across the crankcase (34). This not only allows the opposing side walls (60, 62) to be manufactured of a thinner material, but the bottom cover (66) removably mounted to the crankcase (34) can be manufactured from a thinner and lighter material as well. Through the use of such a bridge (70), the resulting compressor (20) is not only able to satisfy current strength requirements, but at significant weight, size and cost savings as well.

IPC 8 full level  
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CPC (source: EP US)  
**F04B 39/121** (2013.01 - EP US); **F04B 53/16** (2013.01 - EP US)

Citation (search report)  
• [XY] US 3189255 A 19650615 - FROMM ENEMARK ARNE  
• [XY] EP 1469200 A2 20041020 - COPELAND CORP [US]  
• [Y] EP 1584819 A1 20051012 - ZEXEL VALEO CLIMATE CONTR CORP [JP]  
• [Y] GB 2091354 A 19820728 - TECUMSEH PRODUCTS CO  
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• [A] US 2955750 A 19601011 - PHELPS THOMAS W  
• See references of WO 2010138510A2

Designated contracting state (EPC)  
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